

new directions:

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Welcome to new directions:

Welcome to our latest edition of **new directions**: our journal for leaders, innovators and change agents within European businesses. Our objective is to share with readers, summaries of new thinking on business improvement and innovation together with relevant Codexx activities.

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in Denmark



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European retailers



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EFQM award for Leadership
in 2003."

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Manufacturing benchmarking of best practices

Benchmarking is a proven approach for companies looking to adopt better practices in their businesses. It enables comparison of a company's own practices with what is recognised in the industry as best practices – in business processes, organisation & culture and the application of technology. Companies can determine best practices through factory visits, but also by using reviews of their own operations using external assessments.

Grundfos is one such company who have been using formal manufacturing benchmarking since 1997 to support their drive to World Class manufacturing. Grundfos is a leading global pump manufacturer, headquartered in Denmark but manufacturing world-wide and with a turnover exceeding £1 billion (2003). Grundfos has a strong focus on business improvement and quality and have been using EFQM as an improvement framework since the mid 1990s. Grundfos A/S won the EFQM award for Leadership in 2003. As a Danish manufacturer, Grundfos A/S seeks to offset its high labour and operating costs in Denmark through a focus on high value and innovation. Implementing Best Practices is a key part of this improvement strategy.

During the summer of 2004, Codexx were engaged by Grundfos to perform a multi-site benchmarking assessment for their 8 Danish factories. Grundfos has found this benchmarking approach to be a valuable part of its continuous improvement programme and strategy setting. It also found that benchmarking complemented their EFQM programme due to the more detailed focus on manufacturing practices. Previous benchmarks were performed at Grundfos in 1997 and 2000, led by consultants now working for Codexx. As part of the benchmarking assessment, Codexx used the Probe benchmarking tool (managed by the CBI based on a programme begun in 1992 by IBM and London Business School). Codexx consultants were part of the original Probe development and have been using the tool for 12 years as licensed Probe facilitators.

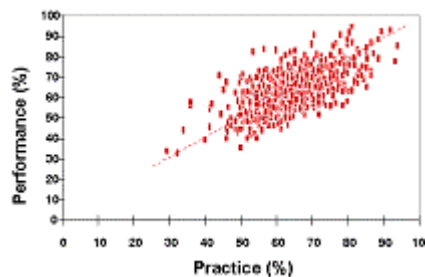
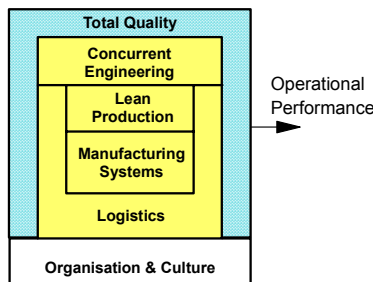


Figure 1: PROBE benchmarking model

Grundfos have found this assessment approach to be a practical way for determining the level of practices actually in place in its manufacturing operations. The use of an objective assessment tool, supported by interviews, line observation and operator and supervisor forums enabled each factory to be assessed, with high people involvement, but in a very time-effective way. The assessment looked at both deployed practices and resulting performance and the Probe model enables numeric scoring to be applied to the key manufacturing areas. Grundfos use the approach to enable the factories to work together more effectively and to identify key improvement areas as part of their regular manufacturing strategy development. For the 2004 assessment, Grundfos aimed to improve the focus on joint working and therefore wanted the assessment results to be aligned with their Process Management focus. This meant separating out issues with business processes – which were the responsibility of the process owner - and the execution of these processes – which were the responsibility of each factory manager and their team. The assessment showed significant improvement by the Danish factories in their level of best practice since the 2000 assessment and also identified a number of required improvement areas.

In the view of Mogens Henriksen, Director of Supply & Manufacturing Processes, Grundfos A/S, "Codexx, has over a period from 1997 made three valuable assessments according to the Probe model. This has helped us a lot when introducing the changes needed in our efforts to become a World Class manufacturer. Our practice has improved →

"A number of the Grundfos plants are already at a World Class level of practices."

dramatically from a middle level, now close to a world class level." Indeed a number of the Grundfos plants are already at a World Class level of practices and the focus is to spread this level of excellence across other plants and leverage these practices to deliver even higher performance in delivery, quality and cost-effective manufacturing.

Alastair Ross is Director of Codexx.

Sustainable Engineering comes alive

"By the end of this century... the world population will double but the resource available to each person will be one quarter of that today."

By the end of this century, it is predicted that on current trends the world population will double but the resource available to each person will be one quarter of that today (Source: 'Factor Four: Doubling Wealth, Halving Resource Use.' 1995, P. Hawken et al). If this forecast is realised, it will represent a fundamental shift in the nature of our society, let alone in the way we will do business. Whether this dire prediction is realised or not, the challenge is clear. In the past environmental concerns were viewed as a cost to business. Now sustainability is on the agenda for Western companies, driven by new environmental legislation from governments seeking to reduce carbon emissions. This presents both a challenge for companies to comply with the new legislation, but also an opportunity for companies to supply new products and services to industry to help it operate with lower emissions and energy usage. The DTI's Environment Sector Innovation and Growth Team reported in 2002: "Global markets for environmental goods and services are estimated at around £350 billion, rising to £500 billion by 2010. Certain market segments – such as renewable energy, clean technologies and processes, and resource efficiency – are forecast to achieve double-digit growth rates." This is clear definition of a growth market for companies to develop and supply new products and services.

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Figure 2: Sustainability – reducing waste

"Sustainable Engineering describes engineering technologies that deliver greater resource productivity or efficiency and fewer emissions of hazardous substances."

The UK Centre for Economic and Environmental Development (UKCEED), a not-for-profit organization established in 1984, believed that UK companies needed support in developing the new technologies required for this new business environment. They proposed to establish a centre for 'Sustainable Engineering' that would provide companies with assistance in developing new environmentally friendly products and technologies for the new market. 'Sustainable Engineering' describes engineering technologies that deliver greater resource productivity or efficiency and fewer emissions of hazardous substances and/or emissions presenting lower hazards. This is distinct from most engineering research that focuses on improving or increasing functionality and reducing cost. Some examples of sustainable engineering: Pumps and motors operating with dramatically lower energy requirements; production processes that produce less waste and emissions in their operation. UKCEED developed an outline proposition for this new centre and approached the East of England Development Agency (EEDA) for support. EEDA were interested and provided funding for UKCEED to perform a preliminary feasibility study that confirmed the market opportunity. The next step was to determine what would be the best form for the centre. With the support of EEDA, in early 2003, UKCEED engaged Codexx to perform a business assessment of the proposition and recommend what form the proposed centre should take and establish an initial business plan. Codexx used a mixed team of academics and consultants, with experience in establishing Technology Centres, to perform this work. The team used stakeholder analysis, surveys and business modelling to recommend a 'federation' structure involving key Universities. John Bessant, Professor of Innovation Management at Cranfield School of Management and a member of the Codexx team said "We looked to develop a practical model for the centre based on stakeholder needs and experience from previous international technology centres – covering both those that have succeeded and those that did not."

Codexx were then re-engaged to support UKCEED in further developing the Centre's proposition, recruiting partners and securing funding to enable start-up of the centre. Further stakeholder analysis included performing a large survey with SMEs – a key customer group for the centre – to help confirm the centre's offerings. A robust business plan was developed and used to help secure start-up funding.



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Start-up funding of £500,000 was subsequently secured from EEDA and £200,000 from EPSRC and The Centre for Sustainable Engineering (CSEng) was launched in the summer of 2004. The Chief Executive, Dr Stephen Mahon, was recently appointed. Said Dr Mahon: "Climate change regulations are beginning to have more impact on companies and with the increasing cost of raw materials, businesses need to be thinking more about using resources efficiently and using new technology to help them develop a lean and sustainable approach to their business. If the UK is to improve its productivity and complete globally as an industrial power, then sustainability needs to be embraced and implemented. The Centre will, with the support of its partners - which include leading Universities, blue chip companies and SMEs - deliver expert information and evaluation services, provide technology transfer support and catalyse applied research." In many business areas, Sustainability and Lean Manufacturing have a common philosophy in their focus on the elimination of waste.

Reflecting on Codexx's role in the project, Jonathan Selwyn, Executive Director, UKCEED said "'Codexx played a key role in helping UK CEED explore the feasibility of its concept for the Centre for Sustainable Engineering. The consultancy also helped develop an outline business model which played an important role in securing public funding for the Centre.'" CSEng is now working to assist innovators find and communicate with partners who can assist in taking their product or service to market (for more information on the Centre, go to www.cseng.org.uk).

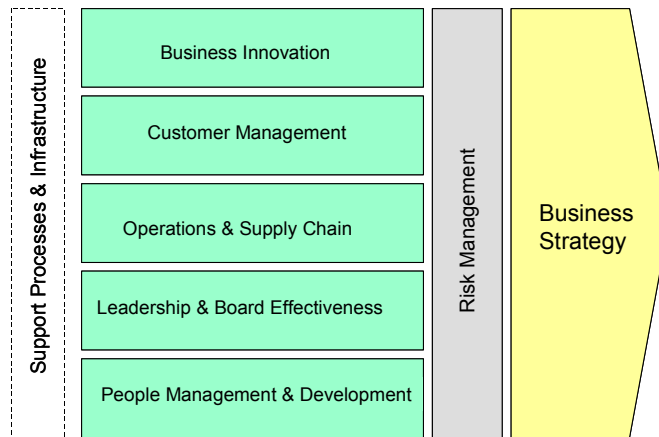
Phil Sheppard is Knowledge Manager at CSEng, Jonathan Selwyn is Executive Director of UKCEED.

"Currently every £1 in £8 spent by UK consumers in the high street is spent in Tesco."

Retail Excellence – lessons for all?

What makes Tesco so successful? It currently has a 29% share of the UK Food Retailing market. It is now a major force in non-food areas such as clothing and CDs. Currently every £1 in £8 spent by UK consumers in the high street is spent in Tesco. And let's not focus just on the UK, for Tesco have half their store space outside the UK, being a major player in East Asia and Central Europe for example. Overall Tesco is expected to deliver a profit of £2 billion for the last financial year and is growing quickly whilst rivals stumble. A mightily impressive performance in a sector which has always been cut-throat, yet with new technology, globalisation and customer power forcing companies to sharpen their knives even more. But underneath Tesco's symptoms of excellence, what are the underlying best practices in place in the company that have enabled this success? And what can other companies learn from this story?

Figure 3: Strategic Enterprise Model



Strategic Enterprise Model

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"To create the assessment suite, Codexx established an advisory panel consisting of leading UK academics."

In a recent project, Codexx developed an assessment suite for reviewing the level of key practices currently deployed in an organisation and their alignment with the business strategy. This enables an assessment as to the likelihood of a company delivering its strategy. The initial sector for which this was used in a pilot study was the European Food Retailing sector. To create the assessment suite, Codexx established an advisory panel consisting of leading UK academics - Professors from Bath University, Cranfield School of Management, Southampton University, Imperial College London and Nottingham University to work with Codexx consultants to formulate the Strategic Practices Assessment (SPArk). A strategic best practices model was developed based on 5 key areas: Business Strategy, Business Innovation, Customer Management, Operations & Supply Chain, Leadership & People (Figure 3). For each area, detailed best practices were defined together with supporting template questionnaires, based on industry and academic experience. Whilst many best practices are generic across businesses, their application and importance varies by sector. For the pilot, a Food Retail version was developed, utilising the expertise of the panel members, Professor Neil Wrigley of Southampton University & Emeritus Professor David Hughes of Imperial College. Tesco is clearly an →

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exemplar in the European Food Retail sector and using the SPARK best practices model, many reasons for its leading position in the UK can be determined. It is strong in most key business practices, for example:

Business Innovation

Best Practice companies put in place a 'climate for innovation' together with effective processes for generating, selecting and implementing new ideas for product, service, process and strategic innovation. Despite Tesco's dominant market position, they deliberately seek to avoid arrogance and retain a questioning, self-critical and experimental culture, that is receptive to innovation. In the past decade they have been more experimental than their rivals in introducing new products & services and new ways of working. Tesco have also been extremely effective at innovating with new store formats and adding new store space organically faster than rivals in the tightly regulated UK market, using core competencies in property acquisition and store location research and leveraging external relationships. The net result of this innovation capability is strong growth in own-label products (both food & clothing) and services (e.g. financial services, mobile phones, music downloads) and new ways of doing business such as Tesco.com which is the largest online grocery home shopping service in the world.

Customer Management

Best Practice companies lead from the top in customer focus and ensure that this is enshrined in the company's values and processes. Tesco's core mission is defined as 'Earning the customer's lifetime loyalty' and one of their stated values is 'No-one tries harder for customers'. Tesco started in the mid 1990s to significantly grow their competence in customer focus and developed processes, effective customer and product segmentation and enabling technologies such as Club Card and CRM systems to maximise their capabilities in this area. Senior Executives are encouraged to 'walk the talk' and most will make many store visits a week, to 'take the pulse of the business'. Tesco have successfully segmented their product offerings by price (e.g. 'Value' for low price and 'Finest' for premier pricing) and by individual customers by application of their detailed customer spending history based on Club Card.

Operations & Supply Chain

A key requirement in food retail is to have stock on the shelves in the store. The impact on customer satisfaction and loyalty of poor on-shelf availability is clear to see from the recent experience at Sainsbury, when their supply chain transformation project ran into problems. This requires an holistic approach to supply chain management, embracing IT for planning and execution and putting in place an efficient logistics infrastructure and organisation. Tesco has tended to perform well in this area – they have learned from exemplars in other sectors and were leading operators in the sector in 2004 with the lowest days of inventory (11) for non-clothing in the UK (Source: IGD 2004). They have also been very effective at growing their international operations through customising their offer for local markets and effective local partnerships – which has contrasted with Wal-Mart's less successful international approach that has more typically been based on strict replication of the US model.

To conclude: Tesco's success has not been magic, but has been based on a sustained development of their underlying practices, over the past decade to support their business strategy. What is impressive is the breadth of good practices they have established to enable very strong competitive capabilities. There are many lessons here for companies in both the retail and other sectors on effective approaches to achieving industry leadership. Tesco's success has not come from one single action, one 'super best practice'. There is no magic bullet. They have implemented best practices in critical areas of their business to enable successful execution of their strategy. What is critical is defining a vision and supporting strategy and then ensuring that the required practices are put in place in business processes, technology, leadership and organisation to enable the delivery of the strategy. All too often organisations have defined goals and strategies that are not achievable because the required business practices are not in place. Codexx have incorporated the methods and learning from this initial pilot into an offering to help companies assess their ability to deliver their current goals & strategies. The Strategic Practices Assessment (SPARK) enables organisations to compare themselves against best practices but also identifies weaknesses in their ability to deliver their business goals and strategies due to deficiencies in critical practices.

Thanks to Professor Neil Wrigley of Southampton University for assistance in this article.



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Connect to Codexx

Codexx helps businesses improve and innovate through the application of new thinking and best practices. We do this through light-touch, but high-impact interventions, using a network of leading academics and business professionals.

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