

# Applications of Knowledge Transfer to Small & Medium Size Businesses

2009 edition

Editor:  
**Dr Martyn Polkinghorne**

**Knowledge Transfer Partnerships**  
**Applications of Knowledge Transfer to Small and Medium Size Businesses**  
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## Terminology used in this publication

- Company Partner:** Company, Charity or Social Enterprise.
- Knowledge Base Partner:** Bournemouth University.
- KTP Associate:** Graduate employed by the Knowledge Transfer Partnership.

## Editorial

With knowledge placed at the heart of the UK Government's competitiveness agenda, now is an opportune time to understand and evaluate the Knowledge Transfer Partnerships (KTP) initiative that has remained the UK's primary mechanism for delivering Government funded knowledge transfer since its introduction in 1975 under the name of Teaching Company Scheme (TCS).

A Knowledge Transfer Partnership aims to facilitate the transfer of knowledge between academia and industry. The basic model behind Knowledge Transfer Partnerships is the premise that a business has a need to deliver a project of strategic importance, that a graduate will be employed to undertake the work, and that a Knowledge Base Partner (university or research organisation) will provide the required specialist knowledge and expertise to enable the project to be delivered through a process of knowledge transfer.

Each chapter within this volume is a case study based upon a Knowledge Transfer Partnership completed during 2008, and clearly describes the initial objectives, process undertaken and benefits obtained from the Knowledge Transfer delivered.

**Dr Martyn Polkinghorne**  
(Editor)

## 1. A Practical Example of System Integration

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### 1.1 Introduction

- 1.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) was a leading producer of muesli and breakfast cereals.
- 1.1.2 At the time the KTP started, under its own brand name, the Company supplied both many of the UK's major supermarket chains, and a large number of distributors to the health food sector.
- 1.1.3 The Company also gained additional revenue from packaging 'own label' products for leading supermarkets, e.g. Waitrose and Sainsbury's.
- 1.1.4 The Company had a very high dependency upon producing own label breakfast cereals and considered that other sales opportunities were possibly being missed.
- 1.1.5 A lack of consumer understanding had constrained product development ideas and was starting to impact upon sales and profitability.
- 1.1.6 It was therefore decided that the Company needed to reduce its dependency upon own label products whilst increasing the volume of branded products.
- 1.1.7 Primary and secondary market research was needed to fully understand the new and existing market opportunities.
- 1.1.8 The aim of this KTP was therefore to engage in market research to determine the nature of the competition, and then to develop and implement an optimal strategy to differentiate the Company from its competitors.

### 1.2 The Process of Knowledge Transfer

- 1.2.1 An understanding was gained of the key functional areas within the Company to determine how the project would impact upon each area.
- 1.2.2 Introductions to the key agencies used for design, PR and website development were also undertaken.
- 1.2.3 An on-line questionnaire was developed that enabled the Company to acquire qualitative and quantitative data, thus providing the crucial information required for market research.
- 1.2.4 The data analysis package SPSS was used to assess the data, with the results being fed into the overall marketing strategy for the Company.
- 1.2.5 Within the constraints of a limited marketing budget, reviewing and maximising the effectiveness of the presentation of the brand through all touch points with the customer, e-communications, trade merchandising, shows, exhibitions and events was undertaken.
- 1.2.6 Resources and agencies were managed and motivated, and initiatives specifically crafted by the Company's Marketing Director were implemented.
- 1.2.7 An e-marketing strategy was produced that was to become a major tool for driving brand awareness, trialling ideas, boosting corporate image and creating on-line sales.
- 1.2.8 Strategies for improving the website, and developing an e-database of interested potential consumers, were presented to the Company, and were adopted for implementation. The Company's e-database grew from 20,000 existing and potential consumers in 2006, to over 110,000 in 2008.

**Figure 1 - Knowledge Transfer Process Utilised**



- 1.2.9 In addition, development and implementation of the Company's new web site was co-ordinated (developing strategies for increasing visitor numbers such as competitions, and updating news and events) to which visits increased as a result to an average of over 50,000 unique visitors per month.
- 1.2.10 Several specialist web sites, and sales for the on-line shop, were all managed together to ensure that they were fully integrated. This included monitoring orders, reconciling transactions, order fulfilment, stock control and the recording of feedback.
- 1.2.11 Work was undertaken to broaden the branded product base through communication and sampling strategies. Consumer brand awareness was investigated using brand health checks and on-line questionnaires.
- 1.2.12 A brand marketing strategy was developed and implemented with household penetration rising from 2% in 2006 to almost 6% in 2008 at the end of the KTP. Similarly, for the same period brand awareness increased from under 5% to over 30%, and turnover for certain of their UK branded sales rose by £10million making the Company one of the market leaders.
- 1.2.13 Product sampling was undertaken to elicit customer views and opinions of both current and proposed product lines. Over 700,000 samples (including 400,000 mini packs sent to targeted people) were distributed for feedback.
- 1.2.14 The free samples were primarily a communication strategy as it was considered that the cost of giving away free samples for people to try was actually less expensive, and more successful, than a costly advertising campaign.
- 1.2.15 New marketing materials were created including leaflets, flyers and point of sale

### **1.3 Benefits to the Knowledge Base Partner**

- 1.3.1 The Academic Supervisor gained valuable expertise in a number of key areas including integrated marketing communication and e-commerce.
- 1.3.2 This had a significant impact upon teaching, and provided materials for inclusion as practical case studies that can be used to demonstrate achievable outputs and outcomes.
- 1.3.3 The KTP influenced the teaching of the Academic Supervisor and the Lead Academic, and the curriculum of taught courses at both under-graduate and post-graduate levels in the subject areas of branding and integrated communications
- 1.3.4 The work undertaken to support this KTP was integrated into the Academic Supervisor's PhD, and had direct input to the development of his personal research in this area.

### **1.4 Benefits to the Company Partner**

- 1.4.1 Key market research information was developed based upon qualitative and quantitative data.
- 1.4.2 Marketing opportunities over the previous three-year period, current position, efficiency of distribution, communication channels, budgets and resources were analysed and assessed.
- 1.4.3 E-marketing (which was to become a major tool for driving brand awareness, trialling ideas, boosting corporate image and creating on-line sales) was introduced to the Company. An E-database with over 110,000 existing and potential consumers was developed.
- 1.4.4 UK and export strategies were developed based upon industry reports (e.g. Mintel and Euromonitor), analysis of trade data and the recognition of industry and environmental drivers.
- 1.4.5 New products and recipes were created based upon research undertaken from over 700,000 samples distributed for feedback and supported with input from focus groups.
- 1.4.6 Innovative new market leading packaging was created to enhance the brand and satisfy both consumer and cost requirements.

- 1.4.7 A successful on-line shop (including monitoring orders, reconciling transactions, order fulfilment, stock control and recording of feedback) was developed.
- 1.4.8 A brand marketing strategy was developed and implemented that increased household penetration from 2.2% to 5.7%.

### **1.5 Conclusions**

- 1.5.1 The KTP improved the Company's competitive position by increasing market share, market understanding, product range and brand penetration.
- 1.5.2 The work of this project completely changed the way that the Company marketed both itself and its products.
- 1.5.3 Using high quality market research information, innovative marketing ideas, and effective use of e-commerce, the project increased sales, brand awareness, product lines and customer understanding and made strategic marketing an integral part of the Company's culture.
- 1.5.4 As brand ambassador, the project managed support agencies, and liaised with account managers on a daily basis.
- 1.5.5 The project often had to manage conflict and take a pragmatic approach to develop compromise solutions.
- 1.5.6 Strengthening relationships with the independent sector was considered important, and through the excellent work of the project, the Company increased its market share to over 40%.

### **1.6 References**

- 1.6.1 Knowledge Transfer Partnership Proposal - Reference 1388, TSB, 2006
- 1.6.2 Knowledge Transfer Partnership Final Report – Reference 1388, TSB, 2008

## 2. Development of Distinctive Software Solutions

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### 2.1 Introduction

2.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) undertook the authoring and resale of software products, and the provision of associated implementation/user support and consulting services.

2.1.2 With a focus on specific niches/vertical markets, including retail of household goods, retail leisure, manufacturing of food & drink, electrical goods distribution and insurance, the Company wished to develop software products of its own in addition to reselling third-party software.

2.1.3 In order to support the Company's vision for expansion and growth, increased independence was required from 3rd party developers.

2.1.4 The aim of this KTP was therefore to provide the Company with distinctive and competitive software products/system solutions in the field of Business Intelligence.

### 2.2 The Process of Knowledge Transfer

2.2.1 A critical analysis of the Company's existing vertical markets based upon product range/clients was undertaken.

2.2.2 Applications were identified where current products were in use, and the value placed upon those products by the users determined. Product opportunities were identified.

2.2.3 The Company's competitors were considered with their strengths and weaknesses identified, and their selling points, networks and users reviewed.

2.2.4 A comparator study with competitors highlighted challenges and opportunities with regard to a proposed new product based upon a novel algorithm.

2.2.5 Identification of potential new algorithms within existing markets were considered, listing algorithm types (such as heuristic, statistical, optimisation etc) against business intelligence market opportunities.

2.2.6 Using operational research and management science, potential algorithms were reviewed in terms of developmental effort requirements, prospective users benefits and perceived levels of risk.

2.2.7 Short-listed algorithms were tested using a sample of client data (and also using a dataset of fully anonymous student records) to determine performance.

2.2.8 Outcomes were analysed and ranked. Company staff formed a working group to critique the outcomes and a single algorithm was selected based upon SQL.

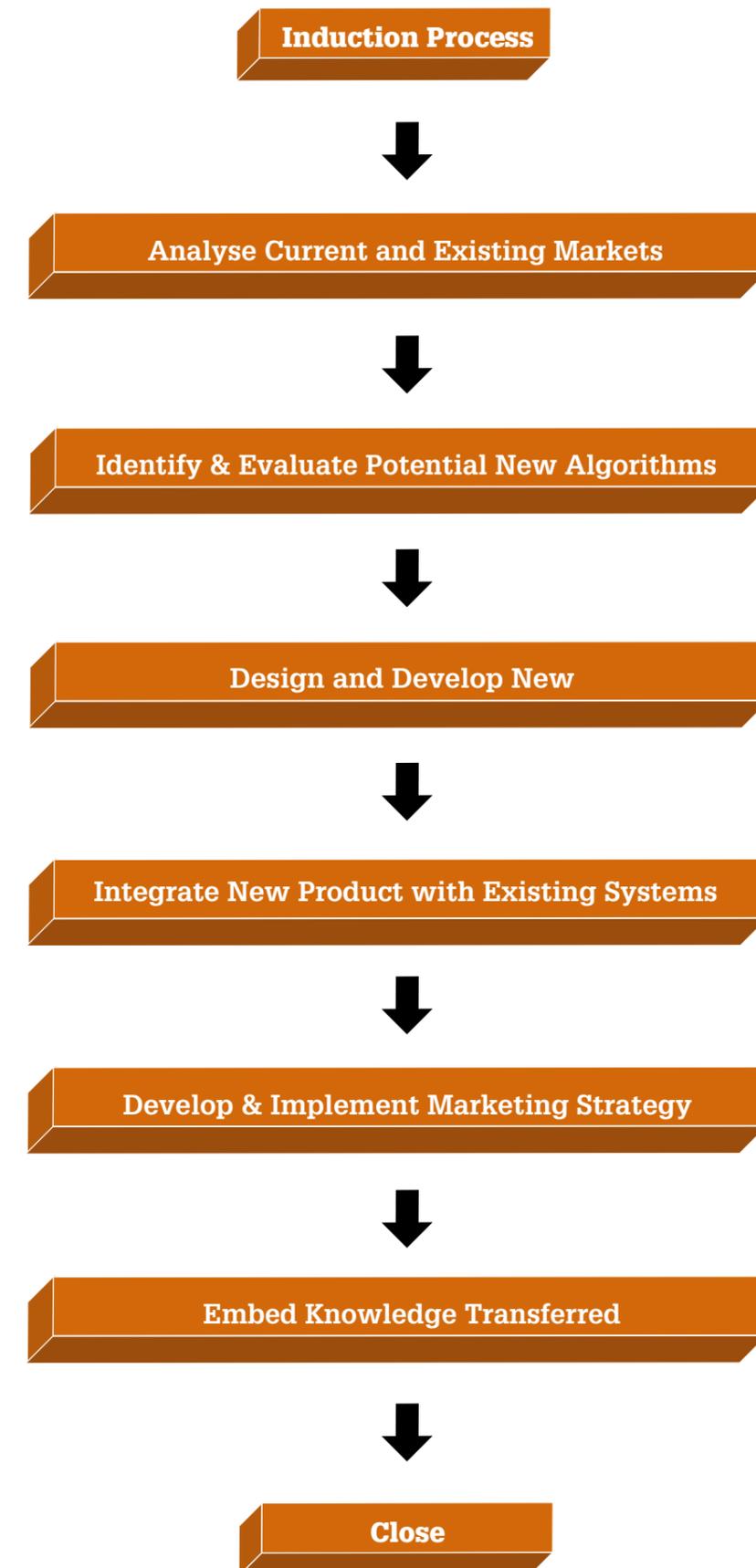
2.2.9 Additional investigation was undertaken in relation to a Company test product to establish the technological base for the project, with consideration given to how the user-interface would integrate with the "digital dashboard".

2.2.10 A comprehensive programme of work was then undertaken in the form of several linked projects that were necessary to address the business and technical requirements.

2.2.11 Expert systems conceptual structures and inference engines were also investigated with the result that a potential product make-up was mapped to expert systems concepts.

2.2.12 User visits, and both structured and semi-structured interviews, were undertaken with users to more fully understand their approach to solution development.

**Figure 2 - Knowledge Transfer Process Utilised**



- 2.2.13 Interview analysis stimulated the creativity and innovation required to develop the necessary design heuristics.
- 2.2.14 Prototypes were developed for each heuristic, and both viability and implementation practicalities were considered for each.
- 2.2.15 A proto-type algorithm was implemented linking to the knowledge-base, inference engine and user interface.
- 2.2.16 Integration with the digital dashboard was facilitated and alpha-testing undertaken. Following initial debugging, beta-testing was undertaken and supporting documentation developed.
- 2.2.17 A marketing strategy was developed and implemented that focused upon the added-value benefits of the new algorithm.
- 2.2.18 Sales and Marketing staff were briefed on these benefits, and product support staff trained on the functions and features, in particular the algorithm's role and operation.
- 2.2.19 The KTP worked with the Company to enable it to successfully gain Microsoft 'Gold' status for its practical applications of SQL Server.
- 2.2.20 On-line analytical service capabilities and data mining functionalities were developed.

### **2.3 Benefits to the Knowledge Base Partner**

- 2.3.1 The Knowledge Base Partner is currently undertaking research into the needs and issues facing SMEs in the region and the ability of knowledge transfer programmes to address these needs.
- 2.3.2 The experience and lessons learnt from this KTP will feed into this research to enhance its quality and scope, and to demonstrate salient problems and issues.
- 2.3.3 The KTP influenced application aspects of the BI teaching of the Academic Supervisors, and the curriculum of their taught courses at both under-graduate and post-graduate levels in the subject areas of BI, Decision Support Systems (DSS) and Information Systems.
- 2.3.4 The project developed foreground IP for internal use within the Company partner.
- 2.3.5 The IP agreement established at the start of the KTP programme allows for a reasonable percentage of any commercial benefit from exploitation of such IP to be returned to the Knowledge Base Partner in recognition of its role in developing the foreground IP, and its provision of background IP.
- 2.3.6 The experience and knowledge gained has resulted in more effective processes for the development and conduct of new programmes, with greater emphasis on case studies, research opportunities, and publications.
- 2.3.7 The profile of the Knowledge Base Partner has been raised through the positive publicity and promotional activity undertaken by the Company partner.
- 2.3.8 This form of positive awareness raising can have a direct impact upon student numbers and can stimulate interest from other businesses requiring Knowledge Transfer support.

### **2.4 Benefits to the Company Partner**

- 2.4.1 The work of this project provided the Company partner with an increased understanding of data quality analysis and its potential for inclusion in new products.
- 2.4.2 Improved understanding of the characteristics for potential new market sectors was also developed with supportive market intelligence information.
- 2.4.3 Technical skills and expertise that can be used to support business development and growth were provided.

- 2.4.4 New product system components, modules and algorithms developed provided the basis for increased sales and access to new markets.
- 2.4.5 Through the Knowledge Transfer process, the Company partner now has the basis for a new product that will ensure that their improved competitive position is sustainable in the longer-term.
- 2.4.6 As a direct result the Company are now also no longer so vulnerable to 3rd party developers.
- 2.4.7 The Company is now one of the main BI partners of Microsoft and have joint marketing and business generation targets.

### **2.5 Conclusions**

- 2.5.1 Both the Company and the Knowledge Base Partner view this KTP programme as being a very useful exercise that generated benefits for both partners, yet also clearly indicated the difficulties that can arise from university-company knowledge transfer activities, particularly those in which staff within both partners change mid-project.
- 2.5.2 Although opportunities for consultancy work have been identified, there are no current plans being discussed for an on-going relationship between the University and Company partners.
- 2.5.3 In summary, although useful, this KTP has also proved to be a good lesson in how contradictory business goals and confused responses to external changes can impact upon good, and often very necessary, knowledge transfer projects.

### **2.6 References**

- 2.6.1 Knowledge Transfer Partnership Proposal - Reference 0224, ESF, 2004
- 2.6.2 Knowledge Transfer Partnership Final Report – Reference 0224, ESF, 2008

### 3. Development of an Integrated E-Marketing and IT Strategy

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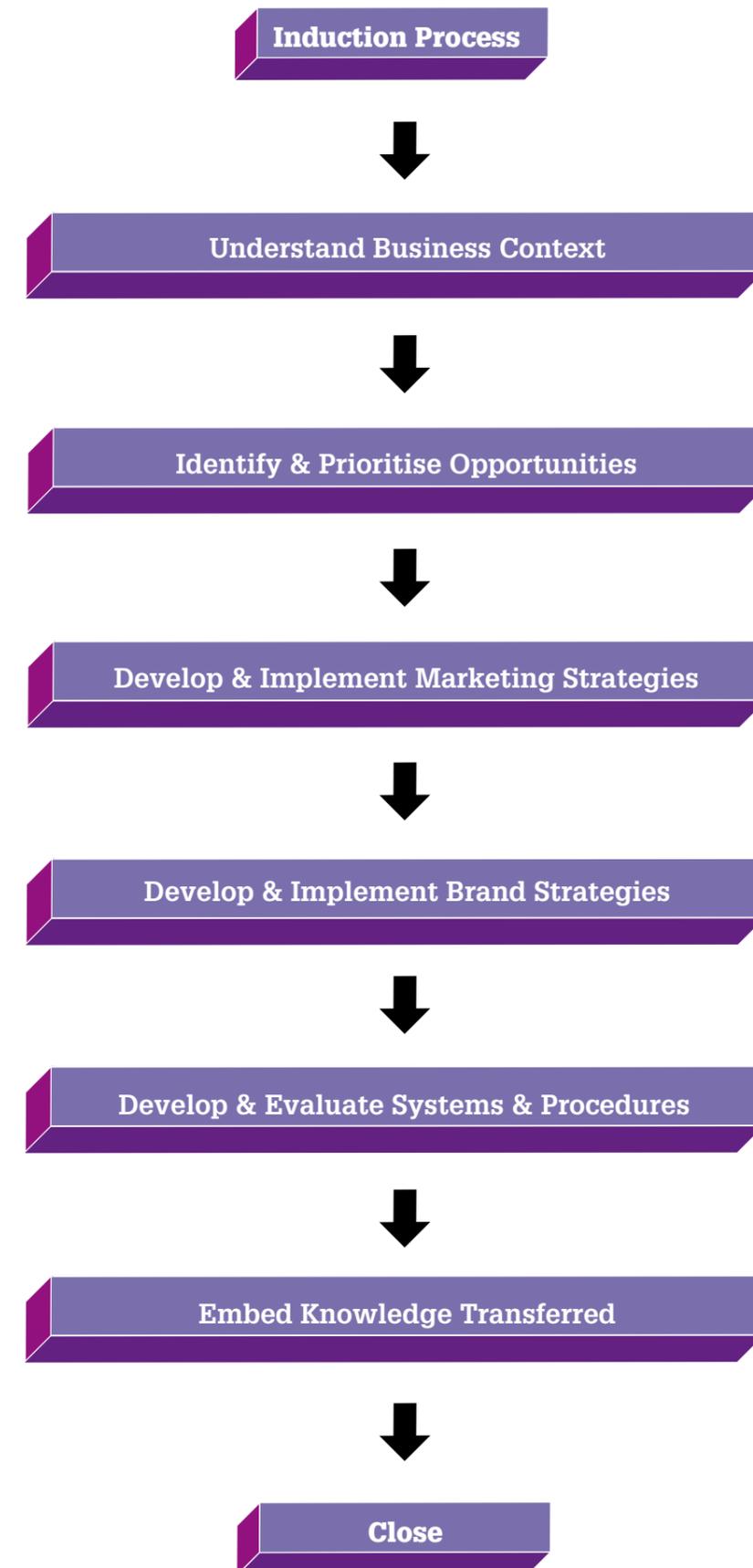
#### 3.1 Introduction

- 3.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) was an e-marketing organisation selling mainly up-market kitchen equipment and gifts to consumers, with a product range of approx 4700 different items.
- 3.1.2 The company had built its business by continually finding new products to sell, and new customers to target, but realised that to achieve longer term sustainable growth this had to change.
- 3.1.3 With a wide range of possible marketing routes and product areas to consider, the company required analysis of potential effectiveness for each.
- 3.1.4 The aim of this KTP was therefore to develop and implement an innovative integrated e-marketing and IT strategy to increase loyalty and sales to existing customers, and develop further high profit market sectors.

#### 3.2 The Process of Knowledge Transfer

- 3.2.1 Analysis was undertaken of the Company's internet markets, and also its major competitors (this included both website and product categories).
- 3.2.2 A research investigation commenced that considered the Company's current customers and sales over the previous 12 months, and taking into account the wider internet market behaviour, it was possible to determine likely implications for the Company, and the short-term actions that they needed to instigate.
- 3.2.3 When considering just a single example market it was realised that the Company's prices were high compared to their competition. Based upon strategic decisions, the Company reduced their prices that resulted in a 26.4% increase in sales for this single product line.
- 3.2.4 Following the completion of a detailed SWOT analysis, and taking into consideration the knowledge gained of how to improve the Company's marketing mix based upon the customer research undertaken, marketing strategies were developed for both new and existing companies to ensure the Company was able to maximise its sales to both groups.
- 3.2.5 Simultaneously, a brand strategy was considered with the aim of creating brands and sub-brands with different personalities. The brands were to be used on complimentary merchandising (e.g mouse mats) that were sent with customers orders.
- 3.2.6 An 8 panel leaflet (in 3 versions for different offers) was designed to enhance up and cross selling with the aim of increasing customer loyalty.
- 3.2.7 The leaflet also acted as a tool to determine which types of offers generated the highest levels of customer response.
- 3.2.8 This knowledge was used by the Company to inform future marketing campaigns. As a direct outcome of this activity, it was identified that primary customers were generally unaware of the full scope of the Company's product range.
- 3.2.9 The project objectives were then modified to enable increased concentration on customer research. Plans for a viral marketing campaign were dropped following an analysis of costs and anticipated returns.
- 3.2.10 PR activity was emphasised on the basis that it represented a highly effective and low cost marketing method that would enable the Company to reach both new markets, and also to increase sales and customer loyalty.

**Figure 3 - Knowledge Transfer Process Utilised**



- 3.2.11 Streamlining of front end systems for the web site using the analysis results from questionnaire information, and the generation of systematic feedback (blogs and forums) based upon the increased interactivity of the web site, were considered due to their potential to both improve the customer experience, and to provide key information to the Company concerning customer movements within the web facility.
- 3.2.12 The new IT system, on which many of the project's activities were predicated, was installed, however it was unable to capture historical market data and therefore the project was halted prematurely as there was insufficient data available to proceed with the planned programme of work.

### **3.3 Benefits to the Knowledge Base Partner**

- 3.3.1 The Academic team gained valuable expertise in a number of key areas including the practical application of marketing management.
- 3.3.2 The project provided opportunities for three members of the institution's staff to engage in professional practice embracing the professional marketing and interactive media activities, together with the interpersonal development required of the commercial environment.
- 3.3.3 The project also promoted opportunities for internal knowledge transfer, e.g. staff involved worked collaboratively across the Knowledge Base Partner enabling interactive media academics to learn about marketing orientation from their peers.
- 3.3.4 Engagement within the Company was a timely reminder of the technological, cultural and financial constraints within which smaller organisations operate. The results of this work were integrated into the Knowledge Base Partner's research in relationship and e-commerce based marketing.
- 3.3.5 The research undertaken was also been the source of useful information and data that will enhance future research undertaken by the Knowledge Base Partner, and will stimulate academic discovery.
- 3.3.6 Materials for practical case study examples, that can be used to demonstrate the outputs and outcomes achievable in real applications of direct and relationship based marketing, were generated from this work. Material from this project will also be used as a teaching aid to support Marketing Management when discussing and demonstrating the issues related to practical systems and procedures.
- 3.3.7 Practical questions and solutions from the real world were fed into interactive media teaching sessions to allow the students to consider the implications of their decisions within commercial environments.
- 3.3.8 As a case study, the project provided useful examples of required activities, the desired sequence of events, the scope and consequences of activities, and potential commercial and non-commercial business benefits in both the short and long-term.
- 3.3.9 As a result of the KTP, an ongoing consultancy agreement was established with the company for the provision of consultancy from the knowledge Base Partner. Thus the University has established a sustainable link with a commercial organisation within the locality.

### **3.4 Benefits to the Company Partner**

- 3.4.1 From the work undertaken by this project, the Company partner was able to gain new knowledge that included an increased understanding of marketing and research process/systems required to maintain customer and market information/data, together with relevant marketing tools and techniques.
- 3.4.2 Brands and sub-brands with different personalities, streamlined front end systems for the web site, and systematic feedback (blogs and forums) based upon the increased interactivity of the web site, were all created and implemented.
- 3.4.3 An understanding of the Company's own competitiveness, and methods for improvement, were developed with support of information concerning both the Company's main competitors/future risks, and also their customer motivations and buying patterns.

- 3.4.4 An awareness of potential future markets (both products and audiences) was created, together with an increased understanding of the market environment (inc sizes and growth rates). An organisational memory was developed to record and reflect on marketing and competitiveness.

- 3.4.5 In addition to understanding of the benefits to be gained from working in partnership with a university, the Company was able to explore the potential advantages of employing graduates to undertake specialist activities within a business environment.

### **3.5 Conclusions**

- 3.5.1 The Company's future financial performance will now be more stable as they will be setting realistic growth targets, with the emphasis on control of working capital and profitability.
- 3.5.2 The knowledge transfer, marketing and research process/systems generated by the project have been fully embedded within the Company and are being used to provide long-term benefits.
- 3.5.3 As a result, this project has improved the Company's operations through the development of information and research that will create the platform from which they can expand into new market sectors, build their customer base, and increase their market share in existing markets.
- 3.5.4 Strengthening relationships with the independent sector was considered important, and through the excellent work of the project, the Company increased its market share to over 40%.

### **3.6 References**

- 3.6.1 Knowledge Transfer Partnership Proposal - Reference 1453, DTI, 2006
- 3.6.2 Knowledge Transfer Partnership Final Report – Reference 1453, DTI, 2008

## 4. Re-branding and Innovative Distribution Networking

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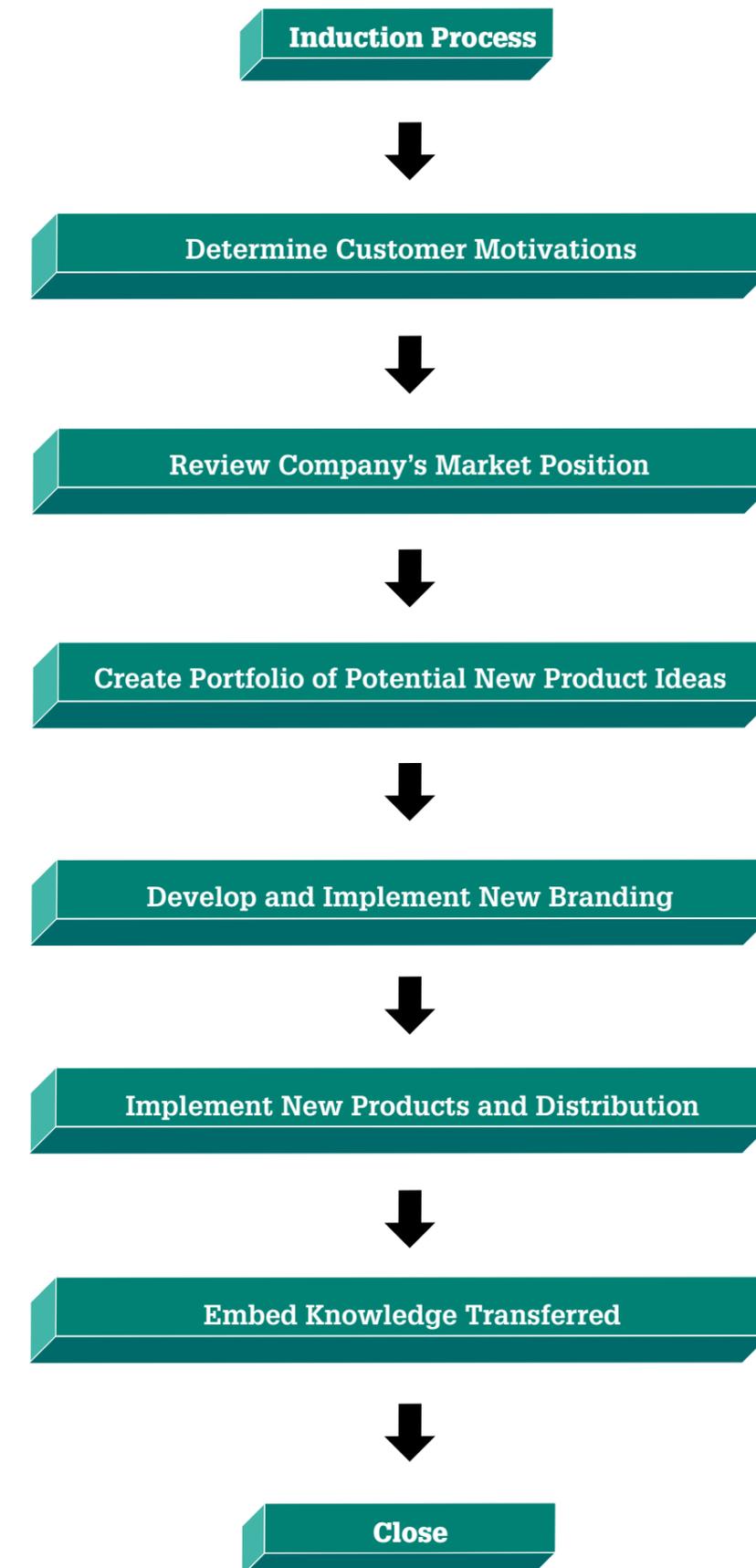
### 4.1 Introduction

- 4.1.1 This case study is based upon a Knowledge Transfer Partnership (KTP). Driven by the Company's need for a strategic commercial business plan, the aim of this KTP was to implement an innovative business development strategy, including marketing, production, logistics and national/ European distribution.
- 4.1.2 The Company market high quality nutritionally healthy snacks (nuts and dried fruit) and mueslis which are sold throughout the UK under both their own brand, and also through retailers' own labels.
- 4.1.3 Although their focus was on production and delivery, the Company partner desired to enter new and innovative channels of distribution, increase brand awareness, increase sales within the UK, move into selected export markets, expand operations into new premises, and explore unique market opportunities which had not been developed in the past.
- 4.1.4 Historically, the Company had been product-led and needed a culture embedded that would maximise its market potential. With the market being highly fragmented, a large number of different distribution channels were required. The Company therefore required a coherent strategy to enable it to react to customer orders and timescales.
- 4.1.5 With 50% of products supplied not being their own label, brand awareness for their own products was low. Despite there being a potentially lucrative export market, the Company had no comprehensive export strategy, having only one recently established distribution arrangement with a company in Eire.
- 4.1.6 Although the Company recognised that tele sales and van sales were an ineffective and expensive method of selling and distributing goods, they continued to use these as their main methods of conducting business.

### 4.2 The Process of Knowledge Transfer

- 4.2.1 A research study was undertaken to determine consumer behaviour and motivation for purchasing snacks and cereals.
- 4.2.2 Using muesli for children as an example, a successful and innovative new product development testing model for snack food products was created.
- 4.2.3 The model developed could then be used for the development of future new products.
- 4.2.4 A creative ideas generation programme was completed that led to the creation of 100 new proposals for snacks and cereal products, together with 10 potential new distribution channels. All of these proposals required evaluation.
- 4.2.5 Further research was undertaken to ascertain the Company's market position, market share and national/ regional competitors.
- 4.2.6 The Company's brand was reviewed to assess its strength in the nut, fruit and muesli markets.
- 4.2.7 Focus groups were arranged to obtain essential feedback from both current and potential customers, and a study undertaken with a cross-section of customers using interview and questionnaire methods.
- 4.2.8 A report detailing the Company's competitive position was produced, and output from the focus groups was used to inform changes to Company logo, labelling, pricing and packing. Company brochures, merchandising materials, price lists and the web site were redesigned.

Figure 4 - Knowledge Transfer Process Utilised



- 4.2.9 A design agency was commissioned to use this information to redevelop the Company's brand to enable it to capture an increased market share.
- 4.2.10 To increase the healthy nature of the brand proposition, healthy lifestyle elements were introduced.
- 4.2.11 New products including mixed dried nuts and seeds, fruity porridge, chocolate and yoghurt coated raisins were all launched in snack size packs, and special hampers were developed for the Christmas market.
- 4.2.12 With a rapidly growing snack market, competition was fierce, and Fair Trade and Organic certification was obtained to provide the Company with an element of innovation in its offering that would help it to defend its market position, and to also attract new distributors.
- 4.2.13 To support this process a sales agency was commissioned to identify and sign-up new distributors. In parallel, the van round was revitalised by finding new customers, and by renegotiating with old customers.
- 4.2.14 New pricing was launched in conjunction with revised production and packaging so that products could fully exploit the new brand values developed.
- 4.2.15 To compliment the range of innovative natural snacks, a range of whole foods (lentils, rice etc) was introduced.

### **4.3 Benefits to the Knowledge Base Partner**

- 4.3.1 Practical case study materials were developed that demonstrated the outputs and outcomes that can be achieved from market and branding within a small business.
- 4.3.2 The experience and lessons learnt from this KTP supported the Knowledge Base Partner's research into working with local businesses, and enhanced its quality and scope by demonstrating salient problems and issues.
- 4.3.3 The KTP provided the Academic Supervisor and the Lead Academic with an opportunity to further develop their own personal research into both consumer behaviour and consumer experiences.
- 4.3.4 Working on this KTP programme has brought very useful practical experience into the University generated through action learning.

### **4.4 Benefits to the Company Partner**

- 4.4.1 To support the development of its export potential, the Company signed onto the UK Trade and Investment 'passport to export scheme'. Fair Trade and Organic certifications were also obtained.
- 4.4.2 Publicity for this and the other developments were included in "The Grocer Magazine" which raised the profile of the Company partner with potential customers and distributors.
- 4.4.3 New contracts were won, and existing contracts renegotiated. Strategic business and marketing plans were devised that provided the basis for future developments.
- 4.4.4 The Company evaluated alternative distribution and sales routes, and gained access to new distribution networks, including a successful bid for the National Union of Students United Kingdom university shops.
- 4.4.5 The Company partner gained new knowledge as a direct result of this KTP Programme concerning its understanding of its competitive and market position. Branding awareness was improved, and customer needs and requirements better understood.
- 4.4.6 New healthy branding, identity, web site and brochures were complimented by revised packaging and labelling. A range of new products was created, and a new model for future product development implemented.
- 4.4.7 The Company partner was provided with an increased competitive advantage ensuring an effective long-term legacy from the KTP was established.

- 4.4.8 Further investment by the Company will be required to continue the implementation of the marketing methodologies developed, and to consolidate the Company's operational changes by firmly embedding the new culture delivered by the KTP within the corporate objectives of the Company itself.

### **4.5 Conclusions**

- 4.5.1 This Knowledge Transfer Partnership improved the Company's operations through the development and implementation of both new branding, and also new products/packaging.
- 4.5.2 The project enabled the Company to demonstrate its ability to deliver a range of high quality healthy products that were well received by customers and distribution networks.
- 4.5.3 The KTP also helped to ensure that the Company was able to sustain its current market position at a time of great market pressure.
- 4.5.4 Innovation, and the uniqueness of their offering, has enabled the Company to survive during a very difficult period of trading.
- 4.5.5 As such, the KTP will continue to make a significant impact on the Company partner's future financial position, leading to increased competitiveness, profitability and market security.

### **4.6 References**

- 4.6.1 Knowledge Transfer Partnership Proposal - Reference 1345, DTI, 2005
- 4.6.2 Knowledge Transfer Partnership Final Report – Reference 1345, DTI, 2008

## 5. Developing an Effective Contract Review Mechanism

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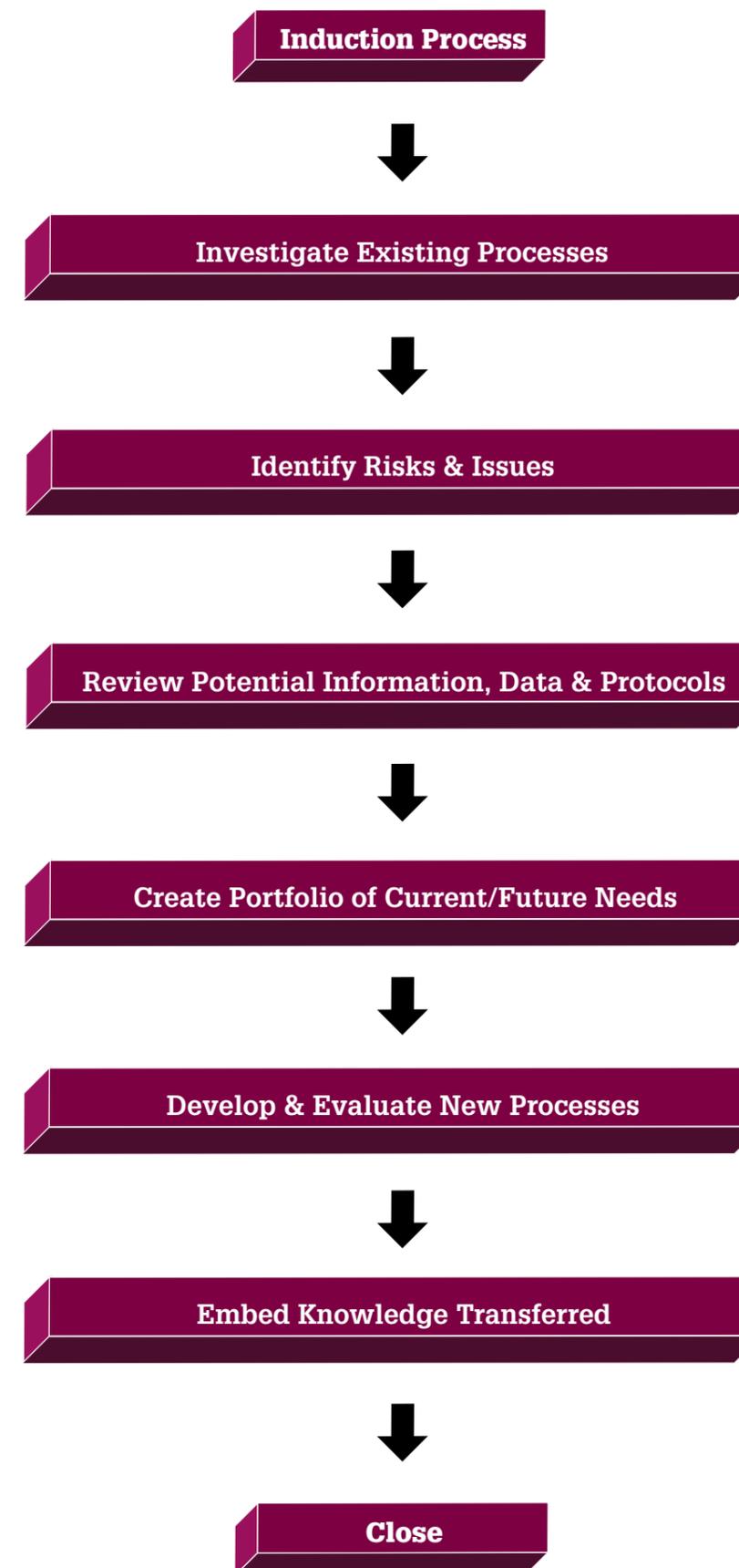
### 5.1 Introduction

- 5.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) manufactured load and stress measurement equipment for civil engineering, nuclear, aerospace and off-shore marine structures.
- 5.1.2 The Company was active in many markets, namely offshore, marine, bridges, general civil engineering, nuclear power, cranes, material handling, aerospace and rail.
- 5.1.3 Almost 50% of the Company's turnover was export, most of its work being won through tendering.
- 5.1.4 It was envisaged that the KTP would assist the company to capture a greater share of their potential new markets by developing a more professional approach to their tendering processes, whilst minimising the Company's exposure to financial risk.
- 5.1.5 The aim of this KTP was therefore to develop and implement an effective contract review mechanism, to improve the efficiency of, and reduce the financial risk associated with, the Company's tender response and bidding activity.

### 5.2 The Process of Knowledge Transfer

- 5.2.1 An investigation into the Company's existing processes was undertaken to identify those which were critical, and those which were in need of improvement.
- 5.2.2 Also considered were the resultant effects within processes and sub-process that would be generated through the implementation of changes.
- 5.2.3 Based upon the results of these preliminary investigations, it was determined that the KTP should be refocused to concentrate on meeting the immediate and future commercial and legal contract needs of the Company.
- 5.2.4 SWOT and PESTEL analysis were undertaken to identify both internal and external factors that would influence and/or impact upon the Company's tendering processes and systems. This also helped to place the Company's technical expertise in a wider context, and to appreciate both the current market conditions and potential future/emerging markets.
- 5.2.5 Existing commercial agreements were mapped and reviewed. Current processes and procedures were mapped and documented, this included identification of responsibilities.
- 5.2.6 Capabilities were mapped against future needs, and strategic priorities established and confirmed.
- 5.2.7 A review of all of the information, knowledge and data collated was undertaken to identify target areas for improvement.
- 5.2.8 Industry best practice and legal protocols were reviewed and incorporated into the Company as considered appropriate.
- 5.2.9 Risk analysis was undertaken, and time saving measures introduced, including the use of a menu bank of optional acceptable/unacceptable replacement clauses for use when completing legal documentation.
- 5.2.10 Existing and potential financial risks were reviewed, including the severity and probability of occurrence of currency fluctuations, freight forwarding, penalty clauses, and terms & conditions of purchase.
- 5.2.11 This assisted the Company to minimise their exposure to claims, and simultaneously maximised variation claims against customers.

Figure 5 - Knowledge Transfer Process Utilised



- 5.2.12 A review of Company insurances was completed.
- 5.2.13 A process was established and implemented for the review of contract terms and conditions relating to the sale and supply of the Company's equipment and services.
- 5.2.14 This review process applied to contracts with a value exceeding £100k (and to any lower value contracts that required special considerations).
- 5.2.15 Standard distributor agreements, long-term supply agreements, letters of settlement and rental agreements were also established and put into use.

### **5.3 Benefits to the Knowledge Base Partner**

- 5.3.1 The academic team gained valuable expertise in a number of key areas including the practical application of commercial contract management, and the review of contractual terms and conditions.
- 5.3.2 Exposure to working on live commercial contracts was a great advantage, as was the experience of synthesising business processes and legal frameworks.
- 5.3.3 The KTP facilitated the development of a high quality relationship between the Company and Knowledge Base Partner that had continued from a previous successful Teaching Company Scheme (TCS).
- 5.3.4 The Knowledge Base Partner was undertaking research to establish the types of knowledge transfer undertaken within knowledge transfer partnerships, and this KTP has proven to be a useful case study in this research.
- 5.3.5 It is anticipated that the strategic alliance formed to support this KTP will generate further collaborations. In the short-term it has already facilitated peer to peer knowledge transfer between academics involved.

### **5.4 Benefits to the Company Partner**

- 5.4.1 The project achieved all of its objectives, and established systems and procedures to support procurement and contracts that together resulted in the average response time for tendering being reduced significantly. The control of financial risk for the company was also vastly improved.
- 5.4.2 Improved response times for meeting deadlines improved the Company's reputation and supported their cash flow, turnover and profitability.
- 5.4.3 Culture change was achieved within the Company by embracing the importance of careful management, monitoring and control of tendering, contracts and insurances.
- 5.4.4 The Company was provided with an improved understanding of both potential future, and emerging markets.
- 5.4.5 Industry best practice was distilled and implemented, together with appropriate legal protocols/ risk management procedures.
- 5.4.6 Company capabilities were mapped against future needs with strategic priorities being confirmed.
- 5.4.7 Menu banks of optional acceptable replacement clauses for legal documents were developed, and standard distributor agreements, long-term supply agreements, letters of settlement and rental agreements were created.
- 5.4.8 Understanding of how to develop bespoke document control applications was improved.
- 5.4.9 An organisational memory to record and reflect past contractual experiences was developed, and the ability to develop future versions of systems and procedures was created to ensure that an effective long-lasting legacy from the project was established.
- 5.4.10 The Company experienced a significant increase in sales due to the support of the KTP as it was able to review an increased volume of contracts, and now has the confidence to accept/reject terms to ensure contracts are more favourable.

- 5.4.11 This KTP programme has developed foreground IP with commercial potential. The Company Partner intends to continue to exploit this IP for commercial benefit. The IP agreement established at the start of the KTP programme allows for a percentage of this commercial benefit to be returned to the Knowledge Base partner in recognition of its role in developing the foreground IP, and its provision of background IP.
- 5.4.12 The Company gained additional work, and reduced its exposure to contractual clauses saving them money in the short, medium and long term.

### **5.5 Conclusions**

- 5.5.1 This Knowledge Transfer Partnership improved the Company's operations through the development of tendering and contract support systems and procedures that created the platform from which they could expand into new market sectors.
- 5.5.2 As the Company partner continues to exploit the new products created, the KTP will have significant impact upon the Company partner's future financial position.
- 5.5.3 Through the Knowledge Transfer process, the Company partner now has the systems and procedures in place that will ensure that their improved competitive position is sustainable in the longer-term.

### **5.6 References**

- 5.6.1 Knowledge Transfer Partnership Proposal - Reference 0844, ESF, 2005
- 5.6.2 Knowledge Transfer Partnership Final Report – Reference 0844, ESF, 2008

## 6. Development of a Knowledge Capturing Methodology

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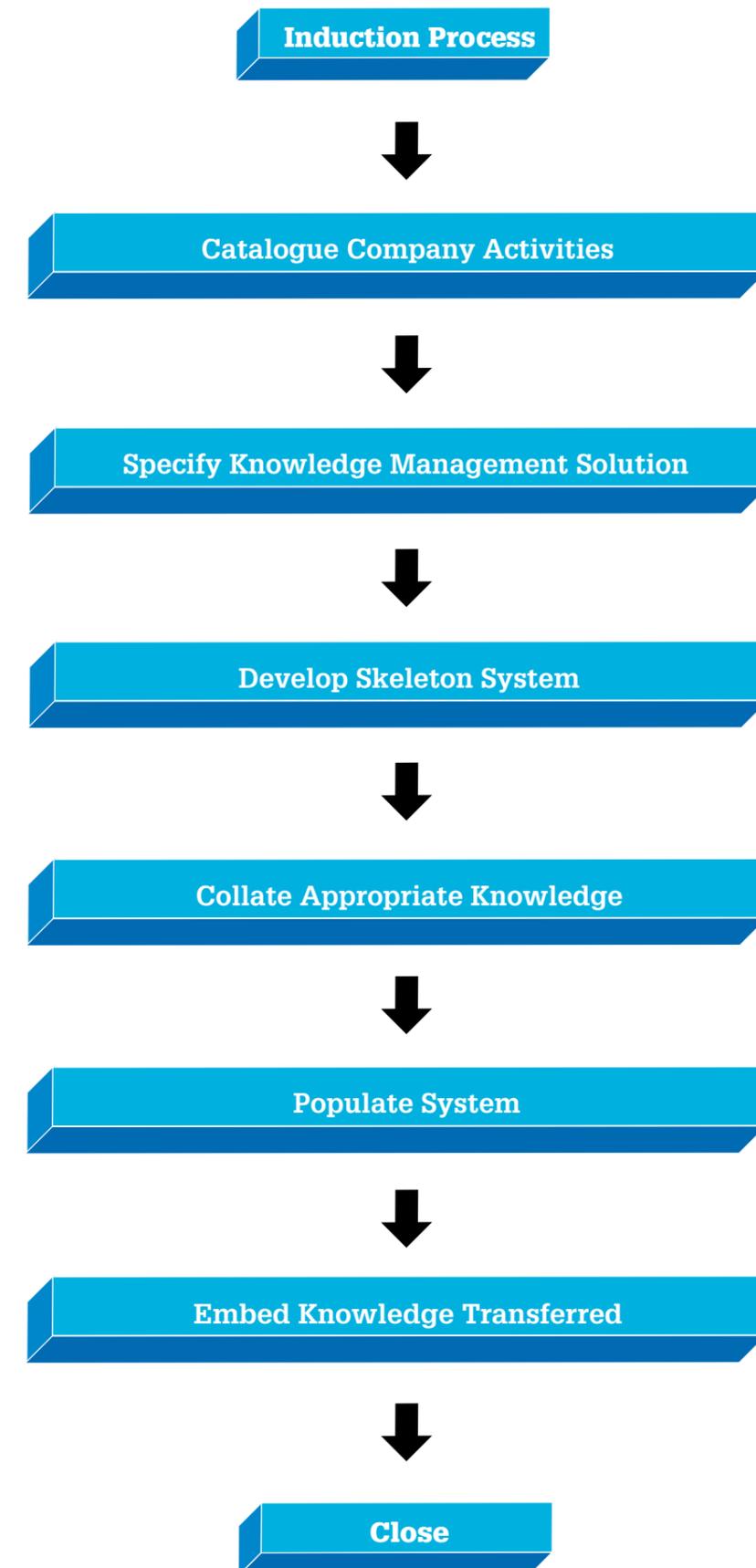
### 6.1 Introduction

- 6.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) designed, manufactured, installed and supported environmental monitoring instruments and systems.
- 6.1.2 In particular the Company undertook stack monitoring to identify radioactivity, and at the start of this project there was considered to be a significant world market for radioactivity in stack monitoring. Advances in monitoring equipment dictated that customers had to comply with ever-tightening discharge legislation and hence the market was expected to increase significantly.
- 6.1.3 Dynamics of gas flow within a stack are very variable and uncertain, meaning that how, and where, measurements are taken are critical factors to ensure reliable measurement. The Company's expertise in the field of stack emissions monitoring was a key source of their competitive advantage and depended on the specialised knowledge retained by only a few key staff.
- 6.1.4 The Company had no system to capture such knowledge that posed a risk to on-going operation in terms of succession planning and limited the potential for growth in an area critical to expansion plans of the company.
- 6.1.5 The aim of this KTP was therefore to undertake the investigation, selection and implementation of a methodology for capturing company critical explicit (theoretical) and tacit (practical) knowledge relating to stack monitoring systems held by key individuals within the organisation

### 6.2 The Process of Knowledge Transfer

- 6.2.1 By cataloguing their photos, an excellent insight was provided into the Company's activities, products, sites and projects.
- 6.2.2 The KTP then focused upon the development of a knowledge management system that would accumulate Company knowledge and intellectual assets into an organisational memory that could be easily accessed by staff both on site and off site.
- 6.2.3 In order to develop the necessary personal explicit (theoretical) and tacit (practical) knowledge required to understand the work of the Company, security clearance was obtained to enable project work to be undertaken on several major contracts. As a direct result the following work was able to be completed:
- Meetings with suppliers were undertaken
  - Monitoring system installation field visits completed
  - Calibration work was undertaken
  - Technical meetings supported
  - The US market investigated and a prototype tested and calibrated
- 6.2.4 Equipped with a sound knowledge of the Company, and the practicalities of their work, the process of collecting relevant data commenced.
- 6.2.5 This data included drawings, pictures, descriptions, functionality, layouts, flow data, leaflets, technical data, instruction manuals, method statements, risk assessments, purchase/quotation forms, technical forms, DP calculations and DP2001 setups.
- 6.2.6 In parallel, a specification for the required knowledge management system was developed and agreed.
- 6.2.7 Consideration was given to issues of accessibility and security due to the sensitive and confidential nature of the data being collected. A skeleton system was then developed using Dreamweaver to 'prove the concept', with the expectation of subsequent migration to another platform for further development and implementation.

Figure 6 - Knowledge Transfer Process Utilised



6.2.8 Further consideration was also given to the development of systems that would capture the types of knowledge/experiences witnessed on site so that the knowledge within the final knowledge management system could be easily populated and updated.

6.2.9 Where possible, personal experience was utilised to populate the knowledge manage system, as this would form the foundations for the later addition of knowledge and experience from other Company staff.

### **6.3 Benefits to the Knowledge Base Partner**

6.3.1 Valuable key expertise was gained in areas including the practical application of both commercial decision making and knowledge management.

6.3.2 Exposure to working on live projects was a great advantage, as was the experience of synthesising business processes with the requirements of practical knowledge systems and processes required to meet the needs of the Company partner.

6.3.3 The project directly benefited Knowledge Base Partner staff undertaking a Post-Graduate qualification in Knowledge Transfer.

6.3.4 The results of this KTP were integrated into the Knowledge Base Partner's research in the area of knowledge management.

6.3.5 Working on this KTP provided the academic team with commercial exposure that was reflected in curriculum development. This had an impact upon teaching, and provided materials for practical case study examples that were used to demonstrate the outputs and outcomes from real applications of knowledge management.

6.3.6 The results of this KTP project contributed to postgraduate research being undertaken by the Knowledge Base Partner into the effectiveness of Knowledge Transfer Partnerships working with local SMEs.

6.3.7 Supporting the KTP brought together both Academic and Enterprise functions within the university with an interest in the discipline of knowledge transfer. It is hoped that the strategic alliance formed to support this KTP will generate further collaborations. In the short-term it has certainly facilitated peer to peer knowledge transfer between staff involved.

6.3.8 The Knowledge Base Partner has promoted the use of material developed to support this KTP in knowledge management case studies supporting taught units on Operations Strategy, Organisational Effectiveness, Managing for Effectiveness and Decision Making.

### **6.4 Benefits to the Company Partner**

6.4.1 Company knowledge and intellectual assets were collated and referenced.

6.4.2 A system was developed that supported Company staff to diagnose the correct equipment required for a particular job.

6.4.3 Culture change embracing the importance of careful knowledge management was achieved.

6.4.4 Understanding of the need for systems and procedures to ensure that the knowledge management system remained up-to-date was established.

6.4.5 Further understanding of the benefits to be gained from working in partnership with a university, and the potential advantages of employing graduates to undertake specialist activities within a business environment was achieved.

6.4.6 Increased barriers to entry for competitors were established using effective management of Company-wide intellectual assets.

6.4.7 Improved performance of supply stack monitoring systems was achieved by providing greater input information for all aspects of specification and design.

6.4.8 Facilitated in-house training to spread company critical knowledge was delivered that reduced dependency on key individuals.

6.4.9 The reputation of the Company as a leading expert in emission stack monitoring was enhanced.

6.4.10 This project improved the Company's operations through the development of a knowledge management system that created a platform from which they could improve their operations.

### **6.5 Conclusions**

6.5.1 The project successfully established the basic knowledge management system that the Company partner could take forward and fully populate/implement.

6.5.2 Continued investment was required by the Company beyond the lifetime of the project to ensure that the knowledge management system developed remains up to date and fully integrated within the Company.

6.5.3 Even before being fully implemented, the knowledge management system developed proved to be useful in assisting the Company to address issues raised by customer queries.

6.5.4 The Company and the Knowledge Base Partners worked well together on this project which is the second project between the organisations. Both partners now anticipate that opportunities will arise for future collaborations.

### **6.6 References**

6.6.1 Knowledge Transfer Partnership Proposal - Reference 0880, ESF, 2005

6.6.2 Knowledge Transfer Partnership Final Report – Reference 0880, ESF, 2008

## 7. Establishing a Developmental Strategy

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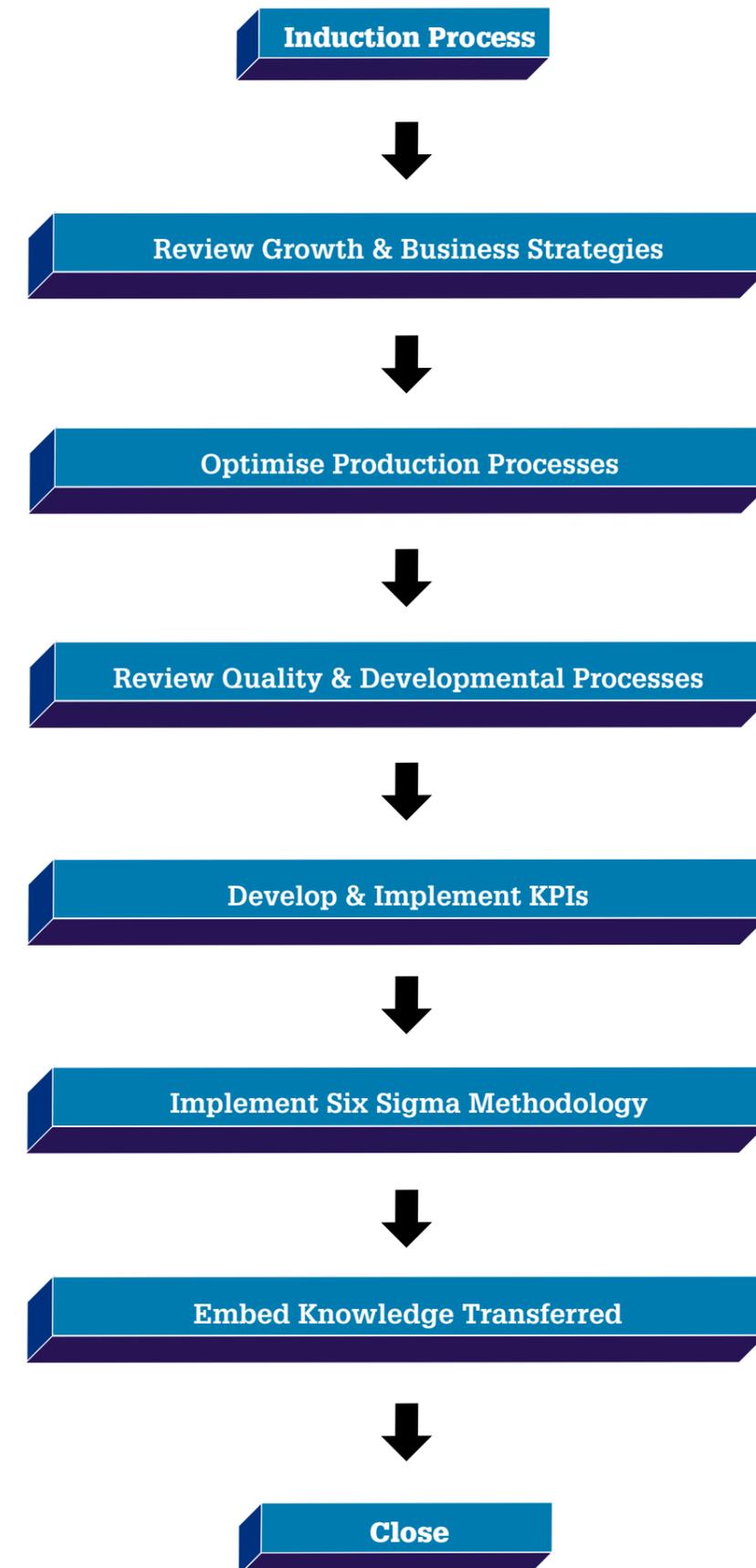
### 7.1 Introduction

- 7.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) was a leading producer of premium breakfast cereals.
- 7.1.2 In order to support the Company's vision for expansion and growth, they needed to develop, and implement, integrated marketing and production strategies that would facilitate and support the trebling of sales revenue.
- 7.1.3 Although historically the Company had been production led with no marketing team, the quality and production processes were out-dated and inefficient.
- 7.1.4 In addition, the factory was not configured optimally for future needs. Moveable hoppers used for batch mixing were difficult to move, and small scale processing of ingredients involved excessive levels of manual handling. There was also a high level of labour intensive tasks, e.g. tipping and packing.
- 7.1.5 Improvements in production efficiency through the use of alternative plant were thought to have the potential to provide economic benefits, and the mechanised handling of ingredients, labeling and inspection would improve yield.
- 7.1.6 The objective of the project was therefore to engage in a full review of existing systems and capabilities so that a developmental strategy could be established and implemented that delivered immediate efficiency gains, and also embedded continuous improvement as an on-going capability within the culture of the Company.

### 7.2 The Process of Knowledge Transfer

- 7.2.1 Project work focused upon volumes and forecasting for resource planning. This involved the integration of data, and the simplification of information flow, so that orders/customer requirements could be collated with raw materials requisitioning/production planning.
- 7.2.2 As a result of this work, packaging stockholding was reduced by 3.5% and the average ingredient stockholding was reduced from 18 days to 13.8 days (25%).
- 7.2.3 A review and revision was undertaken of the Company's Growth and Business Strategy that included mapping existing capability to future needs, establishing internal development plans, and identifying/prioritising the need to enhance efficiency, reduce waste and remove bottlenecks.
- 7.2.4 To this end special consideration was given to the optimisation of production processes, overcoming the limitations in production due to the mobility of the hoppers, eliminating labour intensive tasks, improving labelling on packs, reducing dependency on employee based inspection systems, implementing just-in-time supply systems for ingredients and processes, and revising the supply of packaging.
- 7.2.5 A strategy was developed to address the priority issues identified and to ensure the implementation of best practice.
- 7.2.6 In parallel, a review was undertaken of quality and developmental processes, e.g. customer complaints, 2nd party audit reports, inspection reports, quality assurance management and an evaluation of preventative/corrective measures completed.
- 7.2.7 A strategy was created to evaluate the existing systems and processes so that efficiency could be increased.
- 7.2.8 A machine specific schedule of maintenance was developed and rolled out that highlighted maintenance required against actual work undertaken, and effected a shift from reactive to preventative maintenance being undertaken.

**Figure 7 - Knowledge Transfer Process Utilised**



- 7.2.9 The result was an increase in machine availability of 15.5% that equated to an increased production capacity of 24,000 units per day (10%).
- 7.2.10 A process mapping of the entire operations base for the Company included the management of customer order processes, quality systems, capacity and capability planning, manufacturing and production processes, and failure rates/returns.
- 7.2.11 The emphasis was on roles and responsibilities, systems employed and effectiveness of internal communications so that problem areas (and potential problem areas) could be identified and addressed.
- 7.2.12 Key Performance Indicators (KPIs) were developed, agreed and implemented that considered output, downtime, waste, bottlenecks and JIT ingredients/packaging.
- 7.2.13 These KPIs supported the Company's strive towards excellence with use of Total Quality Management (TQM) tools and techniques including the European Framework for Quality Excellence (EFQM) and British Quality Foundation (BOF) processes.
- 7.2.14 Six Sigma principles of process improvement were investigated to increase flexibility, response times and speed of manufacture whilst simultaneously reducing costs.
- 7.2.15 People strategies were also developed to link job specifications to workload planning and performance.

### **7.3 Benefits to the Knowledge Base Partner**

- 7.3.1 The Academic Supervisors gained valuable expertise in a number of key areas, e.g. the deployment of theoretical best practise, creation of new measure to assess performance, maintenance scheduling and the optimisation of production processes.
- 7.3.2 This tacit learning had a significant impact on teaching, and provided practical case study material that could be used to demonstrate achievable outputs and outcomes.
- 7.3.3 The KTP influenced the teaching of the Academic Supervisors and the curriculum of their taught courses at both under-graduate and post-graduate levels in the subject areas of strategic management and business development.

### **7.4 Benefits to the Company Partner**

- 7.4.1 Process mapping of the operations base for the Company (including the management of customer order processes, quality systems, capacity and capability planning, manufacturing and production processes, and failure rates/returns) was undertaken.
- 7.4.2 Key Performance Indicators (KPIs) were developed, agreed and implemented that considered output, downtime, waste, bottlenecks and JIT ingredients/packaging. These KPIs supported the Company's strive towards excellence.
- 7.4.3 Six Sigma principles of process improvement were investigated to increase flexibility, response times and speed of manufacture whilst simultaneously reducing costs.
- 7.4.4 An understanding of the benefits to be gained from working in partnership with a university was demonstrated. In addition, the potential advantages of employing graduates to undertake specialist activities within a business environment were made evident.
- 7.4.5 Integration of data and the simplification of information flow was undertaken so that orders/customer requirements could be collated with raw materials requisitioning/production planning.
- 7.4.6 Optimisation of production processes, e.g. overcoming the limitations in production due to the mobility of the hoppers etc, eliminating labour intensive tasks, improving labelling on packs, reducing dependency on employee based inspection systems, implementing just-in-time ingredients processes and revising the supply of packing increased efficiency and reduced costs.
- 7.4.7 Machine specific scheduled maintenance that highlighted maintenance required against actual work undertaken and affected a shift from reactive to preventative maintenance resulted in an increase in machine availability of 15.5%.

### **7.5 Conclusions**

- 7.5.1 This project improved the Company's operations by implementing a philosophy of continuous improvement leading to increased flexibility, response times and speed of manufacture whilst simultaneously reducing costs.
- 7.5.2 Supported by the creation of quality assurance improvements, the philosophy of continuous improvement was implemented throughout the Company with key staff being trained in all functional areas, and at all levels.
- 7.5.3 One of the many additional positive results of this project was the increase in on-time deliveries from 97% to 99.2%.
- 7.5.4 The pivotal work of this project transformed the operations of the Company to such an extent that they now have the capacity, capability and business excellence philosophy in place to enable them to grow and expand to, and probably exceed, their desired levels of achievement.
- 7.5.5 The project has therefore had a major impact upon the Company resulting in significant commercial benefits that have delivered both valuable short-term and long-term gains.

### **7.6 References**

- 7.6.1 Knowledge Transfer Partnership Proposal - Reference 1388, TSB, 2006
- 7.6.2 Knowledge Transfer Partnership Final Report – Reference 1388, TSB, 2008

## 8. Enabling Penetration of Vertical Markets

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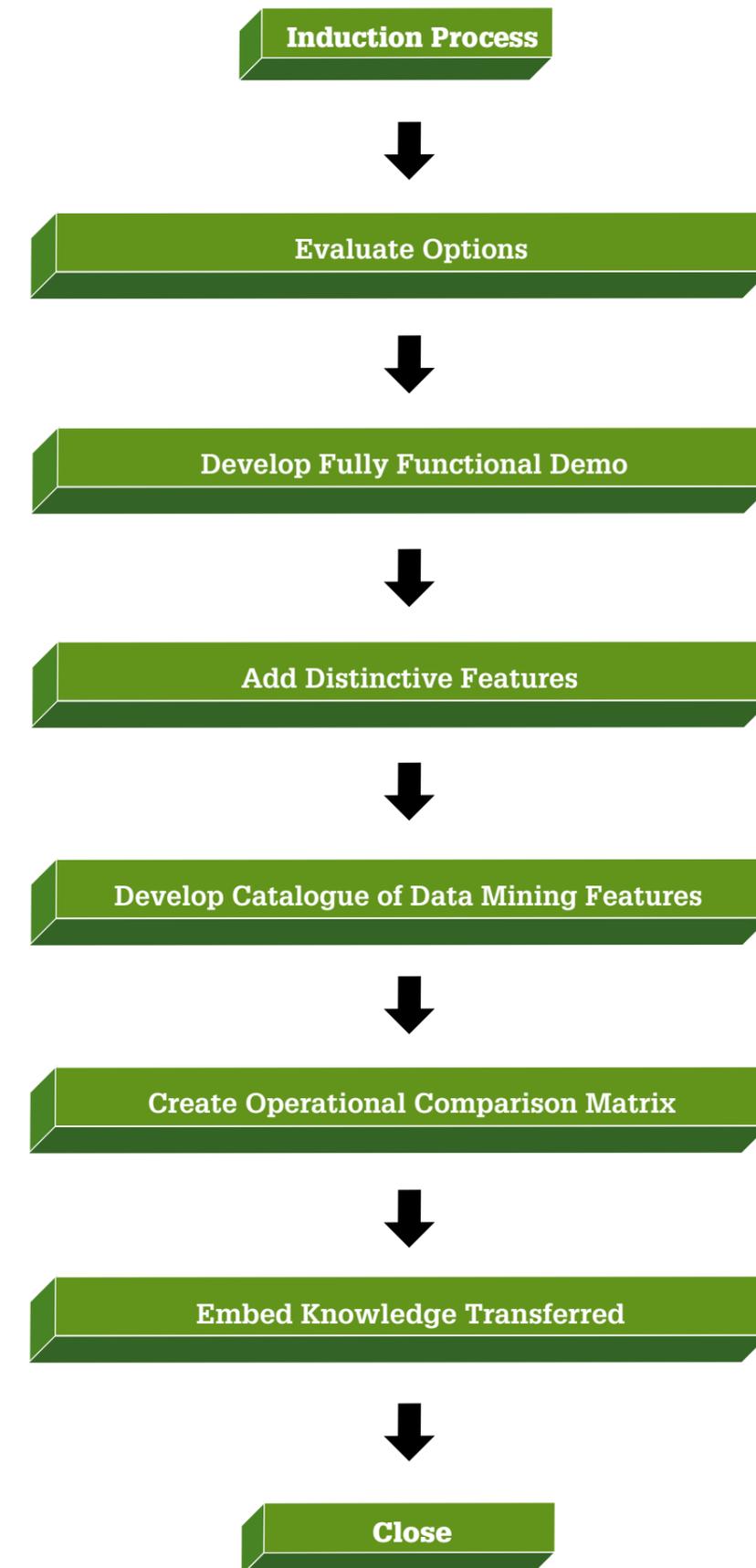
### 8.1 Introduction

- 8.1.1 The Company partner for this Knowledge Transfer Partnership (KTP) provided consulting services and user support, and also undertook the authoring and resale of software products.
- 8.1.2 In order to support their future growth, the Company wished to develop software products of its own that it could offer in addition to reselling third-party software.
- 8.1.3 The Company had a clear vision for expansion and growth based upon both existing and new markets.
- 8.1.4 The aim of this KTP was therefore to enable the Company to more fully penetrate its current vertical markets, and enter new markets in the UK and overseas.

### 8.2 The Process of Knowledge Transfer

- 8.2.1 The project overviewed the issues and challenges that existed in the UK Insurance sector.
- 8.2.2 An evaluation of ProClarity Analytics 6 was undertaken with its new and advanced features specifically for Microsoft SQL Server 2005 Analysis and Reporting Services.
- 8.2.3 ProClarity Analytics 6 was considered to be a competitive leading front-end user tool based on Microsoft (MS) SQL Server 2005 and used for Business Intelligence (BI).
- 8.2.4 A fully functioning MS BI demo for the financial services sector was developed. Of particular interest was the drill-down capability within the "Paid against Incurred Loss Ratio" report, which could show individual policies by class, territory etc.
- 8.2.5 A Dashboard was able to demonstrate unique features, e.g. the Pro-Clarity "Decomposition Tree".
- 8.2.6 Microsoft BI solutions were built with initial focus on UK mid-market financial sector. These included:
- Multi-dimensional models building (cubes) with SQL Server 2005 Analysis services.
  - Advanced analytic capabilities of analysis like predictive analysis with SQL Server 2005 data mining platform.
  - Delivery of BI to end-users with SQL Server 2005 Reporting Services and ProClarity clients.
- 8.2.7 Based on MS BI platform, and given the nature of the identified problems facing in the Financial sector, adding distinctive capabilities and values, e.g. distinctive and industry-based data mining algorithms as part of advanced analytic capabilities, was considered to be a beneficial and worthwhile addition.
- 8.2.8 Data obtained from a general insurance systems provider was used to build credible demos using the suite of Microsoft Business Intelligence (MS BI) tools.
- 8.2.9 Product evaluation forms were developed for the full suite of MS BI tools.
- 8.2.10 A detailed study was undertaken to determine the options for data mining, and a catalogue of types and applications within the insurance industry was generated.
- 8.2.11 This catalogue gathered valuable information applicable to data mining algorithms for different business aspects of the insurance industry.
- 8.2.12 The project created a complete and full functionality comparison matrix for the class leading products of Business Objects (BO) and Cognos versus Microsoft Business Intelligence (MS BI).
- 8.2.13 Work was also undertaken to gain a comparison of Total Cost of Ownership (TCO) for the leading class BI products of Microsoft BI versus BO and Cognos.

Figure 8 - Knowledge Transfer Process Utilised



- 8.2.14 Additional capabilities were added to the replication of BO reporting and analysis capabilities in MS BI, with its seamless integration among its whole BI suite of SQL Server 2005 Analysis Services, ProClarity and Business Scorecard Manager 2005.
- 8.2.15 Working examples of data mining based on the SQL Server 2005 Adventure Works sample database, and the native SQL Server 2005 data mining algorithms, were developed. Further development of version 2 of the algorithm's catalogue was completed.
- 8.2.16 The project supported the Spinvox BI project resulting in the development of a prototype Analysis Service offering, using Reporting Services and Pro Clarity. This involved building cubes with the relevant measures and dimensions together with useful KPIs.
- 8.2.17 The Associate undertook training with Company staff to ensure that knowledge and experience was as fully embedded as possible within the Company's own organisational memory.

### **8.3 Benefits to the Knowledge Base Partner**

- 8.3.1 The Academic Supervisors gained valuable expertise in a number of key areas, e.g. data mining, algorithm development and information systems.
- 8.3.2 This has had a significant impact on teaching, and has provided the possibility of practical case study material that can be used to demonstrate the potential outcomes and risks.
- 8.3.3 Working on the project has brought very useful practical experience into the University. This experience will be reflected in future teaching and research activities, and case study material will be developed for inclusion within appropriate taught units.
- 8.3.4 This KTP has created the opportunities for research and consultancy collaborations between the Company and the University partners, although these have yet to be exploited.
- 8.3.5 The results of this KTP project will feed into the postgraduate research being undertaken by the Knowledge Base Partner into the effectiveness of Knowledge Transfer programmes working with local SMEs.
- 8.3.6 It will also support research being undertaken by Bournemouth University to develop an innovative balanced scorecard that can be used as an intellectual capital audit of knowledge transfer programmes being undertaken by the University so that the actual transfer of knowledge can be more successfully managed and monitored.

### **8.4 Benefits to the Company Partner**

- 8.4.1 The heuristics and algorithms developed for solving data quality issues included data mining techniques, and a catalogue of types and applications for application to the insurance sector.
- 8.4.2 Understanding of the benefits to be gained from working in partnership with a University were clearly demonstrated to the Company partner, as were the potential advantages of employing graduates to undertake specialist activities within a business environment.
- 8.4.3 The Company were provided with the ability to manage, modify and manipulate the new product components to maintain their performance to ensure that the new product remains competitive.
- 8.4.4 Their ability to develop subsequent versions of the new product components was also enhanced to ensure an effective long-term legacy from the project was established.
- 8.4.5 Through the development of an organisational memory to record and reflect on current, future and past work, the Company was better placed to use and build upon the knowledge transferred.
- 8.4.6 If the Company partner continues to develop and exploits the new product component modules and algorithms created, then the KTP will have made a significant impact upon the Company partner's future financial position leading to increased competitiveness and profitability.

- 8.4.7 The Company have been able to be more flexible with their customers and can now offer lower cost solutions, in particular to the mid-market target group of customers.

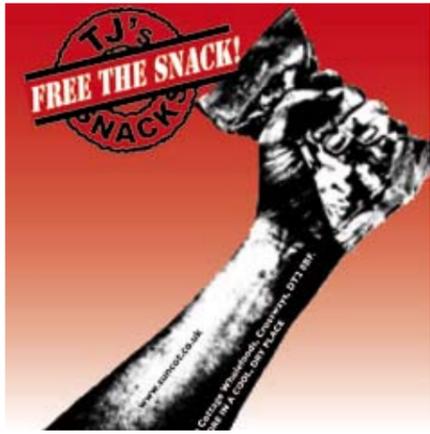
- 8.4.8 They also have a range of migration solutions for those clients who need the solutions built using the Microsoft stack. These solutions provide the Company with a chance to participate in a wider market.

### **8.5 Conclusions**

- 8.5.1 The Company will continue to invest in the implementation of the algorithms developed by this KTP.
- 8.5.2 Through continued use, modifications and updates, the outputs of the project will help to ensure that the Company gains the maximum sustainable benefits on an on-going basis.
- 8.5.3 The delivery of this KTP emphasised the need to identify and manage risk. With changes within the ownership of the Company partner mid project, the basis for doing the work, and the actual terms of reference for the relationship, changed significantly.

### **8.6 References**

- 8.6.1 Knowledge Transfer Partnership Proposal - Reference 0224, ESF, 2004
- 8.6.2 Knowledge Transfer Partnership Final Report – Reference 0224, ESF, 2008



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