Title	LotusWorks
Author(s)	Cunningham, James; Hilliard, Rachel
Publication Date	2010
Publication Information	Cunningham, J.; Hilliard, R (2010) 'LotusWorks' In: O'Riordan, C; Lynch, P (Eds.). Managerial Challenges in Irish Organisations. Dublin : Orpen Press.
Publisher	Orpen Press
Link to publisher's version	www.orpenpress.com/
Item record	http://hdl.handle.net/10379/2987

CHAPTER 3

LotusWorks[1]

James A. Cunningham And Rachel Hilliard[2]

INTRODUCTION

A few days back from a trip to China, Fergal Broder is driving to the offices of LotusWorks in Sligo for the monthly meeting of the strategic management committee, chaired by Mr Peter Coyle. As he parks his car at the offices, memories of the trip to China still linger in his mind – the food, the colours, the smells, the enthusiasm of people to do deals are all part of a different world to his home county of Sligo. He has one hour to go before the strategic management committee meeting. The agenda reflects both the challenges and the opportunities that LotusWorks faces, particularly with respect to differentiation and the building up of its capabilities across all its business activities. Opportunities abound for expansion across all the business units, but how to fund such opportunities will be a significant challenge, particularly in the renewable energy market. The objective for Fergal is to listen to the reflections and analysis of the members of the strategic management committee. Key issues facing LotusWorks are how to double turnover within four years, increase the company's global impact and ensure that the appropriate management structures

[1] This case was written as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The authors wish to acknowledge the support of Mr Fergal Broder, CEO of LotusWorks, in writing this case study. Much of the information for this case and the quotations cited are taken from the case authors' interviews with Fergal Broder, CEO of LotusWorks, in Sligo on 24 April 2007 and on 7 July 2009.

[2] Dr James Cunningham is a senior lecturer in Strategic Management and Director of the Centre for Innovation and Structural Change and Dr Rachel Hilliard is a lecturer in Innovation and Technology Management, both at the J.E. Cairnes School of Business and Economics, National University of Ireland Galway.

and employee talents are in place for LotusWorks to exploit market opportunities and to deal with competitive threats.

The company's mission statement, showing LotusWorks as 'a global player, and Ireland's leading automation solutions provider…at the cutting-edge of engineering excellence and technical services delivery', provides some guidance for the meeting. However, understanding the range and type of technical services provided by LotusWorks is not easy, as Fergal confesses: 'Sometimes I just tell people I work for myself as an electrician.'

BACKGROUND

Imagine the building of a new house. In order for a house to support the activities of the people using it, it requires fundamental services: water, heating, light and power. When the house is being built, the services have to be designed to suit the house, and then installed correctly. As the house starts to be used, there may have to be adjustments made to meet the exact needs of the activities. In the long run, there will be a need for maintenance, for example, boilers will need to be serviced and lightbulbs changed. There may also be changes to the user's activities and needs that may in turn alter the services needed, leading to the installation of an en-suite bathroom, for example, or the switch to energy-efficient lightbulbs.

The services needed by manufacturing companies are similar, but at a much more sophisticated level. The production of pharmaceuticals, for example, requires the provision of very precise levels of heating and chilling. While you might be annoyed if your bath water was too cold in a domestic situation, a fall of two degrees in the course of a chemical reaction can mean the difference between making the right product and being left with a tanker full of expensive but useless chemicals. Pharmaceutical companies need consistency when making active ingredients; semi-conductor companies require precision in the design and production of highly technical and delicate silicon chips. These companies do not always want to spend their time trying to become expert at the design, installation and maintenance of their machinery; they prefer to pay an expert company, like LotusWorks, to do this for them. This is big business. For example, a large multinational manufacturing plant will typically have an annual budget spend of €12 to €18 million for this type of activity.

More specifically, LotusWorks provide solutions for industrial calibration, automation and engineering services to a range of industry sectors worldwide, including the pharmaceutical, medical devices, semi-conductor, oil and gas, food and beverage, and wastewater sectors. For the pharmaceutical sector, LotusWorks provides engineering and technical expertise for advanced manufacturing technology, ensuring rigorous quality control standards. For oil and gas clients, LotusWorks offer project and construction management, operation and maintenance, and technical field services.

LotusWorks' business activities are divided into three subsidiary divisions – Lotus Construction Management, Lotus Construction Services and Lotus Technical Services (see Table 3.1), which encompass a wide array of service, product and consulting offerings (see Figure 3.1).

LotusWorks has grown from just 3 staff employed in the start-up office in Sligo in 1989, to over 300 employed globally in 2009, through a combination of organic growth and acquisitions. Some 170 are employed in Ireland, which equates to an annual Irish payroll of approximately €7.5 million. The company has grown in both its core business and laterally into related businesses, most recently the area of energy utilities construction and maintenance. This has seen sustained growth levels of 50 per cent per annum. Key to the company's growth has been its partnership with leading multinational corporations (MNCs) and the growth in its activities has led to the opening up of offices in London, UK; Rochdale, MA; Medford, MA; Vancouver, WA; Port Alberni, BC; Canada; and Shanghai, China.

THE ENTREPRENEUR

Fergal Broder, the founder of LotusWorks, began his career as an engineering technician in Sligo and then worked in Aughnish Alumina in Askeaton in Co. Limerick. From this experience he saw a niche in the automation market and returned to Sligo in 1983, where he set up Automatic Control Engineering (ACE) in partnership with a colleague. Six years later, ACE ceased operation and LotusWorks was founded, initially offering switchgear and equipment, manufacturing, maintenance and industrial calibration services in the North West of Ireland, as Fergal (2002) explains: 'Initially I saw the gap in the North West market. There was nobody in the region providing those kinds

Table 3.1: Lotusworks – Services, Products and Consulting

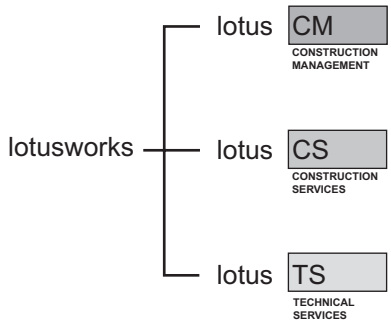
Services: Automation and Related Services	
Commissioning Services	• Team Leader Personnel • Supervisory Services • Construction Co-ordination • On-the-job Training & Classroom Training • Hands-on Commissioning in the Field
Operations & Maintenance	• Maintenance Appraisal & Strategy • Scheduled Maintenance • Emergency Maintenance • Troubleshooting
Industry Calibration	• Short or long term contracts for instrument calibration & maintenance service
Control Systems & Control Panel Manufacturing	• PLC & Distributed I/O Control Panels • Motor Control Centre & LV Switchboards • Automatic Generator Changeover Panels • AHU & Pump Control Panel • Power Factor Correction Panels • HMI & Mimic Panels • Multli Metering/Distribution Boards • Variable Speed Drive Panels • Pneumatic Control Panels
Machine Build	• Solutions include control panels build using customer preferred components PLC programming and HMI
Industrial Automation & System Integration	• Value production data designed to increase manufacturing efficiency either to fully or semi automated levels
CE Marking	• New and Used Plant & Machinery Assessment • Machinery Safety Assessment • Machine Safety Upgrades & Overhauls • CE Marking
Products: Industrial Automation Product	
Process Automation & Drives	Instrument & Process Automation Manufacturing Automation Drives & Motion Control Drives & Motion Control Switchgear & Electrical Installation Systems

Table 3.1 (*continuted*)

Analytical Instrumentation	Process analytical instrumentation for Water, Waste Water and High Purity Water Applications
Calibration Hardware & Software	Portable Calibrators Workstation Calibration Accessories Calibration Software
Autosamplers	Manual and Automated Samplers
Data Loggers	Self Powered Data Loggers for Temperature, Relative Humidity and Pressure
Temperature & Pressure	Bimetal Thermometers Pressure Gauges Diaphragm Seals Transmitters RTDs Thermocouples
Test Equipment	Mulitmeters Anemometers Calibrator Clamp Meters Communication Testers Counting Scales Electrical Testers
Consulting: Consulting & Training Service	
Buro	Provides overall platform performance
Pragma On Key	Scalable, modular, Computerised Maintenance Management (CMMS) and Enterprise Asset Management System (EAMS) which offers integrated real-time measurement of production line performance
AMiP	From Pragma, using asset management improvement methodology provides a road map for asset management excellence
On Key Assessor	Accurately measures current maturity levels and determines the steps required to transform a successful company into a world class company

Source: Adapted from LotusWorks (2007).

Figure 3.1: Lotus Works: Organisational Structure



LotusCM is a full service program, project, construction management firm serving the power industry. We use our extensive power experience and construction knowledge to provide solutions that are timely, cost effective, innovative and safe. Our experience includes both renewable and traditional fuels. The breadth of our capabilities includes everything necessary to meet all your pre-construction, construction, and post construction needs.

LotusCS is an electrical, mechanical contractor and also provides instrumentation, control construction services for industrial and commercial customers. LotusCS offers best in class services in the areas of Power Distribution, Low Voltage, Instrumentation and Control, Process Piping, Lighting Equipment Setting and Calibration. These services are offered as a bundled or individual solution to ensure our customers in the commercial & industrial marketplace enjoy the best value for their construction budget.

LotusTS is a leading solutions provider offering a complete range of automation and technical services specifically designed to enhance productivity and efficiency, and to maximize the value of our customer's core business. Lotus Technical service specializes in Calibration, Start-up, Commissioning, Operation & Maintenance of Mechanical and Electrical Systems, CE Marking & Asset Management Consulting. We work closely with leading companies in the Advanced technologies, Bio-Pharmaceutical, Medical device, Semiconductor, Food & beverage and Energy industries.

Source: www.lotusworks.com/about_us/.

of services. It started off with a North West base; primarily to service the North West, and grew from there.'

By 1993, LotusWorks had won its first major technical service contract with a US Fortune 500 company, and expanded its services offerings to include operations, maintenance and technical training. Such was the growth of its business activities three years later that, in 1996, it moved to larger premises and employed 60 people predominately on the technical side. During that same year, LotusWorks also established a technical field services division, which laid the

foundation for the company winning its first international technical services contract three years later. Between 1999 and 2001, the company established a presence in the UK, secured another major technical services contract with an MNC based in the US and opened an engineering office in Massachusetts, which established a presence in the North American market under LotusWorks USA.

By 2003, the growing international focus of LotusWorks led to the establishment of a dedicated sales division operating out of its Irish Headquarters in Sligo, in addition to the establishment of a number of strategic product partnerships with international suppliers. These products were offered and distributed to LotusWorks customers. One such strategic product partnership was with Siemens, where LotusWorks became one of its main distributors for integrated automation products, systems services and solutions. Other leading strategic product partnerships include those with Swan (analytical instrumentation), Beamex (calibration equipment), ORI (stationery and mobile samplers), SIKA (precision measuring and control instruments), SICK (range of sensors), ACR (data loggers), EXTECH (handheld test and measurement instruments) and Brainchild (paperless chart recorders) (Broder, 2005a).

Today, Broder still sees himself very much as an entrepreneur, and considers himself lucky to be running a business based on great people, as he explains: 'Our core competency is our people.' The company still operates as informally as it can, something Broder says 'we learnt from our multinational clients'. The flexibility provided by a less hierarchical organisational structure and highly skilled staff supports Broder's entrepreneurial approach to developing the business – the company's crucial 'opportunistic edge' as Broder describes it, which allows them to move fast in response to new opportunities.

GOING FOR GROWTH: INTERNATIONAL ACQUISITIONS AND WINNING CONTRACTS

In 2004, a major strategic move was undertaken with the setting up of Lotus AMC (Asset Management Consulting). The following year marked a significant milestone for LotusWorks, with the announcement of their first major international acquisition of the Electrical and Mechanical division of JH Kelly in Auburn Massachusetts. JH Kelly, post acquisition, was renamed KM Kelly, with KM

representing the initials of the company's president, Kevin Menard. KM Kelly provide clients with best dollar value for their electrical, mechanical and instrumentation control by providing a number of services, including power distribution, low voltage, instrumentation and control, process piping, lighting, equipment setting and calibration. Major market sectors that KM Kelly serve include petrochemicals, commercial and institutional facilities/campuses, food, power distribution and generation, and among their major clients are the University of Massachusetts, Skanska, Copley Square Property and Becktel. The importance of this acquisition and its fit is underlined by Broder's comments (2005):

> The continuous development of our US operations forms an integral part of our corporate strategy. This acquisition provides us with a stronger presence in the US market, a market that has become increasingly important to us. KM Kelly is a company which shares LotusWorks's approach to business, our ethics and the ability to look to the future. They are a high quality team and we are very optimistic.

On 31 March 2005, the Irish HQ of LotusWorks at Marino House in the Finisklin Business Park, Sligo was officially opened by Mr Micheál Martin, Minister for Enterprise, Trade and Employment. The move was necessary, as Broder (2005) explains: 'Our growing service and product offering, the expansion of our client base and the recruitment of additional staff have led to this move. It is important that we have premises which can accommodate the accelerated expansion of the business as well as our future requirements.'

The opening of the Irish HQ was followed by the opening of Lotus USA offices in Washington State, and LotusWorks' acquisition of PO&M & PII based on the West Coast of the US in early 2006. PII provides workplace training and performance improvement for the maintenance of manufacturing utility, construction and engineering facilities. PO&M assists customers with project execution through the provision of a wide variety of services including design and drawing review, construction management, site management, commissioning and start-up support. According to Conor Flanagan (2006), director and general manager of LotusWorks Ireland: 'Combining LotusGroup quality and expertise with PO&M and PII's market knowledge and service offering creates a market-leading construction

and engineering company, providing customers with industry-leading technical services and support.'

To support its US operations, LotusWorks appointed Steven Ostrowski as president of its North American Operation. Ostrowski's career spans over thirty years where he held management positions in Johnson Control and Johnson Yokigawa, and was also vice president of JH Kelly and president of Kelly Electric Group. By mid-May 2006, LotusGroup USA was awarded a significant construction management contract for the Spiritwood Energy coal-fired combined heat and power plant in North Dakota by UniField Engineering, and this provided LotusWorks with a bridgehead into the US power market, which is one of the key target markets. Another contract win followed in September 2006, when Mint Farm Energy LLC awarded a construction management support contract for the building of its 320 megawatt (MW) gas-fired combined cycle power plant in Longview, Washington.

During 2007 LotusWorks began to review its operations and organisational structure. Over the previous years the company's growth was rapid as it kept pace with client demands and pursued market opportunities. LotusWorks also began to work with Enterprise Ireland's Scaling Unit which, according to Broder, 'pushed their thinking about the future'. The Scaling Unit works with companies in building the capacity to compete in global markets by focusing on appropriate business models, financing, leadership and management development, acquisitions and organisational structures. This review also forced LotusWorks to examine the leanness of its business operations. This was fortuitous given the global economic recession of late 2008 and 2009. For LotusWorks this meant a renewed effort on focusing on customers and ensuring that sales staff were undertaking effective business development and sales activities. This review and the resultant actions meant that LotusWorks was positioned well to deal with the challenges it faced during the global recession.

In December 2007 LotusCM and Meridian Clean Fuels (part of Meridian Companies LLC), announced the formation of a strategic alliance. Meridian Clean Fuels focus on evaluating and structuring investment programmes for renewable energy generation and alternative fuels. Their investments have funded projects to supply energy from biomass, coalbed methane gas, coal-based synthetic fuel and wind power, which are eligible for production tax credits.

A year later LotusWorks announced another significant energy project in Utah, US, in partnership with Meridian Clean Fuels and Shoshone Renaissance, which involves building a 64MW geothermal power plant, which will supply 20 per cent of the City of Riverside's renewable base load energy. The contract agreement is for 30 years and the building phase of the project is expected to be completed by 2012. The estimated commercial value of this scale of plant is $500 million. Commenting on this development, Broder (2008) states:

> This is a very exciting time for our company and being involved in this geothermal power plant fits with our corporate strategy to develop our renewable energy business. Geothermal energy is one of the cleanest methods of power generation available. With our involvement in this geothermal power plant a new chapter in our company's history and also in our energy delivery plans is opened.

This and other similar projects in the renewable energy market with suitable local partners have the potential to deliver significant revenue streams for LotusWorks, but they carry additional risks and capital requirements for a company of its size.

SOME KEY MARKET SECTOR CHALLENGES

Part of the ongoing success of LotusWorks is tied to international trends of foreign direct investment (FDI). The off shoring of activities to low-cost locations in Asia-Pacific continues. Given the expertise and the strategic partnership that the company has developed with locally based MNCs, in many cases, LotusWorks is now the partner of choice for new country locations. International FDI investment has gone through a period of decline, with a 26 per cent drop in total FDI investment since 1999, while China's share has increased from 21 per cent to 30 per cent from 1990 to 2003. FDI in other locations such as Latin America, Southeast Asia, Africa and the Middle East has slowed or remained low during this period. According to the World Bank Group (2004):

> The conditions for attracting FDI vary by sector: in labor-intensive manufacturing, for example, efficient customs and flexible labor markets are key, while in retail, access to land and

> equal enforcement of tax rules matter most. Sorting out the microeconomic issues by sector will be good not only for FDI but also for domestic investors.

However, the financial crisis which began in 2008 has impacted global FDI, with FDI inflows falling by 54 per cent in quarter one of 2009, and mergers and acquisitions by 77 per cent compared to the same period in 2008 (UNCTAD, 2009). The prospects with respect to FDI according to UNCTAD[3] (2009a) are that:

> FDI flows are likely to decrease significantly on a global scale in the short-to-medium term. For many countries, this may have a strong impact on their economic performance. The effectiveness of public policy responses – at both the national and international levels in dealing with the financial crisis and its economic consequences – is crucial for creating favourable conditions for a relatively quick recovery in both FDI flows and economic growth. The challenges are to restore the credibility and stability of the financial system, to provide the 'right' stimulus to investment, and to renew the commitment to an open economy.

One of sectors on which LotusWorks is dependenton is the medical device industry, which has experienced a 6 per cent annual growth rate since 2002 and is worth more than $70 billion (€51 billion). The industry is highly regulated in US and EU markets, where operations need FDA (Food and Drug Administration) and CE (Conformité Européenne) approval to operate. Issues with respect to the patient and recovery costs, as well as reimbursement rates, all have a bearing on the growth of this sector. Critical to maintaining the technology development rate is the amount of venture capital that is available to fund new innovative frontier products. In the US market there are over 8,000 medical device companies employing over 350,000 employees, with 80 per cent of these companies having fewer than 50 employees and typically having modest or no sales levels. For some US medical device companies it is easier to enter foreign markets than particular segments of the US market due to stringent FDA regulations. The EU accounts for nearly half of all US trade activity in the medical equipment industry, and Ireland is in the top five

[3] United Nations Conference on Trade and Development.

Table 3.2: Us Trade Patterns in Medical Equipment Industry 2004

Imports			Export		
Top 5 Countries	Value ($/€ Million)	% Share of Total	Top 5 Countries	Value ($/€Million)	% Share of Total
Ireland	4,249/3,108	18	Japan	2,701/1,976	13.0
Germany	3,064/2,441	13	Netherlands	1,992/1,457	9.6
Mexico	2,841/2,078	12.1	Canada	1,852/1,355	8.9
Japan	1,789/1,309	7.6	Germany	1,770/1,255	8.5
China	1,507/1102	6.4	Ireland	1,367/1,000	6.6

Source: Adapted from US International Trade Commission.

countries for US trade imports and exports (see Table 3.2 below). It is certain that this trend will continue in Ireland with leading MNCs located here, such as Boston Scientific, Medtronic, Johnson & Johnson, and 24,000 people employed in the sector, with a concentration of such companies located in the Galway region (Giblin 2008).

Macroeconomic challenges with respect to international tariffs continue to be a significant determinant of US exports and overall industry growth rates. The impact of the economic crisis has not been felt as badly in the medical device sector as in other industry sectors with a McKinsey (2009, p.1) survey of European medical device manufacturers reporting an optimistic outlook and respondents seeing: 'attractive opportunities in M&A and in business development and partnering.'

One of the key industries in which LotusWorks is intent on becoming a significant player is the power industry, particularly the US market, where energy consumption is forecast to grow from a base of 120 quadrillion BTU[4] (in 2004) to 161.6 quadrillion BTU by 2030 (see Table 3.3). The Energy Information Administration also forecasts that, by 2030, electric power in the US will account for nearly two-thirds of the world's coal consumption and that the world's net electricity generation will have grown by 85 per cent. During the first quarter of 2008, world oil prices reached record highs on world

[4] British thermal unit, a basic measure of thermal (heat) energy.

Table 3.3: World Marketed Energy Consumption by Country Grouping 2004–2030

(Quadrillion Btu)

Region	2004	2010	2015	2020	2025	2030	Average Annual Percentage Change 2003-2030
OECD	239.8	254.4	265.2	275.1	285.9	298.0	0.8
North America	120.9	130.3	137.4	145.1	153.0	161.6	1.1
Europe	81.1	24.1	85.8	86.1	87.5	89.2	0.4
Asia	37.8	39.9	42.1	43.9	45.4	47.2	0.9

Source: Adapted from the International Energy Outlook 2007, Energy Information Administration, US Department of Energy, p. 5.

markets only to come back down in the latter half of that year due to falling demand due to the global financial crisis. The long-term outlook and concerns for the US energy market, according to the Environmental Information Agency (2009):

> …include higher but uncertain world oil prices, growing concern about greenhouse gas (GHG) emissions and its impacts on energy investment decisions, the increasing use of renewable fuels, the increasing production of unconventional natural gas, the shift in the transportation fleet to more efficient vehicles, and improved efficiency in end-use appliances.

OVERVIEW OF COMPETITION

LotusWorks's most significant competitor in Ireland is the Hanley Controls Group, based in Clonmel, Co. Tipperary. The companies are closely matched in both the breadth of customer sectors served, and their wide range of products and services. Hanley Controls Group provides a broad range of control, measurement and calibration products and services to Irish industry. Sectors served include chemical, pharmaceutical, food, beverage, power and mineral-processing industries. Hanley also has partnerships with leading MNCs: Pfizer, Schering Plough, Wyeth, Boston Scientific, Stryker Howmedica, Guinness, Coca Cola, Kerry Group, Irish Refining and Irish Cement.

The business is structured around five subsidiary companies, serving specific customer sectors:

- Hanley Controls Clonmel: specialises in the provision of process, measurement and control instrumentation, mechanical valves and pipe fittings, including a manufacturing section producing metering units, pipe assemblies, air distribution manifolds and specialist control panels.
- Hanley Calibration Services: provides calibration and commissioning services to the pharmaceutical, biotechnology and medical device industries.
- Hanley Automation Networks: offers electrical controls and automation for manufacturing and utilities, and also distributes internationally branded equipment and technology.
- Hanley Measurement and Control: serves the process industries with products and services, including process instrumentation and control, analytical technology, product transfer and mixing solutions, as well as specialist support services.
- Hanley Validation Services: provides validation, commissioning and regulatory compliance services for the pharmaceutical and life science industries.

DIFFERENTIATION CHALLENGES

Undoubtedly, competing as a services business in the global marketplace is challenging. In 2008, to accentuate its distinctive nature, LotusWorks completed the rebranding of the company from its original name LotusAutomation. One of the central tenets of competitive advantage for LotusWorks is their people, who are highly trained and flexible personnel, supported in an informal organisation with minimal hierarchy. Such flexibility has given Lotus a competitive edge and has allowed the company to leverage their MNC partnerships globally.

This flexibility is critical, as MNC customers continuously alter their manufacturing processes, the manner in which they manage their local assets and the location of their plants. Through their MNC partnership, LotusWorks must be responsive to these changes, and their flexible, highly trained talent pool is part of

their responsiveness. For example, the reason for their initial move into the US market was to service an investment being made by an MNC that contracted LotusWorks in its Irish operation and wanted the company to service its new facility. The increasing competitive forces and vendor consolidation have meant differentiation is built around its people, its quality of service focused on time and cost effectiveness. This has meant that LotusWorks continues to win more business from MNC clients. Listening to customers and their requirements has allowed LotusWorks to work with MNC clients, particularly during the global recession. Consequently, LotusWorks has positioned itself well to take advantage of new opportunities as vendor consolidation continues apace among the MNC client base.

A further sign of this flexible and adaptive culture is the high ranking that the company received for the Fás-sponsored People in Excellence Awards for effective communication and people involvement. LotusWorks has received the People in Excellence Award in both 2005 and 2006. Given the diverse locations of its operation, LotusWorks has developed a dedicated intranet for employees and has contracted a development coach to work with employees on a range of personal development activities. In addition, LotusWorks has a proactive training and development approach to ensure that the specialist knowledge and skills of its employees are enhanced and can be deployed in a variety of industry settings, including pharmaceutical, semi-conductor, health care, manufacturing, construction, oil and gas, and power generation.

FUTURE CHALLENGES

As the time of the meeting nears, Broder begins to jot down some notes on the circulated agenda sheet. He is conscious that the business is built on technical knowledge intensity, but LotusWorks's work is actually based on the knowledge and technical excellence of its people in managing other companies' technology. Organic growth is achieved by building on trusted relationships to increase the outsourcing of key process technology on the basis of the created credibility and trust demonstrated by LotusWorks' staff. These personal relationships have provided a strong basis for expansion

and differentiation, but the company's ability to exploit and leverage its technical knowledge across its service offerings is constrained by clients' confidentiality requirements. The challenge of maintaining this differentiation will be tested as client company locations become more diverse, along with their asset management needs. Sourcing and retaining the most talented employees for MNC client contracts pose a real challenge for future business growth. The business model used by MNCs to deal with vendors is changing and LotusWorks needs to maintain its position in the top tier of vendors.

The ultimate challenge for LotusWorks is to balance a customer-centric approach with technical knowledge intensity, while maintaining a balance within its portfolio of service offerings across a variety of industry sectors. Broder appreciates that, to date, LotusWorks has proved adept at achieving this balance, but maintaining this balance, as the company invests further in the energy market, will be a significant challenge. Broder knows that the involvement of LotusWorks in the geothermal plant in Utah could be the first of many announcements in the renewable energy market. Such expansion also carries significant risks and requires significant access to capital financing. Being a finalist in the Ernst and Young Entrepreneur of the Year Award in 2007 was a great personal and professional experience for both Broder and his company. This experience has helped reinforce some of the key managerial principles that stood him in good stead in the early entrepreneurial years of developing the business, in particular the principal of 'Listen to your customers; give them what they want, not what you think they want.' This has been a key element in surviving the global recession.

As the minutes tick by, Broder becomes more and more interested in hearing his management team's view of what LotusWorks's customers want across its range of activities, and whether the company should aggressively pursue these opportunistic prospects, particularly in the energy market. As he walks down the corridor into the boardroom, he remembers once again the best piece of business advice he was given when started the company in 1989: 'Why not got out on a limb? That's where all the fruit is.' His opening question to his top management team will be what 'limb' should LotusWorks choose to 'go out on' in the next few years?

QUESTIONS

1. Does LotusWorks have a sustainable competitive advantage? Discuss.

2. Analyse LotusWorks's core competences.

3. Assess the potential for LotusWorks to pursue a competitive strategy based around innovation. Would anything have to change in the company?

4. Carry out an analysis of the fit between the US power market and LotusWorks's strengths and strategy. Would you see this as a good opportunity for expansion? What is the fit with LotusWorks's existing competences?

5. Is Fergal Broder an entrepreneur?

6. LotusWorks, while a small company, is diversified and operates in a number of sectors. Identify the pros and cons of such an approach to business for SMEs.

7. The staff employed by LotusWorks is identified in the case as a key resource. How does a company such as LotusWorks ensure that it retains the best people? Has this changed as a result of the economic recession? Explain your reasons.

8. 'Establishing long-term relationships and partnerships with other businesses is important for companies such as LotusWorks. This is one of the keys to success.'

   Discuss the above statement, using the case to support your viewpoints. Do you think this is more important/less important/as important in the current economic climate? Explain your reasons.

REFERENCES

Broder, F. (2008), 'Irish Owned LotusWorks Announced Involvement in New Geothermal Plant in Utah, USA', press release, 2 October 2008.

Broder, F. (2005), 'LotusWorks Expands through Acquisition in the USA', press release, 21 February 2005.

Broder, F. (2005a), 'Product Sales Division Signs Distributorship Agreements', LotusWorks press release, 7 January.

Broder, F. (2002), 'A Question of Business: Stateside Plans for Lotus, Sligo', *Weekender*, 18 April 2002.

Energy Information Administration (2009), 'Annual Energy Outlook 2009 with Projection to 2030', US Department of Energy.

Flanagan, C. (2006), 'World Leader LotusGroup USA Forms Engineering and Construction Powerhouse', LotusWorks press release, 14 March 2006.

Giblin, M. (2008), 'A Balancing Act: Managing the Global–Local Dimensions of Industrial Clusters through the Mechanism of "Lead" Organisations', Centre for Innovation Working Papers Series, WP no. 29, December, p. 27.

LotusWorks (2007), company brochure, Sligo.

McKinsey & Co (2009), 'European Medical Products – Weathering the Storm, Preparing for Tougher Times', Euromed Survey, 19 May.

The World Bank Group (2004), 'FDI Trends, Public Policy for the Private Sector', note no. 273, September, p. 1.

UNCTAD (2009), 'Global FDI Flows Halved in 1st Quarter of 2009, UNCTAD Data Show; Prospects Remain Low for Rest of Year', press release, 24 June.

UNCTAD (2009a), Investment Brief Number 1, p. 2.