

**Decommissioning Gravity Base Structures in the offshore  
North Sea Oil & Gas Industry**

**Can Stakeholder Management Theory and Game  
Theory help in developing a strategy for dealing with  
stakeholders?**

**Submitted in partial fulfilment of the requirement of  
the degree of Master of Business Administration of the  
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**SIMON AXON**

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**Dr Thomas Diefenbach**

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ABBREVIATION	DESCRIPTION / WEB ADDRESS
BB, BC, BD	Brent Bravo, Brent Charlie, Brent Delta
BERR, DBERR	Department for Business, Enterprise & Regulatory Reform ( <a href="http://www.berr.gov.uk">www.berr.gov.uk</a> , <a href="http://www.og.dti.gov.uk">www.og.dti.gov.uk</a> )
BPEO	Best Practicable Environmental Option
BRENT SPAR	Brent Storage Facility finally decommissioned in 1998/9
Cell / Tank	Storage Tank contained within GBS
CoP, COP	Cessation of Production
CSP, CSR	Corporate Social Performance, Corporate Social Responsibility
DAD, DDD	Decide, Announce, Defend; Dialogue, Decide, Deliver
DP	Decommissioning Programme
DTI	Department of Trade and Industry ( <a href="http://www.dti.gov.uk">www.dti.gov.uk</a> ), now known as DBERR or BERR
ENGO	Environmental Non-Governmental Organisation
EPB	Evidence Based Policymaking
FOEI	Friends of the Earth International ( <a href="http://www.foei.org">www.foei.org</a> )
GBS	Gravity Base Structure(s) ( <i>– reinforced concrete</i> )
HSE	Health, Safety, Environment or Health, Safety, Executive ( <a href="http://www.hse.gov.uk/">www.hse.gov.uk/</a> )
JIS	Joint Industry Study
LAT	Lowest Astronomical Tide
MP	Member of Parliament
NGO	Non-Governmental Organisations
ODI	Overseas Development Institute
OSPAR	The 1992 Convention for the Protection of the Marine Environment in the North Atlantic ( <a href="http://www.ospar.org">www.ospar.org</a> )
P&A	Plugging and Abandonment (of wells)
PAPI	Players, Action, Payoffs and Information
PMBOK	A Guide to the Project Management Body of Knowledge
PR	Public Relations
QA, QC, QRA	Quality Assurance, Quality Control, Quantitative Risk Assessment
RDAP	Reactive, Defensive, Accommodative, Proactive
PRT	Petroleum Revenue Tax
SPM	Social Performance Model (Carroll, 1979)
TFE	Total Fina Elf ( <a href="http://www.total.com">www.total.com</a> )
UKCS, UKOOA	United Kingdom Continental Shelf, United Kingdom Operators Association

List of Acronyms

## **ABSTRACT**

The decommissioning of first generation oil and gas facilities in the North Sea is a complex mix of technical, environmental, safety, societal and economic risk as well as potential controversy, and involves a spectacularly wide spectrum of stakeholders.

This research was undertaken because of an interest in Porter's Five Forces, Game Theory and the management of stakeholders, and because it seemed as though there was an opportunity to combine the concepts in a unique way in order to assist in developing a strategy for dealing with stakeholders.

The research question was: "Decommissioning Gravity Base Structures in the offshore North Sea Oil & Gas Industry: Can Stakeholder Management Theory and Game Theory help in developing a strategy for dealing with stakeholders?"

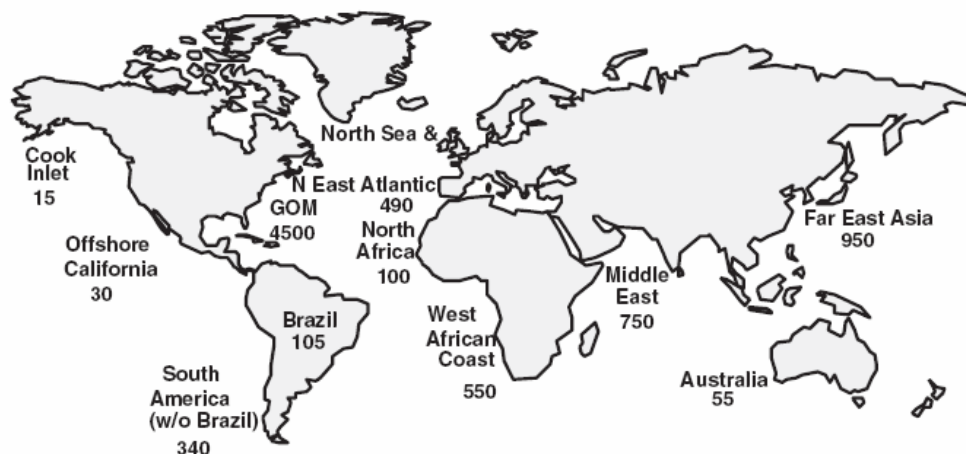
The research shows that using a metaphor of a game where stakeholders are players who have their own strategies and play by certain implicit and explicit rules, it is possible to develop a strategy. However, key to this is to gain an understanding of the success criteria, aims and objectives of stakeholders, and to understand how they may exert their influence. There are no short cuts, and the process relies on extensive research and analysis. The research also shows that the principles of Porter's Five Forces remain valid even though the environment is not strictly competitive.

The research was conducted using data gathering techniques close to the grounded theoretic approach where the case takes on a number of different cases and adapts them as a whole. The research starts by using Porter's Five Forces Model for the conceptual model to try to understand the positions of key stakeholders in holistic terms in a decommissioning environment. Thereafter, the concept of using a game as a metaphor for managing stakeholders was developed using various perceived organisational success criteria as the starting point. The literature review consisted of reviewing different stakeholder theories, Game Theory, and research conducted for decommissioning the potentially more problematic facilities and structures in the North Sea. This was followed by the development of a conceptual model, backed up and supplemented by qualitative research conducted using interviews of central players via semi-structured questions.

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## 1. INTRODUCTION

According to Parente et al (2006) there are over 7,500 oil and gas installations throughout the world in different regions (Figure 1.1.1). The North Sea and North East Atlantic (OSPAR) maritime regions support approximately 1,250 offshore facilities of various kinds, including over 600 subsea installations<sup>1</sup> (OSPAR, 2007).



*Figure 1.1.1 - Distribution of Oil and Gas Installations (Parente et al, 2006)*

Decommissioning of redundant North Sea oil and gas installations is a relatively new industry, but over the next 15 to 25 years (BERR, 2007) an increasing number of these complex facilities are due to be decommissioned, and the activities have the potential to continue attracting significant interest from external audiences, particularly on environmental, social and economic impact issues (UKOOA, 2006).

Once the earliest CoP date has been agreed with BERR, before decommissioning can commence the operator must produce a Decommissioning Programme (DP) and this is a formal process ([Appendix A1](#)). The Guidelines (BERR, 2006) also outline the stages when stakeholders might be engaged (for potential derogation to remain cases refer to [Appendix A1.3](#)). However, this process is not wholly prescriptive<sup>2</sup> and it's up to the operators to determine how best to engage with stakeholders and when. The duration of this consultation process increases with the complexity of the facilities being decommissioned. On submission of the DP, BERR will in turn make the necessary representations to OSPAR. The DP must be formally approved before any decommissioning activities may commence<sup>3</sup>. The OSPAR 98/3 Decision and the BERR

<sup>1</sup> Data were extracted from interpretation of a database on the OSPAR website, December 2007

<sup>2</sup> There is a statutory consultation process (minimum 30 days) during which the availability of the DP must be advertised, plus a list of statutory consultees to whom it must be sent (BERR, 2006)

<sup>3</sup> Plugging & Abandonment of wells excepted



Guidelines make reference to the facilities and infrastructure, but key aspects driving the decision are expected to be concerned with those elements which for whatever reason cannot be removed from the seabed.

The main feature of the OSPAR 98/3 decision is the presumption that offshore facilities and infrastructure will be removed entirely. Therefore, a possible game theoretic approach might be conceptualised by assuming confrontation between a potential polluter and a major stakeholder. The former may gather or disclose more or less precise data documenting the impact of a decommissioning activity on say the environment, whereas the latter may approve or boycott the activity given the (limited) information they might already have, and the quality of data they receive from the former. Such an approach may be represented in a game with incomplete information (Dutta, 1999) that combines features of signalling games (Fudenberg & Tirole, 1991) and of persuasion (Milgrom, 1981) or bargaining games (Watson, 2002). Other applicable games might be noncooperative games with conflict such as Prisoner's Dilemma (Rasmusen, 2007). Depending on which groups of stakeholders are being included in the model, cooperative games with incomplete information may also be considered appropriate. However, Luce & Raiffa (1989) have suggested that purely cooperative games are not games at all in the true sense, since both players may be regarded as a single playing entity as they have a unitary interest.

The purpose of this study is to gain insights into whether a combination of stakeholder management theory and Game Theory could be used to assist the decision-making processes when dealing with stakeholders when decommissioning concrete gravity base structures in the North Sea oil and gas industry. Expanding further, the investigation determines whether stakeholders could be categorised in a similar way to Porter's Five Forces Model before considering whether they could beneficially be categorised further into primary and secondary stakeholders. Thereafter, an interpretation of a number of stakeholder theories is used to investigate stakeholder saliency and to understand who might be the key players in a game, how might they play and how should they play, what are they playing for, when might they play, and finally, where might they play? The aim of the research is to try and understand whether stakeholder management theory assessed in a game theoretic context could be used to facilitate a strategy for dealing with stakeholders.

The aims and objectives of the study are to answer key questions as follows:

- What can Porter's Five Forces Model (Porter, 1980) offer for understanding how stakeholders might play?

- What can Game Theory contribute in terms of a more comprehensive understanding of stakeholder management?
- What aspects of stakeholder management theory could enrich an understanding of the players in a game?
- Can stakeholder management be seen as a metaphorical game with players, strategies, rules and a playing arena that can be used to facilitate the decision-making process?
- Can this be used to develop a framework and methodology for managing key stakeholders?

Initially the research uses Porter's Five Forces model to categorise the various stakeholders and to understand where coalitions may arise and where the various stakeholders may play against each other. The research then compares the perceived critical success factors for key stakeholders and considers whether these give rise to potential conflict or collaboration, and then it looks at a portfolio of influencing strategies that stakeholders may use to influence outcomes. The study uses qualitative research on the basis that such an approach is suitable when a concept is not developed due to an absence of theory and previous research, and it being appropriate for studying an individual's perceptions of the world, seeking insights rather than statistical analysis.

In order to necessarily restrict the scope of the study to manageable proportions, the where<sup>4</sup> and when aspects of stakeholder engagement are not considered as part of this exercise; but it is recognised that it might be possible to assess when it is best for players to enter the game in order to maximise their utility. Indeed, perhaps organisations need to be vigilant at all times whereas activists or ENGOS only have to choose their time carefully to maximise the effect. However, the introduction of the time dimension could cause the modelling of the strategy sets to become impossibly complicated (Luce & Raiffa, 1989).

The following text includes a critical review of literature available for stakeholder management theory and Game Theory. An attempt is then made to understand stakeholders as players in a game by creating a paradigm based loosely on Porter's Five Forces (Porter, 1980), each with their own strategies, and information, playing to a set

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<sup>4</sup> There are two main areas where games might be played: Internal, addressing the direct business environment, industry, different stakeholders as well as competitors and external the whole societal system, broader institutional functions, traditions, cultures, habits, and fashions

of rules. Qualitative research is then carried out in order to facilitate a richer understanding of the how stakeholders might play in a game, and this information is then used to carry out and evaluate the model and it's appropriateness to the decommissioning process in the oil and gas industry.

## 2. LITERATURE REVIEW

### 2.1 STAKEHOLDER MANAGEMENT & ANALYSIS

Stakeholder management theory argues that every legitimate person or group participating in the activities of a firm do so to obtain benefits, and that prioritising the interests of all legitimate stakeholders is not self-evident; it is multi-faceted and complex. Researchers have struggled to find a 'one size fits all' theory and as a result there are a number of competing ideas. Indeed authors have grappled with the definition of a stakeholder, although the one that seems to be the most accepted is that offered by Freeman (1984), who is reported by several authors to be a leading contributor to the term or concept of stakeholders, bringing stakeholder theory into the mainstream of management literature (Freidman& Miles (2006), Lim et al (2005), Frooman (1999), Donaldson & Preston (1995)). Freeman (1984) states: "*The stakeholder approach is about groups and individuals who can affect the organization, and is about managerial behaviour taken in response to those groups and individuals*". Arguably, some authors, including Lawrence & Weber (2008) and Frederick et al (2008) extend this definition more usefully than others by categorising stakeholders as market<sup>5</sup> and non-market<sup>6</sup> stakeholders, although the distinction between the two can be blurred. Further, stakeholder theorizing is usually categorised into subsets of either normative or analytical perspectives.

The majority of stakeholder management theories appear to look at stakeholders from the company perspective (Clarkson (1995), Freeman (1984), Hill & Jones (1992) and Savage et al (1991)), while some theorists such as Donaldson & Preston (1995), Phillips (1997), Wicks, Gilbert & Freeman (1994) and others take a bi-directional view. Apart from Frooman (1999), few it appears explicitly take the stakeholders' perspective. Some authors such as Reed (1999) argue that normative stakeholder management theory from a critical theory perspective - which distinguishes between legitimacy, morality and ethics, is superior to other theories such as analytic and descriptive stakeholder theory.

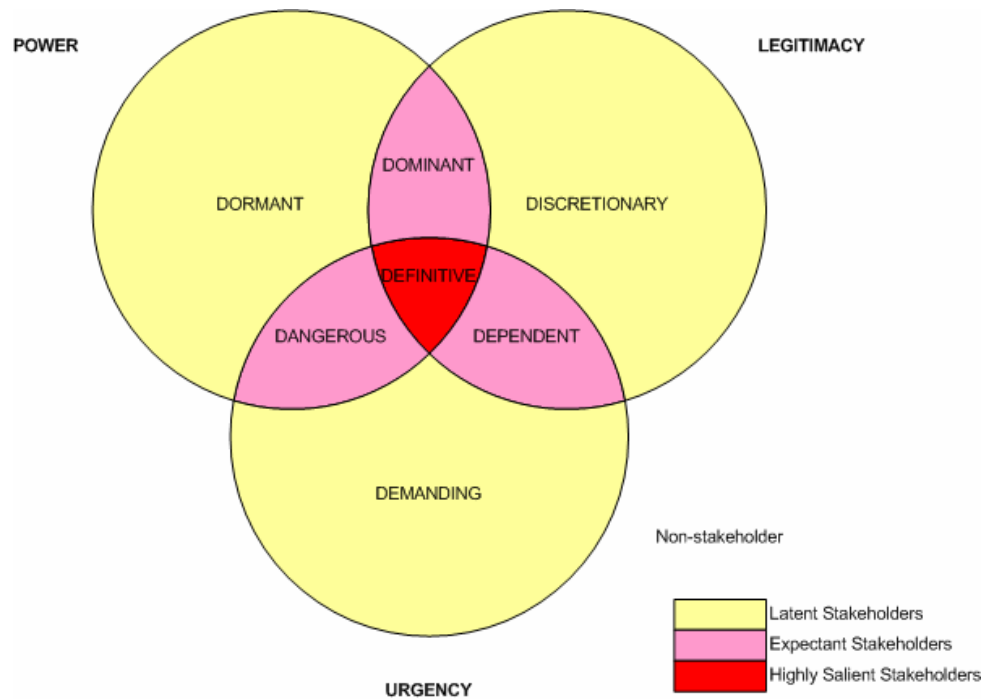
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<sup>5</sup> Market stakeholders are those that engage in economic transactions with the company as it carries out its primary purpose of providing society with goods and services (Lawrence & Weber, 2008)

<sup>6</sup> Non-market stakeholders are people or groups who, although they do not engage in direct economic exchange with the company are nonetheless affected by or can effect its actions (Lawrence & Weber, 2008)

### 2.1.1 NORMATIVE STAKEHOLDER THEORY

Theorists such as Mitchell et al (1997) call for a normative theory of stakeholder identification to identify the stakeholders who really matter, but suggest that stakeholders become salient to managers only when managers perceive them as possessing three attributes: the *power* to influence the company, the *legitimacy* of the stakeholders' relationship with the company, and the *urgency* of the stakeholders' claim on the firm (Figure 2.1.1).



*Figure 2.1.1 – Model of Stakeholder Salience (adopted from Mitchell, 1997)*

Carroll's model (1979) is difficult to categorise in terms of normative or analytical stakeholder theorising because it appears to straddle both. He offers a three dimensional conceptual model that he believes comprehensively describes essential aspects of Corporate Social Performance (CSP): what is included in corporate responsibility, what social issues the organisation must address; and what is the organisation's philosophy or mode of social responsiveness. Several normative and analytical frameworks owe elements to this model. It is meant to help managers and academics conceptualise what might be considered key issues. However, extensive research is required to gain a full understanding of the issues influencing CSP, and the model concentrates on competitive market situations, so it may be of limited value to non-market situations. The model does help identify what factors could be prominent, such as matching a social need to corporate need or ability to help, seriousness of social need, interests of top executives, public relations value of social action or government pressure. However, there is continuing debate as to what social responsibility means; the model is not comprehensive and it would have been useful to include a worked illustrative model. A

complication is that there is potential conflict between Economic, Legal, Ethical and Discretionary responsibilities (Figure 2.1.2), but the model doesn't explain how such conflicts might be managed, or account for social issues continuing to develop over time (i.e. potential for moving goal posts). Further, there is no consensus on what social issues to address, nor is there a clear route describing how to respond to them.



*Figure 2.1.2 – Pyramid of social responsibility (Carroll, 1991)*

Donaldson & Preston (1995) argued that the normative stakeholder theory can be based on evolving theory of property, and examined the concepts 'stakeholder', 'stakeholder model', 'stakeholder management' and 'stakeholder theory'. They suggest that these aspects are often combined without knowledge, leading to confusion when attempting to understand the stakeholder concept. Like many authors they consider the company in a competitive market situation, and argue that normative is more applicable than strategic stakeholder theory. They critique and integrate important contributions to the literature concerning each, and present four theses, viewing stakeholder theory as descriptive, instrumental, normative and broadly managerial. Essentially they ask why stakeholder theory should be accepted or preferred over alternative concepts, arguing that unless this question is addressed the distinctions between various theories are unimportant. Critics might argue that use and comparison of the classic input-output and stakeholder models is perhaps overly simplistic. However, they recognise that different theories have different purposes, can be used in a number of ways that are quite distinct and involve very different methodologies. Unfortunately this is just one small aspect of the myriad of stakeholder theories that are available.

In proposing a stakeholder fairness principle, Phillips (1997) points to a number of problems with stakeholder theory, and cites four principles for a moral system based on obligation. The principles are based on a company in a competitive market situation, and his theory does allow clarity in Donaldson & Preston's (1995) distinction between people who have a stake in a company and those who can influence the company.

Phillips claims that legitimate stakeholders are those whose actions must be accounted for by managers due to their potential effects upon the normative stakeholders' such as activists, competitors, and the media. His model only allows stakeholders to be identified, not how a cooperative scheme might be organised, although he does suggest that communicative discourse ethics should be used to analyse and judge particular schemes. He does recommend particular norms for determining which normative stakeholders should receive more attention than others by suggesting a principle of equity that should apply. This is a step forward from the suggestion that all legitimate stakeholders should be treated equally. Phillips (2003) also attempts to discern the importance of legitimacy of stakeholders in stakeholder theory, and like Frooman (1999) discusses the concept of the company putting itself into the position of its stakeholders through the decision-making process in order to anticipate the demands, actions, and needs of the myriad of stakeholder groups. He concludes by saying that the distinction between normative, derivative and non-stakeholders is vital to both scholars and managers, and that managers are justified in treating some groups of stakeholders such as employees or shareowners differently from certain powerless, non-legitimate groups.

Wicks, Gilbert & Freeman (1994) called for a reinterpretation of stakeholder theory on the basis that traditionally male metaphors were used, and argued that feminist views would enhance the decision-making process by embracing power decentralisation, cooperation, and consensus building among stakeholders. However, this approach is criticised by Burton and Dunn (1996) who argue that such an approach is only achievable if all parties adopt a caring approach and individuals do not insist on advancing individual rights. Burton and Dunn go further and suggest that not only those with a stake in the decision should be considered, and the associated power of each, but also those most vulnerable to the outcome of a decision.

### **2.1.2 ANALYTIC STAKEHOLDER THEORY**

Freeman's work (1984) is still seen as seminal in stakeholder management, and has been adopted and expanded by many researchers, including Frooman (1999). Freeman discusses strategies in dealing with stakeholders albeit in a market context and from the company perspective and puts forwards the notion that stakeholder influence should be seen as an additional sixth force to Porter's Five Forces (Porter, 1980). A weakness Freeman acknowledges is that the work tends to oversimplify issues associated with 'turbulent markets' and some of the theory might be superseded. Usefully, he does, however offer a typology of enterprise strategies in dealing with stakeholders.

Clarkson (1995) presents conclusions from a 10-year research program that concentrates on corporate social performance, suggesting that it can be analysed. However, the work concentrates on competitive situations and requires extensive research to gain a full understanding of the issues influencing CSP. He argues that companies have a responsibility to create and distribute increased wealth to all its primary stakeholder groups although he recognises that conflicting interests rely on ethical judgement and choice. That is, there is no prescriptive formula for assessing CSP.

The Clarkson Center for Business Ethics (1999) developed a highly respected list of principles that summarise the key features of stakeholder management in their “Principles of Stakeholder Management” (Table 2.1.1). The principles are viewed from a company perspective, but are useful as a managerial aid.

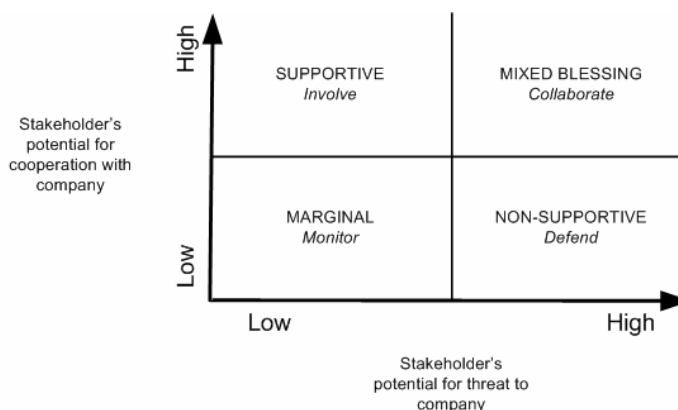
<b>Principle 1</b>	Managers should acknowledge and actively monitor the concerns of all legitimate stakeholders, and should take their interests appropriately into account in decision-making and operations.
<b>Principle 2</b>	Managers should listen to and openly communicate with stakeholders about their respective concerns and contributions, and about the risks that they assume because of their involvement with the corporation.
<b>Principle 3</b>	Managers should adopt processes and modes of behaviour that are sensitive to the concerns and capabilities of each stakeholder constituency.
<b>Principle 4</b>	Managers should recognise the interdependence of efforts and rewards amongst stakeholders, and should attempt to achieve fair distribution of the benefits and burdens of corporate activity among them, taking into account their respective risks and vulnerabilities.
<b>Principle 5</b>	Managers should work cooperatively with other entities, both public and private, to ensure that risks and harms arising from corporate activities are minimised and, where they cannot be avoided, appropriately compensated.
<b>Principle 6</b>	Managers should avoid altogether activities that might jeopardise inalienable human right (e.g. right to life) or give rise to risks that, if clearly understood, would be patently unacceptable to relevant stakeholders.
<b>Principle 7</b>	Managers should acknowledge the potential conflicts between (a) their own role as corporate stakeholders, and b) their legal and moral responsibilities for the interests of stakeholders, and should address such conflicts through open communication, appropriate reporting and incentive system, and where necessary, third party review.

*Table 2.1.1 – Principles of Stakeholder Management (TCCBE, 1999)*

Savage et al (1991) look at a framework for developing strategies for assessing and managing organisational stakeholders and in this case the stakeholder management framework focuses on overseeing relationships that are critical to an organisation’s success. They do this by assessing each stakeholder’s potential to threaten or to cooperate with the organisation (Figure 2.1.3). Managers may identify supportive, mixed blessing, non-supportive and marginal stakeholders. Diagnosis of stakeholders’ potential for threat is discussed, recognising that stakeholder power is important. However, they don’t suggest how such power would be exerted or how it would be measured, but in considering the framework they do acknowledge that different situations concern different stakeholders. The framework isn’t limited to competitive situations and appears to have practical relevance in its approach as well as the potential



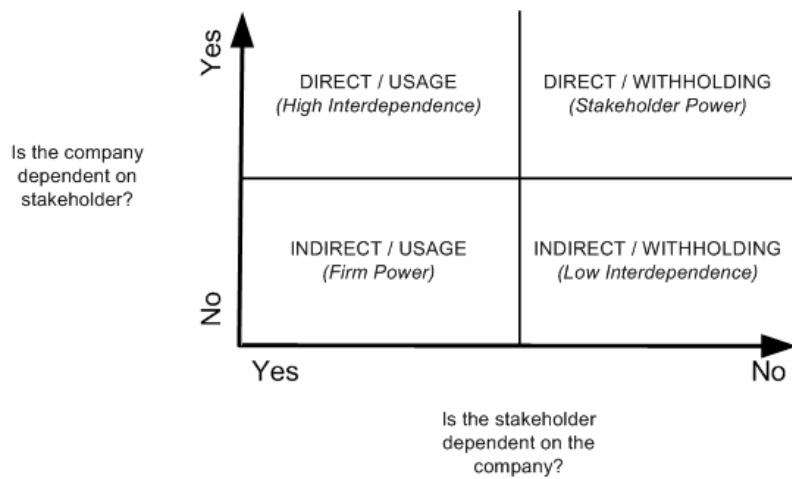
to contribute to a richer stakeholder analysis. However, it would be prone to subjective assessment and much managerial research would be required, and it's also not clear how stakeholder willingness to exert a threat would be categorised.



*Figure 2.1.3 – Strategy for Managing Stakeholders (Savage, 1991)*

Hill and Jones (1992) use a stakeholder-agency theory model and view the company as a web of implicit and explicit contracts, among all stakeholders, including managers. That is, it is relationship focused. The article tends to concentrate on competitive markets and appears of limited value in dealing with non-market stakeholder issues.

Frooman (1999) uses resource dependency theory to assess what types of influence strategies do stakeholders have available to influence company decision-making, and what determines which type of strategy the stakeholders choose to use (Figure 2.1.4). He considers the resource dimension of a relationship, and the resulting power. The typology of resource relationships and influence strategies is useful up to a point, but use of resource dependency theory might not be strictly valid for situations outside the competitive market environment. Central to this hypothesis is that a company's need for resources provides others the opportunities to gain control over it. However, if the main stakeholders are NGOs, it's arguable whether companies strictly rely on these stakeholders for resources apart from their ability to act as activists and reduce cash flow by, for example, boycotting the purchase of goods. Dependency theory has also been criticised by free market economists who comment that it leads to corruption and lack of competition. It's also not clear how to determine the power of the company or stakeholders in relation to each other, as any assessment is likely to be subjective and subject to the perceptions of the assessor. Using dependency theory it's not clear how to determine the relative magnitude of the exchange, although perhaps this would be possible by estimating the percentage of inputs and outputs accounted for by an exchange. High interdependence relationships would be characterised in Game Theory as a two-person, zero-sum explicit bargaining game.

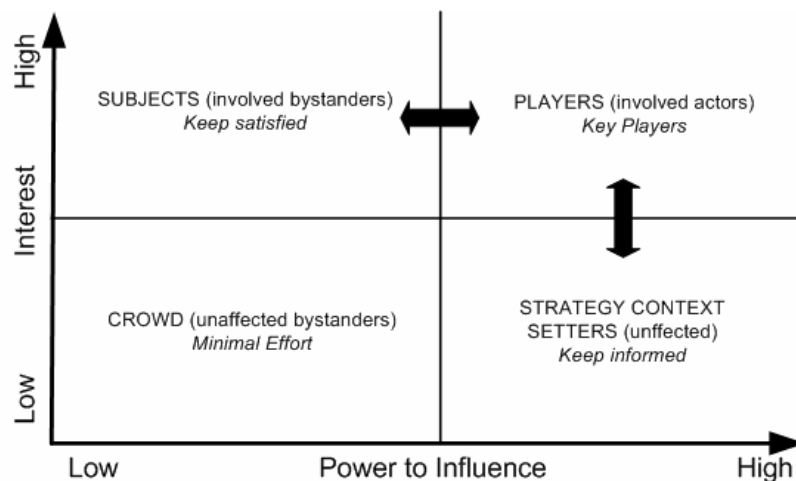


*Figure 2.1.4 – Strategies for influencing the company (Frooman, 1999)*

### 2.1.3 STAKEHOLDER ANALYSIS

Stakeholder analysis is a technique used to identify and assess the importance of key people, groups of people, or institutions that may significantly influence the success of an activity or project. It identifies ways in which stakeholders may influence the organisation, or may be influenced by its activities as well as their attitude toward the organisation and its policies. With information on stakeholders, their interests and their capacity to oppose proposals, projects should be able to assess how best to accommodate them; assuring any policies adopted are politically acceptable and sustainable. Stakeholders may be broken down into internal and external stakeholders, as well as primary and secondary stakeholders.

There are several techniques offered for stakeholder analysis, including Johnson et al (2005), who describe how a power/interest matrix (Figure 2.1.5) may be used for stakeholder mapping. They suggest that it aids understanding of the political context within which an individual strategy would be pursued.



*Figure 2.1.5 – Stakeholder Mapping: The Interest / Power Grid (Johnson et al, 2005)*

Many references including PMI (2004), Eden & Ackermann (2004) acknowledge that stakeholder identification can be difficult and recognise that stakeholders can have varying degrees of power and interest during a project’s life.

Eden & Ackermann, also suggest that as strategies are developed, their effects on stakeholders should be modelled. They report that although game theoretic approaches should provide some analytical help, it can become increasingly complex as the numbers of stakeholders increase. However, instead of modelling the effect of such strategies on stakeholders, perhaps an appropriate but potentially high-risk approach might be simply to try such strategies out. Ackermann et al (2005) also advocate use of ‘role-think’ workshops, which allow a group of participants to explore the possible responses of each stakeholder to a particular strategy thus enabling insights into potential strategies the stakeholders might notice and what reactions they may have. Perhaps an appropriate approach might be to simply ask stakeholders to obtain their view.

In “*Value Focused Thinking*” Keeney (1992) advocates creating an objectives hierarchy for the various stakeholders, as he believes that this would result in a more accurate understanding of what matters in the decision context; it is important to gain an understanding of their objectives. This involves generating a comprehensive listing of all objectives, including organised structures of means<sup>7</sup> and fundamental<sup>8</sup> objectives.

<sup>7</sup> A means-end objectives hierarchy indicates the objectives that should be considered when developing a Decision Model to relate decisions to their consequences (Keeney, 1992)

<sup>8</sup> A fundamental objectives hierarchy indicates the set of objectives over which attributes (the degree to which an objective has been achieved should be defined (Keeney, 1992))

That is, the means objectives are separated from the fundamental objectives by linking means-ends relationships while the other involves specifying fundamental objectives.

The definition of a stakeholder is multi-faceted and widely debated, with the majority of stakeholder theories tending to consider companies in a competitive market context, concentrating on dealing with stakeholders from a company perspective. There is considerable debate as to whether normative or analytical stakeholder theorising is the more useful contributor to stakeholder theory. Normative theorising concerns the legitimacy of stakeholders, ethical and moral aspects whereas analytic theorising concerns all stakeholder theory that is not strictly normative. The Clarkson Center for Business Ethics' list of principles summarise the key features of stakeholder management. The principles are viewed from a company perspective, but they are useful as a managerial aid. There is some research which regards the relationship between a company and its stakeholders as either contractual or relationship orientated. Identification of stakeholders and determining their legitimacy in terms of power and ability to influence company decision-making has prominence, but although stakeholder identification receives much attention, the theories concerning the management of stakeholders remain confusing and inconclusive.

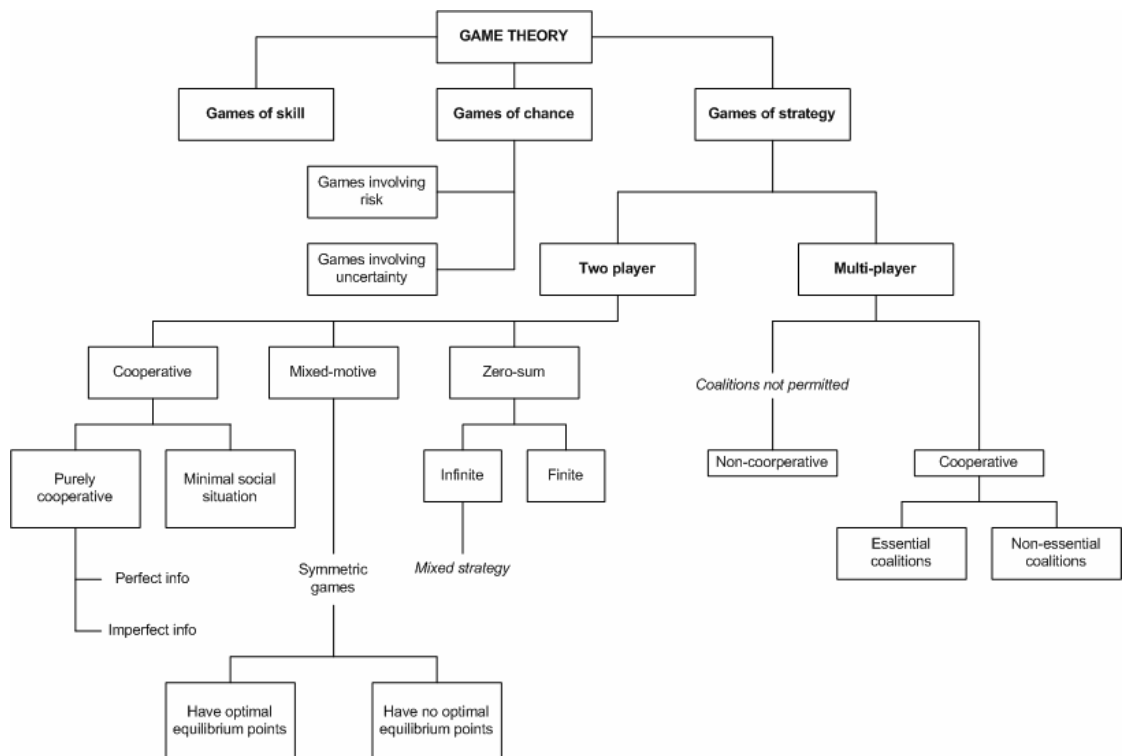
Stakeholder analysis is not infallible and needs to be done frequently to be truly effective since the relevance of stakeholders may change quickly. The assessment of stakeholders is subjective, and it is this subjectivity that affects the attitudes in dealing with them. It is impossible to deal with the demands of all stakeholders. Stakeholder theory tries to objectify people (after all, stakeholders are usually people), but it is possible to get a false sense of security from having "done" stakeholder theory'. Therefore, to what extent can stakeholder theory really lead to a rich understanding of stakeholders? Stakeholder management is a balancing act, either needing to focus on one leading stakeholder group, satisfying others to the extent possible, or trying to balance or reconcile all interests of the various factions according to their weight or urgency.

Contributions to normative stakeholder theory such as Mitchell et al (1997) and Carroll (1996) appear to sit well in assessing who the players are, because they contribute to an understanding of the saliency of certain stakeholders. However, understanding how the game might be played might be assisted by contributions to analytic stakeholder theory such as Savage (1991), Clarkson (1995) and Frooman (1991), supplemented by the more normative contributions from Carroll (1979, 1991). The analytical theories might

assist with strategic issues, while the normative theories consider some of the softer aspects such as ethics, morals, and legitimacy.

## 2.2 GAME THEORY

Game Theory has been applied to many fields, although it is most useful in the study of economic problems. The game-theoretic perspective is more useful in settings with small numbers of players because then each player's choice is more likely to matter to opponents. There are many texts available describing Game Theory, but according to Carmichael (2005) and Poundstone (1992) the first important text in Game Theory was *Theory of Games and Economic Behaviour* by the mathematicians John von Neumann and Oskar Morgenstern, published in 1944, and here it was proposed that most economic questions should be analysed as games. In 1950, John Nash introduced the "Nash equilibrium" as a way of extending game-theoretic analyses to non-zero sum<sup>9</sup> games. The Nash equilibrium requires that when forecasting and responding to other player's strategies, each player's strategy is such that the utility or payoff is maximised, and that each player's forecast is correct. According to Fudenberg & Tirole (1991) the Nash equilibrium is the starting point for most economic analyses.



*Figure 2.2.1 - A Taxonomy of games (adapted from Kelly, 2003)*

Kelly (2003) gives a useful and interesting overview of the history of Game Theory (Figure 2.2.1), and the main thrust is that three works (von-Neumann-Morgenstern

<sup>9</sup> In zero-sum games the interests of the players are directly opposed, with no common interests at all.

(1953), Luce-Raiffa (1957) and Nash (1951)) in particular lead to collaboration between game theorists, resulting in the development of several important concepts: the study of cooperative games, the study of repeated games, and bargaining games. According to Kelly there are three categories of games: one-player games of *skill*; one-player games of *chance*; and games of *strategy*, although according to Straffin (2006) one player games aren't really games at all. Games of strategy are games involving two or more players, each of whom has partial control over the outcomes. Such games involve uncertainty because the players cannot with any certainty assign probabilities to each other's choices. Under strategic multi-player games, games may be further classified as cooperative games, zero-sum games and mixed-motive games. According to Kelly (2003) the mixed motive type games most realistically represents the intricacies of social interaction and interdependent decision-making and most Game Theory concentrates on it.

Authors such as Carmichael (2005), Dutta (1999), Fudenberg & Tirole (1991), Gibbons (1992a & 1992b), Kelly (2003), Osborne & Rubenstein (1994), Rasmusen (2007), Straffin (2006), and Watson, (2002) all give an interesting and detailed introduction into Game Theory and how it may be applied in relatively simple games, many of them from a strategic aspect. However, with the exception of Kelly texts such as these appear to extol the virtues of the theory without discussing any of the potential issues or assumptions inherent in its use. Thankfully there are numerous business texts by authors such as Grant (2008), Kay (1995), Luce & Raiffa (1989), Rumelt et al (1995), Solomon (1992), and academic papers by authors such as Binmore (1999), Grant (2004), Kadane et al (1983), Lucas (1972), Mathieson (1999), Moorthy (1985), Reuss (2002), and Solomon (1999) that discuss such matters.

### **2.2.1 LIMITATIONS**

Grant (2008) suggests that Game Theory offers two especially valuable contributions to strategic management: It permits the framing of strategic decisions and it can predict the outcome of competitive situations and identify optimal strategic choices. That is, it permits an understanding of structure of a competitive situation and facilitates a systematic, rational approach to decision-making, and any one player can use it to predict the equilibrium outcomes of competitive situations and the consequences of strategic moves. The drawback of Game Theory is that it provides clear prediction in highly stylised situations involving few external variables and highly restrictive assumptions, resulting in a mathematically sophisticated body of theory that suffers from unrealistic assumptions, lack of generality, and an analysis of dynamic situations through a sequence of static equilibriums. When applied to more complex and more

realistic situations, Game Theory frequently results in either no equilibrium or multiple equilibriums, and outcomes that are sensitive to small changes in the assumptions. Grant argues that in general, Game Theory has not been developed sufficiently to model real life situations in a level of detail that can generate precise predictions. Kelly (2003) concurs but counters by suggesting that the primary focus of Game Theory is to provide a prescriptive analysis that better equips players to make good strategic decisions. However, one of the key merits of Game Theory is its ability to encompass both competition and cooperation, and that it is useful not because it provides all the answers but because it can contribute to understanding of business situations. It provides a set of tools that can help structure a view of a competitive situation, but typically deals with competitive situations in which closely matched players have a similar range of strategic options<sup>10</sup>. The outcome of such games is highly dependent on the order of moves, signals, bluffs and threats. The applicability of the assumptions underlying game theoretic modelling, especially the degree of rationality, complex reasoning, and learning of the participants, has been challenged, raising questions about the usefulness of Game Theory in dynamic, real-life situations. Consequently, Game Theory has been found more useful as a metaphorical tool that can provide insights into patterns of behaviour likely to occur under different circumstances than as a literal analytic model (Grant 1995, Kay 1995).

Luce & Raiffa (1989) advise that there are at least two problems which render it difficult in practice to put many economic problems in game form: The first is that it is hard to specify precisely the strategy sets available to the players, primarily because of possible modification of the strategy sets during the execution of the game (e.g. resulting from a new discovery or invention); this is seen by many as being a significant shortcoming. The second is that decisions in economic situations are not just described in terms of obvious choices, but also their timing. The introduction of the time dimension can cause the modelling of the strategy sets to become impossibly complicated. Luce & Raiffa usefully maintain a distinction between utility and money.

In characterising a game it is necessary to understand all the variables subject to each player's control and all possible eventualities in a conflict situation must be determined with certainty. The potential outcomes are then specified in terms of probabilities associated with each possible event. Luce and Raiffa (1989) describe that a choice of

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<sup>10</sup> Typically relating to price changes, advertising budgets, capacity decisions, and new product introductions

action or pure strategy is not merely a decision to be made at a particular stage of play but rather it is an entire prescription of what is to be done over the entire course of the game. A further restriction is that a game needs to include relatively small numbers of finite strategies otherwise a game would become impossibly complex<sup>11</sup>.

### **2.2.2 CRITICISM OF ASSUMPTIONS**

Barney (1995) suggests that Game Theory can be used to analyse organisations as if they were rational (perhaps even hyper-rational) utility-maximising individuals while prospect theory can be used to analyse organisations as if they were systematically non-rational individuals. Both have been proved fruitful in certain theoretical and empirical contexts, and both appear to confirm the appropriateness of treating organisations as if they were individual decision-makers.

Camerer (1995) advises that there are three principle reasons why Game Theory has not been embraced wholeheartedly. Notwithstanding new forms of game with dynamic information being researched more recently, the reasons relate to complications with validating game theoretic models, and that the analysis of games often assumes more rationality than players might be capable of or be given credit for. He observes that the assumptions of how much each player knows, and their beliefs about a strategic situation, can significantly alter the strategic direction of a game and thus the eventual utility.

Reuss (2002) puts forward the notion that game theoretic approaches are not necessarily limited to the purely self-interested, perfectly rational, calculating individual and that Game Theory can help expose problems that can result from the rational, self-interested actions of individuals. He also describes how Game Theory can, in the right circumstances show that cooperation can predominate without any authority to enforce cooperative behaviour. As in much of Game Theory, the way that people interact depends on the particular rules that govern their interaction, including the options available to each player, the utility, etc.

In discussing how Game Theory may be used to model competition, Moorthy (1985) suggests that Game Theory can also accommodate irrational companies providing their

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<sup>11</sup> For example, consider how complex modelling various possible strategies and response strategies would be for a game of chess. According to Dutta (1999), in 1913 E. Zermelo showed by Game Theory that a game of chess always has a solution, but what he didn't demonstrate was what the winning strategy might be.



irrational tendencies are known. He concludes that the central concept of non-cooperation Game Theory is the Nash equilibrium, and that this forms the nucleus for the predictions of Game Theory. Equilibrium is a list of strategies such that each competitor's strategy is its best response to the strategies of the other competitors and a drawback of the Nash equilibrium is that it loses some of its predictive power when there are multiple equilibria in a game. He argues that when multiple perfect equilibria exist, the company must pick a more promising equilibrium, and companies might achieve this by bringing into play personality, history, culture, which may not be readily modelled using game theoretic approaches. He also concludes that Game Theory cannot be used as a technique that provides precise solutions to marketing problems; it does not have a single solution to provide, and capturing the reality or practicality of a situation may be beyond the theoretic modelling capability. It is also a matter of judgement whether Game Theory can truly be used to model the complexities of real-world problems.

### **2.2.3 ETHICAL ISSUES**

Solomon (1992, 1999) offers seven specific but ethical criticisms of Game Theory, essentially arguing that Game Theory is a poor model for business interaction; it is not just a model for business, it is an ideology but instructive, providing a framework within which participants may operate. His main criticisms are directed at which way the frames are used and interpreted, and the way that Game Theory misses the complexity of human, and even economic behaviour. He argues that humans are not calculating creatures, and that Game Theory defines rationality as maximising the chances of what you want by encouraging (not necessarily entailing) a life of devoted to personal goal-orientation and strategic calculation, suggesting that such an approach renders most virtues irrational if not unintelligible. In what appears to be an academic tit-for-tat, Binmore (1999) responds that Game Theory is entirely neutral about the rationality and goals of the players and that Solomon's criticism merely arises out of a misapprehension of Game Theory. Game theory is committed to a model of human behaviour rather than human motivation, and that it is a poor model of moral psychology rather than an inadequate model of rational choice (Mathieson, 1999). Binmore goes further and argues that at least attempting to model business situations is better than not modelling them at all.

Although used in other fields such as biology<sup>12</sup>, Game Theory has been found most useful in the field of economics. It permits the framing of strategic decisions; and, it can predict the outcome of *competitive* situations and identify optimal strategic choices, but its modelling capability is limited to idealistic and relatively simple games. It does not lend itself easily to real life situations and the game theoretic basis is often overly narrow or simplistic in explaining the complexities of organizational behaviour. Games of strategy involve uncertainty because the players cannot assign probabilities to each other's choices with any degree of certainty. They assume rational behaviour, but what may be rational to one player may be irrational to another, and it does not account for personality, history, or culture of the players involved. Timing of decisions can significantly complicate a game, and there is considerable debate concerning the neutrality of Game Theory from a moral and ethical perspective. In any event care must be taken in making sure that any assumptions made are explicit and well understood.

In terms of determining strategy, it might be possible to gain an understanding of the interactions between stakeholder management and Game Theory by conceptualising the stakeholders as playing in a game. In this context it may also be useful to use Porter's Five Forces framework as a paradigm to aid understanding of where the game might be played and who the key players might be.

### **3. METHODOLOGY**

#### **3.1 QUALITATIVE RESEARCH METHODS**

The research described in this section pursues the objectives of the study described in the introduction. The following narrative attempts to explain and justify use of the qualitative research method, the interview technique adopted as well as describe the sample selection and data collection processes adopted. The scope of the study and its limitations are also discussed.

In interrogating the research problem, the approach has been to try and gain an understanding of other's perceptions on whether comparison of success criteria for each of the stakeholders is valid for understanding areas of potential collaboration and conflict, and to whether there is a means for organisations to combat the portfolio of

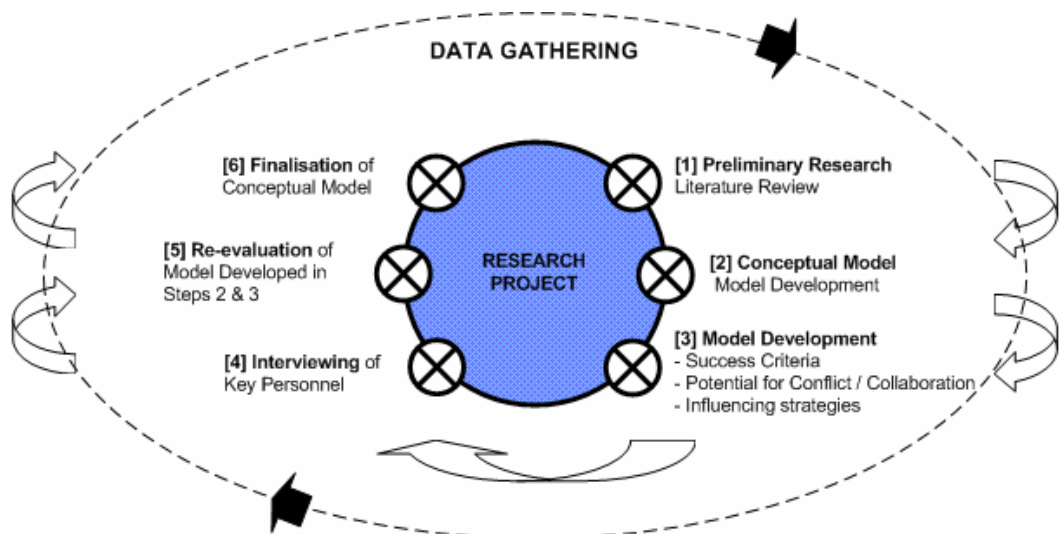
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<sup>12</sup> For example, most of the applications of evolutionary Game Theory in John Maynard Smith's book (Smith, 2008) are directed towards animal contests. According to Smith, his concept of an evolutionary stable strategy is relevant whenever the best thing for an animal or plant depends on what others are doing

influencing tools and techniques that might be used primarily by activists and environmental non-governmental organisations.

### 3.2 RESEARCH DATA GATHERING TECHNIQUES

Due to time constraints it is important to research and develop the various parts of the study at the appropriate time to enable data gathered at a previous stage to assist development of the next. For this study a conceptual model was developed before commencing the data gathering exercise. Throughout the steps there will be continuous data gathering to enhance the steps as well as forward feeding the information from the previous steps (Figure 3.2.1). No firm hypotheses would be determined from the data gathered until the process is complete.



*Figure 3.2.1 - Research Workflow Integration*

The data gathering techniques adopted in this research are close to the grounded theoretic approach initially promoted by Glaser & Strauss (2007) where a case rather than a variable perspective is taken, although the case takes on a number of different cases and adapts them as a whole. Further, although the Grounded Theory was developed in very specific circumstances (Bryant & Charmaz, 2008) it does provide an alternative to the requirement that precise hypotheses are developed before data are collected (Kelle, 2007). The grounded theoretic approach has the aim of generating concepts that explain people's actions regardless of time and place. The results of such techniques are such that anyone developing the same research will make what they could of it, ignore what they couldn't, but none of the interpretations would be exactly alike (Becker, 1999).

There are several methods available for adopting a qualitative research methodology, including diaries, focus groups, observation, questionnaires and interviews. These initial methods are primarily used to capture thoughts, behaviours and patterns, with

questionnaires and interviews used for in depth understanding. For the purpose of this study, the face-to-face interview technique is adopted. The benefits of such an approach are that it gives the researcher the opportunity to build a picture from a number of perspectives, analyzing words, reporting detailed views of informants and probes into the subjectivity of personal experiences and seeks to elicit opinions or perceptions into how respondents see their world. Interviews are useful in that they help to reconstruct participants' past and present experiences through their own recounts and narratives of the past in such a way that enhance the present. It is research based on reflection – one formed largely from intuition (Tesch, 2005).

According to Easterby-Smith et al (2002) there are essentially three types of interviews: Fully structured, semi structured and unstructured. This research adopts an approach using semi-structured interviews occurring where the interviewer covers certain issues through open-ended techniques. That is, the interviewees are encouraged to answer in their own words without the interviewer indicating the expected answers. This is the type of interview considered most appropriate for this research, and the questions are included in [Appendix A9](#).

A benefit of interviews is that a large amount and wide variety of information can be gathered in a short space of time, and immediate clarification and follow-up is possible. The selection of appropriate interviewees is important, but one of the main limitations of an interview is that interviewees may not provide all the required information or that which is expected and full cooperation is important; the onus is on the interviewer to ask the right questions and to evoke the relevant narrative and information. Further, interviews rely heavily on the interpretation of the responses, which will be subjective and open to the interviewee's interpretation of events. The other problem is that the interview situation is another socially constructed reality where two people have come together to discuss some aspect of a topic that draws them together. The art of a good qualitative interview is to elicit relevant information fluently and naturally as part of the conversation, allowing the participant's perspective on the phenomenon to unfold as the participant views it, and not as the interviewer would like to view it (Marshall & Rossman, 2006) while at the same time the interviewer remains objective. The data collection experience is enriched when the interviewer is able to build trust quickly, test findings objectively using focused and structured questioning, and is able to avoid leading questions.

A drawback of the interview technique is that it relies heavily on the ability of the interviewer to maintain conversational flow with open and probing questions that elicit

clear and unambiguous responses as well as to interpret the results transparently and openly from different perspectives; a key component of the interview process is not only to ask the right questions but also to interpret what may or may not be said, and how people say it. A good knowledge of the subject matter is important for inspiring confidence in the interview process, particularly with specialist interviewees. There is also the risk that interviewees only have a vague understanding of a circumstance that is limited by their own narrow perspective.

### 3.3 SELECTION OF INTERVIEWEES

Generally, research is achieved through rigorous sampling, and a sample should be representative of the population being considered. Selecting the appropriate sample is fundamental to both quantitative and qualitative methods of research. It is important not to introduce bias and that a representative of the spectrum is considered. Various methods are available for sample selection, from random to natural sampling. In this instance, judgemental sampling shall be adopted, and for this to be a success, it is important that the participants have experience appropriate to the subject being investigated. To obtain a reasonable sample a representative from each group was selected (Table 3.3.1):

STAKEHOLDER / INTERVIEWEE & TYPE OF ORGANISATION REPRESENTED	NUMBER
Activist / Environmental Non-Government Organisation	1
Engineering Consultant	2
BERR	1
IRG	1
Media (Newspaper)	1
Oil & Gas Major	2

*Table 3.3.1 – Stakeholder Representative, Interviewee*

The advantage of interviewing these people includes the potential for obtaining valuable information because of the positions they hold or used to hold in organisations and society. They might also provide a perspective on an organisation and its relationship with others from social, financial, ethical, or moral perspective, although this might be coloured by their own experiences.

However, these are usually busy people and gaining access to them has in some instances proved difficult, exacerbated to an extent by the need to set deadlines for the research. Initial contact was made using a mixture of conversation, emails, cold-call emails, and introduction via mutual contacts, and while they can be expected to respond well to inquiries about broad areas of content and open-ended questions that allow them the freedom to use their knowledge and imagination, care needed to be taken to ensure that the interviewee remained in charge of the interview process. These contacts are well versed in dealing with interviews (for example, when dealing with the public or the

media) and would be quite capable to turn the interviews around (Marshall & Rossman, 2006), thereby taking charge of the interview had they not been so courteous.

### **3.4 ETHICAL ISSUES**

When carrying out research, it is acknowledged that ethical issues must be considered (UoS, 2008), and reference was made to various guidance and guidelines. These can be generic concerning informed consent and protecting participants' anonymity or can be situation specific (Marshall & Rossman, 2006). Various authors give different accounts of ethical issues, but it is intended that this research takes cognisance of the following ethical issues for all participants: The need for beneficial consequences of the study, confidentiality, independence of the research, informed consent (Kvale, 1996), ensuring no harm, respect for dignity, protection of anonymity, avoidance of deception and declaration of conflicts of interest, to strive for honesty and transparency in communicating about the research, avoiding any misleading or false reporting of research findings (Easterby-Smith et al, 2008), fairness, and freedom of information.

### **3.5 CONSTRAINTS AND LIMITATIONS OF STUDY**

#### **3.5.1 CONSTRAINTS**

At the time of carrying out the research, the researcher was carrying out work as an independent consultant for Shell UK Limited on a major decommissioning project. However, the scope of work was such that it was not directly related to the field of study. This was declared with all participants before any interviews were conducted. In order to overcome any potential prejudices related to this, all electronic communications with participants were conducted through the researcher's personal email account.

#### **3.5.2 LIMITATIONS**

All research will have its limitations, and the importance lies in trying to identify them. In this instance, the limitations are considered to include the following:

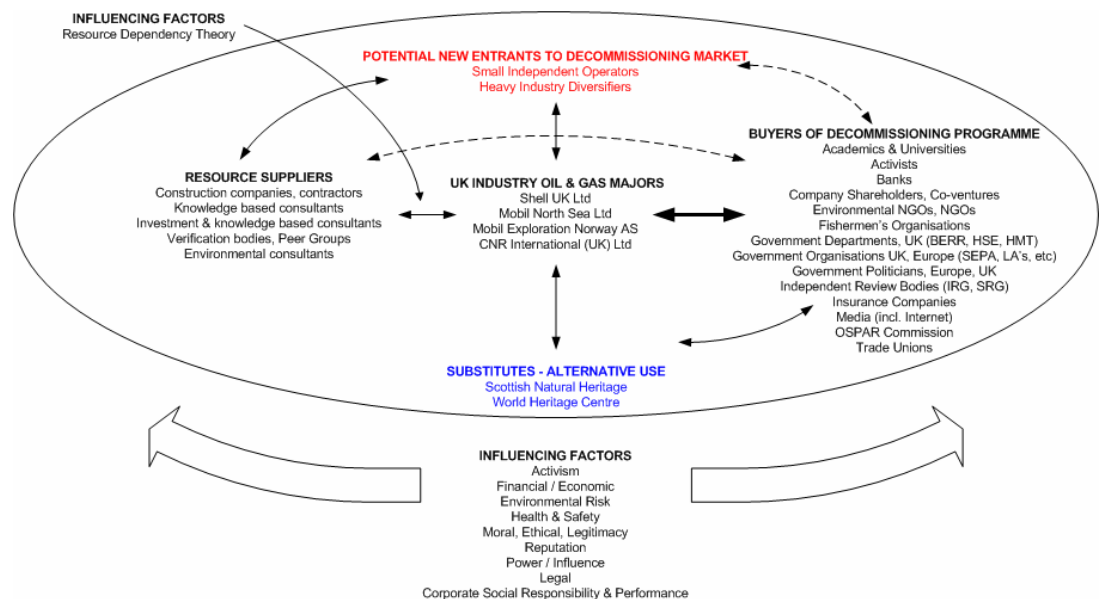
- Conducting the research while at the same time performing consultancy services unrelated to the task is likely to have resulted in a compromise in some of the subject matter investigated, and therefore, subject to the conclusions and recommendations it is likely that the subject matter would benefit from further research.
- The findings and insights gained from this study will necessarily be limited and therefore cannot be generalised because of the nature of this case study and the small amount of data obtained.

- The interviews were conducted within the oil and gas industry. It is expected that further research might benefit from interviews being conducted in other industry sectors such as chemical processing, mining, fishing and the nuclear industry in order to get a more rounded view of dealing with stakeholders.

## 4. FINDINGS

### 4.1 DEVELOPING THE CONCEPTUAL MODEL

The Porter Five Forces Model (1980) provides a structural analysis of the industry that any given company *competes* in. It analyses the *attractiveness* of the industry in terms of competition as determined by five forces and was originally developed for companies in competitive situations (Porter, 1980). However, as a first step it is suggested that the Porter's Five Forces model is used as a paradigm to categorise the various stakeholders and to understand where coalitions may arise and where the various stakeholders may play against each other.



*Figure 4.1.1 – Using Porter's Five Forces Model for Categorising Stakeholders*

In this conceptual model, the *resource suppliers* are those companies who provide knowledge, expertise and resources to developing the decommissioning programme and the decommissioning process. The *buyers of the decommissioning programme* are those who need to be convinced that the decommissioning scenario proposed is the best selected from the comparative assessment process, although the influencing factors will be much more extensive (Figure 4.1.1). *Potential new entrants to the decommissioning market* are those companies who may wish to invest in old facilities, and accept liability for decommissioning the facilities. It is understood that no such arrangements have (yet) been made for first generation gravity base structures, in which case this category of stakeholder could be ignored. In the *alternative use category* of stakeholder, the requirements would be borne out of investigations conducted by the '*resource suppliers*' as well as from negotiation with the '*buyers*' and by inference the decommissioning process; the organisations themselves might have a minor influence on developments, in which case this category of stakeholder can also be ignored. The



foregoing assumes that no strategic decisions made by the *resource suppliers* significantly change their role. For example, in the future the resource suppliers may make strategic decisions that change their position to that of a new entrant. In real life situations it would be appropriate to carry out scenario planning in an attempt to determine the potential impact of such strategic changes (van der Heijden et al 2002 & van der Heijden, 2005).

Remembering that game theoretic approaches become increasingly complex with increasing numbers of players, the aim of this approach was to see if it was possible to reduce the groups of players in a game to two, on the basis that there would be some collaboration between players in a group. This approach does have limitations in that it assumes that there is potential for collaboration between players and it effectively dismisses *potential new entrants*, *resource suppliers*, and *substitutes*, when a future scenario might result in an increase the power and interest of such players. For example there might be a situation where a potential new entrant is a resource supplier who operates the facility on behalf of an investment company. A simpler method might be to brainstorm potential stakeholders and to map their expectations and power on a power-interest grid (Johnson et al, 2005). The tool might be extended further by considering scenarios and mapping any changes that might occur over time, whether by stakeholder influence on the company or vice versa. Industry uses the power-interest matrix extensively to identify stakeholder expectations and power, helping the company to understand political priorities. However, if the spirit of Porter's Five Forces were to be taken literally, each of the stakeholders would be subjected to extensive research in order to fill the information gaps, resulting in a much richer picture of the issues. Further, if such research were to be combined with a number of different stakeholder theories it is possible that additional information may come to light which might not be so evident using the power-interest grid.

As part of this exercise it is considered appropriate to try and gain an understanding of whether the success criteria for any organisation gives rise to potential areas of *conflict* or *compatibility* by comparing and contrasting the success criteria of the various organisations being considered. In many instances it was considered that organisational success criteria were a potential source of conflict as well as compatibility. Note that the *origins* of the potential conflict or compatibility per se are not discussed in detail because the main aim is to try and understand how such conflicts and compatibilities may manifest themselves in terms of stakeholder theory and Game Theory. Arguably this is more important, but in a real life situation it is necessary to understand the

*sources* of potential conflict in order to assess the situation more completely and to make a judgement on how to obtain resolution.

The first matrix ([Appendix A5](#)) summarises which stakeholders could have potential conflicts or compatibilities with others due to conflicting or compatible success criteria, while the second ([Appendix A6](#)) charts where potential sources of conflict or compatibility may occur. It is also important to try and understand *how* stakeholders may wish to exert their influence and the matrix in [Appendix A7](#) summarises potential influencing strategies that could be adopted by various stakeholders. For brevity, the matrices and ensuing discussion has necessarily been restricted to a selection of stakeholders<sup>13</sup> who might be perceived to have a high level of interest in impressing their expectations on the oil and gas companies' purpose and who have a high degree of power to do so by deploying one or more specific influencing strategies.

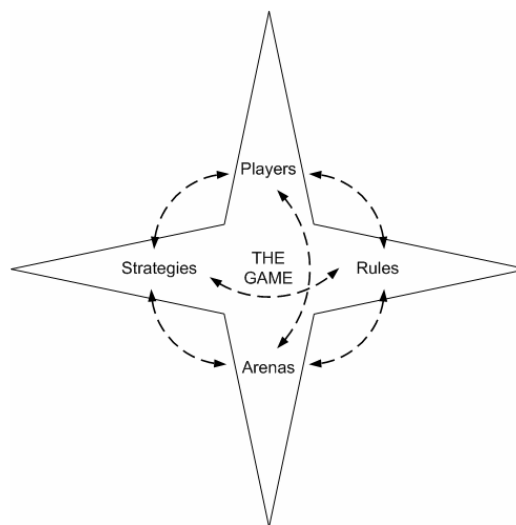
The requirement of adopting the Five Forces model to this situation could be challenged when tools such as the Power-Interest matrix (Johnson et al, 2005) have been used by many organisations with some measure of success. The advantages of the Five Forces approach is that it encourages organisations to investigate the likely *root causes* to any potential conflict or elaboration, and this is in line with Porter's assertion that research of the competition is paramount to understanding the competitive environment. This is also in line with Deegan's (2007) recommendations. Disadvantages are that such research would require resources for which the benefits may be hard to quantify or justify. In much the same way, stakeholder-mapping using the Power-Interest matrix might facilitate better understanding of actual levels of power and influence in terms of a governance framework; what or who are the key blockers or facilitators of a particular strategy; whether repositioning of key stakeholders is desirable and whether maintaining the level of interest or power of some key stakeholders is desirable or even essential. Stakeholder mapping facilitates an understanding of a likely current situation as well as the preferred situation. It is not suggested that adopting Porter's Five Forces Model supplants such an approach, but rather that it should complement it and enables organisations to better understand how stakeholder issues might be managed.

Of the organisations considered, ENGOs – many of whom might be classed as activists, appear to have by far the most extensive set of influence strategies at their disposal, whether their success criteria are in conflict or compatible with others, so the research

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<sup>13</sup> BERR, Co-Ventures, Politicians, IRG, ENGOs, the media & OSPAR

tends to concentrate more on exploring in more detail the types of influence strategies available to such groups. By inference many elements of this research could be extended to other stakeholder strategies, but activist might arguably be the source of change to legislative frameworks, so this approach is considered the most appropriate.



*Figure 4.1.2 – The Star Model for managing a Game (Pajunen & Näsi, 2004)*

Pajunen & Näsi (2004) offer the Star Model for managing a Game (Figure 4.1.2); using such a model, there are Rules which the Players must abide by, Strategies that Players may wish to adopt in order to try and win the game, and there are Arenas in which a Game is played. It is in this context that the following narrative is presented. In order to avoid over-complicating the model, Arenas and timing are not discussed although they might be inferred when considering the portfolio of tools and techniques that could be deployed to influence an organisational strategy.

#### **4.1.1 WHO ARE THE PLAYERS?**

The foregoing assumptions leave the main categories of stakeholder as being the *suppliers*, the *buyers* and the *oil and gas majors* who have the decommissioning problem. However, the '*suppliers*' will conduct investigations into the feasibility and validity of possible decommissioning scenarios, either on behalf of the '*oil and gas majors*' or on behalf of the '*buyers*'. That is, they could be considered as forming alliances in either camp, in which case the two main categories of player are the '*oil & gas majors*' and the '*buyers*'. In order to reduce complexity this approach ignores internal stakeholders; this is on the basis that ultimately the power and interest of internal stakeholders manifests itself by how external stakeholders view the organisation as an entity.

The players and their roles might be considered in terms of primary and secondary stakeholders. Primary stakeholders might be described as those who jointly or alone

command the capability to advance or to shut down the decommissioning programme, and secondary stakeholders are those who do not quite have this capability, but they have a capacity to contribute to, or impede the project to varying degrees.

Mitchell (1997) discusses saliency of players in terms of their power, urgency and legitimacy; Savage et al (1991) offer an interpretation of a stakeholder as their ability to threaten or desire to cooperate, while Carroll (1991) suggests a pyramid of social responsibility as means of categorising stakeholders. Frooman (1999) offers stakeholders strategies for managing an organisation by considering the degree of dependency of the stakeholder on the organisation and vice versa. All of these may prove useful in reducing the number of players to a more manageable number.

#### **4.1.2 HOW MIGHT PLAYERS PLAY?**

Players have an ability to play consciously or subconsciously outside the moral, ethical and legal rules of engagement, and there can be some expectation or probability that the players would assume some level of moral, ethical and legal obligation. Legal responsibilities might be considered the minimum requirement (Carroll, 1996). These imply that an organisation should be held accountable for its actions affecting people, their communities, and their environment and that harm to people should be acknowledged and corrected if at all possible.

Laws and ethics are similar in that they both define proper and improper behaviour, but ethical concepts are the more complex. Ethics deal with human dilemmas that often go beyond law and meanings of legal rules and following legislation cannot always define what is ethical or unethical. Sometimes businesses or industries pre-empt legislation and voluntarily adopt ethically based practices, but Carroll (1996) suggests that perhaps no force in today's society is more responsible for making businesses or nations more environmentally sensitive and responsible than the many interest groups that make up the 'environmental movement'. These groups have fostered change in the direction of environmental responsibility through a host of activities including demonstrations, boycotts, public education, lobbying and research. Carroll also suggests that whatever the exact levels of support and resources that the environmental movement commands, businesses and governments would be better to engage with such organisations rather than have an unproductive and adversarial relationship with them and their constituents. However, as will be described later, this is easier said than done, especially when relatively 'hostile' activists are involved. The petrochemical industry appears particularly vulnerable to "direct action" or "damage" strategies that can result in particularly embarrassing and costly situations.

According to Lawrence & Weber (2008) stakeholder expectations are a mixture of people's opinions, attitudes, and beliefs about what constitutes reasonable business behaviour, and managers and organisations would do well to identify emergent expectations as early as possible. Failure to understand stakeholder concerns and responding appropriately causes a divergence between organisational performance and stakeholder expectations; the larger the divergence, the greater the risk of stakeholder backlash. Davis (2005) suggests that from a defensive point of view, companies that ignore public sentiment make themselves vulnerable to attack. Further, companies that treat social issues as either irritating distractions or simple unjustified vehicles for attacking business are ignoring impending forces that fundamentally have the potential to alter their future. Davis also believes that public receptiveness to active business leadership on social issues may be a lot better than one might be lead to believe. Carroll (1996) suggests that social aspects of environmental issues might be viewed from the perspective of environmental ethics which concerns those acts, decisions and behaviours related to the natural environment that agree with society's norms.

The baseline for corporate environmental responsibility is compliance with environmental legislation. However, a strong corporate commitment to the environment can lead to better relations with civil society and other stakeholders, thus reducing the costs of stakeholder management, and enhancing a company's reputation in the eyes of consumers. The environment is also an area prioritised by many pressure groups including NGOs. Over recent years climate change has been emerging as the dominant environmental agenda in many countries and this has catalysed commitment and action in the public and private sectors; it has also resulted in heightened public awareness to environmental issues. The future may present other emergent environmental issues.

A complication is that assuming that the various oil and gas companies have made their interpretation of the law and have abided by it, it comes down to a moral and ethical judgement as to whether the company has met its commitments, and whether these would be accepted by the stakeholder community generally. However, it is also possible that the law (in relation to decommissioning obligations and requirements) as it stands might not have been fully tested, or cannot be fully complied with, despite best endeavours of those involved. An example is that any post operating residues remaining in GBS storage cells would be regarded as waste, which according with OSPAR Decision 98/3 ruling must be removed and disposed of. It's possible that technology might not be available to achieve such removal, and the economic, safety and environmental risks associated with such an operation are not acceptable, resulting in

the company breaking the law, unless there is a change in the law. How this is perceived in the stakeholder community at large is anyone's guess, but it might be useful to get key stakeholders 'onside' when tackling such issues and ENGOs can be expected to figure prominently.

Savage et al (1991) discuss strategies for managing stakeholders in terms of their potential to threaten a company or cooperate with them. Johnson et al (2005) discuss strategies for playing in terms of understanding and attempting to manage stakeholder interest and power while authors such as Carroll (1979) and Clarkson (1995) discuss stakeholder management strategies in terms of being Reactive, Defensive, Accommodating and Proactive. Frooman (1999) takes a different approach by offering stakeholders strategies for managing a company by considering interdependencies between stakeholders and the company (Table 4.1.1). There are numerous strategies that can be employed by stakeholders to attempt to change corporate behaviour, Frooman (1999) leans heavily on open systems theory and resource dependency theory to determine that there are two types of influence strategies: withholding and usage and these can be applied directly or indirectly.

TYPE OF INFLUENCE STRATEGY	DESCRIPTION
Withholding strategy	Stakeholder discontinues providing a resource to a company with the intention of making it change certain behaviour. Such actions include consumer boycotts, labour strikes and other forms of labour actions such as sabotage and 'work to rule', screening, and exclusion by investors and non-renewal of loans by finance providers
Usage strategy	Stakeholder continues to provide resource but with strings attached. These include shareholder and proxy resolutions, strategic alliances, and constructive dialogue
Direct strategy	Stakeholders take it upon themselves to implement withholding or usage strategies
Indirect action	Indirect influence strategies would be adopted indirectly through other agents, when dependence of the organisation on stakeholder resources is low

*Table 4.1.1 - Types of influence strategies (Frooman, 1999)*

According to Freidman & Miles (2006) many stakeholder actions cannot be classified as either withholding or usage strategies because they do not depend on the direction or degree of resource dependency between organisations and stakeholders. Modified vendettas such as demonstrations, petitions, research, letter-writing campaigns and web-blog campaigns are actions frequently adopted by agents such as activists or NGOs who do not have a resource relationship with an organisation as leverage. Freidman & Miles offer two additional strategy types to the withholding and usage strategy types offered by Frooman: Voice and Damage. Voice strategies include aiming to inform, educate, or persuade indirectly or directly. Damage strategies might be pursued through litigation, reputation defamation, demonstration events and sabotage. These need have nothing to do with the resource dependency between the organisation and the particular stakeholder taking the action.

If we take the various influence strategies available as being identified in Table 4.1.1 and Table 4.1.2, in rather simplistic and crude terms we can take a view on which different types of influence strategies might be deployed – legally, morally and ethically by an organisation, irrespective of the strengths and weaknesses of any such strategies, and this is the starting point for the following discussion.

TYPE OF INFLUENCE STRATEGY	DESCRIPTION
Damage	Defamation, demonstration events, legal challenge, litigation, petitions, reputation, sabotage, and vendettas
Escalation	This is the phenomenon of something getting more intense step by step, for example a dispute
Interoffice Memos or email	A written or printed communication directed to a person within an organization
Letter writing	A written or printed communication directed to a person or organization
Lobbying	Includes all attempts to influence legislators and officials, whether by other legislators, constituents or organized groups. Governments often define and regulate organized group lobbying
Research	Defined as human activity based on intellectual application in the investigation of matter. The primary aim for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe
Voice	Aiming to inform, educate, or persuade indirectly or directly
Web-blog	A web-blog is usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse chronological order
Website	A collection of web pages, images, videos or other digital assets that is hosted on one or more web servers, usually accessible via the Internet, and used to inform

*Table 4.1.2 – Types of influence strategies*

Activists, including some NGOs<sup>14</sup> claim to be motivated by a desire to correct apparent injustices and perceived dangers for the greater benefit of society, and so perhaps this places them in a morally superior position to those they target. Deegan (2007) discusses how activism is a growing threat; with the number of individuals becoming involved in activism increasing, as is the number of special interest groups. Deegan also suggests that any organisation that more than one person wants to change is vulnerable to activism, and that activists are able to employ a wide variety of tactics to advance their cause. These tactics range from applying direct pressure to influencing public opinion using a variety of methods. Such groups focus much of their attention on the media as a powerful means of swaying public opinion in their favour against those they target with environmentalists perhaps being the most expert in media manipulation. The more media coverage obtained, the more pressure experienced by the target organisation; there is no such thing as bad publicity<sup>15</sup>. The media tactics in an activists’ toolbox are diverse and varied, and include: creating and maximising media coverage by generating

<sup>14</sup> For example, the World Bank is an NGO but not an activist *per se*

<sup>15</sup> ”...except in your own obituary” - quote attributed to the late Irish author Brendan Behan

short-term, newsworthy conflict situations to stimulate media interest (e.g. Greenpeace being bombarded by water cannon on a vessel @ Brent Spar); embarking on scientific research, focusing on influencing people's feelings by using emotional arguments that can be perceived as being supported by scientific fact with language and visual stimulus carefully chose to maximise the effect, and creating their own media such as photographs and video footage and making them freely available to the media at large. Other tactics involve using celebrities to maximise publicity, designating days of international action and advertising. Other methods used for influencing organisations include creating their own media such as pamphlets, magazines, newsletters, books and legislative alerts; lobbying for legislative change; by hitting organisations financially (by persuading investors to cancel their investments – e.g. Animal Activists & Huntingdon Life Sciences in 2001); extreme measures such as threats and violence – animal rights activists being the most active, and finally collaborating via orchestrated campaigns to exert pressure on organisations.

From researching a number of organisations, Grunig (1992) determined that the reaction of an organisation would determine how aggressive or cooperative activists would be. Specifically, less entrenched activists often move from a conflictive stance involving direct pressure and lobbying to a more trusting, cooperative attitude once an organisation seems willing to negotiate. However, some activists may not enjoy the prospect of dealing directly with those they are trying to influence and will try for effectiveness from the outside.

Deegan (2007) discusses five main organisational response strategies to activism: simply ignoring them, although this increases the likelihood that the activists will seek third party intervention as the organisations become more beleaguered; aiming to mislead audiences; aiming to persuade activists of the organisation's position and finally, aiming to fighting back. A strategy of ignorance effectively hands control to the activist groups allowing issues to spiral out of control; management cannot afford a strategy of ignorance. By executing a strategy of ignorance while seeking to influence public opinion organisations should expect that their messages are unlikely to reach all intended audiences and that those reached may have opposing views or dismiss the message. Furthermore, for every message from the organisation a counter message can be expected from the activists and such messages are rarely complete or are often taken out of context, making it virtually impossible for the public to make an informed judgement. According to Deegan (2007), some organisations may seek to mislead the public about the true situation, although eventually the truth will emerge by a variety of means, including whistle-blowing, investigative activities by third parties as well as the



activists themselves, document leaks, or via legal proceedings. Approaching activists with the sole aim of trying to persuade them of the organisation's approach is also unlikely to be effective, and may well have an opposite effect. Finally, in adopting a fight-back strategy, organisations should expect this to be an extremely time-consuming and expensive activity with limited chance of success. Indeed, activist groups frequently thrive in such an environment, with the media often portraying the activist groups as the underdog being threatened by the organisation. International research by Grunig (1992) has shown that none of these approaches is particularly effective and may actually worsen a situation.

Given that reactive approaches appear to have a limited effect, adoption of a more proactive approach is likely to be more effective, and this requires negotiation and conflict resolution, strategies recommended by Deegan, UNEP (2007) and Grunig & Hunt (1984). In much the same way as Porter (1980) recommends analysing industries and competitors, the proactive approach involves learning as much as possible about the activists and trying to work together with them by two-way dialogue. A first step in this process is to carry out research to determine all the possible activist groups that may constitute a threat, to determine their potential success criteria, understand the activist's and public's views of the organisation, identify potential areas of strength and weakness in organisational performance, and map the external organisational environment, such as keeping abreast of relevant technological developments, the political landscape and legislation. Some organisations might be sensitive to the concept of using research, or 'spying' for determining activist activity, in which case they might prefer to refer to databases on which they might keep relevant and up-to-date information. For brevity, methods for research shall not be discussed here, but there are numerous texts available that describe such methods.

In discussing relationship building, negotiation and conflict resolution, Deegan (2007) guides the reader through the various stages involved, suggesting that ideally all groups, regardless of size, should be approached. The reason for this is that the smaller groups tend to be more efficient in reacting to situations and pressurising organisations because they are more likely to be committed, motivated and active. As soon as activists have been identified as a threat, they should be approached. Ideally this should be before any opinions have been formed against the organisation by the activists because changing mindsets as part of the negotiation process would be much more problematic.

An organisation would need to decide whom to approach first. Deegan (2007) suggests working with less hostile groups first on the basis that they are likely to be more

accommodating and might be able to facilitate negotiations with the more hostile groups once confidence has been built. Groups that are perceived to pose an immediate threat should be a priority, and the research carried out by the organisation should help identify such groups. Finally, local groups should be approached on the basis that they are more likely to pose a threat to organisations in their own local area. Once the various activist groups have been targeted, organisations should try and think like activists in order to establish means of engagement.

It is because of their public relations behaviours and skills that activist groups have become such powerful adversaries of business and government organisations. On this basis Grunig & Hunt (1984) suggest that organisations would do well to try and understand their public relations behaviours. They also make reference to a public relations manager who advocated use of the two-way asymmetric model<sup>16</sup> because this is what activists have used successfully. This suggests that organisations should give the public something unattractive to be *against* instead of something to be beneficial *for*. While this may work reasonably well for an organisation whose publics are passive, it would not work so well in a hostile or adversarial environment because both the activists and the organisations might be using the same tactics to communicate with the same relatively passive publics, requiring them to make judgments on what is likely to be an inaccurate, incomplete or possibly misleading set of information.

According to the United Nations Environment Programme (UNEP, 2007), ENGOs are often able to enhance the knowledge base associated with science, policy, and law by gathering, compiling and disseminating information, they are able to conduct and publish studies and reports. They are able to distribute information and organise side events at major conferences. They have a role in advocacy and lobbying due to their informal contacts with government delegates and they are able to participate formally in inter-governmental negotiations via official writing submissions, unofficial position papers, and statements in meetings, and they might wish to offer advice to delegations and secretariats with whom they are cooperating. Their membership in national delegations enables them to receive inside information about government negotiations, to offer advice to governments and even to negotiate on behalf of governments. ENGOs might also be asked to participate in compliance reviews and enforcement as well as

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<sup>16</sup> A two way asymmetric model uses a public relations model much akin to the press agent or publicist, with imbalanced two-way communication. Practitioners try and understand attitudes and behaviours in order to persuade publics to accept the organisation's point of view and to behave sympathetically towards the organisation (Grunig & Hunt, 1984)

dispute settlement procedures by submission of amicus curiae briefs and the provision of information on implementing and alerting delegations and institutions of non-compliance. They might also ensure transparency by reporting on negotiations, 'naming and shaming' non-compliant organisations and countries, by carrying out public relations work using the media and by reporting on the effectiveness of implementing various policies. In a broader sense, NGOs are capable of forming the opinions of individuals and groups via various campaigns and training, and they're able to coordinate co-operation between environmental groups and industry and business. They're also experts at networking as well as integrating levels of governance and they're able to mobilise values and preferences on a global scale.

The advantages of activists or ENGOs is that they have an ability to apply an intensive focus and expertise on particular issues compared to say governments and businesses who must balance a range of policy priorities. They can often provide technical information, moral conviction and persuasive arguments for policies and are often able to push the boundaries of what is possible. Furthermore, NGOs are expert at getting issues on governments' agendas through public awareness-raising campaigns, using the media and electronic communications to lobby for intergovernmental action. They are also effective at proposing alternative solutions and suggesting initiatives that governments may be unable to propose but are willing to support. NGO participation and endorsement lend an air of legitimacy and credibility to processes and any resulting initiatives and agreements, and they are often critical to implementing the outcomes of multilateral agreements, sometimes before official negotiations are complete.

It is likely to be a strategy choice for whether ENGOs or activists choose to negotiate with organisations (i.e. operate from the inside) or whether to avoid negotiation (i.e. operate from the outside) and this might be done on a case-by-case basis. Both approaches offer different benefits and both are probably necessary for advancement of NGO ideas and concepts. From the inside an organisation might follow the NGOs' lead in negotiations whereas from outside an NGO might push negotiations along by offering the expertise, language and advocacy described earlier.

There are a few possible reasons why activists and NGOs might not wish to engage in negotiations and why an outside approach might be more appealing to an activist: The negotiation process can be slow, and negotiator might not be interested in what activists have to say. A demonstration can express activists priorities in a more direct manner; while activists working on the inside can be perceived as being in collaboration and can require a strategy that is more government-like in form than other activism. Inside work

has less visual impact and less obvious to an outside observer. Further, they may not wish to be distracted from a strategy of using high profile campaigns to increase profile, membership and funding, especially if they have been successful in the past when using such strategies. Activists might also be entrenched in their views that are non-negotiable. They can also be powerful and persuasive lobbyists, their having been able to instigate, promote and advance significant international agreements through lobbying (UNEP, 2007). On the basis that some hostile activists may not wish to engage in negotiations it is important for organisations to develop defences for dealing with them, and Deegan (2007) suggests that key in this is reaching the media speedily with clear factual data about the activist groups activities and their implications, as well as details on the organisation's activities and robust counter arguments in a proactive manner.

Non Governmental Organisations are a major channel through which citizens can express their opinions to decision-makers. Their participation in policymaking may improve decision-making processes by supporting policies that are in line with citizen preferences and blocking policies that solely reflect the interests of the governing elite. However, Dür & Bièvre (2007) suggest that intense interest group pressures can make it difficult for policy-makers to implement the most efficient policies since such policies often impose costs on parts of the public. Further, if such groups constantly win, interest group politics may undermine the legitimacy of decision making in an elected and accountable democracy.

According to Barker (2005) media systems play an integral role in shaping the social context in which policies are developed. Through the media, citizens learn how government policies will affect them, and governments gain feedback on their policies and programs. Media systems act as the primary conduit between those who might want to influence policy and the policymakers – controlling the scope of political discourse and controlling the flow of information. However, the degree to which the media might influence (policy) decision-making varies widely from enforcing change (e.g. decommissioning of Brent Spar) to playing an insignificant role.

It is worth recalling the difficulties that Shell experienced in the early to mid-1990s. During this period, international environmentalists, human rights and shareholder campaigns directed their frustrations towards Shell with gathering intensity. In several separate but related campaigns – opposing of the at-sea disposal of Brent Spar, reported damage to the ecosystem and alleging human rights abuses in Nigeria related to the deaths of Nigerian activists in the Niger Delta, and the reported declining animal, bird, and fish populations due to Camisea Gas Project, Peru, focused a spotlight of often

negative publicity on the world’s most profitable multinational corporation. That is, at any one time conflicts do not always arise from or concern a single source.

#### 4.1.3 WHAT ARE THEY PLAYING FOR?

The payoff or utility for the players in a game is what the player receives after all players and nature have picked their strategies and the game has been played out, or what the player expects to receive as a function of the strategies chosen by the player and other players. The utility could be assessed in terms of what is in stakeholders’ best interests, and these could be considered in terms of the perceived success and failure criteria for each of the stakeholders. In pure economic games – for example, when modelling competitive strategies arguably a comparison of utility is relatively straightforward. However, in the case of GBS decommissioning the benefits to each player cannot be directly compared (Table 4.1.3), but each will have a perceived value to someone.

STAKEHOLDER	SUCCESS / FAILURE CRITERIA
BERR	Transparent comparative assessment process results in impartial and efficient decommissioning programme that complies with legal requirements and which would satisfy the requirements of the BERR Guidelines (2006) and the OSPAR decision 98/3; be seen to be taking a broad view
Co-Ventures	As per Company Shareholders, (may choose to) remain in background while decommissioning issues are addressed
Government related, Europe & UK	IMO requirements observed, Environmental protocols and legal requirements complied with, no political fall-out; quality of democracy & government; image untarnished, re-election
Independent Review Bodies (IRG, SRG)	Gaining of prestige from being seen to have successfully address stakeholder concerns as well as acting impartially; ensuring argument or justification is based on ‘sound science’
Media	Seen by public as responsible journalism, seen to be telling the truth, company PR disaster, share price; what a newspaper says makes a difference
NGOs / Activists	Two pronged. Oil & Gas Company seen as acting responsibly with no repeat of Brent Spar. Ability to generate additional funds via adverse Oil & Gas media exposure, by for example exposing flaws in Oil & Gas Company CSR agenda; Demonstrate a fundamental commitment to a particular cause; moral obligation to see a particular cause through to its conclusion
Oil & Gas Majors	Seen as acting responsibly with no repeat of Brent Spar; Project Controls and Procedures successfully negotiated and ‘no surprises’ from any of the elements of TECOP. Economic – share price not adversely affected by activity. Minimise cost <sup>17</sup>
OSPAR	Requirements of OSPAR decision 98/3 satisfied

*Table 4.1.3 – Players’ Success / Failure Criteria*

## 4.2 INTERVIEW RESULTS AND EMPIRICAL FINDINGS

All the interviews were transcribed and key-points summarised, and the ensuing discussion is based on the author’s interpretation of the responses ([Appendix A10](#)). The questions were stimulating and quite challenging, not least because not all the interviewees were engaged by their organisations as stakeholder managers per se,

<sup>17</sup> Note that different internal stakeholders within Oil and Gas majors may have different success criteria. For example, project drivers might be to minimise project expenditure whereas corporate drivers might be to protect reputation and brand

although everyone is involved in the stakeholder management process and is an expert in their particular discipline. The open nature of the questions introduced a diversity and richness to the conversation; to a degree some of the responses did get diverted, but nevertheless the resulting discussion was relevant and informative with a consistent theme, and the following narrative relates to the most salient feedback.

The main elements of the discussion focused on stakeholder management and concerned how organisations might investigate the activities of others, sources and management of conflict, the potential for alliances between organisations, key influencing strategies of stakeholders, the management of key stakeholders, and developing a framework for managing them. The interviewees generally recognised the Brent Spar episode as pivotal for a variety of reasons:

“They regarded...Greenpeace as somebody they could ride over...Greenpeace was regarded as something of a joke and it was only...the reaction from Shell and the Government that produced Greenpeace and lifted Greenpeace to the status...three months down the line, the attitude to Greenpeace was different” (Interviewee 06)

and because:

“The stakeholder dialogue process... really only came about post Brent Spar” (Interviewee 01)

That is, it was a turning point in the perception of the general public and companies towards Greenpeace and to an extent other less prominent NGOs and initially communications between Shell, the Government and stakeholders were managed ineffectually while Greenpeace delivered a master class in media campaigning:

“Spar was not a rational argument about what was or was not known, but instead was a confused and fruitless series of exchanges mostly based on misinformation and misunderstandings” (Rice & Owen, 1999, p.43)

but latterly it demonstrated that stakeholders are much more comfortable accepting a balanced and fact-based scientific argument, rather than one which may be perceived as being one-sided, no matter how conclusive the one-sided case might be. Reflecting on Brent Spar one interviewee observed:

“I think was very impressed by the difference between the first attempt and the second attempt...” (Interviewee 07)

In finding out what organisations are up to, two categories of investigative methodologies emerged: understanding what organisations are up to, and determining current issues. A number of different methods surfaced, but while one put it:

“So I do think...those three things, the media, the web and personal contacts are probably more important than...formal relationships that obviously can be set up...”  
(Interviewee 07)

another suggested:

“...finding out of activities is dealt with in an almost ad-hoc way” (Interviewee 05)

The key point is that various methods and tools are used to glean information about organisations and their activities, with the pre-requisite involving basic footwork and the allocation of resources sufficient for the activity. One interviewee advocated using a knowledge database for keeping track of stakeholder related activities:

“I’m a firm believer in a good strong database culture as the centre of activities”  
(Interviewee 04)

Use of one-to-one type stakeholder liaison or group stakeholder dialogue type sessions very much depends on the situation with the first being very resource intensive, but as one interviewee put it:

“I’m not in favour of large group gatherings...they have a place and...are highly visible but...it’s more difficult to come to satisfy participants they’ve actually got something out of the experience” (Interviewee 04)

One interviewee warned that the media for example might hound employees for information on the basis that they will not have been trained in dealing with the media,

“They’ll try and target...some vulnerable groups to get information out of”  
(Interviewee 08)

The implication being that basic footwork might also quite literally mean following someone home from the worksite. This reinforces the need to have a consistent message within an organisation.

Of the various potential success or failure criteria perhaps the most poignant response put forward was:

“...the success criteria are very different for the different organisations that you are dealing with...” (Interviewee 04)

and these should be identified as soon as possible, indicating a proactive approach:

“...very early in the process...you should try and ascertain if they are willing to tell you what the success criteria are...” (Interviewee 04)

The potential sources of conflict are varied, ranging from general causes such as different stakeholders having different agendas or expectations, to the scientific community where there may be differing opinions about some of the science used to back up a particular decommissioning case; and within the media the more cynical editors might take the approach:

“Don’t let the truth get in the way of a good story... ultimately there are very, very few British papers that do that kind of thing” (Interviewee 06)

...they wouldn’t be in business for long otherwise. Potential conflicts between a company and its stakeholders are multi-faceted but as one interviewee put it:

“When you’ve got a gap between delivery and expectation, that’s an issue” (Interviewee 03)

and examples of this might be where a company might be perceived as not covering all aspects during investigations, or where the scientific argument appears one-sided - that is, where all the effort appears to have gone into justifying one solution at the expense of others. There are also local, national and global aspects to consider and companies should take cognisance of the bigger picture prevailing at the time:

“(Spar)...was a much bigger picture issue...” (Interviewee 01)

For example, there may be global campaigns (say, environmental) potentially affected by decommissioning intentions, or potential precedent setting at the expense of other companies’ intentions in a similar situation. Cognisance of such issues needs to be taken into account in decision-making. Other potential conflicts could arise between Government departments, between MPs’ perceptions of what the public or local



communities want compared with what the company wants, and even between the eco-terrorists and eco-pragmatists within ENGOS. Ultimately, as one interviewee put it:

“Different people will place a different emphasis on different aspects of decommissioning” (Interviewee 01)

Other potential conflicts occur at a very basic level:

“...1) NGOs tend to move from one issue to the next and 2) they don't have the capacity to have loads of different people on issues that they feel they've moved on from” (Interviewee 01)

Organisations should engage stakeholder liaison managers...

“First and foremost make sure you've got the right people in your team who... understand people...who understand...the drivers within people, who understand the society that you're going to be working in” (Interviewee 08)

In considering potential alliances, some of the responses considered the strategic aspects, while others considered the functional perspective. Strategically, the drivers are likely to be individualistic but coinciding goals and aims might present potential for an alliances forming...

“...an agreement to work with someone else to try and achieve the same thing...” (Interviewee 08)

while functionally, considerations would relate to who might form alliances with whom and...

“...sometimes they form out of adversity...” (Interviewee 04)

Project based alliances seem more likely than long-term ones, and for example could be between small and big organisations, contractors, suppliers, local politicians and mayors. Another possibility might include alliances designed to enhance the reputation of the organisations involved:

“...these other people who have a lot at stake in terms of reputation are also coming out and actually supporting us...its very much more a reputational alliance as well” (Interviewee 03)

Interestingly:

“...the media would take a very strong look at any unlikely alliance that seems to be formed just on a project based format, because they’ll and say “what is really going on here”” (Interviewee 06)

while

“NGOs can form alliances with almost anybody... the media don’t make alliances with people...” (Interviewee 06)

...and are as susceptible as anyone to position changes as issues develop.

The responses to questions relating to the stakeholder management were diverse. The key point is that a variety of tools is available, but they seem to be deployed...

“I just think they, they do it on a pretty much an ad-hoc basis” (Interviewee 06)

and this contrasts with:

“...I personally prefer the informed scientific approach...a database has to be an organic kind of thing which develops” (Interviewee 04)

However, there is no substitute for being proactive and carrying out extensive and resource intensive research.

“...it was proactive as opposed to being reactive...” (Interviewee 08)

Such investigations would include:

“...first of all you have to stratify the decision-makers... clearly identify who the parties are... who does it impact / how does it impact...” (Interviewee 04)

as well as identifying what stakeholders might gain from their stance and their expectations. This might be interpreted as identifying their success criteria. The aim would be:

“...to be pretty creative to try and look at win-wins... you’ve continually got to try and sell... sell the concept” (Interviewee 08)

and;

“...stakeholder engagement has to be a win-win scenario...” (Interviewee 04)

The whole stakeholder engagement process ultimately concerns relationships between individuals; an exercise upon which you build on your understanding of a number of different issues, one at a time. When considering consultation events, direct face-to-face consultation can be very powerful and can give the impression that stakeholders are part of the process...

“...the more people know about you, the more they trust you...” (Interviewee 03)

A complication in consultation events is that group dynamics are usually very different from those in a one-to-one situation, but using a mixture of one-to-one and group methods needs to be treated delicately in order to avoid the perception of preferential treatment. Further,

“...I think over-reliance in any one form of engagement is a weakness” (Interviewee 04)

While organisations tend to prioritise resources by concentrating on key stakeholders, they should be careful ignoring relatively low-priority ones:

“...it’s always difficult and rather worrying sometimes to sort of say, right they are a relatively low priority stakeholder...if an individual feels emotionally strong about this particular issue or this particular company it could be all sorts of things that become very important...” (Interviewee 03)

These are usually under the radar and can introduce the element of surprise, so it is important to maintain a review process during what is a very dynamic situation.

There is a need for companies to be open and transparent and to:

“Expose the dilemma and if you can do it in a public platform, it’s... a really powerful thing...” (Interviewee 03)

and while the seniority of the spokesperson is important, it must be appropriate:

“80%...it should be the very top person... 80% because if actually, you got a guy in a hard hat...that can be fantastically effective...” (Interviewee 03)

While companies need to be mindful of investor sensitivities, contractual obligations and the need for confidentiality, they need to be careful of exaggerating sensitive issues and confidentiality.

The types of influencing strategies stakeholders might deploy are likely to be based on the premise that the most effective is whatever works at the time; no single type of influencing strategy prevails and it is quite likely that the current business environment would determine type and effectiveness of strategy required. However, a response that did stand out was:

“Cause major embarrassment...you need the ‘wow’ factor...” (Interviewee 08)

and this could be linked to a number of influencing strategies. Other potential influencing strategies included network building and alliance forming using other stakeholders with greater influence, and the exertion of pressure using global institutions and organisations. A couple of interviewees noted that journalists are under huge pressure to produce news stories and have the capacity to generate public support or opposition. As far as the Government is concerned:

“...Freedom of Information Act is...significant...” (Interviewee 02)

Timing, urgency and legitimacy are other important factors as is perhaps the perception of an ENGO not being actively involved but simply biding time until the moment of maximum effect:

“I think they (NGO) are waiting for due process to go through... then they will take a position on it” (Interviewee 06)

In discussing the management of conflict, there was a view that:

“First of all I wouldn’t set out to manage them...you have to agree to disagree...” (Interviewee 04)

Organisations should be aware that perceived intransigence might sometimes be as the result of someone...

“...with a contrary view to them because they’d put their whole working academic life into one particular solution...” (Interviewee 01)

There was also the view that organisations should be proactive in preventing situations where organisational views are in conflict, so one of the first tasks would be to try and understand the source of the conflict as early as possible; it could arise out of misunderstandings or misperceptions. This would present the opportunity for organisations to examine the issues raised and to understand the different perspectives. However, assuming that the organisations are in contact and the conflict is entrenched, all parties would need to seek concessions, to try and understand if there is any common ground. At the same time they’d need to demonstrate sensitivity to the issues, showing willingness in a transparent process. Whether to keep them informed or not is a moot point, especially if an organisation in conflict operates outside the law. In resolving conflicts as a last resort companies could try and refer the organisation in conflict to another not in conflict, or attempt using independent non-profit making organisations such as The Environment Council (<http://www.the-environment-council.org.uk/>) as third party facilitators or arbitrators.

In developing a framework for managing stakeholders a common theme was for companies to try and understand stakeholders and their expectations, to develop forums from the beginning, and to understand potential sources of conflict. Examples might be gaining an understanding of other related NGO campaigns, gaining an understanding of how the companies’ solutions might affect other issues, and a wariness of creating precedent as it might affect other industries or issues. To gain an understanding of stakeholders:

“...you actually need to go down and find their needs and wants and what are their expectations of you...” (Interviewee 03)

This should allow organisations to adjust their performance to reflect these expectations and gives the opportunity to cover all the bases, but companies need to investigate how they might share the views of NGOs as they can learn from each other. Further, companies should take the stakeholders along with them by using forums. This demonstrates a degree of openness and willingness to listen and facilitates the generation of ideas and solutions but all parties should enter these with an open mind.

Stakeholder engagement sessions convened via forums can be formulaic and impersonal and companies should be wary of death by viewgraph and be prepared to answer questions. Companies should be wary of demonstrating arrogance when humility and an empathetic approach would be more appropriate.

Two important texts were highlighted during the interviews complementing that by Deegan (2007); those by Sandman (2003) and Winter & Seger (1998).

#### **4.3 DISCUSSION THEORETICAL VERSUS EMPIRICAL FINDINGS**

Although the game metaphor may still be useful, after reviewing some of the vast literature on Game Theory it was concluded fairly early in this investigation that Game Theory *per se* has limited use in the context of decommissioning and stakeholders. Therefore, this discussion picks some of the more salient points and compares stakeholder theory with the analysis of stakeholders and their activities in terms of who they are, what their activities are, and how to deal with them.

Savage et al (1991) discuss strategies for assessing and managing organisational stakeholders and suggest diagnosing the stakeholder's potential for threat, cooperation, and to consider whether stakeholders might be supportive, marginal, non-supportive or be a mixed blessing. They suggest that the key to stakeholder management is to establish goals for their stakeholder relations and formulate strategies change the current relationship, aiming to enhance it. Clarkson (1995) discusses stakeholder management in terms of being Reactive, Defensive Accommodating and Proactive and like Savage et al his model is also based on the management of stakeholder relationships rather than models and methodologies based on concepts concerning corporate social responsiveness. This research suggest that while stakeholder relations are important it is worth remembering that potential alliances or cooperation between stakeholders are more likely to be due to specific project-based *issues* rather than stakeholder relations *per se*, and that in this respect it is important to...

“find out what their interests and expectations really are, interests, needs and expectations...” (Interviewee 03)

and to determine the issues that matter when engaging with stakeholders

“As reactive approaches to activism have limited effect, a more pro-active approach...should be considered” (Deegan, 2007 p.35)

Clearly however, this would depend on the stakeholder's influencing strategy as well as its urgency and legitimacy. Once the 'genie is out of the bottle' as it were for a specific and contentious issue, it would be very difficult to put it back in again.

The conceptual model of social performance put forward by Carroll (1979) is especially complex. The nub is that extensive research is required to understand the obligations the organisation has to society, together with an understanding of the issues and an understanding of the response required. This requires systematic thinking through the social issues being faced and helps identify categories within which the organisation can be situated. This research offers the view that there needs to be a scientific approach to stakeholder management and embedded in this is the need for an organisation to gain an understanding of stakeholders and their expectations and be able to adjust their performance accordingly to reflect these. Parallels can be seen between the findings of this research and Carroll's model. Both require extensive and systematic research.

Frooman (1999) acknowledges that response strategies are dependent on the response to three general questions about stakeholders: 1. Who are they? 2. What do they want? 3. How are they going to try and get it? While Frooman suggests that the third question has only received cursory press in stakeholder theory, this research finds that while it is important to determine responses to the first two...

“...you start off with the basic tools of identifying who the people are, what their interests are, how they operate” (Interviewee 04)

but also to determine or hypothesise the types of influencing strategy an organisation might try and adopt in order to achieve their goals. An assessment of the types of influencing strategies available to stakeholders is important because this is likely to determine the appropriateness and method of response. However, although Frooman suggests that types of influence strategies can be understood in terms of *resources* in competitive situations, it is not obvious such an approach could be used for a non-competitive situation, simply because resource dependency theory may not be wholly applicable - perhaps further research is required.

Mitchell et al (1997) suggest that stakeholders become salient only when managers perceive them as having power, legitimacy and urgency. This might be perceived as resorting to crisis management or 'fire-fighting', which organisations must surely aspire to avoid, although one of the interviewees remarked:

“...one of the black arts of management is to actually create a crisis to get something changed” (Interviewee 07)

This report suggests that organisations should be wary of ignoring stakeholders perceived as minor because the business environment and the dynamics of the environmental issues are continually evolving. Interestingly, the discussion Mitchell et al (1997) put forward does not discuss *why* stakeholders would be involved, and this research suggests that is a key aspect of understanding the dynamics of stakeholder involvement. As one of the participants remarked:

“...why would they (*organisations*) look them up anyway, they must have an idea that some of the things they might be doing could be contentious...” (Interviewee 01)

Burton & Dunn (1996) describe the feminist stakeholder approach as a form of moral contract epitomised by the rule “*Do unto others as you would have them do unto you*” (Burton & Dunn, 1996 p. 134). They suggest that it is because of our concerns for our own rights that we enter into these types of agreements. Wicks et al (2003) also describe a feminist reinterpretation of the stakeholder concept, describing how decision-making is enhanced by feminist views and this embraces the need for consensus-building and cooperation. They also embrace a caring approach, and that this provides the moral theory to ground the stakeholder approach to management. This research finds that there is a need to understand the different perceptions of stakeholders to situations. Their views might not necessarily be in conflict with those of others but rather that they look at situations from a different perspective. The key is to involve the stakeholders for a richer understanding of the issues, to understand if there is any common ground, and to work out a course of action that is an acceptable compromise to all concerned.

## 5. CONCLUSIONS

Early in the research it was concluded that a Game Theoretic approach in the purest sense would have little to offer for managing stakeholders in a North Sea oil & gas decommissioning environment, and so the research questions did not branch into this aspect of investigations. The conceptual model herein considers a decommissioning programme as a product, and although *theoretically* Game Theory permits an understanding of structure of a competitive situation and facilitates a rational approach to decision-making, the reality is that it only provides predictions in highly stylised situations involving a few variables and highly restrictive assumptions (Grant, 2008). Further, it is hard to specify precisely the strategy sets available to the players, primarily because of possible modification of the strategy sets during the game due to there being



too many variables, and the time dimension cannot be ignored (Luce & Raiffa, 1989). That is, the game theoretic approach would become impossibly complex to model. However, if we consider stakeholder management as a metaphorical game for the decommissioning stakeholder environment, there are elements of the game theoretic approach that could assist if the stakeholders are considered as players, the strategies that they may adopt in order to win the game, the rules that they must abide by, and the end game, the utility – what are the players playing for?

The advantages of using Porter's Five Forces are that it encourages organisations to investigate the likely *root causes* to any potential conflict or elaboration, and assuming use of the term "*stakeholder*" instead of "*competitor*"<sup>18</sup> this is in line with Porter's assertion that research is paramount to understanding the *stakeholder* environment. This is also in line with Deegan's (2007) recommendations.

"Sophisticated *stakeholder* analysis is needed to answer such questions as...what areas should we avoid because the *stakeholder's* response will be emotional or desperate?" (Porter, 1980, p.47)

It is not suggested that adopting Porter's Five Forces Model supplants an approach using the Power-Interest Grid, but rather that it should complement it and enables organisations to better understand how stakeholder issues might be managed.

Of the stakeholder theories reviewed as part of this research, the normative approaches which stand out include those offered by Burton & Dunn (1996) and Wicks et al (2003) who describe an approach that embraces decentralisation of power, cooperation, and consensus building. It is the consensus-building and cooperative aspect which is a central tenet of the findings of this investigation.

"...get people involved...be open with them about what the problem is and engage them in helping you... engage the stakeholders as part of the team that are looking for a solution" (Interviewee 07)

Albeit considering companies in competition Burton & Dunn (1996) expand on this approach and suggest that stakeholders need to be prioritised such that you should:

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<sup>18</sup> Assuming a *competitor* is a *stakeholder*

“Privilege those with whom you have a close relationship” (Burton & Dunn, 1996, p.143)

This might be acceptable up to a point, but the findings of this research suggest that companies need to be cognisant of the minor and uninvolved stakeholder for which contingency strategies should also be developed. Frooman (1999) suggests that a company taking the stakeholder’s perspective in the decision-making process concur with this research, but it is arguable whether the reliance on resource-dependency theory would be totally appropriate here. The discussion by Mitchell et al (1997) is useful in that it calls for an identification of the stakeholders who matter, and it recognises that stakeholder attributes are dynamic, not steady state, but there is a gap in their assessment because it doesn’t consider *why* stakeholders might have an interest in a company or it’s activities.

This research also suggests that it is critical to carry out an assessment of the root causes of any potential stakeholder conflict and that assessing the various stakeholder success factors is a means by which this could be achieved. Further, it is also important to understand what influencing strategies might be in the stakeholder’s toolkit and how an organisation might react to them. In their quests to determine compelling reasons for the legitimacy of some stakeholder claims and why they may or may not be worthy of management attention, some stakeholder theorists such as Clarkson (1995), Donaldson & Preston (1995) Donaldson & Dunfee (1994) appear to have discounted the importance of power in stakeholder-management relations arguing that stakeholder legitimacy is more important. However, this research contends that it is important to account for power as well as to understand stakeholder legitimacy, and to understand how it may be used to achieve a stakeholder’s objectives. This should give an organisation an opportunity to prepare a toolkit of appropriate responses as well as prepare a proactive rather than reactive stakeholder engagement strategy. Understanding the hierarchy of influencing strategies available to an organisation may also be useful.

The conceptual model of social performance put forward by Carroll (1979) appears to straddle both normative and analytical stakeholder theory. It’s useful in that it acknowledges that extensive research is required to understand the obligations the organisation has to society, together with an understanding of the issues and an understanding of the response required.

Analytical approaches such as the offering from Savage et al (1991) assess stakeholder's potential to threaten, focussing on relationships that are critical to an organisation's success, and they do recognise that power is important. The approach has practical relevance, but like many others it doesn't appear to address how stakeholder's *willingness* to exert a threat would be categorised. This is an area of stakeholder management that would benefit from further research.

The seven principles developed by the Clarkson Center for Business Ethics (1999) are useful as a managerial aid, and this research generally reinforces these principles.

This research concludes that in oil and gas facility decommissioning, stakeholder management can be seen as a metaphorical game with player's strategies, and rules. However, analysing potential player strategies is extremely complex and will lead to the development of a number of scenarios; it will be necessary to make a judgement as to which scenarios to focus on. While an understanding of potential stakeholder's success criteria and their expectations, their activities and interests, the potential areas of conflict and their potential influence strategies would provide a useful grounding, it is the *interpretation* of how these interact that is important, and a portfolio of proactive and reactive strategies needs to be included in the stakeholder management toolkit. Companies should strive to seek a win-win situation with stakeholders; not by focussing on just one solution at the expense of others, but by taking stakeholders along on the journey or exploration, and this it will be a delicate balancing act. If all these issues can be marshalled into something tangible, considering stakeholders as players in a metaphorical game should be able to make a meaningful contribution to management of stakeholders.

## 6. REFERENCES

- Ackermann, F., Eden, C., & Brown, I. (2005) *The Practice of Making Strategy: A Step by Step Guide*. London: Sage Publications Ltd
- Atkins (Feb 2002) *Joint Industry Project UKCS Concrete Decommissioning Study Phase 1 Report*. WS Atkins Consultants Limited, Report No. CL4017-ER-10, Issue 04
- Barker, M (2005) *Manufacturing policies: the media's role in the policy making process*. Australian School of Environmental Studies, Griffith University. Refereed paper presented to the Journalism Education Conference, Griffith University, 29 November – 2 December 2005
- Barney, J.B. (1995) *Beyond Individual Metaphors In Understanding How Firms Behave: A Comment on Game Theory and Prospect Theory Models of Firm Behavior*. from Rumelt, R.P., Schendel, D.E. & Teece, D.J. (1995) *Fundamental Issues in Strategy: A Research Agenda*. Boston, Massachusetts: Harvard Business School Press
- Becker, H.S. (1999) *The Chicago School, So Called*. Qualitative Sociology, Vol. 22, No. 1, p3-12
- BERR (2006) *Guidance Notes for Industry Decommissioning of Offshore Installations and Pipelines under the Petroleum Act 1998*. Department of Trade & Industry  
[http://www.og.dti.gov.uk/regulation/guidance/decomm\\_guide\\_061107.doc](http://www.og.dti.gov.uk/regulation/guidance/decomm_guide_061107.doc)
- BERR (2007) *Forecast Removal Dates (July 2007)*, BERR Website accessed Dec '07  
[http://www.og.dti.gov.uk/upstream/decommissioning/forecast\\_rem.htm](http://www.og.dti.gov.uk/upstream/decommissioning/forecast_rem.htm)
- Binmore, K. (1999) *Game Theory and Business Ethics*. Business Ethics Quarterly, Volume 9, Issue 1, p31-35
- BSI (2004) *BS EN ISO 14001:2004 - EMS Specification Standard Environmental Management Systems - Specification with Guidance for Use*. British Standards Institute
- Bright, M. (2001) *Inside the labs where lives hang heavy in the balance*. Guardian online document accessed 27 August 2008  
<http://www.guardian.co.uk/Archive/Article/0,4273,4120748,00.html>
- Broughton, P. & Davies, R. (2002) *Refloating the Maureen Platform*. Proceedings of ICE Civil Engineering 150 November 2002 Pages 160–168 Paper 12747
- Broughton, P., Davies, R. & Green, M. (2004) *Dismantling the Maureen platform - an overview*. Proceedings of ICE Civil Engineering 157 May 2004 p79–85 Paper 13651
- Bryant, A. & Charmaz, K. Ed. (2008) *The SAGE Handbook of Grounded Theory*. First Published 2007, Trowbridge, Wiltshire: SAGE Publications
- Burton, B.K. & Dunn, C.P. (1996) *Feminist Ethics as Moral Grounding for Stakeholder Theory* Business Ethics Quarterly, April 1996, Volume 6 No.2 p133-147
- Camerer, C.F. (1995) *Does Strategy Research Need Game Theory?* from Rumelt, R.P., Schendel, D.E. & Teece, D.J. (1995) *Fundamental Issues in Strategy: A Research Agenda*. Boston, Massachusetts: Harvard Business School Press

- Carmichael, F. (2005) *A Guide to Game Theory*. Dorchester, Dorset: FT Prentice Hall
- Carroll, A.B. (1979) *A Three-Dimensional Conceptual Model of Corporate Social Performance*. *Academy of Management Review*, 4: p497-505
- Carroll, A.B. (1991) *The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders - balancing economic, legal, and social responsibilities*. *Business Horizons* July-August, 1991
- Carroll, A.B. (1996) *Business & Society: Ethics and Stakeholder Management*. 3<sup>rd</sup> Edition, Cincinnati, Ohio: International Thompson Publishing
- Clarkson, M.B.E, (1995) *A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance*. *Academy of Management Review*, Volume 20 No.1, p92-117
- ConocoPhillips (Oct 1999) *Ekofisk I disposal: Impact Assessment Environmental and Societal Impacts*. produced by Conoco Phillips on behalf of Ekofisk Field co-venture partners, 20 October 1999
- Davis, I. (2005) *The Biggest Contract*. *The Economist* 28 May 2005
- Davies, P. (2004) *Is Evidence-Based Government Possible? Jerry Lee Lecture 2004*. presented at the 4th Annual Campbell Collaboration Colloquium Washington D.C. 19 February 2004. Online document accessed 19 May 2008.  
<http://www.nationalschool.gov.uk/policyhub/downloads/JerryLeeLecture1202041.pdf>
- Deegan, D (2007) *Managing Activism: A Guide to Dealing with Activists and Pressure Groups*. First Published 2001, London: Kogan Page Limited
- Donaldson, T., & Dunfee, T.W. (1994) *Toward a Unified Conception of Business Ethics: Integrative Social Contracts Theory*. *Academy of Management Review*, Vol. 19, No. 2, p252-284.
- Donaldson, T., & Preston, L.E. (1995) *The stakeholder theory of the corporation: Concepts, evidence and implications*. *Academy of Management Review*. Volume 20 No.1, p65-91
- DTOO (1998) *Removal Offshore Concrete Structures*. Joint Industry Project, Final Report 26.08.98
- DTOO (2000) *Removal Offshore Concrete Structures: Phase II – Dismantlement and Recycling*. Joint Industry Project, Report 14.07.00
- Dür, A. & Bièvre, D. de. (2007) *The Question of Interest Group Influence*. *Journal of Public Policy* Volume 27 Issue 1 p1-12 © 2007 Cambridge University Press
- Dutta, P.K. (1999) *Strategies and Games: Theory and Practice*. Cambridge, Massachusetts: The MIT Press
- Easterby-Smith, M., Thorpe, R. & Jackson, P.R. (2008) *Management Research (SAGE Series in Management Research)*. 3<sup>rd</sup> Edition. First Published 1991. London: Sage Publications Limited

- Eden, C. & Ackermann, F. (2004) *Making Strategy: The Journey of Strategic Management*. First Published 1998. London: Sage Publications Limited
- Ekins, P., Vanner, R., & Firebrace, J. (2005) *Decommissioning of offshore oil and gas facilities: A Comparative assessment of different scenarios*. Journal of Environmental Management 79 (2006) p420-438. Elsevier. <http://www.elsevier.com/locate/jenvman>
- ExxonMobil (c2002) *Technical Specification – Beryl Alpha*.  
[http://www.exxonmobil.com/files/pa/uk/ICoP\\_technicalBeryl\\_Alpha.pdf](http://www.exxonmobil.com/files/pa/uk/ICoP_technicalBeryl_Alpha.pdf) Website accessed Jan '08
- Faber, M.H., Kroon, I.B., Kragh, E. Bayly, D. & Decosemaeker, P. (2001) *Risk Assessment of Decommissioning Options Using Bayesian Networks*. Journal of Offshore Mechanics and Arctic Engineering -- November 2002 -- Volume 124, Issue 4, pp. 231-238  
<http://scitation.aip.org/getabs/servlet/GetabsServlet?prog=normal&id=JMOEEX000124000004000231000001&idtype=cvips&gifs=yes>
- Frederick, W.C., Post, J.E. & Davis, K. (2008) *Business and Society: Corporate Strategy, Public Policy, Ethics*. 12<sup>th</sup> Edition. First Published 1992. New-York: McGraw-Hill International Edition
- Freeman, R.E. (1984) *Strategic Management: A Stakeholder Approach*. Boston, MA: Pitman
- Friedman, A.L., Miles, S. (2006) *Stakeholders: Theory and Practice*. Oxford: Oxford University Press
- Frooman, J. (1999) *Stakeholder influence strategies*. Academy of Management Review Volume 24 No.2 p191-205
- Fudenberg, D. & Tirole, J. (1991) *Game Theory*. Cambridge, Massachusetts: The MIT Press
- Hill, C.W.L. & Jones, T.M. (1992) *Stakeholder-Agency Theory*. Journal of Management Studies Volume 29 No.2, March 1992 p131-154
- Gibbons, R. (1992a) *A Primer in Game Theory*. FT Prentice Hall
- Gibbons, R. (1992b) *Game Theory for Applied Economists*. New Jersey: Princeton University Press Books
- Glaser, B. & Strauss, A. (2007) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. First Printed 1967, renewed 1995. ©1999 Glaser, B. & Strauss, F. New Brunswick: Aldine Transaction
- Grant, C. (2004) *The Altruists Dilemma*. Business Ethics Quarterly, Volume 14, Issue 2 p313-328
- Grant, R.M. (2008) *Contemporary Strategy Analysis*. First printed 1991. Sixth Edition, Oxford: Blackwell Publishing

- Grunig, J. & Hunt, T. (1984) *Managing Public Relations*. Belmont, California: Wadsworth/Thomson Learning
- Grunig, L. (1992) *Activism: How it limits the effectiveness of organizations and how excellent public relations departments respond*. in J.E.Grunig (ed) *Excellence in Public Relations and Communication Management*. New Jersey: Lawrence Erlbaum Associates
- HMT (2007) *The North Sea Fiscal Regime: a discussion paper*. Crown copyright March 2007
- HSE (2003) *Decommissioning Offshore Concrete Platforms*. report by Atkins & Olav Olsen as for HSE, Research Report 058
- IMO (1989) *Guidelines and standards for the removal of offshore installations and structures on the continental shelf and in the exclusive economic zone*. International Maritime Organisation Resolution A672(16) Adopted 19 October 1989  
[http://www.imo.org/Environment/mainframe.asp?topic\\_id=1026](http://www.imo.org/Environment/mainframe.asp?topic_id=1026) (Website accessed Dec '07)
- Johnson, G., Scholes, K. & Whittington, R. (2005) *Exploring Corporate Strategy: Text and Cases*. Seventh Edition, Harlow, England: FT Prentice Hall
- Kadane, J.B. & Larkey, P.D. (1983) *The confusion of is and ought in game theoretic contexts* Management Science Volume 29, No. 12 December 1983 p1365-1379
- Kay, J. (1995) *Why Firms Succeed: Choosing Markets and Challenging Competitors to Add Value*. New York: Oxford University Press
- Keeney, R.L. (1992) *Value Focused thinking: A Path to Creative Decisionmaking*. Cambridge, Massachusetts: Harvard University Press
- Keller, U. (2007) *The Development of Categories: Different Approaches in Grounded Theory*. in Bryant & Charmaz (2008), Chapter 9
- Kelly, A. (2003) *Decision-Making using Game Theory: An Introduction for Managers*. Cambridge: Cambridge University Press
- Kvale, S. (1996) *InterViews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, California: Sage Publications
- Lawrence, A.T. & Weber, J. (2008) *Business & Society: Stakeholders, Ethics and Public Policy*. 12<sup>th</sup> Edition, McGraw-Hill International Edition
- Lim, G., Ahn, H. & Lee, H. (2005) *Formulating strategies for stakeholder management: a case based reasoning approach*. Export Systems with Applications, Volume 28, p831-840
- Lucas, W.L. (1972) *An Overview of the Mathematical Theory of Games*. Management Science, Vol 18 No. 5 January Part 2, 1972
- Luce, R.D. & Raiffa, H. (1989) *Game and Decisions: Introduction and Critical Survey*. First published 1957. First Published by Dover in 1989. New-York: Dover Publications.

- Marshall, C. & Rossman, G.B. (2006) *Designing Qualitative Research*. Fourth Edition, Thousand Oaks, California: Sage Publications
- Mathieson, K. (1999) *Game Theory in Business Ethics: Bad Ideology or Bad Press?* Business Ethics Quarterly, Volume 9, Issue 1, p37-45
- McAlpine (April 1988) *Refloating Gravity Platforms*. Joint Industry Study Volume I Report. McAlpine Offshore, 40 Bernard Street, London, WC1N 1LG
- Milgrom, P (1981) *Good news and bad news: representation theorems and applications*. The Bell Journal of Economics, Vol. 12, No. 2 (Autumn 1981), p380-391. Published by the RAND Corporation
- Mitchell, R.K., Agle, B.R., & Wood, D.J. (1997) *Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts*. Academy of Management Review 1997, Vol. 22, No. 4, p853-886
- Moorthy, K.S. (1985) *Using Game Theory to Model Competition*. Journal of Marketing research Volume XXII (August 1985), p262-282
- Nash, J. (1951) *Non-cooperative Games* Annals of Mathematics, Volume 54 p286-295; in Osborne & Rubenstein (1994)
- Neumann, John von (1953) *Communication on the Borel Notes*. In Econometrica 21, 1953 p124-125; in Poundstone (1992)
- Neumann, John von & Morgenstern, O. (1944) *Theory of Games and Economic Behaviour*. Princeton, N.J.: Princeton University Press; in Poundstone (1992) & Luce & Raiffa (1989)
- OGP (2003) *Disposal of disused offshore concrete gravity platforms in the OSPAR Maritime Area*. Report No. 338, February 2003
- Osborne M.J. & Rubenstein, A. (1994) *A Course in Game Theory*. Massachusetts: The MIT Press
- OSPAR (1998) *OSPAR convention for the protection of the marine environment of the North-East Atlantic: Ministerial meeting of the OSPAR commission - SINTRA: 22 - 23 July 1998*. <http://www.ospar.org/zip/SZ20071228-200615-7949/download.zip>
- OSPAR (2007) *Inventory of Oil and Gas Offshore Installations in the OSPAR Maritime Area*. Report No. 334, ISBN 978-1-905859-73-3  
[http://www.ospar.org/v\\_publications/download.asp?v1=p00334](http://www.ospar.org/v_publications/download.asp?v1=p00334) (Website accessed Dec 2007)
- Pajunen, K. & Näsi, J. (2004) *Stakeholder Management as a Play*. Frontiers of e-Business Research
- Parente, V., Ferreira, D., Moutinho dos Santos, E., & Luczynski, E (2006) *Offshore decommissioning issues: Deductibility and transferability*. Energy Policy, Volume 34 No.15, p1992-2001



- Phillips, R. (1997) *Stakeholder Theory and a Principle of Fairness*. Business Ethics Quarterly, Volume 7 No.1, p51-66
- Phillips, R. (2003) *Stakeholder Legitimacy*. Business Ethics Quarterly, Volume 13, Issue 1 p25-41
- PMI (2004) *A Guide to Project Management Body of Knowledge. 3<sup>rd</sup> Edition, PMBOK<sup>®</sup> Guide*. Project Management Institute
- Poundstone, W. (1992) *Prisoner's Dilemma*. Anchor Books
- Porter M.E. (1980) *Competitive Strategy: Techniques for Analysing Industries and Competitors*. New-York: New York Free Press
- TCCBE (1999) *Principles of Stakeholder Management* The Clarkson Centre for Business Ethics, Joseph L. Rotman School of Management, University of Toronto, Toronto, Canada, Copyright, 1999
- Rasmusen, E. (2007) *Games and information 4E: An introduction to Game Theory*. First Published 1989. 4<sup>th</sup> Edition. Oxford: Blackwell Publishing
- Reed, D. (1999) *Stakeholder Management Theory: A Critical Theory Perspective*. Business Ethics Quarterly, Volume 9, Issue 3, p453-483
- Reuss (2002) *What Can Radicals Learn From Game Theory?* Dollars & Sense Magazine, EBSCO Publishing, May/June 2002
- Rice, T. & Owen, P. (2003) *Decommissioning of the Brent Spar*. First published 1999. Transferred to Digital Printing in 2003. London: Spon Press
- Rose, C. (1998) *The Turning of the Spar*. London: Greenpeace
- Rose, C. (2005) *How to WIN campaigns: 100 steps to success*. London: Earthscan
- Rumelt, R.P., Schendel, D.E. & Teece, D.J. (1995) *Fundamental Issues in Strategy: A Research Agenda*. First published 1994. Harvard: Harvard Business School Press
- Sandman, P. (2005) *Responding to Community Outrage: Strategies for Effective Risk Communication*. 5<sup>th</sup> Edition, Fairfax: American Industrial Hygiene Association
- Savage, G.T., Nix, T.W., Whitehead, C.J., and Blair, J.D. (1991) *Strategies for Assessing and Managing Organisational Stakeholder*. Academy of Management Executive, Volume 5 No. 2 p61-75
- Smith, John Maynard (2008) *Evolution and the Theory of Games*. 15<sup>th</sup> Edition, First Edition printed 1982. New York, Cambridge University Press
- Solomon, R.C. (1992) *Ethics & Excellence: Cooperation and Integrity in Business*. The Ruffin Series in Business Ethics. New-York: Oxford University Press
- Solomon, R.C. (1999) *Game Theory as a Model for Business and Business Ethics*. Business Ethics Quarterly, Volume 9, Issue 1, p11-29
- Straffin, P.D. (2006) *Game Theory and Strategy*, 1<sup>st</sup> Edition 1993. 6<sup>th</sup> Edition. The Mathematical Association of America, New Mathematical Library

- Tesch R. (2005) *Qualitative research: Analysis Types and Software Tools*. First published 1998. Abingdon, Oxon: RoutledgeFarmer
- TFE (2002) *Frigg Field Concrete Substructures: An Assessment of Proposals for the Disposal of the Concrete Substructures of Disused Frigg Field Installations TCP2, CDP1 and TP1*. Produced by Total Fina Elf Exploration Norge AS on behalf of Frigg Field co-venture partners, 06 August 2002
- UKOOA (2006) *UKOOA Guidelines on Stakeholder Engagement for Decommissioning Activities*. UKOOA web link accessed July 2008  
<http://www.oilandgasuk.co.uk/ukooa/newpublications/pdfs/DEC01.pdf>
- UNEP (2007) *Negotiating and Implementing Multilateral Agreements: A Manual for NGOs*. United Nations Environment Programme
- UoS (2008) *University of Strathclyde Code of Practice on Investigations involving Human Beings*. Fourth Edition January 2008 University of Strathclyde
- Van der Heijden, K. Bradfield, R, Burt, G., Cairns, G. & Wright, G. (2002) *The Sixth Sense: Accelerating Organisational Learning with Scenarios*. Chichester: John Wiley & Sons Ltd
- Van der Heijden, K. (2005) *Scenarios: The Art of Strategic Conversation*. Chichester: John Wiley & Sons Ltd
- Watson, J. (2002) *Strategy: An Introduction to Game Theory*. London: W.W.Norton & Company
- Weiss, C. (1977) *Research for Policy's Sake: The Enlightenment Function of Social Research*. Policy Analysis Volume 3, No 4, p.531-545
- Wicks, A., Gilbert, D.R.Jnr, & Freeman, R.E. (1994) *A Feminist Reinterpretation of the Stakeholder Concept*. Business Ethics Quarterly, Volume 4, No.4, p475-97
- Winter, M. & Steger, U. (1998) *Managing Outside Pressure: Strategies for Preventing Corporate Disasters*. Chichester, England: John Wiley & Sons

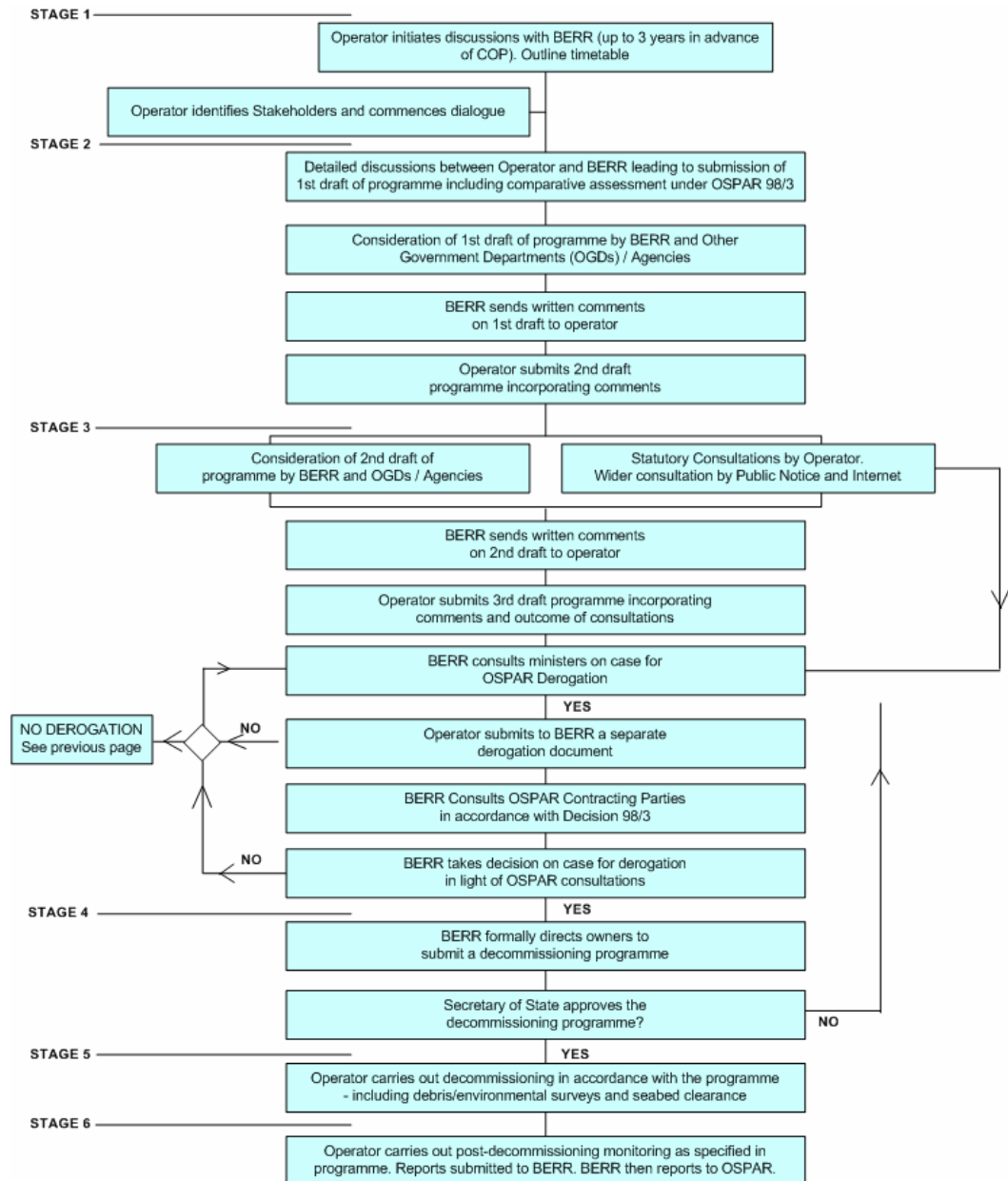
## **A1 BERR DECOMMISSIONING PROGRAMME PROCESS**

### **A1.1 BACKGROUND**

Decommissioning projects such as these present fascinating and multi-faceted problems ranging from management of the transition from production through to cessation of production, carrying out the physical activities associated with decommissioning and removal of hardware such as topsides, pipelines and steel or concrete substructures ranging from less than 10,000 tonnes up to almost 800,000 tonnes in the Norwegian sector. As well as the engineering and logistical complexities of decommissioning such large structures, there are safety, environmental, contamination and waste disposal aspects to consider, as well as the human aspect where a facility that has been a place of work for much of someone's working life. For those structures that for whatever reason need to remain in place there would be long-term liabilities to cater for. Further, the decommissioning process will need to cater for uncertainties in cost, schedule and risk as well as the different expectations of stakeholders. The industry can reflect on the experiences of Brent Spar to see how stakeholder relations can turn sour.

In the OSPAR Region, the offshore facilities are generally categorised as fixed steel, floating, gravity base, and subsea structures, although there have been others such as steel tanks, artificial islands and loading systems, but these have already been decommissioned. The OSPAR 98/3 decision (OSPAR, 1998) and the UK Guidelines (BERR, 2006) recognise the difficulties with dealing with the more problematic facilities such as GBS and recommend that the comparative assessment process (Ekins et al, 2005 & Faber et al, 2001) is used to determine the best way of managing the decommissioning process. This was successfully used for determining decommissioning scenarios for the Frigg Field (Faber et al, 2001) and the Ekofisk Tank (ConocoPhillips, 1999). Topsides are excluded because these are to be removed whatever the fate of the substructure on the seabed. Currently, and subject to technological advancements, only the decommissioning of those steel jacket structures exceeding 10,000 tonnes and concrete GBS can be considered candidates for the comparative assessment process. The comparative assessment process is more complicated for first generation gravity base structures, which were not designed for removal.

## A1.2 KEY ACTIVITIES – POTENTIAL OSPAR DEROGATION CASE

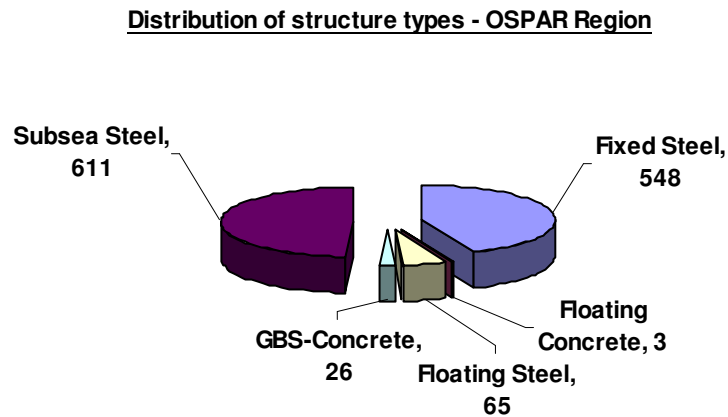


*Figure A1.1 – Key Activities: Potential OSPAR Derogation Case*

## A2 TECHNICAL BACKGROUND INFORMATION

### A2.1 DISTRIBUTION OF STRUCTURE TYPES

Figure A2.1 shows the distribution of the different types of structure in the OSPAR Region of the North Sea.



*Figure A2.1 - Distribution of structure types – OSPAR Region (OSPAR, 2007)*

### A2.2 CONCRETE GRAVITY BASE STRUCTURES

A concrete gravity platform is placed on the seabed and by its own weight is capable of withstanding the environmental forces it may be exposed to during its lifetime. For most of these platforms, skirts penetrating into the seabed provide additional stability.

These structures are huge, and are some of the most impressive structures ever built. The substructures vary in weight (in air) between 3,000 and 800,000 tonnes, supporting topside facilities in the range of 5,000 to 52,000 tonnes (OSPAR, 2007). Some of these are designed to accommodate oil storage ranging from 400,000 to 2,100,000 barrels<sup>19</sup>, and some use oil storage tanks as massive separators, separating the raw reservoir product into oil, gas, produced water and solids such as sand.

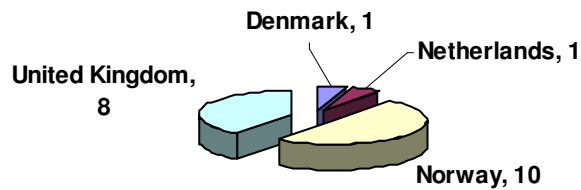
Of the 26 concrete GBS (Figure A2.1), 20 remain operational, with 5 having been or in the process of being decommissioned (Frigg (TP1, TCP2, CDP1, and Ekofisk Tank) and one having been closed down (TFE MCP01). However, in dealing with the massive Ekofisk Tank structure, only ConocoPhillips had to deal with any potentially contentious issues concerning use of storage cells for product storage and separation. At the time of writing, although the operator had achieved derogation for the Ekofisk Tank

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<sup>19</sup> One barrel being the equivalent of 6.895 m<sup>3</sup>, given an equivalent range of between approximately 58,000 to 305,000 m<sup>3</sup>

to remain in place, a final decommissioning solution had not yet been agreed for the storage tank contents, although agreement appears to have been made on a ‘best endeavours’ approach. The Frigg Field was a gas production field, so the storage tanks had never been used for product storage or separation (TFE, 2002). Figure A2.1 shows the distribution of the structures remaining in operation, the earliest of which was installed in the Beryl Field in 1975 ([Appendix A1](#)).

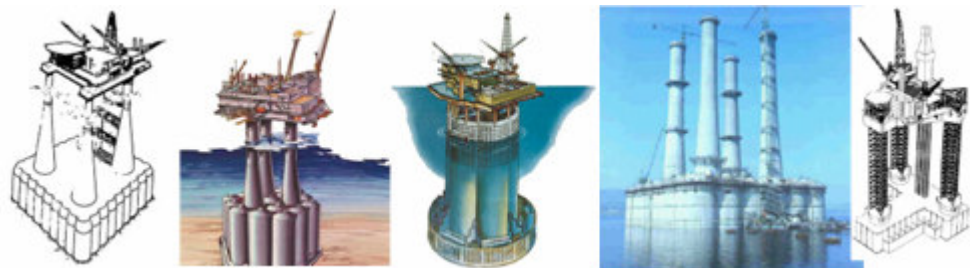
**Operational Concrete GBS - OSPAR Maritime Region**



*Figure A2.2 – Operational concrete GBS, OSPAR Maritime Region (OSPAR, 2007)*

**A2.3 CATEGORISING CONCRETE GBS**

There are a number of different generic concrete GBS designs. According the OGP (2003), the most common concrete designs are: ANDOC (with four columns), Condeep (with one, two, three or four columns), C G Doris, Sea Tank (with two or four columns) and Ove Arup (Figure A2.3). Some of the structures were designed for removal, and some were designed with oil storage capacity (Table A2.1):



*Figure A2.3 - ANDOC, Condeep, CG Doris, Sea Tank & Ove Arup designs*

DESIGNED FOR REMOVAL	OIL STORAGE / GAS PRODUCER	DENMARK	NETHERLANDS	NORWAY	UK
No	<i>Has oil storage</i>			1	7
Yes	No oil storage / gas producer			4	1
	Has oil storage	1	1	5	
<b>Sub-total:</b>		<b>1</b>	<b>1</b>	<b>10</b>	<b>8</b>

*Table A2.1 – Concrete GBS Categorisation<sup>20</sup>*

#### **A2.4 FACILITIES WITH STORAGE TANKS**

The significance of those structures using oil storage capacity built into the structure is that over the lifetime of oil production, significant quantities of solids such as sand are likely to have been produced. While the topsides separation process systems might filter out the majority of such solids, some platforms (for example, Beryl, Brent) use the storage tanks as massive separators because of the efficiency of the separation process and the high quality oil in water<sup>21</sup> discharged overboard. In some instances, hazardous and non-hazardous drains could possibly be connected to the tanks inferring that any residues resulting from, for example, maintenance activities<sup>22</sup> would be dumped into the storage tanks. Overall this results in an uncertain picture concerning potential contaminants in the storage tanks. Furthermore, if the refloat scenario is to be seriously entertained, it's quite likely that there would need to be a full understanding of the mass of the storage tank contents as well as its distribution, because these aspects could affect the stability of the structure during any potential refloat operation.

#### **A2.5 DECOMMISSIONING AND THE OSPAR 98/3 DECISION**

OSPAR Decision 98/3 (OSPAR, 1998) provides the international regulatory framework for decommissioning all offshore installations in the OSPAR maritime region, stating, “*The dumping, and leaving wholly or partly in place, of disused offshore installations within the maritime area is prohibited.*” The main feature of this decision is the presumption that offshore facilities and infrastructure will all be removed entirely and exceptions to that rule will be granted only if the assessment and consultation procedure

<sup>20</sup> In oil and gas literature, concrete GBS are often referred to as first and second-generation structures (pre- and post-1979 respectively). Essentially the difference between the first generation structures and second generation structures is that the more modern types of structure were designed for removal

<sup>21</sup> In simple terms the raw product might separate into oil, produced water and solids in a storage cell. The produced water contains traces of oil, and providing the quantities of oil in the produced water remain within the tight regulatory environmental requirements, the water can be discharged overboard with no further treatment

<sup>22</sup> For example, removal of old paint containing PCBs, various hazardous and non-hazardous chemicals which may have been flushed into the drains system

forming part of the OSPAR Decision 98/3 shows that there are *significant reasons* why an alternative disposal scenario<sup>23</sup> is preferable to re-use or recycling or final disposal on land. Table A2.2 summarises the OSPAR 98/3 Decision.

INSTALLATION (EXCLUDING TOPSIDES)	WEIGHT TONNES	COMPLETE REMOVAL TO LAND	PARTIAL REMOVAL TO LAND	LEAVE WHOLLY IN PLACE	RE-USE	DISPOSAL AT SEA
Fixed steel	<10,000	Yes	No	No	Yes <sup>3</sup>	No
Fixed steel	>10,000	Yes	Yes <sup>1,2</sup>	No	Yes <sup>3</sup>	No
Concrete GBS	Any	Yes	Yes <sup>2</sup>	Yes	Yes	Yes
Floating	Any	Yes	No	No	Yes	No
Subsea	Any	Yes	No	No	Yes	No

*Table A2.2 - Summary of OSPAR 98/3 Decision<sup>24</sup>*

In the UK the Guidelines (BERR, 2006) recognise the difficulties with dealing with the more problematic facilities and recommend that the comparative assessment process (Ekins et al, 2005 & Faber et al, 2001) be used to determine the best way of managing the decommissioning process. This was successfully used when considering the decommissioning scenarios for the Frigg Field (Faber et al, 2001) and the Ekofisk Tank (ConocoPhillips, 1999). Topsides are excluded because these must be removed whatever the fate of the substructure on the seabed.

In using the comparative assessment process, there will be a balance between effort in obtaining the relevant information and the ability to put forward a credible and robust case for the preferred decommissioning scenario. The process requires making judgements of the mix between safety, environmental risk, environmental cost, technical risk or cost. In typical engineering applications, the term utility may directly be translated into consequences in terms of costs, fatalities, environmental impact, etc. In terms of Game Theory, the utility is complex and involves a number of factors over and above those addressed in purely engineering applications including ethical, moral and societal issues and organisational credibility, all of which might be captured under the banner of reputation and ultimately reflected in market capitalisation of the company.

Two North Sea operators (TFE, 2002, ConocoPhillips, 1999) have presented decommissioning proposals on behalf of their co-ventures, considering the main

<sup>23</sup> In various references, use is made of the term “disposal options”, implying that there is a choice of disposal options available. The author prefers the term “scenario”, on the basis that there is a presumption of complete removal; this implies that there is no choice or option. The comparative assessment process determines the preferred route to decommissioning

<sup>24</sup> References in body of table: 1: Footings / part footings only; 2: Minimum water clearance 55m; 3: Ref: OSPAR Guidelines on Artificial Reefs (OSPAR, 2003)



disposal scenarios for disused offshore concrete platforms as being: removal for onshore disposal; removal for deep water disposal; partial removal (cut down the structure down 55m below LAT to satisfy the IMO Guidelines (1989)), and finally, leave in place. Both operators used the comparative assessment process to determine the most appropriate route to decommissioning, and this assessment included four key elements for each disposal scenario: technical feasibility; safety for personnel; environmental impact and finally, cost<sup>25</sup>.

## **A2.6 IDENTIFICATION OF THE DILEMMAS**

Once the earliest CoP date has been agreed with BERR, before decommissioning can commence the operator must produce a Decommissioning Programme. This is a formal document that must be submitted to BERR in accordance with the BERR Guidelines (2006), and this includes a formal consultation process with stakeholders. BERR will in turn make the necessary representations to OSPAR, but the decommissioning programme must be formally approved before any decommissioning activities may commence<sup>26</sup>. Figure A2.4 shows a simplified version of typical considerations and dilemmas associated with decommissioning concrete GBS. The OSPAR 98/3 Decision and the BERR Guidelines make reference to the facilities and infrastructure, but a key aspect driving the decision is expected to be how to deal with any residues in the storage tanks.

The operator is likely to be concerned with the practicalities of dealing with any residues and the timing. For example, in order to obtain as complete a picture as possible about the storage tank contents, a programme of sampling and mapping<sup>27</sup> would be required, followed by a trial period before dealing with the storage cells on an industrial scale. If the estimated period associated with sampling, mapping and dealing with storage tank contents is prolonged and requires a topside facility; it may be more efficient to remove the topsides in its entirety and install a temporary facility in its place.

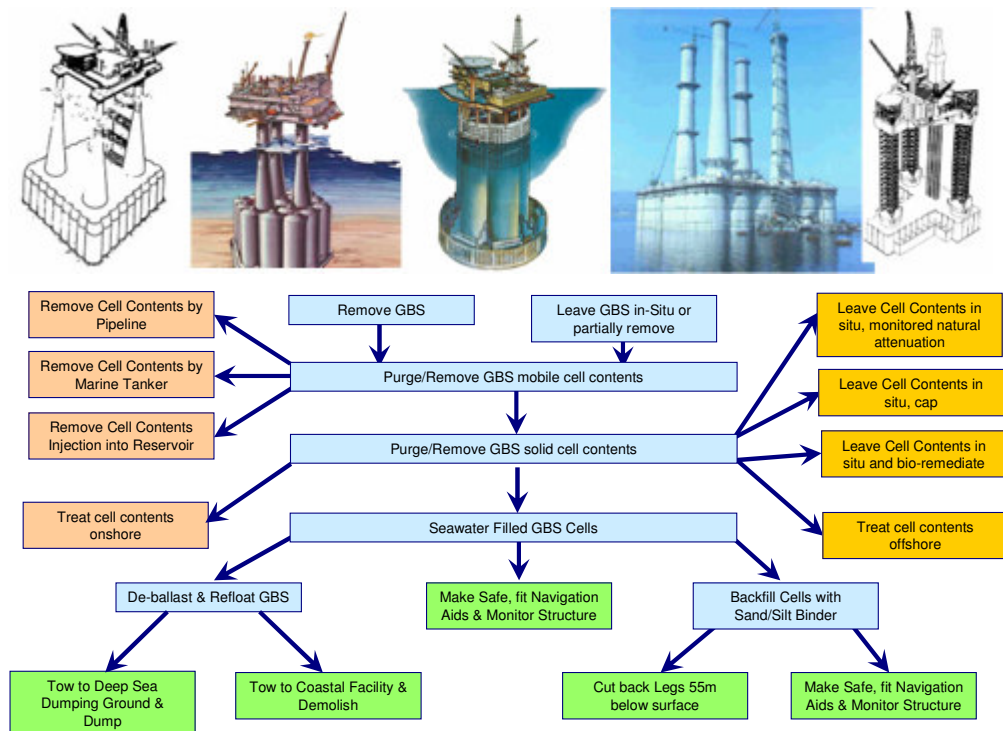
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<sup>25</sup> The cost aspect presents a potential conflict of interest for the UK Government for fields that currently pay PRT. Such fields are currently candidates for a substantial proportion of the decommissioning costs to be paid by the UK tax payer (HMT, 2007), while a Decommissioning Programme is sent to BERR for approval

<sup>26</sup> Plugging & Abandonment of wells excepted

<sup>27</sup> Mapping in this context means obtaining a three dimensional profile of any sediment which is possibly present

For the purposes of this investigation, if a GBS has been designed for removal, it shall be assumed that the storage tanks contents can be dealt with in a manner that does not jeopardise any potential removal activities in order to enable the research to be focussed. Further, based on experience with previous decommissioning programme submissions, storage tanks on gas producing facilities will not contain production residues. Assuming this to be true, the UK has seven first generation GBS not designed for removal, furnished with oil storage cells while Norway has just one. These facilities include: Beryl 'A', Brent 'B', Brent 'C', Brent 'D', Dunlin 'A', Cormorant 'A', Ninian Central, and Statfjord 'A' ([Appendix A2.1](#)).



*Figure A2.4 – Typical complexities for decommissioning concrete GBS*

## A2.7 LEGAL REQUIREMENTS

The Guidelines (BERR, 2006) play a key role in specifying the oil and gas decommissioning requirements, and specifies the need for a Comparative Assessment of the safety, environmental, societal and economic implications of the decommissioning scenarios being considered. Tools such as Strategic Environmental Assessments, Life Cycle Analyses, Environmental Impact Assessments, Risk Assessments and Sustainability Assessments are all included as part of the process. Note that the legislation has not been extensively tested for the case where decommissioning concerns first generation GBS containing storage cells used for product storage. In addition to approval of a decommissioning programme, a number of other legal obligations require to be addressed (Table A2.1):

**ACTIVITY**

1. Confirmation that the requirements of the Coast Protection Act 1949 have been satisfied;
2. Acceptance of an Abandonment Safety Case under the Offshore Installations (Safety Case) Regulations 2005 (installations only);
3. Fulfilment of notification requirements to Health and Safety Executive (HSE) under regulation 22 of the Pipeline Safety Regulations 1996;
4. Any environmental consents or permits required during decommissioning activity;
5. Approvals for the shipment of waste; and
6. Approval of a well abandonment programme in accordance with the obligation contained in the petroleum production licence.

*Table A2.3 - Items additional to Guidelines (BERR, 2006)*

ISO 14001 (BS, 2004) is not mandatory, but it can go a long way in indicating to stakeholders that an organisation is serious about tackling environmental impacts.

### A3 DECOMMISSIONING RESEARCH STUDIES

Research (Refer [Appendix A3](#)) concerning dealing with contents in the storage tanks when decommissioning a concrete GBS appears to be limited with little documented research concerning how the potential contaminants of the GBS storage cells might be dealt with from a waste perspective or how any remaining residues might potentially hamper the ability to remove these enormous structures from the sea bed by refloating them.

Two areas that could prove the most contentious concern the possibility that first generation GBS might require derogation to remain, and that complete removal of any immobile residues inside any storage cells may prove too technical and risky a challenge to be a realistic proposition. This would imply that following the comparative assessment process; the preferable decommissioning scenario would be to leave the GBS in-situ, complete with any residues remaining in the storage cells.

In their JIS, McAlpine (1988) assess the feasibility of removal of existing gravity base structures in the North Sea by refloating. While the report discusses weight uncertainties, consideration of how to deal with the storage cells was not discussed in the report.

The industry research study conducted on the refloat of concrete GBS conducted by DTOO (1998) tended to concentrate on the structural aspects of Statfjord 'A', 'B', 'C', Gullfaks 'A', 'B', and 'C', Sleipner 'A', Troll 'A' and Draugen, using the Gullfaks 'C' Platform as the base model. All of these platforms were designed for removal. A later study carried out by the same company (DTOO, 2000) concentrated on the dismantling and recycling of the Gullfaks 'A' platform. All of the platforms with the exception of Gullfaks 'B', Troll 'A' and Sleipner 'A' have significant oil storage facilities, and all were designed for removal. The later report refers to cleaning of the storage tanks once the structure had been towed to an inshore site for dismantling, where it can be expected that tank-cleaning activities would be far less complex than if they were to be dealt with in-situ. Reference is made to removal of oil, wax and contaminated water.

The Maureen field ceased production in October 1999, and was the first major oil field to be decommissioned in the North Sea that was originally designed with removal/re-use in mind (Broughton et al, 2002). Comprising three 27m-diameter oil storage tanks, the steel GBS was successfully removed in 2001. The oil storage tanks had been used for oil storage, and the tanks were cleaned of oil, sludge, asphaltines and wax residues during dismantling in a deep-water fjord (Broughton et al, 2004). Reports from

engineers who witnessed the disposal process first-hand suggest that the residual sludge in the bottom of storage tanks amounted to a depth of several hundred millimetres.

In 1975, the ExxonMobil operated Beryl 'A' platform was the first concrete gravity base structure to be installed in the North Sea. It is a similar Condeep design to the Shell UK Ltd Brent 'B' and Brent 'D', and the storage cells are used for separation of produced water using much the same way as the Brent Condeep platforms (ExxonMobil, c2002).

OGP (2003) and Atkins (2002) look at the scenarios associated with the disposal of disused offshore concrete gravity platforms in the OSPAR Maritime Area, and consider the total removal, partial removal and derogation to remain cases. Both the OGP and Atkins reports include a brief discussion concerning potential issues associated with dealing with storage tank contents in-situ although the potential for sand being trapped in the tanks is mentioned more in the context of contributing to the uncertainty of refloat operations. Atkins makes cursory mention of H<sub>2</sub>S.

In "Decommissioning Offshore Concrete Structures" (HSE, 2003) the uncertainties around "unknown volumes of sand accumulated in the storage cells" are mentioned but not discussed, and there is an assumption that caisson cells used for oil storage could be cleaned by an assembly of washing nozzles with high jet water/detergent pressure threaded into the cells from above, during inshore demolition (i.e. post refloat & tow).

The Frigg Field was a gas field, so the concrete GBS weren't used for oil storage, and consequently TFE (2002) had no need to investigate ways of dealing with the storage tanks. In considering disposal scenarios for Ekofisk Tank, ConocoPhillips (1999) the company has encountered considerable issues in dealing with the storage facility, and investigative work continues.

In their comparative assessment using flow analysis<sup>28</sup>, Ekins et al (2005) consider material flows, energy flows, financial expenditure, and assessments of non-financial outcomes. The research project was complex enough without including consideration of issues concerning the storage tank contents.

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<sup>28</sup> The material, energy (with associated air emissions) and financial flows for the scenarios were quantified using data from the industry, some of which is available on websites from the results of life-cycle analyses, some of which had only recently been generated at the time and had not yet been published

At the time of writing, Shell UK Ltd was initiating feasibility studies into the decommissioning scenarios associated with the Brent Field. No conclusions had been reached, but initial indications are that gaining direct entry into the storage tanks would involve extremely complex operations.

#### A4 OPERATING CONCRETE GBS IN OSPAR MARITIME AREA

FACILITY	TYPE	SUBSTRUCTURE WEIGHT IN AIR (TONNES)	WATER DEPTH (M)	OPERATOR	SECTOR	INSTALLED	STORAGE	GAS/ OIL	DESIGNED FOR REMOVAL
Beryl 'A'	Condeep	200,000	120	Mobil North Sea Ltd	UK	1975	900,000	Oil	No
Brent 'B'	Condeep	165,664	142	Shell UK Ltd	UK	1975	1,100,000	Oil	No
Brent 'C'	Sea Tank	287,542	142	Shell UK Ltd	UK	1978	600,000	Oil	No
Brent 'D'	Condeep	177,809	142	Shell UK Ltd	UK	1976	1,100,000	Oil	No
Dunlin 'A'	ANDOC / Sea Tank	228,611	153	Fairfield Energy <sup>29</sup>	UK	1977	800,000	Oil	No
Cormorant 'A'	Sea Tank	295,000	149	Shell UK Ltd	UK	1978	1,000,000	Oil	No
MCP01 <sup>30</sup>	Doris	376,000	94	Total Exploration & Production	UK	1976	no	Riser	No
Ninian Central	Doris	584,000	135	CNR International (UK) Ltd	UK	1978	1,000,000	Oil	No
Statfjord 'A'	Condeep	254,000	146	Mobil Exploration Norway inc	Norway	1977	1,200,000	Oil	No
Draugen	Condeep	208,000	251.3	Norske Shell AS	Norway	1993	1,400,000	Oil	Yes
F/3-FB1	GBS	49,200	42	NAM Nederlands	Holland	1992	189,000	Gas	Yes
Gullfaks 'A'	Condeep	651,000	135	Statoil	Norway	1986	2,000,000	Oil	Yes
Gullfaks 'B'	Condeep	583,500	141.6	Statoil	Norway	1987	no	Oil	Yes
Gullfaks 'C'	Condeep	784,000	216	Statoil	Norway	1989	2,100,000	Oil	Yes
Halfweg	Concrete base (4-leg jackup)	3,014	30	Unocal Nederlands	Holland	1995	no	Oil	Yes
Ravensburn Nth	GBS	58,500	45	Hamilton Oil & Gas / BP	UK	1990	no	Gas	Yes
Sleipner 'A'	Condeep	788,000	82.5	Statoil	Norway	1993	no	Gas	Yes
Syd Arne	GBS with lattice drilling tower	100,000	61	Amerada Hess	Denmark	1999	550,000	Oil	Yes
Statfjord 'B'	Condeep	434,000	146	Mobil Exploration Norway inc	Norway	1981	1,900,000	Oil	Yes
Statfjord 'C'	Condeep	358,000	146	Mobil Exploration Norway inc	Norway	1984	1,900,000	Oil	Yes
Troll 'A'	Condeep	661,500	302.9	Norske Shell AS	Norway	1996	no	Gas	Yes

*Table A4.1 – Operating Concrete GBS in OSPAR Maritime Area (OGP, 2003, & OSPAR, 2007)*

<sup>29</sup> At the time of writing Shell UK Ltd & Exxon Mobil are expected to transfer ownership to Fairfield Energy & Mitsubishi early 2008 (Offshore, 2007), but retain decommissioning liability

<sup>30</sup> MCP01 is closed down, but has not been decommissioned. It was used as a gas riser platform, not as a production facility

## A5 SUMMARY OF POTENTIAL STAKEHOLDER CONFLICTS OR COMPATIBILITIES

Stakeholder	Success / Failure Criteria	BERR	Co-Ventures	ENGOS, Activists	Government Politicians, Europe & UK	Independent Review Bodies (IRG, SRG)	Media	Oil & Gas Majors	OSPAR
<b>BERR</b>	Transparent comparative assessment process results in impartial and efficient decommissioning program that complies with legal requirements and which would satisfy the requirements of the BERR Guidelines (2006) and the OSPAR Decision 98/3; be seen to be taking a broad view	N/A	Compatible	Both	Both	Compatible	Both	Both	Compatible
<b>Co-Ventures</b>	As per Company Shareholders, (may choose to) remain in background while decommissioning issues are addressed		N/A	Both	Both	Both	Both	Both	Both
<b>ENGOS, Activists</b>	Two pronged. Oil & Gas Company seen as acting responsibly with no repeat of Brent Spar. Ability to generate additional funds via adverse Oil & Gas media exposure			N/A	Both	Both	Compatible	Conflict	Conflict
<b>Government Politicians, Europe &amp; UK</b>	Quality of democracy & government; image untarnished. May use decommissioning as lever for negotiation; re-election				N/A	Both	Both	Both	Conflict
<b>Independent Review Bodies (IRG, SRG)</b>	Gaining of prestige from being seen to have successfully address stakeholder concerns as well as acting impartially; ensuring argument or justification is based on 'sound science'					N/A	Both	Both	Both
<b>Media</b>	Company seen as acting responsibly; PR disaster, increase economic returns, media company share price; what a newspaper says makes a difference						N/A	Both	Conflict
<b>Oil &amp; Gas Majors</b>	Seen as acting responsibly with no repeat of Brent Spar; Project Controls and Procedures successfully negotiated and 'no surprises' from any of the elements of TECOP. Economic – share price not adversely affected by activity. Minimise cost.							N/A	Both
<b>OSPAR</b>	Requirements of OSPAR Decision 98/3 satisfied								N/A

*Table A5.1 – Stakeholder Success Criteria: Potential Conflicts or Compatibilities*

**Note:** **Both** - Potential conflict & compatibility; **Neutral** - Potentially no conflict or compatibility



**A6 DETAIL OF POTENTIAL STAKEHOLDER CONFLICTS OR COMPATIBILITIES**

Stakeholder	Success / Failure Criteria	BERR	Co-Ventures	ENGOS	Government Politicians, Europe & UK	Independent Review Bodies (IRG, SRG)	Media
<b>BERR</b>	Transparent comparative assessment process results in impartial and efficient Decommissioning Programme that complies with legal requirements and which would satisfy the requirements of the BERR Guidelines (2006) and the OSPAR decision 98/3	N/A	<b>Potential conflict:</b> Refer Oil & Gas Major	<b>Potential conflict:</b> Environmental posturing or negotiations may overshadow decommissioning intentions	<b>Potential conflict:</b> Political posturing or negotiations may overshadow decommissioning intentions	<b>Compatible</b>	<b>Potential conflict:</b> Media engage with ENGOS and exploit gaps in PR campaigns and decommissioning intentions making it awkward for BERR
			<b>Potential compatibility:</b> Refer Oil & Gas Major	<b>Potential compatibility:</b> Transparency of decision-making process, adherence to legal obligations	<b>Potential compatibility:</b> Transparency of decision-making process, adherence to legal obligations	<b>Compatible</b>	<b>Potential compatibility:</b> Media generally support BERR or remain in background (I.e. become neutral)
<b>Co-Ventures</b>	As per Company Shareholders; (may choose to) remains in background while decommissioning issues are addressed		N/A	<b>Potential conflict:</b> Environmental posturing or negotiations may overshadow decommissioning intentions. Exploitation of gaps in any media campaign	<b>Potential conflict:</b> Political posturing or negotiations may overshadow decommissioning intentions. Exploitation of gaps in any media campaign	<b>Potential conflict:</b> IRG may not agree with, or may wish to ignore Co-Ventures' opinion	<b>Potential conflict:</b> Posturing of media may overshadow decommissioning intentions. Exploitation of gaps in any media campaign. Media may wish to exploit potential gaps or incompatibilities between Brand advertising campaigns and decommissioning process
				<b>Potential compatibility:</b> Co-ventures & company seen to be taking CSR seriously	<b>Potential compatibility:</b> Co-ventures seen to be taking CSR seriously; Company leading by example	<b>Potential compatibility:</b> Co-Venture remains in background resulting in no conflict	<b>Potential compatibility:</b> Company seen to be taking CSR seriously

*Table A6.1 - Potential Stakeholder Conflicts or Compatibilities(Pt 1 of 3)*

Stakeholder	Success / Failure Criteria	BERR	Co-Ventures	ENGOS	Government Politicians, Europe & UK	Independent Review Bodies (IRG, SRG)	Media
ENGOS	Two pronged. Oil & Gas Company seen as acting responsibly with no repeat of Brent Spar. Ability to generate additional funds via adverse Oil & Gas media exposure			N/A	<b>Potential conflict:</b> Political or environmental posturing or negotiations may overshadow decommissioning intentions. Conflicting media campaigns	<b>Potential conflict:</b> Advice offered by IRG is contrary to posture taken by ENGO (for whatever reason)	<b>Potential conflict:</b> Media non-supportive of ENGOs stance
					<b>Potential compatibility:</b> Company seen to be taking CSR seriously; Company leading by example	<b>Potential compatibility:</b> IRG & ENGOS are in agreement over advice offered to Company	<b>Potential compatibility:</b> Media supports ENGOs argument; ENGO media campaign is a publishers dream
Government Politicians, Europe & UK	Quality of democracy & government; image untarnished. May use decommissioning as lever for negotiation; re-election				N/A	<b>Potential conflict:</b> Political posturing or negotiations may overshadow recommendations from IRG; political manoeuvring incompatible with IRG recommendations	<b>Potential conflict:</b> Media non-supportive of current government or politicians involved; find argument with government/political stance
						<b>Potential compatibility:</b> Government politicians fully supportive of IRG recommendations; IRG recommendations unaffected by political environment	<b>Potential compatibility:</b> Politicians have good relations with media; media supportive of government / political stance
Independent Review Bodies (IRG, SRG)	Gaining of prestige from being seen to have successfully address stakeholder concerns as well as acting impartially					N/A	<b>Potential conflict:</b> Media misrepresents IRG view or argument  <b>Potential compatibility:</b> Media supports IRG stance
Media	Company seen as acting responsibly; PR disaster, increase economic returns, media company share price						N/A

*Table A6.2 - Potential Stakeholder Conflicts or Compatibilities (Pt 2 of 3)*

Stakeholder	Success / Failure Criteria	Oil & Gas Majors	OSPAR
<b>BERR</b>	Transparent comparative assessment process results in impartial and efficient Decommissioning Programme that complies with legal requirements and which would satisfy the requirements of the BERR Guidelines (2006) and the OSPAR Decision 98/3	<b>Potential conflict:</b> BERR disagrees with approach adopted by Company, the findings of the investigations of the Decommissioning Programme	<b>Potential conflict:</b> OSPAR & BERR at odds over Decommissioning Programme and proposals therein
		<b>Potential compatibility:</b> BERR supports Companies' approach towards decommissioning process	<b>Potential compatibility:</b> Assumes BERR & OSPAR aligned on proposals offered in Decommissioning Programme and with the process used to get there.
<b>Co-Ventures</b>	As per Company Shareholders, (may choose to) remain in background while decommissioning issues are addressed	<b>Potential conflict:</b> Lack of trust or cooperation between co-ventures and company. Different views on acceptable short and long-term liability. Co-Ventures seen to be unresponsive	<i>Limited interaction between Companies and OSPAR. On basis that BERR acts as sales representative for Decommissioning Programme on behalf of Companies</i>
		<b>Potential compatibility:</b> Agreement reached on differences (agree to disagree), cooperation between parties involved	
<b>ENGOS ENGOS</b>	Two pronged. Oil & Gas Company seen as acting responsibly with no repeat of Brent Spar. Ability to generate additional funds via adverse Oil & Gas media exposure	<b>Potential conflict:</b> Conflicting messages. Advertising campaigns may be at odds with intentions with regard to decommissioning; I.e. Brand messaging - Problem solving & persistency, Shell's Brand Ad: "Difficult, yes - Impossible, no!" Leader's speeches may be at odds with decommissioning intentions	<b>Potential conflict:</b> OSPAR at odds with political posturing of ENGOS
		<b>Potential compatibility:</b> Agree with ENGOS that Companies need to be acting responsibly	<b>Potential compatibility:</b> Agree with ENGOS that Companies need to be acting responsibly
<b>Government Politicians, Europe &amp; UK</b>	Quality of democracy & government; image untarnished. May use decommissioning as lever for negotiation; re-election	<b>Potential conflict:</b> Political posturing or negotiations may overshadow decommissioning intentions. Messages (environmental, technology development, annual profits) from various media campaigns may complicate political negotiations	<b>Potential conflict:</b> Political posturing or negotiations may overshadow OSPAR decommissioning requirements
		<b>Potential compatibility:</b> Political posturing or negotiations may be compatible with decommissioning intentions.	
<b>Independent Review Bodies (IRG, SRG)</b>	Gaining of prestige from being seen to have successfully address stakeholder concerns as well as acting impartially.	<b>Potential conflict:</b> Companies approach towards decommissioning process is incompatible with recommendations of IRG	<b>Potential conflict:</b> Scientific argument at odds with OSPAR Decision 98/3
		<b>Potential compatibility:</b> Companies approach towards decommissioning process is compatible with recommendations of IRG	<b>Potential compatibility:</b> Scientific argument concurs with OSPAR Decision 98/3
<b>Media</b>	Company seen as acting responsibly; PR disaster, increase economic returns, <b>media</b> company share price	<b>Potential compatibility:</b> Company seen to be taking CSR seriously	<b>Potential conflict:</b> Messages (environmental, technology development, annual profits) from various media campaigns may complicate potential OSPAR negotiations
<b>Oil &amp; Gas Majors</b>	Seen as acting responsibly with no repeat of Brent Spar; Project Controls and Procedures successfully negotiated and 'no surprises' from any of the elements of TECOP. Economic – share price not adversely affected by activity. Minimise cost.	N/A	<i>Limited direct interaction between Companies and OSPAR on basis that BERR acts as sales representative for Decommissioning Programme on behalf of Companies</i>

*Table A6.3 - Potential Stakeholder Conflicts or Compatibilities (Pt 3 of 3)*

## A7 STAKEHOLDERS AND THEIR POTENTIAL INFLUENCING STRATEGIES

Type of Influence Strategy	Description	BERR	Co-Ventures	ENGOS	Government Politicians, Europe & UK	Independent Review Bodies (IRG, SRG)	Media	Oil & Gas Majors	OSPAR
Damage	Defamation, demonstration events, legal challenge, litigation, petitions, reputation, sabotage, and vendettas	No	Unlikely	Yes	No	Unlikely	No	No	No
Direct strategy (Frooman)	Stakeholders take it upon themselves to implement withholding or usage strategies.	Yes	Yes	Yes	Yes	No	No	No	No
Escalation	This is the phenomenon of something getting more intense step by step, for example a dispute or quarrel	Unlikely	Unlikely	Yes	Unlikely	Unlikely	Possibly	No	No
Indirect action (Frooman)	Indirect influence strategies would be adopted indirectly through other agents, when dependence of the organisation on stakeholder resources is low	Unlikely	Unlikely	Yes	Yes	Possibly	No	Possibly	Possibly
Interoffice Memos or email	A written or printed communication directed to a person within an organization	Yes	Yes	Yes	Yes	Yes	No	Yes	Unlikely
Letter writing	A written or printed communication directed to a person or organization	Yes	Yes	Yes	Yes	Yes	No	Yes	Possibly
Lobbying	Includes all attempts to influence legislators and officials, whether by other legislators, constituents or organized groups. Governments often define and regulate organized group lobbying	No	Unlikely	Yes	Unlikely	Possibly	Yes	Yes	No
Research	Defined as human activity based on intellectual application in the investigation of matter. The primary aim for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe	Yes	Yes	Unlikely	No	No	No	Yes	Possibly

*Table A7.1 – Stakeholders and their potential influencing strategies (Pt 1 of 2)*

Type of Influence Strategy	Description	BERR	Co-Ventures	ENGOS	Government Politicians, Europe & UK	Independent Review Bodies (IRG, SRG)	Media	Oil & Gas Majors	OSPAR
Usage strategy (Frooman)	Stakeholder continues to provide resource but with strings attached. These include shareholder and proxy resolutions, strategic alliances, and constructive dialogue	Possibly	Yes	No	Yes	Possibly	No	Yes	No
Voice	Aiming to inform, educate, or persuade indirectly or directly	Yes	Yes	Yes	Possibly	Yes	No	Yes	Possibly
Web-blog	A web-blog is usually maintained by an individual, with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse chronological order	No	No	Yes	Unlikely	Possibly	Yes	Possibly	No
Website	A collection of web pages, images, videos or other digital assets that is hosted on one or more web servers, usually accessible via the Internet, and used to inform.	Yes	Yes	Yes	Yes	Possibly	Yes	Yes	Yes
Withholding strategy (Frooman)	Stakeholder discontinues providing a resource to a company with the intention of making it change certain behaviour. Such actions include consumer boycotts, labour strikes and other forms of labour actions such as sabotage and 'work to rule', screening, and exclusion by investors and non-renewal of loans by finance providers	Yes	Yes	Yes	Yes	No	No	No	No

*Table A7.2 - Stakeholders and their potential influencing strategies (Pt 2 of 2)*

## A8 INTERVIEWEES – INTRODUCTORY EMAIL

Subject: Query: MBA Research into Stakeholder Management - Seeking Your Participation

“Decommissioning in the Oil and Gas Industry in the North Sea: Can Stakeholder Management Theory and Game Theory help in developing a strategy for dealing with stakeholders?”

Dear participant

I am in the final stages of a Master of Business Administration at the University of Strathclyde, and I also work as an independent consultant in the oil and gas decommissioning industry, currently seconded by my company to the Brent Decommissioning project in a field unrelated to stakeholder management. The following information is provided for you to decide whether you would wish to participate in the present study. You should be aware that of course you are free to decide not to participate or to withdraw at any time without prejudicing your relationship with the researcher.

The purpose of this study is to try and understand whether stakeholder management and Game Theory could help in developing a strategy for dealing with stakeholders in perhaps the more contentious issues associated with decommissioning oil and gas facilities in the North Sea. The procedure involves carrying out a literature survey, the development of a conceptual model and interviews to determine whether such an approach could be adopted by organisations within industry.

It is intended that data be collected via transcripts of recorded interviews (via an mp3 voice recorder) with participants, and I will personally conduct the interviews. I would hope to be in a position to conduct the interviews over the next two to three weeks.

There are no known risks or discomforts associated with this study. The expected benefits associated with your participation are that the quality of the research would be enhanced by inclusion of your knowledge and perceptions of the potential measures of success criteria for different stakeholders, identification of areas of potential collaboration and conflict between key stakeholders in a decommissioning environment, and an opportunity to gain an understanding of whether such an approach would be viewed sympathetically by organisations within the oil and gas industry.

Please do not hesitate to answer any questions about the study either before participating or during the time that you are participating. I would be happy to share my findings with you after the research has been completed. However, your name will not be associated with any of the research findings in any way, and only the researcher will know your identity as a participant.

Please could you acknowledge your consent with full knowledge of the nature and purpose of the procedure via email to [simonaxon@btconnect.com](mailto:simonaxon@btconnect.com).

Simon Axon

## A9 INTERVIEWEES – OPEN QUESTIONS

Subject: Query: MBA Research into Stakeholder Management - Participation Questionnaire

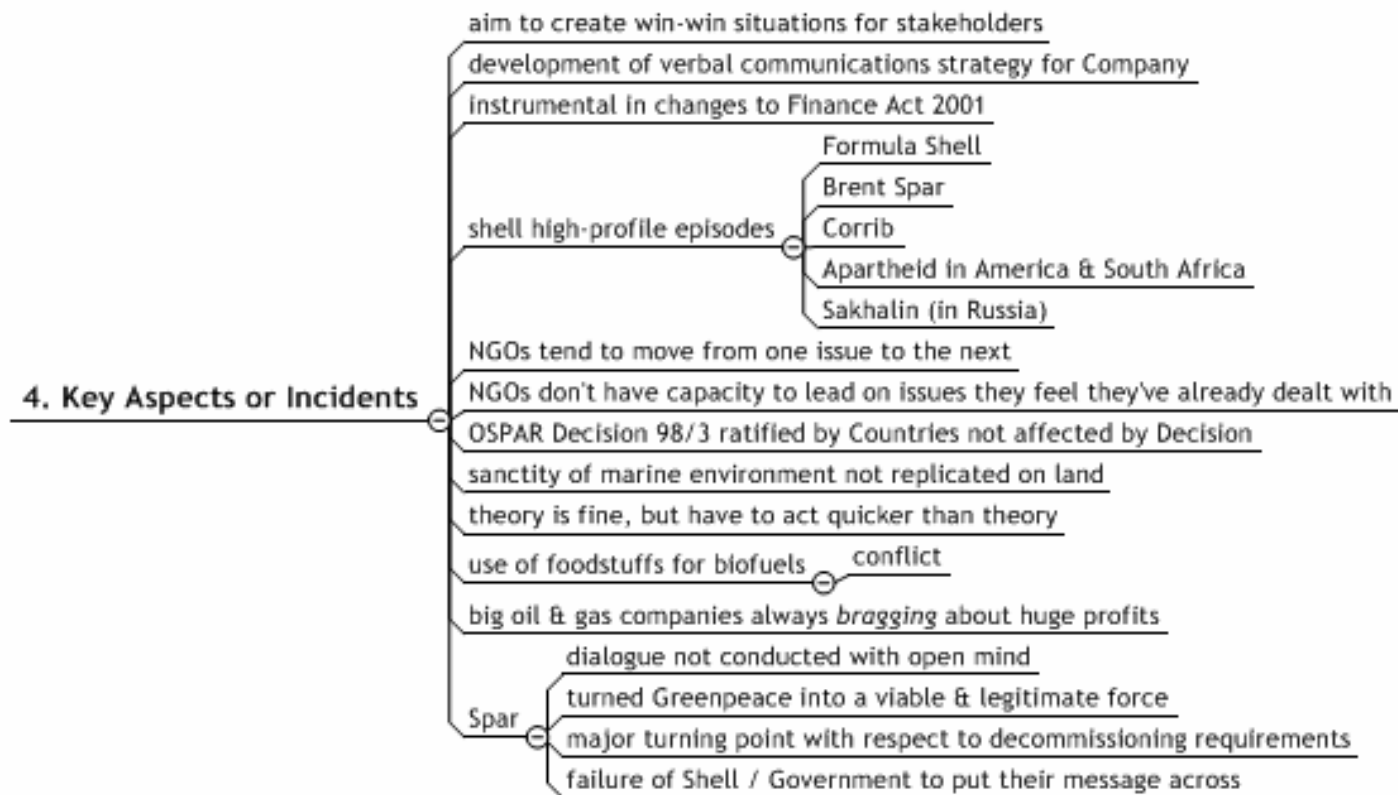
In pursuit of the aims and objectives of this investigation, the following mainly open-ended questions are considered appropriate in an oil and gas-decommissioning environment:

- Please explain a bit about your yourself and your background
- Please outline your involvement and interest in the stakeholder environment, particularly any interest you may have in the North Sea oil & gas industry
- What contributed to your involvement; i.e. how did you get involved?
- As you look back on your experiences, when dealing with key (interested and influential) stakeholders; are there any aspects or incidents that dominate your thoughts more than others?
- In your experience how do organisations try and find out about the activities of others, especially oil & gas companies, activists and ENGOs?
- Considering some of the various key stakeholders in an oil and gas decommissioning context, what do you think might constitute their success or failure criteria?
- What do you think might be the more major sources of conflict between the various key stakeholders (in an oil and gas decommissioning environment)?
- What types of alliances do you think might be formed between the various key stakeholders?
- In your experience, how do organisations manage key stakeholders? (e.g. use of power/interest matrix, conflict management, formation of alliances, lobbying)
- What types of influencing strategies do you think the key stakeholders might wish to deploy?
- In your experience, which are the most effective?
- Given the benefit of your experience, how would you attempt to manage stakeholders whose views are in conflict with your own organisation?
- What would you think would be important in developing a framework and methodology for managing key stakeholders?
- Is there anything else you think I should know to understand managing stakeholders better?
- Is there anything you would like to ask me?



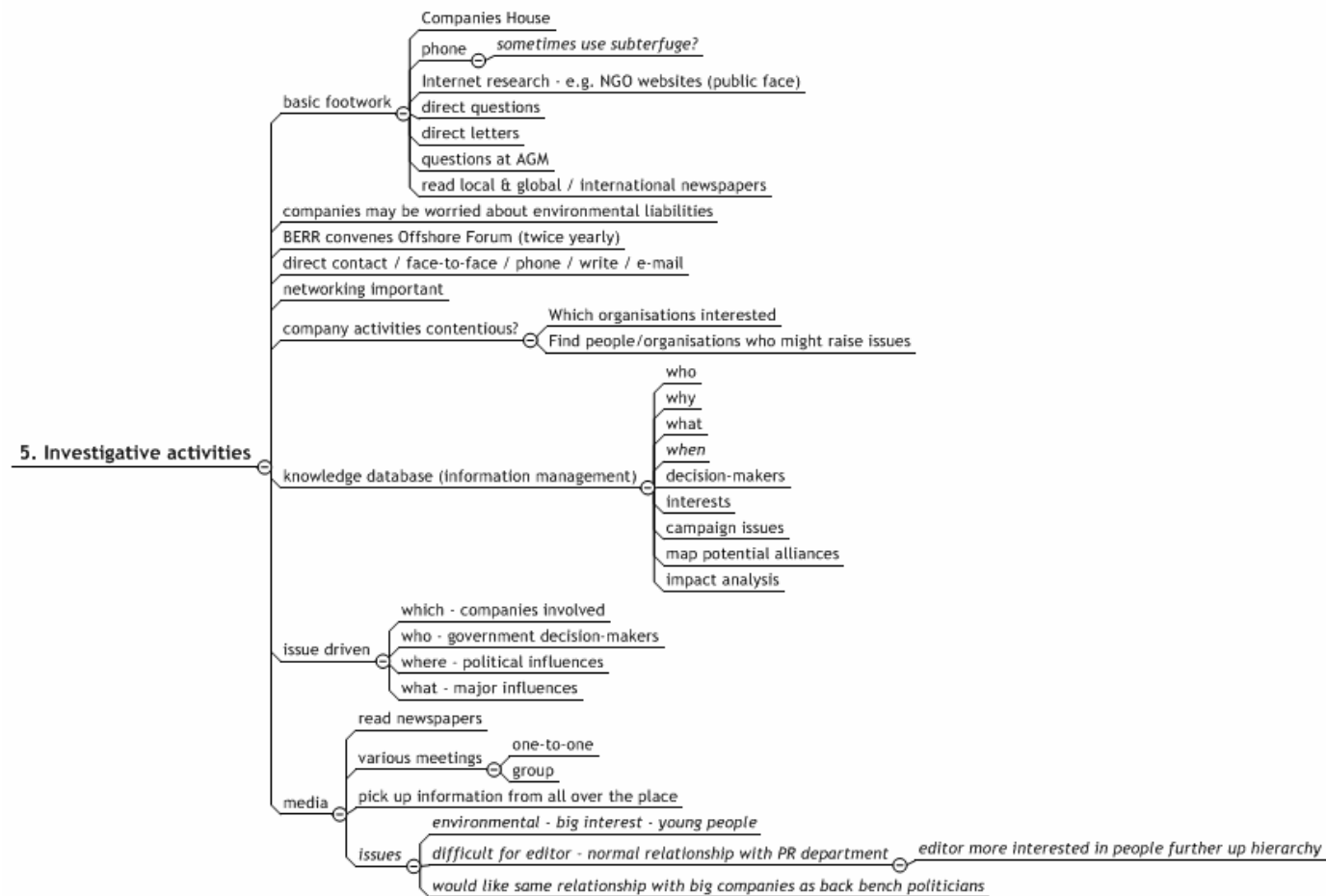
## A10 SUMMARY OF INTERVIEWS – MINDMAPS

### A10.1 KEY ASPECTS OR INCIDENTS



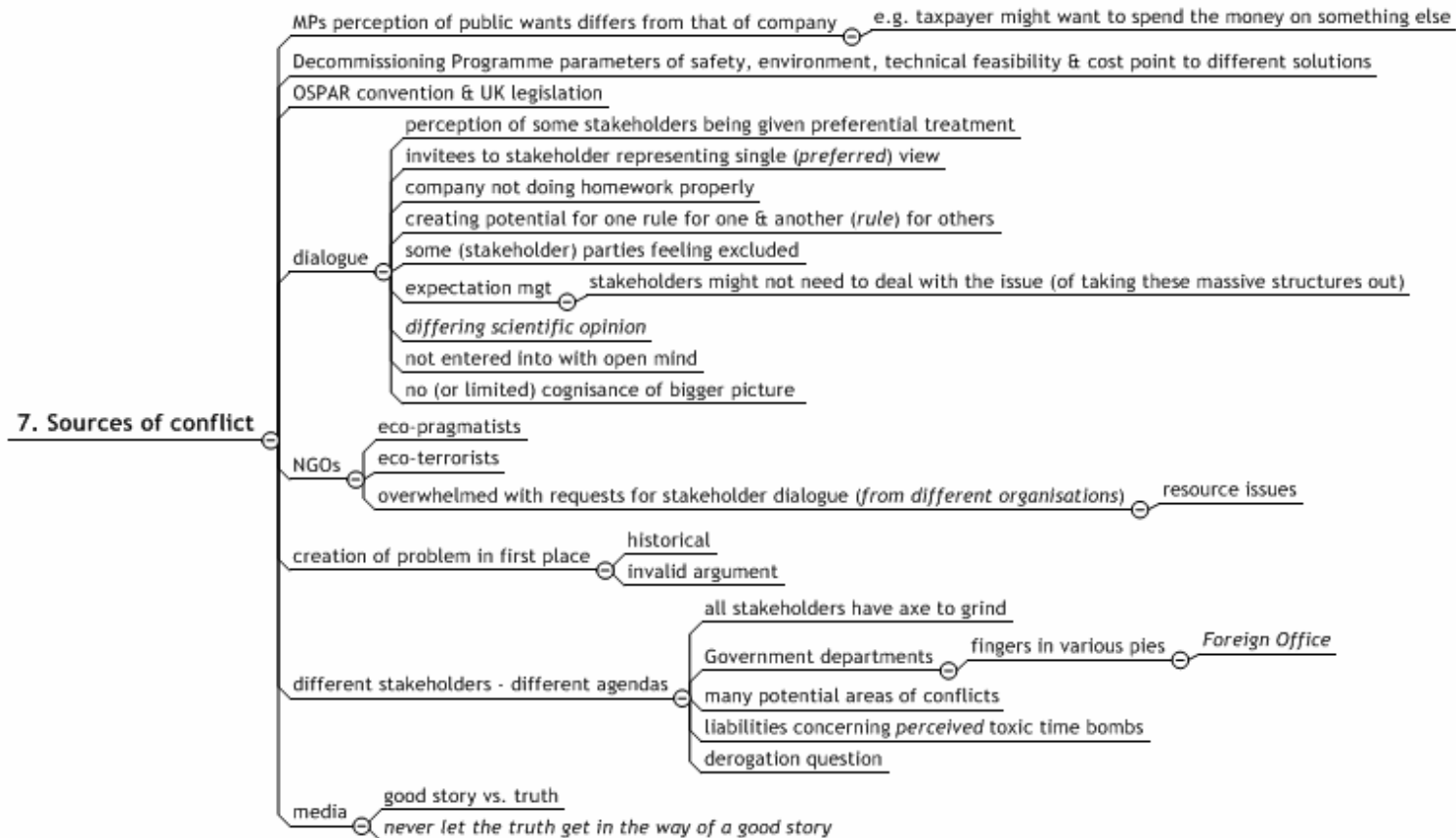
*Figure A10.1 – Key aspects or incidents*

## A10.2 INVESTIGATIVE ACTIVITIES



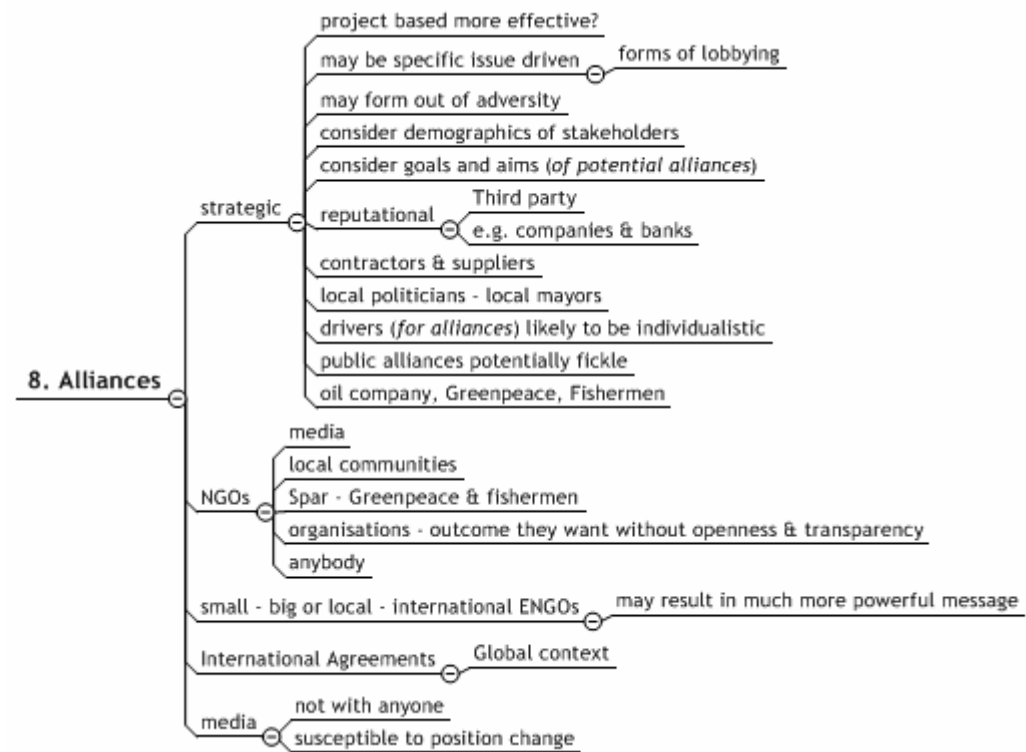
*Figure A10.2 – Investigative activities*

### A10.3 SOURCES OF SUCCESS OR FAILURE



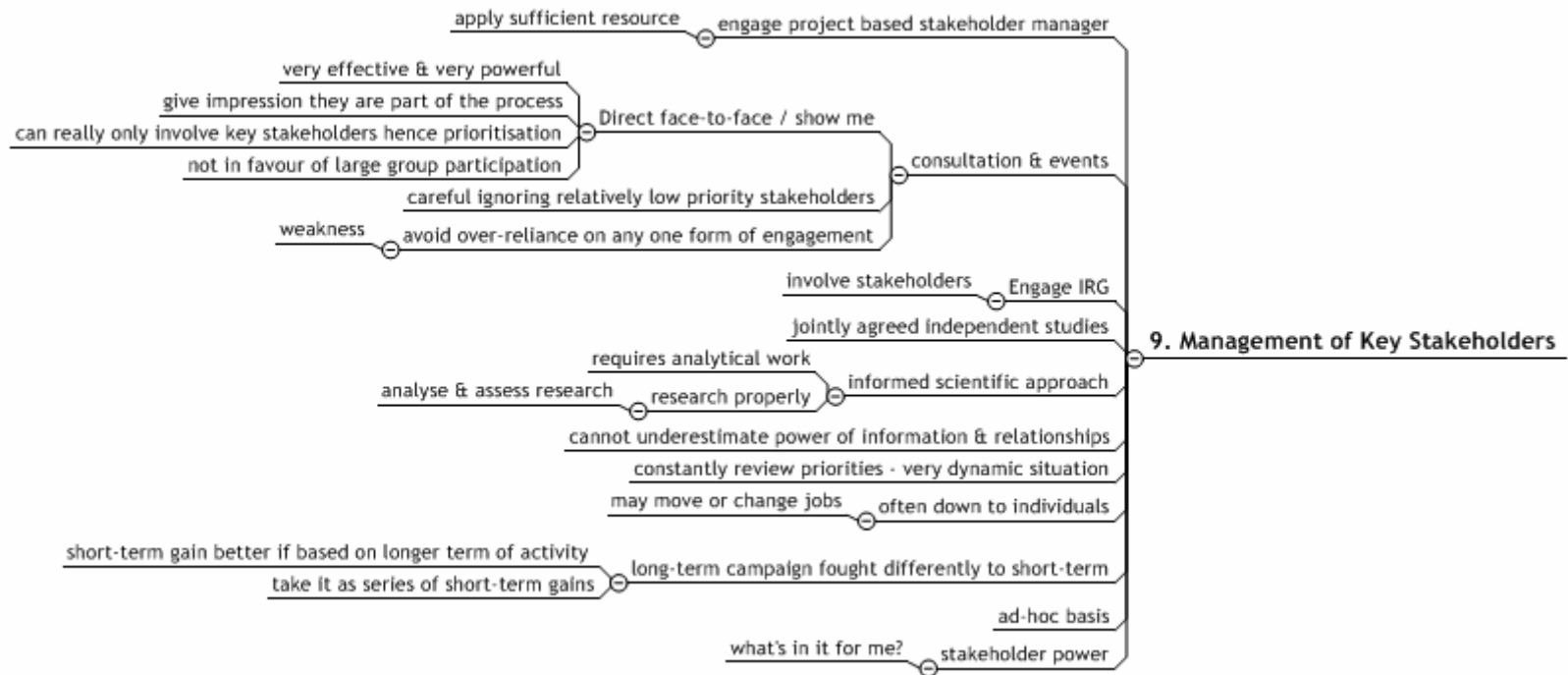
*Figure A10.3 - Potential sources of success or failure*

#### A10.4 POTENTIAL ALLIANCES BETWEEN STAKEHOLDERS



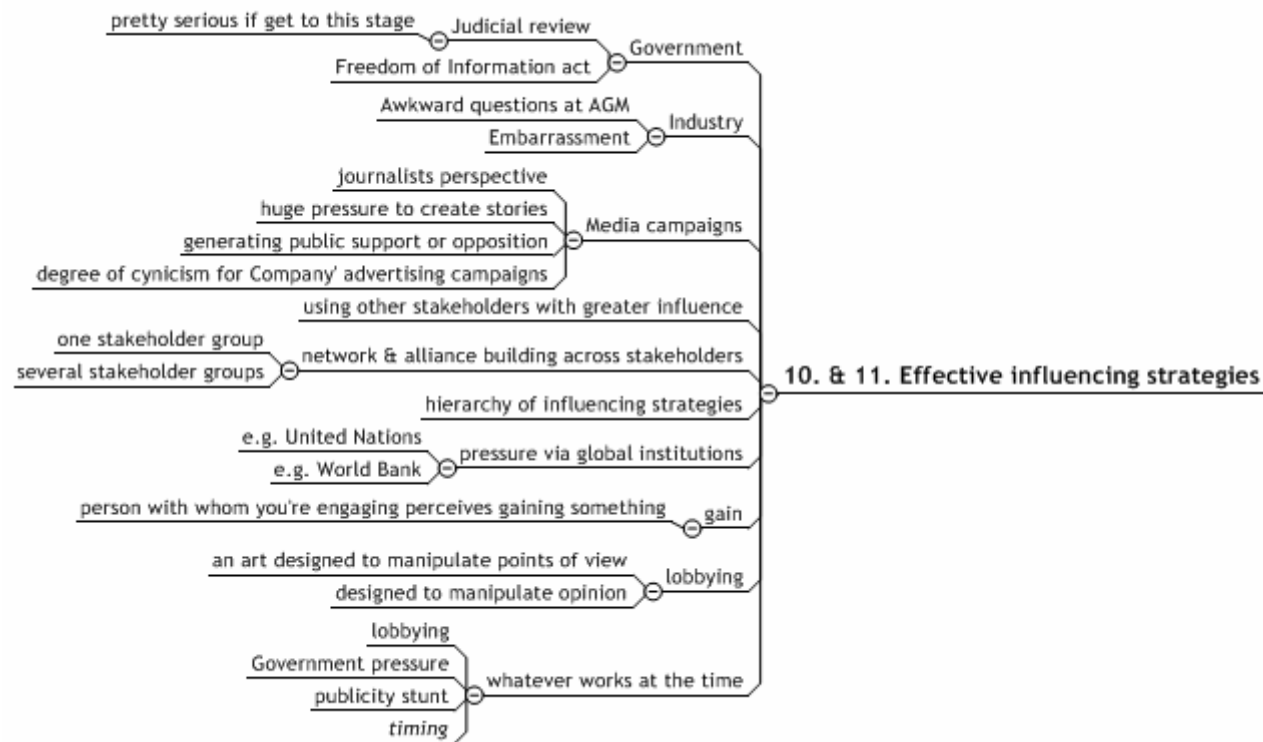
*Figure A10.4 – Potential alliances between stakeholders*

## A10.5 MANAGEMENT OF KEY STAKEHOLDERS



*Figure A10.5 – Management of key stakeholders*

## A10.6 EFFECTIVE INFLUENCING STRATEGIES



*Figure A10.6 – Perceived effective influencing strategies*

## A10.7 MANAGING CONFLICT

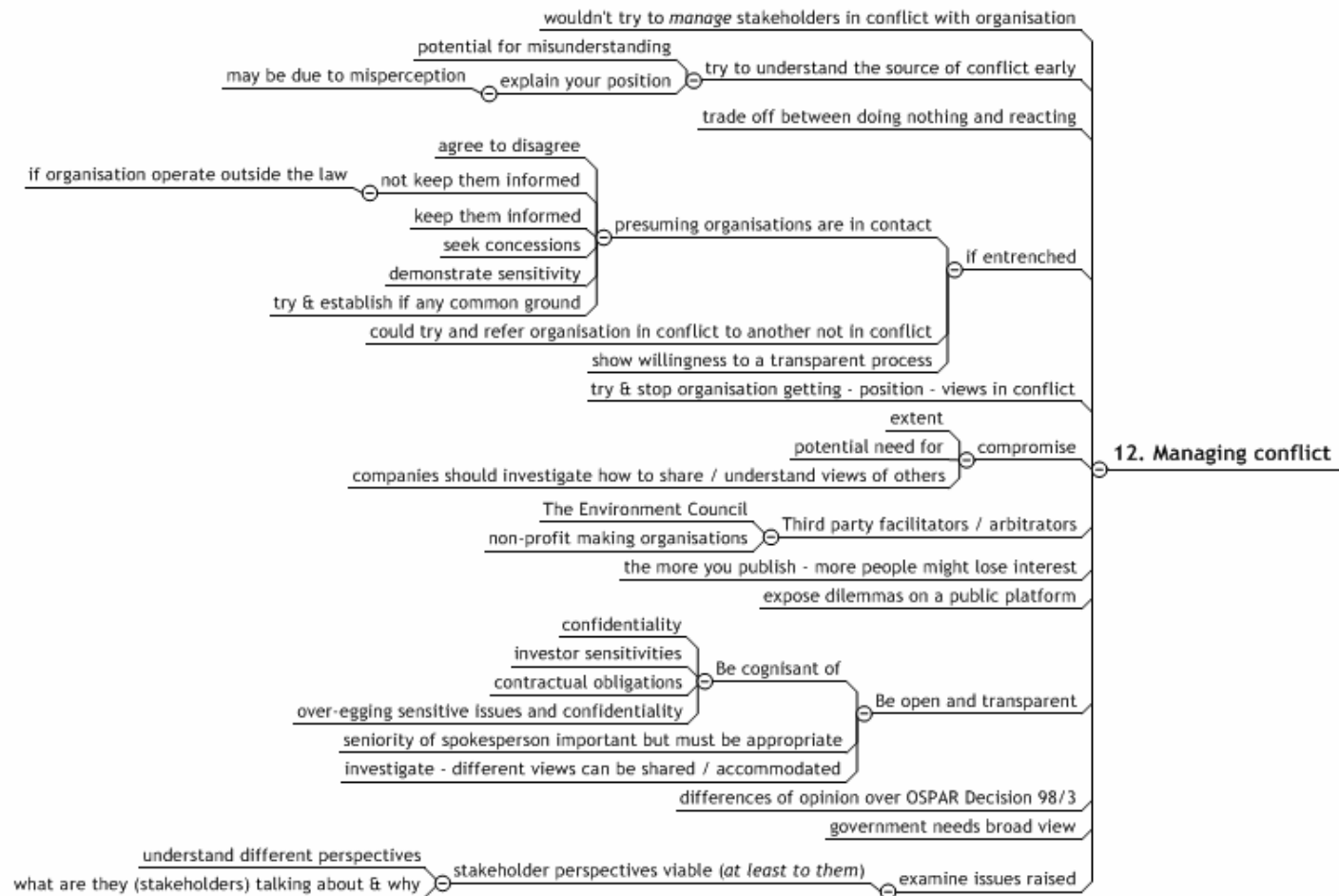


Figure A10.7 – Managing conflict

## A10.8 DEVELOPING A STRATEGY / FRAMEWORK



Figure A10.8 – Developing a framework / strategy