Sustained organisational change: a hearts and minds approach

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Sustained Organisational Change:

A Hearts and Minds Approach

by

Chris Davies

A Doctoral Thesis
Submitted in partial fulfillment of the requirements
for the award of a PhD

Engineering Systems Group
Department of Electronic and Electrical Engineering
Loughborough University

February 2008
ABOUT THE AUTHOR

The author was formally trained as a programme manager after serving an apprenticeship (1977) operating within corporate programmes. This management discipline was very different from his previous experience in project management. Project management usually relies on a self-contained team of people, who 'take that hill', irrespective of the odds and interference from others.

Programme management works across organisations. At a corporate level, it involves working across the different divisions to ensure that all activities in the programme plan are achieved and, more importantly, that the components delivered by each division fit together (or integrate) properly. This management technique requires strong engagement skills and great powers of persuasion. It is this conversion from project management into programme management that triggered the quest by the author to understand the Hearts & Minds approach to sustained organisational change.

Research was first initiated in 1991, by trying to understand the underlying change mechanisms of the hearts & minds campaign, which took place in the Dhofar region of Southern Oman during the period 1971-1976, known as Operation Storm. When the fundamental mechanisms were identified, work was then undertaken to transform these into a culture of change methodology for use within commercial organisations. This research was documented and subsequently the first full Hearts & Minds organisational change programme was successfully run by the author for the Information Technology Division at Sun Life (1992-1994), involving some 550 staff. This was repeated at Wesleyan Assurance (1996-1998), involving some 350 staff, and then again at Energis Communications Limited (ECL-2001), involving some 50 staff, but without a change programme implementation.
Abstract

This thesis explores the 'Hearts & Minds' approach to managing organisational change. It is based on the author's extensive experience as a management consultant over a period of approximately ten years working with companies that range from small to medium size enterprises to large multi-national organisations.

The thesis presents a coherent discourse on some of the problems associated with organisations undergoing significant changes due to a range of factors including, downsizing, restructuring, take-overs, and so on. Within the context of a rapidly changing business environment driven by a global economy, the thesis provides a number of case studies, focusing on the Hearts & Minds approach to developing an appropriate management infrastructure that is best suited to a given organisation.

The thesis reports on a number of field studies that provide evidence of the Hearts & Minds approach to change management in terms of introducing an open and transparent approach to personal motivation and team building. This includes the development of a quantitative model for understanding the underlying structures which define organisations of all types irrespective of their size. The model helps to quantify the principles that are inherent in the 'dynamics' of an organisation to which change management is applied and is based on understanding an organisation in terms of a non-stationary self-affine system for which a computational measure (the Hurst dimension) can be used to measure the coherence of information flow through an organisation.

The applications of the model, results and conclusions of the thesis are wide ranging and in principle, should be applicable to a number of organisations and businesses; for industry, commerce and the financial sector. Above all, the thesis attempts to provide a unified account of the issues associated with change management that are becoming vital in industry and commerce and are of international significance as we are required increasingly to function with increased efficiency in an international arena that is undergoing continuous and rapid change.
Acknowledgements

Some of the material presented in thesis is based on course materials developed by the author and used by numerous engineers and programme managers particularly in the Defence, Financial Services, Media and Telecommunications sectors. The author would therefore like to thank all those personnel for their valuable and challenging critical appraisal of the work over many years.

- The author would like to acknowledge the support of Loughborough University (Department of Electronic and Electrical Engineering, Systems Engineering Group) and, in particular, Prof J M Blackledge, Prof D Parish and S Datta for their help and guidance.

- The author would also like to acknowledge the contributions made by the following: Phil Barnby, Hughie Vernon, David Harper, Emmanuel Ypsilanti, Geoff Barnes, Norma Coulter, Richard Tweed, Simon Shaw, Trevor Henry, Keith Farnes, Charles Linford, Don MacSween, Richard Ellis and Hilary Davies.
List of Terms

BPR Business Process Reengineering - taking a holistic customer-focused systems view and changing the organisation. Encompassing 'the vision thing', understanding business processes and workflow along the supply chain, business, IT-based analysis, organisation theory and Human Resources; IT support through the Internet, computer supported co-operative working and the possibility of teleworking.

Kaizen 'Continuous improvement' as a habitual way of life in the organisation.

Hawthorne Effect Relates to the Hawthorne Works of the General Electric Company in Chicago. If genuine interest is shown in workers, then their productivity increases despite environmental effects.

Hutton Enquiry The judicial enquiry undertaken by The Right Honourable Lord Hutton, whose Terms of Reference were: '...urgently to conduct an investigation into the circumstances surrounding the death of Dr Kelly.'

Upkeep Commonly known as the Dambusters bomb or bouncing bomb. It was a cylinder weighing 9,250lb including 6,600 of RDX explosive, it had a length of 5 feet and was 4 feet 8 inches in diameter. It had three hydrostatic pistols primed to detonate at 30 feet, it also had a ninety second time fuse, automatically tripped when bomb release. It was attached to the Lancaster via calliper arms, The arms were held together using powerful springs, the arms sprung open when the bomb-aimer pressed the release button this also removed the safety pin from the bomb. Ten minutes before bomb release, a motor started the bomb rotating up to a speed of 500 rpm. The height for release was set at 60 feet at a speed of 240 to 250 mph and had to be release between 400 and 500 feet from the target dam.

Dinosaurs Dinosaurs lived on the earth for 165 million years (humans have only been here for 2 million), but no one really knows why the dinosaurs died. Some people think that the dinosaurs died when a giant rock fell to earth from space (a
meteorite). They believe that when it hit the earth it made a huge cloud of dust, which blocked out the sun. The dinosaurs relied on the sun for warmth and may have died because it was too cold for them. The word 'dinosaur' means 'Terrible Lizard.'

Cold War The global split between the political ideologies of capitalism and Soviet bloc communism and the ensuing military stand-off is known as the Cold War (1948-1989).

GATSO Invented by Maas Gatsonides - a Dutchman is a speed camera designed to photograph speeding motorists, by measuring the motorist's speed. If the speed limit is being exceeded, they are photographed (currently from behind) giving the authorities the vehicle registration mark together with the recorded speed.

MPEG Moving Picture Experts Group (MPEG) a working group of ISO/IEC responsible for developing of standards for coded representation of digital audio and video. Established in 1988, the group has produced MPEG-1, the standard on which such products as Video CD and MP3 are based.

VCR Video Cassette Recorder, the first commercial reel-to-reel videotape recorder was invented in 1965 by Charles Ginsburg and Ray Dolby while working for the Ampex Corporation.

SAS Founded by David Stirling in 1942, comprises the Special Forces regiment of the British Army.

TQM Total Quality Management is management and control activities based on the leadership of top management and based on the involvement of all employees and all departments from planning and development to sales and service. These management and control activities focus on quality assurance by which those qualities, which satisfy the customer are built into products and services during the above processes and then offered to consumers.
SME Small to Medium Sized Enterprise. The most common method for SMEs to evolve is as family businesses, using sweat equity to establish themselves. This involves family members working for nothing and claiming their time and expenses after the company has been established as a going concern.
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Chapter 1

Introduction

This thesis is concerned with an evaluation of the approaches and methods associated with assessing and promoting change within a range of organisations, in both the public and private sector. Emphasis is on the management infrastructure that is required to identify and affect those necessary transitions that are required to promote a dynamic and self-organising realisation of modern business practice. This is accomplished by first considering the most appropriate models and a general methodology and then considering a number of case studies that are pertinent to a 'Hearts & Minds' strategy in which the author has been directly involved as a management consultant.

1.1 Goals and Objectives

The principal goals and objectives were as follows:

1. To put Hearts & Minds on the map as a key approach to organisational change.
2. To explain the underlying mechanism of Hearts & Minds.
3. To show that Hearts & Minds can be equally successfully deployed for organisational change in the commercial sector.
4. To explain how Hearts & Minds achieves a higher level of permanence compared with other approaches.
Hearts & Minds is not coercion, it is founded on persuasion. In other words, it is not dictatorship; it is not ordering, it is the changing of attitudes, it is appealing to people, it is motivating people to do things differently, it is opening their minds.

This approach focuses on the needs of the people involved to achieve a mission statement and in summary, consists of the following:

1. A simple methodology focused on the values, needs and wants of the target audience, to achieve an overall mission.

2. Careful articulation of the mission and a partnering implementation using change agents.

3. A communications continuum.

4. Operations and culture change are integrated not separate.

5. Very sensitive application of incremental beliefs without compromising culture, religion, status.

1.1.1 Basic Hypothesis and Principal Statement

The basic premise of this thesis is compounded in the following statement:

That concepts of change management developed in the military arena can achieve equal and equivalent results in the commercial sector with the proviso that the appropriate attributes are tailored accordingly (appropriate to civilian context).
1.1. **GOALS AND OBJECTIVES**

The principle attributes associated with the two sectors are summarised in the table below:

<table>
<thead>
<tr>
<th>Military</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebuilding infrastructure</td>
<td>Achieving the Mission</td>
</tr>
<tr>
<td>Needs &amp; Wants</td>
<td>Needs &amp; Wants</td>
</tr>
<tr>
<td>Communication</td>
<td>Communication</td>
</tr>
<tr>
<td>Intelligence</td>
<td>Awareness</td>
</tr>
<tr>
<td>Training Team</td>
<td>Change Agents</td>
</tr>
<tr>
<td>Loyalty to the Government</td>
<td>Loyalty to the Mission values</td>
</tr>
</tbody>
</table>

1.1.2 **Measurable objectives**

The purpose of this thesis is compounded in the following statements:

1. In a holistic way, to investigate methods and techniques for ensuring permanence of cultural change in organisations and to give some explanations why some methods work and others do not.

2. To understand why some techniques work and others fail and where the focus should lie for organisations who seriously and genuinely not only want to change, but also wish to sustain that change.

The work reports on a dynamic approach that has been implemented by the author for more than ten years that is based on a mix of clear and identifiable procedures, business and management models coupled with an understanding of the psychological realities associated with changing circumstances of the working environment and society in general. This includes an analysis of the complexity issues associated with modern business practices in which a self-affine approach is used to define and interpret complexity in terms of the transient behaviour of a large organisation in which the behaviour adopted by staff may be similar at different levels within an organisation.
It worked for an entire country and it has successfully transformed organisations like Sun Life, the Wesleyan, a GEC subsidiary and Fidelity International Limited (FIL). Hearts & Minds is not a turn of phrase, it is a methodology with very defined mechanisms, which work within the values of the target audience, not those of the change agents or the Board. This is the key reason why high permanence is achieved:

- It fixes problems that are important to the target audience, not the administrators
- It addresses Needs & Wants of the target audience
- It refocuses management and directors alike into a staff management role
- The staff own all the processes
- The target audience are always given the opportunity to solve the problem in an empowered, but chaperoned way
- There is rigorous programme management of the entire change initiative with constant focus on the critical success factors
- When Adopt & Adapt is used, the target audience is given a chance to tailor their own solution, based on a proven framework
- Dignity is maintained at all times

Like Kaizen and Genba Kanri, it puts the target audience in control of their own destiny, but none of this is easy, it requires a great deal of passion and none of this is for the faint hearted. Finally, Britain was a colonial power and although not everything it did was right, one thing is certain - it understands other cultures. Perhaps this is the reason for its unbroken track record of success with Hearts & Minds, both in the military and in commerce?

1.2 A Brief History of Change Management

Change management is difficult to summarise in strictly precise terms. Similarly, the history of 'Hearts & Minds' is also rather vague, having its source originally in the
1.3. COMPARATORS

military sphere. However, the following points are based on the authors research in the subject and his experience as a consultant in change management:

- Hearts & Minds was invented by Gerald Templar during the Malayan Emergency (1948 - 1960). 'The shooting side of the business is only 25% of the trouble and the other 75% lies in getting the people of this country behind us', wrote Templar.

- Borneo (1962 - 1966) the jungle war between Indonesia and Britain euphemistically described by both sides as 'Confrontation' lasted four years. This was a mixture as before in Malaysia: Hearts & Minds to yield information; airborne assault plus familiarity with the jungle.

- Southern Oman, known as Dhofar - Operation Storm (1969-1976), which took Hearts & Minds one-step beyond the result achieved in Malaya to included modernising the infrastructure, winning over the rebels and social reform. All these aspects were achieved in harmony with religious beliefs.

- Hearts & Minds was used partially in the Gulf War (1991) and also currently in Afghanistan, but in neither case as an overall approach and more of an afterthought.

- In 1991, the author carried out research to understand the underlying mechanisms and then translated them into a form, which could be used to change a commercial organisation.

1.3 Comparators

There are a number of comparators relating to consultants and the academic community as opposed to the 'Hearts & Minds' approach. In this section we consider a number of examples providing a brief background to each case.

1.3.1 McKinsey Consultants

Consultants like McKinsey tend to use oppressive methods, which coerce and indeed sometime even force the target audience into adopting different ways of working. Very
This model includes a central theme in terms of ‘shared values’. A survey of 25 organisations showed that in 80% of cases that their BPR programme was extensively driven by business strategy, and 88% of organisations were aiming to extensively change their shared values. This does not put the staff first, but the organisation first. It is therefore at odds to ‘Hearts & Minds’ whose focus is the opposite, i.e. to improve the situation of the individual and therefore indirectly improve the performance of the organisation.

1.3.2 Academic Approach

By contrast, academics adopt an analytical approach. Professor John Kotter is widely regarded as the world’s foremost authority on leadership and change and is not an
1.3. COMPARATORS

advocate of the Consultancy approach. ‘Despite all the rhetoric, books, effort, and money thrown into change efforts in organizations today, most fail. Mega-consulting firms Arthur D. Little and McKinsey & Co. have studied hundreds of companies that entered Total Quality Management programs, but about two-thirds ‘grind to a halt because of their failure to produce the hoped-for results’. Efforts at ‘Reengineering’ fared worse, with a 70% failure rate. Peter Senge puts it quite starkly in his 1999 book Dance of Change: ‘This failure to sustain significant change recurs again and again—despite substantial resources committed to the change effort (many are bankrolled by top management), talented and committed people “driving the change”, and high stakes. In fact, executives feeling an urgent need for change are right; companies that fail to sustain significant change end up facing crises. By then, their options are greatly reduced, and even after heroic efforts they often decline. This seems a bleak appraisal for any organization, but especially for a church. Yet the equally important learning is that change efforts are still important to face... and the sooner the better.’ John Kotter has made it his business to study both success and failure in change initiatives in business. ‘The most general lesson to be learned from the more successful cases is that the change process goes through a series of phases that, in total, usually require a considerable length of time. Skipping steps creates only the illusion of speed and never produces satisfactory results’ and ‘making critical mistakes in any of the phases can have a devastating impact, slowing momentum and negating hard-won gains’. Kotter summarizes the eight phases as follows:

1. Establish a Sense of Urgency
2. Form a Powerful Guiding Coalition
3. Create a Vision
4. Communicate that Vision
5. Empower Others to Act on the Vision
6. Plan for and Create Short-Term Wins
7. Consolidate Improvements and Keep the Momentum for Change Moving
8. Institutionalize the New Approaches
CHAPTER 1. INTRODUCTION

This approach does bear some similarities with Hearts & Minds, but still falls short in terms of

1. Failing to focus on the Needs & Wants of the audience.

2. Failure to adopt L>C as the speed governor rather than a sense of urgency or momentum.

3. No sensitivity to adding to beliefs and respecting dignity.

1.4 Success Criteria

Whilst the Hearts & Minds approach utilises a reduced variance of the Climate Survey results, time needs to pass before progress and success can be measured. Instead, Critical Success Factors are used to ensure that success is measured, which are Boolean and derived from the initial diagnostic phase. The following example from the Sun Life Case Study illustrates:

1. Leadership demonstrated

2. Delivery of a £34m programme

3. Partnership with internal customers

4. Increased productivity e.g. Datacentre costs reduced by 2.5%

5. Successful acquisition of skills e.g. estimating and planning

These results linked back directly with the Mission, and were triggered by delivering the Needs and Wants, which the audience required.

Reference [2] describes the traditional values that have been the centrepiece of traditional, patriarchal organisations as control, consistency and predictability. These values dictate that decision-making is at the top, leaving the execution and implementation to the middle and bottom layers of an organisation. ‘Twenty-five years ago, if you wanted something changed as the CEO of a traditional company, you simply spoke the words. The culture and belief system of the organisation was more akin to a military structure.’ Nature itself is organised and many species live as family
1.4. SUCCESS CRITERIA

groups; hierarchies are involved in these groupings and no doubt found their way into business and warfare.

Throughout WWII, business was controlled by the Government and mimicked either the Civil Service or the Army, in the latter case, the most extreme example being the ‘Land-Army’. Layers and layers stifled change and further communication was mostly by the written word and when it did take place it was formal. Most decisions were taken by committees or sub-committees, devices that reduce variety and sometime very strange conclusions were reached completely at odds with reality. For example, the Thatcher Government [3] actually concluded that unleaded petrol could not be introduced, because cars would not run on this fuel. Parliamentary mistakes were always spread across their large populations or they retreated into secrecy. After WWII, business often adopted the ways and means of how Parliament operated, indulging in process more than content and leaving itself plenty of room for poor accountability. Reflecting on the Hutton Enquiry [4] of today of misrepresenting the facts and misleading Parliament shows the imperfections of this method. The situation of invading Iraq is less serious than say Enron or Parmalat. Even if these organisational structures work, their speed is often unsatisfactory. By the time the first Bristol Type 167 (the ‘Brabazon’) as recommended by the Brabazon Committee [5] in 1942 had started flight testing, jet transport had emerged and the giant aircraft quickly became a ‘white elephant’. Production was cancelled in July 1953. Some say that today’s equivalent example is the Eurofighter.

In general, committee structures tend to oppose change and innovation and are well known for reducing variety of solutions. During WWII, it took Barnes Wallace more time to convince the Air Ministry that the Upkeep weapon was viable than it did to invent it. This left him only 3 months to complete development. There was only time for a single test of the weapon. This is an example that is compounded in what follows below.

The study of ecology - living organisms in relation to each other and their environment - provides some relevant models. One of these models is the ecological notion of ‘sufficient difference’ or Ashby’s Law of Requisite Variety [6]. ‘The larger the variety of actions available to a control system, the larger the variety of perturbations it is able to compensate for’ In nature, it is now generally accepted that the Dinosaur
disappeared when massive changes to their environment was brought about by the catastrophic impact of a meteor or a comet. Despite their size and strength, they could not deal with these new circumstances. In fact, it was their size and strength that became their principal problem. In short, any organisation that does not possess sufficient variety to cope with changes in its environment will eventually fail. The model of the Civil Service springs to mind. During the Foot and Mouth outbreak of 2001[7] the Civil Service were unable to cope with the dynamics of the situation and their lack of response allowed an epidemic to occur. Consequently, the Army was called in to take control of the situation. Where changes in the organisational environment are slow and predictable, large hierarchical structures can cope; but where events occur unexpectedly and continue to change, highly adaptive flat structures are needed. This means that hierarchical structuring is reduced to the minimum or even made redundant, e.g. the manager/staff ratio of a Special Forces patrol is 1:3 for this reason.

1.5 Exemplars

There are a wide range of exemplars that can be used. Here we consider the failure and success associated with two organisations that the author has worked with, namely, Harington’s and IBM.

1.5.1 HARINGTONS: An award winning SME

There are currently around 30,000 - 35,000 hairdressing salons in the UK. The market has polarised to a considerable extent over the last two decades and there is now a marked contrast between modern, progressive outlets and those, which have remained more or less unchanged for many years [96] [97], [98], [99]. In 2003 Haringtons won five major awards and have done so in previous years, their achievements dwarf the best industry brands like Toni & Guy [97]. The awards were as follows:

1. L’Oréal Colour Trophy London Regional winner

2. Art Team of the Year
3. Southern Hairdresser of the Year (Robert Smith)

4. Men’s Hairdresser of the Year (Louise Maxwell)

5. The Fellowship of British Hairdressing Image of the Year (Robert Smith)

They were also nominated the 20th of the *Sunday Times Best Small Companies to Work For*. Their story starts in Maidenhead with Robert Smith and Simon Shaw, a Thames Valley beginning for one of the most successful hairdressing groups in the UK [97]. Young hairdressers with big ideas, who met working locally and had the idea to see, 20 years ago, that bringing a taste of London to the suburbs could just well catch-on. ‘We wanted to offer a London salon experience out-of-town’, comments Robert Smith, joint Director of the Haringtons group. ‘We had worked in London and saw a definite need locally for a salon that could offer clients the most current styles and colours, in an amazing salon environment, with caring service by professional staff.’ The value systems are compounded in part of the their Fundamental Operating Principles [98]:

1. We operate with honesty and integrity in all our dealings with people.

2. We provide the means and the environment for our people to develop themselves.

3. We create a working environment that brings completion and satisfaction to our people.

4. We provide a safe space for any communication.

5. We recognise the value of our people and that it takes all of us working together to deliver outstanding products and service.

6. We give something back to the community that supports our business.

7. We never lose sight of our responsibility to the company and ourselves to make a profit.

8. We are a positive experience in all the lives we affect.

With only a 10% drop in clients per annum, they still need to focus on maintaining high retention rates and therefore the operating style is constantly questioned. The
company has grown through acquisition; 5 years ago, three salons were acquired and rebranded and recently, a further four have been acquired on the south coast, but will operate under their existing brand Storm for the immediate future in order to maintain customer loyalty. The business was started with a salon in Maidenhead, which was then followed by Marlow, Windsor and London.

The business is the top award-winning hairdressing business in the UK, despite its relatively low profile, compared with Toni & Guy. Their proposition is to offer unique hairdressing and to do this they need good people as well as a strong artistic element. Their management style is chaperoned empowerment. The two founding directors still work with the staff as practising hairdressers.

The market is described succinctly by the 'Business Zone Report' on UK hairdressing [118]. The market is changing and consolidating, so that the forecast is that ten firms will own 90% of hairdressers. Toni & Guy have 250 salons, they reached saturation and relaunched a second brand called Essentials, but the two partners have split and in effect re-created two competing businesses, one in the US and the other in UK.

Changing the make-up of the directors and adding an investor triggered the expansion. Simon and Robert were the founders. They are now set to continue to grow by acquisition and have offered the first franchise to one of their longest serving employees. Artistic element has played a big part and they continue to win awards. Robert recently won Hairdresser of the Year and Louise Maxwell has won this award previously. In stark contrast, their artistic director has not won any awards at all. Staff are trained by rote learning, which includes what Simon describes as 'a strong intention or meaning to give the desired result'.

The relationship between the directors is important and is part tension, which has been key to achieving their success. Robert is reserved; Simon is people orientated and is 'the mind of the organisation'. The key attributes to the culture of the company are:

- Taking Personal Responsibility
- Achievement orientated
- Responsible for one's own actions
1.5. EXEMPLARS

- Self-governing
- Self-funding
- Reward system is Basic salary + commission
- Long-term staff
- Use of a comprehensive induction system to establish the values
- The American Dream

1.5.2 IBM: The humbling of the giant

In this section, we consider an example of the fragmentation of a large company and its downsizing, namely the case of IBM. This event was the unimaginable - the largest computer in the world falling from grace in a spectacular fashion and what's more needing the help from an outsider. The outsider came in the form of Louis Gerstner, who was recruited from RJR Nabisco and was also ex-McKinsey. Here is a commentary of a story of how the giant fell and after downsizing by 30% regained its position with the help of Gerstner [100].

The fall began with the following announcement: 'We announced first-quarter operating results .. and they were dismal'. Revenue had declined 7%. The company's loss before tax was $400 million. In the previous quarter, IBM had a pre-tax profit of close to $1 billion. The four critical decisions were:

1. Keep the company together
2. Change our fundamental economic model
3. Re-engineer how we did business
4. Sell unproductive assets in order to raise cash

As an example, from 1994 to 1998, the total savings from these re-engineering projects was $9.5 billion.' The priorities were to:

1. Restore the company to profitability [previously heavy losses]
2. Win the battle in the customer's premises [win back the customers]

3. Be more aggressive in the client/server area [they were solely mainframe]

4. Continue as a full-service provider [customer request]

Restructuring occurred and, as a result, five directors left in 1993, then four more in 1994.

The message was clearly, 'what we have been doing isn't working. We lost $16 billion in three years. Since 1985, more than 175,000 employees have lost their jobs.'

The IBM culture was the product of two predominant forces. (i) The runaway success of System/360 (little competition; high profit margins and commanding market position); (ii) Loosing touch with the external realities. What people forgot was that this culture was born out of the success of System/360 and that the market had moved on. IBM had to move from proprietary to open architectures. It meant walking away from all their historic architectural control points. It also meant stepping into a competitive playing field that was open to all players.

The Basic Beliefs became:

- Excellence in everything we do
- Superior customer service
- Respect for the individual

This included a culture of 'No'. One of the most extraordinary manifestations of this 'no' culture was IBM's infamous nonconcur system. The orientation of IBM was based on 'I read direct quotes from our competitors, belittling IBM, gloating over our fall from grace.' As a result the fundamentals of successful enterprises and successful executives were established as:

- They are focused
- They are superb at execution
- They abound with personal leadership

The following table provides some examples of a 'change agent' and the 'threatened target':
The Cold War [8] can be considered to have started on 31st March 1948, with a partial blockade of Berlin lasting for over 50 years until 9th November 1989, when the Berlin Wall was opened, symbolising the end of the Cold War. Desperation and threat have a curious way of dissipating bureaucracy and resistance to change. The defence of a country is paramount and if a new idea is crucial to addressing the threat, then it seems to be accepted relatively easily and money to some extent is not a problem.

The ending of the Cold War by Mikhail Gorbachev was in itself a vivid illustration of how cultural change can work on a macro scale.

Taking one example [9] from that episode, Gorbachev introduced glasnost (openness) to create popular support for his reforms. By doing so, however, he opened a Pandora's box of revelations about the Gulag, the Great Terror, genocidal famines, mass deportations, and killing fields that had turned the USSR into one large charnel house in Stalin's time. Glasnost underscored Gorbachev's key dilemma: by allowing the truth to emerge, it destroyed the foundation of lies on which the communist system was built. For example, after releasing a map showing that the government had covered up the actual extent of contamination caused by the 1986 Chernobyl nuclear reactor catastrophe, Moscow confiscated dosimeters from civil defence units so that people in the affected areas could not measure radiation levels. This is very different from manufacturing in the private sector. The Japanese offer an interesting perspective. Their society is well known for being claustrophobic, rigidly structured and over formalised. Yet, against this context, their manufacturing methods offer the most empowered approach in the world. Ed Handyside [10], the ‘Kaizen Guru’, states:
'That competitive edge springs not from low wages, high technology, wartime devastation, Shinto-Buddhism, the team-building characteristics of the medieval rice harvest, a diet of raw fish or even a greater range of manufacturing tools and techniques. It comes from discipline and tenacity and from a superior level of skill in managing the manufacturing process.'

Contrary to common assumptions, the process is owned by the workforce not the management and middle management have little left to do. Motivating die-hards is not difficult, when the workforce is given the freedom to improve their processes, so that they can do the same amount of work with less effort. In a similar way to the Cold War was the revealing of the existence of Operation Storm. Oman, a country approximately the size of Germany and with a population of just over two million. From 1971-76 the SAS [11] fought and won a guerrilla war in the hills and deserts of southern Oman called the Dhofar. They were successful, defeating the communist rebels and keeping the operation so secret that the Labour party were unaware of what was happening until they won the 1974 election (D-Notice date unknown). This book was first written in 1980 and heavily edited by the Ministry of Defence and the Foreign Office. These restrictions have now been lifted, allowing the book to reveal key details previously omitted. Used as a textbook by student soldiers, it reveals how small teams of elite soldiers destroyed a guerrilla army. While the US Army was losing its public war in Vietnam, the SAS fought in secrecy, saving the Omani regime and preventing Soviet-backed guerrillas seizing control of the Persian Gulf.

In in more general context Hearts & Minds is about dealing with people and organisations that are trapped by the culture metaphor (Shakespear/Hamlet Act 3 Scene 4: 'I am in blood steeped in so far that should I wade no more to return would be more tedious than to go on'). In the following section, we consider the definition of cultural change in terms of Ashby's Law of requisite variety and the condition $L > C$ where $L$ is the rate of learning and $C$ is the rate of change.
1.6 Definition of Cultural Change

To date, there is no precise definition of cultural change, so three definitions are offered at this point:

1.6.1 Definition 1 (Nickols [12])

'The first and most obvious definition of 'change management' is that the term refers to the task of managing change. The obvious is not necessarily unambiguous. Managing change is itself a term that has at least two meanings.

One meaning of managing change refers to the making of changes in a planned and managed or systematic fashion. The aim is to more effectively implement new methods and systems in an ongoing organisation. The changes to be managed lie within and are controlled by the organisation. However, these internal changes might have been triggered by events originating outside the organisation, in what is usually termed "the environment." Hence, the second meaning of managing change, namely, the response to changes over which the organisation exercises little or no control (e.g., legislation, social and political upheaval, the actions of competitors, shifting economic tides and currents, and so on). Researchers and practitioners alike typically distinguish between a knee-jerk or reactive response and an anticipative or proactive response.'

The author offers his own definition which is compounded in the following points:

- The change in direction and organisational restructure.
- The raising of the new top team and resultant building.
- The building of staff teams and devolution of control to those teams.

Winning the people over is more exacting and is achieved through a dual process of building a team spirit, whilst at the same time, developing the mission and objectives throughout the entire organisation. Replacing people's beliefs is avoided, but rather incrementally adding to them.
1.6.2 Definition 2 (McNamara [13])

'Typically, the concept of organisational change is in regard to organisation-wide change, as opposed to smaller changes such as adding a new person, modifying a program, etc. Examples of organisation-wide change might include a change in mission, restructuring operations (e.g., restructuring to self-managed teams, layoffs, etc.), new technologies, mergers, major collaborations, 'rightsizing', new programs such as Total Quality Management (TQM), re-engineering, etc. Some experts refer to organisational transformation. Often this term designates a fundamental and radical reorientation in the way the organisation operates.'

1.6.3 Definition 3 (Hiatt [14])

'The field of change management can be confusing and sometimes complicated to research and study, especially for new practitioners. Change management is the application of many different ideas from the engineering, business and psychology fields. As changes in organisations have become more frequent and a necessity for survival, the body of knowledge known as 'change management' has also grown to encompass more skills and knowledge from each of these fields of study.

While this may be a good trend overall, the result for many change leaders is growing confusion about what change management really means. To bring this into focus and to make your change management work successful, this tutorial is designed to help explain the history and evolution of change management, and discuss why it is a required competency for today's business operations.'

Within the context of the definitions above, this thesis explores the way in which change management can be affected in a practically significant and relatively painless way and focuses on solutions that are based on respecting the self-affine characteristics that all natural systems exhibit when undergoing change - a 'phase transition'.

1.6.4 Definition 4 (Author)

Cultural change is not about coercion. It is about adding to peoples basic beliefs and inculcating the change(s) within their minds. To achieve this, working within their own value system(s) is paramount. Getting them to 'own' the change, but at
the same time chaperoning the change, is also key. For the change to be permanent, the outcomes must improve their working lives and working conditions.

On the basis of the above, the research methodology adopted for this thesis was based on the following:

- Basic research on Hearts & Minds in the Military theatres.
- Identification of underlying mechanisms and writing of research paper.
- Implementation of Pilot study at FIL to test Needs & Wants.
- Further research to understand linkage with ultimate mission/vision.
- Full implementation at Sun Life using Training Team simultaneously trained from the military.

The fundamental issue concerning this thesis has been to research a method based on the approaches adopted by the military and to reflect on these approaches and to development them into a methodology for use within the commercial arena. This methodology was required to include issues associated with scaling down (by comparison with the scales associated with nation state) to a level appropriate for a commercial organisation undergoing change management.

1.7 Organisation of the thesis

1.7.1 Literature Survey and Analysis (Chapter 2)

This chapter provides a survey of the background literature associated with this work together with an overview of the material that has been published on a 'hearts and minds' approach to managing change. The chapter also provides an analysis of the work published to date that deals with the descriptive, conceptual and applications basis for managing complex organisations undergoing rapid changes in their business portfolio and modus operandi at many to all levels.
CHAPTER 1. INTRODUCTION

1.7.2 Conceptual and Theoretical Background (Chapter 3)

This chapter describes the sources of the problem of failing to achieve permanence. The key steps are described, each of which features a special focus on diagnosis. This chapter discusses the ambiguity between the mechanical focus of change as seen through engineering disciplines e.g. BPR and the human focus on change as seen through psychology. In short, there is no robotic 'process' for successful change.

Using some practical examples of solutions to some difficult problems, the underlying design of these 'interventions' is discussed to demonstrate their support for permanence and the 'Hearts & Minds' techniques.

The traditional solutions offered by 'The Big 5' consulting firms [1] are discussed and some insights given as why these techniques do not offer permanence and more importantly, the business reasons as to why this is not supported by those firms.

1.7.3 Case Study I: Sun Life (Chapter 4)

A Case Study is described, which explains the transformation of Hearts & Minds from a military context into the commercial arena. Background is given on Sun Life including the ODP approach and the pilot study undertaken by the author.

1.7.4 Solutions (Chapter 5)

A comparison between the Theoretical and the Practical Bedrock solutions and a description of the underlying functioning of 'The Big 5' consulting firms.

1.7.5 Case Study II: Wesleyan Assurance (Chapter 6)

One of the key causes of organisational failure - the lack of productivity - is reviewed. The chapter discusses the application of Hearts & Minds, not to a client organisation, but to its service provider. It also discusses the Hearts & Minds implementation of the strategy identified by McKinsey.
1.7. ORGANISATION OF THE THESIS

1.7.6 Case Study III: Energis (Chapter 7)

This case study explains the comprehensive diagnosis and the consequences of halting change after it has started together with the failure, in the wider context, of the corporate organisation itself.

1.7.7 Quantitative Analysis (Chapter 8)

This chapter is devoted to the development of a quantitative model that is designed to gauge the characteristics of a dynamical system. It introduces the principles of self-affine models and the reasons why change management is a scale invariant process.

1.7.8 Summary and Conclusions (Chapter 9)

This final chapter crystallises the entire thesis. It worked for an entire country and it was successfully transformed to change Sun Life, the Wesleyan, a GEC subsidiary, FIL. Hearts & Minds is not a turn of phrase, it is an entire approach and process, with very defined mechanisms, which work within the values of the target audience, not those of the change agents or the Board. This is the key reason why high permanence is achieved with regard to the following points:

1. It fixes problems that are important to the change target audience, not the administrators.
2. It addresses their Needs & Wants.
3. It refocuses management and directors alike into a staff management role.
4. The staff own all the processes.
5. The target audience are always given the opportunity to solve the problem in an empowered, but chaperoned way.
6. There is rigorous programme management of the entire change initiative with constant focus on the critical success factors.
CHAPTER 1. INTRODUCTION

<table>
<thead>
<tr>
<th>Chapter</th>
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| Chapter 1 | Introduction, definitions comparators and exemplars | Chapter 2: Evaluation of Hearts & Minds  
|
| Chapter 2 | Literature review                                 | Chapter 1: Evolution of management approach                |
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| Chapter 7 | Case Study                                        | Chapter 9: Energis Case Study                             |
| Chapter 8 | Quantitative analysis                             | Chapter 9: Evaluation                                    |
| Chapter 9 | Conclusions                                       | All chapters                                              |

Table 1.1: Diagram showing the linkages between chapters of this thesis.

7. Adopt and adapt is widely used and the target audience is given a chance to formulate their solutions.

8. Dignity for all must be maintained at all times.

Table 1.1 shows the linkage between chapters with regard to principal subject matter.
Chapter 2

Literature Review and Analysis

2.1 Introduction

The author initially carried out research in 1991 [15] to understand the underlying mechanisms and then translated them into a form, which could be used in a commercial organisation. This was then trialled at a large organisation [16] with excellent results being achieved subsequently. This literature review examines all published material in an attempt to discover if any other research exists.

Hearts & Minds was adopted by Gerald Templar in the Malayan Emergency. ‘The exact moment at which he first used the phrase ’winning the Hearts & Minds of the people’ does not seem to be officially recorded, but it was very soon after his arrival. It was a telling phrase, and caught on very fast.’ [17] The Malayan emergency lasted from 1948-1960. ‘The shooting side of the business is only 25% of the trouble and the other 75% lies in getting the people of this country behind us’, wrote Templar in November 1952.

The notion of understanding people’s needs and desires; linking those desires to a sensible civil development programme; delivering it without qualification and then undertaking all of this within the culture of the people, not the culture of the change.
agents. Constant intelligence gathering and communication, which avoided propaganda, always took place within the context of the new civil developments and dealing with issues as they arose ensured the success. Years later, Hearts & Minds were deployed again in Southern Oman, known as Dhofar. For many years Operation Storm (1969-1976) was subject to a D-Notice and it was not until after it was completed that the notice was lifted. Operation Storm not only resolved the communist invasion, but also redeveloped a civilisation in sympathy with the values of the country and even managed to turn the communists to be loyal to the Sultan. In effect, it took Hearts & Minds one step beyond the result achieved in Malaya.

Hearts & Minds was used partially in the Gulf War (1991) and also currently in Afghanistan, but in neither case as an overall approach. The only commercial organisation where the techniques have been translated and employed to achieve cultural change is Sun Life. The literature search undertaken for this research revealed that no research exists with regard to the underlying mechanism of Hearts & Minds except that undertaken by the author. The sole person to try to understand the reason for the effectiveness of the Dhofar campaign is Don MacSween [18] whose dissertation gives some insights. A meeting took place on 7th November 2002 with Don MacSween to review his work and insights, none of which covered the underlying psychological mechanisms. Working within the set of beliefs of the target audience was refined in the Dhofar campaign, but again there was no understanding why Hearts & Minds worked or even why it was so effective. All the people interviewed - Change Agents, Planners and Dhofari recipients alike were unaware of the significance of the part they really played and had no overall view. This may be due to the military principle of the need to know, but nevertheless is intriguing.

Using the World Wide Web, a comprehensive search has been undertaken to obtain read and analyse every reference, which emerged, there being some 42, some obscure. An examination of a sample of the articles reviewed by category in the following sections. The entire list of articles and papers is shown in Appendix A. What are the areas to look at? There is widespread use of the term, which can be classified into four categories:

- The Malayan Campaign itself.
2.2. EVALUATION OF HEARTS & MINDS

- Other theatres of war
- Marketing
- Use as a slogan

The Malayan Campaign itself is the definitive description of 'Hearts & Minds'. In the category of 'other theatres of war' attempts have been made to emulate the experiences of Malaya. In the 'marketing category, there is a realisation that people matter and that getting them on side is the key to any success. In the use as a slogan, there is a simple use of the term as a slogan and little else.

2.2 Evaluation of Hearts & Minds

Evaluation of Hearts & Minds approach against other change management approaches is based on an approach which offers real change, which improves the quality of life for the audience and which is sensitive to their own culture, preserving their dignity and leaves them in an empowered position at end of the change process.

2.2.1 NHS

Employment studies in the NHS have focussed on Hearts & Minds in a similar way. For example:

- For people in employment, work is a key part of life.
- The environment we work in influences our health choices and can be a force of improving health - both for individuals and the communities they are part of. Work offers self-esteem, companionship, structure and status as well as income.
- This reduces barriers to work to improve health and reduce inequalities through employment and improves working conditions to reduce the causes of ill health related to work
- Promotes the work environment as a source of better health.
CHAPTER 2. LITERATURE REVIEW AND ANALYSIS

- It also sets out what the will do to become a model employer in supporting and promoting the health of its 1.3 million staff.

2.2.2 Improvements for the Individual: Malaya and Dhofar

The way in which change was achieved in Malaya and Dhofar offered this approach and in effect restored Human Rights, created civil societies with co-operation and duties. In Malaya Templar demanded that newly built villages, where ethnic Chinese were resettled away from the jungles and beyond the reach and influence of the guerrillas, look inviting. Similarly, in reannexing the Dhofar, they civil teams established civil centres, consisting of:

- A Mosque
- Schools
- Medical Centre
- Shops
- Radio Room

Civil Aid also 'brought them back to Islam', because they were ashamed of being left 'Godless' by the communists.

The literature review given in his Chapter does not focus on other change management techniques, e.g. culture change methods. Similar techniques such as Business Process Re-engineering (BPR) and Genba Kanri (GK) are examined later in Chapter 5 (i.e. in terms of 'solutions'.

2.2.3 Disadvantages and limits of Hearts & Minds compared with other approaches

Hearts & Minds is a sincere approach to change, but also takes time - Operation Storm lasted seven years - mainly because Hearts & Minds relies on persuasion not coercion, but also involves rebuilding infrastructure, both of which take time. In business,
markets move and economies change, so that in some cases, high permanence may not be appropriate. The traditional approach delivered by consultants may be better placed, where the change lasts just a short while, before the organisation moves onto new markets or a new vision. In situations where staff turnover is held deliberately high, the value of embarking on long-term change has diminished value. Examples like McDonald's (60% pa) and Call Centres (80% pa), depict how the culture is integrated into the job task, which is either scripted or learnt by rote.

Where the culture is stereotyped, as in the United States, the diversity of cultures does not exist and the sensitivity is not required, because there is a single set of values. Indeed, in this instance, the traditional approach is best suited, because conformity is part of the successful outcome - 'just do it this way'. A reflection against some of the reasons for high permanence of Hearts & Minds also offers some disadvantages or limits compared with other approaches. It fixes problems that are important to the change target audience, not the administrators. Further, Hearts & Minds addresses the needs & wants of the target audience. The main target audience are the people not the administrators or the board. Fast paced businesses offer people jobs on a 'take it or leave it basis'. In other words it is the administrators who matter first and Needs & Wants become redundant.

Hearts & Minds refocuses management and directors alike into a staff management role. In a company failure situation this might mean that the administrators rather than the management are no longer running the company and the staff own all the processes. Ownership of the processes needs to stay with the management according to BPR doctrine, rather than the GK ethos. This can be all about cutting overheads, shortening processes to make the organisation more effective and of course profitable. Hearts & Minds involves a long-term investment and many businesses are not prepared to make such a commitment.

The target audience are always given the opportunity to solve the problem in an empowered, but chaperoned way. Adopt & Adapt is widely used and the target audience is given a chance to formulate their solutions. In some cases there is no time to consider this approach, so that the command & control methods are used as described in Chapter 1, Section 1. This is often the case when commercial organisations are being prepared for merger. There is rigorous programme management of the entire
change initiative with constant focus on the critical success factors which may relate to a merger and therefore long-term investment is not part of the agenda. However, dignity for all must be maintained at all times. Even though employment law is now strict, TUPE\textsuperscript{2} offers businesses a way out and in this case, dignity has no place. The are a number of reflections concerning the key attributes of Hearts & Minds but we conclude this section with the following principal points:

- A simple methodology is preferable to a closed-loop.
- In some situations, conformity may be the order of the day and a closed-loop solution is better suited.
- Hearts & Minds adds to existing beliefs by knowing what is important to people within their value system.
- Conformity is at odds with adding to beliefs/values or indeed sensitivity to peoples beliefs/values.

2.3 The Malayan Campaign

A number of books have been written which focus on how the campaign was conducted. The approach is to catalogue events of what happened, but at no time do they examine the underlying psychological mechanisms. For example, Richard Stubbs [19] describes how the term was defined. The term 'Hearts & Minds' first became associated with counter-guerrilla warfare during the 1948-60 guerrilla war in Malaya. It was the British High Commissioner, General Sir Gerald Templar who, shortly after his arrival in Malaya, in February 1952, coined the term - 'that nauseating phrase I think I invented' - as he was to refer to it some fifteen years after the event when it became popular. He called for a total effort on all fronts - political, economic, cultural, social as well as military - and emphasised that there was no reason to distinguish between peacetime activities of the Government and the Emergency activities. The Government's co-ordinated effort was to be concentrated on gaining the support of the people of Malaya by addressing their grievances and bringing them under the

\textsuperscript{2} The Transfer of Undertakings (Protection of Employment) Regulations 1981
2.3. THE MALAYAN CAMPAIGN

Government's administrative control. The aim was to isolate the guerrillas from the base of support and thus make them vulnerable to the security forces' operations. At the international level such statements as the preamble to UNESCO's Constitution that, 'since war begins the minds of men, it is in the minds of men that the defences of peace must be constructed', had contributed to the notion of the emerging cold war as a 'battle for men's minds'. If one example of what Templar achieved is the redistribution of ethnic minorities in the Home Guard. "The benefits of the Home Guard were considerable. By the end of 1952, the Chinese (the minority) Home Guard of over 50,000 had units in nearly every New Village; in 150 New Villages they were given full responsibility for the defence of their community. The conclusion was that during the three years from the beginning of 1952 to the beginning of 1955, there was a decided shift in the course of the Emergency. For the first time, the Government was able to seize the overall initiative and force the guerrilla's of the Malayan Communist Party, (MCP), guerrilla's back onto the offensive. In a few areas, resettlement had gone well and the development of the New Villages progressed steadily. The buildings and trained personnel for the delivery of social services were put in place, and employment and agricultural land were available. Confidence in the Government increased and a few people were willing to provide information on the local guerrillas and the movements. Using this information, the security forces were able to disrupt the activities of the guerrillas and reduce their effectiveness. This in turn introduced more people to co-operate with Government officials. As the security forces gained in the ascendancy at the local level, surrendered or captured guerrillas provided even more information, and gradually an area became free of active guerrillas and could be declared 'white'.

Much of the credit to what was achieved was attributed to Templar. By using the powers of his dual appointment (High Commissioner and Director of Operations, so he had complete control and was able to direct from a military as well as a political angle), and his strong personality, he gave a tremendous 'lift to morale throughout the Federation and imbued the Security Forces and civil administration with a new spirit and a will to win'. Certainly, Templar provided much needed leadership and in the process gave form and substance to the Hearts & Minds strategy. The only shortfall in Templar's work was that the scope of his strategy did not extend to the MCP
guerrillas themselves. Indeed, their leadership was never captured and as recently as 2000 gave an interview to the BBC [20] from their base in Thailand, where they still reside to this day.

By 1955 the Communists sent a letter to negotiate and the top Red Leaders came out of the jungle for talks at Bailing. The top man was Chin Peng of the MCP, Chan Tien - a top jungle guerrilla since 1942 and Rashid Maideen. Chin Peng was still at large and probably in Thailand at the end of the Emergency in 1960. Also at large right to the end were Wu Tien Wang, a propaganda expert, and two other terrorists, (both women) - Ng Sui Oi and Eng Meng Ching, both fully versed in jungle tactics and both handy with a gun. Years later in the Dhofar campaign, the Hearts & Minds strategy was extended to also winning over the communist terrorists to be loyal to the Sultan.

Simon Smith [21] includes critical views in his examination of Templar's Hearts & Minds campaign. For example, he quotes Karl Hack's [22] opinion, 'concentration on population control was the decisive factor in the counter-insurgency campaign'. Hack suggested that the real credit lay with Templar’s predecessor for this undertaking and tries to suggest that population control was the main reason for the success. British accounts of the Malayan Emergency argue intelligence underwent a major transformation in 1952-54, as part of a campaign-winning infusion of new leadership. This article uses the recent statements of Chin Peng, Secretary General of the MCP from 1947, to construct a contrasting Communist analysis. One which sees the insurgent campaign as flagging by 1951, before intelligence reached its peak. It then tries to reconcile these contradictory British and Communist narratives. In so doing, it suggests a more incremental pattern of intelligence development. A pattern which was punctured by occasional efficiency boosting leaps forward, following key events such as the systemisation of ‘population control’, and various leadership changes.

2.4 Other theatres of war

The current campaign in Afghanistan has generated a number of comparisons with Malaya and the Dhofar. Michael Smith [23] wrote: "The repeated use of the word "war" to describe the US-led campaign against terrorism has given a false impression
2.4. OTHER THEATRES OF WAR

of what lies ahead. To understand it you have to forget the Gulf War and think instead of the British campaigns against insurgents in Malaya and Oman. There is no doubt that unless the Taliban hands over Osama bin Laden, America and possibly other allies such as Britain will attack its bases or positions on the front line with the opposition Northern Alliance. That initial attack is likely to come "sooner rather than later", senior defence sources say. The Taliban is being given time to think again about whether or not it should hand over bin Laden, but "not unlimited time". But even when the attack does come, it will be a "precision strike" followed by yet another period during which the Taliban will be given pause for thought. Meanwhile, more subtle military action will be taking place on the ground. Defence sources have compared the coming war to those fought in Malaya and Oman. These were remarkable British successes, and the way in which they were achieved gives a much better sense of how this new war will be fought.'

John McBeth in his article [24] describes how Megawati Sukarnoputri - the new President of Indonesia has made plain her intent to crush rebels and that most of the armed forces just don't see any point in winning people's trust and support. He quotes the Chief of Territorial Affairs - Lieutenant General Agus Widjojo, 'it's 'confusing' to instruct soldiers in human rights when their job is to learn war fighting skills. Instead, it is up to individual offices to explain how to treat civilians.' He goes further, 'The military's failure to emphasise Hearts & Minds is not a simple issue. There is a glimmer of hope. The military dispatched 1,100 specially trained fighters to the province of Aceh. Previously the image of Special Forces has suffered because of rampant abuses. Civil action should be an integral part of such specialised unit's training. In Indonesia it is ignored. With the recent events in Bali, these new initiatives will be needed to hunt down the perpetrators with the help of the local population. The last batch of troops sent into the province was lectured on how to treat civilians and why it was important not to burn down houses - a common tactic. Human-rights workers and other observers say the new unit has indeed behaved with restraint. In some cases people give food and water to the soldiers.'

'Columbia has a reputation for narcotics, violence, debt, ignorance and xenophobia', says David Knott [25], who describes guerrilla attacks on the gas and oil pipelines and how their Chief Executive is 'leading a 'Hearts & Minds' campaign, placing BP in
direct competition with the guerrillas for loyalty of local people. Like any successful general, David Harding - the Chief Executive of BP in Latin America - is leading a 'Hearts & Minds' campaign, placing BP in direct competition with the guerrillas for loyalty of local people. BP had problems protecting seismic crews in early surveys in Cusiana and Cupiagua. Rather than move to foreign contractors to do the work, BP encouraged contractors to set up local joint ventures involving Colombians, which was a good way of getting wealth into local communities. Locals have a vested interest in the work being carried out.' Like one aspect of Hearts & Minds, this approach does recognise the needs of the local population, but goes no further.

The suppression of democracy is a major inhibitor to Hearts & Minds, because it engenders propaganda. Tony Callaghan and Rohan Jayasekera [26] explain that since the US-led air assault on Afghanistan, the BBC claims that before the current crisis more than 60% of the population listened to the World Service broadcasts in Pashto and Persian. This triggered the US government into launching 'Commando Solo', which used airborne radio broadcasting. The US government complained about the balance of a local station - Radio Voice of Sharia and responded by destroying their offices with an airstrike, thus undermining the establishing of democracy. In the Dhofar, when the communists set up radio stations to broadcast to Southern Oman, Special Forces were instrumental in procuring radio sets for the population and deliberately encouraged them to listen to the enemy broadcasts. This resulted in two outcomes:

1. The Dhofaris quickly realised that the promises of the Communists could never be delivered, so they stopped listening.

2. They could make money by selling the free radios. The suppression which has taken place in Afghanistan never works.

In Vietnam, the US government learnt too late in that campaign that Hearts & Minds was vital and that military and civilian efforts need to be integrated. By the time the necessary co-ordination was established, termed CORDS [27], the political war had been lost. The rehabilitation and resettlement of refugees is now one of the most pressing issues in the world today and Rwanda [28] is no exception. A quarter
of the population remains in neighbouring countries and a further 350,000 to 500,000 are internally displaced people (IDPs), refugees within the country. The present government wants the refugees resettled as soon as possible, but this is at odds with the United Nations. An example of this was in November 1994, when troops forced refugees from the camps in Musenge and set fire to shelters. The United Nations said that pushing people back before local authorities are ready to receive them will only relocate the security problem. This type of approach has nothing to do with Hearts & Minds.

Reforms after the 1989 collapse of the Berlin Wall in Eastern Europe are another source for the application of Hearts & Minds. Voytech Cepl [29] examines the metamorphosis of the rules of human conduct. He begins with quoting Ralf Dahrendorf: 'It will take six months to reform the political systems, six years to change the economic systems and sixty years to effect a revolution in peoples' Hearts & Minds.' He addresses the third aspect of the transformation, which is similar to Michael Novak's concept of moral culture, referring to it either as Hearts & Minds, the rules of human conduct or the people's values. The crux of his argument is that without condemnation, lustration and restitution, there can be no transformation. Described in his, 'Metamorphosis of the Rules of Human Conduct' are a number of interesting factors, which also face Hearts & Minds. Firstly, that 'the rules of human conduct consist of the very norms that exist in the minds of the people and are the basis for their day-to-day behaviour and their shared values.' Secondly, 'rules of human conduct are learned by observing societal conduct and are not changed by amendments to legal texts, but only by people actually modifying their behaviour.' Voytech Cepl is a Justice of the Constitutional Court of the Czech Republic and this shows through in his description of the 'Ritual Purification: Changing the Moral Culture'. His description of Condemnation, Lustration and Restitution is not unlike the peace and reconciliation process adopted in South Africa. What does this to do with Hearts & Minds? Firstly, it does not use those mechanisms; but it does parallel the same type of challenges that were represented by Malaya and Dhofar. In contrast with the Dhofar, the old Sultan, who was deposed in a bloodless coup, deliberately prevented modernisation, there were no medicines and he even went to the extreme of sealing water wells. This eventually set his own people against him, so that Southern Oman was easy pray for annexing
by the communists from the Yemen. There does need to be fundamental changes to social behaviour, but this also needs to be done with dignity. The Surrendered Enemy Personnel (SEP) policy was clever and involved public surrender of weapons in front of the battalions, (firqats), quickly followed by the pledging of loyalty to the Sultan, admission to the battalion and the reward of a brand new Armalite rifle. Unlike Cepl's view, it did not take the Dhofaris long to become 'civilised' and forget about their treatment of the old feudal ruler. Indeed, each battalion had a Training Team, (termed the BATT - British Army Training Team), not only to teach them modern fighting techniques, improve health care and more importantly improve veterinarian care, but also to provide icons on which they based their own new behaviour. These 'trainers' never became members of the battalions, but were their guests and worked within their culture and values. They also remained Christians, but deeply respected the Koran in everything.

The opposite of Hearts & Minds can often be indoctrination and the willingness to employ dictatorial methods. A study [30] of Martin Luther during the German reformation illustrated the futility of this, 'no matter how harshly they lay down the law or how violently they rage, they can do no more than force people to obey with the mouth and the hand. The heart they cannot in anyway compel.' Francine Fitzgerald [31] illustrates when the unacceptable culture is the better. 'It has become only too clear than the neo-colonial forces in Angola led by Holden Roberto have failed to win the Hearts & Minds of the original Angolans. Whether or not their political philosophy is agreeable, or Marxist led MPLA, seems to promise a better life for all, and the MPLA seems best to express Angolan nationalism.' Further, Gloria Flemmerson [32] states that: 'The efforts of Holden Roberto and his FNLA forces are severely hampered by the corruption evident everywhere in his organisation. "Who wants to fight in such a war and for such leaders?" asked a young FNLA trooper. We just want to go home and live.'

2.5 Marketing

In 1988, 'Innovate or Die' was the theme of the chartered Institute of Personnel and Development (IPD) Annual Conference. 'The focus was on learning, knowledge and
innovation - all of which depend on engaging people's Hearts & Minds.' [33] This conference skirted around Hearts & Minds, it talked about maximising brainpower (Arie de Geus); intellectual capital (Tony Hope); '70% of the learning should come from outside your industry boundaries' (Gary Hamel); learning styles (Jay Conger); learning communities (de Geus). There was nothing about working within the values of the target audience, needs and wants, on overall vision. The only remotely relevant aspects were McDonald's, who applied marketing and branding principles to align the HR treatment of their staff to the brand being delivered by the staff to customers. British Airways (BA) gave some insights into their 1987 cabin crew strike, summarised as an 'inconsistency between the external and internal approach of BA.'

Alan Mitchell [34] says that, 'more companies are recognising that brand promises are being delivered by people rather than products. But they must ensure that customer service is not just skin deep and that employees bring their Hearts & Minds to work.' He compares and contrasts two approaches adopted by British Airways and Marks & Spencer. Essentially, the BA approach is predicated on the principle that those who deliver service must believe in the way. He describes this as 'train our crews out of their ability to be themselves' and 'to provide their own spontaneous service which treats passengers as individuals.' By contrast, Marks & Spencer (M & S) does not have a marketing department. They use an approach, which reflects its own internal culture and values. The BA approach borders on Hearts & Minds, because the service delivery is personalised. The danger for M & S is that their own culture and values may be at odds to its customers, especially since a key principle of hearts of minds is that the values of the target audience always takes precedence over those of the facilitator or deliverer. Although now commercially recovering, this approach was probably responsible for trying to sell clothes that no body wanted and the institutionalised surliness was also out of sync with social trends, aided and abetted by a strong centralised organisation.

One interesting example of where an attempt has been made to embrace a target audience using the values of that audience were BT's local partnership campaigns [35], which was described, 'as much about staff development as about winning the Hearts & Minds of targeted market sector.' This involved addressing two communications requirements. It promotes BT and actively sells its products and services to the
local business and residential community, but using a weekly draft of 250 volunteer staff, drawn from across the country and consisting of those not normally involved with customers. The key point is that, 'the volunteers meet customers, actually face people and the value to them as a development exercise where they see what it's like at the sharp end and get an idea of what the end product is.' When Nissan [36] decided to locate in Washington in the North east of England, they approached their entry into the area as a Hearts & Minds marketing campaign, staging a five-week Japanese Festival. In effect, this was a staged event which included karaoke, flower arranging, calligraphy and martial arts. It was really about promoting the Japanese culture. It was the largest arts event in the North - East for years. The Nissan plant was already located in an area of high unemployment, (22%), so convincing people to take jobs was not a challenge. Once Nissan arrived, they were quickly followed from Japan by many of their JIT [37] suppliers, so that eventually over 5,000 people would be employed. Today, with the second plant having been built at Nissan, the average number they alone employ is 4,500.

An example of public relations posing as Hearts & Minds is the stance adopted by the nuclear industry. Roger Hayes [38] said, 'that it is from the starting point of culture and imagery that the nuclear industry must carefully examine its communications campaigns, in the battle to win Hearts & Minds.' He pleads for the lack of balance in public perceptions, but essentially he is discussing propaganda, not Hearts & Minds. Unlike propaganda, a fundamental aspect of Hearts & Minds is not to replace people's beliefs, but rather add to them by persuasion and argument. He says, 'The second prong of our strategy should be to focus on the positives, while taking care to defend the negatives.' Hearts & Minds ensures that both are reported to the target audience in truth and without distortion. He pleads discrimination, 'the oil industry is not constantly telling us why the Exxon Valdez or Torrey Canyon tanker disasters will not be repeated.' He makes an attempt about how nuclear power can be part of the solution to the environmental problems of the 21st century, but quickly falls back into public perceptions. The fact of the matter is that the public does discriminate against technology and the antidote to this is education in an honest way. If he had set out the needs and wants, discussed how they would be provided and linked them to an overall goal, this would be plausible Hearts & Minds. He failed
2.6 Use as a Slogan

British Airways staged their £25 million relaunch of Club Class, in London’s Olympia. It was a public relations event using multimedia and attended by 6000 delegates, lasting over six days, yet it was described [39] in the following way. ‘With airlines locked in battle for the lucrative allegiance of the business traveller, BA has launched a major offensive for the Hearts & Minds of European club class market.’ This event did not address the values or needs or indeed any of the Hearts & Minds factors.

A more extreme example is foreign scholarships and foreign policy described by Jim Courter [40]. He discusses the implementation of the US Scholarship Programme for Developing Countries Act and has nothing to do with Hearts & Minds. He simply uses the slogan in the title to attract attention. In a similar way, Chris Warhurst and Paul Thompson [41] entitle their paper, ‘Hands, Hearts & Minds: Changing Work and Workers at the End of the Century’ to catch the eye. The only real relevance is at the beginning they say, ‘Charles Handy has argued that we do not have ”hands” in today’s organisations. The popular view is that organisations are opting, by choice or necessity, to engage with Hearts & Minds instead.’ This is a catalogue of Charles Handy’s work culminating in the notion of the portfolio worker.

Norman Mineta [42] describes the dismantling of discrimination in America against Asian Pacific Americans, (Japanese Americans). He does not discuss values and needs or the wider vision, but just uses a sole reference, ‘while changing the laws is difficult, the process of changing minds, hearts and stereotypes is even harder.’ Clare Bellingham’s article [43] on the introduction of electronic prescription of medicines in hospitals is another example of using the term Hearts & Minds to catch the reader’s attention. There is only a single reference to the term, which at the very end, in the context of introducing a new system.

The preparation for the de-mutualisation of the Prudential Financial Co. is no different. The term once again is used in the title [44] of the article, which is about how to address business literacy of the entire workforce using a method of pictorial representation. Some aspects described did have a correlation, by accident with
Hearts & Minds, notable the community meetings and two-way communication with the workforce. The adoption of a community policing programme in Chicago [45], known as CAPS (Chicago Alternative Policing Strategy), was based on the principle that 'community policing is frequently a battle for Hearts & Minds of police officers.' CAPS were launched in 1993, but the results of a survey indicated that 'officers were very ambivalent about community policing in Chicago. At the outset, officers expressed only moderate enthusiasm for involving themselves in solving non-crime problems.' The survey did highlight real problems:

- less than one half of those surveyed felt deep personal involvement in their present positions;
- the data suggests the importance of the department examining the attitude and feeling of staff before implementing community policing;
- it would be useful to assess officers' relationships with peers and management as well as factors concerning job satisfaction to programme implementation.

The conclusion was that CAPS was not a success because no attention was paid to the Hearts & Minds of the organisation itself, which was attempting to implement CAPS. In this case whilst the slogan is used again, there is a recognition that the attitudes and feelings of staff are important, as is the means by which they are managed and motivated. Having said that, there is no articulation of any of the underlying psychological mechanisms.
Chapter 3

Conceptual and Theoretical Background

3.1 Introduction

In this chapter, we consider the basic concepts associated with the remit of this thesis. We start by considering a set of questions followed by a succinct list of possible answers, which are based on presentation delivered at the Blessing White Annual Conference [46].

In the original research [47] provided a succinct description of what Hearts & Minds is not:

*Hearts & Minds is not coercion, it is founded on persuasion. In other words, it is not dictatorship; it is not ordering, it is the changing of attitudes, it is appealing to people, it is motivating people to do things differently, it is opening their minds. Above all, it is getting people to do things differently, because they are convinced and because they want to do it. A successful conclusion occurs when the people have identified with the new ideas, they have assimilated them and they have internalised the ideas to become additional to their own set of beliefs.*
3.1.1 What is Hearts & Minds?

The answer to this question is encapsulated in the following key attributes aimed at a novice audience:

- A simple methodology, not a closed-loop process
- Adding to existing beliefs
- Knowing what is important to people (within their value system)
- Communicating in a consistent and all embracing way
- Awareness gathering for honest progress measurement
- Activation through a Training Team
- A means to achieving a macro vision

3.1.2 What is a Training Team?

- Not being there when not wanted
- Being there when it counts and sharing the accountability with the people
- Infusing scarce Knowledge, Experience and Skills (KES)
- Target role models in terms of KES and culture
- Located in a central point where people can visit on demand
- Working alongside departments, but without membership

3.1.3 Some Benefits

- Performance through belief
- Internalised change
- Avoids cognitive dissonance
3.1. **INTRODUCTION**

- Constant feedback with regard to sampling
- Focus on target value system
- The object is self-sufficiency
- Turnaround rather than dispensing
- Uniquely proven and reliable

3.1.4 **Hearts & Minds Implementation**

The Sun Life deployment mimicked the military experience in the Dhofar as far as possible. In the Dhofar, the change agents were called BATT (British Army Training Team), these teams of soldiers worked alongside the tribal groups - the Firqats (which, translated from the Arabic, means 'Battalion') - see Figure 3.1. This role was very difficult to classify, since it neither actually carried out work for the firqats; it was not a consulting role and did not involve membership of the firqat. However, the BATT fought alongside the firqat, who they trained; otherwise they remained at a distance occupying BATT houses, where the firqats came to visit them, which was reciprocated. When decisions had to be made the BATT always worked within the culture of the firqats, (the target culture) seeking traditional audiences with the leaders.

Transforming this role into the commercial arena, meant that the skills shortfall took priority over culture change experience of the change agents.

The skills selected covered:

- Design
- Quality
- Requirements
- Teambuilding
- Financial control
Figure 3.1: Example of Firqat training.


3.1. **INTRODUCTION**

- Technology intellect

It was known that the target audience were very resistant to change. Over the last 10 years, their track record had been abysmal. This had not been helped by the overuse of consultants, who came and went and did the work for them. Further, very little learning had taken place. To ensure that the onus for change was vested in the target audience, an intervention technique was devised whereby the specific task was described in a project brief, which was given to the chosen team, who were then supported by an ITTT\(^1\) member. In design terms, the target teams were not involved in electing the task, but were given great freedom on how it was tackled. They were given no choice regards delegating and ownership remained with them. The ITTT member could advise, was always present throughout and usually embarked on skills transfer. The author spent much time refining the project briefs, so that they were self contained, accurate and the team could be consistently referred back to the brief to ensure focus.

The deployment of the ITTT mirrored closely the BATT in respect of the firqats. The ITTT had an office not a house, they worked along side their target departments and teams, [which always featured a diagonal cross-section of the division]. At critical stages of the migration programme being undertaken, they were always present. The same was true when the staff undertook culture change initiatives e.g. team building. Due to time constraints, the ITTT were trained in parallel with learning their own role, this being done along similar lines as their own change target audiences. Following the mimicking of BATT, they received various briefings about Hearts & Minds and used the research paper as a reference document. They also worked with intelligence and communications practitioners, (the latter who was engaged in that role during Operation Storm). This learning culminated in an Omani evening, to which the architect of the civil reconstruction programme attended together with a former firqat member, who subsequently became the Military Attaché in the London. The ITTT learnt the context of the overall mission - i.e. that Hearts & Minds must have an objective. Yes, the war in the Dhofar had to be won, but why? The ultimate reason was to bring about a civilian modernisation programme - the building of roads,

\(^1\)IT Training Team - the commercial equivalent of BATT
### H & M

<table>
<thead>
<tr>
<th>WHAT IS THE OBJECTIVE?</th>
<th>&quot;YOUR SITUATION&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIVIL DEVELOPMENT PROGRAMME</td>
<td>SUN LIFE &quot;VISION&quot;</td>
</tr>
<tr>
<td>NEEDS &amp; WANTS</td>
<td>YOUR OWN</td>
</tr>
<tr>
<td>INTELLIGENCE</td>
<td>ONLY AWARENESS (NO ENEMY)</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>AS IS</td>
</tr>
<tr>
<td>TRAINING TEAM</td>
<td>KEY MAGIC CIRCLE PLAYERS</td>
</tr>
<tr>
<td>RAISING FIRQUATS LOYAL TO THE SULTAN</td>
<td>RAISING YOUR DEPARTMENTS LOYAL TO VISION / ODP, ETC.</td>
</tr>
<tr>
<td>SEP's</td>
<td>= BORROW THE SAME APPROACH FOR &quot;CONVERTS&quot;</td>
</tr>
</tbody>
</table>

Figure 3.2: Table illustrating the Hearts & Minds objectives and the commercial equivalent - "Your situation".

hospitals, schools and universities. Permanent solutions to the so-called needs - e.g. the lack of drinking water, veterinary care also had to be implemented.

One member of the ITTT had served with the BATT in the Dhofar, who assisted in the familiarity with their role. Gradually their role became clear, so that they mimicked the BATT and operated effectively. The position of the role within Hearts & Minds is shown in Figure 3.2, which shows commercial equivalents under 'Your Situation': This was the original table used by the ITTT to brief the middle management team [termed the Magic Circle] for the handover of the ITTT role.

### 3.2 The other elements

#### 3.2.1 Sun Life Vision

The IT Division formulated its own vision (equiv. Mission Statement), which was a subset and which supported all the IT aspects that the corporate Vision needed to succeed. In turn the IT Division’s Mission Statement was cascaded down into each
3.2. THE OTHER ELEMENTS

Department, who identified their own contribution and then ultimately down to a personal level, in the form of appraisal objectives, where the values were given a 50% weighting.

3.2.2 Needs & Wants

Openness was the order of the day. This was published and the Top Team tasked in an inverted hierarchical way to deliver at all costs to their staff. Staff were frequently given opportunity to give feedback on the performance of their management regards the delivery. At first management found this both odd and threatening, but power was used wisely by all and delivery was achieved and gratefully received.

3.2.3 Intelligence and Information

Refuge was taken in kaizen, i.e. the staff who operate their processes also own them. In other words, these functions were self-administrated by the target audience under review. This dispelled any fears that they were being spied on, because they were observing themselves; they learnt a reoccurring theme - 'use power wisely', because the Awareness Team had direct access to the author when a key problem arose. Sometimes, their own colleagues tried to encourage the Awareness Team to abuse that power, but without success. Equally, the Communications Team was given privileged access to 99% of Top Management reports and again quickly learnt to use power wisely. Neither of these teams ever let the Top Team down.

One of the projects was to devise a monthly communications meeting, which at first was facilitated by the Top Team, but then handed over entirely to the Communications Team. Diagonal Cross-sectional teams were used throughout with single status. Mentors were employed from the Dhofar to coach these two teams with very good results. In particular, communication in Hearts & Minds is very key; here is how the Mission statement/Strategic Objectives/Values are inter-related:

- The mission statement - needs to be reflected in everything communicated
- What we communicate - needs to be in the context of the strategic objectives
- How we communicate - must always conform to the new values
Appendix B shows an example leaflet used in the Dhofar. The reference to the Quran is evidence of respect and wording in the target audience; the tone is not propagandist; it is inviting and endearing; it is also written in the spirit of the firqat culture of the target audience. The author adapted the final strap line into the following:

Sun Life Vision is our Aim; the ODP is our Way

3.2.4 Loyalty to Sun Life Vision

Whenever there was an opportunity to show real loyalty to the corporate vision - it was taken. Very soon other divisions wanted the attention that the IT Division's staff enjoyed and quickly their fawning of the vision was exposed. The Customer Service Division became an interesting control group, whose culture change was being driven by McKinsey.

3.2.5 Converts

The diagram (Figure 3.3) below depicts the four typical groups; the Y-axis increases in measure from bottom to top; the X-axis increases left to right. The benefit of the 'cynic' is that it is identical to the 'player' except power is negative, so the challenge is to reverse their polarity from negative power to positive. Cynics can engender enormous resentment along their roadmap to conversion, so careful public ceremony is needed where deed not word is demonstrated in a very public way. This was one of the key aspects in the Dhofar. When the enemy decided to switch their loyalty to the Sultan, SEPs\textsuperscript{2} individually handed over their AK-47 before the assembled Firqat and was then welcomed into the fold by being presented with a brand new Armalite. These events addressed the emotional side of the conversion. South Africa's Truth and Reconciliation Commission served as a Model of Peace Education in a similar way to aiding the 'healing process', sadly forgotten in post-IRA Northern Ireland.

\textsuperscript{2}Surrendered Enemy Personnel.
3.2. THE OTHER ELEMENTS

3.2.6 The critical attributes

Hearts & Minds offers some unique attributes, which are summarised as follows:

1. Working within the target culture, but importing new ideas

2. Incremental belief, not replacement

3. Constant awareness not infrequent sampling e.g. Attitude Surveys

4. Careful diagnosis

5. Honest and open communication including details unsupportive of the cause

6. Everything focussed on a better life

7. Unique Training Team role

8. Dignified handling of converts to the cause

Figure 3.3: Diagram illustrating for typical group
CHAPTER 3. CONCEPTUAL AND THEORETICAL BACKGROUND

3.3 Lack of Permanence

Conventional methods often use rote learning and avoid addressing belief. These methods also offer no link between the situation of the target audience and resolving their problems. Further, in commercial terms there is no focus on achieving the mission. Under those circumstances, people often participate to achieve 'a tick in the box', but little else. Often such initiatives come and they go and are quickly forgotten.

To participate, staff often learn by rote and as such their understanding is minimal. In Chapter 5 the approaches of 'the Big 5' are explored including their vested interest for a lack of permanence. In order to achieve permanence, a number of techniques were deployed, using Hearts & Minds as the foundation.

One of the most important aspects is to avoid intrusion into core beliefs, the most obvious example being religion. In a similar way to kaizen, people will quickly be persuaded if their lot can be improved. 'Kaizen offers doing the same amount of work with less effort' [47]. In a similar way, all the results of the needs survey must be delivered 100% without fail. Unless this is done, change will not occur; permanence will develop if these changes are maintained. As can be seen in Iraq at present, if drinking water and electricity are not supplied on a consistent basis, 'the new way' will not become the preferred choice over the former Saddam regime. Many politicians do not understand this.

The learning approaches employed were also key [48]. The ODP [49] was presented at the annual Blessing White Conference in June 1994 and many of the innovative approaches attracted much interest, notably:

1. Crew Chiefing
2. Action Learning
3. Coaching
4. Discovery Learning
5. Situational Training
6. Adopt & Adapt (inc. the use of outside organisations)
3.3. *LACK OF PERMANENCE*

7. Business Centres
8. Transactional Analysis
9. Women-into-Management
10. Self-motivation training

**Crew Chiefing** delivers good permanence, because it restores pride through building emotional ownership with the task and injects continuous improvement.

**Action learning** is the brainchild of Reginald Revans [50], who said,

*"There is no learning without action and no action without learning"*

Action learning involves working on real problems, focussing on the learning required and actually implementing solutions. Action learning is heavily focussed and facilitated by a coach. It offers permanence because it is usually deployed on critical problems in an organisation, which people tend not to forget. Action learning is very effective at the start of an organisational change programme.

**Coaching** - there is a ‘thin-line’ between coaching, counselling and mentoring. In a culture change situation, most subjects are familiar with the task, but hesitation or lack of confidence are the main issues to be addressed. As a minimum - the mere presence of the change agent is sufficient; as a maximum - a discussion on fear. Perhaps the best example was the ‘Communicating Upwards’ project, which addressed the reversal of long-term segregation of staff/middle management/senior management, which involved coaching the staff to talk to anyone.

**Discovery Learning** provides perhaps the most sustained from of learning, which arises from the need to discover the solution to how a proposition works. It does require the correct proposition, which is often prescriptive and close and frequent coaching is needed at initiation to address disorientation and/or apparent non-relevance.
Situational Training refers not to a style of customer service training, where different situations are role played with video feedback, but the use of target situations into which subjects can be introduced. Often being the minority and perceiving the norm from the owners of the process in a kaizen way is sufficient to persuade the subjects that the new way on offer has merit. This can be used either as 'an ice-breaker' or linked to Adopt & Adapt interventions.

Adopt & Adapt delivers good permanence and fluency, because it involves choosing the topic from another organisation which not only practices the function, but is also an icon in that respect. The permanence comes from two sources, 1) the realisation that the change is the norm and 2) the adapting from the outside into the organisation requires in itself some invention, which generates ownership.

Business Centres were invented by John Watson [52] at British Airways. This organisational structure enables each part of the business to be serviced by its own dedicated IT team, while still working to the IT strategy. The partnering behaviours are key, which focus on mutual objectives. The permanence arises from the resolution of the conflict between IT and its Users and working in partnership, which is ongoing.

Transactional Analysis when used in an analytical way rather than a newly trained behaviour, enables participants to realise themselves. It is particularly useful for middle management and helps reposition their new roles. Consequently, it offers good permanence, when used in this way. Transactional Analysis is a theory developed by Dr Eric Nerne in the 1950's who wanted a theory, which could be understood and available to everyone and began to develop what came to be called Transactional Analysis (TA). TA is a social psychological method to improve communication. The theory outlines how we have developed and treat ourselves, how we relate and communicate with others, and offers suggestions and interventions which will enable us to change and grow. TA is underpinned by the philosophy that people can change and we all have a right to be in the world and be accepted.

Women-into-Management was one of the challenges of the 1990's arising from
3.4. EMPOWERMENT

the Sex Discrimination Act. At Sun Life, this came down to exposure to a series of icons and then devising a course for women to assist them in finding their own style and breaking any stereotypes in the process. It also offered a very high degree of permanence.

**Self-motivation training.** In a similar way to transactional analysis, this focussed each participant on realising their full potential and to some extent restoring dignity and confidence. So often, people use the absence of tools as a reason for not completing tasks, but when they learn self-reliance and making the best use of their resources, they become more confident and more powerful. This realisation is often a turning point in their lives and hence the permanence is extremely high.

### 3.4 Empowerment

Empowerment is a rather ambiguous term but one of its original concepts was developed in [51], [52]:

'We only suggest when we are not permitted to do. The word 'empowerment' has become something of a cliche in organisations. It often seems that there are now many 'empowered' people in companies who cannot actually do anything'

Before Hearts & Minds was deployed at Sun Life, a Climate Survey [53] was undertaken, which measured how the IT Division (then called MSD) saw themselves and how their customers (Users) viewed them. The questionnaire appears in Appendix G. The results are shown in Figure 3.4. MSD is the IT Division and ‘Users’ are their customers. The Litwin and Stringer scales (e.g. A, WQ, CoR) are also explained in Appendix G. Here, ‘P’ represents, as an average, where subjects thought the organisation is at Present; ‘I’ refers (again, as an average) to Ideally, where subjects

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3 An Act to render unlawful certain kinds of sex discrimination and discrimination on the ground of marriage and establish a Commission with the function of working towards the elimination of such discrimination and promoting equality of opportunity between men and women generally and for related purposes (12th November, 1975).
CHAPTER 3. CONCEPTUAL AND THEORETICAL BACKGROUND

MSD AND USERS COMPARISON

MSD

<table>
<thead>
<tr>
<th>A</th>
<th>WQ</th>
<th>CR</th>
<th>FR</th>
<th>NFR</th>
<th>OC</th>
<th>PP</th>
<th>GP</th>
<th>LC</th>
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<td>62.95</td>
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<td>33</td>
<td>5.56</td>
<td>45</td>
<td>27</td>
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</tr>
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<td>9</td>
<td>8</td>
<td>2</td>
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Users

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Figure 3.4: Comparison between MSD (IT division) and users.

would like the organisation to be positioned. The 'Difference' is the variance between the 'P' and 'T' scores for each attribute. The rank order is the difference between the 'P' and 'T', starting with the highest value. Some abnormally high variances\(^4\) between where people thought they should be and their current position were recorded, these being shown below:

- Clarity of Responsibility (5.8)
- Organisational Clarity (5.6)
- Leadership (5.4)

Additionally, the Users also added Adaptiveness (5.1). For calibration purposes these results were also compared against a battery of 16 other organisations, whose sample sizes ranged from 11 to 183. These organisations were both private and public sector.

\(^4\)At the time, the largest ever recorded
3.4. EMPOWERMENT

Past history showed, that the target audience were very resistant to change, it was also diagnosed that dignity had been lost. The challenge of the migration programme with which they were engaged was daunting and the software was undocumented to ensure job security. Over the last 10 years, their track record had been poor and a form of laziness had developed. This was further reinforced by the overuse of consultants, who came and went and did the work for them. A very old organisational structure existed, which had been modelled along civil service lines, where nobody took ownership, initiative or leadership. Further, very little learning had taken place and due to the geographical location of Bristol in the ‘South-West Windsock’; which exaggerated a lower level of awareness of worldly things.

To ensure that the onus for change was vested in the target audience an intervention technique was used whereby the specific task was described in a project brief, which was given to the chosen team, who were then supported by an ITTT member. In design terms, the target team were not involved in electing the task, but were given great freedom on how it was tackled. Whenever, they hesitated, they were taken to reference organisations without choice. In other words, they were only ever empowered to execute project briefs and any form of delegation was denied, so that ownership always remained with them. As in the Dhofar, the ITTT member could advise, but not do, he/she was always in attendance throughout and usually embarked on skills transfer. The author spent much time refining the project briefs, so that they were self-contained, accurate and the team could be consistently referred back to the brief to ensure focus. Encouraging initiative taking and empowerment was a challenge. David Gilbert-Smith at The Leadership Trust, who used them in a so-called ‘walk-away’ fashion, originally devised the format of these project briefs. This meant that all the information the team needed to accomplish was contained in the project brief. This enabled the facilitator to focus on the group dynamics. The reliability of this method was high having been used on at least 120 instances per year over a ten year period.

5800 man-years, 9 million lines of code, at the time - the largest DB/2 database conversion in the entire world.
3.5 A set of example problems

3.5.1 Solving the overnight batch

The only event, which was not detected by the diagnostic phase, was the failure of the overnight batch. Previously the power supply problems had halted the year-end run on Christmas Eve, which revealed that the Datacentre's 'perfect budgets' had been achieved through the cancellation of approved capital equipment as in the case the motor alternator. This however this was of secondary importance. The incident revealed not only a lack of management ownership, but also a lack of passion in performing duties, in other words a lack of emotional ownership. A combination of Crew Chiefing\(^6\) and kaizen were deployed to address the power supply and printing problems and emotional ownership using icons was introduced as well as self-measurement borrowed from kaizen.

This still left the problem of the overnight batch. Without exaggeration, it had been failing almost every night for over 10 years. With such a long duration, the rest of the company had become conditioned to that situation. One of the major impacts was that business operations always started late, simply because the key printouts were never available on time. This problem had a number of components. Firstly, Computer Operations and Programming Support did not work together; secondly, there was no pre-planning. Thirdly, the failure had become a form of status and lastly pride had long evaporated.

3.5.2 Self identification of empowerment by Middle management

The middle management over the years had found itself almost redundant. They provided no leadership to the staff; although they were the thought leaders, they were granted very little respect by the senior management. The entire company blamed them for the past two failures of the migration programme and last but not least, they were trapped in a very hierarchical organisation, where they were powerless.

\(^6\)Emotional owner - loving care of the equipment, so that nothing ever went wrong, personally accountable for the aircraft, which his crew customised
3.5. A SET OF EXAMPLE PROBLEMS

3.5.3 Partnership with the business

Like many organisations, the relationship between the business and IT had broken down. The IT Division had not delivered new applications for 10 years; there were the past two migration programmes. Further, the relationship was highly bureaucratised and communication normally took place in committee. The business provided most of the leadership and proper governance did not exist. The Users had tried to run projects themselves, but fared equally badly.

3.5.4 Communication for all

The entire staff of the IT Division had not been together in the same room for at least 5 years. In some cases, departments had occupied adjacent offices and not taken an interest in each other. Most communication was provided by 'rumour control'. In other words, it was a closed world, where communication only took place within the confines of each hierarchical level. Single status catering had only recently been introduced, just prior to the culture change programme.

3.5.5 Personal amnesties

With low staff turnover, 'jobs for life' was the norm. The option of leaving and moving onto to pastures new, was never considered, so that bad relationships had been allowed to fester and had even become accepted behaviour over prolonged periods, some even stretching back 10 years.

In criminal law, a sovereign act of oblivion or forgetfulness (from Greek amnestia, "forgetfulness") granted by a government, especially to a group of persons who are guilty of (usually political) crimes in the past. It is often conditional upon the group's return to obedience and duty within a prescribed period.

Two examples of this were 1) adjacent departments who had never spoken for 10 years and 2) individuals who had become accepted mavericks. As in criminal law, the two departments were formally introduced and coached to co-operate. The individuals were 'outed' and reorientated by playing key roles in project briefs. The style adopted was taken from the SEP techniques used by Hearts & Minds in the
Dhofar; i.e. winning over the communists to be loyal to the Sultan. It worked equally well for Sun Life.

3.5.6 Real teambuilding across the entire organisation

With so many stand-off positions, reinforced by a considerable blame culture and a consist lack of performance, there was little communication except in pockets and cross-organisational co-operation did not exist. This was not end-to-end, but epicyclical i.e. lack of co-operation with software development, between software development and the Datacentre and within the Datacentre. From a Users perspective, it was almost impossible to get anything done.

3.6 Successfully achieving a stated purpose

Perhaps the most important task was to define the mission of the organisation; to identify the strategic objectives to restore the organisation to perform its real purpose and last but not least to identify the appropriate behaviours. Icons were needed to do this and the Top Team were the first problem to be addressed.

3.6.1 Reducing the results of the diagnostic phase down to one single word

One of the problems with organisational change is the saving of face and make detection of the real underlying signs more difficult. Knowledge of the underlying signs are key to dealing with the personal problems of those that populate the organisation. In the Sun Life Case Study, they had been for many years a centre of excellence for running commercial applications on the CDC Cyber mainframes, which are used more often by the defence sector. After successive failures, the people stopped coming to ask for help and the organisation suffered a serious loss of dignity. A form of siege mentality then developed and the migration programme however still remained dependent on the same staff, since the 6 million lines of code were undocumented to ensure their job security.
3.6. SUCCESSFULLY ACHIEVING A STATED PURPOSE

3.6.2 Key points associated with diagnostic phase

Discussion key points were related to the principal case studies used in this research. In each case, source references were given together with the theoretical background and concepts relative to stated links, so that the reader knows what's coming and why.

There are three Case Studies, namely Sun Life, the Wesleyan and Energis. Sun Life was the first successful implementation of Hearts & Minds in the commercial arena and achieved the turnaround of a failing IT organisation, which found itself in a predicament, which against all odds, had to deliver a major IT programme, which on two previous occasions had failed.

The Wesleyan was in effect a rerun of Sun Life, except that the challenge did not lie in the client organisation, but that of the service provider. This instance did not use the full diagnostic such as a climate survey, but nevertheless used the same Hearts & Minds approach, with equivalent results. An interesting linkage with Sun Life was the use of McKinsey. In the former, poor permanence of their approach was a problem in the Customer Service Division, so the Hearts & Minds approach was adopted after McKinsey left. In the latter, the Wesleyan decided themselves that they had to commit to undertaking the implementing the McKinsey strategy, rather than McKinsey to take ownership.

Energis was interesting in that it started with a full diagnostic and initiated Hearts & Minds in the Customer Project Management (CPM) and Bid Management organisations thinking this was where the problems lay. Surprisingly, the climate survey unearthed a failing company; the Hearts & Minds was aborted due to lack of management support and shortly afterwards the company folded. This case study gives valuable insight into what happens when expectations are raised with what Hearts & Minds can offer, only to be subsequently dashed.
Chapter 4

Case Study I: Sun Life

4.1 Pilot Study: Prior Implementation

This case study is based on the authors work with Sun Life. It utilised his original research of Hearts & Minds based on the military context: Malaya/Borneo/Storm, the pilot study at FIL and other work at GEC. Example training materials for the work undertaken associated with this case study are given in Appendix C. Members of the IT Training Team were interviewed, a member of the Civil Aid Team in the Dhofar and other key participants in Operation Storm. Summaries of these interviews, focusing on the opinions held, relevant to this Case Study, are given in Appendices H to M.

4.1.1 Pilot

Prior to full scale deployment at Sun Life the adapted Hearts & Minds approach was trialled in the IT Division of a smaller organisation FIL, which consisted of 100 staff spread over 8 international centres (London, Hong Kong, Taipei, Tokyo, Australia, Bermuda and Luxembourg). The approach adopted by the pilot is summarised as follows (Figure 4.1):
The Basic Steps:

1. Define the Organisation.
   - What are the main key functions?
   - What is the main process?
   - What are the job descriptions?
   - Fit people to the organisation, (not the other way round).

2. Conduct Climate Survey.
   - Define success measures

3. What culture do you need/want?
   - Layer 1 talks to Layer 3 (classless)
   - Empowerment
   - Emphasis on the young staff

   - Import technical skills
   - Implement processes

5a. Top team building
   - Confirm mission objectives

6a. Team building for departments

6c. Import team review techniques

5b. Full cascade of Mission & Objectives
   - All teams define own objectives

6b. Design Appraisal System to measure Mission & Objectives
   - All staff agree personal objectives

7. Form Training team

Figure 4.1: Basic steps developed for Sun Life pilot study
CHAPTER 4. CASE STUDY I: SUN LIFE

In the pilot, a Training Team was not used, but rather a small team of conventional consultants to import much needed skills. A Climate Survey was not used because the organisational climate had been identified after its near collapse following Black Monday - the London Stock Exchange crash on 19th October 1987. On this day, London share prices suffered their biggest one-day percentage fall since the 1929 Great Crash, with New York and other money centres going similarly ground wards. What had begun as a gentle downward drift in the FTSE100 - now etched in trading-floor history as 'Black Monday'. FIL was a casualty of this event and was only saved by major surgery, involving a major downsizing affecting all levels, so that many people lost their jobs. There was no recovery funding available from the American parent and so, ingenious cash flow management; clever marketing and back office efficiencies were the order of the day.

Like Sun Life, which follows, all areas of the organisation had been critically examined except IT. The Hearts & Minds methodology was adopted, the rebuilding of the Top Team being the most pressing. Whilst there was disintegration within the UK team; this also applied internationally, so that this affected the day-to-day running of the business. One of the key projects was a global network, which is discussed later.

The Top Team building was accomplished using an adapted version of the self-motivation course devised for GEC, which is summarised at the end of this section. This approach was further developed and used at Sun Life. In both cases additional leadership training was used for each member of the Top Team, but at FIL further team building was also undertaken to address a number of legacy issues.

The original research, identified the key attributes of hearts & minds as persuasion and incremental beliefs, the significance of Needs & Wants became clear as did the requirement to work within the target culture in order to change from within.

The pilot organisation presented an organisational climate as follows:

- Loss making situation
- Undergoing radical cultural change
- High staff turnover
- Low staff morale
4.1. PILOT STUDY: PRIOR IMPLEMENTATION

- Staff prone to poaching by competitors
- Sensitive to rumours
- Low productivity
- Even leakages to the competition

Using Needs & Wants from the military model of Hearts & Minds, the staff, (not the management), were asked what they felt deprived of and what they needed to do their jobs properly. Surprisingly, this seldom went beyond the Hawthorne effect [55] - staff just want some genuine interest being shown in them [56]. Their luxuries were those things that they need just to do their job.

The impact of Needs & Wants was pilot tested [54], the effects of which are discussed at the end of this section. An example 'want' was fixing the squeak in the air-conditioning unit and example of a 'need' being: (i) More technical knowledge of communications networks; (ii) A COMPAQ portable PC with a printer. As in the military model, unqualified delivery of these Needs & Wants was noted.

4.1.2 Results of Pilot

The diagnosis was undertaken solely by the author. Prior to restructuring, the organisation was found to be fragmented; its management had become divisive; there was little leadership and equally, there was little followership. A strong informal organisation operated which ran counter to the formal. This situation was further exaggerated by the lack of overall direction, due to the responsible directorship having been vacant for some time. A number of people were found to be in need of counselling with their personal problems, which were affecting their work performance and their behaviour at work. Generally, there was a lack of dignity and self-esteem. In addition to the lack of leadership, there was also a strong lack of control in most aspects, such as budgetary control and staff management.

In addition to the measures represented by the various sets of mission & objectives, the author defined five critical success factors to measure the effects of the restructuring. These factors were selected by interviewing:

- Members of the board.
Senior management in IT.

Senior management in the business.

Members of staff, both existing as well as leavers.

These interviews revealed that the IT division had become fractioned with regard to the following:

- No common strategy
- Delivery had ceased
- The business had lost confidence
- There was a strong blame culture
- There was also a strong allegiance to the former IT Director, who had not been able to grow with the job
- A number of people were also organisational terrorists

This situation had left the business in a predicament, so that a number of issues had to be addressed and delivered. These were as follows:

- Delivered the Luxembourg project on time, despite serious vendor problems.
- Resolved serious vendor problems and upgraded IT processing to support the PEP business\(^1\).
- Implemented a global data network successfully ahead of schedule with +1000 workstations.
- Completed an IT strategy exercise and formulated plans for two new major developments.
- Resolved critical Datacentre recovery problems related to the CPU and disc drives.

\(^{1}\text{Personal Equity Plan}\)
4.1. PILOT STUDY: PRIOR IMPLEMENTATION

As part of the restructuring, assessment of the senior management was undertaken and as a result some were released; some required coaching and a new intake of talent was undertaken. Team building for all international IT heads was organised and their objectives were realigned. The conclusion of these actions was the relaunching of the IT Division to the business, which was accomplished by the production of a professional video. In short, the business was treated as a customer for the first time. The selection of the CSFs was straightforward in that they were the imperatives for reactivating the IT division to support the organisation post-Black Monday. The CSF results are summarised below.

1. **Staff turnover** This was eliminated and indeed a few people who had left the organisation some time ago rejoined.

2. **Ability to recruit** Confidence was rebuilt so that people were convinced that other people would want to join the organisation. Short lists were obtained and there was a good response for both management and staff needs. People of high calibre were also attracted.

3. **Ability to deliver** A number of major projects were completed despite considerable problems caused by one of the project managers who was discovered to be seriously lacking in experience. This manager was successfully retained, counselled and embarked on a training programme to build experience for the long term, whilst at the same time not being labelled as a failure. The Top Team introduced proper controls themselves and deliverables took place in accordance with the new controls.

4. **Communication** Monthly communication meetings were set up and attended by all members of the organisation, for which over time the staff themselves became responsible for organising and running. Two types of weekly progress meetings were also held for the Top Team, to reinforce their responsibilities, which focussed on: (i) Deliverables and (ii) Staff issues. Furthermore, the performance of each Top Team member was reviewed each month using performance improvement plans, which were linked to the mission and objectives. Counselling was given to one member of the team, who was discovered to be
significantly immature for their years.

5. Leadership All members of the Top Team underwent leadership training individually. These courses combined working as a team, leading that team in a variety of circumstances, all of which were analogous to the work place as well as involving practical work. They were subsequently encouraged to transpose these new found techniques, particularly team review and planning in their own teams. They also replicated the weekly staff review meetings in their own teams and planned their own team building exercises. Two members of the Top Team, who lacked staff management experience, received fortnightly coaching sessions to further assist in the team leadership acquisition process.

4.1.3 The self-motivation course

One of the consequences of a centralised dominated staff is laziness. This arises from the punishment when initiative is exercised and an eventual realisation to sit and wait 'for the next set of orders'. In the organisation studied, the mission and objectives were very clear to everybody, but a domineering management style coerced technical staff to cease to take initiative and consequently suppressed their leadership qualities. Staff absenteeism was also high and there was generally a lack of self-worth. Staff felt that there was no opportunity for feedback to management. The biggest challenge was to restore self-motivation with a group of highly technical staff. The constraints were: (i) unit cost, (£50); (ii) simplicity and (iii) dealing with large numbers (220).

A survival training school was used and the author designed the course using the facilities offered by that school. The course started with some initiate tests using simple exercises e.g. a deflated dingy floating in a pool with a length of rope. There were also teambuilding exercises. The bulk of the course used the survival setting as the main training vehicle. Delegates were taught cooking, basic survival skills and shelter building. In short, they were taught how to survive in the outdoors, but within a safe boundary constantly observed by a very experienced survival specialist.

Using materials at their disposal, rather than asking for what was not available was an important learning point for most technicians. More important was putting into practice their now-found training and reliance upon each other. Even fire lighting
was taught. The key underlying driver with the survival setting is that the individual circumstances worsen if no action is taken, e.g. building a shelter. If insufficient effort is made the shelter leaks and the circumstances are only marginally improved. There are ways to make oneself comfortable, but this requires real effort and this is what he course taught and encouraged. As can be seen from the photograph above, the ground was not exposed, but it was bleak. To ensure that the learning was taken back to the workplace, members of the survival school visited delegates after attending the course to review the application of what they had learnt into their jobs.

Three critical success factors were defined:

**Staff turnover**
This was greatly reduced, although not eliminated due to the irreversible policy on salary levels implicit in the customer’s main contracts.

**Ability to deliver**
A very large contract was delivered on time, within budget and to the full specification. A way was found for staff to now communicate upwards to deliver their warnings and the need to regress the major development in order to consolidate properly the work undertaken to a certain point in time.

**Initiative taking**
A full cascade exercise was undertaken using the facilities of a survival school, which consisted of a series of exercises which deliberately required initiative taking as well as tasks which required the demonstration of self-motivation and without supervision. This involved all members of the organisation.

### 4.1.4 Results

Using ‘The Basic Steps’ previously discussed as a guide, the following results were obtained (which relate to Sun Life).
CHAPTER 4. CASE STUDY I: SUN LIFE

Step 1 - ‘Define the Organisation’

The first impressions [57] arising were as follows:

The people/Good Points

- They are open
- The staff are very enthusiastic about the new way - VISION
- The staff want to be empowered, which will release considerable enthusiasm
- Everyone is waiting for the top-down IT Mission & Objectives exercise
- The management and staff appear competent
- Everyone is waiting for something to happen

The people/Improvement Points

- Experience is poor
- Confidence is low
- Some people appear lost
- Staff management appears poor
- Leadership is not evident
- Staff need coaching on how to communicate upwards
- They are complicators not simplifiers
- Crowd behaviours in response to not knowing what to do

Step 2 - ‘Conduct the Climate Survey’

This was further supplemented by (i) Participant Observation conducted by the author; (ii) a 90-day ‘Exploring Phase’ of organisational change, which proceeded implementation of the ODP plan. The ‘Exploring Phase’ introduced the self-discovery teams, which dismantled the hierarchical behaviours by involvement irrespective of
level within the IT Division as well as activating the empowerment initiative, which already existed in the rest of Sun Life. In parallel the Climate Survey was conducted and the ITTT were introduced. To aid the exploring, small projects were undertaken by diagonal-cross section teams, which focussed either on urgent improvement (e.g. DB/2 education; Capacity analysis; PC Support; Communications; Customer Service), or discovery learning primarily to address low awareness. After the diagnosis phase when the following were identified:

- Climate Survey Results
- Needs & Wants
- Participant observation
- Critical Success Factors

It was the third aspect that determined the style of implementation. The participant observation yielded the following:

- A very old hierarchical organisational structure
- Two previous programme failures
- A loss of dignity
- A captive audience with 5 million lines of undocumented code
- A 10-year track record of non-delivery
- The south-west windsock
- The 'Untouchables'
- Lack of Communication
- Over-use of external Consultants

It was deduced that despite the poor track record of the target audience that they were the only population that could accomplish the task, because they had committed most key factors to memory in the absence of any documentation. It was also clear that their work setting was key in terms of the following:
 CHAPTER 4. CASE STUDY 1: SUN LIFE

- Removal of distractions
- The right type of help and support
- Unqualified delivery of their 'Needs'
- Reward of good performance with their 'Wants'
- Clarity of purpose
- Realisation of the real world
- Divisive communication
- Normal behaviour

It became clear that a persuasive method would need to be chosen and that a pro-active style of Change Agent would be needed to support the changes. With a population of some 550, a team would be needed. Reflection against the research already performed made this a suitable set of circumstances for the use of Hearts & Minds, based on the Climate Survey results discussed in Chapter 3 in the sections entitled, 'The Other Elements' and 'Empowerment'.

Sun Life Needs & Wants

These are shown in the two tables given in Figure 4.2. The most interesting aspect is that Communication appears in both, being ranked third as a Need (=Deprivation) and ranked top as a Want (=Luxury) as has already been described, in Chapter 3.

Critical Success Factors

Not to be confused with the Mission Statements of the IT Division and the component departments, are the critical success factors (CSF's), which represented the key measures for the success of the ODP. There were 14 in total; out of these, 5 were major (shaded) as shown in Figure 4.3 together with 5 key CSFs as identified by x,y and z.
### 4.1. PILOT STUDY: PRIOR IMPLEMENTATION

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<td>16 Career structures</td>
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<td>7 More career paths</td>
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</tr>
<tr>
<td>20 Stationery</td>
<td>3</td>
</tr>
<tr>
<td>21 Upwards appraisal</td>
<td>2</td>
</tr>
<tr>
<td>22 Support Prof Quale</td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 4.2: Sun Life Needs & Wants.
CHAPTER 4. CASE STUDY I: SUN LIFE

CRITICAL SUCCESS FACTORS for IT

LEADERSHIP
SELF-MOTIVATION
COMMUNICATION
STAFF MANAGEMENT
DELIVERY of measurable systems and service
IT CLARITY and MISSION
PARTNERSHIP

WORLDLY-WISE
TRUST and LOYALTY
QUALITY
EMPOWERMENT
ATMOSPHERE—teams, caring culture
Increased PRODUCTIVITY
Successful acquisition of SKILLS

Figure 4.3: Critical Success Factors.

Some of these factors were in direct response to the results of the climate survey. The numbers shown below in (brackets) depict the priority assigned by each review dimension.

Leadership (1)
IT Clarity and Mission (6)
Partnership (7)

Others emanated from participant observation undertaken by the author:

Leadership (1)
Self-Motivation (2)
Staff Management (4)
Delivery (5)
Worldly-wise (8)
Trust and Loyalty (9)
Empowerment (11)
4.1. PILOT STUDY: PRIOR IMPLEMENTATION

Others linked with established Sun Life initiatives were:

Quality (10)
Empowerment (11)

Others came directly from the D & L survey:

Communication (3)
IT Clarity and Mission (6)
Standards (14)
Training (14)
Teambuilding (2)
Staff Management (4)

Factors 13 and 14 represented the major technical challenges for the ITTT (Factor 13 - Increased Productivity was a corporate goal). Only one factor came from the newly formed Top Team, which was Atmosphere (12).

The five major CSFs were identified as being more important than others for the following reasons:

- Leadership had to be injected and the committee culture reversed; in short there had to be accountability, not 30 people in a committee vacillating.

- Delivery was mandatory, this was the third and final chance for Sun Life. Failure was not an option.

- Partnership was key, the divorce with the business had to be repaired; there also needed to be clarity regards what each party had to deliver. In other words IT was not a dumping ground for business shortfalls.

- Productivity. IT had to reach parity with the outside world and had to demonstrate their ability to be competitive. Outsourcing IT had been on the agenda for a long time.
The New IT Ethos

- All managers will be expected to be in control at all times.
- We will stop at nothing to deliver on time, with what the business needs and it will work properly.
- We will learn to treat the business properly by measurable Customer Service.
- We will strike a new partnership with the business, understanding each others respective roles.
- We will actively encourage free market forces by inviting the business to use software houses directly, if we fail or cannot deliver in time or cannot meet their needs.
- We will develop new flexible ways of working without the loss of fundamental controls.
- We will educate and train the business in IT and likewise understand the business more fluently.
- We will contribute to the ACHIEVE programme with BS5750 in a meaningful way.

Figure 4.4: Extract from briefing on the new IT ethos.

- Skills.

The previous attempt to migrate applications from the legacy platforms to a single application package running on a new IBM mainframe had been both naive and distastorous. This left the organisation depleted of basic IT skills, which needed to be addressed to achieve the third and final chance.

Stage 3 - 'What Culture do you need/want?'

This stage is encapsulated in the following Figure (Figure 4.4), which formed part of the briefing to the Top Team. All of these factors were incorporated into the ODP, ACHIEVE refers to the change programme operating in the Customer Service Division. BS5750 appeared in the ODP as Project 3.6.

An extract from the original announcement, dated 12th June 1992 is given Figure 4.5.
The division will be renamed the IT Division.

A new structure for the organisation has been adopted. The revised structure is being announced to the staff of the division at the same time as the issue of this memo, and is also being supported by a special issue of the division's newsletter, IT Direct. A copy of this is attached for your information. Key elements of the revised organisation are:

- A flatter organisation structure.
- Proper separation and consolidation of technical and operational services into a Datacentre.
- Systems development and maintenance functions aligned to major business areas.
- Recognition of the paramount importance over the next two years of conversion to IBM from CYBER.
- The introduction of a strategy unit to weld together the efforts of IT with Sun Life's strategic direction and operating objectives, and also prevent against IT being divorced from the business.
- Increased effective headcount.
- A major new project is being commenced to formulate an IT strategy in partnership with all elements of the business.
- A number of appointments at a senior level require to be filled. External recruitment has commenced.
- Clear commitment and support for the DQ initiative.

Figure 4.5: Extract original announcement to IT division.

'Effective Headcount' is a term used to describe the number of people actually engaged on productive work. Hierarchical organisational structures feature a disproportionate amount of headcount devoted to monitoring and not engaged on producing actual output. This was remedied by 'de-layering', i.e. removing two layers of management. DQ refers to the Corporate Quality Initiative. The response from the IT Division appeared in the ODP as Project 3.6. This was translated into a situation report, which is shown in Figure 4.6.

'Acknowledge our changing circumstances' refers to the conditioning initiative to help staff come to terms with the non-negotiable fact that change was about to happen. Newsletter etc refers to Stage 2. The Training Team was in place at this a stage and an exploring project was subsequently launched for the staff to try to discover their purpose and differentiate from 'normal consultants'. The Leadership Trust training was part of the dismantling of the previous Committee working; Management were also required to return to full 5-day working. (Friday's were taken off for golf)
CHAPTER 4. CASE STUDY I: SUN LIFE

Figure 4.6: Extract from briefing on the new IT ethos.

The Organisational Development Plan (ODP)

Explain choice of ODP dimensions and diagram and description of how ODP works.

The formulation was triggered at Stage 3 of 'The Basic Steps', previously described. It was drafted by the author and then reviewed offsite by the Top Team, who had yet to experience their own teambuilding. The ODP supplanted all remaining steps. For example, Steps 4 and 5b - 'Mission & Objectives' featured as Project 1.3 in the Organisation category; Step 6b featured as Project 4.8 in the 'Human Resources' category; Steps 5a and 6a featured as Projects 1.1 and 3.2 respectively.

The ODP operates by encapsulating the results of the diagnostic phase and identifying remedial projects across six categories which are needed to enable the organisation to operate effectively and fulfil its proper role. Operating effectiveness was described in a seventh category, termed 'Key Deliverables' and represented the hard evidence of the success of the six other categories being brought to bear. The proper role of the IT Division had long been forgotten and this was in fact one of the projects identified under the 'Organisation' category. By experience six categories were identified needed to reactivate and IT organisation, which were:
4.1. PILOT STUDY: PRIOR IMPLEMENTATION

1. Organisation
2. Recruitment
3. Training
4. Human Resources
5. Communications
6. Skills Acquisition

The research (by the author) of these dimensions was as follows:

- No IT organisation can function properly if it is not structured correctly.
- Recruitment needs to support the restructuring in a measured way, not a whole-sale way.
- Training of Management and staff to fulfil their roles was is central.
- Human Resources play a key role on measuring performance, particularly allegiance to the mission statement values.
- Communications is vital; everybody must know what is happening; the rumour control must be conquered; and all communications must support the Mission Statement.
- Skills Acquisition: nothing will be accomplished without skills; the knowledge and more importantly experience was supplied by the IT Training Team.

The Sun Life ODP represented a total of 48 projects. A schematic diagram of this ODP is given in Figure 4.7. A full inventory of these projects is given in Appendix D, but the distribution of projects across the six categories is interesting. The most recent attempt (the second) to migrate from the CDC mainframes had adopted the package approach and many technical skills had been lost. The organisation itself mimicked the Civil Service, did not have a Mission Statement and was in dire need of a culture change. Human Resources was lacking in almost every facet.

The Key Deliverables consisted of a composite set divided into five categories:
CHAPTER 4. CASE STUDY I: SUN LIFE

Figure 4.7: ODP Schematic.
4.1. PILOT STUDY: PRIOR IMPLEMENTATION

- Major Project Deliverables
- Project Deliverables
- Strategic issues
- Retrospective activities
- The Datacentre

**Major Project Deliverables**
This described the enormous task of migrating from CDC Cyber mainframes onto a modern IBM mainframe, consisting of the conversion of 9 million lines of code; the largest DB/2 database conversion in the world (at the time), representing some 800 man-years of effort.

**Project Deliverables**
These were the six medium sized projects, which were dependent upon the introduction of new controls introduced by 'Skills Acquisition' and 'Training', all delivered within the spirit of what was called 'Project Re-Orientation', which represented the adoption of proper project governance and the repaired working relationship with the other Divisions of Sun Life.

**Strategic issues**
A feature of the revised organisational structure was a new IT Strategy Planning function to constantly liaise with the Sun Life business in general, to ensure that the IT Division was always in step. This represented the delivery of an IT Strategy exercise, which included a review of infrastructure e.g. Integrated telephone system.

**Retrospective activities**
The rest of Sun Life had been subjected to a cost review exercise and although the Datacentre in the IT Division had taken part, the Application Development Departments had been excused. This represented a contention with the rest of Sun Life and therefore a retrospective exercise was required to be conducted to address this.
anomaly. Additionally, Sun Life had not kept up to date regards email, word processing, automatic facsimile. Therefore a project was set up and the Typing Pool was empowered to carry this out in a kaizen style, since they were the primary affected group.

**The Datacentre**

Prior to the start of the Diagnostic phase it was noted that an external consultancy had conducted a review of the Datacentre, the results of which were accepted. These recommendations were converted into ODP format and a set of project identified. The key project was the setting up of the new Datacentre, where the newly migrated applications would operate on the IBM mainframe.

**ODP Implementation - an overview**

The exploring phase of organisational change, which proceeded the ODP, introduced the self discovery teams, which set the scene for involvement of all levels within the IT Division as well as activating the empowerment initiative which already existed in the rest of Sun Life. Sections 1 to 6 represent the organisational change projects which constitute the Organisational Development Plan itself, whilst section 7 constitutes the key outputs from the new organisation.

The ODP implementation started on 28th September 1992, the initial four projects being chosen because of their importance to the CSF's:

3.3/Technical skills training

4.8/A revised Personal Appraisal process to ensure that Performance in Your Job is the keystone of job appraisal, pay and career development.

7.4/How can we reduce the costs of IT whilst raising the quality of our performance?

1.6/Developing practical 2-way communication between IT and its external customers
They were supplemented by one further project, due to backwardness of office automation.

7.4.2/Introducing the electronic office and the complimentary cultural change.

Progress was reviewed on the 8th December 1992, which also included a further project 'PC Support' and the mini-ODP for the Datacentre. The ITTT also presented a progress report regards Hearts & Minds.

The initial method of implementation chosen was Action Learning, each team having a trained facilitator. The teams were expected to undertake the project in addition to their normal work, spending at least 1 day per week on their project and 1-day per fortnight working with their facilitator. The IT Training Team, (ITTT), which was already been introduced to the Division as the key internal change agent will also be trained to operate as action learning facilitators, who with some members of staff will take on responsibility from the external facilitators when they have set up the training programme and accomplished the first four projects.

The style of action learning complements the Hearts & Minds philosophy, having an emphasis on belief acquisition, persuasion and empowerment. It also complements the partnering process already adopted from British Airways to build close links of a specific nature with the customers of IT. Finally, it will augment the team approach which is being built into the IT subculture itself and which has been established from The Leadership Trust.

The action learning process requires that project members will be mixed in terms of level and be drawn from all parts of the division; in certain cases, project members will be from outside the division, (e.g. The Personnel Department (equiv. HRD) for ODP/Project 4.2). The external endorsement feature of partnering will be used at every opportunity, so that the IT customers will feature heavily in that regard as well as being co-sponsors in some cases to reinforce the clarity of IT and User responsibilities brought about through Project Re-Orientaion. Project briefs adopted during exploring continued to be used and the sponsors were those IT managers, who ultimately own the problem. The priorities of project were determined by the IT Top
CHAPTER 4. CASE STUDY 1: SUN LIFE

Team. The CEO agreed to act as sponsor for the overall programme.

Results

The results of the five main CSF's are described as follows:

1. Leadership

Leadership training starting with the Top Team successfully dismantled the previous 'committee culture', managers took responsibility and staff management was also delivered.

2. Delivery

Delivery was remarkable, having experienced two previous failures. The Division delivered the largest computer migration programme ever undertaken in a commercial environment. The programme covered a series of line-by-line conversions of 7 major projects and a raft of 5 major and 9 minor redevelopment projects - 21 projects over a 3-year period, involving 800 man-years of effort and migration of approximately 9 million lines of code. The largest DB/2 database conversion in the world. The programme was completed on time (22nd December 1992) and 4% under budget. It allowed the Sun Life Group to provide continuous production services without any significant degradation of service levels.

3. Partnership with Customers

The restructuring of the Division and importing of Business Systems Centres and partnering behaviours from British Airways was key to repairing the relationship between the Division and the rest of the Sun Life Group. This also established proper governance for projects delivery.

4. Increased Productivity [58]

- Development productivity was improved by 10%
- Datacentre unit costs reduced by 2.5%
- Achieved all Datacentre service levels
5. Successful Acquisition of Skills

Chapter 6 of the ODP was completed and absorbed in a Hearts & Minds way, in particular a proper Design Authority was established together with competent estimating and planning.

This was such a major success that the staff produced a video, which is described in Appendix E. This video included a complete review of the above five major CSF's.

Other achievements:

- BCS Award for Migration Programme (1994)
- ISO 9001 certification - the successor to BS5750
- 1995 Winners of the Challengers Trophy

Key Dates

07MAR92 Start of diagnosis
08APR92 First Impressions (New Ethos etc)
20APR92 Climate Survey
12JUN92 Announcement
10AUG92 ODP raised
28SEP92 x4 Action Learning projects started
13DEC93 ODP Dinner
22DEC93 Completion of Migration Programme
01FEB94 Handover to Middle Management
08APR94 IT Migration Programme dinner
10JUN94 Blessing White Conference
05OCT94 BCS Award

Study populations: How many/How long? Fundamental to the survival of the company
Chapter 5

Solutions

The purpose of this Chapter is compounded in the following statements:

- In a holistic way, to investigate methods and techniques for ensuring permanence of cultural change in organisations and to give some explanations why some methods work and others do not.

- To understand why some techniques work and others fail and where the focus should lie for organisations who seriously and genuinely not only want to change, but also wish to sustain that change.

This chapter explores how ‘conventional business change’ is offered by the consultancy firms.

5.1 Introduction

Unlike many academic and other public sector institutes, consulting firms are in business to generate revenues and if they can make those re-occurring, this sustains their revenue streams. To put the size of this business sector into context, we consider the following:

‘Growth in consulting to the pharmaceutical industry grew by 31.6% while systems development and integration consulting declined 23.9%. The consulting industry recorded
high growth in total revenue levels over the past 16 years. The growth rate in 2001 was 13.6% and in 2000, 7.9%. Based on 2001 data, 'Twenty-one firms reported fees between $1 and $4 million; fourteen firms had revenues of less than $1 million, fourteen firms also had revenues between $4 and $14 million, and thirteen firms reported fees in excess of $15 million.' [59]

'This is an activity (one of the Top 20 Telecom consulting firms) worth $7.1 billion in 2002 and projected to grow to $8.6 billion in 2006. The leading practitioners include the 'Big 4' international consulting firms, with Accenture the top of the table.' [60]

Is BPR and Culture Change the same? The following statements typify the approach taken by the 'The Big 5' [63], who approach culture change as an extension of Business Process Re-engineering, (BPR). More recently, as a consequence of the recent recession, 'Business Transformation' has become a familiar term, which covers Transforming Business Processes and Content Supply Chain. Other commonly used terms are:

- Change Management
- Operations Analysis
- Organisational Development

'Effective organisational development is about more than policies and systems. Changes arising from common business events such as restructuring, mergers, acquisitions and new ventures need to be planned for and their delivery integrated into an overall project framework. Often the most critical factor is effective communication with employees.' [62]

This example represents the inverse of an approach to achieve sustained change. It describes the concrete issues as being primary, with communication almost an after-thought.
CHAPTER 5. SOLUTIONS

"We understand that to achieve success, a shift must be made to meet these new challenges. Cap Gemini Ernst & Young's balanced view approaches transformation with a new DNA of partnering business and technology to reduce complexity, increase ROI and give more business relevance. The transformation solution will be different for each client depending on its potential impact on business success and the degree of volatility. The solutions can range from conventional outsourcing to total cost ownership.

Transformation is a journey, not a destination. We begin the transformation journey with our clients through what we call a Phase 1 project. We will work with you [the client] to find improvement opportunities at the intersection of business operations and technology."

This approach is focused on recovery from the recession and the ultimate aim is to achieve business success. It also introduces the notion of an infinite journey.

"Change for the sake of change does not work. It has to be for the future reinventing processes to contain costs, realign resources, or respond more quickly to customer demands. Change may be necessary due to external factors such as competition or deregulation. Whatever the reason, change management can be a positive solution."

This approach offers help implement change using a branded tool 'dynamic change management framework' and network of resources. However, it is acknowledged that 'without the buy-in of management, employees, suppliers, customers, constituents, and the community, even the most rigorous effort cannot accomplish its goals.'

"Large organisational-change programs are notoriously difficult to run: they involve changing the way people not only behave at work but also think about work. Sometimes, however, changing individual mind-sets is the sole way to improve a company's performance. Psychologists in the fields of child and adult development have made several important discoveries about the conditions that have to be met before people
5.2. WHAT IS BPR?

will change their behaviour. First, they must see the point of the change and agree with it, at least enough to give it a try. Then the surrounding structures-reward and recognition systems, for example-must be in tune with the new behaviour.'

This is an analytical approach, but having said that their approach still strongly relies on BPR.

5.2 What is BPR?

BPR can be defined as [66]:

"The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed.

BPR involves the total creative rethinking of one or more of a company's key business processes. No business assumption or organisational structure is sacred [67]. All to often these structures evolved during a time when consumer markets were less competitive and access to information was controlled by centralised, unresponsive IS departments using technology obsolete by today's standards. Often this rethinking is triggered by an existing or looming crisis.

To be successful the reengineering effort must be spearheaded by at least one senior executive with clout. The executive's authority and influence needs to cut across functional departments. Business processes such as order fulfilment, sales, service and product development often span functional departments such as purchasing, shipping, and engineering. This senior executive must be a key player in developing the business case, i.e., why there is a need for change, and finally stating the ultimate goals and vision for the company. The level of dysfunction, impact on the company and the feasibility of change influence which processes to tackle first. Finally, senior management's support is crucial since dramatic change often triggers changes in the reward/compensation system, shifts in the corporate mission, significant personnel changes and considerable uncertainty at all levels."
A reengineering team is assembled consisting of those currently working inside the process and outsiders, who are not involved with the process, hence able to bring fresh perspectives. The process of reengineering itself has no fixed rules, but there are a number of common themes:

• Several jobs are combined into one.
• Workers make real decisions.
• Work is performed where it makes the most sense.
• Checks and Controls are reduced.
• Reconciliation, and the associated overhead, is minimised.
• A case manager provides a single point of contact.

There are a number of common pitfalls that organisations fall into while re-engineering key business processes[67]. These include:

• Trying to fix a process instead of changing it.
• Ignoring everything except process redesign.
• Neglecting people's values, beliefs and the corporate culture.
• Placing prior constraints on the definition of the problem and the scope of the reengineering effort.
• Trying to make reengineering happen from the bottom up.
• Concentrating exclusively on design, to the exclusion of actual implementation through pilot or full-blown projects.

5.3 A comparison with Hearts & Minds

The most important area is already identified as one of the pitfalls: **Neglecting people's values, beliefs and the corporate culture.** This pitfall has widespread impact and is the inverse of the Hearts & Minds approach of working within the target culture. The
5.3. A COMPARISON WITH HEARTS & MINDS

impact will be a high propensity to 'return to type', or a tendency to continue with the old process as well as the new process often resulting in worker fatigue. The corporate culture should describe the style of the organisation and BPR should be adapted to work within that culture not to be at odds with it. There are other aspects, which deserve mention. Whilst Hearts & Minds requires a strong sponsor, its application is selective; as was seen in Operation Storm it addressed the needs of each frqat (tribe), both in a tailored an incremental way. At Sun Life the immediate target was the IT Division, but then spread to other company divisions and even suppliers. Again, the approach was not on a broad front, but was progressive. However, both approaches require a senior executive to be a key player and incidentally is the main target for the consulting firm's engagement partner. It seems that the level of dysfunction and impact to the organisation heralded by BPR can be significant, even to the extent of rendering the organisation inoperative. The Hearts & Minds approach rests very carefully with diagnosis; then making inventories of remedial processes (the ODP) and most important - understanding the plight of staff and how they feel.

A Re-engineering Team is very different from a Training Team. Re-engineering teams are very focussed on installing new processes almost irrespective of consequences and certainly wield considerable power as they go about 'doing things to an organisation and its people'. In stark contrast, Training Teams work alongside the people; they work within their culture, involving them from inception. Their strongest weapon is only persuasion. It can easily be seen that with consulting firms where payment by results or incentives are involved, their own financial targets easily take precedence over the needs and wants of staff in an organisation and enforcement is often practised. Unlike a Re-engineering Team, a Training Team operates within the relatively narrow confines of the following:

- Needs & Wants Survey
- Climate Survey
- The New Vision
- The ODP

More importantly, it is always constrained to working within the culture of the target
CHAPTER 5. SOLUTIONS

audience and is scrupulous in observing respect and maintaining their trust of those with whom they work. It always encourages their audience to implement change for themselves - with enforcement only as a very last resort.

5.4 Some comparisons with Genba Kanri (GK)

In Chapter 1 of this thesis, it was stated that Japanese manufacturing methods do not rely on tools nor for that matter enforcement. With regard to this statement, it is noted that Edward Handyside, the 'Kaizen Guru', states: ‘That competitive edge springs not from low wages, high technology, wartime devastation, Shinto-Buddhism, the team-building characteristics of the medieval rice harvest, a diet of raw fish or even a greater range of manufacturing tools and techniques. It comes from discipline and tenacity and from a superior level of skill in managing the manufacturing process.’

Unlike BPR, where GK is employed, it is the team leaders themselves that are deeply involved in setting up the production line and its processes. This is not done by a set of external BPR experts; but rather by the ‘process owners’ - the teams do it themselves.

The popularisation of re-engineering for all its faults has further strengthened the cause for those who advocate a radical, root-and-branch shake-up of organisations in order to bring about meaningful and profitable change. But even this comes to nought unless it involves changing the work itself and the responsibilities that people have for carrying it out or managing it [69]. The discussion in Chapter 8 shows that process and process alone will not make an organisation efficient. The people must own the process, rather than become slaves to it and the processes must be kept as simple as possible, otherwise the probability of a process ever successfully completing becomes very small.

GK makes the process owners the same people who operate the process and the benefit to them is [71] ‘do the same amount of work with less effort’. There is some commonality with Workers make real decisions; in broad terms this also maps with GK. Similarly, work is performed where it makes the most sense and the propagation to other teams is the same as in GK. The common focus of teams and their leaders in GK companies is the needs of the customers, both commercial and internal, who
5.4. **SOME COMPARISONS WITH GENBA KANRI (GK)**

comprise all downstream processes. GK principles require all manufacturing and support teams to treat themselves as businesses serving the needs of downstream customers and being responsible for their own supplies, resources and processes [70]. This is not the case with BPR.

GK has an effect of ‘turning the organisation on its side’, so that departments such as engineering, production control and purchasing must focus on the needs of customers - see Figure 5.1, for example.

BPR claims that checks and controls are reduced. GK does not utilise external checks and controls, but rather uses in-process Neighbourhood Checking, where the downstream customer checks the work of the upstream customer, before proceeding with their part of the process. This is replicated throughout the entire manufacturing process, with only quality assurance being the sole out-of-process function to benchmark the final end-product.

Reconciliation, and the associated overhead, is minimised - the suggestion is that ‘suppliers are not paid until their parts are actually used in production’. Just In Time (JIT) enables parts to be supplied when they are needed, thus obviating the need for large inventories and resultant balance sheet overheads. The question of payment does not enter into this approach, since ‘suppliers are on the same production system as the customer and in any case pay themselves according to their deliveries’ [69].

Finally, unlike BPR the key underlying principle of GK is The Standard Operation, which is defined as follows: ‘The best currently available method capable of sustaining the specific quality, cost and delivery requirements and of securing operational safety’ [71].

The best current operation eliminates waste, ambiguity, irregularity and irrationality from productive work and contains all sufficient relevant details to ensure that the method is easy, quick, inexpensive and safe. ‘Currently available’ is a key phrase. Standard Operations are perpetually changing in response to process problems and in pursuit of improvements.
Figure 5.1: Team focus: vertical and horizontal demands (source: Ed Handyside)
5.5 Consulting firms are businesses

The press release below [72] indicates of the size of revenues of a typical firm.

*Deloitte reports a 21 percent increase in global annual revenues, to US $15.1 billion.*

*New York, Oct. 1, 2003 - Deloitte Touche Tohmatsu, the global professional services organization, announced today its tenth consecutive year of annual growth, with combined worldwide revenues from its member firms totaling US $15.1 billion, a 20.8 percent increase over FY2002 revenues of US $12.5 billion.*

Appendix F shows Deloitte as being ranked 8; so these significant revenues need to be protected. Their approach can be characterised as follows:

- Their need for re-occurring revenues.
- They often deploy as the change agent.
- They practice process change, rather than cultural change.
- They protect their clients with unwritten guarantees.
- Their propositions often feature business advantage.
- Their marketing involves productisation.

**Their need for re-occurring revenues**

Most industry consultants estimate the cost of finding a new customer is between five and ten times the cost of retaining an existing customer. [73] The notion of sustained change is not in the interests of the Big 5 - they need re-occurring revenues to sustain their balance sheets. For this reason, in their portfolios they will offer clients quality assurance or review propositions. They will often offer clients 'refresh' initiatives to ensure that the original change initiative is renewed. A long drawn-out cultural programme is just the ticket when it involves a calendar of repeat interventions and 'workshops'. It is a relatively easy way of making money and provides good business visibility. And when it fails - as it invariably does, there will
They often deploy as the change agent

Often the client organisation is either unwilling or unable to effect the change itself wishing to remain in-situ. The consequence is that an outside consulting firm is engaged to implement the changes as required. These changes are often detached from the beliefs of the staff and in most cases certainly neither engage them nor take their concerns into consideration. Enforcement is often used. Their approach is often mechanical, the people and their emotions are often secondary or incidental. Instead of empowerment as the key tool, the consulting firms' position themselves into the key role and quickly become indispensable. This often means that the change is not sustainable without their presence; the culture easily reverts to type and another cycle is started to restore the change.

They practice process change, rather than cultural change

The Big 5 do employ occupational psychologists, but they are usually part of the HR practice and invariably not change specialists. The main proposition offered is BPR. A large amount of their time is spent communicating to clients, using what is often referred to a 'PowerPoint culture'.

Their propositions often feature business advantage

Very often, the use of language increases client expectations, such as: 'As a result, many executives are looking to take traditional outsourcing a step further, and they're asking for help - not only for running their business processes, but transforming them to unlock hidden business value. Clients want more than just consulting or outsourcing, they need a partner who can work with them to deliver transformational change, and they are demanding greater accountability from their partners. This is a value that goes beyond simple cost-savings' [75]. Alternatively, 'We revamp and improve the process itself, drawing on our industry expertise, Intellectual capital and insights gained from other engagements. Our integration with PwC Consulting gives us the industry knowledge, consulting change skills, and a firm foundation for Business Transformation Outsourcing - their business process outsourcing business is already
5.5. CONSULTING FIRMS ARE BUSINESSES

a market leader. Combining this with IBM’s technology and delivery capabilities, and the confidence we draw from our own journey of transformation, will give us an unparalleled ability to help customers transform their businesses.” A full Business Transformation Outsourcing proposition needs skills in the appropriate industry vertical of a client, in business process transformation, in process execution and in IT: development, outsourcing and application management services. With the integration of PwC Consulting, IBM now has this complete end to end set of capabilities.’[76]

Providing a business advantage proposition will often involve profit sharing, to make the fee structure more attractive and is often linked to a financial target for the consulting firm.

Their marketing involves productisation
A common approach used is to productise essentially common methods and give the illusion of value added; here are some examples:

'SOA (Service Oriented Architecture) is the blueprint for IT infrastructure of the future. SOA extends the Web services value proposition by providing guidance on how enterprise IT infrastructure should be architected using services.’[77]

'A methodology for business process reengineering (BPR) called IBM’s Enhanced Line of Visibility Engineering Methodology (LOVEM-E), and some IBM technologies that support the reengineering process through the capture of business rules and requirements.'[78]

'Haven inked several major "business-transformation outsourcing" (BTO) contracts of late including BP, Lincoln Financial, Proctor & Gamble, and Raytheon, Big Blue describes the Sprint deal as its biggest yet. BTO refers to IBM using its army of business consultants to help a client reengineer its business, while using IT to enable those changes.’ [79]

Some of these solutions are derived from collecting case-study data from clients, which is then recycled such as:
'Information FrameWork Banking Data Warehouse solution from IBM. We offer end-to-end solutions that support business imperatives with the functionality necessary for growing financial institutions.' [80]

Another aspect is offering apparently better features than their competition. These solutions run on a variety of different types software which includes Operating Systems and Databases, which are usually referred to as "Platforms".

In the following example, IBM say that 'our Platform:

- Is a component of the IBM Information FrameWork, derived from 12 years of experience with financial institutions—including 170 banks and insurance companies.
- Is a comprehensive risk and compliance solution.
- Integrates with other models including Critical Business Process Models and Foundation Models to form a complete portfolio of re-engineering tools.
- Encapsulates our extensive experience gained from over 100 data warehousing and data management engagements for financial institutions.

They protect their clients with unwritten guarantees. The Big 5 use the power of their brand to make the client feel secure and when problems occur, they will often repeat the work for no fee or indeed refund fees. 'No one ever got fired for hiring one of the Big 5' is a common statement.

5.6 Discussion

In 2003 McKinsey was ranked the number 1 Consulting Firm (see Appendix F), who are essentially strategy consultants. In other words, they help client organisations to adopt new business models, to remain competitive and to keep the shareholders happy. They usually focus on one client—the Chief Executive traditionally camps out side his office and has open access. Their modus operandi has not moved on from that described in Section 1.1 'Twenty-five years ago, if you wanted something changed
as the CEO of a traditional company, you simply spoke the words. The culture and belief system of the organisation was more akin to a military structure. Cynically, one might gain the impression that they target weak organisations, rather than those that can think for themselves. There is some truth in this, but strong organisations also engage them to keep up to date. How do firms like McKinsey invent new business models? The answer is that like corporate banking, they have a considerable research function to constantly scan the market; like other consulting firms, they also raid university libraries for the latest research. More importantly, they productise bespoke solutions for clients and generate revenue from those situations. McKinsey do implement their strategy work, but not always as can be seen in the Case Study given in Chapter 6; they very rarely implement IT. Their implementation approach is usually the equivalent to BPR, except as already mentioned, 'To be successful the reengineering effort must be spearheaded by at least one senior executive with clout'. This is usually done by the Chief Executive delegating authority to McKinsey. The key challenge was raised earlier that, 'Large organisational-change programs are notoriously difficult to run: they involve changing the way people not only behave at work but also think about work', yet shareholder value takes precedence over this challenge. It is not uncommon for organisations to quickly return to type, when the Consultants leave. A comparison between Hearts & Minds and BPR has already been made, but to reinforce from Chapter 3 regards what's in it for the target audience?

Hearts & Minds offers some unique attributes, which are summarised as follows:

- Working within the target culture, but importing new ideas.
- Incremental belief, not replacement.
- Everything focussed on a better life.
- Unique Training Team role.
- Dignified handling of converts to the cause.

This is very different from putting in place new processes, so that shareholders can derive bigger profits.

Exemplars of Haringtons and IBM from Chapter 1 also offer some final conclusions. The founders of Haringtons still work alongside the staff; their management
style is ‘chaperoned empowerment’, not enforcement. Louis Gerstner, ex-McKinsey, described the plight of IBM as, ‘Clearly, what we have been doing isn’t working. We lost $16 billion in three years. Since 1985, more than 175,000 employees have lost their jobs.’ Helping clients recover from these situations is what the consulting firms do, but sustained culture change is not their forte.
Chapter 6

Case Study II: Wesleyan Assurance

6.1 Introduction

In this chapter, we examine a case study, which is the Wesleyan Assurance. Clarify the problems that the Hearts & Minds approach actually addressed not the strategic problems the company was facing. The strategic issues associated with the company did not form the remit of the consultancy activities; only those issues for addressing change management within the service provider irrespective of their overall strategy.

'The Wesleyan which was established in 1841 and operated for most of its life as an Industrial Branch (IB) Life (Assurance) Office selling products door-to-door and collecting premiums. However, this form of business was not sustainable and so the Wesleyan had to rethink its business strategy.'

'Having identified the need for change, they decided to work with McKinsey & Co, who analysed the current position & the viability of market, before producing a set of options and selecting the one that was best for them.'
The Solution was [81]:

- To stop selling IB business & maintain the existing business with the creation of a more cost effective premium collection service.
- To create a smaller more professional sales force capable of dealing with new regulation.
- To equip the new sales team with the latest laptop technology.
- To segment the customer base and tailor the level of contact accordingly.
- To pay the new sales team a higher salary and bonus based on premium growth.

Although not explicit, the Wesleyan decided to implement the changes themselves rather than ask McKinsey to do this for them. There were two reasons for this: (i) The culture of the Wesleyan was that once a commitment had been made to do something, their commitment to implement was very intense, almost toxic; (ii) Interestingly, they wanted to sustain the change and directors had to lead by example.

The key success factors in the change included:

- A realisation at the highest level that change was essential & a commitment to make it happen.
- The importance of communication.
- The need for good planning & co-ordination led by champions.
- The involvement of staff throughout.

*Wesleyan Today* reported that 'all the main deliverables of the initial programme have been implemented', that the company was now 'capable of delivering change internally' and 'applying the techniques to the acquisition of a sales force from two other organisations'. Putting this into context, the Wesleyan was the first UK Life Office to abandon commission-based sales [82] and

1. The first to deploy a Point of Sale (PoS) system FAITH (Financial Advice In The Home) for providing financial advice in the home.

3. Devised a new automated back-office system called SBS (Systems Business System), which integrated with the FAITH PoS system, the contact centre and new Customer Service facilities.

4. The only Financial Institution to win the Financial Advisor Technology Award on three consecutive occasions.

Unlike the previous Case Study this second Case Study relates to a Service Provider, who was delivering the Systems Business System (SBS) programme of which the author was the Programme Director.

This was a £24 million programme to provide the new SBS automated back-office system, which integrated with the FAITH PoS system, the contact centre and new Customer Service facilities. Outsourced services for day-to-day operations (£2 million pa. were also provided. The author was appointed after three previous failures to deliver the programme.

The relevance was the underlying change programme, which followed 'the basic steps described in the original paper [15] which the author devised and personally led interventions to radically improve staff communication, established a mission statement and set up underlying personal objectives together with a number of motivational initiatives. A brief summary of key events is as follows:
Perhaps the most important task to initiate the change was engaging Directors of the supplier to resolve organisational fragmentation to provide a single programme to the client including the necessary culture change. This enabled the following to be accomplished: (i) Resolved contractual difficulties, conducted a cost-to-complete exercise and agreed deliverables with client, restructured the Cost Office and significantly improved financial control; (ii) Set-up a Programme Office to deliver effective matrix management and process improvement; (iii) Resolved account management issues; normalised client relationships and initiated a partnering programme; (iv) Assessed key outsourced service issues and made improvements to overnight processing, lap-top connections, Call Centre, Help Desk, Desktop Services, Branch Office support; including a complete review of competencies with consequential remedial training; (v) Addressed the lack of a working version of a vendorised customer service database using ORACLE technology. Set up a task force to produce a translated working version. Also resolved vendor relationship and EU working time directive problems
6.1. INTRODUCTION

(vi) Reviewed development lifecycle and put in place regular milestone reviews, version control, Change Review Board and control documentation. Also installed a formal design review process; (vii) Transferred a newly acquired Contact Centre from Bristol to Birmingham; (viii) Recovered the interim customer database and workflow release, including importing large-scale migration skills. Put all other remaining releases under proper planning and control (ix) Recovered the Billing & Collections project; resolved key vendor problems as well as implementing 11 incremental legacy code interfaces costing 0.3 million; (x) Completed build of all releases on time and to the 22DEC97 deadline, the most significant release being delivered 8 weeks early, using the latest RAD (Rapid Application Development) techniques; (xi) Successfully bid 6.7 million incremental business to integrate two new acquisitions. This release (Release 9) involved 36 weeks of development time which was accomplished in 16 weeks, which was delivered on-time and under budget.

We now consider some insights into how that change programme was devised and delivered. A Hearts & Minds approach was adopted, but the situation was quite different from the 'Sun Life' Case Study. At Sun Life the staff were long-serving, they had not enjoyed success for some time, they were a single unified culture, which was based in one main centre and were part of a previously very old hierarchical organisation. Their customers in the business were equally similar. At the Wesleyan, the client had already been through a culture change programme themselves (as discussed earlier); yet the relationship between the Service Provider and themselves had become dysfunctional. There were a number of reasons for this:

- The programme was being run to generate profit for the Service Provider.
- The Service Provider used a business model where staff was rotated from their original organisation post-outsourced by TUPE\(^1\) into other client programmes.
- There had been a failure to deliver.
- The relationship was not founded on delivering results, but on disputes about money and service levels - the latter being impossible to achieve.

\(^1\)The Transfer of Undertakings (Protection of Employment) Regulations 1981
Within the service provider, there was a divide between service and development staffs, who operated under separate governance.

There were cultural differences between the 'new entrants' from TUPE and the 'original development staff'.

The client was previously a management trainee at MARS and demonstrated commercial skills, which were superior to those of the Service Provider.

TUPE covers 'changes in the ownership of businesses and in service contracting are a normal part of business life in both the private sector and the public. Such changes can be made easier for all concerned if the employees know where they stand. The Transfer of Undertakings (Protection of Employment) Regulations, commonly known as the TUPE Regulations, safeguard employees rights where businesses change hands between employers. However, they are widely regarded, by all groups whose interests are affected by them, as operating less satisfactorily than they might. This can hamper necessary change, and impose a burden on business. This consultation document sets out proposals for the Regulations reform.' [83]

These points were crystallised by the client, who said, 'We bought a programme team from you [service provider] to deliver the programme, not a set of different groups, who work separately.' Unlike Sun Life which was a permanent organisation, where people's intentions were shielded, the SBS Programme was transient and the cost to complete drivers did not allow time for a Climate Survey.

The four key initial actions therefore were:

- To integrate all staff in the programme irrespective of their owning unit within the service provider.
- For everyone to become members of a programme team.
- To behave that way and relate to the client.
- Establish a programme culture and break down barriers.

A Needs & Wants survey [84] was conducted, which is now discussed. The results in ranked order, starting with the largest score (see Figure 6.1).
Communication
A number of initiatives were instituted to communicate to the programme team on a consistent basis using Hearts & Minds principles. Two teams were set up to cover Communications and Awareness. The Communications team took charge of producing a Newsletter - The Quest, a weekly information bulletin and Programme Review Meetings. As in case of Sun Life, the relationship with the client was repaired using partnering workshops. This was initiated with one-to-one meetings.

Equipment/Technology
Two email systems were in use, which made it difficult for people to communicate and pass information to each other.

Work Environment
The office accommodation was cramped and to overcome this problem, the client made available office space in his own headquarters building.

Time Management
'Making it easier to meet deadlines is currently being looked into.' There were a
Figure 6.1: Number of responses to a given category.
6.1. INTRODUCTION

number of facets. Generally, people didn't work smart; the programme was encapsulated in a fixed price/cost-to-complete contract, so there was a constant drive to catch up and address past failures to deliver. The estimating and planning of work was challenging, but not always realistic. There was very little 'will-to-win'. In some cases, arrogance existed of having already proven themselves and not being bothered with repeating that.

Training
To integrate everyone into the programme culture an induction process was introduced as was relevant training.

Direction/Management
There was confusion with some people, who were trying to meet the programme mission, while still trying to meet the mission of their owning department. Sometimes, these were in conflict and sometimes even included conflicting direction from their owning departments. A mission statement and cascade process was introduced to help provide a common focus and direction for the programme. The relevant board directors were approached and asked to give their support to the programme mission, which they did and were supportive in communicating to the staffs.

Resources
Resourcing was a constant problem and was also complex and made large time demands on the part of management. A dedicated resource manager was recruited, who demanded respect across the entire service provider.

Rewards
This was addressed by accepting reasonable requests for overnight accommodation in Birmingham due to long working hours/travel can be met.
6.2 Other observed factors

These are encapsulated in a set of observations, whose main conclusions were as follows [85]:

**Key Features**

- Personal Objective setting will include team working, initiative taking behaviours
- 50% of the appraisal will now be behavioural and hence salary reviews will be affected
- Continuation of behaviours into the workplace from the course is key
- Teamworking Assessment (starts 29SEP97)
- Management by example
- IV (teambuilding course) feedback in the workplace
- Increased vigilance of Assignment Reviews

**Why?**

- Increased work pace
- Guarantees delivery to the Wesleyan
- More job satisfaction and pride
- Led not driven
- The whole is greater than the sum of the parts
- Frees up management time
- Ensures a seamless SDLC and reduces rework
- To release natural talents
6.2. OTHER OBSERVED FACTORS

Wesleyan perspective

- 'We don't do what we say'
- The legacy of Rover and Connections
- Cross-programme working is essential
- Last but not least... the Wesleyan bought a programme team

What are teams?

- Greater reliance on the individual
- Management as a resource
- Peer group pressure
- Greater expectations of individual performance
- Dynamic leadership assignment
- Status and Grade free
- Increased assumptions
- Non-hierarchical

Management perspective

- initiative taking so we [management] can focus on our own jobs
- reliable staff
- effective kaizen
- to reduce rework
- to achieve the CTC [Cost-to-Complete] for SBS
- BookCase success
- the supplier's development process
- partnering with vendors
- better quality and results
CHAPTER 6. CASE STUDY II: WESLEYAN ASSURANCE

6.3 Implementation

Returning to the four key initial actions, i.e.

- To integrate all staff in the programme irrespective of their owning unit within the service provider.
- For everyone to become members of a programme team.
- To behave as a programme and relate to the client accordingly.
- Establish a programme culture and break down barriers.

The change process was initiated on the basis of four key objectives [86]:

- To understand the underlying mechanisms of Hearts & Minds.
- To explore the functioning of Awareness and Information teams.
- To relate this to the raising of a Mission Statement.
- To relate this approach to the Wesleyan Programme.

A briefing for the ITTT then followed [87]:

"The Wesleyan Programme is one of the top 6 programmes in (the Service Provider) and in the Financial Sector will be the show case programme, which will be rolled out globally. The Wesleyan outsourced their entire IT Division to (the Service Provider), so that we now run their machines in our Datacentre, we maintain their legacy systems and provide PC Support. We are also engaged in redeveloping their entire applications portfolio. FAITH won best lap-top application in the insurance sector, SBS is the name of the new back office system which is now under development. The caretaker team have managed to keep the programme going after the resignation of the previous programme manager and as a result a culture change is needed within the programme to address communications and further to activate the middle management to their proper role. At present their accountability is low and communications with the Wesleyan is both uncoordinated and at times mischievous. Control and discipline are also weak. Unusually, the organisational structure is all there but needs activating. Some people have already been earmarked to run the Awareness
6.4. THE MISSION STATEMENT

and Communications teams. Audits are planned for the design, requirements and version control respectively. Emmanuel (an ITTT member) will also be helping the new DA (Design Authority) function to get up to speed with the help of FRG (an outside donor).¹

6.4 The Mission Statement

The key aspect to moving forward, was the need to build a single Programme, with a culture, which reflected its purpose. At a communication meeting, the author summarised this situation as follows [88]:

'In short, the need is ever greater for us all to know within our respective roles what are contributions can be and how we can support the Programme Mission Statement. Without doubt, the Wesleyan have an ever increasing reliance upon each and everyone of us, whoever we may be and wherever we originate from.'

An enhancement² from the Sun Life situation was that the staff were given the task of examining their situation and then devising the Mission Statement, which management then endorsed.

To achieve this, a project brief [89] was designed, which set out the following:

**TASK:** The nature of the Wesleyan Programme is a 3-month release cycle, which features fixed deadlines and is essentially fixed price. The SBS system is also complex and requires 05/123 design standards. Engineering disciplines are also of paramount importance. The Wesleyan customer is dynamic and pushes us to the limit. This is a situation which you either love or hate. Assuming the former, great agility is needed, as is the need for very tight discipline in everything we do. Mandatory disciplines are change control, the downstream customer within the SDLC, requirements precision and tracking the cost-to-complete.

The nature of a Programme is still unusual. The US Department of Defence invented the management technique of strong matrix management to ensure that all outputs are integrated into a total system deliverable. The flat organisational struc-

¹The idea came from John Taylor, the Programme Office Manager

²The idea came from John Taylor, the Programme Office Manager
CHAPTER 6. CASE STUDY II: WESLEYAN ASSURANCE

ture of the programme is also new. Some people have been conditioned to hierarchical life and its resultant cosiness. Finally, the power of teamwork needs to be tempered by the punishing reliance upon us as individuals, especially those of us who are specialists and who often go unnoticed in the grand order of things. High levels of personal accountability are mandatory.

A survey was recently conducted which gives insights into the present culture of the Wesleyan Programme. Your task is firstly to describe your vision of the culture, which is needed to deliver to the Wesleyan with more ease. Secondly, to analyse the differences between the present culture and your new target culture. Thirdly, to deduce the personality traits of people, who would be ideal for this work.

OBJECTIVES:

1. To describe the ideal culture for delivering service and developments to the Wesleyan customer.

2. To analyse the differences between the survey results of the present culture and your target culture.

3. To deduce personality traits, which are needed in people to best, embrace your target culture.

As in the case of Sun Life, no team can be effective without a purpose, the key strategic objectives, the values and behaviours that everyone in the organisation will adopt to achieve the mission and objectives.

The project brief was further backed-up by a secondary set of projects:

• Achieving 100% Connections
• Achieving 100% Overnight Work
• Improving overnight processing
• Installing a Design Authority
• Installing Version Control
• Owning the SDLC process
6.4. THE MISSION STATEMENT

- Personal Objectives Process
- Programme Induction
- Project Briefs/02JUN97
- Project Sponsor Notes
- Project(s) Briefing
- Providing superior DT services
- Skills Audit
- Team Assessment Exercise
- Teambuilding & Self-motivation
- What is a proactive Help Desk?
- Working with the Wesleyan
- World Class PC Repairs
- Xmas Charity Show

Some of these were related to restoring programme delivery, (Achieving 100% Connections), but the key projects are underlined and out of these Personal Objectives was key. As in the case of Sun Life, measuring people in the effectiveness of performing their job role is a basic requirement, but how they go about fulfilling their job role is vital in terms of implementing the values in the mission statement. This approach was pioneered by David Steele at Marconi and later introduced by Bob and Sally Garratt at Sun Life. In summary the appraisal process weights job competencies as 50%, with behavioural demonstration of the values the other 50%. In the case of the Wesleyan, team working irrespective of owning department for employees or contractor status or client was unimportant. To assist in the process, the delegates for the Hughie Vernon course were always mixed and further joint working was promoted wherever possible. The client supported this intervention to the extent of asking for input into
the appraisals of their own staff. Board level directors were also 'encouraged' to adopt these values in addition to partnering behaviours.

The Mission Statement, which they produced is shown in Figure 6.2

The term 'QUEST' was the pseudonym for the cultural values devised by the programme staff, namely Quality, Unity, Empathy, Synergy and Trust. 'FORWARD' meant 'we need to draw a line with the past and move forward'. TOGETHER meant 'we need to become a programme team and work as a team'. 'QUEST' for excellence' was taken to mean 'we need to deliver and improve productivity'.

By the end of week 2 of the change process, the following indications were evident [90]:

- Decisions are now being taken
6.5. THE TRAINING COURSE

- Teamwork between all elements now exists
- Programme Office role has emerged
- Stream Managers continue to find solutions 'outside the box'
- We continue to find gems of people
- Being in control is now a reality
- Putting the best interests of our customer first is now also a reality
- Decisions must be taken within timeframe
- Accelerate Business Requirements function intro
- DA progress unsatisfactory
- Be very very careful with Tender Vetting
- What's the nature of the Customer relationship?
- Start getting use to being uncomfortable

These indications lead onto the training course and the partnering agreement.

6.5 The Training course

The training course was radically developed by Hughie Vernon based on the self-motivation course designed for GEC subsidiary by the author. He was previously a member of the FTIT at Sun Life. It is therefore of no surprise that in addition to his course not only reflecting and reinforcing Hearts & Minds, it also encapsulated the principles within its design. The outline of the course is summarised below, which converts a 'working group' into what he terms 'a performing team' [91]. There were two fundamental aspects to this training:

1. 'Persuading people to accept the cause, by involving them in a vision of their own secure and prosperous future.'

2. 'Hearts & Minds in Teams:
What this form of training achieved above all, was to bring together previously disparate groups working to a common purpose in a neutral setting of the outdoors. It used all the benefits of outward bound training, but without the hardships of survival, but retained the levelling effect. Above all, he [Hughie Vernen] sensitively selected course delegates in accordance with the diagonal cross-section, but also skilfully and with some sensitivity regulated the attainment level in line with age, physical fitness and mental stamina. As a result, everyone received a learning experience. The client was quick to realise the value of this training and in parallel with partnering workshops also 'threw in his lot' with this training making a request for full inclusion. The iconic power of the author and client being seen working together was boundless and sent a strong subliminal message to all programme members that this was where we were all heading.

6.6 The partnering agreement

The relationship between the programme and the client had deteriorated to almost beyond repair. Joanne Sujansky [92] describes partnering as 'effective partnering is characterised by a collaborative mode of working together, resulting in Win-Win situations.' Partnering has its roots in counselling and conflict resolution. It has also been compared to running of a solicitor's practice, where each partner is independent, but nevertheless works to a common set of goals. It quickly rose to significance in the commercial arena, when it was used by British Airways to resolve conflicts with the unions and also with travel agents. Its most famous use was harnessing win-win solutions between its IT and the various business groups. In a similar way, Saturn cars in the USA, forged Win-Win situations with the Autoworkers Union. The main characteristics are [93]:

- Gaining Knowledge
- Informing
- Active: Mutual trust, respect, support
- Releasing and realising full potential
6.6. THE PARTNERING AGREEMENT

- Both parties working to mutual objectives from within their respective roles
- Openness
- Honesty
- Clarity
- Commitment

This form of intervention is best implemented by workshops attended by representatives from both parties and repeated until the entire population of key players have attended. At the Wesleyan this was so important that it was decided to use the author and the client as icons again and it was they that attended the very first partnering workshop to give the opening speeches. The summary of the authors was as follows [94]: 'What does the Programme need from the Wesleyan?'

- A partnering agreement
- A Programme Contract and a different commercial relationship
- Continued support for cultural initiatives
- Involvement from the outset on new business ventures
- Access to the inner sanctum and business vision
- An agreed 5-Year Plan

In some cases, the lack of productivity came in for special attention, since the work was encapsulated in a fixed-price contract. The following conclusions were identified in a [95] Cost-to-Complete (CTC) report:

- Replacement of contractors
- Profiling of entire programme staff
- Reduction of programme headcount
- Reduction of waste and rework
- Productivity targets
• Strict estimation controls
• Trapping of scope increases
• Enhanced Change Review Board
• Single assignment working
• Continuation of weekly Milestone Reviews
• Delayered programme structure
• Cultural change initiatives
• Visible Management
• Proactive Resourcing Cell
• SBS Design Authority set up
• Cost Office integrated
• Management of Wesleyan Assets
• Military Operations Room for Cutovers
• Restore conventional SDLC proportions

6.7 Discussion

The Hearts & Minds approach worked primarily through the ITTT and the Communications and Awareness teams. The main challenge was to integrate all members of the programme team irrespective of the owning unit, employee or TUPE origin. The main constraint was revenue to the Service Supplier and anything that distracted from that was a threat. At times, revenue and profit took priority over delivery of the programme itself. Unlike a permanent organisation, there is merit in investing in organisational change, but with a transient organisation it was marginal. However, the ITTT concept did work, and the following CSFs were achieved, which were relevant to both profit and delivery:
6.7. DISCUSSION

- Increased productivity.
- Measured delivery and service.
- Improved engineering disciplines.

The two hearts and minds aspects, which were instrumental to success were: (i) Self-motivation course, which had been developed further from Sun Life and brought mixed teams from across the programme with the client together; (ii) communication was very key, it harnessed the programme together and linked the client and everybody knew what was happening; the influence of owning units was also addressed.

Although not specifically Hearts & Minds was the impact of partnering, which was analogous to getting the firqats to co-operate. It solved the conflict between the Service Provider and the Client and created some mutual objectives and moved commercial dialogue to the side, so that work could be focussed and greatly increased the chances of delivery. The final release (Release 10) was completed 8 weeks early using rapid development techniques, which both service provider and client worked together in a style not dissimilar to the approach taken for reannexing the Dhofar.
Chapter 7

Case Study III: Energis

7.1 Introduction

In the UK, deregulation of telecoms has come slowly. In July 2000, European Commission (EC) announced regulations to force BT to ‘unbundle the ‘local loop’ (the circuits between a telephone subscriber’s residence or business and the switching equipment/local telephone exchange) before the end of 2000, cutting the Telco’s current deadline in half [101]. One of the companies to compete with BT was Energis, which subsequently expanded into Europe. Energis relied on superior market intelligence to inform a demanding internal customer base in this high-pressure environment. The company operated a 6,800km network for an impressive blue chip client base in the UK and Ireland, focused on the corporate and government sectors, like most ‘tier one’ Telco’s. In July 2002 [102], Energis went into administration and its assets were acquired by Chelys, a company set up by its creditors who were owed about £700m ($1bn). Subsequently, Cable & Wireless acquired Energis in 2005, after the announcement a further 50 customers churned making a total of loss of 190 customers in just 8 months.

Energis was originally formed by the National Grid and was the most dynamic of all the telecommunications companies in the UK. Its growth was explosive taking the organisation to the very edge of sales control and project governance. It enjoyed some of the biggest key accounts in the travel, supermarket and financial services sectors.
7.2. The context

This Case Study had an unexpected outcome in that the initial developmental on a small team was superseded by serious shortcomings in the wider environment of the company itself. These shortcomings were detected by the Climate Survey, whose results went unheeded and subsequently the company failed. The sequence of events was as follows:

- Review of Management Team
- The need for an ODP identified
- ODP benchmarking
- Climate Survey
- ODP activation
- ODP launch
- Climate Survey results
- ODP Cancellation
- CEO resigns

Review of Management Team

The author was involved with initiating the development of a new business unit responsible for delivery of projects and reporting in at the divisional board level, the same level as the sales group [103]. This included:

- Reviewing the new vision and strategy for the new business unit
- Leading the transition from the existing customer project management to the new business unit reporting at board level and Group level stakeholders
- Acted as a role model for the internal staff both with regard to operating at a higher level within the organisation and also provided development & coaching of existing staff
• Assisting with the assessment of all existing staff

• Supporting the external sales team both at the tender stage and also facilitated self-improvement of own processes using Kaizen techniques and Case Studies

• Facilitating and mentoring the management team regards their internal relationship building.


**Identifying the need for an ODP**

The final recommendation led to development of a comprehensive Change Programme for the new business unit, including an in-depth diagnostic phase featuring an ODP and a Climate Survey respectively. Again hearts & minds was deployed. The Customer Project Management (CPM) and Bid Management functions were both part of Customer Operations and embarked upon the implementation of an ODP, in order to meet the challenge of the company migrating to higher value customers. The production of the ODP was based on a set of assumptions relating to the psychological climate existing:

• Needs & Wants survey

• Competencies Workshops

• Profiling

• Coaching

• External benchmarking

• Archive data

• Participant observation by the author
7.3. WHY USE THE ODP APPROACH?

It was later modified by the following as and when they became available:

- External benchmarking
- Climate Survey results

The management team were given the task to work as a team to formulate the ODP themselves, facilitated by the author, and the two other elements in addition to CPM, who would form the new Solutions Management Centre (SMC), were also included.

7.3 Why use the ODP approach?

The key activity arising from the Transition Plan was the need for an ODP [104]. This ODP is a stock-take of all the internal impediments affecting the CPM function as well as the external impacts. As the key deliverer, CPM is key to the whole Energis business. The objective of the ODP was to enable the CPM & Bid Management elements of the new SMC to fulfil their roles as well as having the capability of managing large projects effectively. The external impacts deserve special mention. The ODP represents a contribution to the dismantling of the 'silo culture'.

In real business terms, it is the building a synergy with outside elements e.g. the sales function to ensure a consistent business pipeline. The key driver of the ODP implementation style is sustaining the changes brought about, so that the ODP represents a sound investment and does not require constant refresh. To meet this driver, special attention has been given to the methods selected:

- Self-directed & facilitated teams.
- Bounded empowerment.
- Kaizen.

To enable these methods to be fully effective, adjustments are required to the current management regime. To ensure that other areas of Energis are included in the ODP learning; strong sponsorship from senior management of every project has been secured. Overall sponsorship for the ODP has also been secured in a similar fashion. A period of 12 months was needed, depending upon customer project lengths.
CHAPTER 7. CASE STUDY III: ENERGIS

and size. These are typical project sizes to be expected going forward, so by putting
the ODP place, will ensure that the ability to undertake this size of work without the
current level of cost overruns.

7.4 ODP benchmarking

The ODP itself was produced by the management team themselves strongly supported
by coaching from the author. This was in stark contrast to The Customer Edge
Programme, which was externally led by a Big-5 consultancy - Cap Gemini. The
following the four steps below:

1. Diagnosis and Assessment
2. Plan creation
3. Verification and CSFs
4. Validation and External Sponsorship

For the first two steps, the management team produced the ODP in a 2-day work­
shop facilitated by the author, with the remaining two steps being accomplished in a
second 2-day workshop [105].

Day 1: Diagnosis and Assessment

A start was made by reviewing all data collected to date by various consultancies
and any other source data. In particular, this data was cross-checked against the
‘Needs & Wants’ and the Climate Survey dimensions. Another important aspect was
a Values assessment, which had previously been performed. The objective of this
work was to gain a clear view of the state of the CPM organisation and therefore
a clear view of the needs to be addressed. The output from this workshop was a
diagnostic summary for each ODP dimension 1. A short presentation on the ODP
process was given as a kick-off together with the first half of the video [125] Let’s Get
IT Right was also shown. A number of conference calls were arranged with previous

1Organisation, Recruitment, Training, Human Resources, Communications and Methods & Con-
trols
7.4. ODP BENCHMARKING

Sun Life staff for ODP orientation purposes. A member from the Sun Life ITTT was also in attendance.

Day2: Create the Plan

This work used the headings from the previous day and listed the remedial actions needed. Where solutions were not known, the need was identified. The key focus was on addressing the organisational climate in CPM and not replicating other situations like Sun Life, the Wesleyan or British Airways; these only being references. The Sun Life ODP was used as a reference document for speed purposes only. A conference call was arranged with a member of the Wesleyan ITTT to give an overview of the day’s work and gain comments.

Day3 Verification and CSF’s

This was the opportunity for the ODP to be tested by the Team Leaders and also some visiting guests. This was done by Fagan Inspection\(^2\) of each ODP section. A short training session was given beforehand and an expert Moderator was used. The author produced the final draft and then be emailed to a former Sun Life member, (now resident in Colorado, USA), which was used as the basis for a conference call, with the correspondent role playing a 'recipient'. This workshop also included a rehearsal of the bulletised presentation for the final day.

Day4 Validation and External Sponsorship

The objectives for this workshop were as follows:

- To gain sign-off from a Judgement Board

- To identify sponsorship for the ODP and components

\(^2\)A quality inspection technique involving a Moderator, Reader Recorder; invented by Michael Fagan whilst at IBM
CHAPTER 7. CASE STUDY III: ENERGIS

This half-day entailed a formal presentation by the management team to a Judgement Board, which comprised:

- HR Director (The Boots Company Plc)
- Change management specialist (British Airways Plc)
- Total Quality Management (ex-USA FE)
- Change Agent (Sun Life ITTT)

Their respective assignments were HR and Recruitment, Organisation and Delivery, Training and Communications CSF's and Methods & Controls. The assessment criteria was disclosed to the team beforehand and covered the following criteria:

- Fluency and Understanding [17 points]
- Diagnosis and Response [16 points]
- Other parts of Energis [17 points]
- Presentations and final draft ODP [25 points]
- Belief and Ownership [25 points]

At the end of this presentation and after feedback has been given the final version of the ODP was produced. There were two presentations: (i) the ODP; (ii) the CSF's. For example the CSF's are depicted below [107]:

- Leadership
  - Visible staff management
  - Team working
  - Confident belief

- Communication
  - Coordinated
  - Structured and consistent
  - Open Honest and Free
7.4. ODP BENCHMARKING

- Cross diagonal

• Self Determination
  - Instil throughout the team
  - Follow through

• Innovation & Creativity
  - Problem solving
  - Finding better ways of working
  - Creating the environment

• Controlled Ownership
  - Empowerment
  - Responsibility
  - Motivation

• Increased Productivity
  - Criteria
  - Measurable

• Continuous Improvement
  - Culture
  - Sustaining change
  - Behaviour changes
  - Looking ahead and identifying and meeting future challenges

Although the management team 'failed to pass', nevertheless, the judgement board confirmed "that the ODP as a good basis for implementation. The Management team had not previously experienced benchmarking and consequently realised the scale of their task. Their learning was non-primitive, safe and non-threatening. They also experienced senior management in a new light - penetrating questioning, but with
dignity and sensitivity.

The Climate Survey

The CPM and Bid Management functions of Customer Operations have embarked upon the implementation of an ODP and the Climate Survey was commissioned to confirm the assumptions made [108]. Initially, the survey focussed solely upon these two functions. However, as the survey progressed, it became evident that many of the issues equally applied to the wider ECL and that the external impacts on the CPM and Bid Management functions had greater significance than the internal challenges. Two groups were involved in this survey:

- A diagonal cross-section of subjects from within the two functions.
- A second group drawn from outside the two functions, covering customers, directors, interfacing functions and Customer Edge.

The total group size was 34 out of which 62% responded, the results being shown in Figure 7.1. A copy of the questionnaire is given in Appendix G.

Results and sound bites are available for both groups. The results were reviewed externally and also calibrated against other surveys to ensure both validity and accuracy using a database maintained by Bob and Sally Garratt as given in Figure 7.2.

The purpose of this climate survey was to confirm those assumptions, in order to provide tangible evidence of the key issues to be addressed and ensure correct focus for the established ODP. The survey involved used the normal 10 attributes of a Litwin & Stringer questionnaire, but included the two additional attributes devised by Bob Garratt, which are shown below: This addressed 12 characteristics, namely:

1. Adaptiveness

[3]the Energis Corporate Change Programme
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**Figure 7.1: Climate Survey Results**

**7.4 OD Benchmarking**

| Average mid-point of totals | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Average of midpoints | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
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| Rank Based on Score Factor | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |

*Climate Survey - April 2001*
**Total Sample Rank Order Comparison (Based on Gap only)**

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Figure 7.12: Results and calibration of climate survey.
7.5  ODPACTIVATION

2. Work Quality
3. Clarity of Responsibility
4. Financial Rewards
5. Non-Financial Rewards
6. Organisational Clarity
7. Personal Performance
8. Group Performance
9. Learning Climate
10. Leadership
11. Customer Orientation
12. Competitor Analysis

7.5  ODPACTIVATION

At the time there was intense conflict between Sales and CPM and, in particular, CPM were excluded from the Bid Process, but expected to deliver customer commitments, some included impossible delivery dates, whilst others included products which Energis did not market. To launch the ODPACTIVATION, this conflict had to be addressed; this was triggered by the need to address difficulties between Project Management and Bid Management.

A pilot project was launched, which was devised to turn a conflict situation into a learning situation. The project used adopt-and-adapt principles. The project brief described their challenge as follows: 'Energis is establishing a new Bid Process, which features improved rigor and formality. It is expected that an independent unit will manage this new process across the whole of Energis. Your task is to build a new Pre-Sales Team within Solutions Management Centre to support the new Energis Bid Process.' There were two objectives:
1. To understand how an award-winning business improvement project was undertaken.

2. To adopt the principles and approaches learnt and then adapt regards setting up your own element of the wider Bid Process.

The award-winning business improvement project chosen was the winner of the 2000 USAF Chief of Staff Team Excellence Award [109], who conducted an intensive improvement activity that radically improved engine maintenance for the 48th Fighter Wing, based at RAF Lakenheath, Suffolk. The author was consulted at inception and recommended that kaizen be adopted, which was greeted with some surprise and reservation, but accepted. This project was chosen for its underlying conflicts and resolving these was the real key to success.

The background to this project was that the 48th is high up the ORBAT (The Order of Battle), but in 1998 the lack of spare engines became one of the worst in the entire USAF. This became so severe, that engines were being switched between aircraft overnight to give the illusion to the Pentagon, that the 48th was at full readiness, when in fact 22 aircraft were unserviceable. This became known as "the engine 'hole' problem".

The real problem was one of institutionalisation and segregation and engine maintenance staff being in a state of hopelessness. Senior NCOs also suppressed initiatives, bullied junior ranks and withheld budget to prevent resolution. At the start, staff spent 2 hours a day needlessly collecting and storing their own tools in high security stores; the maintenance shop had poor layout so staff were walking 248 miles a year; there were no proper tools; cheap parts costing 1p had to be ordered in the same way as high value items such as titanium turbine blades and finally, when parts required degreasing/washing, they had to be flown to Germany, because no facilities were available on the base.

Once the civilian idea of kaizen had been adopted, a diverse team drawn from the warring factions was formed, which included: Air Logistics Center, Aerospace Systems Center, United States Air Forces in Europe (USAFE), Defense Logistics Agency, and Pratt & Whitney to overcome the engine 'hole' problem. This team was facilitated and identified the five key problem areas:
7.5. ODP ACTIVATION

1. Parts Processing
2. Bench Stock Parts Management
3. Tools and Equipment Serviceability/Availability
4. Parts Cleaning Procedures
5. Shop Layout

In summary, these were all solved and results were as follows:

- Overall module maintenance cycle time was reduced by an average of 38%
- The most significant decrease was 76%
- Although saving man-hours and reducing distance travelled were secondary goals, the results are just as spectacular.
- The number of man-hours needed to produce a serviceable module were reduced an average of 33%
- The distances travelled were also reduced 38% or by 248 miles per year.

Therefore, the learning opportunity presented by this project was how to overcome conflict and how to reorganise to achieve fitness for purpose. To ensure that the Project Team members engaged with their hosts, the Hawthorne Effect [110] (the special importance of social relations at work) was utilised, by Project Team members learning USAF terms and aircraft features prior to the visit. This had the effect of impressing their hosts, engagement was quickly cemented and the team benefited from increased learning, which also included a powerful confessional delivered by a senior NCO regards his bullying.

In conclusion, the 48th offered an alien environment, with identical problems of conflict, were a group of people who had worked together to solve daunting problems and had been highly successful; had been recognised for their achievements and above all appreciated the external interest shown by Energis.

This project was followed by five further projects as follows:

- Establishing competency baselines
• Develop a vision statement

• Develop Project Management Methodology

• Peer Organisation - Partnering Programme

• Appraisals (FREDS)\(^4\)

### 7.6 ODP launch

The population was carefully reviewed and in particular influential cynics identified and won-over to play key roles in the Awareness and Communications teams. This group were given a briefing of the progress to date [111]. This briefing gave the following highlights:

• WIIFM is the key driver

• Staff management is key

• Role definitions

• Based on belief and ownership

• High permanence

• You do it: consultants don’t do it to you

• Well proven techniques

• Your network is now starting to build

• Your chance to make a difference

They were then given the task of organising the launch event using the walkaway project brief process. A formal launch was held, with the total audience in attendance, together with some of the benchmarking panel and initial project audience.

\(^4\)FREDS refers to the in company appraisal system
7.7 Climate Survey results

After work had started it became clear that the problems demonstrated by the CPM was in response to senior management problems [108]. After this had been established attention switched to the wider context, with the Climate Survey being used as the key measuring tool. Using the extended version devised by Bob Garratt, it was his 12th dimension, which detected the real problem and what had started out as a climate survey of two components of the new Solutions Management Centre, became a survey about the whole company. Overall, 10 of the 12 characteristics were found to be above the cut-off level.

In Litwin & Stringer style, the results are explained below describing:

- Variance relative to cut-off
- Dimension description
- Diagnosis
- Example sound bites, external and internal
- Possible solution or significance

The top three variances ranked by internal view were:

1. Competitor analysis
2. Clarity of responsibilities
3. Organisational clarity and Personal performance [both equal 3rd]

Competitor Analysis (Ranked 1 by the internal view) +2.4(Cut-off)

People recognise who their competitors are and the specific bases for competition. Systems are in place to scan the external environment for any change of approach of a competitor to assess the consequent risks.

This is fundamental. Any organisation in a competitive market which does not understand competitors; in what boundaries they operate; what changes are taking place in the wider environment; how competitors operate and their own position in the value chain. Such organisations do not exist for very long as instanced by the
'humbling' of IBM, who at one time dominated markets. Energis is at serious risk without this being subsumed 100% into their culture. Some example sound bites included 'they don't understand the other network providers to the level they should do' and 'I don't think we do any - I haven't seen any!' Finally, as one observer put it, 'I think that the absence is a form of arrogance'. Clearly, this is a key priority for Energis.

Clarity of Responsibilities (Ranked 2 by the internal view) +2.4 (Cut-off)
This is characterised by both work groups and individuals understanding who is responsible for what - upwards, downwards and sideways. Overwhelmingly, this issue stems from the silo culture - a set of vertical chimneys, trying to implement a process across the organisation, without overlap and without agreement of the boundaries of responsibility. There is also a serious imbalance between process vs. competency. Perhaps the most vivid example is that polarised around sales and the interfacing with customers. Some example soundbites included: 'Disjointed in the way we operate; a silo mentality, email mentality' (Ext) and 'Lines of responsibility between groups is not clear' (Int). The mission statement should be cascaded down throughout the entire organisation down to the level of the individual. This is a company challenge and not solely a CPM or Bid Management problem. Introducing partnering between sales and other customer facing functions will bring immediate benefits to the bottom line.

Organisational Clarity (Ranked =3 by the internal view) +1.8 (Cut-off)
This is characterised by the feeling among staff that work goals are clear and that the organisation’s structure and processes are appropriate, rather than being confused, disorderly or chaotic. A serious confusion exists within the wider organisation regards objectives. Even if that were not the case - a lack of respect between silos would make implementation difficult. More worrying is the visibility to the customer, which seen through their eyes implies a lack of control and proper governance. Example soundbites included: 'Their goals are unclear, we are never sure what they are' (Ext) and 'Structure confused and chaotic' (Int). Some subjects raised the point that they had no objectives. Mostly, this can be addressed, but only after the organisational struc-
7.8. ODP CANCELLATION

Personal Performance (Ranked =3 by the internal view) +1.1 (Cut-off)
This is characterised by the fact that there are systems by which individuals can get a measure of their individual performances in relation to work targets and their contribution to the output of the organisation as a whole. The current appraisal system is too simplistic. Example soundbites included: 'Don't have a clear understanding of what the goals are, hence the performance objectives supporting these are bound to be inconsistent' (External) and 'Little feedback on performance, the mechanism is at fault, which is vague' (Internal). An ODP initiative exists to not only review the appraisal system, but also to add the measurement of the Mission Statement values, (when available).

7.8 ODP Cancellation

Provide a paragraph on the consequences of the Hearts & Minds approach being aborted

As has been discussed in Chapters 1.1 and 3 - large organisational-change programmes are notoriously difficult to run: they involve changing the way people not only behave at work but also think about work. Further, neglecting people's values, beliefs and the corporate culture. This pitfall has widespread impact and is the inverse of the Hearts & Minds approach of working within the target culture. The impact will be a high propensity to 'return to type'. Hearts & Minds relies greatly not just on trust with the target audience, but also maintaining it and is one of the strong drivers for sustained change. The use of Needs & Wants was discussed in Section 3.2.2, but it needs to be emphasised here that their delivery is non-negotiable. In other words, management must deliver them. Therefore, when there is a failure to deliver trust is lost and cannot be recovered. In the case of Energis, trust had been lost by the cancellation of the ODP and the chances of relaunching were zeroised by the non-delivery of the Needs & Wants. In other words, the situation was terminal, which the following commentary illustrates.

The ODP was aborted soon after the results of the climate survey became under-
stood. This occurred when the initial launch budget had been used and the main budget failed to materialise. By this time, the Board was focussed on reducing costs and trying to save the company. The very people who had been motivated and had found the courage to embark on radical change, were key to the recovery. Management refused to take a decision, but suggested that somehow we keep the ODP going, but without further expenditure, (the use of consultants like the author). The management expected the staff [target audience] to affect the change upon themselves unaided. To their credit, the staff did manage to run the ODP unaided for a short while, before the company went into a downward spiral. The only reprieve the staff received was that the indecisive manager responsible left the company, when it was refloated.

These soundbites describe the situation at the time:

- ‘the staff were numbed with disbelief’
- ‘take-off had been successful’
- ‘the rug was pulled’
- ‘Some cynics were right behind the ODP, you could almost taste the success’
- ‘people are fragile and can’t be taken advantage of - you only get one chance’

Even today regret exists, ‘that the Company had not followed through, because the ODP would have changed the organisation for the better’, and surprisingly, ‘if the ODP had taken place 18 months earlier, then company would have been saved.’

The CEO in question was a well-respected and capable person. When he left the company to join a Venture Capital (VC) firm, his leadership was sorely missed and the company quickly spiralled downhill. The VC firm he joined tried to assemble a rescue package, but a consortium of banks (Chelys) won in the end. The CEO also attempted to persuade the board to continue the ODP funding for the new Solutions Management Centre (SMC), which became a vital function in the relaunched company.
7.9. **SUMMARY**

7.9 Summary

The conclusion of the climate survey [108] crystallises this Case Study. "After undertaking this survey, one is left with a compelling impression of a very successful company, which has gone through massive growth. Staff management had become weak and the staff has been left to fend for themselves. One of the ways they have reduced stress was to take refuge in their silos and only their part of 'the process'. They have in effect, adopted a siege mentality equipping themselves with rules, to such an extent that, 'the project has gone in despite Energis, not because of Energis'.

Adaptiveness has been mis-used to try to control the volume of business and guard against burnout.

Another characteristic of concern is leadership. Again this is linked to the silo culture. Some behaviours go beyond employment law; whilst others are weak, Certainly, the notion of leadership by anyone in terms of taking responsibility for improving their own situation is new. Overall, the lack of respect for leadership is visible and triggered by body language, which is incompatible with the message. The organisation has never really stopped to review its size. The silo’s I suspect have grown out of the founding teams and a sausage factory has emerged - its implementation being like a jigsaw puzzle.

With the advent of capturing big-ticket customers, one needs to see the introduction of proper account and project management with all the attendant competencies. Large customers do not want to be treated by a process. Rather, they want to be serviced by capable pairs of hands, who can make changes to Energis in order to serve them, rather than the converse. As larger customers are acquired, then planning and preparation must become the order of the day - not the amateurism of pulling 'cats out of bags', which is so extant today. Accordingly, planning and preparation should be rewarded.

The original assumptions for the climate survey results set during the ODP workshops were as follows:

- Leadership (across Energis)
- Adaptiveness
• Clarity of Responsibility
• Organisational Clarity
• Personal Performance (too much reliance on Contractors)
• Group Performance
• Learning Climate (need to make time to learn - PIRs$^5$)
• Work Quality
• Financial Reward
• Non-Financial Reward

With the exception of Financial Reward, (which has been addressed by the competencies workshops), all are reflected in the results of this survey and therefore no significant changes to the ODP are needed. However, these results do highlight the applicability of these issues in the wider Energis existing outside the confines of CPM and Bid Management.$^9$
Chapter 8

Quantitative Analysis

8.1 Introduction

Does the Hearts & Minds approach to managing organisation work? If so, can we prove it? To assess this we ideally need to create a quantitative model for the effect that the Hearts & Minds approach to managing change has on an organisation. In order to provide evidence for the success or otherwise of such a model, we need to assess it in terms of available data, which by the very nature of the problem will be of a statistical type.

This chapter is devoted to the development of a quantitative model that is designed to gauge the characteristics of a dynamical system based on three principal considerations:

- The non-stationary behaviour associated with any system undergoing continuous change that is driven by its management structures.
- The cause and effect that is inherent at all scales (i.e. all levels of management hierarchy).
- The self-similar nature of outcomes relating to (1) and (2) above.

Let us model the system according to a scenario that is compounded in the following points:
• The 'system' can be assessed in terms of its information network.
• The network consists of a distribution of nodes from which information can flow in and out.
• The 'efficiency' of the system is determined by the level of randomness associated with the direction of the flow of information to and from each node.

The nodes of the system are taken to be individuals whose assessment of the information they acquire together with their remit, responsibilities and initiative determine the direction of the information flow from one node to the next. The determination of the efficiency of a system in terms of randomness is the most critical in terms of the model we develop. It suggests that the performance of a business is related to how well information flows through an organisation from one node to another. If the information flow is entirely random, then we might surmise that the decisions made which drive the direction of the system are also entirely random. However, even if this is the case, there is a fundamental statement we can make about the resultant associated with such an entirely random flow of information which is discussed in the following section. The principal point here is that the flow of information has a direct relationship on the management decisions that are made on behalf of the organisation.

8.2 Random Information Flows

Let us consider a two-dimensional network in which the information nodes (points that receive and transmit) are randomly distributed in the 'plane' as shown in Figure 8.1. This is a model for a system that is composed of a random distribution of nodes which represent the point at which information is received, assessed and passed on (to the next node). For an entirely random system, the information flow lines connect randomly forming an arbitrary path or 'random walk'. Let us consider the case, were information originates from one node at the origin of the plane and where the path length from one node to the next is fixed and denoted by $L$. At each node, the direction in which an information flow line can take is determined by any arbitrary angle between 0 and 360 degrees. What is the most likely resultant distance $R$ in the plane (i.e. the distance from the original node to the $n$th node) at which information
Figure 8.1: Schematic diagram illustrating the random flow of information from one 'node' to another.

has arrived after $n$ steps? The answer to this question is that

$$R = L\sqrt{n},$$

a result that was first derived by Albert Einstein in 1905 [112] as a model for Brownian motion - the motion of a small particle, suspended in a fluid.

To take the other extreme, if the nodes from which information was received and transmitted were all in line and equally spaced, the resultant after $n$ steps would be just

$$R = Ln.$$ 

This is an example of fully coherent information flow, whereas the previous example is an example of what we shall call incoherent information flow. Thus, the difference between perfect coherence and incoherence is compounded in the square root of the number of nodes involved in the flow of information from one point in the network to another. Now, if the number of steps taken for the information to flow from one point in the network to the $n$th point is large, then since each step will take a finite
amount of time, we can consider information flow to be proportion to time \( t \) for a fully coherent flow and proportional to \( \sqrt{t} \) for an incoherent flow. However, it is possible that no information flow occurs. In such a case, the information flow is zero, i.e. proportional to \( t_0 = 0 \). Clearly as indicated in Figure 9.1 we cannot expect the step length representing the flow of information from one node to another to be of the same length \( L \). In general, each step will be smaller or larger, but small or larger than what? If we let \( L \) be the average value of the all the possible step lengths, i.e. the mean free path, then we can say that on average, each step will indeed be of length \( L \) and the results given above hold as written. However, these results are based on a model whose increments are identical and independently distributed random variables. That is, the direction of information flow at the \( n \)th node is entirely random and independent of the information output from the \( (n-1) \)th node.

We can use the random walk model to interpret the flow of information through a complex network of 'sites' that are responsible for passing on the information from one site to the next. If a packet of information (e.g. a stream of bits of arbitrary length) travels directly from A to B, then, in terms of the random walk models discussed above, the model associated with this information exchange is 'propagative'; it is a coherent process which is correlated in time and its principal physical characteristic is determined by the speed at which the information flows from A to B. On the other hand, suppose that this information packet is transferred from A to B via information interchange sites C, D,...,Z,... In this case the flow of information is diffusive and is characterised by the diffusivity of the information interchange 'system'. To a first order approximation the diffusivity will depend on the number of sites that are required to manage the reception and transmission of the information packet. As the number of sites decreases the flow of information becomes more propagative and less diffusive. Thus, we can consider the Internet, for example (albeit a good one) to be a source of information diffusion, not in terms of the diffusion of the information it conveys but in terms of the way in which information packets 'walk through' the network. The propagation/diffusion of information concerning management decision and their implications throughout an organisation can be modeled in an equivalent way. This is the basis for the arguments given in this Chapter which are designed to yield a quantitative approach to assessing organisation change.
8.3 The Hurst Model

So far in this chapter, we have considered random processes that characterise fully coherent (propagative) and fully incoherent (diffusive) behaviour and through the physical interpretation of such processes we have related them to differential operators associated with the corresponding macroscopic behaviour. For a random walk model in the plane, \( A(t) = at \) for a coherent walk and \( A(t) = a\sqrt{t} \) for an incoherent walk. However, what would be the result if the walk was neither coherent or incoherent but partial coherent/incoherent? In other words, suppose the random walk exhibited a bias with regard to the distribution of angles used to change the direction. What would be the effect on the scaling law \( \sqrt{t} \)? Intuitively, one expects that as the distribution of angles reduces, the corresponding walk becomes more and more coherent, exhibiting longer and longer time correlations until the process conforms to the scaling law \( t \). A simulation of just such an effect is given in Figure 8.2 which shows a random walk in the (real) plane as the (uniform) distribution of angles decreases. The walk becomes less and less random as the width of the distribution is reduced. The equivalent effect for a random phase walk in three-dimensions is given in Figure 8.3. Each position of the walk

\[
(x_j, y_j, z_j), \quad j = 1, 2, 3, ..., N
\]

has been computed using

\[
x_j = \sum_{i=1}^{j} \cos(\theta_i) \cos(\phi_i)
\]

\[
y_j = \sum_{i=1}^{j} \sin(\theta_i) \cos(\phi_i)
\]

\[
z_j = \sum_{i=1}^{j} \sin(\phi_i)
\]

for \( N = 500 \). The uniform random number generator used to compute \( \theta_i \) and \( \phi_i \) is the same but with seeds of different magnitude. Conceptually, scaling models associated with the intermediate case(s) should be based on a generalisation of the scaling laws \( \sqrt{t} \) and \( t \) to the form \( t^H \) where \( 0.5 < H < 1 \). This reasoning is the basis for generalising the random walk processes considered so far.
Figure 8.2: Random phase walks in the plane for a uniform distribution of angles \( \theta_i \in [0, 2\pi] \) (top left), \( \theta_i \in [0, 1.9\pi] \) (top right), \( \theta_i \in [0, 1.8\pi] \) (bottom left) and \( \theta_i \in [0, 1.2\pi] \) (bottom right).
Figure 8.3: Three dimensional random phase walks for a uniform distribution of angles $(\theta_i, \phi_i) \in ([0, 2\pi], [0, 2\pi])$ (top left), $(\theta_i, \phi_i) \in ([0, 1.6\pi], [0, 1.6\pi])$ (top right), $(\theta_i, \phi_i) \in ([0, 1.3\pi], [0, 1.3\pi])$ (bottom left) and $(\theta_i, \phi_i) \in ([0, \pi], [0, \pi])$ (bottom right).
In a real information network especially one that is undergoing some form of sustained organisational change, it is not reasonable to expect the network to be characterised by any single state, i.e. zero information flow, incoherent flow or coherent flow. Instead, most systems will be characterised by a generalisation of these categories. Thus, we consider a model for information flow given by

\[ R(t) = Lt^H, 0 < H < 1 \]

where \( L \) is the mean free path, \( t \) is time and \( R \) is the most likely point in the network that the information has flowed to.

The exponent \( H \) is known as the Hurst dimension [113] named after the Englishman H. E. Hurst (1900-1978), a civil engineer who designed dams and worked on the river Nile dam projects. He studied the Nile so extensively that some Egyptians reportedly nicknamed him ‘the father of the Nile.’ The Nile river posed an interesting problem for Hurst as a hydrologist. When designing a dam, hydrologists need to estimate the necessary storage capacity of the resulting reservoir. An influx of water occurs through various natural sources (rainfall, river overflows etc.) and a regulated amount needed to be released for primarily agricultural purposes. The storage capacity of a reservoir is based on the net water flow. Hydrologists usually begin by assuming that the water influx is random, a perfectly reasonable assumption when dealing with a complex ecosystem. Hurst, however, had studied the 847-year record that the Egyptians had kept of the Nile river overflows, from 622 to 1469. Hurst noticed that large overflows tended to be followed by large overflows until abruptly, the system would then change to low overflows, which also tended to be followed by low overflows. There seemed to be cycles, but with no predictable period. Standard statistical analysis revealed no significant correlations between observations, so Hurst developed his own methodology. Hurst was aware of Einstein’s (1905) work. Hurst’s idea was to use this property to test the Nile River’s overflows for randomness. In short, his method was as follows: Begin with a time series \( t[i] \) (with \( i = 1, 2, ..., n \)) which in Hurst’s case was annual discharges of the Nile River. (For markets it might be the daily changes in the price of a stock index and for our model, daily changes in information flow and management decisions based on this flow.) Next, create the
adjusted time series,

\[ T[i] = t[i] - \langle t \rangle \]

where \( \langle t \rangle \) is the mean value of the time series data. Cumulate this time series to give

\[ C[i] = T[1] + T[2] + \ldots + T[i], \quad i = 1, 2, \ldots, n \]

such that the start and end of the series are both zero and there is some curve in between. (The final value, \( C[n] \) has to be zero because the mean is zero.) Then, define the range to be the maximum minus the minimum value of this time series,

\[ R[n] = \text{max}(C[i]) - \text{min}(C[i]) \]

This adjusted range, \( R[n] \) is the distance the systems travels for the time index \( n \), i.e. the distance covered by a random walker if the data set \( T[i] \) were the set of steps. If we set \( n = t \) we can apply Einstein’s result for Random Brownian motion provided that the time series \( t[i] \) is independent for increasing values of \( i \). However, Einstein’s equation only applies to series that are in Brownian motion. Hurst’s contribution was to generalise this equation to

\[ (R/S)[n] = cn^H \]

where \( S \) is the standard deviation for the same \( n \) observations and \( c \) is a constant of proportionality. We define a Hurst process to be a process with a (fairly) constant \( H \) value and the \( R/S \) is referred to as the ‘rescaled range’ because it has zero mean and is expressed in terms of local standard deviations. In general, the \( R/S \) value increases according to a power law value equal to \( H \) - the Hurst exponent.

### 8.3.1 Rescaled Range Analysis

Rescaling the adjusted range was a major innovation. Hurst originally performed this operation to enable him to compare diverse phenomenon. Rescaling, fortunately, also allows us to compare time periods many years apart in terms of the performance of a managed system where it is the relative change in performance and not the change itself that is of interest. By considering the logarithmic version of Hurst’s equation, i.e.

\[ \log(R/S)[n] = \log(c) + H \log(n) \]
it is clear that the Hurst exponent can be estimated by plotting $\log(R/S)$ against the $\log(n)$ and solving for the gradient with a least squares fit for example. If the system were independently distributed, then $H = 0.5$. Hurst found that the exponent for the Nile River was $H = 0.91$, i.e. the rescaled range increases at a faster rate than the square root of time. This meant that the system was covering more distance than a random process would, and therefore the annual discharges of the Nile had to be correlated.

It is important to appreciate that this method makes no prior assumptions about any underlying distributions, it simply tells us how the system is scaling with respect to time. So how do we interpret the Hurst exponent? We know that $H = 0.5$ is consistent with an independently distributed system. The range $0.5 < H < 1$, implies a persistent time series, and a persistent time series is characterised by positive correlations. Theoretically, what happens today will ultimately have a lasting effect on the future. The range $0 < H < 0.5$ indicates anti-persistence which means that the time series covers less ground than a random process. In other words, there are negative correlations. For a system to cover less distance, it must reverse itself more often than a random process.

8.3.2 The Joker Effect

After this discovery, Hurst analysed all the data he could including rainfall, sunspots, mud sediments, tree rings and others. In all cases, Hurst found $H$ to be greater than 0.5. He was intrigued that $H$ often took a value of about 0.7 and Hurst suspected that some universal phenomenon was taking place. He carried out some experiments using numbered cards. The values of the cards were chosen to simulate a probability density function with finite moments, i.e. 0, +1, +3, +5, +7 and +9; -1, -3, -5, -7 and -9. He first verified that the time series generated by summing the shuffled cards gave $H=0.5$. To simulate a bias random walk, he carried out the following steps.

1. Shuffle the deck and cut it once, noting the number, say $n$.
2. Replace the card and re-shuffle the deck.
3. Deal out 2 hands of 25 cards, A and B.
4. Replace the lowest \( n \) cards of deck \( B \) with the highest \( n \) cards of deck \( A \), thus biasing deck \( B \) to the level \( n \).

5. Place a joker in deck \( B \) and shuffle.

6. Use deck \( B \) as a time series generator until the joker is cut, then create a new biased hand.

Hurst did 1000 trials of 100 hands and calculated \( H = 0.72 \). We can think of the process as follows: we first bias each hand, which is determined by a random cut of the pack; then, we generate the time series itself, which is another series of random cuts; then, the joker appears, which again occurs at random. Despite all of these random events \( H = 0.72 \) would always appear. This is called the 'joker effect'.

The joker effect, as illustrated above, describes a tendency for data of a certain magnitude to be followed by more data of approximately the same magnitude, but only for a fixed and random length of time. A natural example of this phenomenon is in weather systems. Good weather and bad weather tend to come in waves or cycles (as in a heat wave for example). This does not mean that weather is periodic, which it is clearly not. We use the term 'non-periodic cycle' to describe cycles of this kind (with no fixed period). Thus, if management structured are Hurst processes, they exhibit trends that persist until the management equivalent of the joker comes along to change that bias in magnitude and/or direction. In other words rescaled range analysis can, together with conventional statistical analysis, help to describe a stochastic time series that contains within it, many different short-lived trends or biases (both in size and direction). The process continues in this way giving a constant Hurst exponent, sometimes with flat episodes that correspond to the average periods of the non-periodic cycles, depending on the distribution of actual periods.

### 8.4 Spectral Analysis

Given that

\[
R(t) = Lt^H, 0 < H < 1
\]

is a valid representation for the macroscopic behaviour of information flow through an organisations network, it is valid to ask what the spectrum of this signature is.
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The answer is

\[ R(f) \sim f^q, q = 1 + H \]

where \( f \) is the frequency. In an information network, the information flow will be a measure of \( R \) which in turn is related to the size of the system. Thus, we can consider the size of the system to be a measure of the information flow which in turn is a measure of the management portfolio of the organisation and hence its performance characteristics. Thus, the growth rate of an organisation can be expected to decrease with its size and this fundamental result is borne out from experimental data. For example, the growth rate of US companies based on data recovered from the period 1991-1999 follows the law

\[ \text{Growthrate}(\text{size}) \sim \text{size}^{-q} \]

where \( q \sim 1.7 \) giving a Hurst dimension of 0.7 indicating that the rate of growth of a business is characterised by positive time correlations and that smaller businesses grow faster than larger businesses. This is quantitative evidence for the business principle developed by Schumacher in the early 1980s [114], *Small is Beautiful*, which formed a principle component of the economic principles developed by Margaret Thatcher's government over the 1980s. The characteristic system model

\[ \text{System}(\text{size}) \sim \text{size}^{-q} \]

also tell us something fundamental about the nature of the system, namely, that the overall dynamic behaviour of the system is the same at all scales. In terms of a management structure, this leads us to conclude that the success or otherwise of an organisation will naturally be a consequence of each Department, Section and Group having a similar portfolio as measured by the degree to which information flow can be categorised and acted upon. Consequently, the 'quality' of an organisations management is a multi-level measure that depends on the interconnectivity informed by the flow of data throughout the system.
8.5 Time Varying Information Flow

The Hurst model is compounded in the basic equation

\[ R = L^H, \quad 0 < H < 1 \]

where \( R \) is the resultant of a random walk process which may or may not be statistically independent (depending on the value of \( H \)), \( L \) is the mean free path, \( t \) is time and \( H \) is the Hurst exponent. In terms of modelling information flow, the closer \( H \) approaches 1, the more efficient the system becomes in terms of the coherent distribution of information and hence, the more effective the management decisions that can be made. However, as with all systems, we should expect that management decisions will have an effect that will change the nature of the system itself and thus, we should not expect the Hurst exponent to be invariant of time. This principal is common to all systems and can be conceived in terms of the 'measuring effect' which is that the act of measuring some property of a system has the effect of changing it. This is a principal feature in all organisations and stochastic systems. In business, this principal underlines the purpose for introducing audits into an organisation. An instantaneous audit is capable of taking a relatively independent measure of an organisation but an announcement of an impending audit will alert the organisation to the event \textit{a priori} (e.g. the fall of IBM - see Chapter 1, Section 5.2), thus forcing the organisation into to a new level coherence in which one can expect the Hurst dimension to grow. Thus, in general, we should consider a model in which the Hurst dimension itself is a function of time, i.e.

\[ R(t) = L^H(t), \quad 0 < H < 1 \]

A measure of \( H(t) \) will then provide an index of how an organisation is performing over a period of time in terms of its information flow. In terms of the background ideas associated with this model, a healthy organisation is one in which \( H > 0.5 \) and increases with time. This can be interpreted in terms of the coherence of information flow through an organisation. However, the conclusion to this study is that the principle of openness and transparency is vital in any organisation that wants to optimise its business portfolio and that clarity of direction, understood at all levels, is essential for sustaining growth in a competitive market. One of the most recent
acknowledgements of this rationale is compounded in the management of financial markets which is addressed in the following section.

8.6 Sustained Organisation Change of Economic Systems

The application of statistical techniques for analysing financial time series is a well established practice. This include a wide range of stochastic modelling methods and the use of certain partial differential equations for describing financial systems (e.g. the Black-Scholes equation for financial derivatives). Attempts to develop stochastic models for financial time series, which are essentially digital signals composed of 'tick data'\footnote{Data that provides traders with daily tick-by-tick data - time and sales - of trade price, trade time, and volume traded, for example, at different sampling rates as required.} can be traced back to the late eighteenth century when Louis Bachelier proposed that fluctuations in the prices of stocks and shares could be viewed in terms of random walks. Then as now, prices appeared to be yesterday's price plus some random change, suggesting that price changes were independent and follow random walks. Thus, one of the simplest models for price variation is based on the sum of independent random numbers. This is the basis for Brownian motion (i.e. the random walk motion first observed by the Scottish Botanist, Robert Brown, who, in 1827, noted that pollen grains suspended in water appear to undergo continuous jittery motion - a result of the random impacts on the pollen grains by water molecules) in which the random numbers are considered to conform to a normal distribution.

In financial systems, the size of price movements tends to depend on the size of the price itself. We therefore need to modify the Brownian random walk model to include this effect. In this case, the log of the price changes (which are also assumed to conform to a normal distribution) are modelled according to the equation

$$\frac{dS}{S} = \sigma dX + \mu dt$$

where $S$ is the price at time $t$, $\mu$ is a drift term which reflects the average rate of growth of the asset, $\sigma$ is the volatility and $dX$ is a sample from a normal distribution.
Here, the relative price change of an asset is equal to some random value plus some underlying trend component - a ‘log-normal random walk’.

Brownian motion models have the following basic properties: (i) statistical stationarity of price increments in which samples of Brownian motion taken over equal time increments can be superimposed onto each other in a statistical sense; (ii) scaling of price where samples of Brownian motion corresponding to different time increments can be suitably re-scaled such that they too, can be superimposed onto each other in a statistical sense; (iii) independence of price changes. Such models fail to predict extreme behaviour in financial time series because of the intrinsic assumption that such time series conform to a normal distribution, i.e. Gaussian processes that are stationary in which the statistics - the standard deviation, for example - do not change with time.

Random walk models, which underpin the so called Efficient Market Hypothesis (EMH), have been the basis for financial time series analysis since the work of Bachelier in the late Nineteenth Century. Although the Black-Scholes equation, developed in the 1970s, for valuing options is deterministic (one of the first models to achieve determinism in financial modelling), it is still based on the EMH, i.e. stationary Gaussian statistics. The EMH states that the current price of an asset fully reflects all available information relevant to it and that new information is immediately incorporated into the price. Thus, in an efficient market, the modelling of asset prices is concerned with modelling the arrival of new information. New information must be independent and random, otherwise it would been anticipated and would not be new. Moreover, the arrival of new information can send ‘shocks’ through the market (depending on the significance of the information) as people react to it and then to each other’s reactions. The EMH assumes that there is a rational and unique way to use the available information and that all agents possess this knowledge. Further, the EMH assumes that this ‘chain reaction’ happens effectively instantaneously. These assumptions are clearly questionable at any and all levels of a complex financial system.

The EMH implies independence of price increments and is typically characterised by a normal of Gaussian Probability Density Function (PDF) which is chosen because most price movements are presumed to be an aggregation of smaller ones, and sums
of independent random contributions having a Gaussian PDF. However, it has long been known that financial time series do not follow random walks. The shortcomings of the EMH model include: failure of the independence and Gaussian distribution of increments assumption, clustering, apparent non-stationarity and failure to explain momentous financial events such as 'crashes'. These limitations have prompted a new class of methods for investigating time series obtained from a range of disciplines. For example, Re-scaled Range Analysis (RSRA), which is essentially based on computing the Hurst exponent, is a useful tool for revealing some well disguised properties of stochastic time series such as persistence (and anti-persistence) characterized by non-periodic cycles. Non-periodic cycles correspond to trends that persist for irregular periods but with a degree of statistical regularity often associated with non-linear dynamical systems.

caused by non-linear dynamical systems and chaos. RSRA is particularly valuable because of its robustness in the presence of noise. The principal assumption associated with RSRA is concerned with the self-affine or fractal nature of the statistical character of a time-series rather than the statistical 'signature' itself. Ralph Elliott first reported on the fractal properties of financial data in 1938. He was the first to observed that segments of financial time series data of different sizes could be scaled in such a way, that they were statistically the same producing so called Elliot waves [117]. Since then, many different self-affine models for price variation have been developed often based on iterated function (dynamical) systems. These models can capture many properties of a financial time series but are not based on any underlying causal theory.

A good stochastic financial model should ideally consider all the observable behaviour of the financial system it is attempting to model. It should therefore be able to provide some predictions on the immediate future behaviour of the system within an appropriate confidence level. Predicting the markets has become (for obvious reasons) one of the most important problems in financial engineering. Although in principle, it might be possible to model the behaviour of each individual agent operating in a financial market, one can never be sure of obtaining all the necessary information required on the agents themselves and their modus operandi. This principle plays an increasingly important role as the scale of the financial system for which a model
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is required increases. Thus, while quasi-deterministic models can be of value in the understanding of micro-economic systems (with known 'operational conditions'), in an ever increasing global economy (in which the operational conditions associated with the fiscal policies of a given nation state are increasingly open), we can take advantage of the scale of the system to describe its behaviour in terms of functions of random variables.

8.7 Market Analysis

The stochastic nature of financial time series is well known from the values of the major indices such as the FTSE (Financial Times Stock Exchange) in the UK, the Dow Jones in the US which are frequently quoted. A principal aim of investors is to attempt to obtain information that can provide some confidence in the immediate future of the stock markets based on patterns of the past. One of the principle components of this aim is based on the observation that there are 'waves within waves' and 'events within events' that appear to permeate financial signals when studied with sufficient detail and imagination. It is these repeating patterns that occupy both the financial investor and the systems modeller alike and it is clear that although economies have undergone many changes in the last one hundred years, the dynamics of market data do not appear to change significantly (ignoring scale). For example, Figure 8.4 shows the build up to two different crashes, the one of 1987 and that of 1997 (both after approximately 900 days) and what may turn out to be a crash of 2007 (at the time of writing this paper). The similarity in behaviour of these signals is remarkable and is indicative of the quest to understand economic signals in terms of some universal phenomenon from which appropriate (macro) economic models can be generated. In an efficient market, only the revelation of some dramatic information can cause a crash, yet post-mortem analysis of crashes typically fail to (convincingly) tell us what this information must have been.

In modern economies, the distribution of stock returns and anomalies like market crashes emerge as a result of considerable complex interaction. In the analysis of financial time series, it is inevitable that assumptions need to be made to make the derivation of a model possible. This is the most vulnerable stage of the process. Over
Figure 8.4: Evolution of the 1987, 1997 and 2007 financial crashes. Normalised plots (i.e. data rescaled to values between 0 and 1 inclusive) of the daily FTSE value (close of day) for 02-04-1987 to 24-12-1987 (top), 05-04-1994 to 24-12-1997 (centre) and 02-04-2004 to 24-09-2007 (bottom)
simplifying assumptions lead to unrealistic models. There are two main approaches to financial modelling: The first approach is to look at the statistics of market data and to derive a model based on an educated guess of the mechanics of market dynamics. The model can then be tested using real data. The idea is that this process of trial and error helps to develop the right theory of market dynamics. The alternative is to 'reduce' the problem and try to formulate a microscopic model such that the desired behaviour 'emerges', again, by guessing agents' strategic rules. This offers a natural framework for interpretation; the problem is that this knowledge may not help to make statements about the future unless some methods for describing the behaviour can be derived from it. Although individual elements of a system cannot be modelled with any certainty, global behaviour can sometimes be modelled in a statistical sense provided the system is complex enough in terms of its network of interconnection and interacting components.

In complex systems, the elements adapt to the world—the aggregate pattern—they co-create. As the components react, the aggregate changes, as the aggregate changes the components react anew. Barring the reaching of some asymptotic state or equilibrium, complex systems keep evolving, producing seemingly stochastic or chaotic behaviour. Such systems arise naturally in the economy. Economic agents, be they banks, firms, or investors, continually adjust their market strategies to the macroscopic economy which their collective market strategies create. It is important to appreciate that there is an added layer of complexity within the economic community: Unlike many physical systems, economic elements (human agents) react with strategy and foresight (some of the time) by considering the implications of their actions. Although we can not be certain whether this fact changes the resulting behaviour, we can be sure that it introduces feedback. The property of feedback is the very essence of both complex systems and chaotic dynamical systems that produce fractal structures.

The link between dynamical systems, chaos and the economy is an important one because it is dynamical systems that illustrate that local randomness and global determinism can co-exist. Global determinism can be considered, at least in a qualitative sense, in terms broad social issues and the reaction of distinct groups to changing social attitudes, particularly in economies that have traditionally been enhanced by
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An open and often pro-active policy towards the immigration of peoples from diverse cultural backgrounds. For example, in 1656, Cromwell introduced an open door policy to Europeans immigrants in an attempt to enhance the economy of England that had been serverly compromised by the English Civil wars of 1642-46 and 1648-49. The long term effect of this was to provide a new financial infrastructure that layed the foundations for future economic development. It is aguable that Cromwell's policy is the principal reason why the 'English revolution' of the Eighteenth Century was primarily an industrial one. Issues concerning the current economic welfare of the UK in terms of the 'credit cruch' may then be appreciated in terms of the attitudes and values associated with new waves of immigrants and the policy of appeasement adopted at government level.

Complex systems can be split into two categories: equilibrium and non-equilibrium. Equilibrium complex systems, undergoing a phase transition, can lead to 'critical states' that often exhibit random fractal structures in which the statistics of the 'field' are scale invariant. For example, when ferromagnets are heated, as the temperature rises, the spins of the electrons which contribute to the magnetic field gain energy and begin to change in direction. At some critical temperature, the spins form a random vector field with a zero mean and a phase transition occurs in which the magnetic field averages to zero. But the field is not just random, it is a self-affine random field whose statistical distribution is the same at different scales, irrespective of the characteristics of this distribution. Non-equilibrium complex systems or 'driven' systems give rise to 'self organised critical states', an example is the growing of sand piles. If sand is continuously supplied from above, the sand starts to pile up. Eventually, little avalanches will occur as the sand pile inevitably spreads outwards under the force of gravity. The temporal and spatial statistics of these avalanches are scale invariant.

Financial markets can be considered to be non-equilibrium systems because they are constantly driven by transactions that occur as the result of new fundamental information about firms and businesses. They are complex systems because the market also responds to itself in a highly non-linear fashion, and would carry on doing so (at least for some time) in the absence of new information. The 'price change field' is highly non-linear and very sensitive to exogenous shocks and it is probable that all
shocks have a long term affect. Market transactions generally occur globally at the rate of hundreds of thousands per second. It is the frequency and nature of these transactions that dictate stock market indices, just as it is the frequency and nature of the sand particles that dictates the statistics of the avalanches in a sand pile. These are all examples of random scaling fractals.

In order to understand the nature of an economy, as with any other signal, one needs to be clear about what assumptions are being made in order to develop suitable models and have some way to test them. We need to consider what is happening at the microscopic level as well as the macroscopic level on which we observe financial time series, which are often averages of composites of many fundamental economic variables. It is therefore necessary to introduce some of the approaches and issues associated with financial engineering which is given in the following sections.

8.7.1 Arbitrage

For many years, investment advisers focused on returns with the occasional caveat 'subject to risk'. Modern Portfolio Theory teaches that there is a trade off between risk and return. Nearly all finance theory assumes the existence of risk-free investment, e.g. the return from depositing money in a sound financial institute or investing in equities. In order to gain more profit, the investor must accept greater risk. Why should this be so? Suppose the opportunity exists to make a guaranteed return greater than that from a conventional bank deposit say; then, no (rational) investor would invest any money with the bank. Furthermore, if he/she could also borrow money at less than the return on the alternative investment, then the investor would borrow as much money as possible to invest in the higher yielding opportunity. In response to the pressure of supply and demand, the banks would raise their interest rates. This would attract money for investment with the bank and reduce the profit made by investors who have money borrowed from the bank. (Of course, if such opportunities did arise, the banks would probably be the first to invest our savings in them.) There is elasticity in the argument because of various friction factors such as transaction costs, differences in borrowing and lending rates, liquidity laws etc., but on the whole, the principle is sound because the market is saturated with arbitrageurs
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whose purpose is to seek out and exploit irregularities or miss-pricing.

The concept of successful arbitraging is of great importance in finance. Often loosely stated as, 'there's no such thing as a free lunch', it means that, in practice, one cannot ever make an instantaneously risk-free profit. More precisely, such opportunities cannot exist for a significant length of time before prices move to eliminate them.

8.7.2 Financial Derivatives

As markets have grown and evolved, new trading contracts have emerged which use various tricks to manipulate risk. Derivatives are deals, the value of which is derived from (although not the same as) some underlying asset or interest rate. There are many kinds of derivatives traded on the markets today. These special deals really just increase the number of moves that players of the economy have available to ensure that the better players have more chance of winning.

Options

An option is the right (but not the obligation) to buy (call) or sell (put) a financial instrument (such as a stock or currency, known as the 'underlying') at an agreed date in the future and at an agreed price, called the strike price. For example, consider an investor who 'speculates' that the value of a stock, X, will rise. The investor could buy shares in X, and if appropriate, sell them later at a higher price to make money. Alternatively, the investor might buy a call option, the right to buy an X share at a later date. If the asset is worth more than the strike price on expiry, the holder will be content to exercise the option, immediately sell the stock at the higher price and generate an automatic profit from the difference. The catch is, that if the price is less, the holder must accept the loss of the premium paid for the option (which must be paid for at the opening of the contract). Denoting $C$ to be the value of a call option, $S$ the asset price and $E$ to be the strike price, the option is worth $C(S, t) = \max(S - E, 0)$. Conversely, suppose the investor speculates that X shares are going to fall, then the investor can sell shares or buy puts. If the investor speculates by selling shares that he/she does not own (which in certain circumstances is perfectly
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legal in many markets), then he/she is selling ‘short’ and will profit from a fall in X shares. (The opposite of a short position is a ‘long’ position.) The principal question is then, how much should one pay for an option? Clearly, if the value of the asset rises so does the value of a call option and vice versa for put options. But how do we quantify exactly how much this gamble is worth? In previous times (prior to the Black-Scholes model which is discussed later) options were bought and sold for the value that individual traders thought they ought to have. The strike prices of these options were usually the ‘forward price’, which is just the current price adjusted for interest-rate effects. The value of options rises in active or volatile markets because options are more likely to pay out large amounts of money when they expire if market moves have been large. That is, potential gains are higher, but loss is always limited to the cost of the premium. This gain through successful ‘speculation’ is not the only role options play.

Hedging

Suppose an investor already owns X shares as a long-term investment, then he/she may wish to insure against a temporary fall in the share price by buying puts as well. Clearly, the investor would not want to liquidate the X holdings only to buy them back again later, possibly at a higher price if the estimate of the share price is wrong, and certainly having incurred some transaction costs on the two deals. If a temporary fall occurs, the investor has the right to sell his/her holdings for a higher than market price. The investor can then immediately buy them back for less, in this way generating a profit and long-term investment then resumes. If the investor is wrong and a temporary fall does not occur, then the premium is lost for the option but at least the stock is retained, which has continued to rise in value. Furthermore, since the value of a put option rises when the underlying asset value falls, what happens to a portfolio containing both assets and puts? The answer depends on the ratio. There must exist a ratio at which a small unpredictable movement in the asset does not result in any unpredictable movement in the portfolio. This ratio is instantaneously risk free. The reduction of risk by taking advantage of correlations between the option price and the underlying price is called ‘hedging’. If a market maker can sell an option
and hedge away all the risk for the rest of the options life, then a risk free profit is guaranteed.

Options are usually sold by banks to companies to protect themselves against adverse movements in the underlying price, in the same way as holders do. In fact, writers of options are no different to holders, they expect to make a profit by taking a view of the market. The writers of calls are effectively taking a short position in the underlying behaviour of the markets. Known as 'bears', these agents believe the price will fall and are therefore also potential customers for puts. The agents taking the opposite view are called 'bulls'. There is a near balance of bears and bulls because if everyone expected the value of a particular asset to do the same thing, then its market price would stabilise (if a reasonable price were agreed on) or diverge (if everyone thought it would rise). Clearly, the psychology and dynamics (which must go hand in hand!) of the bear/bull cycle play an important role in financial analysis. This is because an economy is ultimately driven by people (economic agents) and the principal component of this drive, is their expectation of others. When economic agent's expectations induce actions that aggregatively create a world that validates them as predictions, they are in equilibrium, and are called 'rational expectations'. Rational expectations are useful in demonstrating logical equilibrium outcomes and analysing their consequences. In the real world, however, they break down very easily. If some agents lack the resources to arrive at a posited outcome or if they logically arrive at different conclusions (as they might in a pattern recognition problem) or if there is more than one rational expectations equilibrium with no means to decide on which is preferable, then some agents may deviate in their expectations. Moreover, if some deviate, the world that is created may change so that others should logically predict something different and deviate too.

Trading crowds are made up of bulls and bears. A bullish crowd is one that will try to force prices up and a bearish crowd is one that will try to push prices down. The size of each crowd must remain roughly the same, but the members are continually swapping. When the price is going up, the bullish crowd are dominating and when the price is going down, the bearish crowd are dominating. Within a full cycle, the bullish crowd will dominate, then there will be a period of co-existence, and finally the bearish crowd will dominate. This means that between any two given points
in time there will be a successful crowd and an unsuccessful one. Members of the successful crowd will be motivated by greed and will feel pleasure from their success; they will feel integrated with like-minded investors. On the other hand, members of the unsuccessful crowd will feel fear and displeasure, and feel divorced from the other members of the same crowd. Eventually, the members of the unsuccessful crowd desert to the successful crowd and thus the cycle continues.

The risk associated with individual securities can be hedged through diversification and/or various other ways of taking advantage of correlations between different derivatives of the same underlying asset. However, not all risk can be removed by diversification. To some extent, the fortunes of all companies move with the economy. Changes in the money supply, interest rates, exchange rates, taxation, the prices of commodities, government spending and overseas economies tend to affect all companies in one way or another. This remaining risk is the market risk.

8.7.3 Black-Scholes Analysis

The value of an option can be thought of as a function of the underlying asset price $S$ (a random variable) and time $t$ denoted by $V(S,t)$. Here, $V$ can denote a call or a put; indeed, $V$ can be the value of a whole portfolio or different options although for simplicity we can think of it as a simple call or put. Any derivative security whose value depends only on the current value $S$ at time $t$ and which is paid for up front, satisfies the Black-Scholes equation given by

$$\frac{\partial V}{\partial t} + \frac{1}{2}\sigma^2S^2 \frac{\partial^2 V}{\partial S^2} + rS\frac{\partial V}{\partial S} - rV = 0$$

where $\sigma$ is the volatility and $r$ is the risk. As with other partial differential equations, an equation of this form may have many solutions. The value of an option should be unique; otherwise, again, arbitrage possibilities would arise. Therefore, to identify the appropriate solution, appropriate initial, final and boundary conditions need to be imposed. Take for example, a call; here the final condition comes from the arbitrage argument. At $t = T$

$$C(S, t) = \max(S - E, 0).$$

The spatial or asset-price boundary conditions, applied at $S = 0$ and $S \to \infty$ come from the following reasoning: If $S$ is ever zero then $dS$ is zero and will therefore never
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change. Thus, we have

\[ C(0, t) = 0. \]

As the asset price increases it becomes more and more likely that the option will be exercised, thus we have

\[ C(S, t) \propto S, \quad S \to \infty. \]

Observe, that the Black-Scholes equation has a similarity to the diffusion equation but with extra terms. An appropriate way to solve this equation is to transform it into the diffusion equation for which the solution is well known and with appropriate transformations gives the Black-Scholes formula

\[ C(S, t) = S N(d_1) - E e^{r(T-t)} N(d_2) \]

where

\[ d_1 = \frac{\log(S/E) + (r + \frac{1}{2}\sigma^2)(T-t)}{\sigma \sqrt{T-t}}, \]

\[ d_2 = \frac{\log(S/E) + (r - \frac{1}{2}\sigma^2)(T-t)}{\sigma \sqrt{T-t}} \]

and \( N \) is the cumulative normal distribution defined by

\[ N(d_1) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{d_1} e^{\frac{1}{2}x^2} dx. \]

The conceptual leap of the Black-Scholes model is to say that traders are not estimating the future price, but are guessing about how volatile the market may be in the future. The volatility is mathematically defined and it is assumed that the distribution of these moves is lognormal. The model therefore allows banks to define a fair value of an option, because it assumes that the forward price is the mean of the distribution of future market prices and that the volatility is known.

The simple and robust way of valuing options using Black-Scholes analysis has rapidly gained in popularity and has universal applications. The Black-Scholes volatility and the price of an option are now so closely linked into the markets that the price of an option is usually quoted in option volatilities or ‘vols’, which are displayed on traders' screens across the world. Nevertheless, the majority of methods (particularly Black-Scholes analysis) used by economic agents are based on random walk models that assume independent and Gaussian distributed price changes.
8.8 Macroeconomic Models

When faced with a complex process of unknown origin, it is usual to select an independent process such as Brownian motion as a working hypothesis. Brownian motion is elegant because statistics and probabilities can be estimated with great accuracy. However, using traditional statistics to model the markets assumes that they are games of chance. For this reason, investment in securities is often equated with gambling. In most games of chance, many degrees of freedom are employed to ensure that outcomes are random. In the case of a simple dice, a coin or roulette wheel for example, no matter how hard you may try, it is physically impossible to master your roll or throw such that you can control outcomes. There are too many non-repeatable elements (speeds, angles and so on) and non-linearly compounding errors involved. Although these systems have a limited number of degrees of freedom, each outcome is independent of the previous one. However, there are some games of chance that involve memory. In Blackjack, for example, two cards are dealt to each player and the object is to get as close as possible to 21 by twisting (taking another card) or sticking. In a 'bust' (over 21) the player loses; the winner is the player that stays closest to 21. Here, memory is introduced because the cards are not replaced once they are taken. By keeping track of the cards used, one can assess the shifting probabilities as play progresses. This game illustrates that not all gambling is governed by Gaussian statistics. There are processes that have long-term memory, even though they are probabilistic in the short term. This leads directly to the question, does the economy have memory? A system has memory if what happens today will affect what happens in the future.

Memory can be tested by observing correlations in the data. If the system today has no affect on the system at any future time, then the data produced by the system will be independently distributed and there will be no correlations. The function that characterises the expected correlations between time periods \( t \) apart of a financial signal \( u(t) \) is the Auto-Correlation Function (ACF) defined by

\[
A(t) = u(t) \otimes u(t) = \int_{-\infty}^{\infty} u(\tau)u(\tau-t)d\tau.
\]

where \( \otimes \) denotes that the correlation operation is a function of \( t \). This function can
be computed either directly (evaluation of the above integral) or via application of the power spectrum since from the correlation theorem
\[ u(t) \otimes u(t) \leftrightarrow |U(\omega)|^2 \]
where \( \leftrightarrow \) denotes transformation from real space \( t \) to Fourier space \( \omega \) (the angular frequency), i.e.
\[ U(\omega) = \mathcal{F}u(t) = \int_{-\infty}^{\infty} u(t) \exp(-i\omega t) dt \]
where \( \mathcal{F} \) denotes the Fourier transform operator. The power spectrum \( |U|^2 \) tells us the amplitude distribution of the correlation function from which we can estimate the time span of memory effects. This also offers a convenient way to calculate the correlation function (by taking the inverse Fourier transform of the \( |U|^2 \)). If the power spectrum has more power at low frequencies, then there are long time correlations and therefore long-term memory effects. Inversely, if there is greater power at the high frequency end of the spectrum, then there are short-term time correlations and evidence of short-term memory.

Since prices movements themselves are a non-stationary process, there is no ACF as such. However, if we calculate the ACF of the price increments \( du/dt \), which are Gaussian by null hypothesis, then we can observe how much of what happens today is correlated with what happens in the future. According to traditional theory, the economy has no memory and there will therefore be no correlations, except for today with itself. We should therefore expect the power spectrum to be effectively constant and the ACF to be a delta function. The power spectra and the ACFs of log price changes \( d\log u/dt \) and the absolute value \( |d\log u/dt| \) for the FTSE 100 index (daily close) from 02-04-1984 to 24-09-2007 is given in Figure 3. The power spectra of the data is not constant; there is evidence of a power law at the low frequency end and rogue spikes (or groups of spikes) at the intermediate and high frequency portions of the spectrum. This power law is even more pronounced in the PSDF of the absolute log price increments, indicating that there is additional correlation in the signs of the data. The ACF of the log price changes is relatively featureless, indicating that the excess of low frequency power within the signal (as described by power spectrum) has a fairly subtle affect on the correlation function. However, the ACF of the absolute
log price changes contains a number of interesting features. It shows that there are a large number of short range correlations followed by an irregular decline up to approximately 1500 days after which the correlations start to develop again, peaking at about 2225 days. The system governing the magnitudes of the log price movements clearly has a better long-term memory than it should. The data used in this analysis contains 5932 daily price movements and it is therefore improbable that these results are coincidental and correlations of this, or any similar type, whatever the time scale, invalidates the independence assumption of the EMH.

The long tails are an important feature of this distribution. It is from the distribution of returns that we measure risk. Risk is often referred to as the, 'one in six' rule which refers to the Gaussian property that approximately 4/6 of all outcomes lie within one standard deviation of the expected outcome and there is therefore a one in six chance of a very good (upside potential) or very bad (downside risk) outcome. In reality, the risk of large events occurring is much higher than the normal distribution implies. As we measure still larger events, the gap between theory and reality becomes even more pronounced. This risk is virtually identical in all the investment horizons investigated. We can quantify the tails deviation from a normal distribution using kurtosis - long tails being referred to as excess kurtosis since the kurtosis is zero for the normal distribution and typically between 2 and 50 for daily returns and even higher for intraday data. A number of statistical models have been suggested to account for excess kurtosis including Mandelbrot's Stable Paretian hypothesis, the mixture of distributions hypothesis and models based on conditional heteroskedasticity which refers to the condition where residual variance is non-constant. In general, market data exhibits generalized autoregressive heteroskedasticity which means that there are periods of persistent high volatility followed randomly by periods of persistent low volatility.

Another basic assumption that comes with the normal distribution involves the scaling of volatility known as the term structure of volatility. Typically, we use the standard deviation of returns to measure volatility. For independent or 'white noise' processes, standard deviations scale according to the square root of time. In general, volatility grows linearly at a faster rate than the square root of time up until about 1000 days or 4 years, it then slows down dramatically. If we use volatility as a
measure of risk, investors incur more risk than is implied by the normal distribution for investment horizons of less than 4 years. However, investors incur increasingly less risk for investment horizons of greater than 4 years. This verifies what is known intuitively, namely, that long-term investors incur less risk than short-term investors.

8.9 Stochastic Modelling of Financial Data

Developing mathematical models to simulate stochastic processes has an important role in financial analysis and information systems in general where it should be noted that information systems are now one of the most important aspects in terms of regulating financial systems. A good stochastic model is one that accurately predicts the statistics we observe in reality, and one that is based upon a logical rationale. Thus, the model should not only describe the data, but also help to explain and understand the system.

There are two principal criteria used to define the characteristics of a stochastic field:

- The PDF or the Characteristic Function (i.e. the Fourier transform of the PDF).
- The Power Spectral Density Function (PSDF).

The PSDF is the function that describes the envelope or shape of the power spectrum of a field and is related to the autocorrelation function of the field through the autocorrelation theorem, i.e.

\[ u(r) \leftrightarrow U(k) \]

where \( \leftrightarrow \) denotes transformation from real space \( r \) to Fourier space \( k \) and \( \leftrightarrow \) denotes the correlation integral over \( r \). In this sense, the PSDF is a measure of the field correlations. The PDF and the PSDF are two of the most fundamental properties of any stochastic field and various terms are used to convey these properties. For example, the term 'zero-mean white Gaussian noise' refers to a stochastic field characterized by a PSDF that is effectively constant over all frequencies (hence the term 'white' as in 'white light') and has a PDF with a Gaussian profile whose mean is zero.
Stochastic fields can of course be characterized using transforms other than the Fourier transform (from which the PSDF is obtained) but the conventional PDF-PSDF approach serves many purposes in stochastic systems theory. However, there is no general connectivity between the PSDF and the PDF either in terms of theoretical prediction and/or experimental determination. It is not generally possible to compute the PSDF of a stochastic field from knowledge of the PDF or the PDF from the PSDF. Hence the PDF and PSDF are fundamental but non-related properties of a stochastic field.

There are two conventional approaches to simulating a stochastic field. The first of these is based on predicting the PDF (or the Characteristic Function) theoretically (if possible). A pseudo random number generator is then designed whose output provides a discrete stochastic field that is characteristic of the predicted PDF. The second approach is based on considering the PSDF of a field which, like the PDF, is ideally derived theoretically. The stochastic field is then typically simulated by filtering white noise.

A 'good' stochastic model is one that accurately predicts both the PDF and the PSDF of the data. It should take into account the fact that in general, stochastic processes are non-stationary. In addition, it should, if appropriate, model rare but extreme events in which significant deviations from the norm occur.

New market phenomenon results from either a strong theoretical reasoning or from compelling experimental evidence or both. In econometrics, the processes that create time series such as the FTSE have many component parts and the interaction of those components is so complex that a deterministic description is simply not possible. As in all complex systems theory, we are usually required to restrict the problem to modelling the statistics of the data rather than the data itself, i.e. to develop stochastic models. When creating models of complex systems there is a trade-off between simplifying and deriving the statistics we want to compare with reality and simulating the behaviour through an emergent statistical behaviour. Stochastic simulation allows us to investigate the affect of various traders' behavioural rules on the global statistics of the market, an approach that provides for a natural interpretation and an understanding of how the amalgamation of certain concepts leads to these statistics.
One cause of correlations in market price changes (and volatility) is mimetic behaviour, known as herding. In general, market crashes happen when large numbers of agents place sell orders simultaneously creating an imbalance to the extent that market makers are unable to absorb the other side without lowering prices substantially. Most of these agents do not communicate with each other, nor do they take orders from a leader. In fact, most of the time they are in disagreement, and submit roughly the same amount of buy and sell orders. This is a healthy non-crash situation; it is a diffusive (random-walk) process which underlies the EMH and financial portfolio rationalization.

Figure 8.5 shows the de-trended log price increments of the FTSE from 1984-2007 and the EMH's proposed random walk Gaussian increments. It is clear, that there is a significant difference between the two stochastic signals. This simple comparison indicates a failure of the statistical independence assumption which underpins the EMH. One explanation for crashes involves a replacement for the efficient market hypothesis, by the Fractal Market Hypothesis (FMH) which is the basis of the model considered in this paper. The FMH proposes the following:

1. The market is stable when it consists of investors covering a large number of investment horizons. This ensures that there is ample liquidity for traders.

2. Information is more related to market sentiment and technical factors in the short term than in the long term. As investment horizons increase, longer term fundamental information dominates.

3. If an event occurs that puts the validity of fundamental information in question, long-term investors either withdraw completely or invest on shorter terms. When the overall investment horizon of the market shrinks to a uniform level, the market becomes unstable.

4. Prices reflect a combination of short-term technical and long-term fundamental valuation. Thus, short-term price movements are likely to be more volatile than long-term trades. Short-term trends are more likely to be the result of crowd behaviour.

2Removal of the long term exponential growth trend by taking the logarithm and then differentiating the data (using forward differencing).
Figure 8.5: De-trended log-price increments (top) from 1960 to 02/04/1984 - 24/09/2007 and an equivalent time series based on the EMH, i.e. random Gaussian noise (bottom) and associated 64-bin histograms.
5. If a security has no tie to the economic cycle, then there will be no long-term trend and short-term technical information will dominate. Unlike the EMH, the FMH states that information is valued according to the investment horizon of the investor. Because the different investment horizons value information differently, the diffusion of information will also be uneven. Unlike most complex physical systems, the agents of the economy, and perhaps to some extent the economy itself, have an extra ingredient, an extra degree of complexity. This ingredient is consciousness.

8.10 Case Study: FTSE Market Data Analysis

The use of the Hurst exponent as a measure for evaluating change management is conditioned only in terms of the quantity of data available with regard to a particular application. One area of application where data is widespread, data that reflects a managed system under going continuous change, is the economy. For this reason, we consider a real data case study based on the FTSE data which is a reflection on the company UK Limited and its performance as part of a macroeconomy.

We consider the basic model for a financial signal to be given by

\[ u(t) = \frac{1}{t^{1-q/2}} \otimes n(t), \quad q > 0 \]

where \( q \) is simply related to the Hurst exponent by

\[ q = H + \frac{1}{2} \]

The function \( u(t) \) has characteristic spectrum

\[ U(\omega) = \frac{N(\omega)}{(\omega^{1/2})^{q/2}} \]

The PSDF is thus characterised by \( \omega^{-q}, \omega \geq 0 \) and our problem is thus, to compute \( q \) from the data \( P(\omega) = |U(\omega)|^2, \omega \geq 0 \). For this data, we consider the PSDF

\[ \hat{P}(\omega) = \frac{c}{\omega^q} \]

\(^3\text{Using on material taken from [121].}\)
or

\[ \ln \hat{P}(\omega) = C + q \ln \omega \]

where \( C = \ln c \). The problem is therefore reduced to implementing an appropriate method to compute \( q \) (and \( C \)) by finding a best fit of the line \( \ln \hat{P}(\omega) \) to the data \( \ln P(\omega) \). Application of the least squares method for computing \( q \), which is based on minimizing the error

\[ e(q, C) = \| \ln P(\omega) - \ln \hat{P}(\omega, q, C) \|_2^2 \]

with regard to \( q \) and \( C \), leads to errors in the estimates for \( q \) which are not compatible with market data analysis. The reason for this is that relative errors at the start and end of the data \( \ln P \) may vary significantly especially because any errors inherent in the data \( P \) will be 'amplified' through application of the logarithmic transform required to linearise the problem. In general, application of a least squares approach is very sensitive to statistical heterogeneity \([115],[116]\) and in this application, may provide values of \( q \) that are not compatible with the rationale associated with the FMIH (i.e. values of \( 1 < q < 2 \) that are intermediate between diffusive and propagative processes). For this reason, an alternative approach must be considered which, in this paper, is based on Orthogonal Linear Regression (OLR).

Applying a standard moving window, \( q(t) \) is computed by repeated application of OLR based on the m-code available from \([122]\). Since \( q \) is, in effect, a statistic, its computation is only as good as the quantity (and quality) of data that is available for its computation. For this reason and relatively large window is required whose length is compatible with the number of samples available. An example of the \( q(t) \) signal obtained using a window of size 1024 (in order to apply a Fast Fourier Transform to compute the power spectrum) is given in Figure 8.6. The result clearly illustrates a qualitative relationship between trends in the financial data and the \( q(t) \) signature in accordance with the theoretical model considered in this paper. This is particularly noticeable in terms of the \( q(t) \) signature after it has been smoothed. The gradient of this signature indicates that changes in the polarity correlate with trends in the financial index. In particular, a transition from a negative to positive gradient appears to be a pre-cursor for FTSE to fall. This is compatible with the idea that a rise in the
CHAPTER 8. QUANTITATIVE ANALYSIS

value of \( q \) relates to the system becoming more propagative, which in stock market
terms, means that the markets are becoming 'bear' dominant.

The results of using the method discussed above not only provides for a general
appraisal of different macroeconomic financial time series, but, with regard to the
size of selected window used, an analysis of data at any point in time. The output
can be interpreted in terms of 'persistence' and 'anti-persistence' and in terms of
the existence or absence of after-effects (macroeconomic memory effects). For those
periods in time when \( q(t) \) is relatively constant, the existing market tendencies usually
remain. Changes in the existing trends, tend to occur just after relatively sharp
changes in \( q(t) \) have developed. This behaviour indicates the possibility of using the
time series \( q(t) \) for identification of behaviour of a macroeconomic financial system in
terms of both inter-market and between-market analysis. These results support the
possibility of using \( q(t) \) as an independent macroeconomic parameter. It is noted that,
at the time of writing this paper, the value of \( q(t) \) associated with those days after
approximately day 4800 (representing the latter half of 2007) indicate the growth of
propagative behaviour and thus the macroeconomic instability compounded in the
term 'Credit Crunch'. This is not surprising if it is assumed that the downward
trend from approximately day 3000 to day 3700 shown in Figure 8.6 is a natural
consequence of the effect of a higher inflationary global economy resulting from the
end of the cold war and that the upward trend from approximately day 3700 to 5000
is a consequence of credit policies adopted by banks in an attempt to compensate
for this natural inflationary pressure. Under this assumption, the 'Credit Crunch' of
2007 represents a transition that is compounded in a reappraisal of the definition of
poverty, namely, that poverty is not a measure of how little one has but a measure of
how much one owes.

8.11 Discussion

The self-affine nature of the markets leads directly to the use of the Hurst dimension
as one of the most suitable measures for quantifying their 'state of coherence'. Just
Figure 8.6: Application of the OLR for analysing financial time series composed of FTSE values (close-of-day) from 01-01-1980 to 12-12-2007. The plot above shows the time varying Fourier Dimension $q(t)$ together with the FTSE time series after normalisation. The plot below shows $q(t)$ after application of a low pass Gaussian filter and the associated gradient [121].
is this parameter can be use as a market index, for managing a financial portfolio so, it is the proposition of this thesis, that it can be used as a guide to quantify the 'state of coherence' of an organisation undergoing change. But the conceptual basis of the Hurst dimension and the system behaviour that it reflects leads directly to a 'Hearts & Minds' approach to management in general where the principals of openness and transparency articulate the degree of coherence of information flow through an organisation from one layer to another. This provides a quantitative model for the principles and example case studies that form the remit of this thesis. In effect, the sustained organisational approach to managing continuous change in organisations is the basis for a portfolio in which $H(t) > 0.5$ and increases with time.

The non-stationary nature of this model is taken to account for stochastic processes that can vary in time and are intermediate between diffusive and propagative or persistent behaviour. Application of Orthogonal Linear Regression to macroeconomic time series data provides an accurate and robust method to compute $q(r)$ when compared to other statistical estimation techniques such as the least squares method. As a result of the physical interpretation associated with the fractional diffusion equation and the 'meaning' of $q$, we can, in principal, use the signal $q(r)$ as a predictive measure in the sense that as the value of $q$ continues to increases, there is a greater likelihood for volatile behaviour of the markets. This is reflected in the data analysis that is compounded in Figure 8 for the FTSE close-of-day between 1980 to 2007 and in other financial data, the results of which lie beyond the scope of this paper. It should be noted that because financial time series data is assumed to be self-affine, the computation of $q(t)$ can be applied over any time scale, and that the FTSE close-of-day is only one example that has been used in this paper as an illustrative case study.

In a statistical sense, $q(t)$ is just another measure that may, or otherwise, be of value to market traders. In comparison with other statistical measures, this can only be assessed through its practical application in a live trading environment. However, in terms of its relationship to a stochastic model for macroeconomic data, $q(t)$ does provide a measure that is consistent with the physical principles associated with a random walk that includes a directional bias, i.e. fractional Brownian motion. The model considered, and the signal processing algorithm proposed, has a close associated
with re-scaled range analysis for computing the Hurst exponent $H$ since $q = H + 1/2$

In terms of the non-stationary fractional diffusive model considered in this work, the time varying Fourier dimension $q(t)$ can be interpreted in terms of a 'gauge' on the characteristics of a dynamical system. This includes the management processes from which all modern economies may be assumed to be derived. In this sense, the FMH is based on three principal considerations: (i) the non-stationary behaviour associated with any system undergoing continuous change that is driven by a management infrastructure; (ii) the cause and effect that is inherent at all scales (i.e. all levels of management hierarchy); (iii) the self-affine nature of outcomes relating to points (i) and (ii). In a modern economy, the principal issue associated with any form of financial management is based on the flow of information and the assessment of this information at different points connecting a large network. In this sense, a macroeconomy can be assessed in terms of its information network which consists of a distribution of nodes from which information can flow in and out. The 'efficiency' of the system is determined by the level of randomness associated with the direction of flow of information to and from each node. The nodes of the system are taken to be individuals or small groups of individuals whose assessment of the information they acquire together with their remit, responsibilities and initiative, determines the direction of the information flow from one node to the next. The determination of the efficiency of a system in terms of randomness is the most critical in terms of the model developed. It suggests that the performance of a business is related to how well information flows through an organisation from one node to another. If the information flow is entirely random, then we might surmise that the decisions made which 'drive' the direction of the 'system' are also entirely random. The principal point here is that the flow of information has a direct relationship on the management decisions that are made on behalf of an organisation.

The non-stationary but statistically self-affine nature of the markets leads directly to the use of the Fourier dimension as a measures for quantifying their 'state of coherence'. Just as this parameter can be used as a market index for managing a financial portfolio so, it may be of value in quantifying the 'state' of any organisation undergoing change (management). The conceptual basis associated with the Fourier dimension and the system behaviour that it reflects leads directly to an approach to
management in general where the principles of openness and transparency articulate the degree of coherence of information flow through an organisation from one level to another. In effect, the sustained organisational approach to managing continuous change is the basis for a portfolio in which $q(t) > 1$ and increases with time.

The FMH and the self-affine nature of organisations in general provides a model in which the work-force at any one level (i.e. department/section/group etc.) of an organisation can empathise with all other levels by cultivating an understanding in which each level is a reflection of their own, e.g. problems/solutions at middle management are a reflection of the same type of problems/solutions at executive level. This 'empathy' is a two-way entity which differs only in terms of its scale. Sustained organisational change and the example methods of implementing it is a self-affine process and should thus be introduced with this aspect in mind. In tackling problems at any level within an organisation, one is, in effect, taking consideration of such problems above and below that same level in terms of the dynamic behaviour of the 'system' as a whole, a macroeconomy being the antithesis of such a 'system'.

Self-similarity provides a model in which the work-force at any one level (i.e. department/section/group etc.) of an organisation can empathise with all other levels by cultivating an understanding in which each level is a reflection of their own, e.g. problems/solutions at middle management are a reflection of the same type of problems/solutions at executive level. This 'empathy' is a two-way entity which differs only in terms of its scale. Sustained organisational change and the example methods of implementing it, as discussed in this thesis, is a self-similar process and should thus be introduced with this aspect in mind. In tackling problems at any level within an organisation, one is in effect taking consideration of such problems above and below that same level in terms of the dynamic behaviour of the 'system' as a whole.
Chapter 9

Discussion and Conclusions

9.1 Discussion

We consider the role that the case studies researched for this thesis have had on the development of this work and in the application of the Hearts & Minds approach to sustained organizational change in the commercial arena.

9.1.1 Case Study I: Sun Life

This was the very first application of Hearts & Minds to the commercial sector. It closely mimicked the Dhofar in almost every respect and also had the scale. Sun Life, one of the leading British Life Assurers prior to acquisition by AXA, had not upgraded its IT for over a decade and the business position had become urgent. After two previous IT programme failures and the overuse of consultants; Hearts & Minds was implemented to successfully re-organise, re-energise and deliver at the time, the UK's largest migration programme.

It changed people's lives; a number became very successful. The change was sustained for 10 years before the IT Division was outsourced. A number of the middle management 'old hands' are still there, but the senior management has now retired and are long gone. During this era, Liberty Life and UAP jointly owned Sun Life. In 1991, UAP took 100 per cent ownership and in November 1996 UAP merged with
AXA - the French multinational.

It enabled the UK’s largest systems migration programme to be delivered on time and 4% under budget, when several attempts during the previous 10 years had failed. It also worked across all IT service functions; every business area including the London Investment Arm and was also adopted across Customer Service. Middle management was also reactivated. All the identified Critical Success Factors (CSFs) were achieved, notably the staff themselves successfully undertook at the time the world’s largest database conversion as part of the systems migration. By contrast, the changes that McKinsey introduced into Customer Service were not sustained.

9.1.2 Case Study II: The Wesleyan

This case study was concerned with how Hearts & Minds can be applied to a transient organisation, such as a large IT programme. The Wesleyan was a client who engaged a Service Supplier to provide the IT to implement a new business strategy devised by McKinsey. This involved developing a new back-office system (SBS) to support at the time a revolutionary laptop computer based Point of Sale system - called FAITH; during this period the client also made two new acquisitions, which were also successfully accommodated by the programme as incremental deliverables.

The programme succeeded in delivering the SBS system after two previous failures and has long dispersed. The Wesleyan successfully implemented its business strategy defined by McKinsey and subsequently won three consecutive industry awards. A number of the Service Supplier staff joined the Wesleyan, who subsequently canceled the IT outsourcing contract and now run IT themselves. The Wesleyan did succeed, using their advanced IT, salaried sales force and guaranteed products. Most recently, on 21st November 2007, the Wesleyan was named ‘the clear winner’ at the IFS Financial Innovation Awards, 2007. The judges said: ‘the Wesleyan was an example of outstanding segmentation and focus of resources that has achieved real market recognition.’

As for the Service Supplier, they subsequently merged with a consultancy firm, which became a difficult marriage and did not work, with many staff redundancies occurring. They now concentrate on outsourcing for Government, but no longer run
9.1. DISCUSSION

large programmes. Hearts & Minds united the various factions of the Service Supplier, which enabled delivery of the SBS programme and key FAITH (Financial Advice In The Home) enhancements. It also enabled a relationship to be built with the client, where previously there had been distrust and an over reliance on commercial dialogue. There was also a significant infusion of skills allowing the programme to succeed. The programmes Critical Success Factors were achieved, notably Partnering, Communication, Self-motivation and Visible Management.

9.1.3 Case Study III: Energis

Hearts & Minds was chosen to establish a new Solutions Management Centre (SMC) within Energis to deal with increased business volume. This involved merging the CPM organisation with the Bid Management team and another unit. The ODP was started after a very comprehensive diagnostic phase including a Climate Survey and Needs & Wants survey.

The ODP was successfully launched but only ran for 3 months, when the company ran into financial difficulties. Despite this short period, a number of the Critical Success Factors were achieved notably Communication, self-determination and Controlled Ownership. In July 2002, Energis went into administration and its assets were acquired by Chelys, a company set up by its creditors who were owed about 700m. Subsequently, Cable & Wireless acquired Energis at the end of 2005. Subsequently, a further 50 customers churned making a total of loss of 190 customers in just 8 months.

The CPM organisation was successfully merged with the Bid Management team using benchmarking from the USAFE and the new bid process started to operate effectively, but sales were still lacking the required discipline. Cap Gemini (see Appendix F) was charged with running the corporate change initiative called The Customer Edge Programme. When this failed to deliver any change, in stark contrast to Hearts & Minds, they asked the author for assistance. Their change initiative was canceled abruptly due to lack of results. The ODP was started after a very comprehensive diagnostic phase including a Climate Survey and the communication phase started. When the company ran into difficulties, the ODP funding was withdrawn. The reaction from all staff involved was very strong; the
uniform reaction being that management 'had pulled the rug'. It was a clear example of the consequences of letting down people once trust has been won.

9.1.4 Discussion of Case Studies

In all three Case Studies, the CSFs were achieved as already described. In the case of Sun Life the operational efficiencies were also achieved; at the Wesleyan the business strategy was implemented successfully, with the SBS programme playing a key role. The Wesleyan has gone from strength to strength. Success as Energis was realised for a short while before being aborted by the failure of the company, which itself could have been saved if the Climate Survey had been commissioned earlier. One common denominator in all cases was the effectiveness of Hearts & Minds and the focus on helping the people.

The mission of this thesis is compounded in the following:

*That concepts of change management developed in the military arena can achieve equal and equivalent results in the commercial sector with the proviso that the appropriate attributes are tailored accordingly (appropriate to civilian context).*

The principal goal associated with the composition of this thesis has been to:

*Put Hearts & Minds on the map as a key approach to organisational change.*

Hearts & Minds features high reliability because it operates within the value system of the target audience. Further, it focuses on the Needs & Wants of the audience. No successful change is ever made by relying upon the target audience itself to self-administrate the change nor can it be made successful by strong-armed methods. The training team is a unique phenomenon, it supports right at the front-line, it does not do things for people, but concentrates on training and equipping people to help themselves. It is very powerful.

Sun Life was the very first realisation that Hearts & Minds previously employed
9.1. DISCUSSION

for changing whole countries could be used to change commercial organisations. It is also a testament to sustained change and without further intervention, the change lasted 10 years before the IT organisation was outsourced.

Common perceptions of Hearts & Minds appear in the following contexts:

The Malayan Campaign itself
Other theatres of war
Marketing
It's use as a slogan

Hearts & Minds is a consistent and reliable methodology, the key features being:

Careful diagnosis
Restores loyalty
Operates in the value system of the target audience
Focuses on needs and wants of the target audience
Provides support to the target culture, which works alongside
Rejuvenates the target culture

There are three key characteristics namely:

1. Persuasion
2. Training Teams
3. Permanence

Hearts & Minds is not coercion, it is founded on persuasion. In other words, it is not dictatorship; it is not ordering, it is the changing of attitudes, it is appealing to people, it is motivating people to do things differently; it is opening their minds.

In the Sun Life Case Study, the IT Training Team (ITTT) closely mimicked the military experience of the BATT in the Dhofar, who lived in separate houses (the ITTT resided in an office), but worked alongside the tribal groups (the various departments). Their role was unique - neither a consulting role nor membership of the
firqats. The ITTT learnt the context of the overall mission - i.e. that Hearts & Minds must have an objective. Yes, the war in the Dhofar had to be won, but why? The ultimate reason was to bring about a civil modernisation - the building of a proper infrastructure and driving out of the communists. In Sun Life it was delivering the Needs & Wants and driving out the consultants and training the staff to take charge of their own destiny and do the work themselves and deliver the programme.

Sun Life has been described by Bob Garratt [118] as, 'an interesting story of rampant chaos, which was resolved by applying: (i) Programme Management; (ii) Actual Learning.' Infact, very little learning had taken place for some years and it was breathtaking that the cloned implementation based on Operation Storm experience worked in the same way. The target audience was not tribal, but there were parallels. They were proud and had been revered technicians; they had been taken over not by the enemy, but by hoards of consultants, who suffocated their skills and their way of working. They did not close the mosques, but the consultants took them on tangents to suit their own revenue needs. In the end, they became like the audience in a football stadium, spectating a soccer match played by the consultants, but were impotent in determining their own destiny. In short, it was the consultants who did the work and owned the change, with the client merely observing. Consequently, at Sun Life the civil aid methodology of progressive defensive lines used in the Dhofar was mimicked. Following an extensive diagnostic phase, the change process under the label ‘the ODP’ was launched. This started with just 4 action learning ‘sets’ and an ‘armistice’ was declared for 15 months, during which time the staff:

1. Would receive some training.
2. Would be helped to improve their ‘employability’.
3. There would be no redundancies.
4. Finally, the ODP had to effect the changes simultaneously with a very large IT programme, which ran in parallel and which itself could not generate any impact to the business.

After the initial 4 ‘sets’ had been completed on key operational problems, other projects were progressively rolled out to selected areas across the division in an anal-
ogous way to the lines of defence in the Dhofar. Similarly, the target audience were given back control of their destiny, but chaperoned and remained in the safe hands of the ITTT. Eventually, the ITTT completed their task and trained the Middle Management to take-on their role, who were also repatriated with their rightful position in the organisation.

9.2 The value of permanence

The real value of permanence is obviously economic, since it avoids the cost of recursive 'refresher change initiatives'. However, the underlying significance lies in its sincerity of the people involved, because Hearts & Minds changed their lives. Case Study III - Energis is a reminder of what can happen, when the correct diagnosis has been performed, staff convinced, mobilised and then terminated due to lack of management commitment. There is never a second chance. People had dropped their defences, they had seen the light and some had even seen a chance at that early stage of bettering their own lot. However, when trust is betrayed, the reversal of those opportunities will never be recovered. Change is indeed a perishable commodity. In the converse, many years later, the target audience of Operation Storm and Sun Life are still in touch with their Training Team(s) and still proud of their new lot and realised benefits. The original change has been sustained, because the initiation took place within their value system, supported by a Training team, who over time made the audience the owners and ensured that support was in place to sustain the change.

Having said that, where is the real focus and what is Hearts & Minds underpinning? The answers lie in improving the lot of the target audience in a permanent way and ensuring that they are equipped to maintain that change by not only possessing new skills, but more importantly from within their own set of beliefs.

9.2.1 The Basic Steps

These encapsulate the commercial transformation of Hearts & Minds, covering:

- Defining the organisation
- Conducting the Climate Survey
CHAPTER 9. DISCUSSION AND CONCLUSIONS

- What culture is needed?
- Training team formation
- Scoping Mission & Objectives
- Top Team formation
- Teambuilding/Appraisal system

Before the success was realised at Sun Life a pilot was run at FIL to prove the concept. The climate survey at Sun Life provided firm metrics of where the IT organisation sat both from internal and external perspectives. These were also backed up a report of actual commentaries from the structured interviews, which could not be countered. This stage is pivotal and includes the formulation of Needs & Wants and the need for better communication featuring in both aspects. This was answered by holding communication events each month for the entire division. This enabled direct communication to all staff as well as providing feedback. Another important aspect was that the budget was handled separately, thereby removing that excuse for not participating.

There were five key Success Factors at Sun Life:

1. Leadership
2. Delivery
3. Partnership
4. Increased productivity
5. Skills acquisition

These are described in the DVD [119] 'The Spirit of IT', accompanying this thesis.
9.2. THE VALUE OF PERMANENCE

9.2.2 What culture do you need/want?

This stage covers the design of the organisation based on the results of the previous two stages. It also includes formulation of the Mission and Objectives, for which various approaches have been used, the most successful being: (i) Cascading down through all departments from the architected mission; (ii) a mission statement devised by the staff based on the diagnostic findings.

Top Team building is key and a hybrid of 'old hands' and 'new faces' seems to always work best. This has the advantage of keeping the legacy acceptable to the staff, whilst injecting new ideas at the top. This team building is cascaded down throughout the organisation, with few complaints since the Top Team had already subjected themselves.

The Training Team is introduced at this stage to import new skills and work alongside the staff to implement ODP projects. To ensure that the values in the new mission are measured, these are incorporated into the standard appraisal system - first pioneered by David Steele at Marconi and included in everyone's personal objectives.

9.2.3 The underlying framework

The ODP serves this purpose - which focuses on six organisational dimensions:

1. Organisation
2. Recruitment
3. Training
4. Human Resources
5. Communications
6. Skills Acquisition

Each are required to restore organisational purpose, which is described in a 7th dimension - the deliverables.
9.2.4 A contrast with Bedrock Solutions

Conventional consulting methods often use rote learning, intervention, BPR or implied threat and avoidance of addressing belief. They also never seem to be there at the moment of truth, other than to claim praise for the results afterwards. Reg Revans [51] said, 'No learning without action and no action without learning.' Action learning is grounded in the approach he pioneered, which asserts that 'there can be no learning without action and no knowing without the effort to practice and implement what is claimed as knowledge.' At Sun Life whilst key problems had to be addressed, so did an appropriate method of reversing 'the legacy of laziness' left by the departed consultants, (who previously did all the work). The use of action learning was the catalyst for change.

To reinforce ownership of problems, the 'walk away project brief' technique was used, which was pioneered by David Gilbert-Smith [120]. This involved describing the problem as a challenge, together with the resources to be used and the constraints (e.g. time). Similarly, this technique allowed the ITTT to concentrate on facilitating the dynamics. A common slogan became, 'read the project brief', which is still extant. This is very similar in style to GK, which places ownership on the process owners and where management create the right environment for the staff and adopt a support role.

9.2.5 Re-engineering teams are very different from Training Teams

Re-engineering teams are very focused on installing new processes irrespective of the consequences and certainly use power plays as they go about 'doing things to an organisation and its people'. Unlike Re-engineering Teams, Training Teams work within the culture of the target audience and are scrupulous about observing respect and maintaining the trust of those with whom they work. They always encourage and stage-manage their audience to implement change for themselves. Consulting firms are businesses and therefore when the choice presents itself between revenue and doing the right thing for the client, it is usually the former. In contrast, Hearts & Minds always tries to do the latter.
9.3. THE WAY FORWARD AND APPLICATIONS

9.3. The Way Forward and Applications

Case Study II - Wesleyan Assurance - the company underwent radical change themselves, but the case study is about how Hearts & Minds was applied to their service provider. Again, there were parallels with Dhofar, because the problems were centred on:

- Previous failures of management
- Multiple tribal enclaves
- The need to make a profit

The biggest challenge was to address the 'tribal factions' or as the Wesleyan described it, 'we bought a programme team from you [service provider] to deliver the programme, not a set of different groups, who work separately'. To do this the following actions were addressed:

- To integrate all staff in the programme irrespective of their owning unit.
- For everyone to become members of a programme team.
- To behave that way and relate to the client in that manner.
- Establish a programme culture and break down barriers.

With regard to the Sun Life case study, the 'Needs and Wants' survey triggered the deployment of Hearts & Minds starting with the need for better communication. This was followed by the formulation of a mission statement, (this time suggested by the staff themselves), which was reinforced with a modified appraisal system to measure the values. Returning to the challenge of building single programme culture.

To do this the self-motivation course designed for Sun Life was modified to build a 'performing teams' course, which embraced Hearts & Minds in every aspect. This gave confidence and the technical problems; most of which crossed team boundaries, were quickly solved with the help of the ITTT. Again, following Sun Life experience, where the relationship between IT and the rest of the business was in need of repair.

The relationship between the Wesleyan and the programme was rebuilt using partnering, which had the effect of gaining trust and respect - both of which had been
previously lacking. Further reinforcement was provided by the 'performing teams' training course.

We are reminded about the impact of organisational failure, which the exemplar of IBM provides. 'The humbling of the giant' - who would have ever thought that most arrogant corporate culture, which has ever existed and whose turnover was many times that of some countries GNP would fail? [100] In 1993, IBM was on the brink of break-up. The stock price had collapsed, hitting a 20-year low and the company posted an $8.1 billion loss. Louis Gerstner provided the rescue by bringing a refocus on the customer and the marketplace as the measure of success, the result being that the company was saved.

9.3.1 What does the future hold?

The Energis case study showed the use of enhanced Climate Survey, which uncovered an unexpected outcome, that the host organisation of the division under development was the real problem. The results went unheeded and the company failed. Another differentiator was how the management team were successfully deployed as a Training Team, copying the handover to middle management at Sun Life. All other aspects, Hearts & Minds was reinforced and the ODP once again demonstrated reliability.

In contrast, SME’s are the power stations of the future economy and the exemplar of Haringtons; one of the UK’s leading SME’s demonstrates what can be achieved with a focused and visionary management team. There are also close parallels with how they sustain their culture with a clear mission statement, directors working in a similar style to a Training Team - always on the front-line with their staff - but nevertheless always managing the business efficiently.

9.3.2 Quantitative Analysis

The quantitative analysis discussed in Chapter 8 encapsulates a technique that has, to date, not been implemented in the assessment of the sustained organisational change techniques discussed throughout this work. The idea and basic model reported here therefore remains of theoretical interest within the context of this thesis. One of the basic problems associated with implementing this assessment criteria is that, like
9.3. **THE WAY FORWARD AND APPLICATIONS**

Other statistical parameters, the Hurst exponent or dimension requires a significant amount of data in order for its computation to be (statistically) valid. The work considered here has, thus, focused on a macroeconomics, the material discussed being based on a fractional dynamic model proposed for price variation. In accordance with the definitions of the model, this is equivalent to observing market price movements very close (in terms of connectivity) to the source of information affecting them. This suggests that prices further ‘down the line’ are of the same form but with additional amounts of higher frequency noise. Thus, although a macroeconomy can be considered to be totally connected (to maintain consistency), noise can induce price movements that are far apart in a chain that is virtually unconnected.

The proposed model for price variation accurately mimics the PDF, the power law property and the Hurst dimension observed in real financial markets. A new market measure, the $q$-signature, describing the ‘diffusivity’ of new information is the core of the model. Crashes happen when price increments change from being diffusive to propagative processes. The $q$-signature can thus provide a new risk analysis tool. In this sense, the application of a $q$-signature applied to assessing macroeconomic trends (which, in principle, are the result of managing a diverse range of financial institutes world wide) is analogous to its use for assessing the result of applying a Hearts & Minds paradigm to sustained organisational change in a commercial environment.

### 9.3.3 Areas for future research

One of the most promising developments for the future is the use of the Hurst dimension and the self-affine nature of organisational behaviour. Self-similar fractal structures have symmetry properties that do not depend on the direction: they scale isotropically. However, the scaling properties of a fractal can also depend on the direction in space. A self-affine fractal does not ‘look similar’, if it is viewed from a closer distance. It ‘looks similar’ only if one of the space coordinates is rescaled appropriately. In Chapter 8, the potential of developing a new approach to measuring organisational climate emerged. The key hypothesis associated with the Hurst dimension is that the better the flow of information, the greater the satisfaction and efficiency in the way people work in the organisation. The efficiency of the organisa-
tation can be measured by the level of randomness associated with the direction of the flow of information to and from each node, a node being a department, for example, or, indeed, an individual.

There are a number of disadvantages with current approaches, for example:

- Staff surveys are historical and do not give a real insight into the state of an organisation.
- Climate Surveys require a period of time before a 'before and after' picture emerges of the improved climate.

The Hurst dimension offers the opportunity of real-time measurement of an organisation climate. As has been discussed already in Chapter 8, the transition from water flow of the Nile to financial markets has already been made and the adaptation to organisational measurement is realizable with the generation of appropriate data associated with real time or near-real time climate surveys. The data processing undertaken with regard to the FTSE discussed in Chapter 8 is, in effect, an example of data relating to a Climate Survey associated with UK Limited.

Further areas for future research are itemised below:

**Adopt & Adapt: why does this work so well?**

Some research has been undertaken to understand why this technique is so effective, but more work is needed. It appears that whilst adopting other people's ideas is a challenge for some people, in contrast, after the idea has been adapted into the new situation, subjects not only feel ownership but also believe they were the inventor.

**Use of Hearts & Minds Communications and Awareness teams in Public Relations.**

The avoidance of propaganda and the building of trust through consistent communication would be an advantage in the Public Relations field. The notion of a separation of duties between constantly understanding the target audience as distinct from communicating within the Mission/Objectives/Values to address the concerns of the audience, could be developed into a powerful proposition.
9.4. **CONCLUSION**

The exploitation of SEP techniques in Marketing for turnarounds.

Section 3.2.4 describes how converts were achieved, because Hearts & Minds is not just about improving the 'players' as shown in Figure 3.3; it is also about addressing the other categories. Hearts & Minds has been successful in turning round enemy forces to be loyal to the cause. Many of the techniques for achieving (i) an amnesty and (ii) the induction and acceptance into the new fold, can be adapted and further developed for not only commercial organisational change, but also gaining ground in marketing and increasing market share.

The techniques employed by Civil Aid teams.

Perhaps the biggest opportunity is how ground was recovered and settlements re-established using Hearts & Minds techniques. This would be particularly useful in mergers and acquisitions with regard to absorbing a new organisation into the wider group. Similarly there is potential for use in marketing to grow market share as well as increasing customer loyalty.

9.4 Conclusion

The situation at Sun Life was almost hopeless; Hearts & Minds captured and re-energised a large critical mass of people that had not succeeded in their jobs for at least 10 years. There was no choice, the IT systems were undocumented and could only be updated by them, so the staff became the challenge. The success of the migration programme was undertaken in such a way that there was no impact to the business; in fact it became a race against time as the legacy IT equipment began to decay.

The Wesleyan was quite different. Commercial arguments were the order of the day as well as a continuum of re-negotiating the contract, with very little focus on delivering. Both sides were locked in conflict. There was a pressing need to repair this relationship, but more importantly harness the allegiance of the multiple factions within the Service Provider to achieve delivery. A flexibility was also developed, so that the programme was halted for a short time to incorporate two new acquisitions
made by the client. This involved 36 weeks of development time, which was accomplished in just 16 weeks, delivered on-time and even under budget. It was a key morale boost for the programme.

Energis was different again. This began with very careful diagnosis, but the Climate Survey uncovered problems within the wider context - the company itself, which subsequently failed. The first phase of the culture change successfully integrated three organisations to form an SMC and the siege like mentality of the staff was addressed. If only these measures had been realised earlier, then the company may have been saved. This was all in stark contrast to the efforts of one of the 'Big 5' - Cap Gemini, who failed to make any progress.

9.4.1 Goals and Measurable Objectives

In context of the mission statement, i.e. *That concepts of change management developed in the military arena can achieve equal and equivalent results in the commercial sector with the proviso that the appropriate attributes are tailored accordingly (appropriate to civilian context)*, the goals and objectives associated with this work are compounded in the following points:

1. To put Hearts & Minds on the map as a key approach to organisational change (which reduces variance in Climate Survey results).

2. To explain the underlying mechanism of Hearts & Minds (delivery of 'Needs & Wants').

3. To show that Hearts & Minds can be equally successfully deployed for organisational change in the commercial sector.

4. To explain how Hearts & Minds achieves a higher level of permanence compared with other approaches (e.g. the number of years sustained).

In hindsight, and with regard to the Energis case study, it would have been better to train the ITTT first, rather than in parallel to their task. Further, it would have been advantageous to more fully utilise the techniques used by the Civil Aid teams and convert their broader methods for use in the commercial context.
9.4. CONCLUSION

9.4.2 From Military to Civilian Objective

The military decision-making deals in life and death, they don't wait for the money to run out as in business and their techniques are underrated. Most programmes need underwriting by a culture change programme; people are key and even 'no hopers' can succeed, as shown by the success of *Fly the Mission*. Neither the power of *Adopt & Adapt* cannot be underestimated nor can the opportunity to learn from others. It worked for an entire country and it has successfully transformed organisations like Sun Life, the Wesleyan, a GEC subsidiary and FIL. *Hearts & Minds* is not a turn of phrase, it is a methodology with very defined mechanisms, which work within the values of the target audience, not those of the change agents or the Board. This is the key reason why high permanence is achieved:

- It fixes problems that are important to the target audience, not the administrators.
- It addresses Needs & Wants of the target audience.
- It refocuses management and directors alike into a staff management role.
- The staff own all the processes.
- The target audience are always given the opportunity to solve the problem in an empowered, but chaperoned way.
- There is rigorous programme management of the entire change initiative with constant focus on the critical success factors.
- When *Adopt & Adapt* is used, the target audience is given a chance to tailor their own solution, based on a proven framework.
- Dignity is maintained at all times.

Like GK, *Hearts & Minds* puts the target audience in control of their own destiny, but none of this is easy, it requires a great deal of passion and none of this is for the feint hearted. Finally, Britain was a colonial power and although not everything it did was right, one thing is certain - it understands other cultures. Perhaps this is
the reason for its unbroken track record of success with Hearts & Minds, both in the
military and now in business?

Hearts & Minds potentially offers a new business model to the Big 5 consultancies.
Instead of uncertain change programmes, which conveniently need regular refresh to
offer any effect, the military model offers an answer. One of the consequences of
Hearts & Minds is that it builds loyalty and trust; this means that not only is the
change sustained, but also similarly are the relationships with the Change Agents
or Training Team. This can prevail for many years - up to thirty in the case of
the Dhofar. This means that when the target audience are in control of the change
there is a natural tendency for them to refer back to their Training Team for help,
whether it be for advice, services, assets or whatever. Sometimes the Training team
can become seconded back to the change. In a consultancy setting, this will more
than the equal of conventional revenue pipeline. Many suppliers have benefited from
this in the Dhofar, across a number of sectors outside Defence, notably Construction,
Telecoms, Infrastructure, Education and Tourism.

Templar said that, 'the shooting side of the business is only 25% of the trouble and
the other 75% lies in getting the people of this country behind us'. The challenges
of the commercial sector are no different. Doing business is a fairly straightforward
activity; but motivating people to deliver the proposition is the major issue. Recognised
by many as the world's most successful service provider - Nordstrom has put
people at the top of its agenda for this reason. Their number one employment rule is:
'Use your good judgment in all situations. There will be no additional rules'. This
type of empowerment is unusual in the United States and relies heavily on staff pro-
filng and selection linked to an emotional buy-in to the company's philosophy. Their
philosophy has remained unchanged, since its establishment by John Nordstrom in
1901: 'offer the customer the best possible service, selection, quality and value.'

The author's experience with change management in commercial organisations
also mirrors this stance. The three Case Studies discussed in this thesis show that
it is the underlying change initiatives that determine successful outcomes, not the
technical programmes. The first Case Study provides a stark illustration: What
is to be done if the only people who have the knowledge, but not the capability?
The target audience were the only people who could implement the programme and
9.4. CONCLUSION

therefore they became the focus of attention. The second Case Study illustrates the challenge faced by a service provider not the client: making the change across diverse and politically exclusive groups to deliver what was promised to the client. The final Case Study accidentally discovers corporate failure, if only the change initiative had been allowed to continue, then disaster may have been averted.

Hearts & Minds shows that to recover situations, people need to be convinced, indeed their situation must be also be improved and their basic needs met. In other words, the change must answer the question, ‘What’s in it for the individual?’ This thesis has been an evaluation of the transformation from what worked for Hearts & Minds in the military to what worked in the commercial world. The comparators of consultants and academics have also been evaluated and found real application for their propositions, but although they can deliver change, they do not always feature permanence. Nevertheless, they do have their place.

The final comments reflect what Templar said in the first place.

- In business the inclusion of people’s Needs & Wants are key to realising permanent change.

- The importance of working within people’s values is also key. This cannot be better illustrated by the skill involved in writing the leaflets in the Dhofar. They delivered the message in the context of the Koran to convince the population to switch their allegiance to the Sultan, but was written by a Christian.

- The crux of Hearts & Minds is to understand the target audience in order to achieve real change, and this equally applies to the commercial as it does to the military.

9.4.3 Final Comments

The principal goal of this thesis has been the transfer of approaches and techniques associated with change management from the military context to the civilian sector, the multi-faceted aspects of the methodology adopted being compounded in the term ‘Hearts & Minds’. This thesis is a contribution to how a careful diagnosis of the effect of Heart & Minds within different organisations (i.e. the example case studies
that have been reported in Chapters 4, 6 and 7) can be used to develop a tailored methodology for each situation.

Hearts & Minds is first and foremost about assessing what people need and what they want in order to become a self-motivated entity within a complex structural framework that is inevitably forced to change and adapt to a military or commercial operating environment. The results discussed are a synthesis of the authors' experience in industry over the past fifteen years, having also had significant exposure of the application of change management in the military setting.

The fundamental hypothesis of this thesis and the work that has been reported is that the concept of change management developed in the military arena can achieve equal and equivalent results in the commercial sector with the proviso that the appropriate attributes are tailored accordingly. Based on the results considered from both the qualitative and quantitative aspects presented in this work (including the quantification of change management in a financial context - Chapter 8), this hypothesis has been validated to the extent of the material presented and from the point of view of the authors continuing involvement in the Hearts & Minds approach to sustained organisational change.

Throughout the thesis, an attempt has been made, where appropriate, to differentiate and compare the Hearts & Minds approach from other forms of change management programmes, for example, in Chapter 5, Sections 3 and 4. Hearts & Minds focuses on one fundamental issue which is how the working environment can be improved for the individual rather than the company (at least, in the short term). In comparison, Business Process Re-engineering is about streamlining processes for the company rather than the individual. Another comparison is Kaizen, which can induce further pressure on the work force (e.g. self assessment report, which requires more work). In today's working environment, it is becoming increasingly more important to improve the quality of life of the work force. Hearts & Minds is a proven body of knowledge in the military arena in which incremental belief and persuasion are key to improving the quality of life of the citizen. These aspects are increasingly required in today's working environments which are undergoing rapid change. In order for organisations to remain competitive, change needs to be sustained, which can be realised through a Hearts & Minds approach.
Appendix A

List of articles and papers researched
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<th>Title</th>
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<td>The marketing of Japan - Nissim's hearts and minds campaign in the north-east</td>
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Appendix B

Example leaflet drop
Text of leaflet dropped in the Wadi Darbat in 1971.

In the name of God, the compassionate, the merciful. From the faithful men who are true in what they undertake for God. Some have died; the others are still waiting without deviating. God is true in what he has said.

Brothers in the mountains, in the plains, in the villages, in the towns and everywhere in this beloved country, you have been the sword to protect your country, to keep your dignity and to swear your faith. Do not be a hammer to knock down the fence of your spirit and belongings which is the Religion. The Religion has the key of your life and of the other life. The communists are waiting to trap you; do not allow them to oppress you; do not lose hope of rescue. The strong in faith is he who builds up the Religion and protects it. Be this faithful one; be this strong fortress to enable the lost to find his home. Protect your country, your brother and keep your family in righteousness by joining your national and faithful Government which carries out things for you. You cannot perform your duties unless among your relatives and with your Government. WE AWAIT YOU!

The communists do not serve your rights, do not fit with your beliefs. The communists are your worst enemies; do not let them deceive you. Listen my brother to what the communists have said and done. Listen that you may distinguish right and wrong. The communists said, 'THERE IS NO GOD WHO CREATES EVERYTHING'. The communists do not recognise the prophet MUHAMMED (blessing be upon his name) and others of God's prophets. There is no place for right amongst the communists. The communists, my brother, allow illegal things and the removal of the rights of man. These things are known to you. They kill fathers and leave the children as orphans. All these things have been done by the communists and carried out within sight and hearing of you. You are their protectors in an indirect way. You are their fuel and their slaves and later on you will be their target. Be careful for yourselves before it is too late. Start to join God's party. God's party will be the winners. The victory is yours for eternity my Muslim brothers. The death is for God's enemies, for those who are also your enemies and against freedom, dignity and Holy Islam. The Muslim fighters from all DHOFAR have joined Islam's party which is under Qabus' leadership. Start working hard and honestly to finish the communists in order to satisfy God and to purify this
country which has been stained with the blood of criminals. Start my brothers, to link up with your brothers and to take your natural place in the service of your Government and country, which is your service because you have the most to benefit from this. Your Government welcomes you, looks after you, protects you, assures you of your rights and watches out for all your rights.

Come freely to the holy fight and enjoy all that your Government has ensured and done for you during these few months.

You are your own masters; do not try to suffer for others. God will ensure the victory whenever you fight for him.

Islam is our way. Freedom is our aim.
Appendix C

Catalogue

of 95 self-administered culture change projects (1992-2001)

1. 1st Class Print Delivery (1994)
2. SAF/SAC (1994)
8. LT/Heston (1995)
12. Implement BSC's (1992)
15. QDC (1993)
16. HR Rollout (1993)
17. Appraisals (1993)
18. Install Filter Beds (1993)
20. OAR (1992)
22. 91BG (1993)
23. Awareness Team (1994)
27. Crew Chief Background (1994)
32. External Communication (1994)
33. FMEA (1993)
34. BA Rollout (1993)
35. Briefing Speedwing (1992)
36. Briefing the ITTT (1992)
37. Communicating Upwards (1992)
38. DB/2 & SQL Training (1992)
40. Information team (1994)
41. Intelligence Cell (1994)
42. ITTT Review (1992)
43. MCTT (1994)
44. Owning H & M (1996)
45. Staff Management Standards (1995)
46. IT Conference (1994)
47. IT Conference/2 (1994)
48. IT Secretaries=HGV Drivers (1993)
53. ODP Closeout Dinner (1993)
55. Phoenix (1993)
56. Teamwork Assessment (1994)
57. The Ripper (1994)
58. Tower Museum (1993)
59. WIMIN: Find your own style (1993)
60. Brief the ITTT (1992)
61. Departmental Missions (1992)
62. ODP/5.5.1 (1992)
63. PC Action Team (1992)
64. Working with the Wesleyan (1997)
65. TAE/latest (1997)
66. TAE/29SEP97 (1997)
68. What program culture is needed? (1997)
69. Team Assessment Ex (1997)
70. Teambuilding & Self-Motivation (1997)
71. Skills Audit (1997)
72. Programme Induction (1997)
73. Project Briefs/02JUN97 (1997)
74. Xmas Charity Show (1997)
75. World Class PC Repairs (1997)
76. Achieving 100% Connections (1997)
77. Achieving 100% Overnight Work (1997)
78. What is a proactive Help Desk? (1997)
79. Project Sponsor Notes (1997)
80. Project(s) Briefing (1997)
81. 05MAR97 (1997)
82. Owning the SDLC process (1997)
83. MP/AM/05MAR97 (1997)
84. Providing superior DT services (1997)
85. Installing a Design Authority (1997)
86. Installing Version Control (1997)
87. Improving overnight processing (1997)
88. Establishing a new Pre-Sales team (2001)
89. Formulating Critical Success Factors (2001)
90. Developing your Vision Statement (2001)
91. Establishing Competency baselines (2001)
92. Peer organisation-partnering programme (2001)
93. Re-evaluating the FRED Appraisal System (2001)
94. Develop a Project Management Methodology (2001)
95. Establishing an Awareness Cell (2001)
Appendix D

The Sun Life ODP

Inventory of projects, including three extracts

Organisation
1. Top Team
2. Transition to New Culture
3. Develop Mission & Objectives Statement
4. Budget Control
5. Create Business System Centres (BSCs)
6. Implement BSC structure
7. Headcount
8. Deprivations and Luxuries
9. Training Team
10. The Free Market

Recruitment
1. Programmes/Cost Office
2. Systems Assurance
3. Business Systems Managers
4. Datacentre
D.1. EXTRACTS

5. Identify Other Positions
6. Determine Recruitment Methods

Training
1. Project Management
2. People Management
3. Technical Skills Training
4. Personal Skills Training
5. User Partners Programme
6. Quality/TQM/BS5750
7. Skills Review

D.1 Extracts

The following extracts are taken from Chris Davies et al., Information Technology for Sun Life in the Nineties: An Organisational Development Plan for the Information Technology Division, Sun Life Corporation, 10th August 1992.

D.1.1 Human Resources

Resource Strategy This activity builds on the headcount planning completed to date and provides a clear strategy concerning the roles to be played by Permanent staff, contractors and those development which may be outsourced. A simple statement regarding the use of the Training Team needs reiteration as well as the policy of skills acquisition from consultants and the associated consultant redundancy at the end of their assignment.

Terms and conditions
A review of existing terms and conditions which exist in the Division needs to be undertaken, which will cover fringe benefits, bonus related schemes for project work,
career structures and pay scales which are benchmarked in a composite way against both market rates for IT positions, proven experience and also against the rest of SunLife. It is envisaged that both negative and positive adjustments will be contemplated. Career structure should provide for different streaming as well as the ability to traverse between those streams without penalty. All stream should be logically graded in an equivalent fashion. A mapping needs to be devised against current SunLife grading structure as the Division moves to a position of functional titles and focus onto the new career structure.

Staff Development
Succession planning and forward load planning needs to be implemented; especially to give staff the vision who are engaged upon large project work like Conversions. The new flatter infrastructure needs articulation and should distinguish between project teams and the small line units as well as the mapping of the career structure onto both. Staff streaming needs to be addressed - Blue team and Red team, as do the special needs of the project management selection. A programme needs to be set up for project management training and also an advanced management training programme, (ADP), which should involve the whole of SunLife.

Skills Analysis
A full skills analysis across the whole division needs to be undertaken, to catalogue existing skills covering line management, project management, development skills and specialist skills. The skills audit performed by NNI for the Datacentre should also be included.

Job Descriptions
Standard job descriptions will need to be developed for the new career structure; these should be done in a cascaded fashion in a similar way to the Mission statement and again linked by calibration through the HAY/MSL evaluation method. All job descriptions are to be stylised to the situation undertaken by the jobholder and reviewed when task completion has been achieved. A review process exploiting Fagan Inspections will be devised to enhance team building.
Promotions
A promotions panel needs to be set up which can make recommendations to the IT Top Team; which in turn can be balanced by the GMs panel where required. A flexible criteria linked to sound judgement needs to be devised and over time the authority devolved from Top Team members to their own teams.

Counselling
For those member of the division who face special difficulties with the issues posed by restructuring of the division, the new company culture as seen through VISION and ACHIEVE as well as the catch-up of the IT division with the rest of SunLife; a confidential counselling service will be provided to help those individuals who require help in a positive way as well as those people who are found to be below expectation for going forward.

Revised Appraisal System
The new culture, behaviours and style cannot be successfully introduced without: (i) everyone reflecting their jobs within the new culture described by the mission statement; (ii) knowing what criteria their performance will be measured by. All departmental mission & objectives statements will reflect the whole divisional mission statement, (the divisional mission statement will reflect the whole SunLife mission statement) and out of each departmental mission and objectives the personal action plan for each member of the division, which is linked to an appraisal system and then linked into the career structure and its associated remuneration system. It may well be that team performance will also be assessed and that over time this will be devolved to the teams themselves to determine as well as recruitment. The appraisal system should ideally utilise the Personal Action Plan pro-forma, which should be uniform across the entire division.
APPENDIX D. THE SUN LIFE ODP

D.1.2 Communications

Divisional Newsletter
The purpose of this newsletter will be to reinforce points, which have been made in the Monthly Communication meetings; Team Briefings and brief summaries of events, which have taken place in the Division. There is also scope for normal features which members of the Division may wish to include. The newsletter is not intended as a means of primary announcement but the secondary means. Over time editorial responsibility should be taken by members of the Division from as diverse group as possible, which does not include a Top Team member. The ethos of the newsletter is to inform in an informal, uncensored and direct manner; it is not to be used as a surrogate for verbal communication in any way or overlap with Write Away or any other SunLife communication. It is not intended to inform outside the division.

Monthly Communication Meetings
A monthly communication needs to be established as a primary vehicle for involving all member of the division and as a primary mechanism for reviewing the results of ODP activities; by enabling study teams to report back, including those working on start-up activities such as Brief the Training Team, Communicating Upwards, and Setting up the PC Support Team. These meetings will be initiated by the Top Team and then increasingly involve all members of the Division. One Top Team member will be the sponsor of this meeting.

Top Team Meetings
A set of standard meetings which take place at regular and predefined periods need to be set up to cover the following:

1. Weekly Staff Review Meeting
2. Weekly Project Review Milestone Meeting
3. Monthly Progress Meeting with Project Sponsors
4. Monthly 1on1 Review of Monthly Book
5. Monthly offsite review meeting of ODP
1. Regular reviewing of the staff status is key during the restructuring of the division and issues need to be addressed as soon as they arise and before they become issues. It is important to focus on staff issues in a non-generalised way, without the distraction of technical issues, which either can take precedence or offer the distraction of not addressing the people problems. The type of meeting also needs to be set-up in each Top Team members department in the division.

2. All project milestones need to be reviewed weekly on a consistent basis, either by single event or a programme of weekly events. It is important that some symbolism is used to reinforce the single point accountability of the Project Manager. For example he/she must be able to answer only issue which arises. The Programmes Office will takes responsibility for undertaking these reviews and maintaining wall charts which summarise progress and which Project Sponsors who may wish to visit are able to understand. Before these reviews takes place a briefing session will need to take place to articulate the differences between line management/project management/programme management. For Conversions, separate arrangements will be made.

3. Following on from Project Reorientation, each project manager; probably with Training Team assistance will meet regularly with his Project sponsor to give progress to date using the protocols of Customer Service; remembering that the customer is not responsible for the management of the project, he is the recipient of the deliverables. Special focus will be given to change control on the requirements. From time to time other functions will be involved such as the Datacentre, Systems Assurance and Strategic Planning.

4. The monthly reporting has been significantly simplified and reinforcement given to management control over headcount, budget and key issues with the opportunity still retained for achievement. Top Team members will be expected to produce a consolidated departmental report to be a supplement to the individual team reports to produce a monthly book.
5. The undertakings embodied in this ODP are significant and will need focussed and regular review so that adjustments can be made such as pacing; the Facilitator will chair these meetings.

**Communicating Upwards**

Verbal and open communication within the division is seen as a priority, which needs to be actively encouraged. There are a number of important reasons. Firstly, staff nearer to problems are aware of them and often have their solutions; so that on important project like Conversions; one cannot afford to ignore their input. Secondly, one of the prescriptive features of a flatter organisation where grading is not an omnipotent aspect but is replaced by a team culture, classless communication at any level between any level is a mandatory requisite. Coaching courses, which encourage this are, key, as is the sponsorship by senior management to attend to listen to what they expected and to what they did not expect.

**Communication to the rest of Sun Life**

In short, the IT Division requires to be relaunched to the rest of SunLife in a manner which is credible and which also reflects the new Mission. The SIPS section of the ACHIEVE programme is seen as being the natural opportunity to accomplish this. The title of the relaunch will be ‘IT for SunLife’ and will be used to send a variety of messages to the rest of SunLife covering the following:

- Emphasise the that the rest of SunLife are the internal customers of IT
- IT is aiming to operate in a free market situation.
- IT wants to be part of the business.
- IT wants to share with the rest of SunLife the efforts that it has made to restructure itself and to catch up with them.
- To focus on the three aspects of the brief for IT i.e. reorganise, complete conversions successfully and undertake a meaningful IT strategy.
- That IT sees the business as its partners.
The medium for putting over our story is a video, which will consist of two layers; namely the storyline of the above aspects reinforced by a diary of all the activities which IT has engaged itself with. For this reason as many of the ODP activities will be diarised on video then edited. IT members themselves will work with the video arts company to produce the video.

D.1.3 SDLC/Standards/Methods/Controls

Review Standards and adjust for BS5750
An existing set of standards exists originally written by BIS and these have been reviewed by the Training Team. Alternatively, the GEMS standards are worth consideration, but have the drawback of being post-written for a project team which were already familiar with those standards. The main emphasis is the restoration of software development controls across the whole division in a consistent way; so that they neither form any part of project set up nor appear to differ from one project to another. The objectives for effective development standards should cover: consistency, control, costs and audit. Further, these standards must provide a clear framework with which projects and Sponsors alike can work effectively. Where necessary, projects will be given the flexibility to select their own implementation of the standards, without modifying their definition. All standards must conform to BS5750.

Review Methods
Methods are the means to the end of implementing the Software Development Life Cycle, (SDLC), in an effective way and will require research and selection and must be balanced by the technical training programme, which is planned. One key area worthy of investigation is data analysis.

Review Procedures
The various standard procedures demanded by a recognised standard, whether it be BS5750/05-21/AQAP-13/ISO9001/Audit need to be identified and all staff trained in their use/necessity/need. The procedures to be covered are:
Change Control
Formal sign-offs
Version Control for amendment/bug fix/enhancement
Version traceability
Code Management
Unit Testing
Integration and Build
Systems Testing
Structured Handovers between each stage of the SDLC Parallel Running
Live Cutover
Standard support for bug fixes
Independent Acceptance Testing

Review Controls
The maintenance of live systems in terms of the acceptance test criteria for the duration of the life of the application and the way in which live systems are amended. Adequate separation of duties across the development process including the Datacentre also requires review. All controls require review to ensure that they comply with normal audit standards.

Review support tools
A number of tools currently exist; some like Excellerator are widely used and appear in short supply; others like TELON appear to be little used and in surplus. A review of the use of tools is needed to ensure that there is a balance between management training and usage; in some cases the complexity of use of the tool is out of proportion with the scale of the activity itself; thereby increasing complexity and diminishing control.

Design standards formulation
A standard approach to design needs to be established with the basic design flow documented as a standard in its own right, modelled on the approach adopted by Christian Roving. An additional step which marks the boundary between require-
ments agreement and the start of the design process needs to be established, which identifies the design objectives in a measurable way and agrees them with the project sponsor. It is also intended that Users should be involved in this process. A method needs to be found of addressing standard design problems in a consistent way and introduced by a design course and supported by the training team.

Datacentre standards
The Datacentre represents the primary means by which the division provides service to its customers and this will be done by providing CCTA type Service Level Agreements, (SLA), to each customer, which describes the service delivery in a quantified way, especially focussing upon contingencies such as recovery times, response times and delivery of printed output. To accomplish this, a number of key controls need to be established, which cover the following:

Reliability Planning
Sizing
Performance Planning
Uptime Reporting
Machine time charging

Datacentre Interface Standards
The Datacentre will need to develop formal interfacing with the following:

Users
Business System Centres, (BSC)
Systems Assurance
Strategic Planning
Vendors in general

Reporting to the Users will be integrated into Project reporting and should be in terms of Uptime and achievement of the relevant SLA using the protocols of customer service.
Interfacing with the BSCs will primarily be between the Integration & Test function and the Support/Maintenance team. In terms of milestones, the interfacing on projects should be with the Programmes Office. In particular, the Datacentre should be aware of the forward load planning of each BSC. Through the sizing team, the Datacentre will be involved with the development activities to ensure that sizing awareness is introduced and the sizing plan of the Datacentre is not compromised; this will involve the introduction of techniques like Facility Budgeting.

The Datacentre will be the client of Systems Assurance together with the Users for all additions to the live systems and will be aware of the requirements in order that they can be involved in describing their needs in the acceptance test schedule. A separate and different relationship will also exist between Systems Assurance and the Datacentre, for the purposes of IT internal audit and security, in which Systems Assurance will be the reviewer rather than a service provider as in the case of acceptance testing.

The existing contract relationship with vendors will be devolved from the Datacentre across the division and a vendor assessment team formed, (see next section), representing a divergent group within the division. The legal department will still be used in a consultative way as previously enjoyed by what was known as the COMP department; who continue to be involved in the role as advisors to the new team.

**Vendor Assessment Standards**

In line with the principles of TQM, new vendor relationship standards will be adopted, which focus not solely on price but long-term relationships and cultural compatibility. This approach will include standards for product evaluation and linked to formal procurement procedures, which involve clearly auditable evaluation criteria and separate selection criteria with simple unweighted scoring. The body of knowledge developed by Marks & Spencer over many years will be adopted and the Systems Assurance department will through their preventative role to set up this training and provide support thereafter. A small team of vendor assessors needs to be built up from across the division and then deployed in a general fashion for all procurement activities.
D.1. EXTRACTS

Project review meeting standards
As the role of single point accountability emerges for all project managers in the division; standards need to be devised for these review meetings as well as the progress meetings for the project sponsors.

Architecture standards
When the IT strategy is completed, two architectures will exist; namely Application and Technical, which will describe the application design rules and hardware system behaviours respectively. The new Strategic planning department will be the custodians of these two entities and will have the aim of bringing closer working between the Datacentre and the rest of the division. This new department will also forge new links with the business, which are sufficiently robust, yet have flexibility to enable the division to have empathy with the business as a whole. A supportive technical culture needs to be developed to accompany the two architectures.

Controls/Reporting/Costing/Filter Beds
The foundation of all development and customer service is delivery in accordance with expectations driven in turn by commitments given by the division. An adapted version of the GEC Tender Vetting process needs to be introduced in order to identify all project costs upfront and to ensure that the project sponsor is in possession of the stated benefits/savings. An estimating & planning team will be set up in the division to review all tender vets before they are presented to project sponsors and a standard set of parameters will be developed in order to do this.

A simplified costing system will be developed in the division to not only give Users the true cost of services, but also to give better management control. At present there is an ongoing reconciliation between the General Ledger and the Conversions project. It is likely that a new machine time accounting system will need to procured in order to deliver the correct statements to Users.

A key component of the User empowerment process are filter-beds, which enable the GM committee to determine where IT resources are spent and are in line with business strategy. Correct distribution of IT resources across across the business is key as are the prioritisation of development tasks. All maintenance/support resources will
be measured centrally. Filter-beds will be introduced as part of the User empowerment programme.
Appendix E

The video: The Spirit of IT

The migration programme at Sun Life involved 800 man-years of effort and was the largest such programme of projects ever successfully completed in the commercial world. On 30th September 1994, the IT Division won an Annual BCS Award and that significant technical achievement was also underpinned by a radical cultural change programme called the ODP, implemented using Hearts & Minds techniques with a team of change agents known as the IT Training Team.

The first step of the ODP was to release the staff and middle management from the old culture and in turn they were expected to search their own minds for what was acceptable. Two middle managers - Paul Mott, (who also plays the Cynic) and Clive Mays produced the video. Other managers and staff are featured and is entirely all their own work. They visited Planet Hollywood in London - hence the interludes in the video. The video was produced for the end of ODP Dinner, which was run like Planet Hollywood; so they trained the waiters to serve the courses synchronised with the video and the room was furnished with artefacts from the Sun Life Archives to give a Planet Hollywood effect. There was also an exhibition in the reception area showing details of achieving the five critical success factors. This took place on 13th December 1993 and was held at the Bristol Marriott, the guests being drawn from the 35 organisations who helped to achieve the critical success factors and the major contributors are shown in the credits at the end of the video.

This video traces the development of the IT Division, (ITD) under the influences
APPENDIX E. THE VIDEO: THE SPIRIT OF IT

of the ODP from an organisation, which didn’t care about the Sun Life business and one which had previously failed with Migration, to the one of today. The Spirit is played by Bob Garratt - a world leading authority on organisational learning. All other parts are played by members of the IT Division, some of their customers and members of the Training Team. The ODP itself had six pillars, which were enablers for the seventh pillar - called ‘delivery’ to be accomplished and that delivery was of course the Migration Programme. All of the remedial cultural projects arose directly from Migration. It’s been just over a year now, since the ODP and Migration were completed. The middle managers have now taken charge of the day-to-day running of the Division and are the envy of the rest of the Sun Life Group.

Because the Division had not operated effectively for a number of years, the accent was on motivation and whatever it took within the bounds of ethics and professional standards. The accent was also on fun and informality wherever possible, as the Corporate Mission Statement demanded and also to allow self-expression. Discovery learning proved to be the most effective method. The ODP was presented at the annual Blessing/White conference in June 1994 and many of the innovative approaches attracted much interest, notably Crew Chiefing, Action Learning, Coaching, Discovery Learning, British Airways Business Centres, Transactional Analysis, Women-into-Management, the use of outside organisations and the Llanthony Priory motivation course.

Another remarkable feature of the ODP was its low cost, with many organisations donating their time to help us. All the major contributors are recognised at the end of the video, most of whom gave their support on a voluntary basis. Paul Mott and Clive Mays were recognised for their success by starring as extras with Julia Roberts at Pinewood Studios in her latest feature film, where they were the guests of Iain Smith - a leading Hollywood film producer. Over the last year, many organisations, individuals and boards have asked to borrow this video. Until recently, this was not possible due to royalty difficulties with the Tina Turner sound track. This has now been resolved. Many organisations have approached Chris Davies, to learn from his experience, to see how they can replicate what was achieved and how they too can apply Hearts & Minds techniques.
Appendix F

2003 Top 50 Consulting Firm rankings

<table>
<thead>
<tr>
<th>RANK</th>
<th>FIRM</th>
<th>SCORE</th>
<th>2002 RANK</th>
<th>HEADQUARTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>McKinsey &amp; Company</td>
<td>8.654</td>
<td>1</td>
<td>New York, NY</td>
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<tr>
<td>2</td>
<td>Boston Consulting Group</td>
<td>8.119</td>
<td>2</td>
<td>Boston, MA</td>
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<tr>
<td>3</td>
<td>Bain &amp; Company</td>
<td>7.563</td>
<td>3</td>
<td>Boston, MA</td>
</tr>
<tr>
<td>4</td>
<td>Booz Allen Hamilton</td>
<td>6.747</td>
<td>4</td>
<td>McLean, VA</td>
</tr>
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<td>5</td>
<td>Monitor Group</td>
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<td>Mercer Management Consulting</td>
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<td>Accenture</td>
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<td>Firm Name</td>
<td>Score</td>
<td>City</td>
<td></td>
</tr>
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<td>-----------------------------------------------</td>
<td>-------</td>
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<td>24</td>
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<td>El Segundo, CA</td>
<td></td>
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<td>25</td>
<td>Oliver, Wyman &amp; Company</td>
<td>4.111</td>
<td>New York, NY</td>
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</tr>
</tbody>
</table>

Source: Vault 2002 Consulting Survey

* Acquisition by IBM announced July 2002
** Name to be changed to Braxton Associates at the end of 2002
*** Known as William M. Mercer previous to April 2002
Appendix G

Questionnaire for Climate Survey
ORGANISATIONAL CLIMATE SURVEY

The survey looks at the climate in your organisation.

You will find the precise definition of 'the organisation' in the attached covering letter. Please read this before completing the questionnaire.

Then look at each of the twelve scales in turn and mark on them:

1  A 'P' for where you think the organisation is at Present

and

2  An 'I' for where Ideally you would like it to be

Once you have completed the twelve scales, please transfer your scores to the table on the other attachment (Organisational Climate Survey pt 2).

The interviewer will then talk with you for about 40 minutes to help develop your thoughts around the organisational issues, which your scores highlight.

Thank you for your help.

Figure G.1: Climate Survey Results.
1 **Adaptiveness**

This is characterized by the ease with which the organization copes with the changing world in which it exists. At one extreme, it might be highly conformist and stick rigidly to the rules. At the other extreme, it might respond fast to any changes, regardless of their importance. The degree to which staff feel that they are restricted by too many rules or paradoxically constrained by too few has a major effect on their being able to do their work as best they see fit.

<table>
<thead>
<tr>
<th>Conformity is very characteristic of this organisation</th>
<th>People feel free to adapt to the changing environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>

2 **Work Quality**

This is characterized by the importance placed by the organization on the volume of work done and/or on the quality of that work. Does the organization reward work regardless of its quality? Does it set challenging targets for itself and its staff?

<table>
<thead>
<tr>
<th>Emphasis on quantity rather than quality, and low personal challenge</th>
<th>Emphasis on quality and high personal challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>

3 **Clarity of Responsibility**

This is characterized by both work groups and individuals understanding who is responsible for what - upwards, downwards and sideways. It is demonstrated by the comfort staff have in knowing the authority they have in taking decisions to solve problems without having to refer to others.

<table>
<thead>
<tr>
<th>People are confused over who is responsible for what and constantly refer to others</th>
<th>People are comfortable in taking personal responsibility and are clear about their authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
</tr>
</tbody>
</table>
### 4 Financial Rewards

This is characterised by the feeling staff have that their benefits package is in tune with the market and is consistent across the organisation.

<table>
<thead>
<tr>
<th>Benefits package is not in tune with the market</th>
<th>Benefits package is attractive in market terms and reflects internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

### 5 Non-Financial Rewards

This is characterized by the degree to which staff feel that they are being recognised and rewarded for good work, rather than being ignored, criticised or punished when something goes wrong.

<table>
<thead>
<tr>
<th>Members are ignored, punished or criticised</th>
<th>Members are recognised and rewarded appropriately</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

### 6 Organisational Clarity

This is characterised by the feeling among staff that work goals are clear and that the organisation's structure and processes are appropriate, rather than being confused, disorderly or chaotic.

<table>
<thead>
<tr>
<th>The organisation is disorderly, confused and chaotic</th>
<th>The organisation has clear goals and is organised appropriately</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>
Appendix H

Meeting with David Harper

Former ITTT member, 9th February 2004

David was one of the first on site at Sun Life. He observed the following:

'No new thought process was evident, No body wanted to put their head above the parapet. Plenty of time for staff to do what they want to do, and very little responsibility. Initially the training team did not get a warm reception. The staff didn't understand why the training team (TT) had been put in place. They viewed the TT very suspiciously and kept away from them for the first few months.'

David's initial meeting was with a lady quality manager who didn't want to talk to him, displayed negative body language and when she did talk tried to antagonise him.

'A few extraverts within Sun Life did talk to C.D. (the author) to try and find out what was happening rather then offering to help or wanting to get involved. Management were all personal friends. Most of the staff had been there as man and boy, everyone was very comfortable. Communication was key, monthly meeting where introduced to inform people about what was happening. People asked questions, something they hand not felt comfortable doing in the past. News letters, organisational development
badges and t-shirts where printed displaying the delivery date. This was all alien to the staff as they had never been told what was going on in the past. This worked because it was visible and not secret. Everyone was involved, everyone could see the delivery plan and was able to pass comment and add improvement. People had been given the chance to participate and wanted to know what was happening and how they could get involved. Day outings to other organisations started as jollies but people soon realised that they could not miss out on the amazing learning opportunities. They soon adopted what they saw and adapted it to their own workplace. The only way to change people who do not want to is to unsettle them. No one wanted to take the initiative they settled into the normal pecking order and expected it to work. No secrets.'

David had worked with CD before so he felt that he had seen this technique work in the past but not on such a large scale. The only improvement that he suggested was the training team should have been more proactive from the start.

David mentioned that an ejector seat from a fighter aeroplane had been placed in the operations room and was a great reminder that this project had to work first time.

'Crew chiefing was introduced as the USAF used it and this was a great success. David spoke very fondly of the organisational change process and clearly believed in it methods and successes. However, he did not answer my questions about his personnel feelings surrounding the process and focused on the more practical aspects.
Appendix I

Meeting with Emmanuel Ypsilanti

Former design guru at Sun Life, 27 January 2004

'On arrival Sun Life was bureaucratic and chaotic. No one had control of the design process and there was no process to formally manage design.

Emmanuel started with the basics and taught people how to validate designs. The designers responded very well to the process and formula that they had been desperately lacking. Key to the success of the design team was Emmanuel’s recognition of human capital. His honesty in recognising success and failure without blame installed confidence in the team. A formal design process was introduced.

'It wasn’t we that did it; it was they that did it. And they really felt that they did it. We succeeded in doing what we set out to do; nothing could have been done better. Finally everyone new what they should be doing. Requirements finally got captured. Motivation levels increased.

Emmanuel felt that he had taken a back seat in the Hearts & Minds campaign. He was only on site a few days a month. Because of his work at Sun Life he did decide to
change the way he did his design review process. More importantly, he thought that he had developed a more personnel way of working, less aggressive, calmer and a lot more paternalistic. I felt that Emmanuel underestimated his impact at Sun Life and was quite bias about the process and its impact. He did mention that he had seen a similar exercise at Citicorp Investment Bank and maybe this diluted the impact it had on him. I also believe that this is his nature and not an unusual characteristic in him.
Appendix J

Meeting with Geoff Barnes

19 July, 2004

‘Partnering is about changing behaviour and not organisational structure. People could not care less about there jobs’.

One of the new Business Centre managers was a woman. Her team where happy with her but other managers found it hard to work with her. Managers in Sun life had been promoted to there position because of technical ability and not there management skills. A Sun Life cross sectional group of age and views including complete cynics where taken to a BA to view a successful teams doing a similar role. The effects of seeing a successful team and experiencing first hand a working organisation was dramatic. Sun Life staff came back completely energised and Geoff was surprised at the dramatic impact this had on everyone.

Staff had always felt that they could not and should not talk to management. This manifested itself in staff avoiding eye contact and even lowering there heads when passing a manager in a room or corridor. A presentation was organised at which rival managers/ engineers with strong disagreements admitted to there weaknesses and openly and honestly shared there feelings. This was a complete reverse of there normal behaviour. Pre arranged audience members had been briefed to ask questions
to encourage open dialogue between the presenters and audience.

Staff had never been treated properly and responded well to attention from management and at company events which had good quality presenters, food and locations. There was a complete lack of emotional ownership by the staff. Crew chiefs were introduced, US aeroplane names and identification badges stuck on key equipment and the equivalent of pre flight checks done before batch runs.

Mission Success: Start with the end goal and work backwards checking all the details. Involve even the humblest member of the team so that they understand the importance of what they do and how, by not doing their job correctly they could jeopardise the mission.

Geoff used an exercise of sending unsuspecting people to an airfield where they met with a female pilot who asks them, with her guidance to go through all the pre flight checks on the aircraft. She then asked the staff member to join her on a flight in the aircraft they had just checked.

'Everyone does everything no matter of status'.

Shadowing: New business centre managers were sent to BA to shadow their business centre managers for approximately four weeks. This worked extremely well as they not only learnt the job but became motivated by the professional and highly successful environment. BA also benefited as they had an extra member of staff. Eventually the directors of Sun life basked in the glory of what they liked to think was their success in changing their organisation for the better.
Appendix K

Meeting with Hughie Vernon

Former ITTT member, 19 January, 2004

'Hearts & Minds is ahead of our time! don't have a great respect for officers unless they prove themselves. Johnny Watts was different. The Dhofar was like 15th Century England - Religion and science were one. But people could see better things in surrounding countries.

Watts took Templar's work to the next stage: 'Stop them working and thinking 9am - 5pm. A team complements each of the members strengths and weakness. At Sun Life the training team did this'.

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Appendix L

Meeting with Norma Coulter

Former ITTT member, 9 December, 2003

On arrival the Sun Life people were nice, had no energy, oblivious to their working environment, lived within a blame culture, meandered through their days and had numerous outside interests such as bowling. CDC was a time bomb that had already been ticking for three years. Failure over the past three years was the norm. The objective was to replace CDC. Not only did a large IT programme need to be achieved but all of the 350 people within the IT department needed to change and enter the real world to enable this to happen.

A training team was set up and informed people that they were not going to take their jobs, were not managers or part of the management team and that they were just there to help. Sun Life people took many months to utilise this incredible resource. The training team felt they were slow to get started. They desperately wanted to see Chris succeed. I'm not sure if Norma realises her significance to this day. The training teams gave the voice of reason an opportunity to be heard and helped the star people who in the past didn't get noticed shine. Trips to Nissan and other iconic organisations opened people minds to successful environments and made people realise that success was possible.

Management was primarily male and female members of staff did not believe in their worth. Taking secretary's on HGV driving days and providing leading female
role models from other industries to talk about their experiences helped to change this feeling. Some non participating people thought the HGV driving day for secretaries was madness. Setting a clear goal (CDC will go live on dd/mm/yyyy) was magic and something not seen before. Once the people started to change there was a desire for those not yet affected to be changed and this was achieved via the already converted.

Communications were key. Staff produced news letters, every month all 350 people were brought together and communicated to; this had never happened before. The rumour mill stopped. Norma felt ‘Hearts & Minds’ in a business environment was not as cut and dry as in a war situation. The need and hunger within an organisation needs to be there to succeed. Norma’s working style change because of her experience; she became less autocratic and more supportive. This surprised her. Norma discovered that people learn in different ways. Some via books, others through doing. This also was a surprise to her.

‘Any direction is better than none.’
Appendix M

Meeting with Richard Tweed

Former ITTT member, 21 January, 2004

It was a difficult start with plenty of confusion. We had a great deal of difficulty understanding what was going on. The culture at Sun life was defeated but not as depressed as they should have been. Plenty of factions and the normal array of syncs Richard was not expecting a culture change programme - more pre-training would have helped - not sure he realised that part of the process was to learn and develop with the programme.

In the beginning, CD (author) shook everyone up and grabbed their attention - threw people up in the air, when they were looking for something to grab, give them what you want them to have. A third of of Sun Life went for Hearts & Minds and believed, a third went along with it and a third didn’t believe. Some things worked and some things didn’t. The meal with the Oman minister was a nice evening but difficult to see the benefits.

Hearts & Minds worked because it gave people belief in themselves, it treated people with respect and did a lot to build self esteem. This was done via a variety of training including secretaries doing HGV driving courses and HV outdoor training course. People started putting pictures and certificates of the events they had attended on there walls. A broad understanding of Hearts & Minds only started to happen when Richard gave a presentation to IT staff. Richard still didn’t understand
all of the underlying principals and still doesn't. He is a passionate believer in its value and benefits and still uses some of the techniques he obtained. Interestingly Richard said that:

"the only thing that could have been done better was to prepare a better budget for Hearts & Minds. Some things you can't change. Honesty is the Key. Hearts & Minds needs full support from the top of an organisation.

Richard felt a great after exam/ freedom sort of feeling immediately after completion of the Sun Life programme. He has used lots of what he learnt - the use of a control room, not compromising on equipment, sit and focus on the syncs they often are the best converts and always sit in the action and not in a management area. At the end Hearts & Minds had a life of its own, people adapted what they had learnt and starting implementing there own development. The aircraft servicing exercise that had been conducted changed the way in which project managers got selected.

"I didn't realise the power I had and I didn't use it. It has taught me to ask for what you need.

Richard's people management skills have improved thanks to Hearts & Minds but he is not sure how.
Appendix N

Meeting with Simon Shaw

Bracknell Hilton, 18 July, 2004

Issues arising:

1. Value system
This is part of their Fundamental Operating principles (not documented); with only a 10% drop in clients pa, they still need to focus on maintaining high retention rates and therefore operating style is constantly questioned.

2. Growth
The company has grown through acquisition; 5 years ago three salons were acquired and rebranded and recently a further four have been acquired on the south coast, but will operate under their existing brand Storm for the future, to maintain customer loyalty. The business was started with a salon in Maidenhead, which was then followed by Marlow, Windsor and London.

The business is the top award-winning hairdressing business in the UK, despite its relatively low profile, say compared with Toni & Guy. Their proposition is to offer unique hairdressing; and to do this they need good people as well as a strong artistic element. Their management style is own of chaperoned empowerment. The two
founding directors still work with the staff as practising hairdressers.

3. The Market
The market is described succinctly by the LSE Report by the Hairdressing Employers Assoc. The market is changing and consolidating, so that the forecast is that 90% of hairdressers will be owned by ten firms. Toni & Guy have 250 salons, they reached saturation and relaunched a second brand called Essensuals, but the two partners have split and in effect re-created two competing businesses, one in the US and the other in UK.

4. The catalyst for change
Changing the make-up of the directors and adding an investor triggered the expansion. Simon and Robert were the founders. They are now set to continue to grow by acquisition and have offered the first franchise to one of their longest serving employees. Artistic element has played a big part and they continue to win awards. Robert recently won Hairdresser of the Year and Louise has won this award previously. Their previous artistic director [now left] did not win any awards at all.

5. Staff control
Staff are training by rote learning which includes a strong intention or meaning to give the desired result. This set of procedures describes the client's journey through the salon, each stage being described by a procedure. The relationship between the directors is important and is part tension, which he said was key to achieving their success.

He recommended two books:
Status Anxiety by Alain de Botton
Britain on the Couch by Oliver James

Robert is status conscious, but shy. As for himself he is people orientated [agree] and 'the mind of the organisation'.
6. Culture

He described this as:

- Taking Personal Responsibility
- Achievement orientated
- Responsible for one's own actions
- Self-governing
- Self-funding
- Reward system is Basic salary plus commission
- Long-term staff
- Use of a comprehensive induction system to establish the values
- The American Dream
Appendix O

Meeting with Trevor Henry

Benitachell/Spain, 25 September, 2004

Purpose
The meeting orientated around the above slide, which originally arose from the Omani evening at the Knightsbridge Sheraton for the ITTT, which was organised by Hugh Vernon. One of the speakers was Trevor Henry. The purpose of this visit was to understand the linkage between the Hearts & Minds campaign in the Dhofar and the Civil Development Programme.

Issues arising:

1. Communism
Communism does not go hand-in-hand with Islam. The communist representation in PDRY was multifactioned and included not only Russians, but also the Chinese East, Germans, and the Cubans, each of whom had separate roles. Their approach of 're-education' was to close the mosques, eradicate tribalism and religion. Selected personnel were dispatched to Russia, China and Cuba for military training and political indoctrination. The approach taken by the BATT was the opposite and one of using their religion (the Dhofaris), to 'square them away'.

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2. The lines
This was a fundamental technique to re-annexing the Dhofar from PDRY. The military established physical lines progressively moving East to West until all Dhofar territory was reclaimed. The military would establish a fortified line and clear the ground behind it. Civil Aid would then move in to effect a handover from the military. They would then, with the assistance of local tribal leaders, pacify the area and give locals some reason to be on the Government side.

Example lines given below are:
Hammer
Hornbeam
Denavend
Simba

They used Taylor Woodrow wooden prefabricated buildings to establish civil centres behind these lines. Typically they would consist of:

a Mosque
Schools
Medical Centre
Stores (shops)
Radio Room

Civil Aid would 'bring them back to Islam', because they were ashamed of being 'Godless'. As reinforcement, they provided rations (food) at low prices and tentage. The population were typically local tribesmen who were 'religiously bent'. Schools were very often staffed by Egyptian school teachers and the medics were also often Egyptian and sometimes Sudanese. During the initial stages of pacification, BATT medics provided the majority of medical cover. The focus was very much on reverting back to local values and culture.
3. The Proposition

'We gave, they lost something' in other words, 'they had to be given something to loose'. They were party to this. Nothing was ever done for them entirely 100%, there was always a contribution from them. Civil Aid would provide the materials, but they would build it and therefore acquire ownership and were party to it. An example of this, was the construction of animal troughs and providing guards for water wells, they would build it with Civil Aid providing the expertise.

4. Lasmo

Lasmo was an oil company operating in Hadramaut, East of Aden in the Mulailla area. If a drilling operation was closed down due to workforce or security related incidents, it would typically cost the drilling operator $50,000 per day. Several of the companies operating in Yemen were forced to declare 'force majeure' and withdraw from the country due to local interference in their operations. Trevor organised a fleet of locally owned water tankers to deliver water to the population living in the wadis with their animals. The tankers were paid for out of a shush fund to the tune of $20,000 per month, not a single day of the 9-month operation was lost due to security or civil strife problems. The notion being that if there were stoppages, the consequence might be that there would be no water.

5. Problems of our making

I have heard about this before - change initiatives that were not thoroughly thought through beforehand. The bulls were a good example. They were too big, they damaged some of the cows when they were covering them and if calves were produced, they were too large and heavy to forage for food with the remainder of the herd. What started as a good idea came to naught. In culture change, it is very important to think through the initiatives beforehand, examining all outcomes.

6. The Omanis

They are very practical people; everything has a purpose, Trevor gave the Round House as an example. This has a double wall filled with soil for insulation and a very low door, which has a disarming effect to all of those who enter. The Civil Aid team
had an idea that they could introduce fibreglass domes; which were developed, but for some reason never implemented. The building stopped in the late-1970’s.

7. Civil Aid
Civil Aid was set up adjacent to a firqat set-up, which consisted of pre-fabricated wood cabins inside a chain-linked perimeter. The last BATT was 1976. Civil Aid worked in close liaison with the military. The approach employed was to take control of introducing the civilian population into 'the cleansed area'; thereby leaving the military to focus on moving onto establish the next defensive line further west. A HF radio was run out of each position, so that problems could be communicated easily back to Salalah. The Battle of Mirbat took place before this approach was fully introduced. Great care was taken to ensure that defensive lines always coincided with tribal borders.

8. The firqat
They are tenacious and natural fighters, and are of the Sunni branch of Islam. They are generous and polite and embraced old traditional social values. An independent Brigade of Iranian Special Forces assisted SOSF (Sultan of Oman’s Special Forces) during the latter stages of the Dhofar conflict. They were almost always used to hold ground, rarely to take it. Since Storm ended, the Western border between PDRY and Dhofar and the Northern border with The Kingdom of Saudi Arabia has been ratified. The BATT gave the firqats operational training and then fought alongside them. It was the case that the majority of Firqat were SEPs (Surrendered Enemy Personnel) approximately 3,000 surrendered to the authorities by the end of the conflict. The majority were re-trained, re-armed and joined their tribal Firqat Group. The retention rate was very high. All this change was implemented through their own leaders; with the BATT treated as brothers. The firqat possessed natural skills of fire and movement.

9. Modernisation of Oman
The Civil Aid outposts were rebuilt with permanent buildings, each with an Assistant Local Governor (Naib Wali). The Local Governor for Dhofar was the equivalent
of a Minister without portfolio. Assistant Governors maintain government relations and report directly to the Wali of Dhofar. He resolves land disputes and the school master reported to him. These days the Sultan regularly tours the country to meet the people and makes himself available to the population at all levels. He also makes his Ministers available.

10. More unexpected outcomes
They drilled a couple of wells in each of the tribal areas, but this lead to overgrazing of land around the wells, which caused soil erosion. The same technique was used of involving the local pollution. The Jibbali contributed by building the animal watering troughs and also provided guarding to the drilling teams. The availability of water also led to increased cattle prices and then competition for grazing land. They are now growing grass using fossil water and also using dried sardines as a protein supplement. On one occasion the latter led to botulism in the cattle caused by infected sardines imported from Dubai, which had been dried and sprayed with insecticide on the quayside.

11. Armistice
The population made money by clearing the Jebel of unexploded ordnance and surrendering weapons. There was a tariff for each category e.g. 100 Rials for an AK47.

12. Dhofar Development Committee
This committee coordinated the three main civil aid teams - Coastal, Jebel Mountains and North Negd.

13. Psyops
In addition to handing out radios so that the population could listen to Radio Aden, they also had their own radio station - Radio Salalah to counter the claims of the opposition. They also used 'Skyshout', which was a PA system mounted in a Beaver aircraft, which would orbit the tribal areas and give them a speech though loudhailers. There were also bulletin boards in each village.
14. All of this was interlocking
For example, the veterinary service supported the government farm, who bought bull calves from Jibbali and herded them to Salalah, where they entered the food chain. Vets would visit cows and camels.
Appendix P

Meeting with Keith Farnes

Former OC SOSF; 7 November, 2003

Keith worked within the Dhofari values. He read the Koran and used it at a Military Tribunal. He often consulted the Sheikhs and showed them respect even the lower castes. Not just Vets and Medics, (in that order), but also Schools in every village and in effect creating a little centre of Government in every village. Also add Cows and Camels to Goats attended by the vets. SOSF was made up 50% Adoo/50% Dhofari. Introduced Five-a-Side football to integrate them, but they had to be instructed in how to play a body contact sport, but learnt fast. Built a proper pitch outside the canteen.

The National Omani Football team beat England Under-16 team 9-1 - much to Bobby Robson’s disgust. The English side were not good sports. He tried to introduce better bloodstock by importing a bull from Hereford. It killed the cow. An example of not thinking through an idea. Before taking up his post, he read the book, *Gangs and Counter Gangs*, by Frank Kitson about the Mau Mau, the most recent experience of Communist insurgency. The Communists tried to annex Dhofar; the BATT started off in the East where the Communist influence was weakest and farthest from the Yemen. They worked their way West until the Communists were expelled or integrated. Frank Kitson also wrote *A Bunch of Fives* whose approach was Sure/Reassure/Patience.
The Communists closed the Mosques and in one case convinced the sons to get their Father to throw himself off a cliff, because he believed in God. They in effect held hostage the children, taking them away to schools to 're-educate them' ‘His blood is in our soil' - acceptance of someone they respect irrespective of creed/colour/religion. Hearts & Minds does not mean friendliness all the time; an Adoo pulled a knife on him, so he was expelled - nothing to do with religion, just wrong in any way.

Although the Army is hierarchical, they style of the BATT was working alongside their firqat charges adopting a parental role. Much patience was needed. The Sultan listened to Keith e.g. he set up a presence in each trouble spot spanning all regions of Oman. SOSF was kept separate from the Army. The Sultan said, ‘I want the BATT to do this who understand my people, not the Army'. Payment and bribes did not play a significant role in any of this. The culture of the BATT themselves is based on equal status, but it is not perfect.
Appendix Q

Meeting with Charles Linford

17 March, 2004

'It was like the 15th Century. We controlled all communications within the country. Communication was often as simple as putting information up on the Jebal town/village notice board. This had not been done before so the impact was great. Selling and marketing what you want to communicate is at the heart of Psyops.'

Psyops procedures.

1. Identify problem(s).
2. Identify target audience.
3. Establish aims and objectives.
4. Develop message, themes and communications.
5. Monitor campaign and Review and adjust.

'Communication has to pander to sexual, political aspirations and all the normal human emotions. Key Dhofar leaders sent to communist China for indoctrination. Children were taken and educated in the PDRY by the communists. Black propaganda was never used. White propaganda and sometimes grey were. We are a democracy we tell the truth. The Communists used lies in there propaganda. Radio's given
to locals but the Aden (communist) transmitter was more powerful then the one in Dhofar. This was a problem for a time. Communist broadcasts never really talked about religion. A film of how the British were helping in other communities in the world were shown and sometimes westerns as well. These could be dangerous events as the Adoo would fire their AK47’s at the screen when the cowboys on the screen started to shoot. I need to emphasis the importance of indigenous team members, or own company members in the corporate setting. Both in Malay and Dhofar the core of the team, and by far the largest proportion, were indigenous. Clearly, having the same cultural background as the target audience, they provided best advice in respect of local perception and reaction to the campaign”. The communists ran there operation with fear, beatings and assassination if people did not do as instructed. Leaflets dropped were often just pictures or comic strip as most of the population could not read. Printing leaflets was very slow until an air conditioning unit arrived. A list of all injured and killed communist fighters was found after a key battle. This information was immediately copied onto leaflets and dropped onto the communists. The impact was dramatic. As and when communist fighters moved to the Sultan side a picture was taken of him being welcomed by his new friends with open arms. Leaflets with this picture on it would immediately be dropped onto the tribe he had just left. The Adoo used Chinese parliaments to make decisions, everyone’s opinion counted. The Adoo would often not fight on a wym. Money played a key part in persuading the Adoo to fight and work. Rewards were paid for enemy arms. This worked well but did cause problems on operations when the Adoo wanted to collect arms rather than move on to the next objective. This reward scheme seemed to fit in well with the Adoo’s tribal ways of stealing goats and women from rival tribes. Air supremacy was key.

Charles spent a total of nine months in the Dhofar but only latter on in his career did he realise how the overall strategy worked. Hearts & minds works because

1. It has clear aims and objectives
2. Effective intelligence, information and analysis - e.g. Cultural, Religious, tactical, economic and key personalities
3. Long term strategy
4. Tactical sensitivity
5. Cultural sympathy - e.g. Integrity /no black propaganda = credibility
6. Comprehensive communications
7. Persistent review, adjustment and response

'Always keep it simple and a lot of luck is needed'
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