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**Input by Business into Business-Environment Policy
Formulation in Wales: a Case Study**

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Submitted to Swansea University in fulfilment of the requirements for the Degree
of Doctor of Philosophy

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SUMMARY

This thesis investigates the case of the Expert Panel on Resources Management for Wales (EPRM). The research problem addressed is whether the EPRM process was a novel, repeatable and effective method for business to inform public policy, specifically in the area of business-environment policy making. The aim of the research was to create a case study that included: observations of the EPRM process and its wider context; a comparison of the process with that used traditionally; and an assessment of the effectiveness of the process and its outcomes.

A review of the literature suggests that the incidences of research and political theory being proactively and practically applied to policy making by those who are political or social science practitioners are few. Much of the research in this field occurs independent of policy operation, and is often observational and critical in its nature, creating an opportunity for novel study and practical input to the policy making process.

Using participant observation, documentary evidence, survey methods and interviews, the case study presented here provides an insight into the workings of the EPRM in the context of business-environment policy making in post-devolution Wales. It shows that in practice the Panel's work was novel and, although suffering from some limitations, it could be suitable for use in other policy areas and by other non-autonomous devolved governments. The thesis concludes that the EPRM process resulted in viable, sensible public policy recommendations that were the product of a valid evidence base and credible public participation, and that it was a fit for purpose, effective and innovative method for developing policy ideas.

DECLARATIONS AND STATEMENTS

Declaration

This work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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Statement 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly marked in the footnote(s). Other sources are acknowledged with explicit references. A full reference list is appended.

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ACKNOWLEDGEMENTS

Flatter me and I may not believe you. Criticise me and I may not like you. Ignore me and I may not forgive you. Encourage me and I may not forget you.

William Arthur Ward

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GLOSSARY OF COMMONLY USED ABBREVIATIONS

AM	Assembly Member
ASPB	Assembly Sponsored Public Body
BEAP	Business and Environment Action Plan
CBI	Confederation of Business and Industry
DE&T	Department for Economy and Transport
DEIN	Department for Enterprise, Innovation and Networks
EGS	Environmental Goods and Services
ELWa	Education and Learning Wales
EPRM	Expert Panel on Resources Management for Wales
EU	European Union
Fig.	Referring to a figure in the text
FSB	Federation of Small Business
G8	The Group of 8, forum of northern hemisphere governments
GDP	Gross Domestic Product
IPCC	Intergovernmental Panel on Climate Change
MP	Member of Parliament
NAfW	National Assembly for Wales
NCSL	National Conference on State Legislature
SD	Sustainable Development
SPMT	Strategic Policy Making Team
The Assembly	Welsh Assembly Government
The Panel	Expert Panel on Resources Management for Wales
UK	United Kingdom
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
WAG	Welsh Assembly Government
WBCSD	World Business Council for Sustainable Development
WDA	Welsh Development Agency

CHAPTER 1. INTRODUCTION

1.1 Context

The Welsh Assembly Government (WAG), a devolved government of the United Kingdom, was formed in 1998 as a result of the Government of Wales Act, which transferred an array of powers and responsibilities, away from the central UK Government in London, to Wales. Section 121 of this Act confers upon Wales a duty towards Sustainable Development. As a result of this duty, it is the role of the Assembly to put together a Scheme and an associated Sustainable Development Action Plan for all areas of its work.

In the early stages of the Welsh Sustainable Development Scheme, the Economic Development Plan for Wales was identified as requiring an action plan to:

‘Clearly define the business and environment agenda and to shape the delivery and support infrastructure that will assist companies in Wales commit in ever-increasing numbers to implementing that agenda,’ (Welsh Assembly Government 2003, p.1).

That action plan was created and entitled the Business and Environment Action Plan 2003-2006 (BEAP) (Welsh Assembly Government, 2003). It specifically addressed the issues of resource efficiency and resource management. However, by the Assembly’s own admission the BEAP only set out briefly what businesses could do, with the support of the Welsh Assembly Government, to improve their environmental credentials (Welsh Assembly Government, 2004a). In fact, the plan was never distributed widely to businesses, but was used as a tool to improve the levels and focus of support provided to business in the area of environmental performance.

Ultimately the BEAP was created as a tool to bring together and coordinate under one plan many of the actions that were already intended or ongoing by the public sector. Acknowledging the potential breadth of the agenda, the plan also focussed on ‘resource efficiency’ with the aim of making this the first phase of a chain of policy driven improvements leading to the sustainable development of the economy in Wales. In this context, resource efficiency was defined as the efficient

use of materials and energy throughout the product or process lifecycle while resources management was defined as the methods used to obtain that efficiency.

A shortfall in novel approaches or input from the business community was recognised early on by the plan's public sector authors, and resulted in an action within the BEAP to:

'Establish, with strong business representation, an expert panel on resources management,' (Welsh Assembly Government 2003, p.4).

The Expert Panel on Resources Management for Wales (EPRM) was put together in 2004. It sought to help develop the next phase of the Business and Environment Action Plan (from 2007 onwards) as well as to evaluate the performance of the first phase. This aim was further strengthened by the Assembly in its second Sustainable Development Action Plan (Welsh Assembly Government, 2004a).

The National Assembly for Wales, being a relatively new organisation in its own right, was perceived as requiring a level of distinctiveness from centralised UK Government in order to justify the devolution process, and the inherent costs and effort that were involved in the move away from centralised government. From the first Assembly in 1999, increased public participation in policy making, initially through a programme of equal representation by members of the public sector, private and voluntary or community sector, was considered to be one of these areas of distinctiveness (Royles, 2006). While the input by the social community sector soon became routine, the input by the private sector (businesses) was often ad hoc, through large business representative organisations or senior executives with specific, often economic, interests in one or other area of policy. The Expert Panel on Resources Management, brought together to discuss and recommend changes to Welsh business-environment policy, was considered, in Wales, to be a novel approach to overcome this issue. This approach was intended to make policy making for businesses more reactive to the needs of business and also to increase the direct participation by business practitioners in an area of policy which would affect them in the future. However, this assessment was made on the basis of insight by a few civil servants involved in the process who reacted to a desire by the then Minister for Economic Development that policy making for businesses should

more accurately respond to the needs of businesses in Wales. As with any such novel method based on little more than insight or personal experience, a credible level of assessment of the method in practice and its subsequent delivery would be needed to defend the outputs against political detractors and give the Panel a level of robustness under scrutiny.

1.2 Aims

A review of the literature suggests that the incidences of research and political theory being proactively and practically applied to policy making by those who are political or social science practitioners are few. It appears that much relevant research occurs independently of policy operation, and is often observational and critical in its nature. This creates an opportunity for novel study and practical input to the policy making process.

At the time of the creation of the Expert Panel on Resources Management, there was little formal academic policy research relating to the Welsh Assembly Government, as it was a relatively young and under-resourced organisation. The Welsh Assembly Government did not have the resources or internal expertise for policy research and analysis by policy officials within the organisation other than the, sometimes rudimentary, analyses required for compliance and practical improvement.

Although the original inception of the Expert Panel on Resources Management was a result of knowledge of models used successfully elsewhere for focus groups or citizen juries, there was little robust or formal design to the process by the civil servants who initiated it. The Panel was formed and given flexible terms of reference; only the required outputs were prescribed, and no specific evaluation criteria were identified other than 'successful input to policy making'.

The process was due to last for three years. During years two and three researchers were recruited into the process and the author of this thesis given the opportunity to undertake participant observation as a basis for practical policy research and evaluation of this apparently novel process. These findings could then

be used to inform the Welsh Assembly Government, and other similar devolved governments, as to whether the model of the Expert Panel on Resources Management could be used to practically and successfully integrate participation by business (or other difficult to involve groups) and to inform policy making. Being the first expert panel of its type in Wales, a study of the case was considered to be an original contribution to knowledge, and further research into literature suggested that this study was novel not only for the UK, but also on an international basis.

This thesis comprises the only case study and empirical evaluation of the Expert Panel on Resources Management between 2005 and 2007 and uses data gathered through qualitative ethnographic research, documentary evidence and interviews to determine the effectiveness and suitability of Panel itself and the methodologies used during the Panel's period of work. Such case studies are rare in public policy making by devolved but non-autonomous authorities.

1.2.1 Research problem

The research problem addressed is whether the EPRM process was a novel, repeatable and effective method for business to inform public policy, specifically in the area of business-environment policy making. Through literature review and evaluation, this thesis aims to determine whether the method was in itself as novel as it was first considered by its sponsors in the Welsh Assembly Government, whether it could be improved and perhaps repeated in other areas and, further, if it resulted in viable, sensible public policy recommendations that were the product of:

- a) A valid evidence base, and
- b) Credible public participation.

These are the criteria by which the effectiveness of modern policy making is measured in the UK.

Having identified the outcomes required from research, the following research aims were identified and studies were undertaken over the remaining two years of the Panel's work to create a case study that included:

- The outcomes of facilitation of the EPRM process;
- Observations of the EPRM process in a wider context;
- Comparison of the process with that used traditionally; and
- Assessment of the effectiveness of the process and its outcomes to date.

1.3 Running order of the thesis

Chapter 2 presents resource efficiency by businesses in the context of international and national drivers such as climate change, sustainable development and population growth. The chapter describes how business and government decision makers have responded to these drivers both nationally and internationally, finally focusing on the situation in Wales.

Chapter 3 discusses aspects of the literature on policy making and public participation. It presents some information on evaluation methods and some discussion of the effectiveness of participatory methods in different situations.

Chapter 4 discusses the methodology. It outlines the research scope and methods used in assessing the EPRM's work according to the research questions already mentioned above.

Chapter 5 comprises the process and outputs of the EPRM over the two years between April 2005 and March 2007.

In Chapter 6 the methods and outputs of the EPRM, the innovation and potential replication of the Panel's work, as well as the suitability of the method in a wider context, are expanded upon and discussed. The expert participative model as a form of innovation is considered here.

Chapter 7 presents the conclusions from the text and puts them into the context of criteria used for evaluating 'evidence based policy making' in the UK. Limitations of

the study and further or ongoing work linked to the EPRM's activities are also discussed.

CHAPTER 2. BACKGROUND

Resource efficiency is an aspect of sustainable development, which is embedded in the constitution of Wales and in the UK as a whole. It has become embodied in government legislation over recent years, since the publication of 'A better quality of life: a strategy for sustainable development for the UK' (UK Government, 1999a). The UK is not alone in choosing to adopt sustainable development in this way (Kelly, 2006). As resource efficiency, and by association sustainable development, is considered to be the main reason for the creation of the Business and Environment Action Plan, and in turn the Expert Panel on Resources Management for Wales, this section identifies the drivers for sustainable development by government and the motivations for businesses to adopt resource efficiency. A particular emphasis on the case in Wales, and on those two policy tools, is examined. The work of the Business and Environment Action Plan and its steering group are explained in more detail as an introduction to the subject under study.

2.1 Climate change as a driver

'Climate Change is the world's greatest environmental challenge.'

This much quoted line was the theme of a speech made by the Prime Minister of the United Kingdom to the Prince of Wales' Business and Environment programme (Blair, 2004). The Prime Minister repeated this sentiment at the G8 Climate Change conference in 2005, the same year that the UK held the Presidency of the European Union, and while doing so stated that advancing the global discussion on climate change would be one of Europe's key priorities (Blair, 2005).

The UK was not a single voice in stating this concern. The consensus view held by governments across the world is that anthropogenic climate change is happening, as evidenced by the UN Framework Convention on Climate Change, or UNFCCC, signed by 154 nations in Rio de Janeiro during 1992 and followed up by the international commitment to the Kyoto Protocol in 1997 (UN, 1998) and its final ratification in 2004.

While not all governments agreed to ratify Kyoto in its original format (the USA being one such notable exception) 189 of the 192 members of the UN did sign the original treaty, and in doing so formally recognised that climate change is a problem (UNFCCC, 2008a; UNFCCC 2008b). This in itself is a great undertaking, reflecting the international importance of the agenda, especially given the significant economic and social changes that are likely to be required in order to respond to the challenge of climate change.

In the context used here, the term climate change is used to describe a cascade of meteorological changes that have occurred, and are expected to occur, as a result of increased releases of chemicals and gases to the atmosphere since the start of the industrial revolution, as a result of human activities.

The majority of scientific research (IPCC, 2007) corroborates the view that the artificially high proportion of certain gases in the atmosphere causes heat from the sun to be trapped near the surface of the earth, and these 'greenhouse' gases are at these increased levels as a result of human activity. Thriving industrial economies and climate change appear to be inextricably linked as the former pollutes the atmosphere and exploits natural resources that might otherwise act as natural buffers to natural dynamic changes in the atmosphere.

2.1.1 Impacts of climate change

The consensus opinion of the scientific community is that this industrial activity has led to increases in atmospheric air temperatures, which are in turn causing global climate change, resulting in unpredictable and violent weather events (IPCC, 2007).

Extrapolation of the scientific data already collected predicts a wide range of other catastrophic effects. The climate models that predict these effects have been increasing in sophistication for twenty years and now show convincing prediction rates. As computer processing power gets greater, more complex models are being created to predict the effects of anthropogenic climate change; Houghton (2004) suggests the following list:

- Global rising of sea level and growth of floodplains;
- Global sea and air temperature rises;
- The death of large tracts of tropical green belt (rainforest etc.);
- Creation of deserts and dustbowls;
- Melting of glaciers, and permafrost, contributing to flooding;
- Loss of the polar ice-caps;
- Loss of biodiversity;
- Unpredictable weather patterns, including 'freak' storms and heat waves;
- Mass extinctions; and
- Wide scale ecosystem breakdown.

2.2 Other environmental threats

Climate change is not the only human-made environmental threat. Even without the catastrophic environmental changes predicted to occur as a result of global warming and climate change, there is still the fact that the growth of the human population has caused irreversible impacts to the environment and even assisted in species extinction since long before the industrial revolution (Lovelock, 2000).

These are termed non climate-related impacts, even though the relationship with climate is not as simplistic as this. Individually they are not considered to have a significant impact on global climate, and most are described as having localised environmental effects, rather than global effects. These impacts include:

- Resource scarcity;
- Pollution to air, water and soils;
- Water poverty;
- Persistent chemicals in the food chain; and
- Dustbowls and desertification.

Since the start of the industrial revolution, and particularly since the advent of mass production and the increase in disposable products after World War II, greater

proportions of natural resources are wasted or irreparably damaged as a result of anthropogenic action. This is a symptom of wealth and strong manufacturing economies: an attitude of nihilism with regards to the value of material items as a result of the ease with which they can be replaced (de Graaf *et al.*, 2001).

Although many of the above threats have worsened since the start of the industrial revolution, they cannot be purely attributed to the growth of industry but rather to the cause of that industrial growth: the growth of the human population. The current estimated world population of six billion people is greater than the sum of all humans that have lived and died prior to the current generation (UN, 2007). In other biological systems, any population as large as the human population would expect to be controlled through predation, disease, or starvation caused by exceeding the carrying capacity of its environment (Begon *et al.*, 1996).

The human capacity for learning and technological development has impeded the effect of these natural control mechanisms – allowing uncontrolled growth and pushing the equilibrium out of balance. Even with these technological advances, the human population is considered by some to be on the brink of overpopulation, i.e. too great to be supported by the resources available (Wackernagel *et al.*, 2002).

Since the 1970s a view has been held that the human population is growing ‘out of control’ (Meadows *et al.*, 1972), leading to ethical and religious argument regarding the rights of human beings over the planet and other species and some controversial programmes, such as the one child policy in China. However, the UN (2007) estimates that population growth will continue, peaking at around 9.2 billion by 2075.

2.3 Motivation for business

To summarise the drivers listed above, a growing human population, that is reaching the maximum of its environment’s carrying capacity and is already suffering the effects of past generations’ negative impact on the environment, must undertake environmental stewardship to protect and ration the use of global resources if future generations are to be able to maintain an adequate quality of life

on this planet. The sum negative economic effect of the impacts of climate change was recently estimated by Stern (2006) as being as great as the sum of the great depression and both world wars and equalling 20% of the world's economy.

The call for action to adapt to, and to mitigate against, environmental damage comes not only from the public sector and environmental groups but also from companies (CBI, 2007). This priority has been adopted not just because of companies' aspirations for 'corporate responsibility' but from the less altruistic viewpoint of cost. Businesses are faced with increasing costs attributed to climate change and compliance with environmental protection legislation. Data from the year 2004 shows a 3:1 ratio of climate to non-climate related insurance claims and expenditure (Houghton, 2005). This has already impacted on the public and business through increased insurance premiums. Policies that do not consider the impact on business can unintentionally cause businesses to fail, or even produce perverse responses that result in greater environmental damage.

Faced with a potentially devastating scenario if some kind of stewardship is not adopted, all areas of society could be motivated to change. The governments of the world do not have the luxury of waiting for a definitive model of climate change prediction to be created in order to determine the single best way of combating climate change and environmental damage; the existing data predicts impacts that are so devastating that action is required immediately (Stern, 2006). Governments, organisations and even individuals are faced with many possible courses of action, and numerous methodologies exist that could be utilised to drive each course.

In the UK, media coverage of the impact of the human population on the environment is steadily increasing and business and the general public are being made aware of trends of unpredictable and extreme climate events on a daily basis (Chestney, 2008; Doyle, 2008; Parsons, 2008). Although there has been a large audience for programmes and articles that show the stark and sometimes sensational stories that illustrate the impacts of climate change, there is less evidence of communicating the science behind it to the wider public. This is understandable. The root causes of climate change already mentioned: carrying capacities, resource scarcity, global warming and environmental pollution, are still

complex scientific and social principles requiring research and specialist knowledge to be adequately understood.

In order to halt and reverse climate change and environmental damage, the agents of change will not be confined to the scientists and specialist advisors, nor will they even be confined to a single country or even a single language. In order to produce a global change, the actors and drivers will have to cooperate in every walk of life, and in every country in the world, regardless of scientific knowledge or understanding.

Democratic governments can only directly force a small change with their own actions. Even in countries like Wales, where an estimated 50% of the working population are employed by the public sector, the greatest impact is often in the hands of private organisations or even individuals (Kooiman, 1993).

2.4 Resources as the keystone to understanding and communicating the message

In Wales, the areas identified as strategic priorities to address mitigation and adaptation of the impacts already mentioned include: energy, waste, water management, pollution, consumerism, land use and planning, agriculture, travel, tourism, resource use, health, biodiversity, flooding, technology and economic development (Welsh Assembly Government, 2006d; Welsh Assembly Government, 2007a). This list is not exhaustive, but it is already too long to expect all individuals to consider all aspects in every day to day decision they make.

To implement change, leaders need some areas on which to focus: a simple principle that a chosen section of society can relate to, through experience or education, and then apply in their daily lives. Of the various principles that have been tried in Wales perhaps the most simple one centres on these four points:

Use less – pay less - damage less – get more

It appears that this principle has been adopted because of its flexibility. It is possible to apply it to many situations within an organisation, as shown below, and also to common human experience.

Example 1. The public sector organisation that uses less paper, as part of a resource efficiency policy to reduce its costs, and in doing so also reduces the amount of waste sent to landfill, further freeing up some of its budget to provide other services (Christchurch City Council, 2002).

Example 2. An organisation that reduced its waste by 16% by re-using clean material that would otherwise have been sent to landfill also reduces the costs of those materials to its overheads (Vision in Print, no date).

Example 3. An individual who installs energy saving light bulbs in their home not only results in lower fuel bills and requires fewer replacement bulbs, but also reduces the carbon emitted to the atmosphere as a result of their actions. By reducing their costs, they are able to spend that money elsewhere – contributing to a better quality of life (Energy Savings Trust, no date).

Taking this flexibility and simplicity into consideration, a better use of resources can be adopted as a driver and identified as a way forward in relation to sustainable development and voluntary action to reduce environmental damage.

2.4.1 Resource efficiency defined

Being such a simple principle, and having been adopted by various organisations throughout the world, many different labels have been used in relation to ‘use less, pay less’. The most popular term used in academic papers, is ‘eco-efficiency’. Eco-efficiency was defined by the World Business Council for Sustainable Development (2006) as the delivery of:

‘Competitively priced goods and services that satisfy human needs and bring quality of life while progressively reducing environmental impacts of goods and resource

intensity throughout the entire life-cycle to a level at least in line with the Earth's estimated carrying capacity.'

Resource efficiency has many definitions. Although none have been widely agreed, the definition used by the National Conference of State Legislatures (2004) is perhaps most succinct. It defines the term as the use of smaller amounts of physical resources to produce the same product or service.

Like the term eco-efficiency, resource efficiency involves reduction of all physical resources and materials in the production and use cycle, not just the energy input. In fact, both definitions and principles are almost identical, but resource efficiency appears to be designed for use by the business community, to whom the connotations of the term 'eco' may not be considered attractive.

2.5 Sustainable Development and the holistic approach

The previous sections identified a motivation for change and a principle to which individuals and organisations can relate. Mitigating and adapting to the problems of global climate change and environmental degradation require a level of behavioural change and awareness-raising that many believe can only be achieved through national and international cooperative action (UNFCCC, 2008a). This international perspective opens up debate and discussion between many stakeholders and potentially many conflicting viewpoints. With any issue this complex it falls to national and international government to set direction for change. In addition, governments must explain the reasons why change is needed, and set a holistic pathway for that change to happen.

Though some organisations and individuals may be inspired and motivated by such leadership, governments also need to put in place legislative and policy measures that can act as further incentives to those organisations or members of the population who, for various reasons, are not inspired to act voluntarily.

2.5.1 Sustainable development

Possibly the most far reaching of the measures taken to halt and reverse environmental and social impacts of economic development has been the coining of the term 'sustainable development' in the Brundtland Report, 'Our Common Future', (World Commission on Environment and Development, 1987). The term was first published as part of a document that aimed to report and expand upon subjects discussed at the United Nations Conference on the Human Environment, otherwise known as the Stockholm Conference. The Stockholm Conference and the report brought together the political issues of development and the environment, with the aim of encouraging these to be considered together. Again, the Brundtland Report recognised that the issues facing the planet were 'interlocking' and could be considered 'elements of a single crisis of the whole'. In doing so, the report reinforced the need for a holistic approach that considered all areas and sectors of society.

Sustainable development is not a legislative or even policy measure, but rather a principle of governance that could be adopted by national governments: to improve the environmental and social as well as economic impacts of their policies and plans, and to consider those impacts not just for this generation but for those that follow. In recent times, policy makers have chosen to deliver sustainable development by balancing social, environmental and economic factors in their work. However since the adoption of the term in its widest context it has become more widely used to describe ideal principles of living that will halt and even reverse environmental damage, without having a negative social or economic impact (Cuello Nieto, 1997).

The adoption of sustainable development has given rise to a swathe of new policies and legislation around the globe, being the subject of various UN and international summits and even being adopted as a legal duty in the constitutions of some countries (UK Government, 1999a; Estonian Ministry of Environment, 2005).

2.5.2 Progress towards achieving sustainable development

Even with this historical foundation, sustainable development has moved relatively slowly since the publication of the Brundtland Report. In part this may be because of the large scale political, physical and expectational change that is required, especially by people in developed nations whose expectations are for a luxurious way of living. In fact, it has been theorised that factors such as television use and exposure to advertising are directly related not only to consumerism and shallow values but also to an unlikeliness to select an 'anti-acquisition' national goal (Harmon, 2006). The adoption of sustainable development has been controversial; various anti-communist or social agenda websites have drawn parallels between the first UN Conference on Human Settlements in 1976 and the 1977 Constitution of the Union of Soviet Socialist Republics and other similar communist agendas (Veon, 1996; Shaw, 2007).

Although progress has been slow, the prevalence of environmental protection legislation, as well as policy measures to deal with adaptation to environmental damage, has led to a gradual cultural shift that has paved the way for the sustainable development movement and its wide-scale adoption at local levels in Europe, both in local government and in the management decisions of organisations.

The adoption of the principles of sustainable development has spread out from the public sector to private organisations. Compliance with sustainable development principles has even become a significant public relations issue for big companies. The expectation of the buying public, in relation to the ethical and environmental standards of the companies that sell to them, is now so high that the lack of adoption of these principles by large companies (such as Shell, Nike, Esso and Nestle) has led to public outcry and consumer boycotts of products. This consumer pressure has been successful enough to force companies to improve their performance and adopt sustainable development principles, often putting in place management and reporting systems at great expense to demonstrate their commitment (Klein *et al.*, 2004).

Other companies have seen environmental protection and sustainable development as an opportunity; where some companies were driven by the fear of litigation and bad image, others were urged on to action by the promise of greater efficiencies, and good image. Japanese companies such as Panasonic and Sony are good examples of this.

2.6 Sustainable development and resource efficiency in Wales

2.6.1 The Welsh sustainable development duty

Wales has a population of 2.9 million and a GDP of £40 billion which, per head, is lower than the UK average and other developed countries. In June 2008, 60,000 of the population were registered unemployed and average household disposable income in Wales was 88% of the UK average (Office for National Statistics, 2008a). In 2006, while 9,800 people moved out of the country, 15,000 people migrated into Wales, 96% of whom were from England (Office for National Statistics, 2006). Statistical analysis by the Welsh Assembly Government estimates that a net population increase of 11% will occur by 2031, and that the population will be made up demographically of 17% children and 24% pensioners (Office for National Statistics, 2008a).

The Welsh economy follows a pattern of 96% of registered companies having less than 5 staff members, while the 1% of registered companies having more than 250 staff account for more than 40% of turnover. The industry breakdown of companies in Wales is diverse; although interestingly £6 billion (or 9% of GDP) and 10% of wages earned in Wales are directly dependent upon the environment either in the rural economy or, increasingly, in the 'environmental goods and services' sector. This sector mostly includes organisations that aim to improve resource efficiency or environmental quality (Office for National Statistics, 2008b).

Wales has recently seen significant changes in its governance as a result of the public referendum which led to the Government of Wales Act 1998 and the creation of the National Assembly for Wales. The Act forms the constitution of

Wales as a devolved authority of the United Kingdom. The Government of Wales Act made Wales one of the first countries with a statutory duty for sustainable development. This duty is to 'create and implement a sustainable development scheme'. This scheme, named 'Starting to Live Differently', has been active in all parts of government since its publication (National Assembly for Wales, 1999) and has been the driving force behind the consideration of sustainable development in decision making throughout the Welsh Assembly Government and, by association, its partners and stakeholders.

In order to fulfil its legal obligations, the scheme requires that the principles of sustainable development be mainstreamed into the way the National Assembly operates. This requires a level of cooperation and integration across all departments, objectives and processes. An associated action plan is published during every term of the National Assembly for Wales. This identifies the key areas where planned improvements in sustainable development practices (or sustainability) by the Welsh Assembly Government will be made over the following three years.

2.6.2 The Business Environment Action Plan

During its first term of office, the Welsh Assembly Government recognised the importance of businesses changing their management practices towards resource efficiency and the potential for positive impacts in relation to economic prosperity and the more sustainable development of Wales as a region. The Minister for Economic Development and Transport had identified the need for an action plan to: 'More clearly define the business and environment agenda and to shape the delivery and support infrastructure that will assist companies in Wales commit in every-increasing numbers to implementing that agenda,' (Welsh Assembly Government 2003, p.1).

In identifying the ways in which businesses could become more resource efficient, the Assembly Government's officers had sought input from a group of organisations, the majority of which were funded through public means (shown in

Table 2.1), which were helping businesses to improve their environmental management and reduce their negative environmental impacts. However, it became evident that the effectiveness of these organisations and the mechanisms through which they assisted business could be improved by defined strategic leadership.

Table 2.1 Organisations in Wales working in the field of resource efficiency prior to publication of the BEAP

Antur Teifi ARENA Network Carbon Trust Cardiff University Business School Cardiff School of Engineering Centre for Research in the Built Environment Clean Technology Group Department of Chemistry Geoenvironmental Research centre Sustainable Business Research Group CELTEC Centre for Alternative Technology Chambers of Commerce Cheshire Chambers Environmental Ltd Countryside Commission for Wales	Cylch Energy Management Agencies Energy Savings Trust Environet Environmental Agency Wales Friends of the Earth Groundwork Hyder Energy Services Keep Wales Tidy National Assembly for Wales ELWa Sustainable Energy Ltd University of Wales Institute Cardiff Wales Environment Trust Welsh Development Agency Welsh Local Government Association (representing all 21 local authorities)
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In 2001 a scoping study for a business and environment strategy for Wales was conducted jointly by two business support organisations, Arena Network and Groundwork Trust, on behalf of the Welsh Assembly Government and Welsh Development Agency (WDA). The purpose of the study was to look into this issue and propose how a 'business environment' action plan might be structured. This study identified that there were over 40 Wales-based organisations offering environmental business support, and it proposed a framework of eight 'action plan themes' that business support in Wales should address. The actions were all aimed

at influencing business and were designed to be delivered by existing business support providers, including the Welsh Assembly Government or the WDA.

As a result of this study, and further internal discussions, and in order to simplify and co-ordinate the resource efficiency support service that already existed in Wales, the Welsh Assembly Government (2003) created a Business and Environment Action Plan (BEAP). This document was intended for use by the Welsh Assembly Government policy delivery teams that funded and directed the activities of business support organisations, but also as guidance for the business support organisations to give them advance notification of requirements from their activities. This first version of the BEAP was commissioned by the Minister for Economic Development and Transport after discussion and agreement at Cabinet, and was formed in the Assembly's traditional manner (as described later in Section 3.3.1) by civil servants working in the Office of the Chief Technology Officer.

2.6.3 Reasons for BEAP

The Business and Environment Action Plan was written to outline the Assembly Government's priorities for business sustainability, but also to try and bring together the wide range of existing resource efficiency support providers who were targeting businesses in Wales, in order to have a more focussed and useful effect. The number of existing support providers was not insignificant; at the time the plan was written, 10 main delivery partners (see Table 2.2) were already sponsored or supported in other ways by the Welsh Assembly Government, by the UK Government or by the WDA. However, a potential further 140 who were not directly sponsored by government to address issues in Wales were capitalising on readily available funding, government awareness raising, new legislation and guidance as well as rising waste disposal and energy costs by diversifying into providing this type of 'resource efficiency' support.

Table 2.2 BEAP delivery partner organisations

ARENA Network (AN)
Carbon Trust in Wales (CTW)
Environment Agency Wales (EAW)
Education Learning Wales (ELWa)
Groundwork Wales (GWW)
Welsh Assembly Government (WAG)
Welsh Development Agency (WDA)
Environmental Goods & Services (WDA EGS)
Wales Environment Trust (WET)
Waste & Resources Action Programme (WRAP)

The large number of potential jobs in this area had been welcomed at a UN Conference on Trade and Development (UNCTAD, 2003) and ‘environmental goods and services’ was recognised as a sector in its own right, both in Wales and across the EU. However a worrying trend was identified that a large proportion of these organisations were funded by public money, allowing them to offer their services for no payment or at highly reduced rates. Various sources of funding had been available for this sector in Wales since 1999 e.g. Welsh Assembly Government direct funding, EU Objective 1 funding, funding through the Landfill Tax Credit Scheme and National Lottery funding. This high level of funding appeared to artificially inflate the market, and some organisations, in their efforts to provide as large a range of support as possible, were funded by two or three of these funding packages. As these organisations grew, and were acknowledged or endorsed by decision makers, they encouraged other organisations to be created or to diversify, albeit at a smaller or local level and specialising in particular areas of support. In 2006 the sustainable construction sector alone had 49 initiatives that offered support to the construction sector in Wales. While many signposted to each other (and in fact new initiatives were created to do nothing but signpost clients to these support providers), it became apparent to the Assembly Government that research and consolidation was required. This consolidation was needed to determine the actual effect that the organisations were having. In addition the Welsh Assembly Government wanted to try to bring together a matrix of providers to deliver a

coherent and joined-up service for any business or other client who wished to improve their resource efficiency and required support.

The report 'Making the Connections' (Welsh Assembly Government, 2004b) provided an excellent opportunity. All of government was encouraged to increase efficiency, communication and reduce duplication of effort or gaps in provision. A key part of the recommendations of the report were the consolidation of support programmes. In the foreword to the BEAP document, the then Minister for Economic Development and Transport, Andrew Davies, stated that there had been calls for an action plan ever since the business and environment agenda was identified in 'A Winning Wales', the Economic Development Plan for Wales. The Minister outlined the aspirations for the plan: that it would shape the delivery and support infrastructure that would allow companies in Wales to commit in ever-increasing numbers to implementing that agenda.

2.6.4 What the BEAP proposed

The Business and Environment Action Plan 2003-2006, often shortened to the acronym BEAP, was published in June 2003. It proposed a three year scheme of actions for delivery by 'delivery partner organisations', i.e. the primary organisations that had a role in assisting businesses in Wales to be further resource efficient. A list of these organisations is included in Table 2.2. The aim was to co-ordinate such activity in Wales, as well as co-ordinating the limited funding available, to have the greatest possible impact.

By the Assembly's own admission, the BEAP document only set out briefly what the support of the Assembly and its delivery partners could do to assist companies improve their resource efficiency credentials (Welsh Assembly Government, 2004a). Many of the programmes identified in the plan were already in existence, and the plan focussed particularly on encouraging and supporting companies to adopt resource efficiency, or 'making more with less'. Examples of the actions included in the plan are shown in Table 2.3.

The aims for the Welsh Assembly Government included trying to improve Wales' 'green brand' image and also trying to become known internationally as a leader in sustainable development within the business context. The Minister and civil servants recognised in this document that there were opportunities for Wales, as well as tasks, and the document spoke of the potential to develop and commercialise technologies as well as improve the efficiency of existing manufacturing or services.

The BEAP document, like many government plans, was not distributed widely to its target organisations in business, nor was a communication document produced to explain what the plan hoped to achieve. Ultimately the BEAP was created as a tool to bring together under one policy many of the actions that were already planned or ongoing by the public sector and to co-ordinate this existing effort. The only public communications were the annual reports, where successful case studies were published. These case studies were intended to convey what could be achieved, and to give opportunities for the Assembly Government to endorse particular activities and organisations and, through the steering group, to recommend ways in which they could work more closely together.

The BEAP was intended to be the first phase in a chain of policy driven improvements leading to sustainable economic development in Wales. Rather than attempting to support all types of environmental management, which would include more diverse targets such as increasing biodiversity, capturing and controlling emissions or remediating land, the plan focussed on 'resources efficiency'.

Resource efficiency is considered not only to be an easily understood concept, but also to have a strong business case and it was considered that businesses would be more willing to adopt the principles of environmental management through resource management, because of the associated benefits to their profit margin. The Minister and Civil Service team thought that it would be easier to promote thinking about environmental issues in everyday business practice if it could be demonstrated that this would solve a problem, e.g. mitigating against the rising costs of fossil fuels, water and waste disposal, whilst also contributing to

sustainability targets for Wales. To prevent confusion, the plan defined resource efficiency as the efficient use of materials and energy throughout the product or process lifecycle, while resources management was defined as the methods used to obtain that efficiency.

2.6.5 Policy Development Team

The BEAP was formulated by a team of policy development staff under the direction of the Office of the Chief Technology Officer. The team worked in a branch of the Welsh Assembly Government called the Business and Environment Branch (a branch is an official structural term within the organisation's hierarchy). This team sat alongside teams that dealt with renewable energy, energy production and distribution, infrastructure and science policy. The team worked with support providers in the WDA who had a responsibility for environmental management programmes, including greening of industrial estates, biodiversity of land development projects and sustainable construction.

A group of stakeholders were consulted throughout the policy writing process and later taken on as an external steering group for the duration of the action plan. This group was chaired jointly by policy officers from the Business and Environment Branch of the Welsh Assembly Government and the WDA (the public sector organisation that delivered the majority of business support in Wales). The group included representatives from the delivery partner organisations named in the plan, as well as the Welsh Local Government Association (WLGA), Federation of Small Businesses (FSB) and Confederation of Business and Industry (CBI) who were invited to represent the needs of businesses.

In 2005, towards the end of the plan's period of work, the Welsh Assembly Government and the WDA merged with the majority of the WDA structure being subsumed into the Assembly Government's newly renamed Department of Enterprise Innovation and Networks (formerly Economic Development and Transport).

Table 2.3 Examples of actions in the Business and Environment Action Plan

Business and Environment Action Plan for Wales		
LEAD BODY	ACTION	OUTCOME
WELSH ASSEMBLY GOVERNMENT	Establish, with strong business representation, an "Expert Panel on Resources Management"	<ul style="list-style-type: none"> Well informed Welsh Assembly Government independent evaluation of business and environment. Strong links to the Sustainable Development and the UK Government's Advisory Committee on the Environment. Effective, forward-looking policies based on activities and sound research. World wide promotion of effective regional association with the Johannesburg/Gauteng
	Identify clear targets and objectives and ensure all relevant organisations/groups are engaged.	
	Extending work of CCW, EA and others to a future scoping exercise which assesses the market changes that will emerge from implementation of EC Directives and Action Plans, Wales Waste Strategy; population ageing; flood proofing etc	
	Develop and maintain a "Business and Environment Internet Portal" for Welsh businesses, linked to the new WDA Business Gateway	
WELSH DEVELOPMENT AGENCY (in conjunction with local authorities, main service delivery/regulatory bodies and WEFO)	Oversight of the development and delivery of an integrated suite of needs-based 'resources management' support programmes, which maximise private sector involvement	<ul style="list-style-type: none"> Ready and well-utilised access for first rate 'environment' advice. Welsh businesses progressing rapidly towards development, enabled by a well targeted and comprehensive programme of support. Better quality control in delivery of support. Strategic application of Structural Funds and support. Annual report on progress in Wales.
	Integration of business sustainability into WDA Business Gateway and mainstream support programmes.	
EDUCATION AND LEARNING WALES (ELWa) in conjunction with training providers	Boost the provision of mainstream 'business and environment' training and skills development	<ul style="list-style-type: none"> Enhanced 'sustainable development' training Wales Significant increase in the 'business and environment' base in Wales
ENVIRONMENT AGENCY WALES	In conjunction with the current Operator and Pollution Risk Appraisal (OPRA) style rating system, development of a 'sustainability' appraisal system	<ul style="list-style-type: none"> Better evaluation of the impact of industrial Defined and achievable targets for step-by-step improvements in the sustainability of industrial

Source: Welsh Assembly Government (2003)

2.6.6 How the BEAP was written

The BEAP was written using the standard iterative process utilised within the Assembly Government for such documents, as explained in more detail in Section 3.4. A team from the Minister's department, relating to business and environment, was given the responsibility of writing an action plan on behalf of that Minister. The key outcomes of the plan were discussed at an early stage between the Minister and civil servants, and the policy development team was given the responsibility of consulting internally on the likely recommendations and developing a draft. This was discussed with the Minister again, and returned for changes. A period of external consultation occurred, where stakeholders would be given an opportunity to critique the potential action plan, and give feedback on any areas that had been missed, or explain those that they believe could cause negative impacts. The final version was completed and passed to the Minister for agreement and discussion at Cabinet prior to publication.

External input to the BEAP only occurred in the first stage, when the elected Assembly Member(s) received input from their constituents, and again at the end of the process when the draft document went out to consultation. This process, as well as being used for the original Business and Environment Action Plan, is still normally used for Welsh policy documents, and a form of this process is used in the wider UK context at Whitehall for the production of most strategy and policy documentation.

The process was undertaken during a relatively short period of time. During this process, it was agreed that input from experts on specialist support (especially those not directly funded by the Assembly Government and therefore relatively unbiased), and from businesses with experience of either improving their resource efficiency or with an interest in doing so, would be very useful in writing further versions of the plan and also identifying other areas for work. It can only be assumed that this came about as a result of a shortfall in the usual methodology.

2.6.7 How the BEAP was delivered

The BEAP was delivered through a series of member organisations, all of which agreed to deliver aspects of resource efficiency advice, funding or actions for business in order to meet targets identified in the plan. Delivery was undertaken through programmes such as:

- Business and Environment Internet Portal, linked to the general business internet sites;
- Design Wales – Eco-design advice programme for business;
- Training for companies wishing to improve their resource efficiency;
- Carbon Trust – commercialisation and technology programme;
- Department of Trade and Industry’s Sustainable Technologies Programmes;
- Development of infrastructure to collect and reprocess materials;
- Expansion of international trade programmes for environmental goods and services companies; and
- Procurement policies and guidance.

The delivery partner organisations communicated with each other, and with the Assembly Government and WDA staff who were charged with co-ordinating the plan, through regular steering group meetings chaired jointly by the WDA and Welsh Assembly Government over the course of their actions.

2.6.8 Outcomes of the BEAP

The results of the BEAP’s actions have been published and well publicised in the form of three annual reports (Welsh Assembly Government, 2004c, 2005, 2006a). These reports concluded some specific successes for business but will not be discussed further in this thesis. What is of more relevance to this thesis is the process how, and reasons why, the original BEAP was created, together with its first action: to create an expert panel on resources management (Welsh Assembly Government, 2003) as shown in Table 2.3.

A shortfall in novel approaches or input from the business community was recognised early on by the plan's public sector authors, and this is one of the reasons that the BEAP recommended establishing an 'expert Panel on resources management' which would have strong business representation. The Expert Panel on Resources Management for Wales (EPRM) was put together in 2004.

2.6.9 Motivation behind the creation of the Expert Panel on Resources Management (EPRM)

The first action identified in the BEAP was the requirement for a publicly appointed body to provide:

'Well-informed policy and independent evaluation of business and environment support,' (Welsh Assembly Government 2003, p.4).

This body would also be required to provide independent evaluation of the BEAP; to advise on current and likely future best business practice in resources management; and to make recommendations on the content of any likely future phases of the BEAP. These aims were further strengthened by the Assembly in its second Sustainable Development Action Plan (Welsh Assembly Government, 2004a). In response, representatives of business and business support representatives were brought together as the Expert Panel on Resources Management for Wales in April 2004 to inform government in order to strengthen future policy, and perhaps also increase the resource available to the Assembly Government to create strategies and policies. The Panel was appointed under the guidelines for public appointments made by the Nolan Committee (1996) and as such was considered to be independent from the Welsh Assembly Government, hence the outputs from the Panel would be sent directly to the Minister and would bypass the traditional mechanisms of policy making in Wales.

Considering the expense of creating and maintaining such a Panel, as well as potential public relations implications, it is reasonable to expect that the then Minister for Economic Development agreed the recommendation with the intention that it could create and populate a workable policy idea which would

represent closely the views of the businesses that would be affected by that policy, and therefore justify the time and expense spent on the project.

However, at the time, there was little robust evidence that this would be the case, although it may be assumed that the Minister had some personal experience and had sought initial views from people in both business and government. In fact task forces, focus groups and other advisory groups had received negative press prior to the formation of the Panel (Kitzinger and Barbour, 1998). Therefore, the hypothesis unintentionally set by the Minister in forming the Panel, and investigated in this course of research, was that an expert group, independent of government, can create a credible and workable policy idea which will add value to the traditional processes used in policy formation, and represent more closely the views of the public and affected parties outside of the decision making process, resulting in policy which is agreeable to those affected parties and therefore likely to achieve its prescribed targets.

2.7 Summary

In Wales, as in other countries, the drivers of climate change, environmental damage and resource scarcity had motivated policy makers to encourage and endorse resource efficiency by businesses and attempt to support businesses in adopting more resource efficient business practices. This in turn was reciprocated by businesses driven by rising costs as a result of the threats mentioned and environmental legislation already being put in place.

However, a further driver was acting upon Wales and its economy. This driver was understood but not so deeply enshrined in the political makeup in other countries: the statutory commitment to sustainable development. The need for businesses to adopt more efficient practices was considered crucial, in order to deliver the economic aspects of this commitment, and is considered to have acted as a catalyst for the Business and Environment Action Plan and its first action: the creation of the Expert Panel for Resources Management to inform future policy making in this area. In creating the Panel, the Welsh Assembly Government had identified a

participatory process of policy formation to promote resource efficiency within the business community.

CHAPTER 3. POLICY MAKING AND PUBLIC PARTICIPATION

In the previous chapter, the need for resources management and the drivers for improvement by business were introduced. This chapter focuses on the methods of policy making as well as the importance of stakeholders and their engagement in the process, with a particular interest in environmental policy making. Throughout, the importance of the policy process in the context of Wales and its devolved government is emphasised.

3.1 Wales, devolution and the importance of the policy process

Wales has seen significant changes in its governance, as a result of the public referendum which led to the Government of Wales Act 1998 and the formation of the National Assembly for Wales in 1999. The Welsh Assembly Government could therefore be described as a new organisation, and this 'novelty' brings with it inherent potential to undertake new methods of governance or management.

This devolution of power was preceded by a thirty-five year period where Welsh issues were represented by a Secretary of State for Wales, within the UK Government. Prior to 1999, Wales and Welsh issues were not represented separately, but were treated in the same manner as the rest of the United Kingdom. The Secretary of State for Wales was assisted by a Civil Service department, the Welsh Office, which dealt with those issues specific to Wales. The Welsh Office was the smallest government department at the time and was heavily influenced by the UK Government at Whitehall (Deacon, 2002). However, it still had a resounding effect on the structure of the newly formed executive branch of the National Assembly for Wales - the Welsh Assembly Government.

Wales' historically limited direct political role, which had been gradually increasing since the mid-nineteenth century (Royles, 2006) was suddenly given a boost with the creation of the National Assembly for Wales. With this large scale change an exceptional opportunity was perceived to put in place innovative policy processes that would replace the outdated methods of the larger, more traditional ministerial structure that had previously governed Wales. This move towards a new way of

working would have been welcomed by the policy process advisors in Whitehall, as changes came in the wake of a White Paper on professional policy making (UK Government, 1999b) which stated innovation and effectiveness amongst the key priorities for future policy making.

Many staff from the Welsh Office (and later from other merged organisations such as the WDA) were retained within Wales to populate the Welsh Assembly Government. So it is inevitable then that in the early period of the Welsh Assembly Government, Civil Service procedures and processes for the new governance organisations were carried over from the Welsh Office. Some of those procedures had been incumbent in Whitehall during the period prior to the creation of the Welsh Office.

Even with the recent amendments to the Government of Wales Act, there are few effective ways of enabling or enforcing actions that are dramatically separate or different from those in England. This is due to the few devolved legislative powers given to Wales, and in many cases to the open border and infrastructure networks that both countries share. In addition, devolution of decision making has only been granted in those areas that had previously been the responsibility of the Welsh Secretary of State. In areas of decision making that are devolved to Wales, but for which new legislation would be too expensive or time consuming to implement, policy documents and commitments that take into account the uniquely Welsh socio-cultural factors and identify areas for spending that differ from those in England are particularly important in providing the National Assembly for Wales with legitimate diversity from England.

Genuine public participation is also considered to be a key factor in making the National Assembly for Wales a useful working organisation. The primary requirement of any devolved democratic authority is that it is able to represent more accurately the needs of the devolved area. The first way in which this occurs is through divergent policy or legislation. The second requires that the devolved authority is able to make decisions based on the needs of the population in the devolved area. While communication with the public through elected representatives is the default position for government, genuine public participation

can also be effective: bringing in the public to the decision making process and utilising their input to understand, and in turn communicate, the complexities of the policy problem being discussed.

Wales, being relatively recently devolved from an old and well established government model, provides an interesting 'laboratory' for studies of non-autonomous devolved governments. It is approachable, open to public participation and small enough to be capable of making changes to its own organisational structure and procedures.

The experimental, participatory process of the EPRM was one such 'experiment' undertaken by the Welsh Assembly Government. In order to give context to the role and methods of policy making and public participation in government, this chapter reviews aspects of policy theory and practice. It focuses particularly on the role of public participation in policy formulation relevant to Wales.

3.2. About policy and policy making

The literature on policy making and critique of policy making methods from an external observer's point of view is wide ranging and well covered. Many different definitions for policy exist (Deacon, 2002). However, for the purposes of this text the definition by Wildavsky (1979) that policy is a process as well as a product is particularly apt, i.e. policy is described as being both the process of decision making as well as the product of that process. This definition, although widely used in literature as a general introduction and framework in which to consider policy making, is not in itself complete. Wildavsky's simple definition gives little context of the reasons for policy making, nor the likely outcomes of that activity.

Policy making is not confined to governance organisations, but can be undertaken by any organisation requiring a mechanism to achieve consistent and progressive changes across the entire organisation. The creation of policy by governments to have effects on the areas they govern is generally called 'public policy' (Birkland, 2001). It is public policy that will be the focus here and, in particular, public policy as a decision making process. The products of this decision making process will

become more relevant in later chapters describing the context of the practical work undertaken in preparation of this thesis.

In defining public policy, the following definition of policy research gives a good insight. It is:

‘The process of conducting research on, or analysis of, a fundamental social problem in order to provide policy makers with pragmatic, action-oriented recommendations for alleviating the problem,’ (Majchrzak cited in Thompson 2001, p.63).

This definition provides the context specific to public policy making, as well as the outputs and outcomes, being the recommendations and the alleviation of the problem respectively. This definition will be used as the basis upon which the understanding of public policy making is discussed throughout the rest of this section.

3.2.1 The role of public policy

Creating and implementing policy performs many roles in government. Some of the justifications for creating policy common to many countries in the democratic world, regardless of sector or societal focus, are listed below*:

- To improve consistency in the actions of government and its partners;
- To identify target(s) or desired outcome(s) as a result of the work being undertaken by government;
- To provide a basis for business planning and resources management;
- To set a standard for quality or quantity of governance;
- To communicate the justification for action;
- To forewarn those who will be affected by the work of government of likely future actions; and

* This list has been compiled as a result of review of various policy documents from Europe, USA, Canada, Australia and Taiwan, as well as guidance from organisations such as the OECD Environment Directorate and the European Commission.

- To avoid negative effects that have already been observed or are predicted to occur without remedial action.

As well as these obvious functional administrative roles, public policy can have wider implications. As described by Calef and Goble (2007) policy developments not only are affected by culture and values, but also have an effect on a culture, influencing factors such as the development of technology, the way that citizens view their environment even extending to such detail as consumer choice and spending preferences.

Another common observation from the literature in this area is that policy styles, and therefore the research undertaken on them, differ from one country to another as a result of cultural differences; this is well discussed by Calef and Goble (2007). As an indication of this wide range, Table 3.1 lists some of the countries subject to public policy studies in the past 10 years, which are referenced in this text. This observation will not be discussed in any greater detail within this text, but must be borne in mind when considering the wide range of countries where policy, and in particular participative policy making research, has originated. This table includes studies on participative policy making in both democratic and non-democratic government models. However, in order to provide suitable context for the situation in Wales, the discussions in this chapter will focus on participatory methods in western democratic government models.

What is apparent from the studies is that it is not possible in this thesis to attempt any comparisons between methodologies or outcomes that are based on different socio-cultural systems, due to the potential for conflict or excessive complexity. Instead this review of public policy and participation will use a wide range of examples of policy making to illustrate the many possible different reasons for, methodologies and outcomes of, policy making around the world. This will be done in order to set a context for policy making in Wales relating to the Expert Panel on Resources Management for Wales.

Table 3.1 A sample of countries where policy research has recently been undertaken

Australia	(Hampton, 1999) (Hendriks, 2005) (Ananda, 2007)
Canada	(Smith <i>et al.</i> , 1997) (Vasseur <i>et al.</i> , 1997)
China	(Gu and Sheate, 2005)
Czech Republic	(Nunneri and Hofmann, 2005)
Egypt	(Rashed, 1995)
European Commission	(van den Hove, 2000)
Finland	(Mickwitz <i>et al.</i> , 2006)
France	(Calef and Goble, 2007)
Germany	(Ziamou, 1998) (Nunneri and Hofmann, 2005)
Greece	(Ziamou, 1998)
Hong-Kong	(Keung, 1991)
Ireland	(Barbagallo, 2003)
Malaysia	(Keung, 1991) (Ahmed, 2005)
Netherlands	(van de Kerkhof, 2006)
Pakistan	(Khan, 2002)
Singapore	(Keung, 1991)
Switzerland	(Jaeger <i>et al.</i> , 2000)
Taiwan	(Tan, 2000)
UK	(Crow, 2005) (Nelson, 2005) (Royles, 2006)
USA	(Carr <i>et al.</i> , 1998) (Ziamou, 1998) (Korfmacher, 2001) (Thompson, 2001) (Webler <i>et al.</i> , 2001) (Calef and Goble, 2007)

3.3 How policy is made

3.3.1 Policy making in Wales

In the eight years since the National Assembly for Wales was first formed, policy making in Wales has been directed and written by the Cabinet Ministers, Assembly sub-committees and the civil servants who work within the departments of the Welsh Assembly Government. In some cases the rationale has been initially set by European or UK Parliament in the policies or plans which are of relevance to Wales.

The outline of 'traditional' policy making in Wales below has been created as a result of personal communication and observation. Very little literature exists in the public realm which records the standard methods of policy making in Wales, possibly due to the short time of operation of this government structure or the lack of willingness of the organisation to face external scrutiny without first being content with its own progress.

At the time of writing, the Assembly Government employs a large workforce, swollen by the merger with Assembly Sponsored Public Bodies (ASPBs) such as the Welsh Development Agency (WDA) and Education and Learning Wales (ELWa) in 2005 and 2006 respectively. As explained by its public communications, the Welsh Assembly Government is structured into Departments, each led by a Cabinet Minister whose portfolio will include responsibilities for a number of policy areas. Staff in each Ministerial Department work within each of these areas to direct, write and consult upon new policies, strategy documents and action plans.

It is the usual case for the officers of the Welsh Assembly Government to write up the initial strategy, policy or action plan document. Where funding is available, suitably qualified and experienced sub-consultants may be tasked to produce the initial document under the direction of policy officers. As is the case for policies written within UK Government, this may be undertaken with additional input from a working group or sub-committee formed of prominent public sector stakeholders to the plan. More recently plans in Wales have been written with input from private sector stakeholders; however, the majority of stakeholder input is reserved either for early lobbying or during the consultation period, once the initial plan has been completed.

The case for the new policy document to be created may be due to multiple reasons such as voter pressure, political manoeuvring, or as a result of a cascade of activity in other countries that requires a response. The initial creation of the policy document may therefore involve a period of research and statistical analysis by specialists either internal to, or outside of, the Welsh Assembly Government to determine the most effective policy response. The initial document is then written and 'tested' by internal consultation to determine its impacts upon other

departments, policies or plans and for robustness. The external consultation is used to determine whether the research has resulted in a policy, strategy or plan that can deal adequately with the issues addressed in the views of those stakeholders who will be affected by it.

Policy officers tasked with delivering new policy documents are not necessarily considered experts in the particular policy area that the proposed document deals with and many move between departments or fields of expertise during their career. Rather than needing to be a specialist, it is the policy officer's role to be up to date on the legislative requirements and powers of the National Assembly for Wales as well as UK and European government legislation and guidance.

3.3.2 Bureaucrats and technocrats

In the wider context of traditional policy making, especially in representative democracies, the non-specialist expertise of Civil Service policy officers is well documented. The literature identifies two groups of people found to be responsible for crafting policy: the bureaucrats (generalists) and technocrats (elites). In societies with traditional public policy making practices, the bureaucrats are given the job of project managing and producing a policy in response to a specific social problem or need that an elected public representative has been made aware of through various interactions with 'public' individuals or groups. The bureaucrats are tasked with recruiting those technocratic, or technically knowledgeable, people who can suggest a solution to the problem. Together, these groups construct a policy and it is either accepted or rejected by decision makers. This acceptance or rejection may be based upon direct or indirect input to the process by members of the public or specific stakeholders.

There is an issue relating to the suitability of the bureaucrat/technocrat system, where policies are 'technical' solutions to a problem or need, often based on quantitative evidence. In fact, quantitative methods have been subject to criticism, with claims that such methods can be used to present preferred results in a conclusive manner, obscuring political choices based on value systems and other

socio-cultural factors (Thompson, 2001). This sentiment is supported by Dryzek (1990) in his proposition that technocratic policy making can be defined as hyper-rationality and over-reliance on science without sufficient deference to public opinion. This may be aggravated by the fact that there is no agreed methodology for policy research, so researchers use a wide range of methodologies from different specialisms (Richie and Spencer, 2002).

In particular, this issue is exacerbated by a preference for 'hard facts' based around scientific endeavour or ongoing academic debate which will present decision makers with easy choices that can be justified to members of the public or other scrutiny. This is not a simple endeavour, as scientists and technologists can come to different findings or conclusions (perhaps based on their own personal values) and for that reason can misrepresent facts through conflicts and disagreements in the scientific community (Haller and Gerrie, 2007). This misrepresentation has been seen recently and publicly in relation to the research into climate change and greenhouse gas emissions (Bostrom and Lashof, 2007).

The quest for hard facts may result in reduced robustness in the original research briefs, and at worst may result in a deficit of deeply social, political or cultural research. Haller and Gerrie (2007) go so far as to say that scientific research undertaken to inform policy cannot be considered to be true science, foreshortening the open-ended nature of scientific enquiry in order to fulfil a decision maker's arbitrary and non-scientific requirement. This requirement must affect the research and therefore instil a certain amount of bias. The conclusion is that science can inform decisions but it cannot make them, because decisions are ethical and political and not based entirely on scientific fact.

3.3.3 Social influences on policy making

This reminder of the social aspect of policy making introduces the subject of the purpose of policy. Policy is created to deal with fundamental social problems such as poverty, food crises, infant mortality and genetic manipulation that lead to deep moral questions that cannot be accurately quantified. As such it is difficult for

policy makers to be 'value neutral' in their outlooks and policy formulation can become a very personal and culturally affected process (Thompson, 2001). Calef and Goble (2007) surmised that different styles of policy are influenced by deep values rooted in society.

This tension between scientific or academically accepted facts and the social factors that inform politics has been termed the 'fact-value dichotomy' by Hawkesworth (1988) based on the idea that facts and values making up policy decisions are often irreconcilable, and that normative policy analysis further entrenches the fact-value distinction. Often there are complex interactions between theoretical commitments and political possibilities that cannot be explained using technical sciences. In discussing forestry, Ananda (2007) defended the process as being more about social choice than the monetary values derived from a cost-benefit analysis and suggested further that, if this was the case, policy decisions should be guided by non-market oriented stated preference techniques, rather than techniques based on monetisation. Carr *et al.* (1998), in discussing policy making as related to land management activities, had already theorised that policy making was either a scientific-technical activity, in which public participation is largely for the purpose of information sharing, or a social-political activity in which decision making should and could be shared between the decision makers (in this case professional land managers) and their publics.

A standard typology of policy styles by Thompson (2001) suggested that a government's approach to problem solving, whether pro-active or reactive, and that government's relationship to other actors involved in the policy process were the main factors affecting how policy was created. Calef and Goble (2007) add a third, more humanist, feature which affects policy style: society's attitudes towards technology (or any proposed solution) which are deeply rooted in culture and values. They put forward their belief that treaties and agreements for trade and legislation have created metaphorical boundaries between governments, and the transfer of technological and scientific expertise has increased, leading to a reduced possibility of distinctive national policies.

The literature, mentioned above, suggests that there is a need to consider a further dimension: that the stakeholders in a policy or decision could have input to the policy making process and, if that is the case, the decision makers need to agree what the stakeholder role should be. Public participation will be discussed in more detail in Section 3.6, however at this stage it is sufficient to say that it adds a level of uncertainty and increases the difficulty of the task, in comparison to purely technical or bureaucratic input.

It may be in the interest of the policy maker to use heavily technocratic decision making, in order to reduce the input from stakeholders in the process, and therefore reduce the levels of uncertainty. It has been documented that policy makers can cause a bias in how policy is accepted through methods such as these. For instance, carefully crafted policy justified by a seemingly high level of technical evidence will present those non-technical experts with little grounding on which to object to it (Parsons, 2007a).

Reviewing the history of political protest shows that it is not always the aims or intentions of a policy, which are almost always in the public interest, but the inferred, actual or potential consequences of that policy (not referred to in the documentation or intentions) that cause a reaction in the general, non-technical populace.

3.3.4 Technocratic divide in public policy research

The dichotomy mentioned above is not limited to the methodologies for forming and writing public policy; it is also seen in public policy assessment and research. Often research undertaken into the methodologies for creating public policy has been undertaken by political scientists, theorists or social scientists, rather than policy practitioners. The existing literature and the lack of incidences of academically published methods used in government guidance, suggests that the incidences of research and political theory being proactively applied to policy making by those who are political or social scientists are few. A review of the literature leads the reader to conclude that much of the research into policy making

occurs independently of policy operation, and is often observational and critical in its nature, creating a further 'technocratic divide' in policy making. However, in this case, it is the practitioners who are the elites, considering their own ethos, gained through experience of the complex socio-political situation, to be superior to the guidance of more academic research.

3.4 A standard method of policy formation in Wales

Having identified the usual roles and aims of policy formation, and the ways in which the various actors interact, it is now relevant to state how policy formation occurs in practice. As this thesis focuses on the policy context in Wales the example below is a generalisation of the standard format for policy making used in Wales. Evidence of this format is documented in internal briefing papers and guidance, not necessarily found in the public realm, but observed by the author. This generalised version describes the course of events that occur regularly in policy making in Wales, with the caveat that timescales and tasks may be protracted or reduced according to external factors and the inherently unpredictable nature of policy making in the 'real world'.

The reasons why policy making gets underway will vary from case to case (manifesto commitments, court decisions, responses to external events all make for different approaches), as will the existing state of the policy, its complexity and its range. In the Welsh context, a policy idea is generated through the normal course of representative democracy when an elected Minister or Cabinet committee is informed of a general movement, or need, for change. This may require either an amendment to a previous policy, strategy or action plan, or a new policy or strategy. Changes may occur in response to new legislation, novel data or direct lobbying.

In responding to the need for change, the Minister will request a Cabinet paper to be written by Civil Service officials from their department and to be submitted to Cabinet for information, in paper format. The paper will be programmed for

discussion amongst the elected representatives of the National Assembly for Wales at the earliest available opportunity.

If the initial Cabinet discussion is positive, the Cabinet may either request further information or agree that the policy can be progressed. A sub-Cabinet group may be formed, or may already be in existence, which agrees to discuss and direct the policy, and new papers or evidence may be requested. The sub-Cabinet group will submit its recommendations to the Minister and in turn to the senior civil servant responsible for delivering the policy document. These recommendations are unlikely to be detailed, but the direction from the sub-Cabinet committee and/or Minister may include: the suggested outputs or outcomes of the proposed policy; the problem(s) that the policy is intended to address; and existing work or groups that the committee is aware of, and which should be integrated into the policy.

The Civil Service team (branch or division) may then recruit a third party consultant, or advisor on any technological or technical issues. The team may also make use of additional internal resources, such as the Assembly library, statistics office, economics office. Specialist policy development staff may be utilised to assist in writing a draft policy document which will address issues as directed by the Cabinet sub-committee or the Minister.

This first draft will be subject to informal internal consultation or voluntary use of the internal tools designed to make sure that the consultation process is comprehensive. This informal, internal consultation results in a policy document which considers and addresses its interactions with all existing areas of the Assembly and its stakeholders. At this stage, the team writing the policy may also be able to consult with the Minister informally, however due to most Ministers' busy schedules this is not always possible.

At this stage teams such as translation, publications, website administration, publicity and communications will also be involved – ensuring that the external communication is of good quality and that it encompasses the Welsh Assembly Government's commitments to openness and the Welsh language.

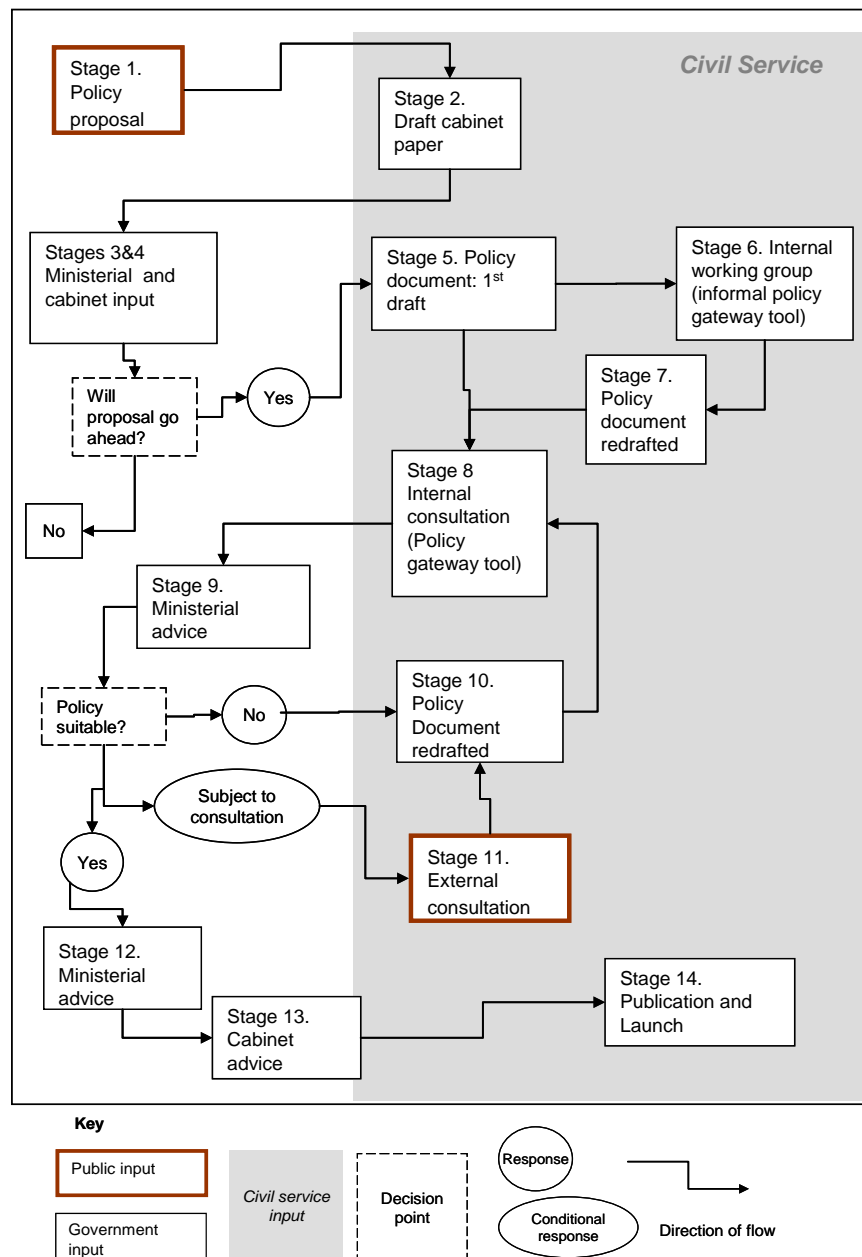
After all amendments are made, as a result of integration with other policy areas, a final consultation document will be written and passed to the Minister as a formal draft for discussion at Cabinet and subject to formal acceptance. Any changes that are made as a result of the Cabinet's involvement at this stage may require the internal consultation to be repeated.

Once accepted by all parties, an external consultation document is then sent out for public input. This may be sent only to invited parties or more widely to the 'general public', and published both in hard copy and on the Welsh Assembly Government website. In reality, the document that goes to consultation is rarely in the format intended for policy. It often contains a greater level of explanation on the evidence basis of the recommended policy and less emphasis on the internal detail of delivery than the finally published policy document. As such, the efforts involved in drafts prior to and after the external consultation are both significant. This effort is usually consolidated into a twelve month period and the documents are written by civil servants or consultants who have a general expertise relating to policy creation and its administration, rather than experts or specialists in a specific area of policy delivery.

After consultation, it is the role of the Civil Service policy development team to collate and assess the responses; they may be assisted by a third party consultant or advisor. The results of this assessment are made available to the Minister, and potentially also to the Cabinet, to determine which results will be integrated into the final policy and which areas if any will be edited out of the original document sent for consultation.

The document is amended as a result of the changes recommended by Cabinet, and the Minister's advice and approval is sought prior to the final document being sent to Cabinet for approval and acceptance as a policy of the National Assembly for Wales. A flow chart indicating the steps involved in the complete process is shown in Fig. 3.2.

Figure 3.2 Flow chart showing the traditional policy making process



In this traditional model, policy ideas [Stage1] from a Minister are researched and a draft document written by civil servants[Stage 2] under Cabinet guidance [Stages 3-5], consulted on internally [Stage 6], amended accordingly [Stage 7] and enter an iterative amendment, consultation and advice process with input from the Minister [Stages 8-10]. After the Minister considers the document suitable, it may be consulted on externally both with key stakeholders and on the web to the wider public [Stage 11]. Amendments as a result of this consultation would then be incorporated into a redrafted document which is subject to further internal consultation [Stages 8-9] and approval by the Minister [Stage 12] and Cabinet [Stage 13]. Only once this process has been completed successfully is the document published [Stage 14].

As stated earlier, this reiterative template for forming policy is not inflexible. In some instances the various stages are conducted in parallel, perhaps due to a short timetable for publication of the plan, or due to outside driving forces. The policy process is subject to change as a result of pressures or events outside the control of policy makers. For example, the Strategic Policy Making Team (SPMT), in its guidance for modern policy making (SPMT, 1999), cites the example of the policy of dumping low level nuclear waste at sea. This was apparently made inoperable overnight by the decision of the Seamen's Union to advise their members not to work on ships carrying such waste.

The Cabinet Office (2002) also warns against approaching policy making as a series of sequential steps, due to the likelihood that policy makers will leave thinking about some stages, such as implementation and evaluation, until late in the process.

3.5 Measuring successful policy making

Many of the stages described above are set by the Welsh Assembly Government to ensure quality and also to ensure that internal and external stakeholders have an opportunity to inform the policies. This is true in Wales, perhaps due to the comprehensive changes that occurred in governance of the UK following the formation of the new Labour Government in 1997 and the devolution of government to Wales in 1999. The emphasis on better policy making and delivery through better management was deepened and extended under the new Labour Government during this period (Parsons, 2007b); there was an enthusiasm for transparency and freedom of information, as witnessed by the publication of all Cabinet meetings minutes and the guidance produced by the SPMT (1999). That document put into place guidance for the practical application of modern policy making, following on from the 'Modernising Government' White Paper (UK Government, 1999b). When it was written, the SPMT report set out to address the inconsistencies in policy making that had been identified during the 1990s and that were proposed to be improved by the 'Modernising Government' White Paper at the end of the decade. The White Paper promised changes to policy making to

ensure that policies were 'strategic, outcome focused, joined-up (if necessary), inclusive, flexible, innovative and robust'.

The White Paper has been the basis of a number of academic papers discussing the government reform, particularly in relation to the collection, classification, creation and dissemination of evidence (Nutley *et al.*, 2003). However, this aspect of policy making is one discussed in academic journals and conferences purely from an outsider's perspective (Burton, 2006; Nutley *et al.*, 2002; Nutley *et al.*, 2003). First-hand experiences of the process, with descriptions of the (often subjective) rationales that exist behind such reforms, are not well represented in the literature.

The motive behind the White Paper may have been an attempt to remove power from traditional figures of authority; however, it has had wider profound effects. The greatest of these relate to how policy is written, tested and considered to be 'professional' and therefore successful. Compared to most academic methods of measuring the success of policy making, this method is widely used: perhaps because it recommends measurements that can be used by those outside the field of academic endeavour, and which are common also to the ultimate critics, the voting public.

Policy is an important tool of government, and some believe that policy makers should not only demonstrate accountability in their work, but also efficient, effective use of tax payers' money (Boaz and Ashby, 2003). For this reason the criteria set out by the SPMT (1999) can be considered to be a customised, fit for purpose system of criteria, relevant to the policy making process and not incurring excessive cost.

The 'Modernising Government' White Paper defines policy making as:

'The process by which governments translate their political vision into programmes and actions to deliver 'outcomes' – desired changes in the real world,' (UK Government 1999b, p.15).

It describes the characteristics of 'modernised policy' as:

- Strategic – looks ahead and contributes to long term government goals;
- Outcome focused – aims to deliver desired changes in the real world;

- Joined-up (if necessary) – works across organisational boundaries;
- Inclusive – is fair and takes account of the interests of all;
- Flexible and innovative – tackles causes, not symptoms and is not afraid of experimentation; and
- Robust – stands the test of time and works in practice from the start.

In order to create a practical model for improvement in the policy making system, the SPMT (1999) set and tested a model for modern policy making, characterising a fully effective policy making process and the skills competencies required during the policy making process in order to deliver this. According to the SPMT (1999), a fully effective policy making process:

- Clearly defines outcomes and takes a long term view, taking into account the likely effect and impact of the policy in the future five to ten years and beyond;
- Takes full account of the national, European and international situation;
- Takes a holistic view looking beyond institutional boundaries to the government's strategic objectives;
- Is flexible and innovative, willing to question established ways of dealing with things and encourage new and creative ideas;
- Uses the best available evidence from a wide range of sources;
- Constantly reviews existing policy to ensure it is really dealing with problems it was designed to solve without having unintended detrimental effects elsewhere;
- Is fair to all people directly or indirectly affected by it and takes account of its impact more generally;
- Involves all key stakeholders at an early stage and throughout its development; and
- Learns from experience of what works and what does not, through systematic evaluation.

In order to simplify these characteristics for use in a model, these nine competencies can be listed under three themes, as shown in Table 3.3. The SPMT report identified the types of evidence required to show that the criteria in these themes had been addressed. Further details of these criteria are shown in Appendix A.

Table 3.3 SPMT criteria for effective policy making

<ul style="list-style-type: none">• Vision<ul style="list-style-type: none">○ Forward looking○ Outward looking○ Innovative and creative• Effectiveness<ul style="list-style-type: none">○ Evidence based○ Inclusive○ Joined up• Continuous Improvement<ul style="list-style-type: none">○ Review○ Evaluation○ Learns lessons
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Source: After SPMT (1999). See Appendix A for an explanation of the criteria under each heading or core competency.

In the Welsh context, the role of policy development officers, and any third party organisation involved in the process, is one of execution and improvement of government policy. Therefore in examining the specific example of policy making in Wales, it is important to recognise the limits of the nine competency model which deals with a much wider range of factors than the creation of policy. Vision and the elements relating to this heading are often set by a few individuals at the highest level of government, and the only opportunity for public participation is through representative democratic channels. Conversely the work linked to continuous improvement is undertaken by those who implement the policy and there is little opportunity here for public participants to impose change. Consequently, the headings under 'effectiveness' are of most relevance to this thesis; these are examined further in Sections 3.5.1 and 3.5.2.

3.5.1 Measuring evidence based policy

The Welsh Assembly Government states in its internal guidelines for policy development staff that it is vital to collect information about what matters to citizens and what they think of Welsh Assembly Government policies and services in order to make 'evidence based policy' that puts the needs and interests of Welsh citizens at centre stage. In this context, 'evidence based' has no formal definition or metric other than a requirement for evidence to justify decision making.

There is little accepted method, empirical or otherwise, for measuring how evidence based a policy is. Nor is there a determination whether evidence should be primarily qualitative, quantitative or both. Like many of the other themes under which professional policy making is measured, it is a subjective measure used to determine fitness of purpose.

Boaz and Ashby (2003) suggest that accepted methods of quality assurance of research include:

- Published standards and checklists;
- Peer review of research proposals (including filtering at funding proposal stage);
- Seeking advice from peers and potential research users either informally or through a formal steering group or advisory committee; and
- Publication peer review.

Much of the research into how to measure the quality of evidence base is academic, rather than practitioner created, where methods for evaluation look most closely at the criteria for assessing the experimental studies or data gathering, including questions such as:

- Are the research methods appropriate for the question being asked?
- Is there a clear connection to an existing body of knowledge?
- Are the criteria for/approach to sample selection, data collection and analysis clear and systematically applied?

- Is the relationship between the researchers and researched considered and have the latter been fully informed?
- Is sufficient consideration given to how findings are derived from the data and how the validity of the findings was tested?
- Has evidence for and against the researchers' interpretation been considered?
- Is the context for the research adequately described and accounted for?
- Are findings systematically reported and is sufficient original evidence reported to justify a relationship between evidence and conclusions?
- Are researchers clear about their own position in relation to the research topic?

These academic measures are based on the representativeness of the research in controlled conditions, and whether it is repeatable. Measuring evidence base in this way can be counter-productive; some of the key findings from social research are often based on a temporary situation that is unrepeatable, as popular opinion is subject to many changing influences and individuals respond differently to research techniques according to a wide variety of factors. Such factors include the subject's mood, exposure to related press stories, understanding of the topic being discussed and even smells, sights and sounds experienced during the research. For this reason, the Welsh Assembly Government's own checklist for assessing evidence is based on issues that they can control: the methods and motives behind gathering evidence, and the use to which it will be put.

The checklist recommended by the Welsh Assembly Government requires the individual or team commissioning research or assessing it to consider factors such as: the assumptions made; the intended outcomes of the policy or programme; what questions the evidence is needed to assist in answering; ethical and other implications of research; and how the evidence can be captured and delivered. As shown in Table 3.4, it does not assess whether the evidence is entirely comprehensive (perhaps assuming that this is impossible to practicably know or achieve) nor whether it is repeatable.

It is perhaps most useful to state that evidence base is not an objective matter, but is purely subjective according to the time, situation and need for the evidence base. Added to this, the limited financial and human resources available to most policy makers for evidence collection suggest that it is only possible to determine if the evidence was fit for purpose. The Oxford English Dictionary definition of the word 'evidence' can be summarised as the available body of facts or information indicating whether a belief or proposition is true or valid (Simpson and Weiner, 1989). Solesbury (2001) used this definition to support his statement that availability and validity are the key issues in analysing evidence based policy. Based on this definition, it is simplest and most appropriate to consider the availability and validity of the evidence in measuring if it is fit for purpose. These will be dealt with separately below.

3.5.1.1 Availability

The simple definition of evidence given above not only gives parameters for analysis of evidence, but also goes some way to providing an understanding of what evidence is and how it is achieved. The definition points out a subtle and sometimes overlooked difference between 'evidence' and 'information'. Evidence is not the facts that make up information, but how those facts are applied, i.e. the use of information to support or dispute a proposition. If it is accepted that evidence requires a 'user', then capturing and presenting evidence for public policies implies a certain level of understanding by the policy maker of what information is needed to support that policy to its assessors and critics. Table 3.4 illustrates the type of questions that need to be answered to supply that information.

Table 3.4 Evidence checklist used by the Welsh Assembly Government

Evidence checklist: twenty questions to ask when planning evidence requirements

- Are the aims or objectives of the policy or programme clearly defined?
- What assumptions have been made about the policy or programmes?
- What are the intended economic, social, environmental or health outcomes of the policy or programme?
- If the policy or programme does not happen, what are the consequences?
- What is the scope and scale of my programme or policy?
- Is my programme or intervention part of a wider policy?
- Does the policy or programme relate to another policy area or work of another division?
- Who are involved with or affected by the policy?
- Has another government department or organisation already undertaken a similar policy or programme?
- What questions do I need the evidence to help me answer?
- What sources of relevant information do I have already?
- Are my evidence requirements included in my department's evidence plan?
- Are my timescales for collecting the evidence I need realistic?
- Does my policy or programme risk assessment include evidence related risks?
- Are there any ethical implications of collecting the information required?
- What are the potential implications of gathering new evidence?
- How possible is it to amend or stop the policy or programme?
- Who else would find the information I collect about my policy or programme useful?
- Where, how and when should I report the findings?
- Have I made contact with and involved the appropriate analysts?

Source: After Government Social Research (no date)

This policy maker therefore requires some 'knowledge', that is an awareness or familiarity gained by experience (of a person, fact or thing) (Simpson and Weiner, 1989). That is, they need to understand or know what information is required to support the policy; they also need to know where to find it. Specifically considering availability, how much information is 'available' to support the policy can be a function of how well the policy maker knows what information is needed and how to find it.

A final factor in considering what defines 'available evidence' in this situation is more specific to the geographic location. Availability of information might be summarised in the question 'has all relevant information been considered in the

formulation of this policy?’ However, returning to the Welsh Assembly Government’s statement about putting citizens’ needs at centre stage, what is relevant in Wales is what is relevant to citizens. So, policy makers in Wales ask the question, ‘Has all information relevant to citizens been considered in the formulation of this policy?’ However, other countries may have different ideas of what is relevant and this will change the requirements.

Although requirements of citizens might seem to be only one of many factors that describe what information is relevant, this human factor can bias the availability of evidence. On some occasions, the evidence required to justify or inform a particular decision is peculiar to a timescale, geographic location or population demographic and requires specific knowledge. For instance, in considering a policy that will deal with an issue specific to one sector of society, such as social exclusion, generalist and perhaps even technocratic policy makers may not have an understanding of the complex personal and psychological issues that affect that issue, and will be even less likely to be able to predict the impacts that policy interventions may have. In such situations facts, as well as experts with the knowledge to use and interpret those facts, are needed.

In the modern multi-media society access to information is greater than ever before, and populations expect that policies that are applied to them will be adopted following a comprehensive search for evidence utilising all possible sources of information. Due to the limited time, staffing and funds that can economically be utilised on any search for evidence, this can rarely be the case, Solesbury (2001) summarised the availability of all relevant knowledge as ‘a hit and miss affair’ .

In some instances, evidence is already in existence and simply needs to be sought; the Welsh Assembly Government in its own guidance corroborates this and recommends that policy makers should be familiar with, and utilise as much as possible, these extant resources. While this can help the policy process to be as efficient as possible, it requires that pre-existing information is up to date and takes into account all the parameters that are needed for analysis.

In other cases, the information that would act as evidence has not been collected at all. For instance, while the outcomes of many new policies or programmes in the UK now include the reporting of Key Performance Indicators (KPIs) or other metrics which quantify how the policy performed in retrospect, collection of this type of evidence only started in earnest in the late 1990s and so retrospective best practice or baseline information cannot always be found.

Therefore, in order to maintain efficiency, knowledgeable people are required to seek out and analyse the minimum effective amount of available information that will support policy and be of relevance to the citizens targeted by the policy.

3.5.1.2 Validity

The second consideration of the evidence base can be stated as, 'How valid were the sources of the available information?' Not all evidence has the same validity and, although the empirical basis of shared experience and policy makers' individual knowledge is evident, research conducted objectively and rigorously has advantages over 'common knowledge' whose provenance may be unknown (Solesbury, 2001).

As for the quality assurance of evidence, validity can be analysed in a number of ways. Boaz and Ashby (2003) write that most established criteria were designed for quantitative research and debate about whether these criteria are appropriate for policy evidence. Whilst they conclude that some criteria can be used for qualitative research, including headings relating to repeatability and validity of the research that leads to evidence, these headings appear to be largely idealistic and more concerned with the academic robustness of the evidence base. The Welsh Assembly Government's internal guidance, which is considered to be a fit for purpose methodology, states that evidence can be:

- Quantitative or Qualitative; and
- Newly commissioned or based on analysis of existing sources.

In addition, the guidance states that the evidence must be:

- Clear,
- Accurate,
- Comprehensive,
- Relevant,
- Fit for purpose,
- Cost effective, and
- Minimal in its burden on respondents.

These provide some measure against which to measure validity; however, these are again subjective terms. In this context, it can be summarised that the validity of evidence is a subjective area and therefore can only be measured against subjective criteria.

3.5.2 Integration with other policies

A further measure of the success of a policy is its integration with other policies. There is very little published work on how to measure how 'joined-up', or integrated, a policy is. Although there has been some work published on the effectiveness of joined-up working in government, in the UK most of this is directly published by political parties, or their representatives, and the results and methodologies cannot be considered to be unbiased. Therefore this section will not seek to review the existing literature on joined-up working, but instead review the method used in Wales to determine integration.

In 2005, in response to the public reform policy 'Making the Connections' (Welsh Assembly Government, 2004b) the National Assembly for Wales introduced a system for ensuring that policy making within the Assembly Government is not conducted in isolation, enabling officials from other departments to be engaged in high-level policy development. This process, entitled the 'Welsh Assembly Government Policy Integration Gateway' is designed to ensure that all the statutory duties of the Assembly are taken into account in the process of creating policy.

Currently, these statutory duties are identified as commitments in the strategic agenda: 'One Wales' (National Assembly for Wales, 2007). To make the process as simple as possible, a 'Policy Gateway Integration Tool' has been created.

The tool is used by policy makers and civil servants at either voluntary or mandatory sessions, assisted by members of a cross-departmental team of the Assembly's Strategic Policy Unit. The process is not exclusive to internal staff, and the involvement of people from key organisations outside of the Assembly Government is encouraged. In particular the guidance on using the tool suggests that stakeholders or partners who will be responsible for delivering part or whole of a policy or programme should be involved at this stage. In practice, the involvement of stakeholders is restricted to those who are involved at the implementation stage; these might include representatives of Assembly Sponsored Public Bodies with a regulatory function such as the Environment Agency Wales, or other public sector bodies such as the Welsh Local Government Association.

Participants in a session score the impact of the policy against a pre-arranged list of questions set out in the Policy Gateway Integration Tool, with evidence or suggestions for improvement included and a consensus score on a summary sheet. The questions relate to objectives that will lead to the successful implementation of the Assembly's statutory duties. The number of people in a session can vary: at least one person from each of the core Ministerial departments is required. Representatives from the three Assembly Government offices relating to health, equality and communications may also be invited, leading to a requirement of between seven and ten participants. Larger groups are possible, although with these larger groups, the need for different facilitation methods is an important consideration.

Marking is undertaken using a four point scoring system, as shown in Table 3.5, which directly relates to the ability of the policy to contribute to a named objective. Individual members of an assessment session do not submit individual scores, but are instead encouraged to reach a consensus decision through group discussion. Where consensus is not possible, this is recorded along with the reasons.

Upon completion of the tool a summary is created and sent to the relevant Assembly Minister who is responsible for creating the government policy. The Minister can then request specific changes, taking into account the suggestions received.

Table 3.5 Scoring system for the policy integration tool

U	Undermining – policy significantly undermines this objective
P	Poor – the policy does not fully explore the potential to contribute to this objective
N	Neutral – the policy does not, or cannot, contribute to this objective
F	Fair – the policy makes some direct or significant indirect contribution to the objective
G	Good – The policy makes a significant positive contribution to the objective
E	Excellent – the policy makes a close to optimal contribution to the objective

Source: Welsh Assembly Government (2006c)

The tool is not only used for the development of policies and strategies, but also in project appraisal, policy and programme development and review, contract development and assessment, grant application assessment and service planning. The recommendations for completing the tool suggest that the minimum amount of information (in addition to the policy document being assessed) is given to participants prior to the assessment session. The information should include the purpose of the policy, its intended outcome and the key objectives where these are available. The Strategic Policy Unit (2006a; 2006b) in its guidance recommends that any additional information should take no longer than ten minutes to read beforehand. Again, this pragmatic approach acknowledges the lack of resources commonly available to policy makers.

In Section 3.3.2 it was identified that, in Wales, early involvement of other policy officers and ‘specialists’ in the policy forming process (through tools such as the Policy Gateway Integration Tool) can be crucial to the creation of a non-technocratic policy which takes into account all areas of devolved competence. Also, it appears to be a mainstream function of the policy writing process that it is open to influence by stakeholders both within and outside the organisation, rather than relying on a retrospective evaluation being the vehicle through which changes

are suggested. Therefore the policy gateway appraisal is not the only method for wider stakeholder engagement. Even when the appraisal is completed at (what is considered to be) the very end of the drafting process, it is in the interest of the policy makers that the policy is inclusive and so any final stage appraisal can result in additions or amendments to the draft policy, therefore resulting in a highly dynamic process with opportunities for analysis after every change is made. Often it is the Minister's deadline for publication that calls a halt to this reiterative change and evaluation process, as opposed to any agreed guidance.

3.6 Public Participation

In Section 3.5 it was suggested that three factors relate to the effectiveness of a policy: a credible evidence base, integration with other policies and inclusiveness. The previous discussion has related specifically to evidence and the internal participation process within government. However, the work of the Expert Panel on Resources Management was an exercise in participation by external organisations; therefore the remainder of this chapter will focus on the role, and practicalities, of public participation in the policy process.

3.6.1 The role of participation

Solesbury (2001) talks about a tension: between power and knowledge in the shaping of policy, and also between authority and expertise. It makes sense that those with power and authority need to have expertise in using relevant knowledge if they are to maintain that power, but they must also use their authority in a way that is defensible and understood by the public. In the UK, under the Labour Government from 1997, the introduction of third parties into the policy making process (as part of a suite of activities aimed at improving and modernising government) was seen as a challenge to the positions of established power holders; its intention was to introduce an element of discourse that resulted in an overall 'better' policy, that was defensible and for which individuals and organisations could be accountable (Boaz and Ashby, 2003).

3.6.2 Defining participation

Participatory approaches to public policy have been defined as:

‘Different settings where various actors are brought together to participate more or less directly and more or less formally in the decision making process,’ (van den Hove 2000, p.458).

In this definition, van den Hove includes not only the traditional participative processes of democracy, such as voting and dialogue with elected representatives, but also processes which bring together public, civil society and economic actors as well as individual citizens.

Coleman (1985) puts forward a slightly different opinion which adds a role for participation in implementation as well as in the formulation of policy. Smith *et al.* (1997, p.143) added a further important dimension, suggesting that public participation could be:

‘Any action taken by an interested public (individual or group) to influence a decision, plan or policy beyond that of voting in an election, to improve the representativeness and responsiveness of political and administrative decision making.’

In this view, although representativeness is a key part, the focus is on influence. This introduces the point heretofore only hinted at, that opportunities for participation can be actively sought by those who wish to exert an influence. The particular reference to this process being outside of the electoral landscape suggests that the influence exerted through traditional representative politics is not considered to be great enough, or to be in some way biased.

Smith *et al.* (1997) also suggest that the process of participation can be adversarial; some issues may be considered too contentious, complex or too novel to be adequately understood and represented by politicians in the traditional system. Indeed, it is considered by some that public participation grew out of dissatisfaction with representation as a means of fulfilling public expectations (O’Connor, 1987). This creates a conflict for elected representatives, where a Councillor will encourage the public to participate on an individual basis and to be represented by

him or her, thus maintaining their role in society (Crow, 2005). Even formal theories of representative democracy treat public preferences as data to be considered by elected decision makers (Korfmacher, 2001). The phrase 'considered' suggests that such preferences may not be adhered to. It is this influential, representative and potentially adversarial definition that we will consider to be 'public participation' for the rest of this thesis.

3.6.3 The evolution of participation

Since the first formal recognition of public participation in the 1970s, what has been considered to be public participation has undergone changes. These changes have encompassed a period of 'cost effective lobbying' in the 1980s, and 'dispute resolution' in the 1990s (Smith *et al.*, 1997) moving towards a more influential and deliberative model in the 2000s. In the current model, citizen involvement is linked to concern for the environment or other issues at stake. Citizen involvement has become more professionalised, with non-governmental organisations becoming increasingly familiar with the processes and how to take advantage of them, and this in turn has given rise to the term 'professional citizens', i.e. paid members of national interest groups, or local government officials and local community members for whom active and continued participation can be profitable or at least in their direct interest (Carr *et al.*, 1998).

This shift to influencing and facilitating has been encouraged by government in some areas. In fact, this has not necessarily been an organic change. In Wales, participation was formally increased in response to the advice of the National Assembly Advisory Group at the creation of the Assembly in 1999. The policy process was opened up to business, the voluntary sector and other organisations or individuals (National Assembly Advisory Group, 1998). Partnership Councils for business, local government and the voluntary sector were created (Deacon, 2002).

An example of this mandatory approach is seen in public authorities in Australia being forced to take environmental participation on board, as a result of growing environmental awareness and acceptance (Ananda, 2007). Because this is a

sometimes unwelcome mandate, boundaries are often set by decision makers stating how intensive the participatory effort will be. For example, in the 1980s public hearings were favoured as a form of public participation. They were perceived to be cheap, easy, quick and simple to administer to satisfy legal requirements for public participation. This method is still the norm in Europe for potentially controversial but nevertheless commonplace governance activities, such as urban planning and Environmental Impact Assessment exercises (Noble, 2006).

The process has evolved beyond these boundaries since the late 1990s, to a point where non-governmental organisations take the lead on participatory activity, with little control by government but with the intention of providing a coherent public response to a government activity or proposal, and in this way demonstrating a critical mass of opinion. This reinforces the point that, when policies and their outcomes are likely to require sacrifice or incur hardship upon the public, public participation has a role in justifying those hardships at the decision stage, as well as exploring alternative options that may be perceived as too difficult or 'new' for public acceptance by democratically elected representatives who rely on that public acceptance for their popularity and role.

3.6.4 The need for participation

Participatory or 'deliberative' methods have been considered to be a useful shield against technocratic or idealistic policy creation (Dahl, 1989) and, as a result, in the last 30 years an increased amount of theoretical and empirical research has been conducted on the subject of public or citizen participation or 'deliberative policy making'. Participation invites others into the decision making process to represent the less tangible moral and ethical dimensions, and the practicalities that are required in order to deliver outcomes acceptable to the consumer (Hendriks, 2005).

Van den Hove (2000, p.458) made a bold statement that:

'Stakeholder involvement in decision making is needed to tackle environmental problems.'

This statement related to a need for those outside of the policy/political process, but being potentially affected directly or indirectly by it, to have an influence in making policy, both as 'consumers' of the environment and being subject to changes in it. The need was not only in opening up the field of policy research beyond the technical, but also in fostering ownership of the decision on a subject which lends itself particularly to participation by way of the perceived shared ownership of the environment.

3.6.5 Reasons not to participate

Even with the widespread validation of public participation as seen in practice, there are still reasons not to involve the public. These reasons are not covered greatly in the literature, but the review by Korfmacher (2001) is one such exception which identifies reasons not to participate as:

- Lack of expertise, and costs involved in technical or social training;
- Risk of biased input, as it is difficult to involve citizens in a truly representative way – citizens are more likely to be involved if they already have an interest;
- Risk of de-legitimation: involving citizens in technical aspects may cast doubt over the quality and objectivity of their output;
- Risk of over-legitimation: assuming that the output is unquestionable because it includes public opinion based on 'technical fact'. This may not be the case, as it is dependent upon the representativeness of the group and success of the facilitation process;
- Misrepresentation of consensus: consensus may not only be biased, but also a true consensus may not be attainable due to conflicts of interest, complexity and diversity of respondents. Therefore presenting any single result is misleading and suggests a consensus where none occurs, or at best is a 'lowest common denominator'; and

- Insufficient influence: if there is little chance of substantial input to the decision making process as a result of the participation process, citizens may find the process to be a waste of time.

A further reason, not listed by Korfmacher, occurs when the suggestions made as a result of participation are not adopted by government. The reasons for this may be highly rational, perhaps as a result of unrealistic or undeliverable suggestions by the representative group, but the perceived lack of action as a result of participation can lead to apathy from the participating group(s) and prevent successful participatory effort on future policies.

3.6.6 Participation in environmental policy making

A significant percentage of the available literature on public policy and participation is based on environmental participatory effort, with other subjects covered in detail including health and genetic manipulation for therapeutics. Especially with resources such as land or forestry, as discussed by Carr *et al.* (1998), the public feel that they either own or have a responsibility towards subjects of policy, or that the policy will directly affect their quality of life, therefore giving them the perception that they have the right to participate. In some cases this right is set in legislation: for example in the USA the American people, not the forest agencies, own national forests and grasslands (Ananda, 2007). Even when assets are owned or controlled by government agencies, there is cause for perception that in democratic societies the government, and therefore everything it owns or controls, is mutual 'property'.

Various authors agree that participation in the policy making process is necessary, but not necessarily all for the same reasons. Carr *et al.* (1998) consider it important in order to ensure that all actors understand the policy in order to implement it later. Others state it necessary to resolve conflict between those responsible for delivering policy and those who create it (Gu and Sheate, 2005), or to ensure legitimate, inclusive and deliberative methods are used in creating policy on highly complex and contested issues (Dryzek, 1990; Renn *et al.*, 1993) or in order to have

more collective, holistic and long-term thinking on subjects that require these attributes, such as environmental or health considerations (Gundersen cited in van den Hove 2000, p.458).

The feeling of ownership of the subjects of these policies makes them more attractive for participatory methods than others, but it is perhaps the complexity of environmental issues that makes them most suitable for a participatory approach. Ahmed (2005) showed that relationships between a single policy problem and its solution are often complex, leading to misunderstandings and contradictions in preferred solutions and why they are chosen.

Table 3.6 outlines the characteristics of environmental issues, which include complexity, uncertainty, scale and irreversibility, and the associated social factors that participatory processes are particularly suitable for addressing. As Table 3.6 shows, the decision making processes for dealing with complex and multi-factorial issues is likely to require a diverse cross section of actors from different sectors of society, in order to represent all the possible issues.

3.6.7 The aims of participation

'Ultimate decisions with regard to policies and measures are seen as matters of political choice, and therefore the main aim of stakeholder dialogues should be to provide insights that enable policy makers to make political choices in an argued and informed fashion,' (van de Kerkhof 2006, p.280). This theme is repeated throughout the literature on participation. For instance, Dryzek (1990) claims that participation allows pooling of information and opens up the knowledge base to a wider field of enquiry, while van den Hove (2000) considers that a wider understanding can be achieved through the acceptance of different perspectives. Participation can be reactionary, and have no formal role, yet still be effective. This is most commonly seen in the ability of public protest groups or lobbying groups to influence policy through persuasive argument in a public forum (O'Connor, 1987).

Table 3.6 Inherent characteristics of environmental issues

Characteristic	Social factors	Problem solving process
Complexity		
Non-linear dynamics inherent in eco-sphere as well as unstable equilibria. Can also be as a result of extensive inter-linkages within and between biological and physical systems	Social conflicts – between actors and between issues	Requires dynamic capacity building and problem solving processes, aimed at innovative answers.
	Highly cross-sectoral	Requires co-ordination across policy areas.
Uncertainty		
Related to imperfection and potential lack of completeness of scientific knowledge.	Forcing of early conclusions, rather than open-ended scientific enquiry, to answer specific questions based on value-driven needs.	A need for the progressive integration of additional information as it becomes available and flexible and adjustable answers.
Intrinsic uncertainties also exist as a result of dealing with complex and indeterminable processes.		Decision making processes that allow for integration of different value judgement and different logics.
Large temporal and spatial scales		
The causes and effects of environmental processes extend over large-distance scales and over long time spans.	Diffused responsibilities and impacts. Most solutions need to be implemented by individuals	Involvement of many different actors.
	Disappearance of classical division between local and global aspects	Involvement of actors from different levels of society.
	Long timescales	Involvement of concerned actors and departure from traditional 'short-sighted' politics while remaining democratic.
Irreversibility		
Damage done cannot be recovered from or repaired. This too has a temporal dimension in that it is possible that some damage repairs over timescales much longer than the human lifetime or even over tens of generations.	Requires value of the factor under threat	Pro-active approaches – i.e. depart from remedial action and use more preventative approaches. Potentially looking at 'worst case scenarios' and using the precautionary principle.

Source: After van den Hove (2000)

When formalised, the voluntary involvement of citizens in the process is expected to deliver a useful and constructive contribution to the policy making process. In the decision making phase, the primary benefit of citizen involvement is that it mobilises local expertise. However, there are other positive aspects in the implementation phase. These aspects include gaining local support early on and improving legitimacy (or perceived legitimacy) as well as relationship building (van de Kerkhof, 2006). Due to likely costs incurred, it is unlikely that public participation or citizen involvement will be undertaken if it cannot be useful or constructive. Of the several rationales for why the public should be involved in public decision making, the three most commonly noted are that they make the process: democratic, substantive and pragmatic.

The democratic rationale implies representation of an affected population, having an inherent value and again relating to 'ownership' of the affected resource(s) (Korfmacher, 2001; Ananda, 2007). The substantive rationale recognises that in some cases citizens may make innovative contributions to public policy making and can add resources to an overstretched Civil Service (Korfmacher, 2001; Royles, 2006). Finally there is a pragmatic element to participation; a public that has contributed to, and been educated by, the decision making process is more likely to support the decision outcome and facilitate its implementation, thereby giving it an enhanced sense of legitimacy (Ziamou, 1998; Ananda, 2007).

In some cases participation is seen to be so crucial to the decision making process, for whatever reason, that it is mandated in legislation. For instance, in the United States of America, participation in environmental decision making is required under the National Environmental Policy Act and the limitations on public participation are embedded under the Federal Advisory Committee Act. Even further reaching, the Aarhus Convention is an international treaty of the United Nations Economic Commission for Europe (UNECE) which compels signatories (including all of the European Union member states) to invite extensive involvement by the public in environmental decision making at all levels. Establishment of a statutory regime for participation in administrative rule-making, such as that in USA, is likely to be able

to make an essential contribution towards more effective control of government (Ziamou, 1998).

Civil society engagement was viewed as crucial to making the new democracy of the National Assembly for Wales function, and helping it to achieve its goals for inclusiveness and openness in governance. This resulted in a mandatory requirement in Wales (between 1999 and 2002) of the 'thirds approach' meaning that all partnerships would consist of one third involvement of each sector (public, private and social/voluntary), thus limiting public sector input and encouraging others to the table (Royles, 2006).

This involvement of the public has roots in very early democratic politics and is considered in some cases a democratic ideal (Korfmacher, 2001). However, it has a more targeted role in determining present perceptions of selected groups of interest (Nunneri and Hofmann, 2005) and in doing so provides insight into their likely reactions to a policy.

In some cases, the national legal system fosters participation rights to a considerable extent, for instance in the USA (Ziamou, 1998) where it is considered to be a constitutional right to participate in the process, but also a method of controlling government. In this way, although it may be viewed with suspicion by politicians, planners and the public (Keung, 1991), public participation would seem not only to be a democratic ideal, but to be able to reach into non-democratic governance structures as a mode of involving the public in decision making. It can take advantage of the positive outputs the public can bring, without the requirement to relinquish power by holding an election or referendum.

3.7 How participation occurs

Webler *et al.* (2001) consider that the ways in which people think about public participation are complex in themselves. It would appear important, from observations such as this, that boundaries are set around the participatory process. Careful consideration of design should occur to set realistic targets and achievable aims, therefore giving no false impression of the process prior to its

commencement. For instance, in designing the European Union climate change participatory process, it was made clear early on in the process that the aim was to reinforce interfaces between the research community, the European Commission (EC) climate negotiations team, EU member states representatives, other commission interests and external stakeholders (van den Hove, 2000).

In this way, those who were expected to be part of the process, and what was expected from them was set out early on. In addition, the design was realistic and it recognised that many different factors influence the political process (van den Hove, 2000). The importance of design and managing expectations in the process is reiterated by Korfmacher (2001), while Ananda (2007) recommends that the structure of the problem and the options to be discussed at consultation should be carried out in a group setting – giving greater power to the consultation group. Webler *et al.* (2001) believe that this ‘expectation management’ should be undertaken by people who are aware of the way in which the potential participants will assess the legitimacy and fairness of the process.

Having identified the importance of design in the early stages of the consultation process, it is logical to look at the methods used in participation in more detail.

3.7.1 Participatory methods in formulating policy

Participation can be at many levels. It can be active, passive or re-active. It can be started, facilitated or catalysed by government, by civil concern, by academia or by industry. It can be dependent or autonomous. It has varying levels of authority and power, varying levels of inclusiveness, representativeness or accountability. It is capable of taking account of, rather than marginalising, social diversity issues including culture, wealth or equity. With such complexity built into the very nature of participation, Barbagallo (2003) concludes that it is difficult to compare public participation programmes because of different goals and cultures of different countries.

In the following sections, the methods for effective participation are reviewed in the context of environmental policy making in Wales. In this context, the definition

of participatory methods given by Nunneri and Hofmann (2005) is used. That definition states that participatory methods are structured group processes, and that they allow the participants to articulate their knowledge in a way which can help to inform the observers or those who initiated the group.

3.7.2 Design of participation

The design of the participation methodology can be a factor which influences its success. The key areas stated in the literature as requiring consideration during the design stage are:

- Involvement of the participants and flexibility;
- Recognising the issues to be discussed;
- Group or individuals;
- Deliberation, consensus and discourse; and
- The role of the facilitator.

Each of these areas will be discussed in more detail here.

The first consideration is the involvement of the participants and flexibility. There is an assumption in literature that the participants will have some say in how they participate (Ananda, 2007). For this reason, a certain element of flexibility by decision makers, participants and facilitators is needed; it is useful to take time to reflect upon inputs and outputs and to feed insights back into the design to improve the process (Webler *et al.* 2001).

Next, the issues to be discussed must be recognised. Vasseur *et al.* (1997) and Hampton (2004) both make reference to the importance of identifying and recognising the issues, particularly if there are likely to be contradictory or even perverse responses as a result of public participation. This can be as diverse as the presence of members from different groups, who may bring conflict, to identifying and recognising strategies that will polarise community interests or appear to divide and conquer.

Defining the problem to be discussed is an important but sometimes overlooked starting point. Participants in the dialogue process may not know what the problem is, what their own stakes are, or the positions of other stakeholders in the situation (van de Kerkhof, 2006). Without this information, and the knowledge of how to use it, a participatory process can become counterproductive, as relationships between individual members, or between the members and facilitators, change over time.

A third consideration is whether groups or individuals should participate. Although the definition of participatory processes specifically includes the word 'group', some of those group methods, such as the Delphi method, do not require that the individuals within that group meet face to face. In which case, they could be considered as a collection of individual inputs. There is no single agreed or preferred method for participation. Due to the inherent individuality of every interactive relationship, it is uncertain whether the same result could be achieved in interactive group deliberation as in a series of one-to-one interviews (Ananda, 2007). Different groupings give different opportunities for interaction; discourse gives people the opportunity to explore, refine and articulate their ideas whereas quickly stated positions, gained from participation methods such as surveys, may not represent the complexity of an individual's views. Added to this already complex position, Vasseur *et al.* (1997) state that representatives of an advisory committee can represent a whole committee, alluding that an individual can represent a group just as a group can represent the needs of an average individual.

Section 3.8 will discuss the need for representativeness in groups. However, in designing a participatory process, it is sufficient to say that the literature agrees only that a decision is required on how best to engage with representatives of the public who will be most relevant and effective in that particular process, but not on any particular metric for representativeness.

The fourth area of consideration in the design stage concerns deliberation, consensus and discourse. How the participation is delivered and managed is a subject that has been broached many times in the literature, but the aim of the participation has been discussed significantly less often. In discussion of group

participation, the first assumption is that the group will work together in a deliberative way to deal with the subject. However as stated by van den Hove (2000) participatory settings can, but do not necessarily have to, include some type of deliberative process, i.e. deliberation and participation are not necessarily the same thing. This is seen in practice when participation takes the form of group surveys of nominal groups.

The second assumption is that a deliberative group will be facilitated to reach some kind of consensus that is then passed on to a decision maker. Van de Kerkhof (2006) is the most vocal author about the importance of consensus building, but also balances this with discussion about the pitfalls of consensus building when compared to deliberative discourse. Van de Kerkhof (2006) states that consensus is characterised as negotiation designed to meet the needs of all stakeholders, while deliberation is more concerned with dialogue and argumentation, and has a role in making all stakeholders aware of all of the issues, without necessarily requiring any compromise. Van den Hove (2000) may have informed this work through her conclusions that deliberation, and in particular a technique known as discursive rationality, could help identify and avoid irreconcilable differences that consensus methodologies could not. Coupled with the aim of raising awareness, often identified in deliberative participation, this in itself could be a useful outcome.

Table 3.7 summarises the key points in relation to consensus and deliberation. There are positive and negative aspects to both methods, and that which is most suitable (if not both) is specific to the subject at hand.

A fifth consideration is the role of the facilitator. When gathering inputs from a group of individuals, each of whom have distinct and perhaps contradictory agendas, social values and personal attributes, a facilitator can act consciously or unconsciously as the normative or the driving influence upon that group.

Table 3.7 Positive and negative attributes of consensus and deliberation methods for public participation

Consensus	Deliberation
Reducing conflicts, increased compliance, improving policy.	Recognising and understanding most if not all of the complexities and various issues that they and their co-stakeholders bring to the process, encouraging empathy for others in potentially conflicting or antagonistic positions.
Preventing litigation and promoting public participation through a simpler and less stressful participatory experience.	Process diverges from the compromise or lowest common denominator solution toward one or more problem-specific modes of resolution, resulting in a likelihood for novel solutions
Can lead to outcomes that focus on the simplest, least controversial factors (i.e. lowest common denominator) as a result the quality of any outcomes of discussion may be compromised in preference for more 'agreeable' compromise	May provide layers of information that is too complex to be followed up by existing structures of government.
May lead to a bias in membership – those 'professional attendees' are more willing to reach a consensus and are likely to be attracted because they will directly benefit from a consensus. Conversely, sceptics and antagonists of an issue may be discouraged as a result of considering the exercise to be biased against them, or worse that they will be forced to compromise on issues that they consider to be vital.	Polarised views are welcomed, and this can lead to multiple solutions which may not always be an option

Source: After van den Hove (2000), Korfmacher (2001) and van de Kerkhof (2006)

The facilitator, once trusted and enabled by the group, is able to steer the direction that consensus or discourse takes, filtering out inputs or ideas that are considered to be outside of the remit of the group and perhaps most importantly managing the relationships of individuals within the group. The facilitator can take the role of the Chair of a group, or the secretary. The facilitator can choose to be actively involved, or just an observer. There is no right or wrong method of facilitation, but it must be fit for the purpose to which it is used. It is therefore important to both the participants and facilitator that the facilitation role is fixed and agreed early in the process. The facilitator can have a complex or simple role and, similar to other aspects of participation design, the ability of the participants to inform the way that the facilitation occurs is of importance here.

The facilitator can be chosen from the participatory group, be a representative of the decision maker that the group hopes to inform, or be a third party chosen for their expertise in this area and/or their neutrality. The facilitator(s) should state if they favour any particular interest, party or project outcome prior to the start, and endeavour to progress following procedural fairness guidelines (Hampton, 2004), as should others involved in the process.

This is of particular relevance, because the facilitator is often responsible for presenting the participants' preferences in a decision making process (Hampton, 1999) as well as steering participants during the process. The facilitator is therefore in a position of considerable influence, and this should be recognised and dealt with appropriately if the outputs of the participative effort are to be considered fair and unbiased by the facilitation.

Summarising the above, the role of the facilitator is to ensure that useful outputs are achieved fairly from the participation, by whichever method is most relevant and useful.

3.7.3 Facilitation methods

Having discussed the importance of design in the process, and identified the need for a facilitator, this section will summarise some of the methods that the facilitator

can use to gather input from participants. As individual participation methods are relatively simple and inhibited in their scope, this discussion will focus on group methods. However, where relevant, participation methods for individuals will also be discussed.

Researchers and decision makers increasingly agree the importance of public participation in environmental decision making, yet there is less agreement about how to involve the public. Both Korfmacher (2001) and Webler *et al.* (2001) undertook extensive studies of the literature on the subject and concluded that common elements of fairness and competency are important, but that they are not the only important factors.

3.7.3.1 Participation types

The literature identifies and assesses many different types of participation. Many different participation 'types' were referred to in a sample of the literature taken from between 1992 and 2006; the diversity of types of participation is high. Participation types are sometimes referred to according to the types of group (Delphi group, consensus juries etc.) or referred to in terms of the methods used to gather participation (surveys, working groups etc.); yet others are identified in terms of their purpose (legislative review group, intergovernmental panels etc.). There appears to be no single nomenclature or agreed structure for participation, other than that each type of participation required either individuals or a group, had a specific purpose, and used one or more methods.

Therefore participation type is considered to be a function of the purpose of the participation, and the methods used to participate. This lends itself to a matrix structure to explain participation types, where one axis identifies the purpose and the other the method, as shown in the example in Fig. 3.8.

Figure 3.8 Example matrix for the purpose and methods of participation

		Purpose of participation		
		Give public consensus to a decision maker	Gather opinions as options for a decision maker	Test pre-existing decision making outputs
Method	Focus group	<i>Consensus panel</i>	<i>Delphi group</i>	<i>Nominal group</i>
	Survey	<i>Individual survey</i>	<i>Tele-poll</i>	<i>Internet poll</i>
	Written input	<i>Formal consultation</i>	<i>Internet consultation</i>	<i>Formal consultation</i>

The example matrix in Fig. 3.8 is a simplification. It only includes a single participation type per combination of method and purpose, and in reality this is not the case. However it does concisely illustrate a level of complexity, in that the same participation type can result from different combinations of method and purpose.

3.7.3.2 Methods for participation

Defining the differences between the different methods is not easily done. There is an obvious difference between the methods used for individuals and groups. Group methods are often deliberative, involving elements of discussion and learning, while methods used to gather participative input from individuals are by their very nature more formal and do not educate the participant, nor do they expect the participant to change their thinking as a result of the process. In all other aspects, methodologies used to encourage and facilitate participation are as diverse as the types of participants that they work with. Some examples are shown in Tables 3.9, 3.10, 3.11 and 3.12.

What is clear from the tables of methods is that they cannot be compared directly. Some methods prescribe the type of participants and their outputs (such as legislative review), while others only describe a way of gathering data (thick description). Although this leads to some confusion in the text, in practice the diverse purposes for participation, and the varied types of participants involved

require a flexible and multi-method approach; approaches may need to be reactive and even change halfway through a process. Therefore it is not surprising that no two case studies of participatory efforts appear to be identical. In fact, nomenclature appears to be loose in order to give those considering the participatory effort the idea of what will be involved, while it gives those who commission or facilitate the participation the flexibility to be reactive to the needs of participants.

Table 3.9 Examples of group participation methods for consensus building

Group Methods : consensus building	
Workshop	A group of individuals being brought together to answer a specific question or address a specific problem that they have some level of interest or expertise in. These groups require a tangible outcome as a result of their work.
Consensus conference	A forum at which a citizens' panel, selected from members of the public, questions 'experts' (or 'witnesses') on a particular topic, assesses the responses, discusses the issues raised, and reports its conclusions at a press conference.
Legislation review	A review of existing or proposed legislation, often by specialists, experts or law makers. There is rarely a random or public input to this method of participation, and it is usually undertaken in a formal setting, with a Chairperson, and supplemented by written evidence. This type of method usually results in consensus on an agreed statement or recommendation for publication.
Policy review	As for legislation review, however the group may include a wider range of stakeholders, due to the non-legislative nature of policy.
Environmental Dispute Resolution	A method intended to facilitate negotiation and bargaining between stakeholders, particularly used for environmental issues where the issues are complex and many parties consider that they have ownership of the issues at hand – the environment. A range of consensus building approaches may be adopted to facilitate discussion.

Table 3.10 Examples of group methods for idea generation and deliberation

Group methods: idea generation and deliberation	
Repertory grid	A method used by van de Kerkhof (2006) to increase diversity and deliberation, rather than consensus in a participatory group. This system is based around the concept that minds of individuals are 'construct systems' which reflect their effort to make sense of the world. These systems are highly personalised and influence the way that individuals approach problem identification and problem solving. The repertory grid aims to articulate individual's systems. The system of articulating this view is by iterative comparison, gradually polarising various elements in relation to each other used by van de Kerkhof (2006) to increase diversity and deliberation, rather than consensus in their participation. Provides views on options in relation to each other.
Delphi method	This method requires experts to identify views, which may be conflicting on a particular subject or issue, with the aim of providing information for a decision maker. The experts may not necessarily meet face to face, but are facilitated and 'agitated' to identify issues, or counter issues. Delphi technique may be used with the aim of finding a common synthesis of these issues, i.e. a new consensus. This needs to be conducted by a professional who might filter the process according to a particular theoretical or methodological orientation (Hampton, 1999).
Web forum	A group of individuals brought together to discuss a subject through the medium of the internet and other electronic communications. Such groups rarely meet in person, or even communicate by telephone. Groups can be open to input by anyone through the internet, or can have restricted access, and require a moderator to administer them and potentially raise discussion points.

Table 3.11 Examples of group methods for assisted thinking

Group methods: assisted thinking	
Dialectical approach	This method subjects individual's worldviews to scrutiny, in the context that these worldviews have an influence on how individuals deal with problems. The approach involves making a choice by examining an issue completely and logically from two different points of view – a dominant and alternative point of view. In deliberating in this way, the assumptions that underlie viewpoints are themselves deliberated upon. Provides insight into a line of reasoning regarding one particular option (van de Kerkhof, 2006)
Value focussed thinking	In which values, not alternatives, are the driving force of policy making. Stakeholders identify a small set of objectives that are important in selecting an alternative. These may be hierarchical (value tree) or described in terms of the relationship between end objectives (what really matters), and means objectives (what matters because of its influence on more fundamental objective). Value focussed thinking looks at the implications of these objectives in constructing solutions that will best achieve the value-driven outcome (van de Kerkhof, 2006). The method uncovers hidden objectives, and aims to co-ordinate interconnected decisions and to generate new (better) alternatives.
Semantic differential	Aims to measure people's attitudes, and changes in those attitudes, to shed more light on links between attitudes and behaviour. This is done by measuring the responses from stakeholders to certain words.
Decision support	This method uses computerized interactive software based systems that support decision making activities. The system will draw together useful information from raw data, documents, personal knowledge, and/or business models to identify and solve problems and make decisions. In this way, the computer takes over the role of the facilitator, and can enable much more effective assessment of the group process through evaluating how information is used (Nunneri and Hofmann, 2005).
Presencing	Facilitators ask the participants to consider the future, and their role in it (the artificial present) in order to discuss the sequence of events that need to occur in order to achieve that future.
Thick Description	Geertz's (1973) Thick description is a possible way of democratically informing the policy process (Thompson, 2001). A means to discover and reveal the depth of meaning that human actors inscribe in their language and actions. Although originally used for anthropological work, is applicable to other areas – particularly in communicating complex concepts. Thick description allows the reader/observer to interpret the researcher's work by giving enough context of the situation.

Table 3.12 Examples of methods of participation used by individuals

Individual methods	
Formal consultation	A formal process often used by governments and decision makers, where stakeholders are asked to give formal responses to a written document, such as a pre-policy document, strategy or statement, in order to gauge public opinion and inform the final version.
Survey	Individuals about a specific subject or chosen subjects to gather 'first impressions' and inform decision makers. This can be systematic and accurate way to analyse public opinion, and is very representative of the population, but it is a 'snapshot' with no ability to promote deliberation on the subject. Survey: It is useful for correcting pre-emptive perceptions by decision makers. When done on a one-to-one setting, can give information to help understanding by the interviewee. Small groups can be used in conjunction with more representative survey method to overcome difficulties of 'talking with a stranger' especially for lone women, or people from different cultural backgrounds (Hampton, 1999).
Written response	Participation by individuals or groups, which may be requested by decision makers, as in formal consultation, or spontaneous in response to changes or proposed changes that the respondent is aware of.
Telepoll	Similar to telephone surveys, telephone polls often ask a limited number of questions, and request respondents to score them, according to their personal opinions – often undertaken only once during a limited time period.
Internet poll	As for telepolls, but with no person to person interaction, instead being undertaken using an internet based programme. May have a limited timeframe, or be revisited by the respondent over time.

3.7.3.3 Methods for groups and individuals

The review of the literature also identified the classifications for groups and individual participants shown in Table 3.13. The table is not comprehensive, but it gives a flavour of the diversity of groups or individuals that are brought together to represent the public in participatory policy making. Some of these groups appear to be identical in their remit and/or make up, and there is no stated reason for novel nomenclature. However, the perception of what each of these involves appears to differ according to its name. It is perhaps the need to be considered distinctive in their work that stimulates the creation of a new nomenclature; however this can only ever be conjecture because of the subjective and non-collaborative way in which naming occurs.

Table 3.13 Examples of types of group and individual participants mentioned in the literature on public participation

Groups	
Citizen jury	A 'jury' is selected at random of people from a local or national population. The jurors cross question expert 'witnesses' – specialists they have called to provide different perspectives on the topic – and collectively produce a summary of their conclusions, typically in a short report. This process may be supervised by an oversight or advisory panel. (Barbagallo, 2003). Often these are highly structured, deliberative fora, with little flexibility (Hendriks, 2005).
Citizen committee	A committee of interested publics for a specific cause or area, often with the ability to make decisions on the expenditure of modest sums of public money, as well as advising decision makers on their cause. Citizen committees may be selected and co-opted to support a particular case, but this can be circumvented by public elections to appoint members (Hampton, 1999).
Pre-policy focus group	Groups of either randomly chosen or interested parties brought together to raise ideas and concepts in stages before a policy is created – with the aim of informing policy makers
Report group	A group with a remit to produce a report on a specific subject, at the request of a decision maker. Often made up of experts or interested individuals.
Expert panel	A panel of experts in a particular field, brought together to advise a decision maker.
Task and finish group	A group brought together, potentially from any background, although generally considered experts or interested parties.
Task force	As for a task and finish group, a group brought together, potentially from any background, although generally considered experts or interested parties.
Discussion group	A group, which may or not be moderated, brought together with the aim of discussing one or more subjects. These groups may or may not include a report or deliverable as an outcome.
Individuals	
Member of the public	At its simplest, a member of the public can be defined as any individual with no active involvement in the decision making process. However, the reality of this situation is that members of the public are rarely without some level of interest in the outcome of policy.
Expert witness	An individual considered to be an expert in a particular field but with no active involvement in the decision making process.
Stakeholder	An individual with an active interest in either the decision making process, or the delivery of the recommendations as a result of that decision – i.e. someone who has a 'stake' in the subject under discussion.

3.8 The public and participants

Having identified that there are many types of group, a further question can be asked: are these all forms of 'public' participation? To answer this question, a definition of public is required.

The consumer of policy and the individual or group most relevant for participation is often described as 'the public' however this appears to be an artificial construct as the reality rarely conforms to the assumptions surrounding this term. Individually labelled as 'the citizen', or en masse as 'the public', any person outside of the decision making process can be referred to in this way. However this is an oversimplification as, potentially, those involved in the decision making process can at times also be considered to be, or even represent, 'the public'. From the literature it appears that the only common characteristic of various groups referred to as 'the public' is that they are human beings being referred to in the third person. Being a member of the public infers no specific knowledge and no cultural, physical, religious or other qualifying characteristic.

When considering public participation, what generally occurs is not the involvement of the entire public, but the involvement of a smaller group that takes on the role of 'representative'. In reality, it is impossible to reproduce a group that is exactly representative of an entire public. In many situations it is likely that groups will share a popular viewpoint or set of values, and it is often this 'lowest common denominator' towards which policy is aimed. This can present both an opportunity and a threat. The lowest common denominator is likely to represent the fundamental or most basic requirements or social needs of a public and so result in a high level of consensus and support. Conversely, although the phrase 'lowest common denominator' is not an accepted policy term, it does appear frequently in policy making literature (Pollack, 1997; Ray, 2004) where it is treated as a negative term, or symptom of apathy, when policy makers and politicians fail to address what may be the pertinent needs of the few for fear of upsetting the many. In any democratic society, the popularity of policy making is a factor at election time, and it must be accepted that some level of lowest common denominator policy making is inevitable. If one accepts this less idealistic but more realistic view, it would

appear that discrimination against a participating group for fear of over-representing this lowest common denominator is likely to be counterproductive in operation; the outputs resulting from a participating public with a non-populist viewpoint are likely to be overturned or treated cynically by politicians who wish to remain popular with the majority.

3.8.1 Reproducing representative groups

The inability to reproduce a truly representative group in practice can cause criticism and damage the credibility of the public participation process. Observation of the process has shown that the demographic of participants is often biased towards white, middle classed participants, and those who have a specific interest in the process being discussed (Korfmacher, 2001). This bias can extend into organisations as well as individuals. Where public interest groups are funded to participate in an advisory capacity, the decision makers funding them have a greater ability to control the terms upon which the groups can participate. This may pose a difficulty for the group trying to maintain their ideals but still participate on the terms set by their funders (Smith *et al.*, 1997).

In her description of stakeholders, van de Kerkhof (2006) identifies three characteristics of stakeholders. Firstly, stakeholders can be individuals or organised groups; secondly, the stake of each stakeholder may not be obvious, often due to matters of perception; and finally, the relevant groups of stakeholders may change over time due to dynamic processes where issues become relevant or obvious to different groups.

In this context, stakeholder motivations appear to be an ever shifting and dynamic landscape with changing influences, such as international conflict, globalisation, terrorism and climate change. Stakeholders also have increasing scientific knowledge. These factors make the process of identifying stakeholders that are representative of a population, or even a particular stake, particularly difficult.

What can add further confusion, and reduce credibility in the system, is the replacement of the word public with the word 'citizen'. Citizen is a better defined

term than public; it infers being a resident of a particular nation and therefore having a national identity and culture. It infers being a civilian, a voter, and having a sense of citizenship i.e. a willingness to undertake tasks for the good of the nation of which the citizen is a part. However, such proactive, good willed voters and civilians may not necessarily represent the entire population who may be affected by a particular policy or plan.

3.8.2 Types of publics

The recognition of the public as groups of individuals whose behaviour cannot easily be predicted and, more importantly, who may not wish to participate at all, has important implications. Individuals form complex, and sometimes contradictory, relationships with each other. As a result, hierarchies can form which give 'the loudest voice' or most respected or popular personality an inequitable level of input.

In considering the problem of representative publics, Braun and Shultz (2007) postulated that there is more than one type of public which can participate in the policy process, and these types are actively constructed or deconstructed in order to fulfil a purpose. They identified four prevailing constructions of publics:

- Abstract or unspecific publics, as constructed randomly via opinion polls;
- Stakeholder publics, i.e. those active participants as public representatives;
- Pure publics, as constructed by some citizen or youth conferences, made up of unorganised individuals who are deemed 'ignorant' but ethically capable; and
- Afflicted publics, made up of individuals who are personally afflicted by a problem and who are deemed to provide a special type of authentic embodied expertise.

Although it seems difficult and needlessly artificial to purposefully construct 'publics' that contain only a single type of individual, in order to see their comparative participatory reactions to a policy, it is important to note the underlying theory behind Braun and Shultz's work; that the very act of participation infers, and in some cases requires, some point of relativity between the policy and the individual, and so the publics will, by their nature, be constructed in some way. Braun and Shultz (2007) conclude that those who are involved in the process are affected by it and so become separated by experience from those members of the public outside of the process, much as an observer has an affect on an experiment. Perhaps the most succinct of their conclusions is that there is no such thing as the public (Braun and Shultz, 2007).

The public do not necessarily have to be aware of their role in participation. Facilitators who intend to use enhanced methods of participation, where stakeholders of the general public are unaware that their responses are being studied in order to inform policy, are likely to find that this has an effect on the outcomes of the study. Decisions made by those who are unaware of the role and implications of their decision can be just as unrepresentative as the decisions of interest participants (Nelson, 2005). In the extreme, public hearings and fora, where the opportunity for participation is widely known, can be dominated by interest groups who may be unrepresentative of the wider community. Such special interest groups may have strong views which motivate them to attend (Hampton, 1999). Such meetings may also need pre-submission consultation, in the form of information packs to encourage greater understanding, but this information may influence the attendees further (Hampton, 1999).

3.8.3 Participation in practice

Having identified those fictional publics that theory suggests should participate; there is ample literature that identifies the actual groups that do participate. Literature suggests that people who participate in consultative groups are more likely to be educated and economically advantaged and to express opinions that differ from the majority of the population (Holder and Lee, 2007). There is another

pattern of participation, which suggests that participation is associated with interest in a particular issue and whether it is a local concern (Smith *et al.*, 1997; Hampton, 1999; Korfmacher, 2001; Webler *et al.*, 2001; Parkins, 2006).

The ability of special interest groups to adequately represent 'public interest' has been questioned on more than one occasion (Smith *et al.*, 1997; Vasseur, 1997). Such groups may, and have been found on occasion to, speak for only a minority. However, they are effective in that they do give that minority a louder voice, and in doing so turn the attention of both the wider public and the decision makers towards it.

Smith *et al.* (1997) labelled two types of group as interested participants: 'interest advocacy groups' would include pro-groups, lobbying groups and public hearings with no direct mechanism for sharing of power and for whom accountability is limited; 'interest intimidation groups' include NIMBY (Not In My Back Yard) groups, where stakeholders resort to legal action, protest and civil disobedience in order to influence policy. These have merged towards a middle ground of 'interest participation', with increased empowerment and improved accountability within interest representation (Smith *et al.*, 1997).

A significant proportion of studies associated with interested participants have been involved with environmental issues. There is no definitive reason for this. Although the literature points to environmental issues being particularly suitable for participatory policy making, due to their complexity, there is no explanation as to why such participatory groups lend themselves particularly to academic study.

Groups that do participate appear to be divided into two types. The first type includes those who have the time and resources to take part in a potentially continuous process, in order to inform a decision which is of particular importance or relevance to them. The second type of group consists of those who are chosen, either at random or as a constructed public, to take part in a short process which will not greatly impact on their time or ability to do other tasks. This latter 'public' may be more representative, but as all publics give their time voluntarily, the individuals involved must feel that it is worth taking part.

Of particular interest to policy makers in the field of economic development, and pertinent to this thesis, is the problem of constructive 'business' representation in public participation. Policy makers involved in working with business have shared with the author experiences in the UK which suggest there are two major factors that cause business representation to be considered difficult by policy makers. The first factor is: who should represent the representatives? The second factor is cynicism by business over the profitability of participation.

In considering who should represent the representative businesses, it has to be remembered that a single business cannot be considered a coherent whole or an unconflicted 'individual'. It should not be assumed that all employees and stakeholders in any given business have a single common goal or agreed standpoint. Senior management are likely to be driven by different goals than junior or operational staff. Staff in different operational roles may have different understandings of what the business needs as an outcome from their participation. Therefore the choice of business representative can be fraught with pitfalls from its inception. Occasions where business representation is easiest appear to be where the issue that participants are being asked to consider is a specialist one, such as procurement, environmental management or accounting, where one or two individuals in the business have a holistic view of that subject's impact on the business and a strong steer from senior management as to the role of that subject in the business. In order to overcome part of this problem, membership organisations such as the Confederation of Business and Industry (CBI) and the Federation of Small Business (FSB) in the UK act as unionised representation for business by taking a stance that is likely to benefit all or result in level standards being set for all business. However there is no guarantee that these are in themselves representative because they rely on paid membership and in doing so tend to attract prosperous and interested businesses.

Cynicism by business over the profitability of participation also affects participation rates. Those responsible for agreeing to participate need to believe that participation is an effective way of spending company resources. Policy makers have reported that, if participation is considered to be shallow and its final

outcomes will have little guaranteed impact on the business bottom line, business representatives will turn down invitations to participate. However, qualifying these bottom line impacts can go some way to understanding why some businesses do participate. If participants can increase positive public image for the business by their association with the process, or increase their exposure to potential customers in some way, they may be more likely to participate. This presents a problem of representativeness and also usefulness, as those participating are driven by other motives than to improve public policy.

3.9 Measuring the effectiveness of participation

Having identified the remit and purpose of participation, used a suitable method and involved a public, the subject of the measuring the success of that participation should naturally be raised next. As stated at the start of this chapter, participation must be effective and credible if it is to be of use.

Webler *et al.* (2001) postulated that there may be no single definition of a good process, either in abstract or context specific cases. What is clear from the literature is that methods of analysis are for the most part subjective. By their nature, no two participatory groups can be identical and, for that reason, attempting to compare them or to apply statistics to their outputs can have no robustness. By the same token, the same group may perform differently on different days as a result of factors as diverse as local news, air temperature or the colour of a meeting room where participation is taking place. As hinted at by van de Kerkhof (2006) in discussing deliberative methods, analysis has to take into account that the individual construct systems of participants may be hidden but will have a high level of impact on a group. Thompson (2001) approached this from another angle, stating that the most successful methodologies were likely to be hybrids of more traditional methods.

Hampton (2004), in discussing the role of the facilitator as an analyst of the outputs of a participatory effort in a community, also raised the importance of values and interests as well as technical analysis. Therefore it makes sense that any form of

analysis should judge the success of the effort against the specific reason for which the participation was instigated. Did it do what it was supposed to do? Are the outputs useful to the decision maker?

3.9.1 Criteria for assessment of participation

Just as no single method, or nomenclature, for participation is agreed in the literature, no single method or criteria for assessment can be identified. Examples of assessment criteria are diverse, and these can be roughly divided into eight criteria which are listed here and then discussed:

- Articulation of one or more standpoints;
- Requires tools or training;
- Requires time or resources;
- Legitimacy and transparency;
- The process should be evidence based;
- Should have clear start and end points;
- Should balance the interests of science and social issues; and
- Must be empowered.

One or more standpoints must be articulated. In all group or individual methods, an element of disparity in the initial articulation of viewpoints is a common factor. Van den Hove (2000) states that this initial disparity of views may continue through the process and consensus may not always be found, but that all findings from a process are of value.

Participation may require tools or training. Participating in the decision making process requires most people to undertake tasks, or work with concepts that are unfamiliar. It also requires those groups that are representative of the public to consider all areas that the public are expected to consider, which may require further knowledge or training. Other types of tools or training are associated with group working, considering complex problems, and understanding the roles and capabilities of the decision maker (Royles, 2006). The use of everyday language

and the presence of a facilitator (other than a scientific expert) are considered to be important by Vasseur *et al.* (1997).

Participation requires time or resources. There is a voluntary time and resource contribution made by the participants in the process (Rashed, 1995; Korfmacher, 2001). Often smaller civil sector organisations cannot compete with larger more established and better resourced participants (Royles, 2006) and so their ability to participate is reduced. External partners can consider public participation to be drawn out and expensive (Carr *et al.*, 1998) however some public interest groups have recognised the cost and resource implications of lobbying/public participation and make efforts to pass these costs on to governments (Smith *et al.*, 1997). Whether the time and resource costs are borne by the participant or the decision maker is specific to the particular exercise, but it must be considered in the assessment.

Legitimacy, transparency and credibility (equitability) are important. Smith *et al.* (1997) and Webler *et al.* (2001) both discuss the importance to the participants and to the wider public of the process being seen to be legitimate, transparent and credible. The main driver for this is that a transparent and responsive process allows participants to see how their input is considered and weighed by the decision makers (O'Connor, 1987). Without this level of credibility, participants have been found to become disillusioned by the process, and are neither likely to support the decision makers subsequent to their participation nor to participate on future opportunities.

The process should be evidence based. Although the discussion so far concludes that technocratic input can be under-representative of the needs of the public, it does not mean that all processes should be without an ample evidence base. Korfmacher (2001) puts forward the view that the evidence basis of the process is essential, to add to the credibility of the participants' outputs.

The process should have clear start and end points. A participatory process is undertaken for a specific purpose, and so a timeframe within which the results of participation must be received by the decision maker(s) is required (Webler *et al.*,

2001). Without this, participation could start late or continue long after the necessary issues have been addressed by the participants.

Participation should balance the interests of science and social issues. Public participation can bring social and moral issues to policy discussions that would otherwise be dominated by scientific and technical information (Barbagallo, 2003). Public participation is considered capable of ameliorating social injustice that results from purely technocratic policy making if it gives people a voice and their views are duly considered in the process (Hampton 2004).

Finally, the participants must be empowered. The process must be legitimate and the greatest level of legitimacy is imparted through a level of empowerment, given through a clear connection to the policy making process (Barbagallo, 2003).

Arnstein's public participation typology represents the methods of participation according to their potential impact on the decision making process (Arnstein, 1969; Rowe and Frewer, 2004; Ananda, 2007). The typology, or 'ladder of empowerment', in Table 3.14 shows that those areas with the greatest levels of empowerment are the joint decision making and conciliation/mediation types. These are rarely considered to be public participation methods (and for that reason were not included in Table 3.13). Instead they are more often used when decision makers negotiate with non-decision makers who have a considerable amount of existing influence in terms of their contributions to the economy (for instance, large retail or manufacturing firms) or can influence a significant proportion of the voting public.

In Table 3.14, levels C to F of Arnstein's typology include the types of group participation that have an influence on the early stages of policy and decision making by representing popular opinion and social aspects that are not necessarily evident from purely technical analysis. These methods are all group interaction methods, requiring a representative public and some level of facilitation, as well as tangible outputs which can be used to inform decision makers.

Table 3.14 Illustration of Arnstein’s typology of participation and associated techniques

Level of participation and impact on the decision	Technique
High - forming/agreeing to decisions	A Joint decision making
	B Conciliation/mediation
Having an influence on decisions	C Assisted negotiation
	D Collaborative problem solving
	E Facilitations/interactive workshops
	F Taskforce/advisory groups
Being heard before decisions	G Conferences
	H Public hearings and formal consultations
Low - knowledge about decisions	I Public information

Source: Ananda (2007)

Levels G to I have little impact on the evidence base or the issues considered by policy makers during the initial stages of policy and decision making. Instead, they act as a type of ‘test bed’ for policies after the initial drafts are published. In the case of Level I, there is no ability for the participant(s) to greatly affect the final policy, other than through reactive legal action or civil disobedience.

3.9.2 Post-participation assessment

Although the literature discusses the assessment of a participatory process based on its design, there is little that suggests a methodology to assess the success or otherwise of a participatory policy making process based on its outcomes. By its very nature, a participatory process that results in either an individual consensus or a number of discreet discourses has been a success. Added to this, the criteria for measuring successful policy making, discussed in Section 3.5, could also provide valid methods for post-participation assessment.

3.10 Summary of policy and public participation

In Wales, policy making is an important tool for the devolved Assembly Government system: as it is for any non-autonomous government with limited legislative powers. The role that public policy holds is important, and the system that has been used to create and implement policy has changed, and continues to evolve, in the period since the new Labour Government came into office in the UK in 1997. These changes have recognised the need for policy making and governance that take into account both the needs of the citizen and the technical or administrative facts. These new methods move away from the traditional, but entrenched, methods of working passed on to the Welsh Assembly Government by the UK Government's Welsh Office and the UK Parliament. This is recognised in the new forms of guidance and assessment that are used.

The move towards more inclusive and citizen focussed decision making involves more practical application of public participation methods. These are used to gather consensus from groups outside government and to express that consensus view to decision makers as policy suggestions. This is not a wholly altruistic aim; undertaking real and involved public consultation on a policy can add credibility and reduce bias in the policy making or decision making process, as well as increasing public ownership of policies.

Even with the enhanced public participation and consultation methods used in the Welsh Assembly Government since its inception in 1999, in practice the majority of consultation requires interested individuals to volunteer their time to take part, and the level and number of incidences at which citizens can influence the process is limited. Meeting the criteria for successful participation requires an enhanced level of participation by a representative public, who are resourced and able to make a difference to the process, together with agreement by the decision makers to utilise that input in their decision making.

CHAPTER 4. THE EXPERT PANEL ON RESOURCES MANAGEMENT FOR WALES (A CASE STUDY): RESEARCH SCOPE AND METHODOLOGY

In the previous sections, much has been made of the importance of evidence and public participation in policy making, and the drivers for business in this area. For businesses, input into the policy making process can be particularly useful. Policies that do not consider the impact on business in an informed and knowledgeable way can unintentionally cause numbers of businesses to fail and in turn cause wider economic implications. The Expert Panel on Resources Management for Wales was set up to provide input into the policy making process by business and improve business-environment policy. This chapter discusses the methodology employed to develop a case study based on the Panel and its work. The motives behind the creation of the Panel, the methods used to investigate and facilitate the process and the scope of the study undertaken to determine its effectiveness are all discussed.

4.1 Background to the research

As stated previously in Chapter 2, the Expert Panel on Resources Management for Wales (hereafter referred to as 'the Panel' or EPRM) was created to advise Welsh Assembly Government ministers on current and future best practice for resource efficiency by business, and to suggest methods and processes that the Assembly Government could implement to assist businesses.

The Panel consisted of eight members chosen by representatives of the Minister for Economic Development during 2003. The members were chosen using the procedures relating to public appointments set out in the report on standards in public life (Nolan Committee, 1996). In addition, a number of ex-officio members took part in meetings, either acting as secretariat, advising on Assembly Government procedures, or representing stakeholders such as the Business Environment Action Plan (BEAP) steering group, and the Welsh Sustainable Development Forum (EPRM, 2005).

After the first year of their work, the members of the Panel set themselves the following formal terms of reference and agreed to complete them prior to April 2007:

- Advise the Welsh Assembly Government on resource management[†] current and likely future business best practice;
- Comment on progress of the implementation of BEAP;
- Advise the Welsh Assembly Government on the formal evaluation of BEAP; and
- Advise the Welsh Assembly Government on the development of further phases of BEAP.

During their first year of work, the Panel identified their aspirations and undertook the first part of a strategic planning exercise: understanding the landscape of initiatives in Wales relevant to their terms of reference (EPRM, 2005). Areas of resources management policy and practice that were already making a difference were identified, along with their recommendations to integrate with existing and emerging policy initiatives. The Panel also had significant interaction, through presentations at Panel meetings, with external partners, stakeholders and other experts.

After this first year of their work, the Panel were assisted by researchers seconded from Swansea University: Dr Gavin Bunting and Louisa Huxtable. The role of these researchers was initially to provide the evidence-base for the recommendations that the Panel were to produce at the end of their three year term. An additional role was soon added. The researchers were to act as facilitators and interviewers, to gain the maximum possible benefit from the complex and plentiful outcomes of panel discourse, where lack of focus could result in dilution of impact.

[†] A definition for resource management was taken from the original BEAP, and is taken to include product and process design from a whole life perspective and all aspects of control of materials, energy, water, waste and transport.

The role of the researchers included: the collection and collation of evidence and research; building a network of contacts to support the Panel, from whom further information and advice could be sought; organising and facilitating workshops and meetings; interviewing stakeholders; the preparation of questionnaires and reports; and the privilege of representing the Panel at committees and meetings with Welsh Assembly Government Ministers and senior civil servants.

4.1.1 Opportunity for research

From its inception, the Panel was considered by civil servants involved with the process to be an innovative and experimental way of ensuring business participation in business-environment policy making, and of increasing the effectiveness of the resulting policy through expert rather than technocratic or bureaucratic input. However, the approach taken was not chosen as a result of focussed study and research into policy making, but rather was a reactive approach by an under-resourced department, taking advantage of available budget for participatory activities, to help guide its own work. In essence, the approach was untested in this context with no evidence at the time of its establishment that it would be successful. Further, prior to the commencement of the exercise, those responsible for convening and facilitating the Panel had little or no expertise or experience in such work, other than at a very simple and general level of organising, chairing and/or recording the minutes of meetings.

As an experimental and innovative form of policy making in Wales, and having operational input from academic researchers, the work of the Panel opened itself up to study and evaluation in a way that other policy making rarely does. This led to a research problem being posed relating to the effectiveness and suitability of the process.

It was agreed that one of the researchers, Louisa Huxtable, would be allowed to enrol for a higher degree with Swansea University and to use the EPRM as a case study on which to base this Ph.D. thesis. The other researcher, Dr Gavin Bunting, having a different set of skills and being focussed more strongly in the areas of

technological and business solutions, agreed to make available research notes and observations of meetings for this work. This agreement allowed the two researchers to continue working together while this thesis forms a novel and significant contribution to knowledge by Louisa Huxtable alone.

4.1.2 Research problem

The research problem being addressed in this thesis, as indicated in Section 1.2.1, is whether the Expert Panel on Resources Management was a novel, repeatable and effective method for business to inform public policy, specifically in the area of business-environment policy making. Like many such problems, this issue had to be addressed in a wider context. The context in this case included: considering how success should be measured; what factors, if any, made the Panel's work successful; whether the methods used and measures of success could be employed on a wider scale or in other situations; whether the work of the Panel was as innovative as at first suspected; and the wider implications of the Panel's work in an operational context. The research problem was therefore not only about whether the Expert Panel on Resources Management could be considered successful but also to identify the criteria by which success could be measured.

4.1.3 Research aims

As a result of the research problem being addressed, the following research aims were identified and studies were undertaken over the remaining two years of the Panel's work to create a case study that included:

- The outcomes of facilitation of the EPRM process;
- Observations of the EPRM process in a wider context;
- Comparison of the process with that used traditionally; and
- Assessment of the effectiveness of the process and its outcomes to date.

The research and facilitation aims were achieved between April 2005 and April 2007. Comparison with more traditional processes that had been in operation previously, and were ongoing at the time, was undertaken between April 2006 and April 2008, as was the assessment of effectiveness.

4.2 The case study as a suitable research strategy

The case of the Expert Panel on Resources Management for Wales formed the basis of this doctoral thesis, and a variety of qualitative methods were used to investigate the case. For clarity, the later sections of this chapter (Sections 4.4. and 4.5) give details of the methods that were employed in the course of the EPRM process. However, the following sections outline the research methodology employed; provide a justification of the choices of method used; and discuss some of the best practice elements associated with developing a case study of this nature.

4.2.1 Suitability of the EPRM as a case study

Using a case study method as the framework for the investigation into the Expert Panel on Resources Management (EPRM) was considered to be appropriate for a number of reasons which are listed here and discussed in more detail below:

- The study was dealing with social reality in a 'naturalised' setting (Bryman and Bell, 2007);
- The subject of study, the Panel, required outcomes to be delivered regardless of the study taking place (Gill and Johnson, 2002);
- The study had to be reactive to the real-time situation and could not dictate the Panel's membership or aims (Stake, 2005);
- The case was innovative (Yin, 1994);
- The case was a specific, bounded system (Stake, 2005);
- The case needed to give 'how' and 'why' answers relating to the effectiveness of the Panel (Yin, 1994); and

- The case under scrutiny was in place prior to the study starting (Gill and Johnson, 2002).

The Panel lent itself to qualitative, rather than quantitative, investigation as a consequence of the inevitable influence that is exerted by the personalities of the individuals involved in social interaction of any type. Gubrium and Holstien (cited in Bryman and Bell 2007, p.403) describe this situation in their 'traditions' of qualitative research, as 'naturalism', i.e. seeking to understand social reality in its own terms, providing rich descriptions of people and interaction in natural settings.

To reinforce the appropriateness of qualitative methodology in this instance, it is apparent that quantitative study of the EPRM would have been unsuitable because it would have required the study to directly, and perhaps adversely, affect the natural course that the process took by enforcing artificial conditions and boundaries around the work being undertaken. This would have likely resulted in the investigation overlooking some of the indirect impacts of the work and at worst prevented the Panel from achieving its aims by inhibiting reactivity and flexibility to the Panel's changing environment. Qualitative case study methodology allows the flexibility and reactivity in structuring and framing research that is needed in order to optimise the understanding and effectiveness of the case in its real-life setting.

Further, EPRM was an individual case. It was considered to be innovative, novel and unique, having attributes which, when fully understood, could inform others and draw attention to important issues raised by the case in and of itself. In addition the knowledge learnt could be applied to other situations, or cases, or in planning other activities.

Case studies are about specific, bounded systems studied during a functional period. The work of the EPRM was such system, with a specific start and end date, strict terms of reference and an identified membership.

Case study research lends itself to studying systems or cases which have already commenced, and therefore the component parts are already chosen, prior to the study itself starting (Stake, 2005). The EPRM had already started its work a year

previous to the researchers joining the group and formal investigation beginning, which meant that case study methodology could still be deemed suitable. Other methodologies require that the component parts such as membership, timescale and scope of study are dictated by the academic method prior to the study commencing. Case studies consider, and value, the situation in its real world context; this was the situation required by the study into the EPRM.

The final reasons for treating EPRM as a case study, fitted closely with the description that:

‘Case studies are the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context,’ (Yin 1994, p.1).

As described above, the investigator was presented with an exclusive opportunity to study the EPRM during its working period. The role of the study was to consider ‘how’ the Panel functioned, whether it was successful, and then to report on it. This was a functional and experimental business environment policy making group, which had already been formed and the process of working already agreed prior to the investigation into its work starting. Treating it as a case study increased the robustness of the scrutiny that the Panel was under, whilst still recognising that it was a working, active group with a limited timescale, and which could not be as accurately studied once it had completed its term.

Having established that a case study was a suitable framework within which to study the EPRM, there was a need to understand the type of case study that would result. There are many different typologies for case studies used in literature. These all have their place and provide a comparison of the study at hand to other types of study that would be less suitable in context. When considering the case of the EPRM, the three types advocated by Stake (2005) were used to help frame the research method. These three types: the intrinsic case, the instrumental case or multiple cases, are defined according to the expected outcome of the study. Those studies undertaken to get a better understanding of a specific case, because of the traits that make it a specific ‘One’, and not a representative sample, are known as intrinsic. Where the case is studied because it represents a wider sample or can

provide insight into other cases, allowing the investigator to understand something other than the case at hand, it is known as an instrumental case. When there is less interest in one particular case, but a study of a sample or cluster of activity is undertaken to draw generalisations about many, this is known as multiple or collective case study. The EPRM was clearly not a multiple case study, but it was neither clearly an intrinsic nor instrumental case study; it shared elements of both. This is not unusual. In fact, Stake (2005) mentions that there is no hard and fast line distinguishing between these two, but instead that there is a level of overlap between them.

In the case of the EPRM, there was a willingness to understand the process on its own merits, as an intrinsic study, not because it illustrated a particular trait or problem, or was representative of any other particular type of group, but because understanding this process would give a further level of validity to the work already undertaken and suggest whether it was a good use of public time and funds. However, there was also a desire to see if the intrinsic aspects of the case study suggested that the process had been successful, and whether it could be used on a wider scale in other situations. Therefore this case is primarily an intrinsic study with a conditional aspect of instrumental study.

4.2.2 Case study design

Like other methods, the case study method is characterised by a set of prescribed procedures. The usual process for a case study, which was followed for the EPRM, can be summarised as:

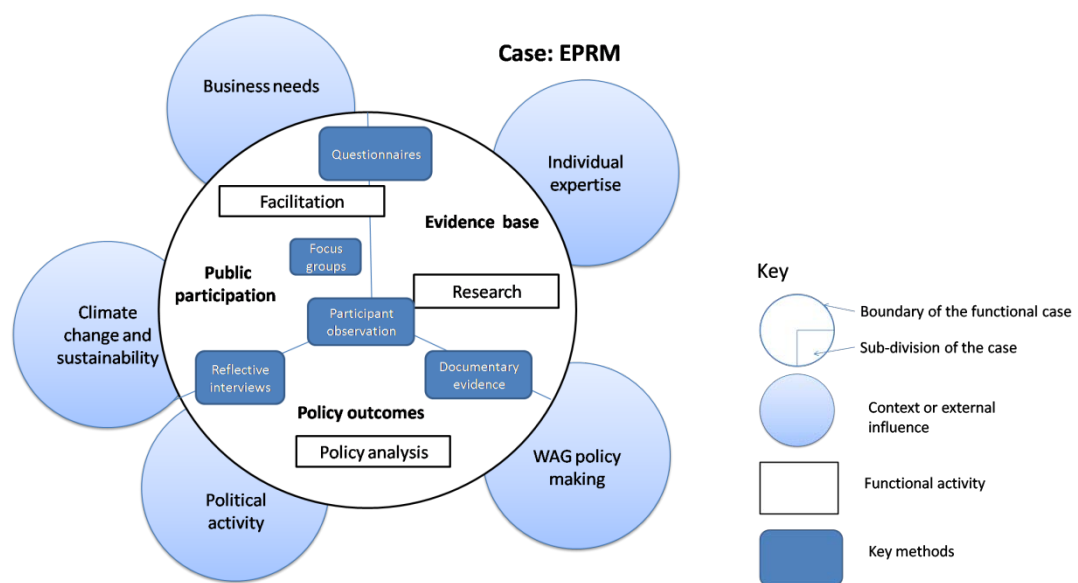
- Identifying an appropriate case and relevant sub-units;
- Identifying and understanding the context and nature of the case;
- Collecting evidence;
- Analysing evidence; and
- Drawing conclusions.

The EPRM was identified as a primarily intrinsic study, having some potential for acting as an instrumental study in drawing generalisations about the processes used in a similar context. There was also a consideration of what the ‘sub-units’ of that design would be, in order to break down the analysis into manageable parts. These sub-units will be described in detail later, in Chapter 6 (in Sections 6.5 and 6.6). However, it is sufficient to say here that they are inherent in the research question and comprised: the effectiveness of the EPRM in making policy; the credibility of the participatory process; and the validity and comprehensiveness of the evidence base utilised by the Panel in its deliberations.

In designing the EPRM case study, best practice was followed in drawing from the context and nature of the case, and continuing to gather information on this wider context throughout the case study (Stouffer, 1941). The context of a case may include its historical background, the physical setting, political and legal factors, as well as the individuals involved and other cases that may be similar or linked.

Stake (2005) provides an example of a diagrammatic representation of these factors to explain the content and tasks, functions of the study, and activities to be undertaken in the wider context of the case as a planning tool. A similar diagram made for the EPRM would appear as in Fig. 4.1.

Figure 4.1 Summary of the elements of the EPRM case study



As can be seen from Fig. 4.1, the EPRM case was divided into three sub-divisions relating to the aspects of public participation, evidence base and policy outcome. The elements of the background and context that had consistent effects on the project were those relating to the Welsh Assembly Government political and policy making activity, the wider environment as it affected business through climate change and sustainability, the needs of business and the individual expertise that each Panel member brought to the EPRM.

Within the design, the activities undertaken by the investigator in studying the case were used to further define the research method: these were summarised as facilitation, research and policy analysis. At a greater level of detail, the methodologies utilised to collect evidence for the study, and how they contributed to the sub-divisions of the case, are shown as overlapping areas in Fig. 4.1 and the evidence collection is discussed in the following section.

4.2.3 Collecting evidence

The reasons that EPRM was selected as a suitable case study have been discussed in Section 4.2.1. As is often the situation in case studies the study commenced subsequent to the case activity starting. It is therefore not surprising that the methods of collecting data, information or evidence on the case during the course of the study were often reactive to the case, rather than prescribed in advance. Best practice texts on case study research (Yin, 1994; Stake, 2005) suggest that multiple methods of collecting evidence for the case study allow the investigator to be observational as well as reflective. Multiple methods allow for the complexities of the case to be understood through multiple viewpoints, to be reactive to the subject(s) under study and, perhaps most importantly, to prevent misinterpretation by allowing triangulation, i.e. using multiple perceptions or forms of evidence to clarify meaning, verifying the accuracy of observation or interpretation.

Yin (1994) agrees that evidence should come from a number of sources, and cites documentation, archival records, interviews, direct observations and participant-observation amongst others. All of these have their own strengths and weaknesses

including: the intensity of insight they allow the investigator into the reality of the situation; the level of bias that can be introduced as a result of their use; the depth or breadth of data that can be gathered; and requirements for access in order to gather data. In essence any method which allows the investigator to spend time, either physically or virtually, involved with or gathering data on a case, and in contact with activities and operations of the case, adds to the weight of evidence and the ability of the investigator to use triangulation to verify their results. Two major methodologies were utilised during the EPRM study to gather the data and to increase the possibility of triangulation: participant observation and reflective interviews. These are discussed below.

4.2.3.1 Participant observation

Participant observation is a naturalistic qualitative method, and a form of ethnography where the investigator (the participant observer) is involved in a group for an extended period of time in order to learn more about the processes of that group in a naturalised setting (Bryman and Bell, 2007). Participant observation has been described as an:

‘Omnibus field strategy simultaneously combining document analysis, interviews, direct participation and observation as well as introspection,’ (Denzin cited in Patton 1980, p.127).

This is because the participant observer is expected not only to gather information through their observation and participation, but also to gather further data through interviews and from documentation in order to strengthen and inform their insights and in some way to help with triangulation.

Participant observation relies heavily on two critical factors for its success: access and trust. An observer requires a high level of access to group members and meetings in order to get the most detailed input to their study and also to be trusted by group members once access has been gained. Without trust, any group that either knows or suspects that it is being observed may inherently behave in an artificial or hostile manner and affect the findings of the observer.

The researchers/facilitators to EPRM were in a strong position with regard to both access and trust. They had complete access to the EPRM, and were given time and resources to attend meetings as well as to undertake follow up interviews with individuals or small groups. In addition, they were trusted by the group as a whole, but also by the members individually.

Although the participant observation technique has been most frequently used in anthropological studies of different cultural or sub-cultural groups, it has become increasingly popular as a catch-all term for investigators that have adapted ethnographic methods to suit more diverse studies including those of organisational effectiveness (Bryman and Bell, 2007), social cohesion (Van Maanen, 1988) and managerial issues (Gouldner, 1954).

Participant observation fitted the study of the EPRM closely because the researcher that wished to study and analyse the work was already involved with the process. Also, it presented an opportunity not often encountered: the ability to perceive the reality of public participation in policy making from the viewpoint of someone inside the case study rather than external to it. Not only could this enhance the case study, by providing further accuracy to the findings and allowing a level of plausible manipulation (e.g. calling meetings or interviews) to occur in a naturalised process, but, specific to the study of public participation in policy making in Wales, it could provide a level of operational insight that had not yet been achieved through more passive academic methods.

This immersion of the participant observer in the process is not without its problems. Yin (1994) recognises that the investigator, being an emotional and social being, is likely to have trouble undertaking passive observation and may find their observations swayed by their own preferences as affected or led by the group dynamic. Further, if the participant observer is truly immersed in the group, they will have an impact on the group themselves. The plausible manipulation that was mentioned earlier as a potentially positive issue from the point of view of the academic study must be dealt with in an ethical and honest way when analysing the results, including an analysis of the participant observer's impact on the group.

Another problem relating to the pragmatics of observer participation is finding time to take notes or raise questions while also observing the group. In the case of EPRM, the presence of two researcher/facilitators (one of whom was not involved with the academic study at all but was present at all meetings), in addition to a secretariat, gave a duplicate set of notes as well as a written record of other personalities' perspectives on Panel meetings.

Whilst studying the EPRM, the participant observer, Louisa Huxtable, acted as an overt and active participant in the process, with a specific and recognised role within the group as a researcher/facilitator (and therefore a trusted advisor) but also having a personal status within the group as a younger person, open to ideas and opinions. The overt role meant that note taking could be done in the open and group members understood the need for reflective interviews or clarification of questions during meetings. The role as a researcher/facilitator gave a level of credibility to the participant observer. Group members understood that, in exchange for the observer's role and dedication of time as a motivator of the Panel process, in return they provided access to the Panel for observation. The last status, what could be perceived as 'personality' within the group, was no less important than the other more academically recognised areas. As the youngest attendant at group meetings, and having a perceived neutral role relating to stance on specific issues, but also being perceived as knowledgeable and open to ideas, the Panel were likely to be more friendly, unguarded and patient with the observer as opposed to an older, more opinionated and experienced observer who may have been considered a peer and potential competitor for 'expert' status in the group. Maintaining this status throughout the period of the Panel's work was considered essential to the success of the observation from the design stage.

4.2.3.2 Multi-methods

Each data source has its strengths and weaknesses. By using a variety of sources and resources, or a multi-method approach, the author intended to increase the amount of data available on the EPRM process and increase the validity of results, thereby reducing the weakness of any individual data source.

As a direct participant in the EPRM process, various methods of data collection were employed. The EPRM process had stalled prior to the appointment of the researchers. As influential participants in the process, both researchers were responsible for invigorating the process by collecting documentary evidence, conducting focus groups/group interviews, arranging structured interviews, questionnaires and consultations. The use of these techniques and the author's role in the data collection is considered next.

4.2.3.3 Documentary evidence

As a participant in the process, the author had access to a wide range of documents, including confidential and unpublished Welsh Assembly Government documents, which provided an insight that would not be available to a passive observer external to the process. For the EPRM this documentary evidence included agendas, minutes of meetings, emails to the groups, letters written on behalf of the Panel and to the Panel, administrative documents, including those relating to recruitment of the Panel, evaluation reports and drafts of documents for publication by the Panel. This documentary evidence was logged and assessed by Louisa Huxtable, in the preparation of this thesis, but not by Gavin Bunting, as these aspects of documentary evidence related directly to the case study of the EPRM. However, additional sources of documentary evidence relating to the wider context in which the EPRM worked, and which had originally been gathered to support the Panel's work directly, were of use to both Gavin Bunting and Louisa Huxtable and gave a greater breadth of evidence for the latter to include in the case study. In both types of documentation, these documents were used to corroborate and add additional evidence to the information gathered directly from observation.

4.2.3.4 Focus groups/group interviews

Focus group methods can be described as methods of informal group interviews in which there are several participants. The emphasis is on a tightly defined topic, and focuses upon achieving an outcome as a result of the group's interaction. Focus

group methodologies are numerous and (as is the case with case studies and participant-observation) can be reactive to the group under study in order to achieve an aim or clarify a situation.

The use of focus groups methods implies the use of interview techniques more focussed than the standard group interviews which are traditionally used to gauge interaction within a group (Bryman and Bell, 2007). However, both methods may utilise some of the same techniques. The distinction tends to fall where the participants are selected because they are known to have been involved in a particular situation (Merton cited in Bryman and Bell 2007, p.511) and will contribute to the subject being discussed as much as give insight through observation or documentation of the group's internal interactions.

Focus groups have been divided into many types (as discussed in Section 3.7.3) according to the constituency of their membership and their role. The Expert Panel on Resources Management could already be described as a focus group prior to the formalised study of its work commencing and, in particular, could be considered a hybrid between a consensus panel and a policy Delphi group. As this role of the focus group was the primary reason for the Panel to meet, and had started prior to the commencement of the research role, it was important that this not be overtly affected by the participant observation. The interactions of the group, as a result of their role as a pre-existing focus group, were utilised as fully as possible in gathering evidence for the case study. This again was the role of Louisa Huxtable, as participant observer, with Gavin Bunting purely acting as a participant (in particular as a facilitator) of the focus group.

4.2.3.5 Survey research methods: questionnaires and structured interviews

Traditional survey research is defined in Bryman and Bell (2007, p.56) as:

‘A cross sectional design in relation to which data are collected predominantly by questionnaire or by structured interview on multiple cases and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with multiple variables which are then examined to detect patterns of association.’

Although this description does not appear to fit closely with the qualitative, participative aspects of the case study, utilising the techniques used in survey research, namely questionnaires and structured interviews, added additional evidence to the EPRM case study. The results of questionnaires and structured interviews informed the Panel's work and provided context for the study. Structured interviews were undertaken with groups and individuals during the course of the study. As with other aspects of the design, the design and analysis of the structured interviews that related directly to the participant-observation aspects of the case study were undertaken only by Louisa Huxtable, while the questionnaires that had a wider context for informing the Panel's work itself were designed by both Louisa Huxtable and Gavin Bunting.

4.2.3.6 Reflective interviews

Ethnographic or participant observer studies are often complemented by interviews to triangulate the findings of the field work. The importance of using these techniques in tandem was documented as early as 1902, when Booth (1902-1903) conducted an investigation into the economic and social conditions of the residents of London. In his early study Booth not only implemented survey research, but triangulated his work by relying on unstructured interviews and ethnographic observations. Today this is an accepted strategy: documentation, observations and interviews complement each other and taken together these diverse sources of information can help to give a more complete picture of the case being studied. Reflective interviews are a particularly passive method of observation, where individuals are asked questions on their experiences and perceptions on an activity after its completion. Yin (1994) considers that interviews are an essential source of case study information, since most case studies are about human affairs and so should be reported and interpreted through the eyes of specific interviewees. When undertaken outside of the usual case study working environment, especially after the fact, interviews can be used to corroborate facts and to ask respondents to provide fresh commentary on the topic. As with all such passive techniques, especially those relying on verbal reporting, interviews of this nature are open to

bias, poor recall and potentially poor communication and so they are reliant on other methods for their corroboration as they are useful to corroborate others. As part of the EPRM case study it was decided that reflective interviews, undertaken between 9 and 15 months after the Panel's last official meeting, would be a particularly useful method for corroborating and enhancing the participant observer's findings. Being undertaken after the Panel's work had been completed they would not interfere with the its work, by promoting introspection or enquiry into the Panel's methods while they were active, but would allow the Panel members to give insight into their opinions of the effectiveness of the Panel during a period when its work should already be integrated into policy. The reflective interviews were conducted solely by Louisa Huxtable.

4.2.4 Critical evaluation of the case study.

Yin (1994) speculates that five criteria must be fulfilled in order for a case study to be exemplary, these are:

- The case must be significant;
- The study must be complete;
- The study must consider alternative perspectives;
- The study must display sufficient evidence; and
- The study must be composed in an engaging manner.

These seem to be an appropriate framework in which to judge whether the elements of research undertaken in studying the EPRM could be considered an exemplary case study and therefore whether it is a suitable method for this thesis. Each of these criteria will be considered briefly here.

The case must be significant. Significance in this context is described as being unusual, of the public interest and addressing issues that are nationally important. In Welsh policy making, the EPRM process was novel and innovative, in that no other expert panel or focus group had been given the level of autonomy or resources in which to deliver its work as the EPRM enjoyed. This, added to the fact

that the subject of the Panel's deliberations was policy making with impacts on businesses throughout Wales (and potentially Europe if the policy suggestions were considered successful and suitable for translocation) made the outcomes of the Panel potentially nationally important. In addition, the case reflected a real-life situation that researchers had not previously been given access to study in a participatory manner. Most policy research is still undertaken as a critique of policy, or its process, subsequent to publication rather than in the developmental stage.

The study must be complete. The case study was considered to be complete in that it started with the appointment of the researchers to the Panel and completed after the Panel had finished its work. It did not dictate or foreshorten this timetable, but was subject to it. There was a second level of completeness in the collection of all relevant information. As is shown in Chapter 5, a full set of notes and appendices was produced. These related to the collection of evidence from the Panel's activities, supplemented by research into the context of public participation in policy making and the wider context of global warming and sustainability which motivated the Panel to complete their work. This level of detail is perhaps beyond what may be expected for a standard case study, but is required because of the case study's role as the subject of an academic thesis.

The study must consider alternative perspectives. In designing the case study, the intention was to compare the processes and outcomes identified with the traditional policy making process in operation in Wales. This process is better documented through internal Welsh Assembly Government guidance and protocols. The case study also benefitted from the perspectives of the Panel members given in their reflective interviews and from third party perspectives on the Panel's work as given during public consultation.

The study must display sufficient evidence. This case study was designed with the intention of presenting the information impartially and analysing it as objectively as possible, given the author's role as a participant observer. The variety of methods used (documentation, observation, survey and interview) meant that the evidence obtained was triangulated from a number of sources and analysed accordingly.

The study must be composed in an engaging manner. It is perhaps the role of the reader to judge whether this has been achieved. However, the reliance on participant observation as a key technique in the design of the case study was intended to give an element of enthusiasm to the investigation and to allow the reader to relate to the work that has been completed. In addition, elements of the study were presented to a wide audience in the course of the research. Hopefully the information will continue to be disseminated through this thesis and subsequent publications, both to operational policy makers and to the academic community.

4.3 Research scope

The previous sections have presented the methodology adopted for this research project and discussed the rationale for the various methods employed. The remaining sections of this chapter indicate which specific methods were used in the different aspects of the study. The study can be considered in two aspects: facilitation and research, and observation and assessment.

The facilitation and research part of the study aimed to employ the types of method useful to facilitate such an expert panel in achieving the prescribed aims. The methods utilised within the facilitation and research aspect of the case study can be summarised as:

- Desk study/evidence base (including documentary research);
- Workshops and meeting facilitation;
- Stakeholder interviews and survey questionnaires;
- Preparation of reports; and
- Representation of the Panel at committees and meetings with Ministers and senior civil servants.

The observation and assessment aspect of this study aimed to determine the effect of the facilitation input to an expert panel and to assess the effectiveness of the

Panel's recommendations in a real world situation. Within this aspect, the following work was undertaken:

- Observations of the EPRM process;
- Reflective panel interviews and feedback;
- Comparison of the EPRM process with traditional processes; and
- Critical evaluation of the recommendations made by the EPRM in the context of resource efficiency and their uptake by the Welsh Assembly Government

Given the nature of the research aims, the approach taken was largely qualitative. It sought to determine, from the perceptions of the people involved and the observation and assessment of the process, the effectiveness of the EPRM process in the context of a case study. The only quantitative inputs to the process were the scoring criteria used during some of the focus group methods used as decision making tools to facilitate decision making by the Panel. The Panel could not be added to, or reduced, for the sake of the study; consequently, the Panel could be considered as a non-purposive sample.

4.4 Methods used for facilitation and research

As part of the facilitation and research roles, the researchers attended meetings, conducted workshops and took part in interviews with both the members of the Panel and stakeholders. Table 4.2 provides a summary of the methods used during the facilitation process. The timetable of activities undertaken by the researchers/facilitators is included in Appendix C and the bench marks, as explained to the Panel, are included in Fig. 5.8 for reference.

4.4.1 Desk study/evidence base (documentary research)

To facilitate informed, evidence based decision making, Panel members requested information on specific subjects. These were initially divided into two key areas; materials and energy. Searches were undertaken of both online and hardcopy resources as well as documents internal to the Welsh Assembly Government and other documents not available to the general public. Where search threads promised to yield useful and up-to-date data, these were followed through.

The main portion of the desk study was undertaken during the first six months of the project, with ad-hoc or requested information compiled over the remaining 18 months of the project. All information was saved in electronic form in a hyperlinked Microsoft Excel database; a copy of the electronic database of information was distributed to Panel members and ex-officio members on CD Rom eight months into the study. The database was kept up to date and used to write summary reports, both on paper and as electronic presentations, outlining information relevant to the Panel's decision making processes at particular meetings. Documentary evidence was also utilised to determine the traditional methods of policy making in Wales (and in the UK as a whole) and to investigate the methods and outcomes of other environmentally-focussed expert panels or policy focus groups in the UK and Europe.

4.4.2 Workshops and meeting facilitation

The Panel's decision making was undertaken as an iterative programme of work, ranging from the high level areas to be addressed to reaching agreement on the final detailed recommendations. Such iteration followed a pattern over the course of two years:

- Meeting a - agree issue to be addressed;
- Meeting b - discourse and/or scoring;
- Agreement of decision;
- Decide next problem to be addressed; and
- Meeting c - discourse and/or scoring (etc.).

Table 4.2 Summary of approaches and methods used in the facilitation of the EPRM

Approach	Multi-method, qualitative and quantitative				
Questions	What are the factors and input required to assist an independent panel produce workable policy ideas?				Can government policy ideas be developed to government?
Method of data collection	Desk study	Facilitation of Panel		Consultation through questionnaire and seeking views of stakeholders	Reflective interviews
		Ranking exercises	Structured and non-structured brainstorming, group decision support		
Sample source	All written resources including press and non-refereed sources	EPRM (Purposive sample)		Web-consultation. Purposive sample	EPRM stakeholder purposive sample
Method of analysis	Qualitative	Quantitative	Qualitative	Qualitative	Qualitative

The researchers used a variety of focus group methods to facilitate the Panel to come to timely and considered decisions. These included:

- Stimulus materials;
- Non-structured brainstorming;
- Consensus reaching/ranking exercises;
- Structured group interviews; and
- Group decision support.

The aim of the iterative process, using stimulus materials and non-structured brainstorming sessions, was to produce detailed recommended actions to advise policy makers. Once these had been produced, a series of exercises was undertaken to rationalise the recommendations to a smaller number under which all the detailed actions fitted. During each stage of deliberation, the role of the facilitator was also to consider the detailed actions being suggested and aid the Panel in identifying the practical considerations that needed to be in place in order to achieve these.

4.4.3 Interviews

As well as regularly meeting with Panel members, both in meetings and on a one-to-one basis, the researchers met with other stakeholders including ex-officio members, members of the BEAP steering group, officials of the Welsh Assembly Government and people in business. Interviews were undertaken on both a structured and non-structured basis, one-to-one or with small groups. Questions were asked relating specifically to the stage of work being undertaken by the Panel, in order to add value to an existing activity, and the method used at each stage was consistent. Such interviews were undertaken on nine separate occasions as shown in Table 4.3.

Table 4.3 Summary of interview scope

Interviewees	Subject and method	Date
Individual panel members	Feedback and clarification of facilitation outcomes from meeting B (structured interview)	April and June 2005
Sub-groups on energy and materials	Ranking exercise (structured interview)	July 2005
Sub-groups on energy and materials	Non-structured interview	September 2005
Chair, secretariat and facilitators	Pre-meeting and non-structured interview	October 2005
Policy officials (non-Panel members)	Structured interview	March 2006
Sub-groups demand and supply	Non-structured interview	April 2006
Chair, secretariat and facilitators	Pre-meeting and structured interview based around stimulus materials presented	May 2006
Business representative	Structured interview (questionnaire)	May June 2006 (by third party)

The structured interviews were undertaken with an agreed set of questions. The final outcome of those questions was set in advance, and the same set of questions was addressed to each member of the interview cohort. Non-structured interviews were often undertaken on an opportunistic basis, i.e. when one or more of the researchers recognised that they would come into contact with a stakeholder who could add value to the dataset already under construction. In these situations an outcome may have been informally identified (i.e. one that would assist the Panel's planned decision making in the near future).

On a single occasion, interviews were undertaken by a third party, using a questionnaire prepared by the researchers, to seek the views of small or medium sized enterprises (that were already seeking or benefiting from a form of environmental business support) on the Panel's initial strategic recommendations.

These interviews were undertaken by a third party, familiar with the companies, using a prescribed, time limited, structured interview method and pre-prepared and tested questionnaire.

4.4.4 Survey questionnaires

Two forms of survey questionnaire were used during the two initial years of study. The first was the official web-based consultation on the Expert Panel's initial recommendations – produced after two years of work. The consultation document (EPRM, 2006) consisted of the Panel's strategic recommendations, with little background data for context. Each recommendation consisted of a single paragraph of text, accompanied on one occasion by an organisational chart, and questions on that recommendation.

This first questionnaire was uploaded to an open access website, and a database of 300 key stakeholders and interested parties were sent invitations by post and email to take part in consultation in the form of a letter from the Chair. Responses were received by hard copy text or email. A pro-forma for responses was included on the website to assist respondents to structure their response, but using this was not mandatory. The questionnaire was online for four weeks.

The second questionnaire was written to accompany the third-party business interviews already described above. This questionnaire consisted of either 18 or 17 questions, for Panel members or ex-officio members respectively. The questions were asked by the third party during 30 minute interviews. The questionnaire was then completed by the interviewer on behalf of the interviewee. The questions were prioritised, to allow for interviewees who wished to answer only a minimum number of questions or to stay within the timeframe. Interview responses were then sent back electronically or in hard copy to the research team.

4.4.5 Preparation of reports

Over the course of their work, the Panel produced various drafts of recommendations, annual report, consultation document, updates to a BEAP steering group and updates for Ministerial briefing notes. In addition, the researchers provided two main reports as well as presentations.

Reports were word processed using Microsoft Word to allow easy movement of drafts between the researchers, secretariat and Panel members. Report preparation for both internal evidence reports and external progress reporting involved a period of preparation at the Panel meetings where report scope was agreed. Reports were written by the researchers outside of meetings, with scope and any additional guidance from the Panel included, and then sent by email or mail to Panel members for comments. All documents sent on behalf of the Panel were approved by Panel members prior to distribution.

4.4.6 Representing the Panel at committees and meetings

The researchers, in the course of their work and in order to present updates and gauge early feedback from stakeholder groups to initial Panel outcomes, would attend stakeholder committees, seminars and other meetings. To maintain clarity and context, and prevent bias, the researchers observed simple rules of participation. They presented and represented only those views already expressed by Panel members at meetings (or stated clearly if making their own observations that they were not necessarily the view of the Panel), took written notes of feedback and observations on outside parties' views of the Panel's progress, and asked questions relevant to the Panel's current and planned work. Where questions were directed at issues specific to current Panel discourse, or areas where no consensus had been reached, the researchers suggested presenting those questions to the Panel and reporting back at a later date.

4.5 Methods used for observation and assessment

4.5.1 Observations of the EPRM process

Meetings of the Expert Panel on Resources Management were observed and recorded during the second and third years of their three year appointment. Access was also granted to view minutes of meetings, terms of reference and interview data from the Panel's initial year of work.

As well as notes taken by the secretariat for the official meeting minutes, detailed records were kept of facilitation methods, materials and outcomes that led to decisions being made. These records also documented the key conversation points, the individual group members who responded on each issue and the opinions which they expressed.

Both researchers, Gavin Bunting and Louisa Huxtable, were present at all the EPRM meetings during the second and third years. On occasions where one researcher was undertaking an active role such as facilitation, the other researcher would take notes on their behalf. Thus there is a complete record of both sets of researcher meeting notes. In addition, the meeting secretariat has made meeting notes available to the author for comparison.

The minutes were used by the researchers as a rationalised transcript for each meeting, enhanced by the feedback provided to those minutes after distribution, giving Panel members an additional opportunity to comment on the secretariat's and the facilitators' understanding of the outcomes of the meeting.

Although the Panel were very much in favour of their work being used as a case study for this thesis they were not explicitly informed that they were being formally observed during the meetings. However, they were asked for their consent for the information to be used after their role had been completed. This decision was made to prevent the Panel members' normal interactions being affected by perceptions of being observed or recorded. For this reason, and for reasons of commercial confidentiality, the meetings were not recorded electronically. As a publicly appointed panel, the majority of discussion is considered to be in the public

realm. However, where unofficially recorded perceptions and personal opinions of Panel members are used in this thesis, these are anonymised.

4.5.2 Reflective panel interviews and feedback

One year after the Panel's final recommendations were presented to the Minister, interviews were undertaken with Panel members, researchers, secretariat and stakeholders to determine their perceptions of the success of the Panel, and the effectiveness of its processes.

As well as recording the stated opinions and observations made by Panel members, the researcher, Louisa Huxtable, also attempted to record perceptions alluded to by those Panel members. This was considered as important as pure observation. The aim of the comparison was not to determine the differences between the Panel's findings and those of another similar group. The aim was to determine how those people who took part in the Panel, those that the original Panel was supposed to represent, and those whose role had traditionally been to formulate policy, perceived the success of the participation.

4.5.3 Comparison of the EPRM process with traditional processes

The EPRM process was compared to the processes used to create and facilitate two other policy documents: one having been completed before, and one in parallel, with the EPRM process. Interviewees were encouraged to talk freely and were assured that the views they expressed would not be attributed to them as individuals.

The process used by the EPRM was modelled as a flow-diagram in order to give a baseline against which to compare more traditional processes. Two other processes were chosen for comparison and modelled in the same way. They were:

- The BEAP process 2003; and
- The Microgeneration Action Plan for Wales process 2007.

In May 2008, interviews were conducted with those who had written the original comparison documents. Thick description methodology (useful for understanding the context as well as the facts) was employed to determine the perceived and actual effectiveness of those processes.

4.6 Critical evaluation of the recommendations made by the EPRM in the context of resource efficiency and their uptake by the Welsh Assembly Government

After publication of the Panel's recommendations in April 2007, and their official presentation to the Welsh Assembly Government Minister for Enterprise, Innovation and Networks, an empirical and critical evaluation was conducted. This included progress of the recommendations through official government channels. The uptake and progress of individual Panel recommendations into policy and other decision papers was also tracked.

The outcomes of the reflective panel interviews and feedback were used to inform this evaluation. Welsh Assembly Government officials who had been part of the process and had created policy documents under the traditional process were also included in the reflective interview process, in order to determine their opinions, as experienced policy makers, of the process and of its effectiveness.

5. EPRM – THE PROCESS AND ITS OUTPUTS

In the previous chapters, the role of the Expert Panel on Resources Management, as an action of the Business and Environment Action Plan, has been stated but not elaborated upon. This chapter provides a detailed record of the outcomes of the Panel, both in terms of its political process and its delivery. It explains how the Panel was formed, how it deliberated and what it decided. In places, within this chapter, everyday language is used; this has been retained for the case study better to reflect the naturalised setting and real-life situation, which are considered important.

5.1 About the Expert Panel on Resources Management for Wales (EPRM)

The need for an action plan to define the business and environment agenda, and to help develop a support structure to help companies in Wales commit to that agenda, was identified early after the Welsh Assembly Government came into being. Consequently the Business and Environment Action Plan (BEAP) was developed. Like the BEAP steering group, mentioned in Section 2.6, the Expert Panel on Resources Management (EPRM) was set up as a result of a request by the Minister for Economic Development and Transport.

However, while the BEAP steering group was set up as a voluntary steering group to discuss options for, and amendments to, an ongoing process, the EPRM was a selective process. The Panel was set up by (but independent of) government, to critique the existing process and make recommendations for the future. This somewhat fragile state of independence will be discussed later in Chapter 6. However it is useful to state here that, once appointed, the Panel's expenses were funded by the Welsh Assembly Government and a secretariat was provided for them consisting of Welsh Assembly Government employees. However, independence was given in its mode of operation. The Panel was able, and encouraged, to make decisions on its own constitution and terms of reference. It was not constrained by Welsh Assembly Government protocols or internal guidelines and could make any recommendations to the Welsh Assembly

Government, or other body, as a result of its work. This appeared to be the wish of the Minister for Economic Development and Transport at the time: to create a Panel that would be independent of government and be able to generate innovative and effective policy ideas without the constraints of historical policy making or government procedure.

The BEAP and EPRM process carried on, in parallel, for the period between April 2004 and February 2006. For the entirety of the Panel's work, the joint Chairs of the BEAP steering group sat as ex-officio members in Panel meetings. This ex-officio membership was included to reduce any tension that may have otherwise arisen should no representation be made to the Panel on behalf of the organisations involved in BEAP. It allowed the organisations to provide coherent feedback to the Panel whilst giving them limited power to sway the Panel's decision making process.

5.1.1 Membership of the Panel

The Panel consisted of a group of experts with a high proportion of expertise from the private sector in the issues surrounding resources management for businesses. The Panel members, shown in Table 5.1, provided their time on a voluntary basis over a period of three years (2004-2007).

The Panel included membership from the private sector, public sector, NGOs and social enterprise. All individuals on the Panel shared a common interest in environmental and resource management implications for business, whether in a voluntary capacity or as part of their everyday work. These members were recruited and appointed through the Nolan procedures, as set out in recommendations of the Committee on Standards in Public Life (Nolan Committee, 1996) which aim to ensure that public appointments are made on the basis of merit, open competition and through a process of interviews.

Table 5.1 Panel membership and associated personnel

Panel Members:

Professor Robert Marc Clement (Chair)	Senior Executive at Swansea University. The Welsh Trustee and board member of the National Endowment for Science, Technology and the Arts.
Mrs Janet Boast	Quality and Environmental Assurance Manager at Rockwool Ltd. Experienced in the application of environmental management and offers technical expertise on waste, recycling and energy conservation.
Mr Garth Brookfield	Company Director for Monitor Facilities Management Ltd. An experienced architect and project manager with expertise in the field of sustainable construction.
Dr Anthony Davis	European Regulatory Affairs and Compliance Manager for Inco Europe Ltd. National and international experience in the field of legislative consultation and technical expertise in manufacturing.
Dr Martin Gibson	Programme Director for Envirowise. Broad experience in the field of resources management and environmental issues built up from ten years of managing government programmes to help businesses reduce resource wastage.
Mr Keith O'Brien	Sustainability and Community Officer with the Snowdonia National Park Authority and in a voluntary capacity the Chair and Director of Traws-Newid Company, bringing first hand community regeneration expertise.
Dr Olisa Okeke	Lead Design Manager for British Nuclear Fuels Ltd. Twelve years experience in the provision of technical advice and consultancy.
Mr Guto Owen	Manager of the Carmarthenshire Energy Agency and freelance energy and environment consultant.

Ex-officio Members:

Dr Ron Loveland	Director of Energy Wales, Welsh Assembly Government
Dr Havard Prosser	Chief Environmental Science Advisor, Welsh Assembly Government
Mr Jeremy Sherrard-Smith	Board member of Cynnal Cymru – the Sustainable Development Forum for Wales

Business and Environment Action Plan (BEAP) Representatives:

Mr Tom Bourne, MBE	Joint Chair of the BEAP steering group, Welsh Assembly Government
Mr Chris Hale	Joint Chair of the BEAP steering group, Welsh Assembly Government

Secretariat:

Ms Verity Andrews, Mr Glyn Hughes and Ms Juliette Selby	Department of Enterprise Innovation and Networks, Welsh Assembly Government
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Strategy Development Team (including researchers/facilitators):

Dr Gavin Bunting	Swansea University
Ms Louisa Huxtable	Swansea University
Ms Rachel Pickering	Swansea University

The Nolan appointments procedure involved an interview process which aimed to explore the experience of each interviewee and allow them to demonstrate the skills required to be a member, as set out in the person specification. These questions sought to help the interviewees determine the suitability of each candidate according to whether they had:

- Experience or knowledge of applying resources management, in particular in the public sector;
- Personal achievements in this area;
- An understanding of public policy, role and practical impact;
- An awareness of the work carried out by the lead bodies within the BEAP;
- An appreciation of the principles of sustainable development;
- Strong interpersonal and communication skills; and
- Wide understanding of context in which business operates and ability to think strategically and innovatively.

5.1.2 Aims of the Panel

The Panel was formed as an action arising from the BEAP, with the intention of providing well-informed policy and independent evaluation of business and environment support in Wales. The constitution for the Panel includes the following phrases relating to the Panel's role:

- To provide a well-informed Welsh Assembly Government policy and independent commentary on the business and environment support systems described in the Action Plan; and
- To provide strong links to the Sustainable Development Forum for Wales and the UK Government's Advisory Committee on Business and the Environment.

It was intended that the results of the Panel's work would be incorporated into an action plan for presentation to the Minister for Economic Development and

Transport (since re-named the Department for Enterprise, Innovation and Networks) by April 2007.

5.1.3 Why the EPRM was formed

The BEAP was a first stage towards encouraging more sustainable business practices to be adopted as common practice in Wales and, it was hoped, to produce an international selling point for Wales as a business location. However, the BEAP was produced quickly, using a minimum of resources, and with a relatively small new budget set against it for delivery (other than monies already set aside within Assembly Government departments and Assembly Sponsored Public Bodies for that purpose).

The fact that the creation of an expert panel was the first formal recommendation of the BEAP document certainly suggests that those charged with writing the document recognised the need for business input into the business environment support systems. They recognised that business input was needed in order to identify how future phases should be structured, if they were to be of relevance to business. They also realised that business was an audience that the Business Environment branch felt was difficult for government to reach, for reasons already stated in Section 3.8.

An additional positive aspect of the Panel's creation came about because, in 2004, it was already the policy of the National Assembly for Wales that strategies and legislation created by its government should be evidence based and form an integrated whole. The decision to have that evidence base to inform the creation of future phases of the programme, or indeed the decision whether to have any further phase, would have been eased greatly by the input from an expert panel whose findings were considered to be evidence by their very nature.

Prior to 2005, although case studies suggested that the BEAP organisations had been effective (Welsh Assembly Government, 2006), data on the effectiveness of the delivery of increased resource efficiency in Wales had not been comprehensively collected or analysed. The Panel chose to include a formal

evaluation of BEAP within their terms of reference, as well as analysing current and future best business practice, not just because this would inform decision makers, but because the Panel members felt from experience that no progress could be made without, 'first knowing the current position and second identifying a destination towards which to head' (as one of the EPRM members stated in a reflective interview in 2008).

5.1.4 Summary of the Panel's work

The Panel met 17 times over the course of three years, between April 2004 and March 2007. In addition, between those meetings, six sub-group (sometimes called task and finish group) meetings were held, where specific issues were discussed outside of full group meetings. The Panel used a variety of facilitation or focus group methods in order to share data and information, to reach consensus on the current status of resource efficiency in businesses in Wales, and to recommend how to achieve positive improvements for business through action by the Welsh Assembly Government. The remainder of this chapter describes the work undertaken by the Panel and its facilitators in producing the final outcomes.

5.2 Year 1 April 2004 - March 2005

During the Panel's first year of work, members met four times and worked as a series of unstructured or semi-structured, brainstorming and consensus groups. Panel members gathered information on resource efficiency programmes already ongoing in Wales, and discussed the needs of businesses in being more resource efficient. Speakers were requested from programmes and initiatives throughout Wales; the group also held discussions to share common experience, as well as carrying out their own research and reporting back to the Panel at meetings.

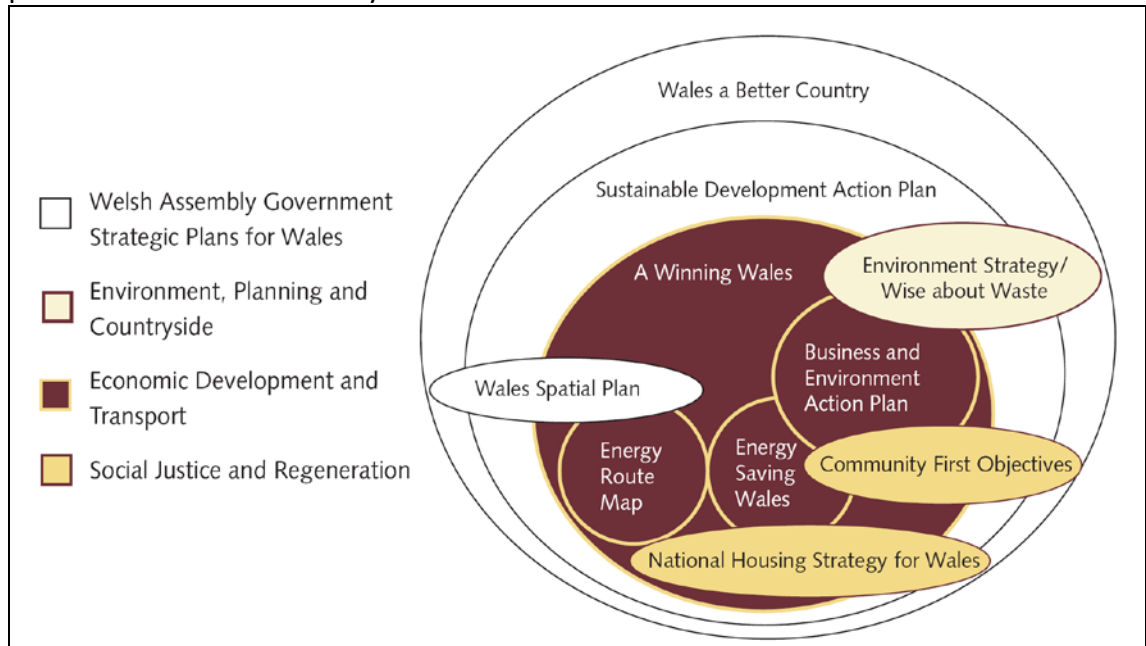
5.2.1 Outcomes of year 1

The formal work, undertaken by the author of this thesis, to observe the Panel started after the first year of its appointment. While this meant that the Panel could spend a year deciding on its own terms of reference and establishing relationships between members, as well as between the Panel and its stakeholders, without interference or observation affecting the outcomes, the activities of that first year can only be considered retrospectively through meeting notes and interviews. The Panel undertook to write their first annual report as a group. However, in practice the majority of the text was written by the secretariat, with input to the wording at meetings and by draft checking by electronic communication by Panel members.

During the first stage of the Panel's work they set out to understand the landscape of initiatives in Wales relevant to their terms of reference. The most significant observation from the initial 'strategic landscape' exercise was that sustainability and resource efficiency had the potential to be delivered by many Welsh Assembly Government departments. However, the exercise also highlighted the complexity of the policy landscape. These observations are shown diagrammatically in Fig. 5.2 and further expanded within EPRM's first annual report (EPRM, 2005). A note on standard meeting practice is included in Appendix B for information.

The Panel had also identified energy, materials and communications in their first annual report as key delivery areas for business and environment strategies, and these were also characterised diagrammatically, with the assistance of the secretariat as shown in Fig. 5.3 and Fig. 5.4.

Figure 5.2 Diagram from the EPRM First Annual Report showing the strategies and plans of the Welsh Assembly Government in relation to the BEAP.



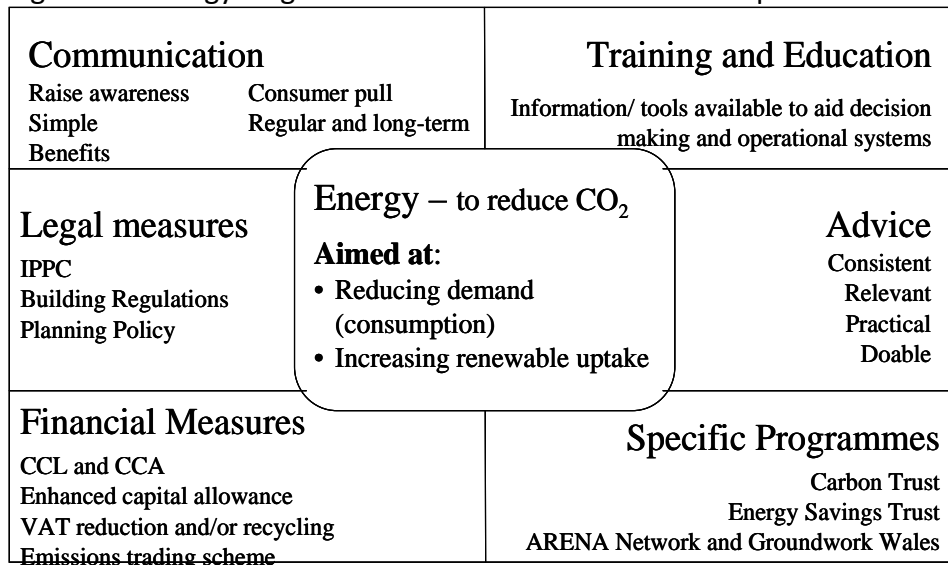
Source: EPRM (2005)

Figure 5.3 Materials diagram from the EPRM First Annual Report

<p>Communication Raise awareness Simple Benefits</p> <p>Consumer pull Regular and long-term</p>	<p>Regulatory measures Insert regulations – Acts not Directive Landfill Directive Packaging Directive</p>	
<p>Advice Consistent Relevant Practical Doable</p>	<p>Materials – Sustainable use of materials Aimed at:</p> <ul style="list-style-type: none"> • Minimising material use • Increasing re-use • Increasing recycling • Reducing landfill 	<p>Financial Measures Landfill tax Landfill tax credits WRAP</p>
<p>Training & Education Information/ tools to aid decision making and operational systems e.g. website Best practice case studies CPD workshops</p>	<p>Specific programmes WRAP Assembly/ LA recycling infrastructure ARENA Network WDA Envirowise Groundwork Wales</p>	

Source: EPRM (2005)

Figure 5.4 Energy diagram from the EPRM First Annual Report



Source: EPRM (2005)

Unusually for a group of this type, the Panel were able to set their own terms of reference. The terms agreed not only included the original task set out for the Panel members, which specifically related to BEAP, but also include the task of advising the Welsh Assembly Government on matters relating to the best practice for business in resource management. The Panel had included this task in order to give itself greater scope to research the best way forward. In particular, this was because the BEAP scope was specific to business and business support as the mechanism for driving improvement. The minutes of the early meetings undertaken during 2004 show that, from an early stage, the Panel felt that a greater breadth of improvement was needed in education, transport, governance, communications and the public sector than the BEAP project alone could encompass.

In order to fulfil its role, the Panel identified three specific tasks:

- To understand the issues involved in making organisations in Wales resource efficient;
- To form and consult upon a strategy for improving the resource management of businesses in Wales; and

- To publish a final strategy and recommendations and present these to the Minister for Economic Development and Transport (later renamed Enterprise, Innovation and Networks).

Subsequently, in their meetings, the Panel saw their overarching mission as:

‘Making government aware of the ways in which positive change can be achieved in Wales within the constraints of resources and devolved government authority.’

However, in the early stages they focused specifically on the three tasks listed above.

The Panel’s first task of identifying and understanding the issues involved in making organisations in Wales more resource efficient was accomplished relatively quickly. However, they then found that, in order to suggest strategies for improvement, they first had to identify the types of detailed solutions and delivery mechanisms that would be needed and ‘reverse engineer’ the strategies to fit. This task was to consume most of the Panel’s time during their second year of work.

5.3 Research role

After the first year of their appointment the Panel agreed that their knowledge base, while based upon valuable experience as well as practical knowledge, required additional research input in order to inform the decision making process properly, and to provide a consistent and robust evidence base upon which to base their strategy. Two researchers were seconded from Swansea University to undertake desk-based research into key areas of work, which could be divided roughly into the themes of ‘Energy’ and ‘Materials’. A third overarching theme was ‘Communications’. The two key themes were identified during the Panel’s first year of operation as shown in Fig. 5.3 and Fig. 5.4, and are explained further in the EPRM’s first annual report (EPRM, 2005).

The researchers came from two different academic and work related backgrounds. Dr Gavin Bunting, a recent Ph.D. graduate (researching into environmentally assisted fatigue on aeroplane wings), had a Masters of Research degree in materials

engineering and power generation and had worked for a large international electronics firm during a year placement. Louisa Huxtable came to the Panel with a Masters of Science in Environmental Biology and five years of experience as an environmental engineer both in the public and private sector. Louisa's experience was considered to be more practical and her skill set complementary to Gavin's. The pair provided the Panel with a mix of practical experience and theoretical endeavour, experience in business and environmental management, as well as a strong research bias.

Research questions were set by the Panel at meetings, and research findings were reported as presentations accompanied by information papers and references for Panel members to view. The researchers gave verbal reports to Panel members at meetings to make sure that they understood the outputs of research, in the context of resources management and business, and sought other questions.

Early on in the project the researchers identified a research brief which included the following:

- To establish baseline data relevant to sustainable development and/or resources management in Wales;
- To focus on the issues considered to be at the core of the resources management agenda as identified by EPRM;
- To work closely with the delivery partners of the Business and Environment Action Plan in order to inform future stages; and
- To work closely with organisations undertaking similar research.

It became apparent, after their second meeting, that the researchers could perform a valuable additional role in facilitating discussion and consensus during meetings in order to drive the Panel towards their deliverables in a structured way.

5.3.1 Aims of the facilitation

The facilitation aimed to achieve consensus, through engagement, structured interview and other group methods, of the ways in which positive change could be

achieved in Wales within the constraints of resources and devolved government authority. The Panel sought to identify strategic recommendations to make to the Welsh Assembly Government through a series of key stages, known as benchmarks, as shown in Fig. 5.5.

Methods which were employed to achieve consensus included commonly used methodologies (Greenbaum, 1998) such as:

- Stimulus materials - including slide or video presentations, research reports, diagrams and illustrations;
- Non-structured brainstorming - utilised mostly when the entire group wished to discuss a number of facets of an issue in an informal way, to share their knowledge and views;
- Consensus-reaching/ranking exercises – formal exercises undertaken to ensure clarity and credibility of decision making by the entire group. This included filling out ranking exercises as a group, ranking options individually and compiling the data or voting; and
- Structured group interviews - which involved carefully planned and managed interview of the Panel as a group, with individual opinions and answers being carefully balanced in order to achieve a sense of the entire group's feelings about a subject or issue.

Fig. 5.6 shows the repetitive processes of facilitation input, question for deliberation and outputs from facilitated meetings at each stage of the process, using the methods listed above. Each row corresponds to a meeting. Details of the techniques used, together with their outcomes, are given in the description of the EPRM process which follows (in Section 5.4) according to the meeting at which the facilitation took place.

Figure 5.5 Example benchmarks as presented to the Panel (in the standard format)

Bench Marks and Deliverables

- December '05:** Draft recommendations have to be submitted to the Welsh Assembly
- June '06:** Formal recommendation have to be submitted .
- July '06:** BEAP II consultation document has to be ready
- July to October '06:** Consultation will take place on BEAP II
- December '06:** Draft final plan
- March '07:** Launch

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Input from stimulus materials (such as papers, diagrams, charts, illustrations presentations etc.) and non-structured brainstorming sessions of the entire group produced a wide range of outputs, including 180 suggested activities. These are identified in Appendix D. The consensus reached at each stage was facilitated by the researchers through a series of meetings that utilised the full group, various sub-groups or individuals. During each stage, the researchers recorded the activities being suggested, the rationale and evidence behind those suggestions and aided the Panel in identifying the strategies that needed to be in place in order to achieve these.

In the period between March 2005 and March 2007 the Panel had 12 full group meetings and a further three sub-group sessions. The following sections will describe the input, deliberation and output from each meeting in the context of the Panel's methods and also their findings in relation to resource efficiency. A summary of the timetable of meetings is shown in Appendix C.

Figure 5.6 Examples of the stages of the Panel’s work

	Input	Deliberation	Output	Researcher tasks
A	Researcher Briefing, 3 Themes Researcher briefing	Non-structured brainstorming Structured individual interview	7 Research priorities 7 further research priorities	Undertake research Undertake research Prepare presentation
B	Presentation Sub-group meetings	Structured group interview and brainstorming Structured interview	2 themes, 8 subthemes 8 cross-cutting themes, 129 areas of influence	Facilitate sub-groups Undertake research
C	Presentation and research outcomes	Structured brainstorming	40 short term & 24 long term objectives, 11 common areas	Start recommendation structure, collate works
D	Presentation and draft recommendations	Structured group interview	Cross-cutting gov’t structure, 9 common areas	Re-draft strategic recommendations
E	Presentation and draft	Structured group interview	Comments on drafts	Re-draft recommendations
F	Presentation and draft – 74 recommendations	Structured group interview	12 priority recommendations	Redraft recommendations
G	Draft recommendations document	Structured group interview	Divided group into demand and supply	Facilitate sub-groups, restructure draft
H	Draft recommendations and papers	Structured brainstorming	Process for implementation, agreed form of consultation	Re-draft

5.4 The EPRM Process

For each meeting attended by the Panel, the aims of that meeting, the inputs to the process and the outcomes are summarised below. Emphasis is given to the methods used by the Panel in achieving consensus or other deliberative processes, and the outcomes are summarised. The presentations used by the researchers to facilitate the Panel are included in Appendix E. More detail on the outcomes of the Panel’s work can be gathered from their first annual report (EPRM, 2005), the consultation document (EPRM, 2006) and the final report, ‘Low Carbon Wales’ (EPRM, 2007), as well as from the papers by Huxtable and Bunting (Bunting *et al.*, 2006; Huxtable *et al.*, 2006; Huxtable *et al.*, 2007).

5.4.1 Meeting A: 20th April 2005, Technium Digital, Swansea

This first meeting was intended to discuss the findings of the Panel in its first year, and also to discuss how those findings would be incorporated into the first annual report of the Panel. An additional aim of the meeting was to introduce the

researchers to the Panel, and to gather from them priorities for research during the project.

5.4.1.1 Input

At this meeting the usual format, which had been utilised in meetings prior to the researchers arrival, was used. The main agenda item discussed was the annual report which was due for publication in summer 2005. A standard timetable had been written early in the project, during 2004, outlining when key milestones would need to be completed and this was reviewed.

An early draft structure for the annual report had been written by the secretariat and the meeting revolved around agreeing changes and inclusions to this draft, facilitated by the Chair. The final item for the meeting was the formal introduction of the researchers and a short presentation on their relevant knowledge and experience. The research objectives already identified by the researchers (as shown in Fig. 5.7) were presented.

The Panel also received presentations on two business support programmes: one on eco-design (Design Wales) and another on a programme introducing, and advising on, environmental management systems for business (Arena Network). A further presentation was received on the work of the Welsh Local Government Association (WLGA) and their role in assisting local authorities in Wales to adopt sustainable development principles.

5.4.1.2 Deliberation




The Chair asked the Panel members to discuss which research priorities they considered important in order to inform their strategy and the recommendations due in March 2007. The researchers asked the Panel to agree areas of focus, on which research and advice could be obtained, in order to target the research input and also the theme of the meetings.

Figure 5.7 Initial research objectives presented by the researchers during Meeting A

Strategic Research Objectives

- Scoping study.
- Achieve data that supports a sustainable development agenda.
- Establish what information/data is available & how it is formatted.
- Identify gaps in the data.
- Present information in a meaningful categorised way.

“Currently, inadequate baseline data is a major constraint both to effective strategy making and detailed appraisal.”
Proposals for Good Practice on Sustainability Appraisal; The Cabinet Office



The two areas already identified, ‘Energy’ and ‘Materials’, were used as a starting point, as these were considered to be resources used by all businesses that should, or could, be used more efficiently. It was also agreed that ‘Communications’ represented a further area of practical action that could be used in the future to influence businesses’ resource use. It was agreed that the research would be focussed on the two original themes, each being adopted by one researcher but with a great deal of discussion between the two. Louisa Huxtable focussed on ‘Materials’ and Gavin Bunting focussed on ‘Energy’. This was as a result of their existing knowledge base, academic qualifications and experience.

5.4.1.3 Outcomes

The Panel members identified the research priorities during the meeting. These were:

- Identify and list existing initiatives and find information on their effectiveness;
- Distil information on resources use or management from national and or international publication and identify information relevant to Wales;

- Identify the resource flows for Wales;
- Identify the key drivers that influence business, industry or the commercial sector and key areas of communication to these groups;
- Compare data with other countries;
- Undertake meetings with sub-group experts to assess group specific research priorities; and
- Determine key performance indicators (KPIs).

In addition, this research needed to have uniformity of detail.

5.4.2 Individual meetings - between April and June 2005

After Meeting A, the researchers met with Panel members and some BEAP delivery partners to discuss resource management and also to seek advice on where to find data specific to Wales. Data specific to Wales was a key requirement for the Panel and, although certain available data was attributed to Wales, much of it was found to be interpolated from UK wide research or collected and kept in an ad hoc manner by a range of organisations, agencies or individuals. Early stages therefore required the researchers to seek out not only where information could be found but where it was not available. It soon became apparent that, although the data required by the Panel was relatively simple, it was not found in any single location. Nor was there a single point of contact or expertise where it could be found. Information on energy was simpler to find with proportionately fewer organisations working to assist businesses, while information on materials management and waste was found from a variety of sources and organisations, perhaps due to the strict regulations relating to energy management in comparison to materials management.

As a result of these meetings, the following research areas were requested in addition to the list already received at Meeting A. These were put in order of priority by the researchers according to the frequency with which they had been requested:

- How can consumer behaviour be influenced?
- What influences business with regards to environmental best practice?
- What is best practice in the areas of energy, materials and communications?
- Consistent information on the benefits or otherwise of environmentally friendly practices;
- Building Planning guidance;
- Business sectors and trends within those sectors;
- Key performance indicators; and
- Powers and area of influence within the Welsh Assembly Government.

These questions were added into the research brief and also presented at Meeting B in order for the Panel to confirm them as priorities. Prior to Meeting B, the Chair, secretariat and researchers met to discuss the annual report and also agree the structure for the agenda. Although the forward work plan was agreed by the Panel at the previous meeting, the details of what would be presented when, and by whom, were often discussed at pre-meetings shortly before a full Panel meeting in order to use the time most efficiently, and to keep the Chair fully briefed. Where these details had any direct input to the findings of the Panel, they are discussed in the meeting description.

5.4.3 Meeting B: 12th June 2005, Rockwool Plc offices, near Pencoed

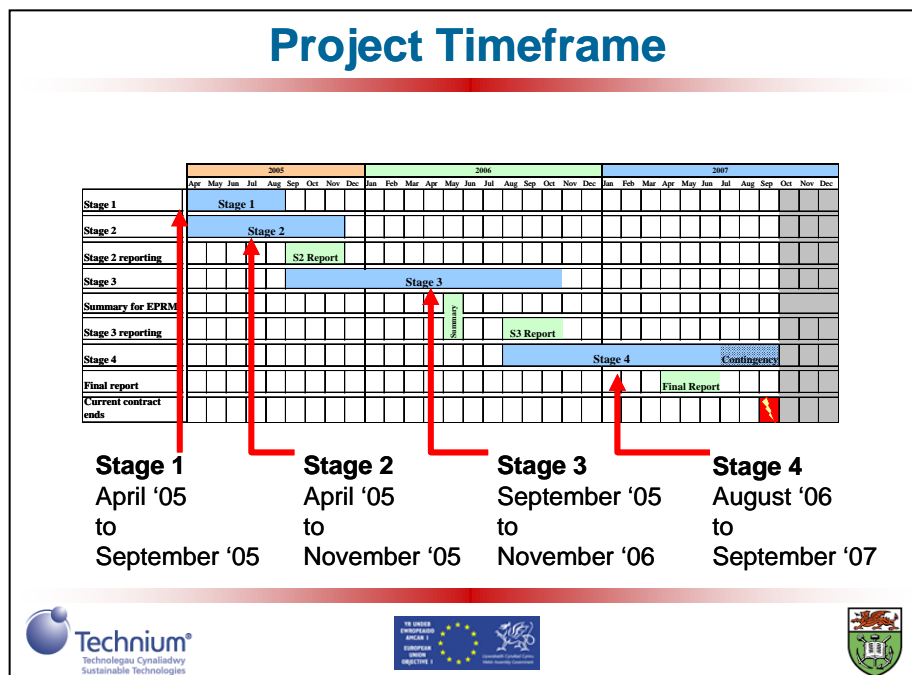
This meeting sought to encourage the Panel members to focus their thoughts and deliberations, given the wide area of potential research and discussions that had already been suggested, in order to come up with meaningful strategy and recommendations in the twelve month period before a consultation would be required.

5.4.3.1 Input

At this meeting the Panel were given a presentation by the researchers on their areas of work and objectives. The aim of this short presentation was to confirm with Panel members their priorities for research, as a result of the previous meeting and also as a result of meetings with individual Panel members.

The researchers also undertook some 'expectation management'. Given the time period available before the Panel needed to deliver their next report, there was limited time in which to undertake baseline research. Therefore compromise would be needed, either on the scope and range of research or on the level of depth and detail. The timeframe shown in Fig. 5.8 was shown to explain the rationale behind this.

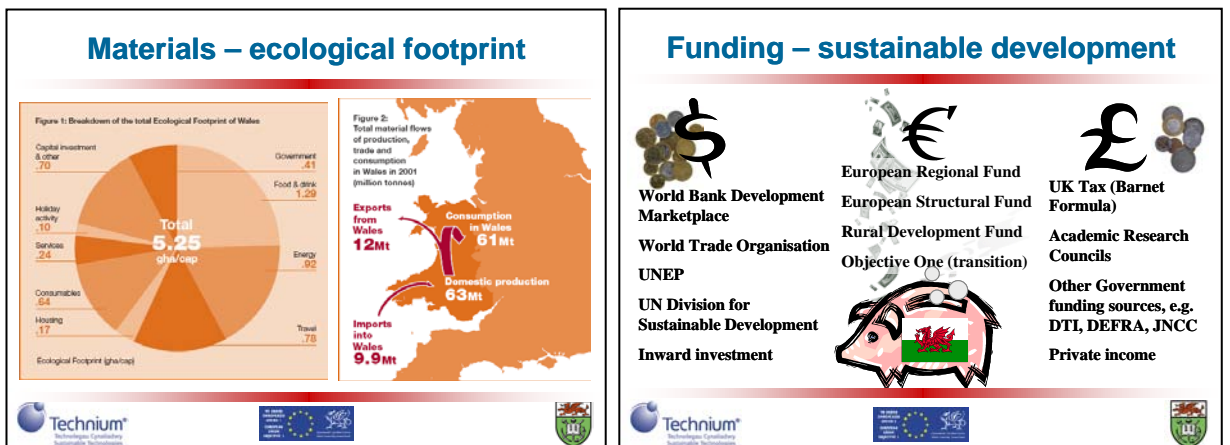
Figure 5.8 Example of a slide used by researchers to identify timescales



The Panel received further presentations, outlining the initial research findings, an example of which is shown in Fig. 5.9. The presentation material included general information on the current situation regarding energy and materials usage in Wales, some comparison to UK and Europe, and technologies or processes that had been identified as being of relevance for future resource efficiency. The Panel were

also presented with information on existing campaigns and programmes relating to resource efficiency, under the heading ‘Communications’. A very wide selection of research sources were used to produce this information including government strategy and reports, and reports from NGOs.

Figure 5.9 Example presentation materials – Meeting B.



The Chair presented the ‘forward work plan’. An example of an element of this plan is shown in Fig. 5.8. This presentation focussed on reminding the Panel of their findings to date and of the benchmarks and deliverables that would be required prior to March 2007. Perhaps most significantly, the Chair asked the Panel to consider how they should function from that date forward.

5.4.3.2 Deliberation

As a result of the Chair’s presentation, the Panel were asked to consider their work to date and to discuss the following questions:

- Are these the right areas of focus?
- What would be the main deliverables for 2005?
- How should be Panel be structured?
- What should task and finish groups discuss?

Each question posed was considered separately, with adequate time given to consider the benefits or otherwise of the suggestions made by the Panel. Discussion was in the form of structured brainstorming, and consensus was reached through simple yes/no. In the case of disagreement the question was discussed further, and Panel members were asked to find common ground, through continuing examination of the source(s) of discord, until a consensus was reached.

The Panel were also asked to consider the need for an external consultant's report to be commissioned into the current performance of the BEAP. This was secondary to the main Panel meeting and two Panel members agreed to discuss this as a task and finish group with key people from the Welsh Assembly Government.

5.4.3.3 Outcomes

As a result of discussion, the Panel agreed that they would retain 'Materials' and 'Energy' as the areas for discussion in sub-groups as well as in a matrix for reporting. However, the Panel decided that 'Communications' should remain a mechanism for delivery, rather than an area to focus delivery upon, therefore reducing the depth of research required in this area.

The Panel felt that the use of energy and materials encompassed the majority of resources that organisations consume. Under the heading of 'Energy', the focus was to reduce CO₂ emissions by reducing demand, increasing uptake of renewable energy and increasing low carbon transport. Under the heading 'Materials', the focus was to achieve a sustainable use of materials by minimising material use, increasing re-use, increasing recycling and reducing landfill. It should be noted that water was included under the heading of 'Materials'. The Panel agreed that the main 'deliverables' for 2005 would be a best practice guide and a set of recommendations for the next phase of an action plan (the next phase of BEAP).

For each of the two themes, four sub-themes were identified as a result of this meeting. These are shown in Table 5.10.

Table 5.10 Themes and sub-themes identified by the Panel at Meeting B

MATERIALS	ENERGY
Construction Sector Recycling Reduction and re-use Eco-design (longevity/dematerialisation)	Transport Energy efficiency (by sector) Building design and construction Micro-generation

During the discussion, a methodology was agreed and tested for ranking of actions that would ‘make the biggest difference’ under each of the sub-themes. This ranking exercise was proposed to the Panel by the Chair, and suggested activities (or areas of influence) were ranked, in the light of Welsh Assembly Government powers, according to:

(A) Potential effectiveness by 2010; and

(B) Potential achievability by 2010.

A score between one and five (five being most effective) was assigned to each action, as shown in Fig. 5.11. These were multiplied (AxB) to give a maximum score of 25 (can make a big difference) or a minimum of 1 (low difference).

Figure 5.11 Example of ranking exercise

Theme: Energy	Potential effectiveness by 2010 (A)	Potential achievability by 2010 (B)	Impact factor (AxB)
Sub-theme: Transport			
Fuel Type	4	2.5	10
Vehicle Efficiency	4	4	16
Demand management	4	2.5	10
Etc.

Seven other factors were identified that were relevant to both 'Materials' and 'Energy', and for that reason it was agreed that they would be discussed outside of the sub-groups at the next main meeting. The cross cutting factors included:

- Procurement (public);
- Incentives or drivers;
- Consumer issues;
- Labelling;
- Research (business and university);
- Local authorities; and
- Performance indicators.

The Panel members each agreed to complete a template prior to the next meetings of the sub-groups. These would be held in July 2005, and would discuss the results at separate meetings for 'Energy' and 'Materials'.

5.4.4 Sub-group meetings: 'Materials' and 'Energy', July 2005.

The Panel split into two task and finish groups (one each for 'Materials' and 'Energy') to complete the scoring exercise described in Meeting B. All Panel members were assigned to one of the sub-groups, and both groups met during July 2005. However, the attendance was not high, due to the summer holiday period and high workload of Panel members.

Given the timeframe, and as a result of the preparatory work undertaken by the researchers and Panel members in completing the templates, the ranking exercise was completed remotely by electronic mail for each of the four sub-themes under 'Energy'. This resulted in a total of 53 areas of influence. During this exercise the members of the Panel acted as individuals and provided an individual score for each of the suggested areas of influence. These individual rankings were combined, and averages obtained, to show those that the sub-group considered to be of high importance. A total of 76 areas of influence were identified by the 'Materials'

group. However, only 15 of these were ranked during the meeting, and the remainder ranked by email and collated by the researchers.

The total 129 areas of influence were based on actions that could benefit business directly by providing support, technology, advice or infrastructure; however, not all included the same level of detail or were aimed at the same delivery organisation. Some areas were more strategic than others. For example, under the sub-heading of 'Construction' detailed issues such as national wood re-use associations, and the adoption of recycling/re-use policies by the construction industry, were included alongside strategic issues such as public procurement and the need for a single point of contact for advice. The full list of outcomes from these meetings is shown in Appendix D.

To prevent any bias being introduced by the researchers as a result of their interpretation of the discussion of the rankings, the researchers sent a final version of the ranking exercise to Panel members for checking prior to the next full group meeting in August 2005. All Panel members had an opportunity to amend the final version, but only minor comments were received. These areas of influence were put into a simple presentation format prior to the next meeting, to be used for both information sharing and as a stimulus.

5.4.5 Meeting C: 10th August 2005, Cathays Park, Cardiff

During Meeting C, the intention was to look at the results of the ranking exercise in more detail and to use them to stimulate discussion. It became apparent during the meeting that the outcomes of the ranking exercise were too detailed at that stage, and the meeting again tried to identify where the biggest difference could be made, with a view to specifically identifying long term and short term objectives.

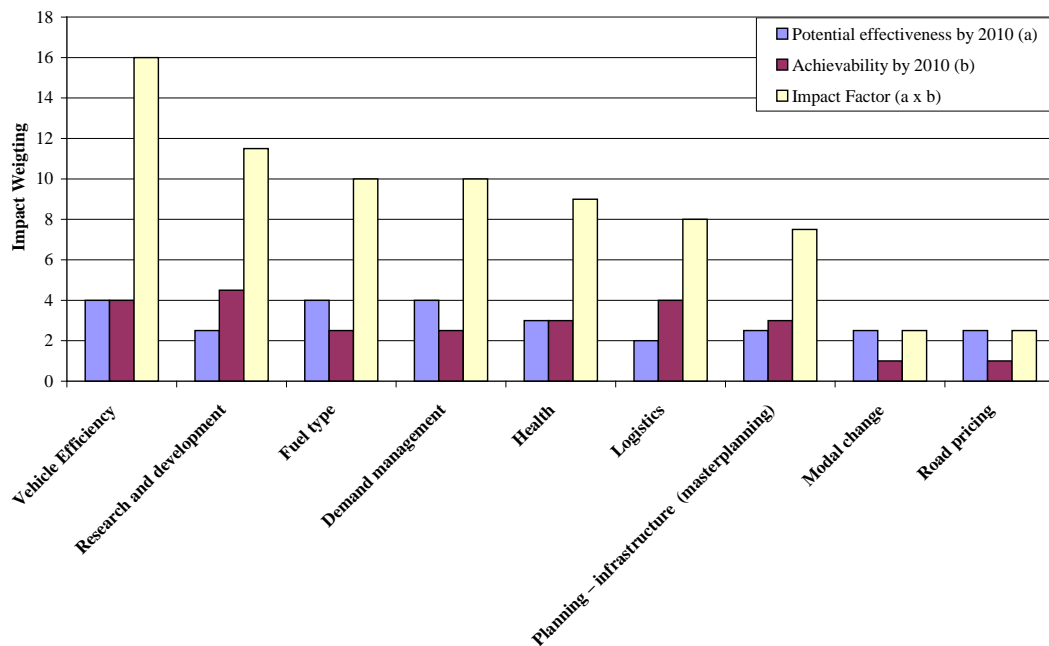
5.4.5.1 Input

The researchers presented a summary of the work of the two sub-groups. This presentation was accompanied by papers, detailing the outputs from the sub-

groups, which had been distributed prior to the meeting. The outputs from the sub-groups were presented, as shown in Fig. 5.12. Some indication was given of those areas of influence where the two sub-groups had commonality, or where areas of influence were repeated within a theme. The areas that had the highest scores, and were most achievable, were also identified.

The Panel were brought together in a structured brainstorming session to discuss the possible long term and short term objectives under the eight sub-themes indicated in Table 5.10. The outcomes from the discussion were written up in 'real time', using templates such as that shown in Fig. 5.13, and projected for viewing by the whole Panel as each sub-theme was considered.

Figure 5.12 Example of graph presented to the Panel showing outcomes from the ranking exercise



This method was considered to act as a spontaneous stimulus in itself, inspiring discussion or suggestion simply by its grammar or wording. It was also observed that the method acted as a discipline measure for the group. Each sub-theme could only be discussed while the relevant slide was being shown on screen. At the end of the meeting, there was a short presentation on two exemplar projects relating to energy, on a topic which had been suggested by the Panel members by email prior to the meeting.

Figure 5.13 Example of a blank presentation slide filled in during the meeting.



4.5.2 Deliberation

As a result of the exercise, the Panel amended the rankings to reflect more closely the consensus achieved by the whole group. Additional areas of influence were suggested; however, these were noted but not ranked.

Panel discussion, and in particular input from one member, led to the conclusion that the areas of influence discussed by the sub-groups (presented to the Panel as Fig. 5.11 and Fig. 5.12) were in fact detailed delivery mechanisms, rather than strategic areas of focus or objectives that could be presented to the Assembly Government (albeit accompanied by suggestions for delivery) for their consideration at a later stage. The deliberation focussed on how to proceed at this stage, and what type of further work would result in the desired outcomes.

5.4.5.3 Outcomes

Although the initial part of the deliberation suggested that the efforts made by the sub-groups were not suitable for use in formulating recommendations for government, the outcome of the meeting was very productive. By identifying areas

of delivery the group were able to work backwards to identify areas of commonality that were named 'strategic direction' or 'objective'. In this way, the method used was similar to 'presencing' (i.e. visualising a future or goal and then working backwards to identify the routes and methods used to achieve that goal). Due to the timescales involved, the researchers in their role as facilitators used this method spontaneously. The structured brainstorming resulted in 40 short term and 24 long term objectives as shown in Table 5.14 and Table 5.15.

Table 5.14 Results of deliberation in Meeting C: 'Energy'

Sub-theme	Long Term Objective	Short Term Objective
Energy Efficiency	R&D – technology and commercial viability Local generation and conversion efficiency Devolution of responsibility for building regulations	Increasing uptake of current technology Enforcement of building regulations (and IPPC) Improving building energy management Promoting the awareness and use of energy information
Micro-generation	R&D – technology and commercial viability Local generation and conversion efficiency Development of infrastructure SMART meters in every energy using facility	Increasing uptake of current commercially viable technology Increasing commercial viability of other technology Increasing community energy schemes Increasing the awareness and use of energy information Planning system Ready access to information Sector skills/installation skills
Building Design and Construction	R&D - technology, best practice and commercial viability Devolution of responsibility for building regulations Regional and community master-planning Lifestyle and environment integration	Increasing uptake of current best practice Enforcement of building regulations Complete lifecycle and cost in use design Design for refurbishment/upgrading Increasing the awareness and use of energy information Educated and informed client decisions
Transport	R&D – technology and commercial viability Fuels, logistics, infrastructure, engines Lifestyle Optimised transport flow Consistent, safer journeys Take advantage of Welsh topography Community and regional integrated master-planning	Increasing uptake of current technology Demand management/transport planning Increasing (integrated) public transport Increasing the awareness and use of transport (energy) information Use of ICT (e.g. mobile phones) for transport information Increasing community/area transport planning

It is worth noting that many of the identified objectives were repetitive, requiring the same strategic input, although being applied to different areas of influence. For instance the two subjects: ‘promoting awareness’ and ‘research and development’ were common to all eight of the short term aspiration lists.

Table 5.15 Results of deliberation in Meeting C: ‘Materials’

Sub-theme	Long Term Objective	Short Term Objective
Construction	R&D – technology, best practice and commercial viability Better academic/business links Mainstreaming sustainable construction Devolution of responsibility for building regulations	Increasing uptake of current best practice Extraction, transport, construction, demolition, waste management, building design, materials selection Strengthening of building regulations Strengthening of enforcement of building regulations Up-skilling of total supply chain
Recycling	R&D – technology and commercial viability Education at 5-18 level Links to tax Legislation change	Increasing uptake of current technology Increasing symbiosis (industrial food-web) Enforcement and strengthening of waste regulation Increasing the awareness and use of recycle Optimisation of legislation for movement of recyclable waste
Reduce/reuse	R&D – best practice, technology and commercial viability Legislation (producer responsibility) Initial concept design for re-use (eco-design)	Increasing uptake of current best practice Link to capital funding/financial methods producer responsibility legislation (long term) Increasing the awareness and use of waste information Better procurement Improved process efficiency More with less Increase skill base – consultants, suppliers, businesses.
Eco-design	R&D – technology, expertise and commercial viability Market transformation	Increasing availability and uptake of current expertise and best practice

The Panel discussed the common themes again, having had the results of the exercise, and arrived at the list below:

- Portal/single point of contact;
- Local authorities;
- Procurement;
- Education, training and skills;
- Long term research and development;
- Simplification and enforcement of legislation;
- Consumer awareness;
- Good management (Environmental Management Systems, Health and Safety Management etc.);
- Measurement and metrics;
- Business footprinting tool (efficiencies, aspects and impacts register, capital etc.); and
- Business benefits and opportunities, entrepreneurship.

At the end of the meeting the forward work plan was amended. Further sub-group meetings were proposed to discuss the objectives in the light of the 11 new key themes and the work plan for Meeting D was agreed, facilitated by the Chair. It was agreed that Meeting D would aim to reach a consensus on: 'How EPRM can make a difference', for the long term and short term objectives already identified. This would include responses to the following questions:

- What are the means of delivery?
- Who can deliver?
- What are the resource requirements?
- What could the impacts and benefits be?
- How long would it take?
- How could the impact be measured?

In this way, the Panel were prepared for the work they would need to do at the next meeting and, in discussing this, they identified areas of information for the researchers to pursue. It was also agreed that, at Meeting E, draft high level recommendations would be prepared and detailed actions would start to be identified. Due to the time taken to discuss the ranking exercise during the meeting, it was agreed that discussion of research outcomes would take place at sub-group meetings during September 2005.

5.4.6 Second sub-group meetings: September 2005

Sub-groups met on the 23rd and 30th September, respectively, to discuss the two themes: 'Materials' and 'Energy'. These group meetings each deliberated a desk study report produced by the researchers and identified areas which needed more in-depth enquiry. These were areas where Panel members could further contribute, as a result of their expertise and experience. In addition there was some discussion on how the research outcomes could contribute to evidence based recommendations that might later be adopted as Welsh Assembly Government policy. The findings from these meetings were taken forward to Meeting D.

5.4.7 Pre-meeting: 5th October 2005

A pre-meeting, attended by the Chair, researchers and two representatives of the secretariat, was held. As with previous meetings, this meeting was held to agree the agenda and inputs that the Panel would receive during the next full group meeting. It was agreed at this meeting that Panel members would receive information relating to the organisational structure of government into which the Panel would present their recommendations. In addition a timetable for future work plans, as far ahead as July 2006, was drafted by the Chair and secretariat, in order to provide a workable 'project plan' with which the Panel could achieve their targets.

5.4.8 Meeting D: 19th October 2005, Plas Tan y Bwlch, Snowdonia National Park

As identified in their previous work plan, the Panel had agreed to consider the questions identified in Meeting C, and to start to answer the first two questions: 'What are the means of delivery?' and 'Who can deliver?'

It was apparent to the Chair and researchers prior to the meeting that these questions related to specific recommendations. The Panel were not yet in a position to answer these questions, having not agreed a definitive group of recommendations. However, some recommendations would have to be ready for submission to the Minister by December 2005, in order to show progress against targets, and to inform early drafting of the next phase of the BEAP.

The Panel aimed to discuss a draft specification for consultants to evaluate the previous BEAP. In addition they wished to discuss the outcomes of the two sub-group meetings and to re-visit the outcomes of the previous full group meeting, where long term and short term objectives had been discussed. In order to hold a productive meeting, the researchers were tasked with presenting a high level of information (much of which related to the work that the Panel had already done) over a short period of time, and asking the Panel to give concise responses.

5.4.8.1 Input

The initial task was to work through a draft specification for the consultants' report, and make suggestions for changes. The Chair started with the now familiar presentation on the stages of work, benchmarks and timetable. This presentation also included an organisational diagram of the Welsh Assembly Government. It aimed to inform the Panel who they might influence with their recommendations, where those individuals (or groups) were located in the Welsh Assembly Government organisational structure, and who might influence them.

The findings from the research requested by the task and finish groups were also presented. The researchers had taken the suggestions made by the Panel for each sub-theme and presented them as storylines or 'issue cascades' (shown in Fig. 5.16) in order to simplify the high level of complex output that had been received from

the five previous full group and sub-group meeting sessions, and the research stimulated by the Panel. Due to the nature of group participation, the output to date had included responses that encompassed: issues that business faced; causes of issues; potential solutions; detailed modes of delivery (best practice); as well as strategic principles or themes. The aims of the issue cascades were to separate the cause or issue from the solution and to separate the factors relating to business from those factors relating to provision of support.

Each issue cascade was presented as a simple flow chart or list which showed issues relating to business raised by the Panel, current barriers to uptake of support and what factors relating to business required change in order to overcome those barriers. For each sub-theme, one or two slides would follow this cascade, outlining between five and ten areas that the Panel had suggested the Welsh Assembly Government could act upon, in order to increase resource efficiency by business under that sub-theme. In addition, the highest ranking results from the ranking exercise conducted in Meeting C were presented to show the correlation between the Panel's ranked suggestions and those received through structured or unstructured brainstorming. All of the issues and solutions had been mentioned by the Panel at some time during the previous six months. However, the long periods between meetings meant that at this stage in the Panel's work they were in danger of covering 'old ground' unless reminded of their findings to date.

To continue the Panel's learning, a presentation on the Environmental Goods and Services support programme provided by the Welsh Assembly Government was given at the end of the meeting.

5.4.8.2 Deliberation

The Panel started the meeting by taking part in structured brainstorming around the consultants' brief and specification. This was facilitated by the Chair as they worked through each section of the specification.

The Panel were asked to comment on each of the issue cascades and the recommendations already suggested by the Panel. The aim of this was to identify

further areas of research required in order to provide an evidence base, as well as to point out where best practice examples were needed. There was also an aspect of unstructured brainstorming to this exercise: by presenting on the work of the sub-groups, each sub-group could comment on the work of the other. In this way, part of the exercise was to make sure that the researchers had correctly interpreted the feedback from the Panel and also to make sure that, although they had undertaken a considerable amount of work as individuals on the evidence base and presentation of the data, the researchers were formalising the Panel's outputs in a way that accurately represented the Panel's thinking.

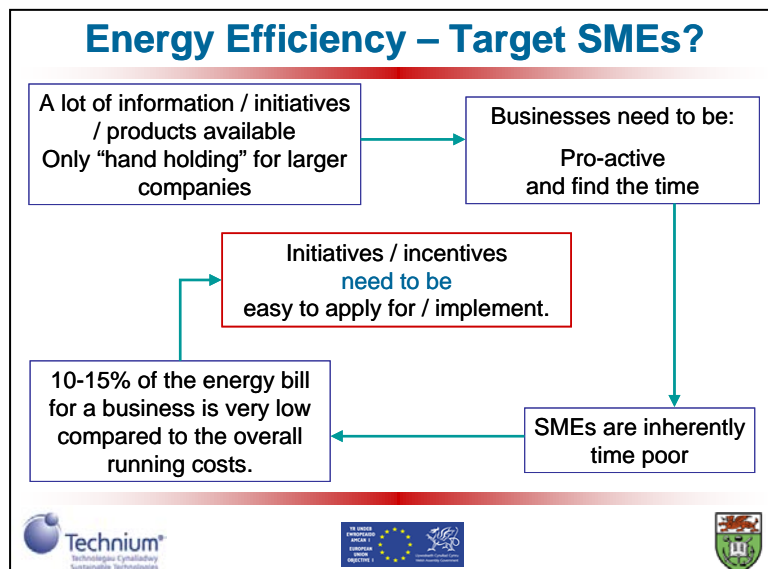
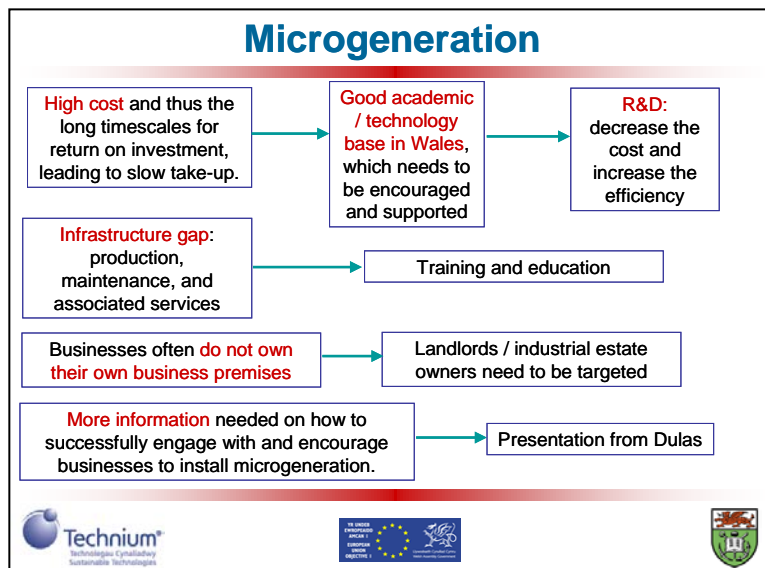
The Panel made suggestions to amend the specification. Having agreed in principle that the draft specification was suitable, with these amendments, they requested that two Panel members sit on the steering group for the contract.

The presentations made by the researchers instigated further refinements and suggestions to the recommendations already listed. As a result of the issue cascades, there was a discussion on the perceptions of business and their needs; this resulted in a suggestion (and consensus by the Panel) that all recommendations produced should be focussed on the needs of business and mechanisms to support businesses.

5.4.8.3 Outcomes

It was agreed that the next meeting should focus on determining the high level recommendations that the Panel would make to the Minister, and that prior to that next meeting the researchers would rationalise all of the recommendations and suggestions made by the Panel so far, to assist in focussing discussion.

Figure 5.16 Examples of issue cascades presented at Meeting D



The Panel started to consider and focus on a possible delivery mechanism for their recommendations, particularly those relating to business support. As a result of discussion they agreed that any programme should have:

- Simplicity and ease of access;
- A carbon scorecard and/or benchmark; and
- Medium sized companies (rather than large or small) to be the focus of business support.

5.4.9 Pre-meetings: November to December 2005

No structure for reporting or outlining recommendations was identified by the Panel as a result of Meeting D. The researchers agreed to consolidate the recommendations and objectives made to date, in order to focus discussions and reach an initial consensus on the way that the Panel would structure and present its recommendations.

Three pre-meetings were held between the 1st November and 1st December to bring together the findings of the Panel in a coherent way. These meetings were attended by the researchers, Chair and secretariat. The meetings were held as structured brainstorming sessions – the results of discussion were displayed on a whiteboard (Panaboard™) with integrated printer, and printed as a record of discussions. The initial meeting identified that the recommendations fell into the following hierarchy:

- Theme e.g. Material;
- Sub-theme e.g. Reducing and re-using waste;
- Long term or short term objectives;
- Panel recommendations relating to each objective; and
- Actions to deliver those recommendations.

The researchers and Chair tested the structure, by putting recommendations under the headings identified above, in order to reach a consensus of the structure that would be used as a basis for the recommendations or strategy document.

As a result of this first meeting, it was agreed that the researchers would complete a table of all the recommendations made by the Panel to date and, where available, detailed actions for delivery would be added. An example section from this table is shown in Fig. 5.17.

Figure 5.17 Example of the ‘Materials’ theme recommendations hierarchy table from pre-meeting in November 2005. The sub-theme was reducing and re-using waste.

Reducing and re-using waste			
Short term	Long term	Panel recommendations	Actions
Increase of current best practice		That business has access to the relevant skills base to implement resource efficiency measures	-How? - CPD and new training? -Who?
Link to capital funding/ financial methods		BEAP II should place emphasis on the support provided to SMEs	- What emphasis? - What support?
	Research and development for best practice and new technologies	That a KPI be developed and adopted	- Confirm KPI - Agree a methodology?

At the follow up meeting, on the 22nd November, only the Chair and researchers were present. They set out how to present the proposed structure to the Panel in a way which invited members’ input and deliberation, while also focussing their attention on producing a coherent document for government. Because of the small size of the group, the meeting took the form of unstructured brainstorming, with the group members taking turns to facilitate. Again the whiteboard was used to assist the group, and the outline structure paper produced as a result of the previous meeting on the 1st November was used as a stimulus material. The group recognised a high level of repetition under certain headings, and that these headings fell into four categories: recommendations for ‘Energy’ resources management; recommendations for ‘Materials’ resources management; recommendations that were common to both ‘Energy’ and ‘Materials’; and the target of the recommendation i.e. the aspect of the business or other organisation that could take advantage of changes as a result of the recommendations.

These aspects of the business were identified as:

- Building,
- People,
- Transport,
- Product/service, and
- Finance.

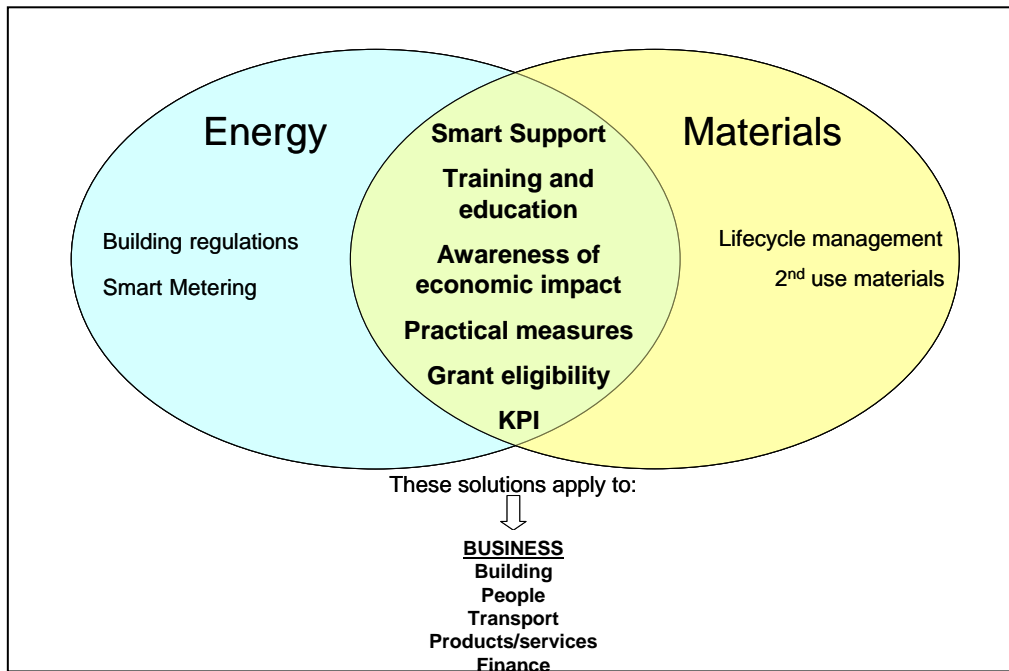
This idea was expanded upon and drawn up diagrammatically as shown in Fig. 5.18. At the top level are the themes, and within both of these themes are the six common recommendations. The majority of the recommendations made by the Panel in the previous meetings could be grouped under these common headings and so sat in the overlapping area shown in the diagram. The remaining recommendations fell under four additional headings, specific to 'Energy' or 'Materials', giving ten strategic recommendations in total.

- Smart support was identified as anything relating to supporting businesses to be more resource efficient.
- Training and education was the training of staff and people in business as well as support providers.
- KPI related to recommendations about benchmarking or data collection.
- Awareness included recommendations relating to the awareness of the general public in resources management. This also included an element of communication and consumer awareness.
- Practical measures included all recommendations that required some kind of practical support or hard infrastructure, such as recycling facilities or energy distribution networks.
- Grant eligibility encompassed all recommendations that required some kind of resource management policy, activity or awareness in order to be eligible for public funded support.

This framework was expanded upon in a meeting on the 1st December 2005, using the same methods, with the aim of deciding what would be presented to the Panel

at the group meeting scheduled for the 7th December. Having analysed the Panel's recommendations, these could now be grouped according to: whether they were strategic, or detailed; whether they applied to the six common areas or were specific to a theme; and, to what area of the business they applied.

Figure 5.18 Outcomes of rationalisation exercise at the second pre-meeting, November 2005



The matrix for analysis of each recommendation was therefore quite complex (see Table 5.19), however this exercise created a level of clarity which had previously not been seen, and allowed the structure of the next exercise to be clearly described.

A further outcome of this meeting, which had not be foreseen or planned, was that it identified that many of the recommendations that could be implemented by the Welsh Assembly Government fell outside of the portfolio of the Minister who had responsibility for Business and Environment. All members of the pre-meeting believed that their recommendations would require cross-departmental working in order to be achieved.

Table 5.19 Matrix for analysis

AREA OF BUSINESS	SMART SUPPORT	TRAINING AND EDUCATION	KPI	AWARENESS	PRACTICAL MEASURES	GRANT ELIGIBILITY	BUILDING REGULATIONS (ENERGY)	2 ND USE/WASTE (MATERIALS)
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Building

People

Transport

Product/
service

Finance

As the Panel had to date been given a ‘blank sheet of paper’ in relation to the practicalities of delivery of their recommendations by government, the Chair chose to maintain this protocol and, rather than suggesting at future meetings that the Panel limit their suggestions to actions within the influence of the Minister, asked the pre-meeting to describe the elements required within the Welsh Assembly Government structure which would be needed in order to deliver such a wide ranging collection of recommendations. It was agreed that this would be presented to the Panel by the researchers. The final consensus achieved during this meeting was on the structure of the presentation which would be made to the Panel, in order to focus their discussions towards a way forward with the work.

5.4.10 Meeting E: 7th December 2005, Technium Sustainable Technologies

Compared to the sometimes complex nature of previous meetings, this meeting had a single purpose: to seek consensus from the Panel members on the structure of the high level recommendations that would be presented to the Minister in January 2006 and the format that would be used to present these recommendations prior to June 2006. June 2006 was a milestone that the Panel had agreed, in order to allow enough time to consult on their recommendations more widely prior to completion of their final document by March 2007.

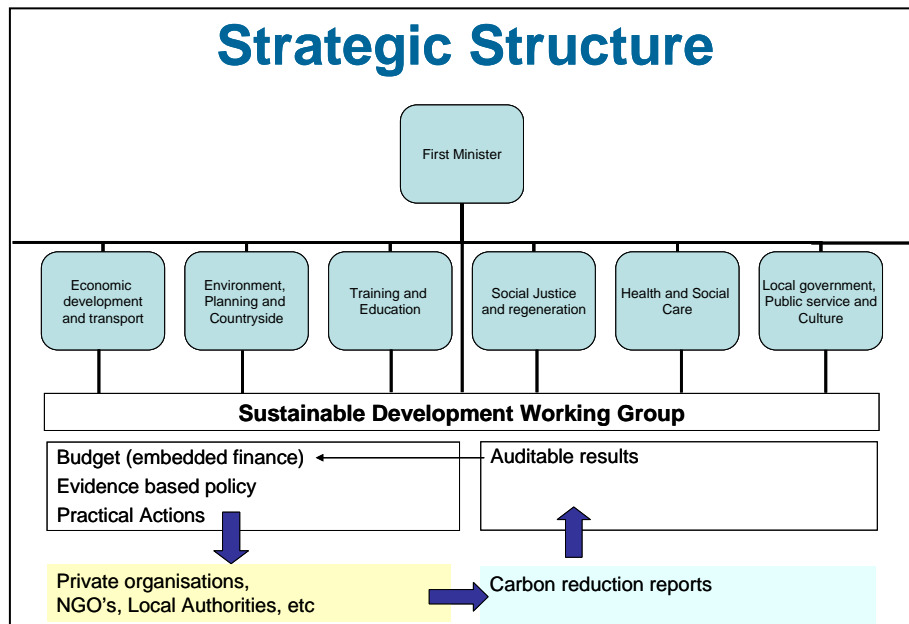
5.4.10.1 Input

The Panel were given two presentations. The first presentation encompassed the need for cross-departmental working and shared resources in order to deliver the Panel's recommendations, and described an amended organisational structure. The presentation slide used to explain this is shown in Fig. 5.20. This was accompanied by a print out from the Welsh Assembly Government website that identified the members of the Welsh Assembly Government Cabinet and their Ministerial portfolios as well as a potential framework that the structure might take.

The second presentation was on the subject of the headings of the common recommendations that had been discussed at the pre-meeting. The thought processes and analysis used at the pre-meetings to produce the common headings were described. In addition, the Panel members were given copies of the completed hierarchy tables, indicated in Fig. 5.17, showing the themes, sub-themes, objectives and recommendations hierarchy. The presentation also included data on the status of work in Wales for each heading. A full paper including the structure and also the information about status had been sent to the Panel members prior to the meeting to inform this input.

The first part of the deliberation, relating to the 'Strategic Structure' shown in Fig. 5.20, took the form of information exchange and clarification of issues: once again it was important to make sure that the inputs on behalf of the Panel's facilitators had been interpreted correctly. Once the presentation had been made, Panel members were given the opportunity to ask questions about the structure, to make comments, and to vote on whether they thought such a structure for delivery would prove useful or effective.

Figure 5.20 Example of structure presentation given to the Panel at Meeting E



5.4.10.2 Deliberation

The Panel were asked to consider how they would structure themselves and their work, in order to identify more detailed aspects of their recommendations such as costs, carbon benefit, how to (and who should) deliver the recommendations. The Chair suggested that, in future meetings, the priority should be given to the questions originally raised in Meeting C relating to: 'What is truly relevant?', 'How can we help the SME?' and 'How do we deliver?'

5.4.10.3 Outcomes

As a result of these discussions, both diagrams that were presented to the Panel were agreed, in principle, as illustrating the Panel's discussions to date and amendments were suggested. This was the first meeting where the tasks assigned to the researchers following the meeting were balanced more in favour of working on focussed output and producing a recommendations document than on researching the general evidence base.

What was also evident as this meeting was that the Panel members, although in favour of the grouping together of recommendations in order to make

communication to outside parties easier, each carried particular agendas or were focussed on outcomes that were of particular importance to themselves. Consequently, there was some resistance to recommendations with a more personal investment being grouped together.

Throughout the process, the Chair had recognised his role in making sure that all Panel members had an equal opportunity to make their point and for their views to be represented in the final document. At this stage, the researchers and Chair recognised that the iterative process of input, deliberation, and output could also be used to smooth out some of these more personal agendas, leading to a more consistent outcome.

What was also of some importance to the dynamic of this fast-moving decision making was that the researchers' input was considered by all Panel members to be impartial, and that the role of the researchers was appreciated and trusted. The researchers were expected, in these later meetings, to encourage discourse and by doing so challenge the Panel members' views. This role of challenger was another way in which strong personalities within the Panel could be questioned on their motivations relating to one or another of the recommendations, but it could also be used to remind Panel members of their initial views and to question how, or why, they might have changed over time.

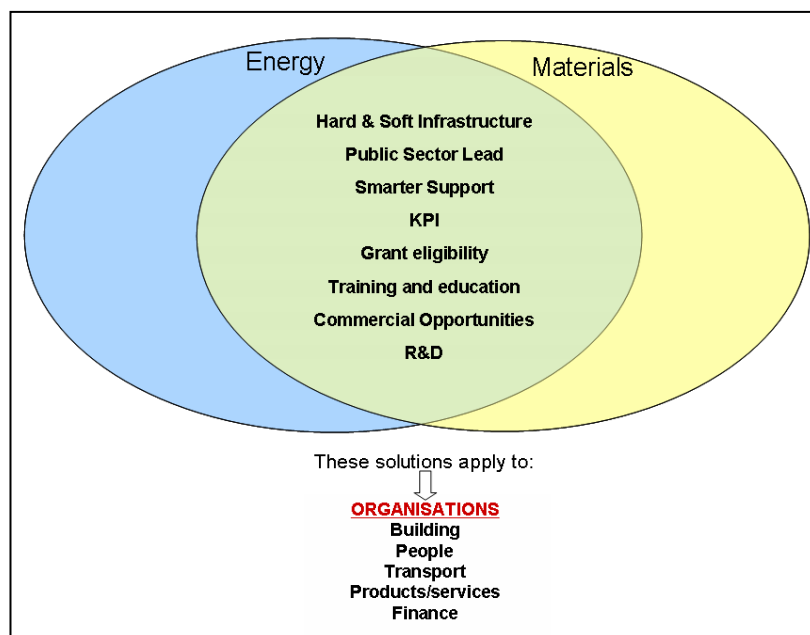
As a result of the meeting, the researchers were tasked with consolidating the Panel's recommendations to date and presenting them under the title 'Common Themes (Strategic Solutions)'; as an early, draft recommendations document this would be checked by all Panel members and commented on electronically. This document would be submitted to the Minister as indication of the Panel's thinking to date about resource efficiency in Wales.

5.4.11 Meeting F: 20th January 2006, Technium Digital

The aim of this meeting was to discuss and refine the draft recommendations that the researchers had drawn up as a result of discussions to date and agree how these would be progressed as a more detailed action plan. The Panel members also received a report on the parallel activity of a consultants' report that had been

commissioned to evaluate the former phase of the BEAP, which was due to finish in February 2006. Although there was some possibility of conflict between the findings of the consultants' report and that of the EPRM, the Panel had commissioned the BEAP evaluation report to help to substantiate their own findings and provide a source of triangulation and further evidence for the work that they were undertaking.

Figure 5.21 Core solutions to incentivise increased resource efficiency by organisations in Wales



5.4.11.1 Input

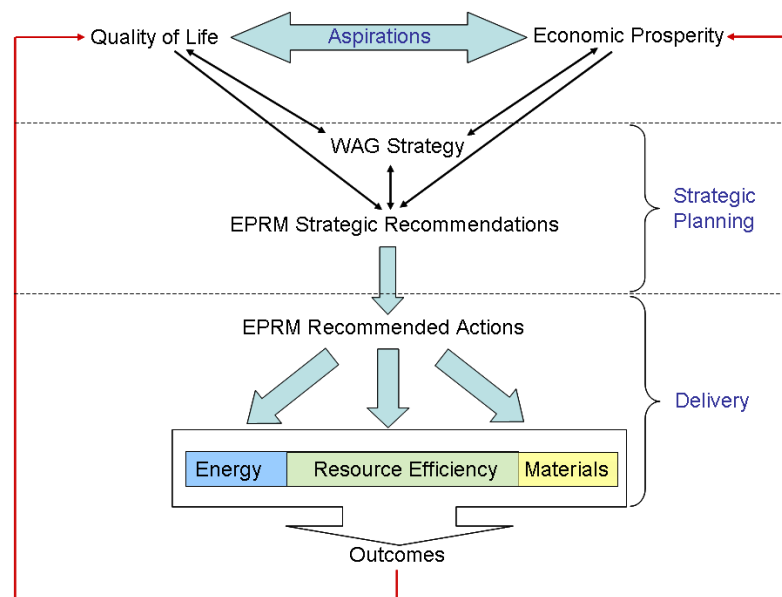
In preparation for this meeting, the researchers revisited the 'Strategic Solutions' (the ten strategic recommendations agreed previously), better defining them as a result of their discussion in previous meetings. This resulted in a central 'core' of eight areas of impact (see Fig. 5.21).

The researchers also produced a diagram, which illustrated the Panel's lines of influence and their hierarchy of thought, indicating how they would reach their outcomes. This also attempted to give clarity to the terms used, which had the potential to become increasingly confused (see Fig. 5.22). According to the

researchers' suggested definitions, 'Aspirations' were defined as the overall aspirations to which the Panel sought to contribute through their work i.e. quality of life and economic prosperity. These were aspirations also common to Welsh Assembly Government strategies. At the next level, the 'EPRM Strategic Recommendations' corresponded to the eight common areas of impact (agreed in meeting E and represented in Fig. 5.21). Below these are the 'Recommended Actions', i.e. those which the Panel needed to discuss during the current meeting.

The Panel also received a paper outlining the draft recommendations that would be presented to the Minister. The majority of the text was based on the Panel's previous discussions with relevant baseline data and evidence accompanying each recommendation.

Figure 5.22 Illustration of thought hierarchy and influences shown at Meeting F



Presenting the new headings accompanied by what was by now already familiar work (and in some cases phrasing) had two conscious aims: it promoted familiarity with the draft document and it prevented time-consuming repetition of activity which at this stage could damage the Panel's ability to complete its tasks within the time allowed. However, the importance of this form of input also had an unconscious aim: it allowed the researchers to reassure the Panel that they valued

all the work which had previously been done, and that none of this work had been lost during its interpretation into the draft recommendations document.

Additional input was given by Panel members who had attended a workshop and the steering group relating to the BEAP evaluation were asked to report on the outcomes and progress of this task during the meeting.

5.4.11.2 Deliberation

The Panel were tasked with reaching a consensus on a maximum of five short term and five long term aspirations in order to deliver positive change to each of the eight core areas of impact.

During the meeting, the researchers and Chair initially made sure that each of the Panel members understood the task being given. This stage signalled the first move, from addressing areas to focus delivery upon, towards prioritising the types of delivery required. During the meeting, the Panel was to examine the recommendations that had been listed under each of the eight headings, and start to consider how they would work in practice. The key question was: 'What are the aspirations to deliver change amongst organisations in Wales – for each of the eight priority impact areas?'

A structured set of questions was presented to the group using electronic presentation media, which closely resembled the draft recommendations paper that had been given to Panel members, and the outcomes of discussion were also presented on flipcharts to show the results of discussion as they were interpreted by the researchers/facilitators.

As the papers had been sent out to the Panel members prior to the meeting, individual Panel members already had comments which they stated early on in the discussion. This kept the discourse flowing freely during the meeting, whereas discussing as many as 70 recommendations could have resulted in a loss of interest or effort towards the end of the activity.

Although answers were solicited from individuals they were then discussed amongst the group to give no more than five consensus answers on each of the long term and short term aspiration questions. The group was then given the opportunity to feed back on these answers as they were recorded by the facilitators. This was a move away from a traditional structured group interview technique. However, this flexibility was needed in order to illicit a response on the majority opinion of the group.

5.4.11.3 Outcomes

The major outcome of this meeting was that the final version of the eight common areas, as presented by the researchers, was agreed. The Panel intended that, when these were applied in parallel, they would incentivise and empower organisations to be more resource efficient as well as break down the barriers to practical implementation of resource efficiency measures. It is important to note that the Panel considered that the measures were holistic and synergistic, and could not be delivered in isolation.

These core strategic solutions, and a synopsis of the justification supporting them, are described below. Of these eight, the most vital was considered to be the hard and soft infrastructure. All other solutions were discussed in the context of this first solution.

5.4.11.4 Hard and soft infrastructure

The Panel identified that, for resource efficiency to be adopted throughout Welsh organisations, a suitable infrastructure needs to be in place. In this context the infrastructure not only includes the road, rail and other networks that constitute the hard infrastructure, but also the soft infrastructure such as business support and public sector policy or finance. The Panel stated the aim of the solution to be:

- To provide the necessary resources that will allow organisations to become more resource efficient. These need to be easily accessible and provided in an integrated, co-ordinated, non-exclusive manner.

5.4.11.5 Public sector lead

The public sector in Wales has a procurement budget of £4bn which accounts for 11% of Wales's GDP (Welsh Assembly Government, 2004). This spending power has the ability to shape markets. In addition the public sector can demonstrate the cost savings that can be achieved by implementing better resource efficiency, as well as providing best value for money to the taxpayer. The Panel stated the aim of the solution as:

- The public sector to demonstrate best practice with regards to resource efficiency;
- Public sector services to be better value for money in the long term due to a more efficient use of resources;
- Long term targets by the public sector will lead to long term demand for services/technologies that help the implementation of resource efficiency; and
- The establishment or expansion of markets for resource efficiency services/technologies.

5.4.11.6 Smarter support

The support and measures provided to encourage better resource efficiency within organisations in Wales must be easily accessible, relevant, sector specific and good value for money. In order to achieve this, an integrated, coherent approach is needed. The Panel stated the aim of the solution to be:

- A support system that helps organisations in Wales become increasingly resource efficient;
- A support system that is resource efficient;

- Regulation and financial incentives that encourage resource efficiency;
- The engagement of the private sector; and
- Effective, innovative and good value support programmes that consider life cycle management and costing in their own operations.

5.4.11.7 Key Performance Indicator

A Key Performance Indicator (KPI) is required to measure the progress of the organisation, and the success of the organisational support providers[§], in implementing better resource efficiency. Although a single KPI would be more difficult to measure with regard to softer services, the Panel felt that the current plethora of indicators leads to confusion and a dilution of the message. The Panel agreed that an infrastructure and an agreed methodology would be required to achieve this target and that they would engage with relevant experts to provide this detail at a later stage. The Panel stated the aim of the solution was to:

- Make measurement of resource use easy and common-place;
- Report against climate change targets;
- Raise awareness of each organisation's resource-burden; and by doing so
- Highlight areas for greater efficiency.

5.4.11.8 Grant eligibility

Drivers are needed to persuade organisations to consider their resource efficiency and to adopt a policy of continual improvement. The public sector can maximise implementation of resource efficiency measures in the terms and conditions of their grants. The Panel agreed to engage with grant providers on the practicalities of implementing such a policy. The Panel believe that all grants provided to organisations are relevant. The definition of the resource efficiency policy should also be consulted upon and agreed. The Panel stated the aim of the solution:

§ Organisational support providers: Those organisations that provide support on issues that could directly or indirectly affect how efficiently resources are used

- To use grant-funding as an incentive for organisations in Wales to measure and continuously improve their resource efficiency.

5.4.11.9 Training and education

Organisations must be able to access the relevant skills base and knowledge to make informed decisions and implement resource efficiency measures. The proliferation of resource efficiency in Wales needs to be driven by a modal change within the population as a whole. Organisations are market driven therefore the awareness of the consumer is imperative to drive change. The Panel stated the aim of the solution was to:

- Give Welsh organisations a positive global reputation in the provision and use of resource efficiency measures;
- Increase the skills base available for the implementation and provision of resource efficiency processes;
- Provide the knowledge required for innovation in the field of resource efficiency;
- Raise the awareness of the national population of the positive financial & quality of life implications of resource efficiency;
- Drive improvements in resource efficiency through consumer pressure; and to
- Raise the awareness of the positive economic impacts of resource efficiency and promote voluntary adoption of the measures to achieve this.

5.4.11.10 Commercial opportunities

Organisations need to be made aware of the commercial opportunities available in enabling organisations to become more resource efficient, and the benefits of locating or starting-up their organisation within Wales. The Panel stated the aim of the solution was:

- To make businesses aware and able to take advantage of the positive opportunities that providing resource efficiency products or services can bring;
- To make Wales the foremost provider of products or services that enhance resource efficiency; and
- To provide businesses (clients) with resource efficient products or services sourced from within Wales.

5.4.11.11 Research and development

Research and development (R&D) is needed to identify more efficient technologies, methods or practices, as well as maximising the commercial viability of current technologies in the field of resources management. The Panel stated the aim of the solution was:

- To promote innovation and a vibrant economy around the technologies and processes that relate to resource efficiency;
- To foster the next generation of technologies or processes that will help organisations in Wales, and globally, be more resource efficient; and
- To provide the knowledge required for innovation in the field of resource efficiency.

As a result of the deliberation, 74 recommendations were discussed and agreed by the Panel. The Panel stated 12 as high priority, and the remainder as being either sub-recommendations or examples of best practice. The Panel also decided at this point that many of their recommendations, although originally biased towards assisting business, could be of equal value to other types of organisation. The Panel considered that the public sector in particular were in need of support and communication if there were to be seen to lead the way, as indicated by one of the key recommendations which the Panel had already suggested.

These recommendations required an element of testing within the Assembly Government, to determine how effective and achievable they might be. Consequently, the Panel agreed that their recommendations would be presented to

a small group of senior policy officials within the Assembly Government. The Chair would make the presentation, assisted by the researchers and one or two Panel members. The results from the meeting with senior policy officials were recorded by the researchers and also representatives from the secretariat, and sent to Panel members prior to the next full group meeting.

5.4.12 Meeting G: 8th March 2006, National Botanic Gardens, Llanarthne

At this meeting, the Panel were informed of the feedback from the senior policy officials. They then discussed and reviewed the second draft recommendations document that had been produced by the researchers in the period since the previous meeting, but which had not yet incorporated any of the policy officials' comments.

The first aim of these discussions was to reach a consensus on the final draft recommendations document, and to discuss how the comments and suggestions from the senior policy officials' meetings would be integrated into these suggestions, if at all. The second aim was to identify a way forward in order to determine detailed recommendations corresponding to the strategic recommendations agreed. This was the first meeting where the subject of external consultation was dealt with in any detail.

5.4.12.1 Input

The researchers had prepared a presentation and stimulus materials which included all of the findings to date as well as the recommendations. As with previous meetings, they recorded comments on a flip chart as a visual stimulus to the Panel members.

Also included within this presentation were recommendations that had been considered at previous meetings but had not yet been grouped under any of the 8 headings or within the 12 priority recommendations. This was often due to individual Panel members feeling very strongly that the particular recommendation

was overarching or separate. At this stage, the Panel as a whole were asked to assess if these 'rogue' recommendations would now fit under the existing headings.

5.4.12.2 Deliberation

The Panel were now familiar with the pattern of responding to presentations and, while conversation occasionally led away from the question at hand, often the Chair or other Panel members would use the visual stimulus provided by the presentation slides to re-focus conversation. The Chair asked the Panel to consider each recommendation in order, to listen to the points made about it by Welsh Assembly Government policy officials, and to consider whether the strategic recommendation required: no change; a change in wording to making it clearer; a change of emphasis; or to be excluded completely.

During the meeting, the Chair handled the presentation of the Welsh Assembly Government comments and suggestions carefully: being aware that the role of the comments might not only provide useful antagonism, but might cause the Panel members to become unnecessarily defensive of work already completed. In this way, the Welsh Assembly Government policy responses took the role of antagonist. As the Panel had reached their recommendations through a process of consensus and compromise, it was important to have these recommendations tested again by those whose job it was to make similar recommendations, i.e. the senior policy officials.

5.4.12.3 Outcomes

As a result of the discourse caused by the Welsh Assembly Government comments, the Panel assessed each recommendation carefully. The comments forced the Panel to consider both the phraseology and the likely impact of their recommendations in a more comprehensive way. In so doing, the comments provided an important stimulus, when the work may otherwise have become stale or repetitive.

Towards the end of the structured group interview, it became clear that the Panel felt that the previous stages had resulted in a suite of recommendations that were finely integrated and required a high level of symbiosis for their successful delivery. At this point the Panel had spent 22 months considering the problem, and had managed to refine over 300 suggestions to 8 all encompassing headings and 12 key recommendations.

This 'wholism' reflected the views of Panel members that a new standard for integrated working would be required in the future, to enable delivery of strategy outcomes for resource efficiency. Because of this, none of the Panel's recommendations could be removed without having an impact on the delivery of others and, although some concession was made on the grammar or scope of some of the recommendations which were considered controversial by the Welsh Assembly Government, in fact others were phrased more strongly.

The Panel had achieved a consensus not only on their outputs to the Minister, but also a single mindedness in the scope of their role as an independent body. They were protective of their ability to suggest sometimes controversial changes to the way that government supports organisations and businesses without the constraints of historical experience or budgetary familiarity that may otherwise have affected their decisions.

During discussions, the Panel members identified that the recommendations fell under two headings according to who the audience for the recommendations was considered to be. The recommendations directly relating to the public sector taking direct action were listed under public sector/business support and named the 'supply side'. The areas of recommendation that related to the private sector or education, i.e. those that involved the private sector taking some form of action such as reporting on a KPI or undertaking research and development, were named 'demand side'.

It was agreed that sub-groups working on each of these areas would be held prior to the next full group meeting. The aim of these sub-groups was to consider the recommendations in greater detail, and agree on wording and structure in order to bring together the recommendations in the form of a consultation document that

would be easy to understand. Panel members chose which group they wished to attend, according to where their experience or major interest lay. Where Panel members felt equally interested in both, the Chair asked them to choose (based on which group had least members) in order to create a balanced number in each group.

It was agreed to hold a further meeting with senior policy officials during April 2006, following the same pattern as had been used previously. The outcomes from this meeting were sent to all Panel members prior to the sub-group meetings being held on the 27th April.

5.4.13 Sub-group meeting: Demand, 27th April 2006, Cathedral Road, Cardiff

Due to the timescales involved, only three of a possible six members could meet with the researchers prior to the next meeting; one of these meetings was by telephone conference. The sub-group meeting identified key questions that the consultation needed to ask in order to be relevant to the 'demand' side audience. These were:

- Is the recommendation the right one?
- Can the recommendation be accomplished?
- Do you have suggestions for 'better achievability'?
- Would you like to be involved in the next phase of workshops or delivery?

The group also agreed that the existing strategic recommendations could be used as a basis. However, they would need to be re-phrased to clarify the definitions used and the intention of each recommendation. Background evidence and issues should be omitted, as many of the consultees who the Panel wanted to respond would be inherently busy business people; they would not only be unlikely to read a high level of information, but perhaps would be actively discouraged by it.

The group also discussed how the consultation would be sent out and there was a general agreement that the consultation might be accompanied by workshops once the principle of the recommendations had been agreed.

5.4.14 Sub-group meeting: Supply, 27th April 2006, Monmouthshire County Council Offices

The supply-side group met on the same date as the demand side group, at an alternative location. Prior to this group meeting, two members had met privately and discussed a possible process to develop an action plan. Both these members were considered to be highly pro-active in Panel work, during and in between meetings; they had worked together previously on Panel sub-groups and established an effective working dynamic. This process had already been discussed with the researchers, and the researchers agreed to work on a toolkit to enable a ranking mechanism identified in the process.

The group meeting discussed the strategic recommendations as written to date, including recommendations made at the most recent meeting. The main points of discussion revolved around two key areas. Firstly, a consistent, clear and non-complex method was needed: clearer than the document in its current form. Secondly, no more than five objectives should be included in order to retain the interest of consultees; these objectives needed to be chosen through a transparent evaluation process. It was also agreed that the document should be interesting and have meaning to the audience reading it, as well as being written in a way which identified how it engaged with the aspirations of the public sector (supply side) audience. The group suggested that a pilot workshop be undertaken, testing the responses to consultation on one objective and this be used to determine the format for the wider consultation which discuss the other four.

This meeting progressed beyond discussing the consultation on to action. How an action plan might be written, and then how it might function, was discussed in some detail during this meeting. The Panel members present felt that this was of prime importance and needed to be considered in order to be sure that the consultation would yield useful data for delivery.

5.4.14.1 Outcomes of both supply and demand meetings

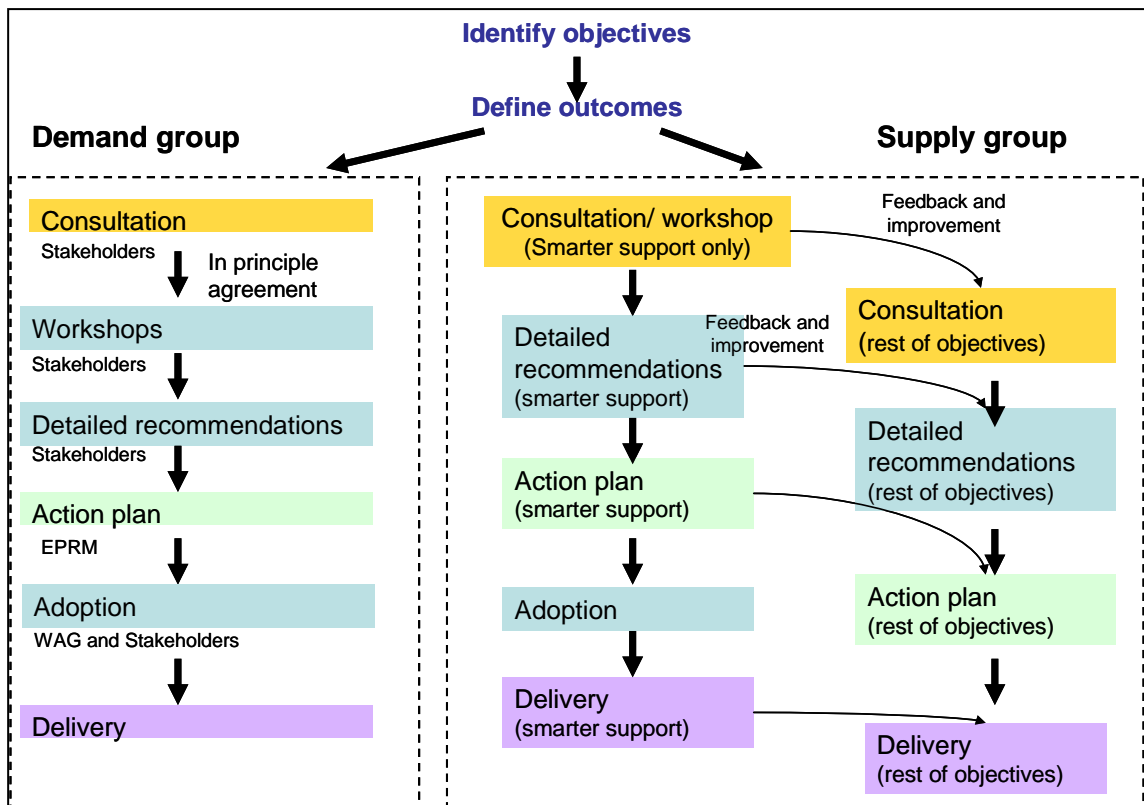
The Chairs of each of the sub-groups were consulted on the other group's main findings and asked to comment on them. Unsurprisingly, the supply side group considered that many of the demand group's ideas were in common with their own. They wished only that their process diagram be included in the usual electronic presentation for the Chair to present at the next meeting. The demand side group were concerned that the supply group's recommendations differed from their own in two ways: firstly, on whether they were consulting on the high level recommendations or on how to deliver the high level recommendations, and, secondly, the number of recommendations (referred to as objectives by the supply group) which would be consulted upon. As the Chair of the demand group would not be present at the following meeting, it was requested that a video presentation explaining that group's decisions would be shown to the full Panel meeting. It is worth noting that these supply and demand meetings were the first incidences of a notable discord between groups.

5.4.15 Pre-meeting: 2nd May 2006

As a result of the sub-group meetings held in April, the researchers and Chair agreed to meet to discuss how the two sub-group's findings would be discussed at the next full group meeting. The researchers, being aware of the potential complexity of presenting the two group's recommendations, were keen that the Chair be fully briefed on the outcomes of these meetings, in order to maintain effective activity.

In discussion, it was agreed that the two sub-groups had much in common. However, the two groups had differing suggestions relating to: the number of objectives being presented; the recommendation to split the consultation into a pilot and final exercise; and the supply side group's suggestions to move towards an action plan based consultation rather than discussion on strategic recommendations.

Figure 5.23 Diagram produced for pre-meeting, identifying the areas of difference between the supply and demand sub-groups



These differences showed a potential differing focus between the group members, and this needed to be carefully managed in order to obtain the most value from discussions. In order to present these outcomes to the Chair, a diagram was produced, as shown in Fig. 5.23.

As a result of this pre-meeting, the order of the stimulus materials was carefully considered and planned. The Chair agreed to take the lead by presenting two possible options, but to remain ambivalent towards both in order to lead the group to discuss the options and to reach a consensus.

5.4.16 Meeting H: 5th May 2006, Centre for Alternative Technology, Machynlleth

This meeting reported on outcomes from the two sub-group meetings and from the second meeting with the Welsh Assembly Government policy officials. The first draft report of the BEAP evaluation, by the external consultants, was presented. The Panel were keen to feedback on the data collected during the evaluation, but

also expressed a concern that they be allowed to question the consultants regarding the outputs and to assist in shaping any recommendations that would be made as a result of the evaluation.

The Panel were asked to make a final decision on the form and structure that the consultation would take. Time was of the essence; a delay in agreement on a consultation would mean that there would be no time for the responses to be considered prior to publication of the Panel's final report in March 2007.

5.4.16.1 Input

Unlike at previous meetings, not all of the papers relating to the meeting were sent out to the Panel prior to Meeting H. Those that were sent out were the notes from the sub-group meetings and the updated recommendations document. The full draft document of the BEAP evaluation, over 50 pages in all, was not completed in time to be distributed prior to the meeting.

The presentation written by the Chair and researchers took the form of a storyline of questions that needed to be discussed in order and considered spontaneously, to prevent their being pre-empted. This was particularly important in bringing the Panel together in a consensus on how the consultation was to be structured, and also on the subsequent phases that needed to be considered.

The stimulus materials were ordered carefully to give the Panel the information that they needed, in order to frame their thinking, but not to add complexity to the issues where this was not required. This strict structure allowed small pieces of information to be shared, and deliberated upon, and the outcomes from that deliberation to be used in decision making in later discussion.

5.4.16.2 Deliberation

The first phase of deliberation, discussing the outcomes from the policy meetings, was relatively short. Those areas of the Panel's thinking, which had previously been reinforced by the first meeting with the policy officials, were further reinforced by

this meeting. What the Panel discussed most were those areas where policy officials in the second meeting had contradicted points made by policy officials in the first meeting.

During the second part of the meeting, discussing the tasks relating to the consultation, the strictly controlled structured group interview was well received. Panel members took this opportunity to discuss in depth the reasons why the two groups had differed. In doing so, they recognised that the aims of the two groups were in fact complementary but not the same and that findings from both groups were still of use to the final design and format of the consultation. The Panel members reached a consensus on each question posed and these decisions were input into a 'live' electronic presentation as a visual aid (in lieu of the flipcharts used previously) as shown in Fig. 5.24.

5.4.16.3 Outcomes

The work of the sub-groups had not achieved the aims originally intended but they did make a very valuable contribution. By dividing into groups, potential conflicts, misunderstandings and differing priorities were identified. This created a cause for discourse between individual factions of Panel members that may otherwise have been hidden or covered in full group meetings. It can not be certain that discourse would not have occurred in a full group meeting, nor can the reasons why it had not previously been identified be sure. However, what is certain is that by identifying the potential conflict in separate groups the subsequent meeting could be carefully prepared to reinforce positive messages and areas of agreement, identifying and discussing as a group the reasons behind the different answers and, in doing so, prevent any miscommunication or (as they expressed it) feelings of 'ganging up'.

The outcome of the structured interviews was an agreement by all present that the two groups' methodologies could be complementary. The demand side group's proposal formed the initial paper or web-based consultation, while the workshop and pilot aspect of the supply side group's proposal related more closely to what would happen in workshops, after the Minister had agreed the strategic headings.

The Panel agreed that the same generic process could be used even more readily to assist in creating plans for implementation of the Panel's recommendations, if they were accepted by government after March 2007.

The Panel grouped the 8 common areas already identified under 5 objectives for the purpose of the consultation. These were:

- Leadership by government : the creation of a cross-departmental working group;
- Support Infrastructure: formerly 'Smarter Support', 'Commercial Opportunities' and 'Hard and Soft Infrastructure';
- Effective Education, Training and Research & Development: formerly 'Training and Education' and 'Research and Development';
- Action by Public Sector: formerly 'Public Sector Leading the Way' and 'Grant Eligibility'; and
- Communication and Measurement: formerly 'KPI' and also outcomes from previous discussions on communications.

It was at this point that the Panel first formally recognised that, in order to be of relevance to a business audience, their independence meant that they had no legitimate authority to prescribe how their recommendations should be put into practice once they had been adopted. In fact, discussions suggested that to do so might even be damaging, as these suggestions might be considered as naïve by policy officials who already had a strong and sometimes opposing view to the Panel's. Therefore it was agreed by the Panel that all recommendations should be worded strongly, but should also have an unquestionable justification as well as being measurable and achievable.

At the meeting, the Panel agreed the form the consultation should take, and they agreed that the consultation should be completed and sent out prior to the next full group meeting. Comments from the Panel members on the final draft of the consultation document would be sent by email.

Figure 5.24 Examples of presentation completed during Meeting H

1st tier – mission statement:
Business/commercial benefits. Summarises the aim of the Panels work and engages the stakeholders attention

2nd tier – strategic imperatives:

1. Integration within government
2. Support infrastructure
3. Effective education/training/R&D
4. Public sector to take the lead
5. Communication and measurement

3rd tier - Recommendations

- **Stakeholders**

Who do we ask?

BEAP Steering group, WLGA, Value Wales, LA's, Universities, FE Colleges, FSB, CBI, (BEAP Annual report list) Chambers of Comm, CAT, Dulas, NHS Wales, EA, CCW. Use supply chains, EGS, nominated groups, WAG, SDCC, Cynnal Cymru, .

How do we ask them? Yn Gymraeg?

Use personalised approach – letter from chairman,
Panel members personal contacts
Focus the contacts
Press release(s) / Advert (Case study) budget needed (Sponsor).

5.4.17 Meeting I: 21st July 2006, Ecocentre, Torfaen

At this meeting, the agenda focussed on two items: considering and deciding whether or not to accept the findings of the BEAP evaluation report; and the workshops and focussed external consultation required in order to ensure maximum response and input to the Panel's recommendations.

This was the penultimate meeting before the Panel's recommendations would be presented to the Minister for his consideration and comments, prior to publication. The Panel had not yet discussed in detail the action plan that would accompany

their strategic recommendations, and this meeting was intended to broach the subject of sources of funding and the format that the more detailed recommendations would take.

5.4.17.1 Input

The Panel received three types of input at this meeting:

- Presentation on the Executive Summary of the BEAP evaluation report and associated paper;
- Presentation by Welsh Assembly Government staff on the proposed structure for environmental business support: based on discussions held within the Welsh Assembly Government and utilising preliminary findings from EPRM, the BEAP steering group, BEAP evaluation and the Welsh Assembly Government study into sources of support ; and
- Structured stimulus materials on the next phases of consultation and completion of the Panel's work.

As with the previous meeting, there were multiple complex issues requiring careful timing and control by the Chair to prevent discussions 'jumping ahead' to items due to be discussed later in the agenda.

5.4.17.2 Deliberation

During the first part of the meeting, the deliberation took the form of unstructured interview and also brainstorming. The Panel members were given a presentation and were asked to question the consultants about any areas of the report on which they required clarification. The points made during the deliberation were recorded, both by the consultants and also by the secretariat. The discussion on the outcomes of the evaluation report centred on successful means of its implementation; while the consultants were in attendance there were few dissenting remarks about the work.

The second part of the meeting revolved around discussions of a potential structure for business support in the future. The discussion on this subject took the form of unstructured interview and also unstructured brainstorming. This resulted in a general consensus amongst the Panel that a model be established that should perform three main functions:

- To market and brand business support;
- To provide a network of advisors; and
- To provide technical support and have the capacity to supply and advise.

It was also agreed that the model would require a KPI and a means of measurement. Due to the nature of these questions, and also since those involved in any potential structure would need to be consulted, it was agreed that this subject should form the framework of at least one workshop during or shortly after the consultation period, depending on the time available for such a workshop to be arranged.

The third part of the meeting took the form of a structured group interview. The Panel were presented with a potential workshop structure and asked to decide which elements of the Panel's work would be relevant for the workshop.

5.4.17.3 Outcomes

The outcome from the first part of the meeting was that the Panel would await the publication of the full final draft of the consultants' report, before deciding on whether or not they agreed with the recommendations. This may have been due to the presence of the consultants in the room, or the large amount of data included in the report that the Panel members would have to digest in order to make an informed comment.

The second part of the meeting resulted in an agreement to work with the Welsh Assembly Government representatives on the new proposed structure for business support, and to await the outcomes from the workshop with support providers before completing this task.

The third part of the meeting resulted in discussions about the structure of the workshop and timetable. In particular, the Panel quickly agreed on the format of the workshop and the amount of preparatory materials that the workshop members would be given. The Panel members were also keen that the ideas that emerged as a result of this workshop would be taken forward to inform funding proposals in the light of new forms of funding from the European Union Convergence Programme.

The Panel agreed that they, or a similar group with a high level of business representation, should have some type of steering or testing role for the Welsh Assembly Government during the progress of the next phase of business and environment support. The Panel were also keen that the expertise now held by the researchers, as a result of their concentrated effort since April 2005, be retained in some capacity.

5.4.18 Meeting J: 29th September 2006, Technium Aberystwyth

This was the final meeting before the Chair was due to meet with the Minister to give a progress report on the work of the Panel. The consultation process had been completed, as well as the first workshop on Support Structure; it was the role of the Researchers to report on the progress of this activity.

Compared to other Panel meetings, this one was straightforward and heavily biased towards information sharing, rather than consensus reaching or decision making. Decisions were required on: whether to accept the findings of the BEAP evaluation report; the suggestions contained within the consultation responses; and how to progress the workshops. A decision was also required on whether to continue to pursue the possibility of the publication of a final action plan which would incorporate the Panel's entire list of suggested best practice actions, collected over the previous two years.

5.4.18.1 Input

The Panel received a verbal report on the BEAP evaluation document from the Panel members who had represented the Panel at the steering group meetings. The remainder of the meeting took the form of a structured group interview. It was quite formal in its style, with topics raised for short discussion and decisions requested by the Chair. This meeting was a turning point between the creative work of the Panel in producing recommendations and the more formal administrative aspects of testing and presenting the recommendations as formal findings.

5.4.18.2 Deliberation

The Panel took very little time to deliberate on the subject of the BEAP evaluation report. They all agreed with their fellow Panel members' suggestions to accept the report as completed, but the Panel did not necessarily agree with the final preferred recommendation made by the consultants.

Having heard the outcomes of the consultation exercise, the Panel were presented with the recommendations and the suggestions made and were asked to accept, decline or consider amending each one individually. The researchers had grouped the 16 responses according to the recommendation to which they related, in order to make this exercise simple and quick. The fatigue that may otherwise have been seen, as a result of such an exercise, was on the whole avoided. This was possibly due to the Panel's ownership of the recommendations and their belief that the recommendations formed a holistic whole in which all had to be pursued together in order to be of use.

The Panel were then presented with the outcomes of the workshop, which considered only the recommendation on support infrastructure. There was little interaction relating to this part of the meeting, other than Panel members requiring clarification on certain issues or explanations. However, as with other external inputs to the Panel's work, it acted as a stimulus for Panel members to consider how their work was viewed by those who had not been intimately involved with the

process. Where Panel members agreed to adopt suggestions made by consultees, these were added into the electronic presentation to act as a visual aid. In particular, the Chair asked the Panel to spend some time on unstructured brainstorming: to consider the recent media attention to global warming and climate change and to consider whether this was of importance to businesses, and whether consideration of climate change should form part of the Panel's final presentation to the Minister. The Panel were then asked to agree the final format that their strategic recommendations would take, in order to be presented to the Minister in October.

5.4.18.3 Outcomes

As a result of the discussion on the Panel's recommendations, there was little change to the intent and direction of these recommendations; however some wording was changed where it had been misinterpreted by consultees. In some instances, consultees had made suggestions for delivery that had previously been considered by the Panel but had been omitted from the document in order to promote suggestions and/or enquiry. Where relevant, it was agreed that these be put back into the text if they were considered to provide explanation of the intention of the recommendation. This was felt to be a useful tool; consequently, the Panel were asked to prioritise no more than five detailed recommendations, i.e. recommendations for action or delivery that illustrated the type of activities that the Panel expected would be undertaken under each of their strategic recommendations.

The discussions around climate change, and the emergence of carbon as an increasingly recognised issue, led to the Chair suggesting 'Low Carbon Wales' as the title for the document being presented to the Minister. Recognising the short period of time available, the Panel asked the researchers to write up the best practice/detailed actions in a way that could be prioritised by the Panel for inclusion in this final document.

5.4.19 Meeting K: 25th October 2006, Technium Sustainable Technologies, Baglan

As agreed at the previous meeting, this Panel meeting was dedicated to reaching a consensus on the final draft action plan. This action plan was based on a draft containing detailed recommendations which had been structured and prioritised by the researchers (based on previous meetings and outcomes). In addition the Panel requested to receive feedback from the Minister's meeting with the Chair.

5.4.19.1 Input

This meeting had three main discussion points. These were: informing the Panel of the outcomes from the Chair's meeting with the Minister, and showing the Panel the presentation that accompanied that meeting; discussing the updated strategic recommendations that had been commented on at previous meetings, and introducing the draft paper of detailed recommendations submitted to the Panel a week earlier; considering the actions that would need to be completed prior to the end of the Panel's term (in March 2007) and after the publication of the Panel's findings, in order for them to be delivered effectively.

When discussing the strategic and detailed recommendations documents, the discussion format was formalised in order to make the best possible use of time, and if possible prevent the Panel members from becoming fatigued of the subject. In this case, as with other similar exercises, the Panel took part in the now familiar structured group interview and structured brainstorming.

5.4.19.2 Deliberation

To stimulate discussion on the subject of the meeting between the Chair and the Minister, the Panel was given the same presentation as had been given to the Minister. The Panel asked questions relating to the responses given by the Minister, as reported by the Chair, to determine that the level of detail was acceptable.

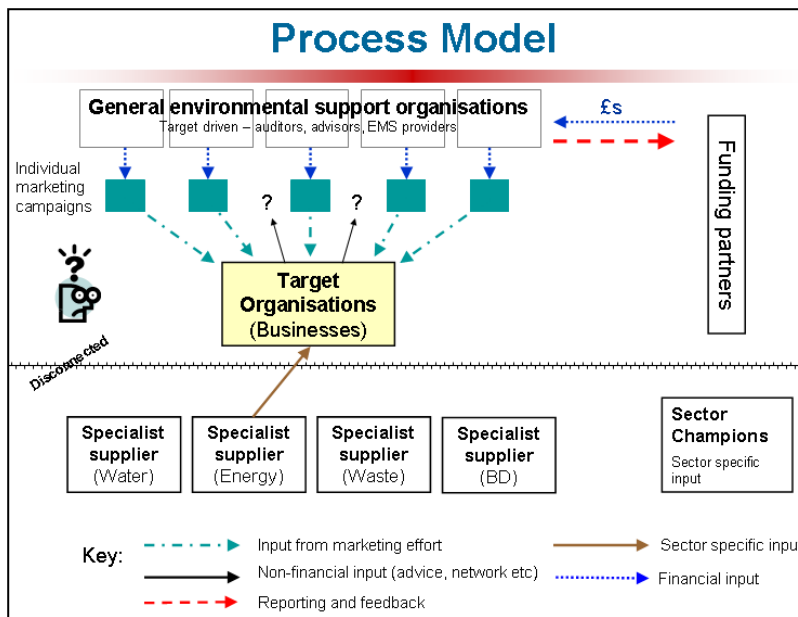
Discussion on the recommendations took the form of structured group interview; the Panel were asked to comment page by page on their 'Strategic Recommendations' document, as re-drafted by the researchers and based on the comments from the previous meeting. The structured discussion of the newly introduced, draft detailed recommendations document was undertaken in a similar manner. However, this process was understandably slow due to the Panel's unfamiliarity with the text and format. The Panel members took this opportunity to change grammar, to edit wording, and to make sure that the meanings intended were clearly presented in the document.

The final discussion was unstructured brainstorming, motivated by stimulus materials such as that shown in Fig. 5.25, on the subject of the draft proposed structure of environmental business support. A series of illustrations had been drawn up showing relationships between various areas of government and how business could connect with support providers. The Panel were asked to discuss and comment on these structures in order to inform Welsh Assembly Government policy development officers of the Panel's opinions, given their extensive discussions already on this subject.

5.4.19.3 Outcomes

The Panel were very keen to remain independent and, though they valued the Minister's opinion and experience as well as his role in delivery of the Panel's recommendations, more than one member stated that any suggestions that the Minister gave were not necessarily mandatory and should be considered carefully by the Panel before being accepted. The Panel members were also pleased to hear that the Minister had suggested a meeting with the First Minister to inform him of the Panel's strategic recommendations; they made some suggestions on how to structure that opportunity for greatest impact.

Figure 5.25 Example of stimulus materials used in Meeting K.



The Panel made detailed changes to both the draft documents and requested that they be re-written by the researchers based on that day's discussions and re-circulated prior to the next full group meeting.

5.4.20 Meeting L: 6th December 2006, Rockwool, nr Pencoed

This was the penultimate full Panel meeting at which the Panel's work would be discussed. At this meeting, the Panel members were asked to consider the new draft of the action plan, after it had been re-written by the researchers, with a view to it being completed and ready for publication in January 2007. The Panel were also asked to agree the content of the presentation being made to the First Minister later that month.

As with the previous meetings, the Panel were also asked to provide more thoughts about the structure of the next phase of business and environment support in Wales. Being close to the end of their agreed term of work, the Panel members were required to consider their exit strategy, the format of their publication and how their recommendations should be presented to the Minister, as well as further publicity.

5.4.20.1 Input

This was the last meeting where external input to the Panel's work was accepted. Although it had not been possible to gather enough interested attendees to hold the workshops suggested in Meeting J, questionnaires were sent to Business Environment Co-ordinators (business support provision funded by the Welsh Assembly Government). These were completed by businesses, in the meetings they held with the co-ordinators to discuss improving their environmental performance. Those representatives of business were highly valued for their ability to provide an up-to-date and experienced business response. The Panel received these as their last consultation responses.

The Panel also received papers containing the updated detailed recommendations document, as well as updated documents relating to the proposed business support structure to replace the BEAP.

5.4.20.2 Deliberation

The Panel meeting started with the Chair thanking the Panel members for their efforts to date and outlining how much time was still available for work to be completed. The Panel were updated on the outcomes of the consultation questionnaire. The researchers had collated all the responses, to allow them to be easily communicated to the Panel members, and these were presented both as electronic slides and also as papers handed around to Panel members during the meeting.

The Panel had been sent copies of the redrafted action plan prior to the meeting, and these were also given as paper copies prior to the meeting commencing. When considering the new draft of the detailed recommendations the Chair asked the Panel to agree, or amend: each recommendation individually; any missing extraneous text; the order and structure of the document; and its format and readability. This was done by a short discussion on each page, before the document as a whole was considered. The Panel members discussed each area individually. The Chair asked for agreement to the actions that were proposed as a

result of the discussion, when they felt that all possibilities had been exhausted. The Panel members were asked if they all agreed and, if not, to raise the issue that they wished to discuss.

The Panel were also shown the presentation due to be shown to the First Minister and asked to comment.

The Panel took part in unstructured brainstorming, discussing the stimulus materials presented by members of the Welsh Assembly Government on the proposed new structure for the next phase of the BEAP. This structure took into account information from the Panel, but also other activities that had been undertaken in parallel.

5.4.20.3 Outcomes

The Panel members felt that all but one of the issues raised in the questionnaire responses had already been considered by the EPRM as they had written their recommendations, and that no changes needed to be made to the document as a result of these responses. The single differing comment, relating to KPIs, was felt to be one that the Panel would not reconsider, given the extensive discussion and consensus reached on the subject already. However, they would take note of the points made in the consultation when considering the 'achievability' of their recommendation. For this reason, it was considered to be a long term aspiration, but of prime importance when considering the delivery of other recommendations.

A series of short, detailed discussions were held on each recommendation. This short period of active working time was possible due to the extensive work that had already been completed on each recommendation and also to the Chair's ability to summarise the discussions as they proceeded. The Panel members rarely disagreed with each other at this stage; there was little change to detailed text or the content of the document. Changes were only made on the way in which the text would be presented to an external audience with no experience of the Panel's work, and this very often took the form of grammatical changes. A new paragraph, relating to 'quick wins', was added to each recommendation, to illustrate an example of easy

and relatively cheap action which could be undertaken in each area in order to deliver a positive impact.

The discussion of the Chair's presentation to the First Minister related to two areas: firstly, how to introduce areas that the First Minister would find of interest; and secondly, what role the Panel expected the First Minister to take in supporting their work. The Panel agreed that it was unlikely that the First Minister would be able to wholly adopt their suggestions without further advice and discussion at Cabinet, but the members all agreed that it was important to raise the issues with the First Minister and make him aware of the work of the Panel.

The third part of the meeting, relating to the next phase of the action for business environment support in Wales, resulted in few actions or suggestions, possibly as many had already been discussed more formally while working through the recommendations on business support. This may also have been because the Panel felt little ownership of the ongoing work, due to the Panel's protracted timeframe. As a result of the discussions, the Panel members supported the Chair's suggestion that the researchers would continue to be consulted on the business support, as those most familiar with the Panel's work and the background and thought processes that had been undertaken as a result.

A final outcome of this meeting was that all Panel members present were willing, and in most cases keen, to remain involved with the policy process. They wished to continue to advise on the progress of their recommendations, if there was a formal process which allowed them to do so, under the condition that their advisory work would have some legitimacy and authority.

5.4.21 Meeting M: 26th January 2007, Brecon Mountain Centre, Libanus

This was the last programmed meeting of the Panel, and was the last opportunity to make any amendments to the wording or meaning of their recommendations before the document was sent to be professionally word processed and printed. The Panel had to agree the final draft but also took this opportunity to discuss with representatives from the Welsh Assembly Government the ways in which

environmental business support could be structured in order to deliver their recommendations.

5.4.21.1 Input

The Panel meeting had the same three themes as the previous meeting: discussion of the outputs from the meeting with the First Minister; discussion of the final recommendations document and 'sign off' of that document; discussion of the next phase of the BEAP.

The Panel discussions were facilitated in the same way as they had been in meeting L; however, more members attended this meeting. As with all meetings, an electronic presentation was used as stimulus material, to keep the agenda on track and to highlight key issues. This presentation was much shorter in length than in previous meetings, containing only headline information, rather than full details. The Panel had papers with detailed information, and were already familiar with much of the information that would be included in the presentation.

The first part of the presentation identified who attended the meeting with the First Minister and Minister for Enterprise, Innovation and Networks. The Chair reported verbally the outcomes of the meeting under the headings included in the presentation made to the First Minister: 'Introduction to EPRM', 'Briefing on the Proposed Action Plan' and 'Programme of Work'.

The Panel heard that the First Minister and Minister for Enterprise, Innovation and Networks had agreed to a formal submission of the document prior to the Welsh Assembly Government elections, due in early May 2007, and that the Minister and First Minister had both formally thanked the Panel for all their work to date. The minutes of the meeting with the Minister were given to the Panel members.

A final draft of their recommendations document (prior to being professionally desktop published) was given to all Panel members to discuss.

Finally, representatives from the Welsh Assembly Government presented the newly written proposals for an action plan for business and environment, again referring to relationship diagrams similar to those used in previous meetings.

5.4.21.2 Deliberation

As the first part of the meeting was primarily information sharing, the deliberation element began with a structured group interview around the re-written recommendations document. Two hours of detailed discussion took place, following the format used successfully in Meetings K and L, and the Panel members were asked to agree the action list prior to this part of the meeting being completed; this would be the last opportunity for the Panel to work as a group in responding to the draft. Again, the role of the Chair in summarising the Panel's discussions and seeking agreement was very important in keeping to the available time.

The last part of the meeting was again an unstructured brainstorming session, followed by unstructured group interview, to determine the Panel's opinions on the proposed structure for business support and whether the representatives from the Welsh Assembly Government had correctly interpreted the points made in previous meetings. There was also an element of unstructured learning here by Panel members, as the proposed structure was based on easy delivery within the existing Welsh Assembly Government organisational hierarchy, and some of the Panel's recommendations could not be followed in that format.

5.4.21.3 Outcomes

As a result of this meeting, the Panel agreed that the final version of the recommendations document, incorporating changes made during the meeting, would be sent to them by email for final checking and that the researchers were to oversee the publication. Each Panel member agreed to select five people to whom the final document should be sent, after it had been formally presented to the Minister.

The discussion about the next phase of business environment support resulted in useful recommendations to the representative from the Welsh Assembly Government, and also a further agreement by the Panel members that they would be willing to take part in future work. The Chair agreed to write the covering letter to the Minister that would accompany the final report.

5.4.22 Final Output

The final desktop published document, entitled 'Low Carbon Wales: to improve resource efficiency in Wales' was presented to the Minister for Enterprise, Innovation and Networks on the 27th March 2007.

The document focused on five strategic objectives, named A-E, as had been agreed at Panel meetings K and L, and were described as shown in Fig. 5.26 and shown in the published form in Fig. 5.27.

No further meetings were held by the Panel, and the Panel members were not asked to continue in the roles after this date.

Figure 5.26 Text describing the five strategic objectives from the 'Low Carbon Wales' document

Objective A Leadership by government:

The Panel recommends the creation of a First Minister led cross departmental working group – Low Carbon Wales – to facilitate communication and coordination between all areas of government.

Objective B Support infrastructure

For resource efficiency to be adopted throughout businesses and organisations in Wales, it is important that there is suitable infrastructure to allow them to do so. This includes business support and waste treatment, transport and energy networks.

Objective C Effective education/training/R&D

Businesses and organisations must be able to access the relevant skills base and knowledge to make informed decisions and implement resource efficiency measures. Given that businesses and organisations are market driven, the awareness of the consumer is imperative to drive change.

Objective D Action by public sector

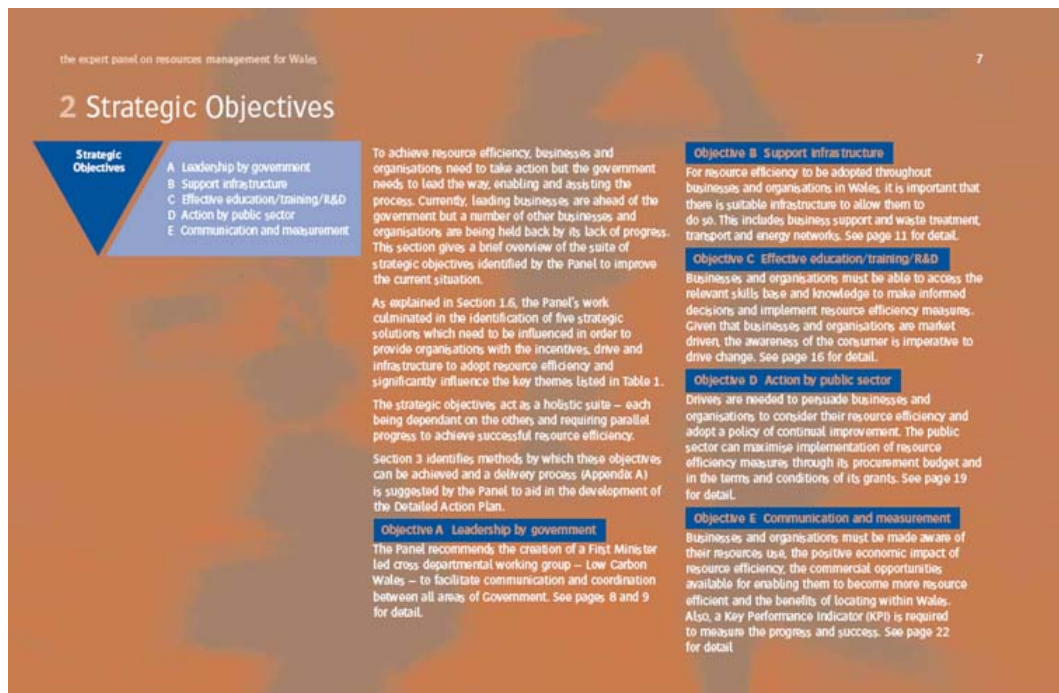
Drivers are needed to persuade businesses and organisations to consider their resource efficiency and adopt a policy of continual improvement. The public sector can maximise implementation of resource efficiency measures through its procurement budget and in the terms and conditions of its grants.

Objective E Communication and measurement

Businesses and organisations must be made aware of their resources use, the positive economic impact of resource efficiency, the commercial opportunities available for enabling them to become more resource efficient and the benefits of locating within Wales. Also, a Key Performance Indicator (KPI) is required to measure the progress and success.

Source: EPRM (2007)

Figure 5.27 Page from the 'Low Carbon Wales' document showing the five strategic objectives as published



Source: EPRM (2007)

5.5 Summary of Panel outcomes

As a direct result of the work undertaken by the Panel between April 2003 and March 2007, numerous outcomes were achieved, as shown in Table 5.28. The Panel process took longer than three years, if the time taken to arrange the Nolan interview and selection process is taken into account. Although the Panel members met more often than their original terms of appointment had required, the work still required in excess of two person-years of almost full time facilitation, research and secretariat support.

Table 5.28 Outcomes of the Panel's work, by meeting

Meeting	Outcomes
Meeting A	7 research priorities
Individual interviews	7 further individual meetings
Meeting B	Agreed main deliverables
	Methodology for ranking areas of influence
	Agreed 2 main themes
	8 sub-themes
	8 cross-cutting themes
Sub group: Energy	53 areas of influence – energy
Sub group: Materials	76 areas of influence – materials
Meeting C	40 short term objectives
	24 long term objectives
	11 common areas
Sub-group ii	Identified further areas for research
Meeting D	Agreement to recommendations previously listed
Meeting E	Agreement to structure for future work
	Consensus on the structure and hierarchy of work completed so far
	Identified area of business
	6 common areas identified and 3 areas specific to materials and energy
Meeting F	Agreed 8 common areas
	Agreed a cross-cutting government structure
	Identified cross-department working needed
Meeting G	Placed 74 recommendations under common themes
	Agreed first draft
	Identified 12 high priority recommendations from previous 74
	Divided recommendations into supply and demand
Meeting H	Identified methodology for implementation
	Agreed form of consultation
Meeting I	Agreed structure of workshops
Meeting J	Chose climate change as a key agenda for the Panel's work
Meeting K, L and M	Edited and agreed structure of recommendations document
	Edited recommendations document
	Gave input to the proposed Welsh Assembly Government structure for business support

CHAPTER 6. ANALYSIS AND DISCUSSION

In setting a context on climate change and resource efficiency and reviewing literature on policy formulation and public participation, this thesis has so far been multi-disciplinary. This chapter brings together the findings from all of the research and activities undertaken in relation to the Expert Panel on Resources Management for Wales and analyses the success of the Panel's process and outcomes. The chapter ends with consideration of the expert participatory process as a form of innovation, and discusses factors that could have improved the process.

6.1 Comparison of the EPRM process with the traditional process used to write the BEAP

In Chapter 2 and Chapter 5, the outcomes of two contrasting but related policy development methods, the traditional process used to create the Business and Environment Action Plan (BEAP) and the Expert Panel on Resources Management (EPRM) process, are described. This section will compare the methods used in these two processes and discuss them in terms of their suitability for the creation of policy.

To compare the two processes and discuss the effectiveness of the Panel, reflective interviews were undertaken with available Panel members, between 12 and 14 months after the Panel's work was completed. Janet Boast, Guto Owen, Keith O'Brien, Ron Loveland, Chris Hale and Martin Gibson either took part in one-to-one interviews or completed the same questions by written questionnaire. The questionnaire is found in Appendix F.

Interviews were conducted in May 2008 with those Welsh Assembly Government staff who had written the original comparison documents. Thick description methodology (useful for understanding the context as well as the facts) was employed, to determine the perceived and actual effectiveness of the processes. Interviewees were encouraged to talk freely and were assured that the views they expressed would not be attributed to them as individuals. In the analysis which

follows, care has been taken to ensure that responses are aggregated in order to maintain this anonymity.

6.2 How the BEAP was written: an example of the standard practice

As stated in Section 2.6.6 (and elaborated on in Section 3.4), the methods used to write the BEAP were relatively standard. The team writing the plan could be considered largely bureaucratic and, although they had some experience of administering support or plans in this area already, they were not considered experts in either business or resource management prior to writing the plan.

The key outcomes of the plan were discussed at an early stage between the then Minister for Economic Development and Transport, the Office of the Chief Technology Officer, and three members of the Business Environment branch. The policy development team was given responsibility for consulting internally on the likely recommendations and developing a draft consultation document.

The draft plan was discussed with the Minister again, and then returned for changes. The constitution of the Welsh Assembly Government required that plans of a certain size or impact go through a period of external consultation, where stakeholders were given an opportunity to critique the potential action plan, and to provide feedback on any areas that have been missed, or would cause negative impacts. During the reflective interviews in 2008, Welsh Assembly Government officials confirmed that:

‘Discussions were held with key stakeholders to obtain views that were fed into the development of the Plan.’

This happened with the BEAP plan; a final version was drafted taking into account responses to this consultation and passed to the Minister for agreement and possibly for discussion at Cabinet prior to publication.

This process, as well as being used for the original BEAP, is still in use by the Welsh Assembly Government. It has been used to create a variety of policy documents such as the Climate Change Adaptation Plan (Welsh Assembly Government, 2007a),

the Microgeneration Action Plan (Welsh Assembly Government, 2007c) and others. A similar form of this process is used in the wider UK context at Whitehall for the production of most strategy and policy documentation. This process followed very closely the standard process described in Section 3.4, with little innovation or deviation from accepted and traditional methods that are relatively time efficient and require few staff or financial resources.

6.3 The expert panel process

Due to the differing agendas and personalities involved in writing the original BEAP document, the real agenda in setting out the need for an expert panel to inform future stages of the BEAP can only be assumed. However, it is likely that the aims were twofold: to increase the input from external parties to the policy process; and to utilise the Panel's findings in the production of evidence for future policy work.

Being an independent body, commissioned by the Welsh Assembly Government and appointed through the Nolan process, the Panel were not limited by the usual processes and constraints that are faced by a Civil Service policy development team. The Panel were given license to create their own terms of reference and to decide how and when they made their work available for scrutiny by the Ministers or Cabinet. They could determine, with minimal input from the Welsh Assembly Government secretariat, the need for stakeholder or wider external consultation on their terms of reference, or on how they sought information and views from other experts and delivery partners involved in the business environment agenda in Wales. Not least of their freedoms was the ability to spread their work over three years. This is a luxury rarely afforded to policy makers within government, as Ministerial horizons are linked to the electoral cycle. The Panel's work was distinctive from Civil Service (or even contracted consultant) policy development, in that those methods usually involve the terms of reference and specific targets being set by the Minister(s) or senior civil servants responsible for the process.

The Panel therefore used an alternative method to that usually employed in Civil Service-led policy development prior to the usual 'check and feedback' process

utilised within the Welsh Assembly Government as part of the Policy Gateway Integration Tool, described in Section 3.5.2.

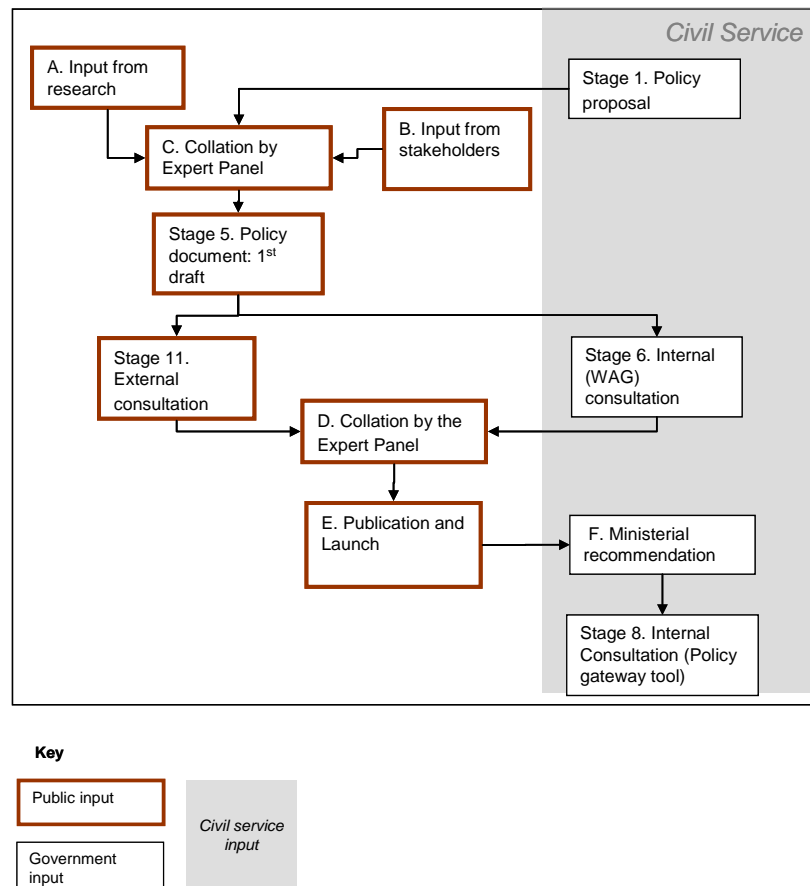
Whereas focus groups or expert panels may form part of the traditional process, by acting to inform the Minister and having no direct responsibility for creating policy actions, the EPRM had a different role. The Panel could directly influence the policy development process, not only through the creation of policy recommendations but also by providing well publicised and distributed evidence, in the form of their own thoughts, to influence policy makers in their day to day work.

As the description of the Panel process in Chapter 5 shows, the Panel had a much greater element of expert and internal input to the first draft of the policy than is seen in the traditional model, prior to internal consultation. Recommendations were sent directly to the Minister from this independent group. Fig. 6.1 shows a flow diagram of the processes undertaken by the Panel, with only the shaded area of this diagram representing the actions undertaken by the civil servants of the Welsh Assembly Government.

In this model, called the 'expert participative model' for the purposes of this thesis, the outputs can only take the form of recommendations to the Welsh Assembly Government, rather than fully formed policy. This preserves the status of the Panel as being independent, because the Minister and civil servants have limited input to the process; but it does mean that it is the Minister's prerogative as to whether the recommendations are acted upon at all. For the expert participative model to function properly it is assumed that the Minister (and Cabinet) that originally empowered the Panel to develop its recommendations will have a positive disposition towards those recommendations and that some, if not all, will enter the formal policy process.

As can be seen from Fig. 6.1, the expert participative model bypasses the usual Welsh Assembly Government processes. It increases public participation in doing so, and appears to continue to enable policy making to be undertaken in a correct and accountable manner by feeding its findings into the Welsh Assembly Government's own evaluation procedure.

Figure 6.1 Flow diagram showing the expert participative model



In the expert participative model, policy ideas are created or received inside the Assembly Government as in Stage 1 of the traditional model explained in Chapter 3 (Fig. 3.2). Input from dedicated expert research [A] and key stakeholders [B] is collated by the Expert Panel [C]. A first draft is considered internally within the Assembly as in Stage 6 of the traditional process, but the process differs from the traditional model in that this occurs in parallel to an external consultation which would not occur until Stage 11 of the traditional model. It is the Expert Panel that considers the input from consultation and produces a final document [D]. In order to maintain transparency and independence, this document may also be formally published and publicised externally [E]. The document is formally submitted to the Minister [F] and, subject to the Minister’s agreement, the document may then enter the iterative amendment, consultation and advice process of the Policy Integration Tool at Stage 8, as shown in Fig. 3.2.

6.3.1 Independence from government

The Panel were not completely without the input of, or influence from, members of the Welsh Assembly Government. One member of the Panel was a policy officer at the time of its work, and the two members of the secretariat as well as two ex-officio members were staff of the Welsh Assembly Government.

It was in the interests of all parties that the Panel's work should be considered to be independent of government, both by outside observers and Panel members. The point of view of the team who first brought the Panel together was that the best use of their investment would be for the Panel to spend its time innovating away from traditional policy making procedures and approach the issue of business-environment policy from different perspectives.

To examine this perceived independence more closely, the factors that suggest independence by the Panel at its various stages of work are discussed below. Relating specifically to the case of the Panel, areas of activity where independence could be maintained or lost can be grouped under the headings: operational or strategic. Operational areas of activity include:

- Recruitment,
- Financial,
- Protocols and procedures, and
- Decision making.

Strategic areas of activity include:

- Purpose,
- Input and evidence,
- Output, and
- Delivery.

Each of these areas of activity is discussed in the following sections.

6.3.1.1 Recruitment

This operational area is where independence was weakest. The Panel were recruited by Welsh Assembly Government personnel using the Nolan process, itself a process used in government. To increase the number of suitable responses to the advertisement for members to the Panel, key individuals, known to Welsh Assembly Government staff, were invited to participate and attend for Nolan interview. Although this process is itself designed to prevent unsuitable appointments to public roles, the fact that, as a panel independent of government, their recruitment was undertaken entirely by government suggests that no level of independence was achieved at this stage.

6.3.1.2 Financial

The Panel, although giving their time voluntarily, was resourced by Welsh Assembly Government operational budget for policy making. The direct financial input to Panel members was minimal, consisting of travel expenses, meeting room hire and the provision of food at meetings. It was observed by the Welsh Assembly Government secretariat responsible for this financial input, and confirmed at reflective interview, that not all Panel members claimed their full allowance of expenses, and that these costs were instead paid by the private sector companies that employed them. However, indirect costs were more dependent on the Welsh Assembly Government. The highest financial burden was the secretariat, comprising twenty percent of one person's time for the length of the project. The role of the secretariat was vital to the success of the Panel in the first year; without it meetings may not have been arranged or organised, and minutes, notes and reports would not have been drafted and disseminated prior to meetings. Although this role could have been performed by others, it is unlikely that it would have been prioritised by Panel members with conflicting claims on their time. However, the Panel's work was not observed to have been adversely affected by this financial dependence. In addition, the Panel members perceived that, in order for the money being spent to be good value to the tax-payer, they had to work hard to

develop recommendations which did justice to the public, as well as to the Welsh Assembly Government.

6.3.1.3 Protocols and procedures

The area of protocols and procedures is one where independence could have been hampered greatly. Where operational procedures of another organisation or group are imposed upon another, rather than adopted freely, the group can become institutionalised and fettered by these procedures. In the case of the EPRM, the procedures of the Welsh Assembly Government were one of the reasons that a new form of policy making was being adopted, and to take on wholesale the procedures and protocols of the Welsh Assembly Government would not only have hampered the independence of the Panel but also affected its ability to innovate. The procedures that the Panel used were those agreed by the Panel for themselves. Procedures relating to consultation, outside input, behaviour and protocol during meetings, and how notes and minutes were set out and agreed were all chosen and adhered to by the Panel.

6.3.1.4 Decision making

The mode of decision making in the Panel was consistently by informed discussion and agreed consensus and was the most independent of the Panel's operational criteria. There were not enough 'official' or 'voting' members of the Panel from the Welsh Assembly Government to sway a vote or agreement, and in cases where the Panel were making a decision based on the advice of Welsh Assembly Government representatives (or equally as important, representatives of business support organisations who would be directly affected by the outcomes of policy) the Chair's role was to remind the Panel that they were independent and could make recommendations contrary to advice given from outside the Panel if that was felt to be appropriate. This occurred on occasion: the agreement to retain the Panel's suggestion for a single cross-departmental working group, and the Panel's

extending their remit to include recommendations for the public as well as private sector being notable examples.

The Panel needed a significant understanding of Welsh Assembly Government policy making in the field of business-environment so that they could recommend credible and useful policies. This meant that the Panel required advice on what was considered achievable by Welsh Assembly Government staff at meetings and at consultation. The Panel members needed explanations of the history of the Welsh policy making process to date, so that they could try and understand which decision making processes had led to the creation of policies that they perceived to be failures. In this way, no clear line was drawn which stated that Welsh Assembly Government ex-officio members were purely in an advisory capacity, or observers; Welsh Assembly Government officials took part fully in discussions, only being omitted from the final decision making or consensus reaching activities.

6.3.1.5 Purpose

As explained in Section 2.6, the Panel's purpose was originally set out by the Minister for Economic Development and Transport in 2004 as being to: provide independent evaluation of the BEAP; advise on current and likely future best business practice in resources management; and make recommendations on the content of any likely future phases of the BEAP. The Panel members displayed a further level of independence by widening their scope, not only to include policy recommendations for business support organisations in Wales, but also to make recommendations about the role and work of the public sector including local authorities and the Welsh Assembly Government. This widening of scope and purpose happened completely independently of government, with neither encouragement nor discouragement from Welsh Assembly Government staff or the Minister. It was felt necessary by the Panel and so it was done.

6.3.1.6 Input and evidence

The Panel sought input and evidence to inform their recommendations from multiple sources. In early meetings some of the input from external stakeholders was in the form of presentations suggested and arranged by the ex-officio members or Welsh Assembly Government secretariat. However, the Panel had first to agree that this input was appropriate and useful, and in doing so they retained a level of independence over the input they received. In later stages, where the input was received as a result of facilitation and stimulus materials from the researchers, or consultation responses from the Welsh Assembly Government or Ministers, these were all carefully considered, but could be, and were, discarded if not felt to be appropriate or suitable by the Panel.

6.3.1.7 Output

The Panel's direct outputs were in three formats: the first annual report; the consultation documents; and the final recommendations document. Both the annual report and final recommendation document contained a Ministerial Foreword, to give the documents credibility as policy recommendations; however, the Ministerial input to the document stopped at that stage. Parts of the first annual report written by Panel members were drafted by the secretariat; however, the format and the style of the document was subject to scrutiny by the Panel and would not have been published without a consensus approval that the document represented their work accurately. The same was true of the final recommendations document.

The consultation document was completed by the researchers under direction of the Panel and was drafted and re-drafted by the group at meetings, as a facilitated group activity. This helped to retain a sense of ownership by the whole Panel and to maintain the independence of their outputs. The consultation was not completed using Welsh Assembly Government procedures but was designed as a result of the Panel members' thoughts on the type of document that they, as people representative of businesses, would be happy to complete.

6.3.1.8 Delivery

The final delivery of the Panel's work was an area where the Panel had little independence. No budget, or operational staff to undertake work on their behalf, was assigned to them and so the recommendations, once published and presented to the Minister, were dependent upon Welsh Assembly Government action.

The Panel did publish 500 copies of their document and disseminate those to other businesses, support organisations and interested individuals (including elected Assembly Members outside of the executive body) in order to gather support for the Panel's work and promote continued pressure for change. As will be seen in more detail in Section 6.7, this and other personal communication resulted in the recommendations of the Panel influencing documents both inside and outside of government and regardless of Ministerial adoption, thereby suggesting some indirect and possibly unexpected level of independence at the delivery stage.

6.4 Outcomes of the project

During the reflective interviews held in 2008, one of the Panel members considered that the process had two outcomes:

'...it helped some leading business people to gain a wider understanding of the issues of resource management and to feed these back into their businesses and business networks and it provided credible, and practical policy guidance to the Welsh Assembly Government.'

This simple view reflects the tangible added value that the Panel was expected to bring to the process. However, the inputs that the Panel members could add to the process were relatively intangible: their expertise and experience as a potential audience for the outputs of the policy; their ability to act as ambassadors and spokespeople for the policy once published; their lack of prior knowledge and therefore the lack of constraint to their thoughts. The more easily measurable outputs are almost confined to the time volunteered by the Panel members, and the quality of thought that this time allowed; this will be discussed further in Section 6.5.2 when the validity of the exercise is considered.

One of the major outcomes of the process might be considered to be the expert participative model itself. However, as has been stated previously in Chapter 3, in order to be considered usable and defensible by publicly appointed Ministers, policy recommendations need to fulfil various criteria. Although the Panel methods appear from the results already stated to have differed from the traditional methods used, and to have produced a series of recommendations suitable for submission to an Assembly Minister, further analysis is required to determine if the Panel process, and therefore the expert participative model, can accurately be described as a 'policy making methodology'.

The following sections contain analysis with the aim of determining whether the Panel's work resulted in viable, sensible public policy recommendations that were the product of:

- a) A valid evidence base, and
- b) Credible public participation.

In order to determine the effectiveness of the expert participative model, and in particular the EPRM, first evidence and then public participation will be examined. Evidence is assessed according to availability and validity, while public participation is considered under headings relating to group methods, interactions, representativeness and the factors that relate to success and credibility as described in Section 3.9. First the validity of the evidence base is considered in Section 6.5. The credibility of the Panel is discussed in Section 6.6. The resulting policy outcome is discussed in Section 6.7.

6.5 Analysing the evidence base

As Fig. 6.1 illustrates, the Panel method differs significantly from the traditional policy making method shown in Fig. 3.2 because policy ideas are tested outside of government, prior to being submitted to a Minister or Cabinet for input or approval, with a group of independent experts creating the initial policy recommendations. In this way the process itself appears to have greater public participation, and therefore can be considered to produce strongly 'evidence based'

recommendations even without the input of additional research evidence or facilitation methods.

This opinion is further reinforced by the Welsh Assembly Government internal guidelines for policy development staff that:

‘Wales’ public service reform programme requires those who deliver policy and services at both local and national level to put the needs and interests of Welsh citizens at centre stage. This cannot be done without collecting information about what matters to citizens and what they think of Welsh Assembly Government policies and services.’

This is part of an internal policy document which outlines the importance of evidence to policy makers, and how they can seek, analyse and use evidence while developing new policies or programmes. However it is not academically robust to assume that the process is evidence based because it appears to have a higher proportion of public input than other similar policies without further analysis to test this assumption. Therefore the definition and the analysis factors (described in Section 3.5) for measuring whether an evidence base is fit for purpose, will be used to assess first the availability then the validity of the evidence.

6.5.1 Availability of evidence

The key question in the availability of evidence is: Has all available information, relevant to citizens of Wales been considered in the formulation of this policy?

Therefore, in analysing the Panel’s work one could ask: Were the methods used by the Panel suitable for collecting and considering enough of the available information to support policy relevant to citizens of Wales? This question will be considered by breaking it down to its constituent parts.

The first part of the question relates to how representative the information base was of the available information. Two factors of the Panel’s work suggest that the information base was highly representative: the membership of the Panel, and the amount of research that was carried out by the research team.

In relation to the membership of the Panel, seven of the eight Panel members came from a business, business support or voluntary sector background, and all had experience of the day to day workings of a business. The group's experience encompassed businesses from micro (less than 10 staff) to large (greater than 250 staff). Therefore, the work of the Panel should be considered to be representative of the business sector (the citizen). The Panel members had direct experience of, and access to, a wide range of available facts relating to resource management by businesses, as well day to day business practice. However, the Panel's cross-sector expertise can be considered relatively narrow, having no representation from key sectors such as retail, food or waste management. For this reason, the work of the researchers was an important mitigating factor in obtaining the largest amount of available and relevant evidence.

This representativeness of the 'citizen' implies a greater knowledge, as well as improved availability of information and potential evidence, than that available to most policy development officials within government. In this model, the Panel themselves act as a source of evidence; being based in business and representing the 'citizen' their beliefs and statements are evidence in itself. This cannot be said of third parties or civil servants who might otherwise write policy targeted for business.

Some Panel members stated on more than one occasion in reflective interviews that they considered themselves to have an interest, not only as people representing business, but as members of the public or those on whom the work of business would have an impact. The Panel members each had an interest, either as householders, parents or consumers, as those impacted by business, i.e. they not only represented business but they could also represent a sector of the general public.

Due to the constraints of the Nolan system, how representative the Panel are of a general public is questionable. Although the Panel had representatives from English and Welsh speaking backgrounds, from ethnic minorities, and both sexes, all were in full time employment, educated to a high (graduate or post graduate) standard, over the age of 30 and could be considered to be middle class. However,

this demographic of an 'interested public' is a well documented phenomenon in participatory groups requiring a voluntary element and so, in comparing the Panel's work to other participatory efforts, the demographic seen here is not likely to unfairly bias the outcome.

During their first year of operation, when Panel members felt that they did not have enough or up-to-date knowledge of any particular factor, they would form task and finish groups, to research into information they needed to justify or explore a particular policy option. The work of the researchers (Louisa Huxtable and Dr Gavin Bunting) in years two and three, and the responses to the business questionnaires in year three, were of high importance in increasing the availability of information during that period.

Evidence was sought from a wide range of sources: directly from business, business support providers, government departments and research organisations (e.g. the Centre for Business Relationships, Accountability, Sustainability and Society (BRASS), the Tyndall Centre, the Stockholm Institute), and also from open access information through the internet or libraries. Having covered such a wide area of focus and undertaken a high intensity of research, the researchers' knowledge of statistics, technology and policy information was considered to be more detailed than the Panel members' in certain areas, and the unrestricted access to this resource was considered to be of high importance by Panel members.

The second part of the question on the availability of evidence relates to whether the available information could be considered to be supportive of policy, i.e. could it be considered evidence, and therefore were the Panel's recommendations evidence based?

Throughout the process, the Panel were often keen to examine their own assumptions or statements, and the use of the researchers and task and finish groups aided in creating a body of knowledge that was up to date, well founded and relevant. As already stated, the Panel had access to a greater available knowledge base than would be expected for bureaucrats, or even technocrats, employed full time as policy makers. However, the Panel's expertise in business and their independence suggests that they came into the policy writing process

unfamiliar with how policy is formulated and created within government. In this situation, having a Panel member employed within the Welsh Assembly Government, and input from ex-officio members also from the Welsh Assembly Government, appeared to be an important factor. During their work, the Panel members were able to draw upon the expertise of those with knowledge of the policy process to determine what level of evidence or deliberation was required in order to inform robust policy.

During the Panel process, the need to create robust, well informed and evidence based policy recommendations was often re-iterated. For this reason, as early as Meeting B in June 2005, the researchers were asked to focus on finding information that would test the statements made by the Panel and either support or dispute those statements. Although the final document presented to the Minister contained little of that supporting evidence, the researchers' documentation and research represented 18 months of research into the evidence base for each objective, high level recommendation and expected outcome.

All of the above suggests that the expert participative model in this instance was able to retrieve and use a high proportion of the available evidence, in a way that was supportive of policy.

6.5.2 Validity of the evidence base

In analysing the Panel's evidence, it is important to question the validity. For the purpose of this analysis, the headings used to analyse the validity of the evidence base produced by the Panel will be those used by the Welsh Assembly Government internal guidance. This is considered to be a fit for purpose methodology, as the Panel's work was focussed on producing policy recommendations for this organisation in particular. The validity of the evidence base can be considered in answer to a number of questions. The justification for these questions is described in Section 3.5.1.2.

Is the evidence qualitative or quantitative? The Panel was aware of and given access to a wide breadth of research that was quantitative from various sources,

such as that from research organisations or companies which described statistical trends or absolute data. However, it can be said that the majority of the findings from facilitation were qualitative – including the outcomes from discussions, brainstorming, choice ranking and interviews.

Is the evidence newly commissioned or pre-existing? It is highly unlikely that a comprehensive evidence base will be entirely new, nor totally pre-existing. This was certainly true of the Panel's evidence base; much of the Panel's research into the evidence base was involved with familiarising itself with the great depth and breadth of pre-existing information on the subject of resources management by business. However, the Panel also undertook questionnaires, and commissioned the consultants' report, which generated workshops and other novel research in order to feed into their work.

Is the evidence clear and accurate? The researchers went to great lengths to question the Panel's assumptions and judgements about the evidence that they were suggesting could support their policy recommendations, in order to maintain a level of clarity and accuracy. This was also seen in meetings in the reiteration and summarising of the Panel's feedback by the Chair and researchers. This checking process not only prevented researcher bias of the process, but also aided in making sure that the evidence base was presented in a clear way to the Panel. This element of clarity was perhaps built into the Panel process in a way that it would not be under the traditional process; the dynamics of group working require that all information is presented and communicated clearly and any discrepancies or misunderstandings discussed with others before the information is considered part of the evidence base.

Accuracy is more difficult to quantify, especially with a predominantly qualitative process. Unlike survey data of population demographics or other physical factors, where accuracy can be tested using statistical analysis and randomised sampling, there is no single recognised method that can determine whether the largely empirical information produced by a Panel in a qualitative way is 'accurate'. As with clarity, it is again the requirements of the group that determine accuracy; by consistently checking assumptions, and justifying statements made, the Panel

members verified the accuracy of their work. As most of the researchers' output comprised existing information, credibility checks were used and attempts made to verify data through supporting information in the literature.

Is the evidence comprehensive? Whether the evidence base is comprehensive has already been considered in Section 6.5.1 in the discussion on the availability of the evidence. By using information that is representative of the total available, the evidence base can be considered to be comprehensive.

Is the evidence relevant? The evidence base must be relevant, not only to the policy but also to the target of the policy: the citizen. In this case the citizen was primarily businesses and people in business. However, the policy would have an impact upon those who business impacted, either directly or indirectly.

That the Panel considered itself to be representative of business (the citizen), and also the wider general public, points to a high level of relevancy for their outputs as a group. Experience, whether personal or professional, direct or indirect, is considered an important source of knowledge (Solesbury, 2001), and the Welsh Assembly Government recognises in its guidance that qualitative evidence (citing examples of information from group discussions or in-depth interviews) can provide valuable insights into the attitudes, motivations and behaviours that lie behind the headline figures achieved through quantitative research. Therefore there is a relevancy in the source of the information, as well as how it was obtained.

The research outputs can also similarly be considered relevant because they were focussed specifically on seeking information to support the suggestions and recommendations made by the Panel, and were checked and discussed by that Panel. Aspects of relevancy to the wider policy process were also discussed and checked by Welsh Assembly Government staff associated with the Panel as members, guest speakers or ex-officio members.

Is the evidence fit for purpose? Evidence is fit for purpose when it supports or disputes a policy recommendation or commonly held belief. When considering if the evidence used and produced by the Panel was fit for purpose, specifically the

question to be asked is: Does the evidence support the Panel's policy recommendations?

The evidence produced by the Panel is considered to have been fit for purpose in that it was sought reactive to the Panel's initial terms of reference relating to the BEAP and best practice resource management by businesses in Wales. It was also reactive to the Panel's own objectives: initially those relating to 'Energy' and 'Materials', and then the hierarchy of the eight sub-themes, the common areas, objectives and recommendations. After each meeting, the researchers' role was to continue to research into the subjects discussed and determine whether the assumptions and statements made by the Panel were credible. In this way the research, as well as the Panel's own work, was highly focussed on providing an evidence base.

Is the process cost effective with minimal burden on respondents? The expert participative model took longer than three years to produce its recommendations. The Panel members' voluntary additional efforts increased the time commitment to almost double that which had initially been agreed in the terms of appointment; however the work still required in excess of two person-years of almost full time facilitation, research and secretariat support. The expert participative model also suffered from a further delay, as the Panel's work could only contribute to the Assembly's traditional policy making process and not replace it. Therefore the time taken to integrate the Panel's work into a more traditional policy framework has to be taken into account in determining whether the process was cost effective.

The exact financial costs of the Panel's work cannot be quantified, as the costs to Panel members, Swansea University and the Welsh Assembly Government have not been disclosed. However, the cost-effectiveness of this method for the Welsh Assembly Government, compared to the traditional method, can be elaborated upon, from some facts and figures that are known.

The Panel members spent in excess of 500 person-hours in meetings. This is time that the Policy Development team within the Welsh Assembly Government could not have afforded to procure, nor devoted. The secretariat function itself is

estimated to have cost over 100 person-hours over the course of three years, including the time taken to write and send out minutes.

The researchers/facilitators' time, in the region of 1600 person-hours, was not directly billed to the project. Swansea University reached an agreement with the Welsh Assembly Government that researchers, who were employed for another complementary project, would also carry out the Panel's work. The Panel's advice on areas of research focus was considered to be of value to the Swansea University project and so this agreement was considered to be balanced.

In the traditional policy making method, the evidence sought from pre-existing sources, by policy officials and policy analysts already employed within the organisation, is considered to be the lowest relative cost, while evidence gathering by a third party contractor incurs a direct cost to the policy department, but an added administrative burden as well. The benefits of that method are that the work is done in an intensive way and can be completed in a relatively short timeframe; this in itself adds a further element of cost-effectiveness.

The disadvantages of the traditional method are that the policy officials, and perhaps even third party contractors, are unlikely to have the experience and/or knowledge held by a group such as the Panel. They are therefore at a disadvantage: either in finding or recognising all available and relevant evidence, or in the time taken to familiarise themselves with the sector. In comparing the two methods, it appears unlikely that the traditional method would have the element of continuous peer-review experienced by the Panel in its discussions, which could affect the credibility of information. However, this can be regarded both as an advantage and a disadvantage. It has already been established that the Panel's timeframe was longer than that usually experienced in making policy recommendations, and the peer-review element accounts for extra time. In the case of the Panel this was at low cost, but it could have resulted in additional administrative costs due to delays in the policy process. Conversely, this peer-review process could be considered to be less likely to cause time delays as a result of errors, or issues relating to the credibility or validity of evidence gathered in a short time period.

In seeking new information, the traditional method requires a dedicated resource, whether that be internal or external. Internal resourcing represents a relatively low cost to the Welsh Assembly Government, while external resourcing through a third party contractor is inherently expensive, often being tens of thousands of pounds. The cost-effectiveness of a third party contractor is a direct function not only of the quality of the evidence that they produce (and the time taken to do so) but also the relevancy and usefulness of that evidence. Again, as with pre-existing information, the contractor or policy official's knowledge of the policy area is vital in making the process as efficient as possible.

Using the Panel's discussions and outcomes from meetings as evidence, i.e. as a qualitative outcome in its own right, appears to be a highly cost-effective alternative. The Welsh Assembly Government paid only expenses and meeting room hire over the course of three years and, due to the positive relationship between the Panel members and the Welsh Assembly Government, room hire was rarely charged. Some Panel members did not claim expenses from the Panel's budget, preferring instead to claim their expenses from their own organisations. The addition of the researchers as a voluntary contribution to the Panel's work also improved the cost-effectiveness of the process. It is unlikely that this model could be repeated in many situations. However, paying for university research input could be economically competitive compared to that of the private sector.

6.5.3 Further thoughts on the evidence base

The intentions in creating the Panel, gleaned from interviews with those involved in the process, were: to increase the business input to the policy process; to increase stakeholder engagement and ownership of the resulting policy; and, most importantly, to create a credible evidence base on which the recommendations for policy could be based. The analysis in this chapter concludes that the evidence base was robust, but a further question exists as to whether the evidence base gathered was better than that which would have resulted from the traditional method.

The evidence gathering process differed fundamentally between the expert participative model and the traditional model, in that the opinions of the Panel themselves could be counted as evidence. In the traditional model this cannot be the case, unless the civil servants involved are considered to be experts in the field under scrutiny. Further, the documentary evidence was collected over a relatively long period of time, with a significant level of human resource made available in the form of the dedicated researchers. This is rarely the case in the traditional model, and in Wales in particular the role of gathering evidence is often given to specialist consultants with a fixed budget and short period of time in which to collect general information. During the course of this research, no incidences have been noted of policy evidence, collected by consultants, being made available to a public participatory group as part of a consultation. Nor were incidences noted of the exercise being repeated, and additional research being requested by such a group, as happened with the Panel.

This being said, the completeness of evidence could have been improved upon if significant additional resources had been provided to undertake novel research in the field. However, the likelihood that the Panel members could have absorbed more evidence on which to base their recommendations (or that this additional evidence would have resulted in a change to the recommendations made by the Panel) is slight, as the Panel were focussed on addressing wide ranging issues that would have common implications to a large number of businesses.

6.6 Analysing the participatory process

Accepting that the evidence base is valid, the next area to consider is whether the Panel's work can be considered 'public participation'. Although this has been hinted at in the discussion above, with the Panel members representing both citizens and a specific sector, this needs to be examined more closely before the Panel's method can be endorsed as a viable alternative method to that traditionally used in government.

6.6.1 Use of group methodologies

In order to facilitate the Panel's work and to help it produce its findings in the short period of available time, a number of focus group methods were used, both consciously and unconsciously, by the Chair, facilitators and secretariat. In this context, focus group is a catch all term often used to encompass a variety of interactive groups used in the field of social science and policy research. These interactive groups are mentioned in more detail in Chapter 3, and the various categories are indicated in Section 3.7.

When first introduced as a research method, the use of focus groups was considered to be a way of discovering qualitative information that could explain some of the trends seen in quantitative data capture. However, the increasing trend is now that these methods are used to bring together any type of group to complete a given task. The Panel differed from a typical focus group in that its members were neither randomly selected, nor did they form a representative sample from any single organisation, peer group or stereotype.

Traditionally, expert panels are most often considered to be a type of Delphi group and as such can be divided into two types: the first type is where an expert panel is utilised to generate strongly opposing views on an issue in order to inform a decision maker (a discursive group); the second type is used to reach a consensus opinion on the best route forwards (a consensus group) (Turoff, 1975). Delphi groups are generally not physically assembled, and in this way the Panel differed from the conventional definition. However, it conformed in that it was a selected panel of experts responding to results from complementary research, and seeking to reach a consensus (Kitzinger and Barbour, 1998).

Although this definition seems to fit the role of the Panel, it differs when compared to the traditional role of Delphi groups used to advise on public policy (a policy Delphi). In a traditional policy Delphi, it is more usual that the group seeks to generate strongly opposing views in order to present to the decision maker all the possible options for resolution of a specific issue. In such a group technical expertise is often needed, but in this context the Panel are not considered experts,

rather they are informed advocates or referees of one opinion or another (Turoff, 1975)

Much of the work done by the EPRM between April 2004 and 2007 falls under these two descriptions, in that the Panel were required to submit a final report to the Minister of Enterprise, Innovation and Networks three years after their appointment, outlining the way forward for business and environment plans. However, the complexity of both the group's composition and its discussions, as well as the level of empowerment the members enjoyed as a group mean that at different stages of the process the EPRM took on some of the characteristics of a nominal group and a consensus panel (Kitzinger and Barbour, 1998), and the methods which the facilitators adopted were adapted accordingly, rather than adopting any single, previously reported method.

A nominal group is defined as a specially convened group, using ranking exercises to establish participants' priorities and concerns (Saunders *et al.*, 2003). The Panel used methodologies commonly utilised in nominal groups in order to prioritise their suggestions. However, nominal groups are more normally used to rate or rank responses based on an individual's personal opinion or experience and are not made up of pre-formed 'expert' groups of responders.

The Panel also undertook activities which might identify it as a consensus panel: a group designed to develop agreed professional principles or protocols (Kitzinger and Barbour, 1998). Initially the group generated many ideas out of which a consensus was formed. In a traditional consensus panel, however, those initial ideas would have been generated by a larger group of less skilled individuals and the experts' role would have been to filter those ideas to arrive at a consensus.

Having identified that the group does not strictly conform to any of these pre-conceived types, it is important to note that neither were they constrained by specific methodologies but were able to use any that were appropriate at a particular stage of the process (Morgan, 1997).

The nature of the Panel's facilitation, being a mostly reactive use of group methods to reach consensus, makes it difficult to determine whether other group methods

could have improved the process. In the first year of the Panel's work, the Panel themselves settled into a set pattern for meetings, shown in Appendix B. The Panel was given opportunity for discursive discussion, to provide multiple opinions for consideration, and also to reach consensus on key recommendations. Both of these aims were achieved without difficulty. Only one Panel member stated at reflective interview that they did not find the 'committee style' non-structured brainstorming aspects of discussion to be a familiar system or one that was easy to work with. However this same individual agreed that in a group of that size, facilitation and discussion was needed in order to reach decisions that were representative of the group. If repeated, it would be important to ascertain in the early stages the types of facilitation that the Panel members would be comfortable with and to design the group activities accordingly.

6.6.2 Group interactions and hierarchies

As well as the group's inclusion of various areas of expertise, the size of the group was important; it had eight full time members, but a varying number of ex-officio members and observers. This took the total to an average of 14 attendees. Common pitfalls have been identified in facilitating discussion groups, e.g.

- The domineering personality, or outspoken individual that takes over the committee process;
- The unwillingness of individuals to take a position on an issue before all the facts are in or before it is known which way the majority is headed;
- The difficulty of publicly contradicting individuals in higher positions;
- The unwillingness to abandon a position once it is publicly taken; and
- The fear of bringing up an uncertain idea that might turn out to be idiotic and result in a loss of face.

Turoff (1975) stated that these pitfalls can be avoided in smaller groups of around 10. However, many of these issues have been encountered at the various stages of the Panel's decision making process. This appeared in part to be because Panel

members and ex-officio members already had working relationships, and in some cases conformed to a pre-existing hierarchy, whether because of formal employment roles or similar interests. The role of the Chair and facilitators was vital in re-dressing the balance of input to ensure that individuals had equal opportunities to take part in discussions.

The facilitation was also important in preventing the group from suffering from 'participation fatigue', maintaining a sense of novelty and the importance of the group. The majority of the group members were action orientated, being from business, and often in positions of responsibility where action was often undertaken on a short timescale. This was shown by the high number of incidences of the Panel focussing on delivery mechanisms, implementation and individual case studies, and requiring coaxing or coaching to consider the strategic directions and principles that they were trying to achieve.

6.6.3 Stimulating consensus.

When there were conflicts of ideas or beliefs within a group, useful consensus was often achieved when the Panel members were given a short period of time (usually less than ten minutes) to explain their viewpoints. Panel members were often keen to understand the background behind conflicting views, and there was rarely need for intervention in this situation. At the end of the given period, a consensus would often be achieved. However it is important to note that the role of the Chair and/or facilitators was vital in making sure that the most logical and factual compromise or idea survived, not just the viewpoint supported by the most dominant individual.

6.6.4 Representation of the business public

The composition of the Panel provided a variety of perspectives on the subject of resource management, but only provided a slim horizontal cross section through a relatively small slice of experience and expertise. In addition there was a level of bias because all believed that resource efficiency was important. There were no real critics of the principles of resource management or representatives from within

business for whom sustainability was a non-issue or even a negative issue. As such, the Panel often had a general consensus from the start of the process.

Even accepting the inevitability of this bias, there were obvious omissions from the composition of the group; for example, there were no representatives from the retail sector, service industry or financial sector. Neither was there representation from large companies involved in energy distribution, generation or waste management.

From the above it can be concluded that the Panel was not representative of all businesses or business people in Wales, and that it was lacking in negative perspectives on the subject of environmental policy making for business. However, there is a further question to be asked: Whether the Panel could be counted as a credible 'public'? As stated earlier in Section 6.3.1 on the subject of independence from government, the Panel members were required to volunteer to take part in the Nolan process and be part of the Panel. Other methods would have resulted in a more academically representative group, but without the same motivation of the voluntary Panel members who gave their time and effort to address an issue that they were concerned about professionally and often personally. Therefore, the Panel could be described as an afflicted or interested public, as described in Section 3.8. In addition, the Panel were afflicted by the reality of the situation and, being perceived as experts on the subject, were able to inform decision making in a way that a more representative public may not have done.

6.6.5 Sub-groups

The use of interim sub-groups to discuss specific aspects of the project was useful to form ideas and stimulate discussion. However, these groups were rarely successful in making decisions. This may have been due to the mix of personalities found within the sub-groups, the lack of a formal Chair or the unwillingness of the sub-groups to take a position on an issue without being sure of the attitudes of other members in the larger group.

6.6.6 Determining success and credibility

Having considered the Panel as a public, and discussed its use of participatory methods, it remains to examine how the Panel's success and credibility should be determined. From the literature reviewed in Chapter 3, the definition of participation proposed by Smith *et al.* (1997) was stated as being the most suitable, as it encompassed the ability of participation to influence decision making outside of the electoral process and also to improve the representativeness and responsiveness of that decision making. The literature also provided a number of criteria for the assessment of the participation process. Eight factors of success were identified in Section 3.9.1 and the Panel's performance under each of these factors will be discussed below in order to determine the success or otherwise of the EPRM model as a credible form of public participation. These eight success factors were that the process must:

- Include articulation of one or more standpoints;
- Have access to required tools or training;
- Have access to required time or resources;
- Be legitimate and transparent;
- Be evidence based;
- Have clear start and end points;
- Balance the interests of science and social issues; and
- Be empowered.

6.6.6.1 Articulation of one or more standpoints

As shown in Chapter 5, the Panel process involved a cycle of input, deliberation and outcome, on a variety of themes, with a single aim. During this process, the Panel members had opportunity for discourse amongst themselves but also, as part of their terms of reference, they were required to discuss and assess the BEAP. Due to the way that the Panel had been selected, all members could be described as positively disposed towards the principles of resource management, and there were no representatives of business for whom sustainability was a non-issue or

even a negative issue. As such the Panel often had a consensus, in principle, for all of their discussions, and areas of discourse were limited to how best to deliver improvements under those principles.

However, the need for discourse and occasionally disagreement as a method of communicating and working through individual ideas was recognised by the Chair and facilitators, and all parties were encouraged to put their ideas and proposals forward in an open forum in order to encourage this openness. This opportunity for discovering other viewpoints was increased by the incidences of consultation with senior policy officials within the Welsh Assembly Government and also through the web-based consultation. All Panel members were also given the opportunity to discuss or suggest options with the Chair or facilitators privately, either in person, by telephone or e-mail if they found exposure in the group setting uncomfortable. When Panel members were asked at follow up interview if they felt that they all had equitable and sufficient opportunities to put their ideas forward, both in the group setting and outside of it, all members felt that they did.

6.6.6.2 Requires tools or training

The Panel process can be described in itself as a tool for allowing the public to participate in the policy process. The Panel process, although relatively restricted, gave an open forum for an interested public to participate in informing decision makers. The Panel were assisted with facilitation, research and structured communication. The Panel can also be said to have received an element of training for future participatory effort. During Panel meetings, the presence of ex-officio members and the one Panel member employed by the Welsh Assembly Government provided useful information into the workings of the Welsh Assembly Government. This allowed the Panel to make informed decisions that were not only within the Welsh Assembly Government's powers to deliver, but would also be seen as credible. Panel members were not expected to know this before they joined the process, but they were certainly aware of, and able to use this information, by the end of the process.

6.6.6.3 Requires time or resources

As stated earlier, in Section 6.5.2, there was a higher quantity of time invested in the process, both by the Panel and by the researchers, than would have been provided in the traditional model. In addition, the timescale given was generous in comparison to that usually available in the traditional model. During the first year, the time spent per person by Panel members was greater than the resource commitment that had been suggested in their terms and conditions of appointment. This commitment led to the Panel requesting and being granted research assistance. In addition, each Panel member was given permission by their employing organisation to spend time during normal working hours to attend Panel meetings. The time and resources commitment by the Welsh Assembly Government should also not be overlooked; this included direct financial aid in paying for meeting rooms, travel and subsistence expenses.

Without ample facilitation and preparation, the approach could have been time intensive for the Panel, and would have retarded the speedy progress required in order to achieve the outputs required by the Welsh Assembly Government. Two mechanisms were used to assist the process. Firstly, where meetings had revolved around detailed solutions or delivery mechanisms, the facilitators asked Panel members to identify:

- a) Why this detailed solution or mechanism had not yet been put in place, and
- b) The strategic measures that would be needed to make implementation of the delivery mechanism possible.

Secondly, consolidation and rationalisation of suggestions outside of meetings, with feedback to the Panel for ratification or amendment, were vital in assisting the process. Third-party consolidation was considered to be valuable to the Panel to allow a new perspective on familiar issues to be introduced and also to reduce the committee approach and illicit a 'yes' or 'no' answer to data already produced, rather than to introduce new or potentially conflicting ideas.

Being able to respond to the Panel's requests and moods during the course of any meeting was essential to ensure maximum levels of interaction in every meeting. This was achieved by having a variety of visual presentation materials as well as discussion time. The use of interactive materials such as whiteboard, flip chart and projected word processing was especially useful in presenting the ideas of those Panel members who were visual thinkers.

It is also possible that the methods used, being somewhat popular amongst workshop facilitators in the business community, were familiar to the Panel members and they subconsciously inspired their use in this situation. It could be concluded here that the facilitation process was consented to because of this familiarity, and that active participation by the Panel members was achieved because of the same reason.

It was also found to be very important for the researchers to meet with the Chair of the Panel prior to the Panel meeting, to brief him on the proposed outputs from the meeting and to discuss the direction that the meeting would need to take in order to progress. This was especially important where Panel members would be needed to volunteer to undertake specific tasks, as the Chair was often influential in obtaining agreement to such requests.

Another, less successful, aspect of pre-meeting preparation was the creation and distribution of pre-meeting notes. These were rarely read by all members before the meeting, either due to time constraints of their employment, or because the notes were considered to be too long. This meant that the Chair or researchers could not assume at any time that all members of the group were aware of the same data and this meant spending time during each meeting distributing new data.

6.6.6.4 Legitimacy, transparency, credibility (equitability)

The Panel members were given legitimacy, transparency and credibility through the Nolan process. The Nolan procedures for publicly held appointments, whether paid or unpaid, were created in response to questions of legitimacy and transparency in

UK Government. They were originally aimed at much more influential, paid members of public life such as Members of Parliament, civil servants and those holding public office. However, their strict regulations relating to standards for others holding public office, the transparency of appointments and reporting on the outcomes of such appointments, have become recognised in the United Kingdom. Through the recommendations of independent advisory bodies to assist in the appointments process, a greater level of transparency can be expected than in spontaneously created groups, special interest groups or groups that are appointed directly by a Minister or political party.

In the recommendations of Webler *et al.* (2001) about the transparency of the process, there is also mention of transparency by decision makers in how they receive and consider the public input. This element cannot be fully judged at this time. Due to a change of staffing after the Welsh Assembly Government elections in 2007, the consideration and formal adoption or dismissal of the Panel's recommendations has been postponed. However, the Nolan procedures again require an element of transparency, as does the Freedom of Information Act (UK Government, 2000), under which any member of the public (including Panel members) can request information relating to the activities of the Minister in addressing the Panel's recommendations.

6.6.6.5 Evidence base

The process should be evidence based. The outcomes of the discussion in Section 6.5 relating to evidence base are that the process is evidence based.

6.6.6.6 Start and end points

The process should have clear start and end points. Due to the structured way in which the Panel was formed, the Panel's terms of appointment clearly stated a start date of the 9th April 2004 and it was agreed that the process would expire three years later on the 8th April 2007. As with other elements relating to the discipline

provided through the Nolan process, the clear start and end dates gave the Panel a level of structure which is not often seen in spontaneous or special interest groups.

6.6.6.7 Balance of interests

The process should balance the interests of science and social issues. The Panel members saw themselves not only as representatives of business, and interested parties in relation to business support, but also as citizens, on whom the actions of business could have an impact. Although the Panel members considered themselves to be expert on some matters, their attitude as a group was often that they were bringing to the process an element of practical knowledge and experience that would not otherwise be available, particularly representing the typical responses of business and the public to particular policy options. In doing so they were identifying those options most likely to be effective from a social perspective, as well as from a technical perspective.

6.6.6.8 Empowerment

As stated by Barbagallo (2003), the participation process must be empowered and have a clear connection to the policy making process. One way in which to measure this connection, and the level of empowerment is through the use of Arnstein's typology (Arnstein, 1969; Ananda, 2007). In what has been described as a ladder of participation versus technique, as illustrated in Table 3.14 (Arnstein's typology), the techniques of the Panel can be considered to have a medium level of impact on the decision making process. The Panel did not typify a classical type of group, but its work can most closely be related to that of task forces, advisory groups, interactive workshops and, on occasion, collaborative problem solving groups.

This empowerment was direct in some ways, due to the Panel being commissioned by a Minister, on behalf of the Welsh Assembly Government, and under such a rigid structure as the Nolan procedure. Also, the wide influence of the Panel members and their credibility as an expert group led to their influence being wider than their

published findings. By being exposed to decision makers and policy officials, as well as to the wider public and stakeholders, and by being able to share their ideas with these groups throughout their work, the Panel were given an opportunity to present a coherent vision of their views, as business representatives.

6.7 Policy outcome

Having discussed the elements of the Panel process and how they constituted a valid evidence base this chapter has also determined that the process typified credible public participation. This section addresses another part of the research problem posed in Section 1.2.1, i.e. whether the process resulted in viable, sensible public policy recommendations. This section investigates the effectiveness of the EPRM approach in comparison to the formulation of other, similar, policies or plans, and with regard to the content of the final plan in the context of UK policy guidance.

6.7.1 Progress of the EPRM recommendations since April 2007.

Soon after the Panel handed in their recommendations to the Minister for Environment, Innovation and Networks on the 27th March 2007, the Welsh Assembly Government's policy making process paused prior to the national elections. The Ministerial Code (Cabinet Office, 2002) requires that no activity should be undertaken which could call into question political impartiality or could give rise to the criticism that public resources were being used for political party purposes. While civil servants were theoretically able to work on non-political policy development during this period, in reality the lack of a working Cabinet meant that they were unable to work on any new policy, due to the system of Ministerial checking that is required at each stage of the process (as shown in Fig. 3.2).

National Assembly for Wales elections took place on the 3rd May 2007 and as a result the Labour Party won a majority of the votes. However, this majority was not large enough to enable the Labour Party to form an effective government without

political support from another party in the Assembly. This issue resulted in a delay to the announcement of the new minority Labour Government until the latest possible date, the 25th May 2007. Further changes were brought about with the announcement of a Labour – Plaid Cymru coalition on the 26th June 2007. As a result, no new policy development activity was undertaken during that time.

The coalition and the formation of a new government resulted in a Cabinet restructuring, and Cabinet Members responsible for each new department were changed. Andrew Davies, the Minister who had held responsibility for economic development within his portfolio since March 2002, was appointed Minister for Finance and Public Service delivery. This had a direct impact upon the EPRM, as Mr Davies had been a strong advocate for the work of the Panel while it was under his portfolio, but was no longer able to take direct responsibility for the implementation of its actions.

The newly re-organised Department for Economy and Transport (DE&T), where the majority of the business support portfolio still remained, was led by Plaid Cymru Deputy First Minister: Ieuan Wyn Jones. A further possible complication was the creation of the Department of Sustainability, Environment and Housing. This new department took some portfolio responsibility away from the former Department of Enterprise, Innovation and Networks, including that for domestic and small business energy management, an area previously identified as important to the delivery of the Panel's recommendations.

Following the Cabinet re-shuffle, there was also a re-structuring of the Civil Service departments and branches. This resulted in the Business and Environment branch, which had previously provided the secretariat to the EPRM, being dissolved, and the team members being split into other branches relating to energy, economic development and sustainability. Only three members of staff (soon reduced to only two and then to one) continued working for the Head of Sustainability and Environment within DE&T. This role was filled by a former senior manager from the WDA who had been involved in the BEAP, and later the EPRM process, both prior to and after the Welsh Assembly Government/WDA merger.

A full Cabinet discussion was expected to take place following the formal presentation of the EPRM's recommendations: the 'Low Carbon Wales' document. This Cabinet discussion did not occur. In fact, formal recognition of their recommendations was only sent to the Chair of the Panel in November 2008. This communication thanked the Panel and stated that many of the recommendations had already been implemented, or were being used as a platform to develop the Welsh Assembly Government's aspirations for a 'Green Jobs Strategy'. The discussion below shows, however, that a great deal the Panel's work has made its way directly into policy and guidance for business environment support in Wales prior to its formal consideration within government.

In addition to its influence on business support in Wales, the Panel has had a direct or indirect affect on over twenty documents or speeches, both within and outside of government in the period April 2005 to December 2008. These include:

- Bunting, G., Huxtable, L.A. and Clement, R.M. (2006). Strategic solutions for resource efficiency. 13th International Greening of Industry Network (GIN) Conference, Cardiff;
- Clement, R.M. (2008). Presentation to senior higher education staff in Wales. 21st May 2008. Wales Millennium Centre, Cardiff;
- Cynnal Cymru. Sustainability for Business. Publication in Press;
- Davies, G.H., Huxtable, L.A., Abbey, J.V. and Bunting, G. (2007). Using experts in the identification of challenges to the development of Regional Knowledge Economy. 6th International Conference on Quality, Reliability and Maintenance, Oxford;
- Design Wales (2006). Eco-design Pilot Project Report;
- Enviros Consulting (2006). Business and Environment Action Plan: evaluation of impact and delivery;
- Expert Panel on Resources Management (EPRM) (2007). Low Carbon Wales: to improve resource efficiency in Wales;

- Huxtable, L.A., Bunting, G., Clement, R.M. and Probert, E.J. (2006). Identifying strategies for efficient resource management by businesses in Wales. Corporate Responsibility Research Conference, Dublin;
- Huxtable, L.A., Bunting, G., Clement, R.M. and Probert, E.J. (2007). Public participatory policy making in Wales - case study of the Expert Panel on Resources Management. 4th Annual ECPR General Conference, Pisa;
- INCO (2004). Good neighbours: INCO 2004 social responsibility summary report;
- National Assembly for Wales (NAfW) (2006). Cabinet Written Statement: Business and Environment Action Plan for Wales - Third Annual Report 2005-06. Andrew Davies, Minister for Enterprise, Innovation and Networks;
- Stockholm Environment Institute (SEI) (2008). Wales' carbon footprint;
- Snowdonia National Park Authority (SNPA) (2007). Sustainable development policy;
- Swansea University (2008). Institute of Innovation strategic plan;
- University of Wales (2008). University of Wales sustainable development commitment;
- Welsh Assembly Government internal report: Sustainable Development Action Plan. Implementation of remaining commitments to end of November 2005;
- Welsh Assembly Government (2005) Business and Environment Action Plan Second Annual Report;
- Welsh Assembly Government (2006a) Business and Environment Action Plan Third Annual Report;
- Welsh Assembly Government (2006b) Business and Environment Action Plan Case Studies;

- Welsh Assembly Government (2007b) Environmental Goods and Services Report;
- Welsh Assembly Government (2007c) Microgeneration Action Plan for Wales;
- Welsh Assembly Government (2008) Green Jobs Strategy for Wales. Consultation; and
- WWF (2007) One Planet Wales: Pathways towards a sustainable future.

The work of the Panel had both far reaching and indirect effects, over and above those already stated in Chapter 5. These effects have included the impact of the work on the Panels' researchers, as well as the impact of the researchers on the final outcomes of the Panel. Effects have also been felt on other policy work that went on in parallel to the Panel's term. Some of this work was directly or indirectly influenced by the Panel's findings, its methods and its potential for replication within the democratic process.

Perhaps most promisingly, the work of the EPRM was considered by the new Minister for Economy and Transport, Ieuan Wyn Jones, to come under the auspices of the 'Green Jobs Strategy' mentioned in the coalition government agreement 'One Wales' (National Assembly for Wales, 2007). For this reason, the Head of Sustainability and Environment within the Welsh Assembly Government has been able to implement some of the recommendations of EPRM under this heading. If the holder of this role had not been involved with the Panel's work as the Chair of the BEAP steering group, it is not certain that this activity would have used the EPRM findings as strongly as it has. This suggests that the Panel had power outside of government to influence change and policy implementation.

6.8 Timescales and the political process

The conclusions of the discussion above will be brought together in Chapter 7. However, one point requires further articulation at this stage: the subject of the political timeframe. Having identified that each of the various elements of the Panel's work during its three year process could plausibly contribute to effective public participation and evidence gathering, the issue of the political timescale seems to be a major factor, identified in Section 6.7, as to why the Panel's recommendations were not adopted into policy more directly, given their sponsorship by the Welsh Assembly Government.

The Panel's timeframe of three years fitted exactly into the period between Welsh Assembly Government elections in May 2003 and May 2007. This meant that, for the entirety of the Panel's duration, the same individual, as Minister, was responsible for sponsoring the Panel's work through government. However, the length of the Panel's timescale meant that it completed its work and handed over its recommendations less than a week before the period of political 'purdah' (or restriction on activity) that comes before an election. As a result, the Panel's recommendations could not be dealt with before the elections were completed and the Ministerial duties assigned to elected members.

The national elections in Wales in 2007 produced an extreme example of the upheaval that elections can cause in a devolved authority; they resulted in a six week period of unrest within the political landscape and a final coalition responsibility which moved the regional political agenda further away from central government in Westminster. As a result, the Panel's outputs were not automatically adopted, nor were they directly passed on to civil servants to be put into practice. It is likely that the duties of the new Minister for Economy and Transport, once agreed, had to be prioritised to favour work which had been delayed, and that the Panel's recommendations would have not been high on that list. Added to this, was the complication that the new Minister was from a different political party than the Minister who had originally been responsible for the Panel, and there was less political incentive to use the Panel's work directly.

It would seem likely, from the assumptions above, that the Panel's final recommendations would have been more effective, and would have been utilised more quickly as policy ideas, if the timeframe of the Panel had not taken the entire term of office of the government, but had instead allowed a period of time after its completion for the Panel's recommendations to be assessed by the Minister and, if deemed appropriate, written into policy and implemented. Given that there is no guarantee in politics that elected members and political parties will remain in power for more than one term of office, the simplest solution would require that the entire process, including the added period to initiate implementation, should occur within the period of government. The alternative would require that any expert participative panel had the formal guaranteed support of all political parties at its commencement, with an agreement that regardless of election results, the expert participative panel's recommendations would be assessed and made into policy where appropriate. This level of agreement is not recorded in devolved governments; it is usually limited to cross-cutting issues of established public importance where budgets and policies for long term projects and improvements are agreed and assigned for particularly crucial work that requires greater than six years to show outcomes. Such agreements are generally brokered by international government bodies such as the European Parliament or UN. The International Framework Agreement on Climate Change is an example. Therefore, it would appear that shortening the timescale of an expert participative panel would be required to guarantee that time for assessment and implementation is available at the appropriate time. However, this being an individual case study rather than a study of multiple different models, it can only be speculated as to whether a shortened timescale would be appropriate. Specific to the EPRM, the Panel would either have had to move their meetings closer together, to fit in the level of interaction that was needed, or reduce the number of meetings undertaken. Given that the Panel attendance was voluntary, and required the good will of employers who allowed the Panel members to attend, increasing the number of meetings per year could have presented a difficulty. Face to face meetings were found to be the most effective form of interaction, so asking Panel members to contribute by other

forms of communication might not have been so effective in achieving and clarifying consensus on issues.

This leaves the number of Panel meetings as a possible area to reduce the time spent. Did the Panel require all three years in which to assess and come up with their recommendations? Without similar, alternative models for comparison, this is a rhetorical question which cannot be answered. It is certain that the Panel undertook useful activity at every meeting. However, it can only be speculated as to whether using different activities to achieve consensus, and hence achieve more intense utilisation of available time, would have resulted in the same findings. The researchers were only present for two years of the Panel's work, during which time the majority of the recommendations were created, discussed and evaluated as being suitable for policy. It is possible that, with researcher input and facilitation from the start, work on the evidence base during the first year of the Panel's work could have been concentrated into a much shorter period, and work on making recommendations could have started much earlier. In addition, the issues of stagnation mentioned in Chapter 5 would have been much less evident if a shorter timescale had been available in which to deliberate on ideas.

Examination of the case study of the EPRM suggests that, if a shorter timeframe were required for other expert participative models, this would need to be carefully designed as well as made evident to the Panel at commencement. Focussed research and facilitation would need to start from the very beginning of the process to ensure that the work continued at pace. Explanation of the importance of the timescale should be considered in maintaining any expert participatory panel's focus on prompt delivery.

6.9 Wider implications of the Panel's work

This case study has focussed closely on a situation specific to Wales, and to a specific problem: that of input by business to business-environment policy. In its own right, this would represent a purely intrinsic study. However, there are likely to be wider implications (indicative of an instrumental case study) for participation

in policy making by representative groups; these are discussed below. When considering the expert participative model, there are factors which are peculiar to the process which would need to be replicated in order for the process to be easily transferred and to be equally or more effective. These relate to the lack of legislative autonomy of the body of governance, the motivation of the representative group, the complexity of the policy under consideration and the resources made available to facilitate the process.

It has already been established that the role of policy in a devolved authority, such as Wales, is not the same as that experienced by an autonomous government with stronger legislative provision. Therefore it is reasonable to suggest that the methods described here would be most easily transferred to other devolved authorities with similar constraints against legislating, imposed by a central or federal government, but with significant population sizes and spending power to enforce policy. These would include, for instance, the non-autonomous UK devolved governments in Scotland and Northern Ireland, the provinces of Canada, the territories of Australia or the 15 regions of Italy. In order to transfer the expert participative model successfully, any similar expert panel would have to be given similar, or even greater, encouragement from policy makers as well as being allowed the same level of independence from the devolved authority. This should be applicable in any devolved government, but might require cultural changes.

The EPRM case study involved a representative group of people who expected their input to policy to have a rapid and direct impact on economic as well as social factors relating to the organisations which employed them. Without such motivation, a group could neither be expected to persevere with its work nor to be so willing to spend additional time and effort on participation. As mentioned in Section 3.6.6, complex policies with a high level of perceived public ownership, having diverse multi-disciplinary and cultural or social aspects that go beyond the usual technocratic decision making, are considered to be best suited to public participatory techniques. Environmental issues, such as those considered by the EPRM, provide well established examples of this. However, other policy areas with similar complexity and the requirement for input from the public exist, such as:

health care, genetic modification and human/social rights. In order for the expert participative model to be successfully transferred, it would require that the subject being discussed also fitted these criteria.

Finally, any replicated process would require similar or greater resource dedicated to it. It was stated on more than one occasion by Panel members that the input of full time researchers/facilitators to the process was a significant factor in its success. This input, as well as the provision of meeting rooms, travel expenses and perhaps also the lunches provided at meetings, encouraged participants to continue to meet regularly; this should not be discounted when considering replication. It has been speculated in Section 6.8 that the time dedicated to the process was too long for it to be effective or efficient, because it gave little time to implement the proposals within the term of government. That being the case, the timescale should also be considered in attempting to replicate and scale the expert participative model. Even without amending the timescale, it is possible that the process could be effective or even improve upon the success attributed to the EPRM by policy makers, given the right circumstances.

6.10 Drivers for innovation in the policy process

On the surface, the expert participatory process appears to be innovative in a shallow way, in that recognised and well documented focus group methodologies have been used in a new situation, and within an organisation that has never used them before. However the study undertaken here suggests there is a deeper level of reactive innovation involved in the process.

Innovation in the field of public policy is usually user-led, and documented at policy implementation; users take policy written for one purpose and utilise it for another one. For example, policy for pollution control is used by businesses as a driver to open up new markets for the management of hazardous wastes. However, in this situation, the innovation appears to have occurred at the policy creation stage, and to have been unconscious and reactive as a result of a perceived goal.

It has been suggested already in this thesis that the motivation for creation of the EPRM was a lack of available resources to collect a robust evidence base to support

business-environment policy in the Welsh Assembly Government. Commentary in the literature, summarised in Section 3.1, suggests that the Welsh Assembly Government is relatively under-resourced in relation to the breadth of its responsibilities, and that this has led to a greater level of public participation than had been previously experienced by the predecessor to the Welsh Assembly Government: the Welsh Office. Two drivers have led to the creation of a permissive landscape in which the Welsh Assembly Government's officers are free to consider alternatives and innovations to traditional policy making, including methods through which policy making occurs. These drivers are the perceived lack of human or financial resources, and the willingness by the organisation to adopt and even encourage unusual or non-traditional practices, such as accepting the direct input of those outside of government.

The specific example in this case is the creation of the EPRM to make recommendations for policy in the field of business-environment. There are well established protocols for creating focus groups or Delphi groups to inform policy. These would have been readily available to policy makers in the Welsh Assembly Government, should they have chosen to follow an established route with existing guidelines and protocols. However, no such protocol for the Panel was given. In fact, in the reflective interviews, two Panel members and one Welsh Assembly Government officer stated that they had been given a 'blank sheet of paper'. If the same situation had occurred in a more established organisation, such as the UK Government in Whitehall, this would have instantly been recognised as novel and perhaps even controversial. In Wales, it appears to have been accepted with little question, perhaps because it required relatively small financial input and incorporated the currently fashionable subject of public participation. This permissive attitude appears to have influenced the role of the Chair and researchers in the way that focus group methods and researcher time were used to facilitate the Panel. Again, this appears to have been reactive innovation, in response to the necessity of achieving the aims set out by the Panel, rather than a conscious effort on behalf of the Chair or facilitators to do something different.

6.11 Summary

Policy guidance within the Welsh Assembly Government encourages assembly staff to use the right evidence at the right time in the policy cycle. The Panel's work appears to be such evidence, having a representative information base, being outside of a purely bureaucratic or technocratic focus, but also being specifically based in business and representing a form of interested or afflicted 'public' and, with specific reference to Welsh Assembly Government policy, the 'citizen' about whom policy is being framed. When targeting evidence towards the citizen, pure statistics or cold facts can overlook more complex and interwoven issues, creating a technocratic or logical policy which may be unsuitable or inappropriate when considered in the light of ethical, moral and behavioural evidence. Bureaucratic, generalist approaches may make assumptions about the ways in which policy may affect one or more stereotypes, based on population statistics or questionnaire data, but may miss the innovative responses to those issues. Technocratic approaches will not address the moral or human issues that make some policy responses illogical but still effective. The expert participative model appears useful in that it can overcome this potential barrier in a systematic way; it can retrieve and use a high proportion of the available evidence, from a wide range of individuals with matchless real world experiences, in a way that is supportive of policy.

Analysing the findings using criteria specifically produced for use by the Welsh Assembly Government, it was found that the evidence base could be considered valid. In particular, the methods used for group working and participation contributed to the clarity, accuracy, relevance and cost-effectiveness of the methods for gathering evidence; this suggests that these methods would be particularly useful for future projects.

Numerous expected and unexpected outputs arose from the work of the EPRM, as described in Section 6.7. The fact that these were achieved as a result of group working, in relatively short timeframes, suggests that the methods used were both effective and acceptable to the group. However, significant efforts were required on behalf of those charged with facilitating the group, i.e. the Chair, secretariat and

researchers, and it is unlikely that the outputs would have been of such a high quality without these efforts.

The merits of the expert participative model as a form of public participation can be clearly seen in that they comply in many cases with the various requirements stated in the literature on the subject. The process gave access to the tools, training and resources required, over a credible period of time, and these resources are not available to other types of participatory groups. Using Arnstein's typology, the expert participative model seems to take the middle ground, balancing a relatively high level time commitment with a representative population, in relation to resources volunteered into the model and also to the impact that the model can have.

The use of the Nolan process as a credible appointments procedure also appeared valuable to the process. While the Nolan Committee was not set up specifically with public participation groups in mind, the seven principles of public life that the Committee adopted: selflessness, integrity, objectivity, accountability, openness, honesty and leadership, can be considered as valuable to any type of decision making group. By adhering to these principles during both its appointments phase and in its day to day work, the Panel maximised its independence and legitimacy.

When considering the ability to use the expert participative model in a wider context, it would appear that the model should be valid for other non-autonomous devolved authorities and for areas of policy making that are considered complex, such as environmental issues, genetic modification or experimental and potentially controversial methods of health care. However, in order to maximise the effectiveness of this model in other situations, the timeframe of the expert participative panel could usefully be shortened to allow a period for the implementation of its work within the same period as that of the elected government.

All of these factors are set in a background of innovative policy making which appears to have been reactive, rather than strategically planned, and which hints at a wider landscape of permissiveness and encouragement for innovation, within the Welsh Assembly Government, than has previously been documented.

CHAPTER 7. CONCLUSIONS

This chapter gives the conclusions of the case study into the Expert Panel on Resources Management for Wales (EPRM) which was conducted between April 2005 and April 2007. The chapter seeks to provide conclusions to the research problem presented in Section 1.2.1. The problem addressed is whether the EPRM process was a novel, repeatable and effective method for business to inform public policy, specifically in the area of business-environment policy making. The thesis seeks to determine whether the method was in itself as novel as it was first considered by its sponsors in the Welsh Assembly Government, whether it could be improved and perhaps repeated in other areas and, further, if it resulted in viable, sensible public policy recommendations that were the product of:

- a) A valid evidence base, and
- b) Credible public participation.

Section 7.1 draws conclusions about the use of public participatory groups and the suitability of the EPRM as a case study. In this section, the UK Government's nine competencies are used as a framework. This brings together the conclusions relating to whether the EPRM's work resulted in viable, sensible public policy recommendations. Section 7.2 goes on to make conclusions about the other parts of the research problem relating to novelty and repeatability.

7.1 The EPRM process and policy making

In setting the background for this research, the importance of climate change, resource scarcity and environmental pollution as motivation for businesses and individuals to change their behaviour were outlined; the reasons for issues such as these being led by government were explained. In considering the importance of such government led policies in post-devolution Wales, the case study of the Expert Panel on Resources Management appears at first sight to describe an innovative and exciting method for business to inform environmental policy.

A review of the literature, in Chapter 3, leads to the conclusion that public participation is increasingly considered to be a useful tool to inform policy making in complex areas, especially those where the public or key interest groups feel a degree of ownership, such as climate change or other environmental issues. Participatory groups are considered to be useful in reducing the technocratic impact on policy: reflecting social and practical considerations, as well as creating ‘ambassadors’ for new policy through this interaction.

7.1.1 Utilising the EPRM as a case study

In considering the impact of participation by business or by the public, the literature review uncovered many methods that have been described and studied from an academic and often theoretical point of view. However, the availability of the EPRM provided a rare opportunity to observe, take part in, and discuss the use of such methods in a practical situation with a set of practical aims.

The work of the EPRM appeared to be novel because this approach had never before been used by the Welsh Assembly Government, itself a relatively new form of non-autonomous devolved government in Europe. In addition, the Panel was not constrained by expectations from a pre-existing process or a generic protocol for group engagement which a similar panel, brought together by social scientists or political scientists, may have imposed. In fact, the work of the Panel and its study could be considered novel, innovative, complete, multi-disciplinary and reactive, making it an ideal candidate for qualitative case study.

In order to maximise the value of this opportunity, various qualitative and ethnographic methods, described in Chapter 4, were used to create a case study that included:

- The outcomes of facilitation of the EPRM process;
- Observations of the EPRM process in a wider context;
- Comparison of the process with that used traditionally; and
- Assessment of the effectiveness of the process and its outcomes to date.

The case study was successfully completed and the outcomes of the EPRM process are detailed in Chapter 5. Observations of the process in a wider context, a comparison of the process with that used traditionally, and an assessment of its effectiveness are contained in Chapter 6.

The EPRM was considered particularly suitable for use as a case study; in fact it could be described as an exemplary case study based on the criteria described in Section 4.2.4. The EPRM not only provided an opportunity to study a process that was novel in a national context but, further, it reflected a real-life situation that researchers had not previously had access to study in such detail. The research could be undertaken reactive to the Panel's timescale, rather than dictating it; and the inclusion of the researchers as part of the Panel process gave a further opportunity for completeness of research, through participant observation. As it was an alternative process to an existing, documented, traditional system, there were good opportunities for comparison between EPRM and traditional policy making. In addition, the variety of methods used (documentation, observation, survey and interview) meant that the evidence obtained was triangulated from a number of sources and analysed accordingly. Most of all, the EPRM represented an opportunity for an engaging case study because it was produced as a result of two years of enthusiastic involvement with a process, the outcome of which was of interest to the author as a citizen of Wales.

By studying the methods used by the Panel during its appointment and analysing the outcomes of the Panel's work, it was hoped to provide policy makers and potential expert participants with useful evidence regarding the practical considerations of using the expert participative model. As explained in Section 4.2.1, the case study of the EPRM contained elements of an intrinsic and of an instrumental study. As such, the information gathered in the study can be used to evaluate the work of the Panel retrospectively, and also to derive findings about using the expert participative model in a wider context. In addition, this case study has provided the groundwork on which further study can be conducted.

The literature on policy making and participation, discussed in Chapter 3, identifies a wide variety of factors as being important when analysing the effectiveness or

suitability of participative or policy making methods. However, there appears to be no single preferred or accredited method. In fact, there appear to be marked differences between those methods or factors considered important by authors from theoretical backgrounds and those considered important by policy makers and policy users.

7.1.2 EPRM as an effective policy making tool

Although the weight of literature suggests that the academic methods discussed are robust and useful, they are rarely if ever the primary mode by which policy makers in Wales measure the effectiveness of their methods. The language used in the Welsh Assembly Government guidance backs this up further; there is no inclusion of terms commonly used by academic policy researchers (such as 'normative', 'participatory', 'discursive', 'ethos' or 'pathos') suggesting that these are not familiar to the majority of policy makers at whom the guidance is aimed. The methods used by Welsh and UK policy makers include less easily quantified (potentially more subjective) criteria which have a political or social justification. This appears to be because the criteria are created specifically for the purpose of justifying the policy makers' work to the audience in question (the 'citizen') and that audience values social and political criteria. In making conclusions to answer the part of the research problem relating to the policy recommendations, any framework should be closely aligned with the criteria used by government to analyse any policy which is created as a result of the Panel's work.

The criteria set out by the UK Government Strategic Policy Making Team (SPMT, 1999), upon which all UK Government policy development should be based, are suitable for use in this context as a customised, fit for purpose system of criteria relevant to the policy making process. As Parsons (2007a) surmised, successful participation does not necessarily mean successful policy will result; so empirical analysis is required to determine the real effectiveness of the Panel.

While the SPMT model was not designed specifically for this type of assessment, its criteria are those under which the Welsh Assembly Government would assess the

success or otherwise of the Panel process. It is therefore fitting to use the headings from that model here, in the context of this thesis, to draw conclusions on the effectiveness of the EPRM policy making initiative. As described in Section 3.5 and summarised in Table 3.3, the criteria or theme headings are 'Vision', 'Effectiveness' and 'Continuous improvement'. Three competencies under each of these headings are considered and used to draw conclusions.

7.1.3 Theme: Vision

The competencies to be considered under this heading are whether the initiative was: forward looking, outward looking, and innovative and creative.

7.1.3.1 Competency: Forward looking

At the beginning of the Panel's work, and during the first year, the proposed outcomes of the Panel's activities were clearly defined, both through their terms of reference and also through their work programme. The Panel used a 'presencing' technique early in year two of their term, to determine what they hoped the outcomes of their recommendations would be by nominal timeframes of 2010 and 2030. They also wished to determine the outcomes of inaction. Compared to some policy processes, this was an informal procedure, having little basis on statistical trends or predictions, however the Panel did take on board statistical data where it already existed.

7.1.3.2 Competency: Outward looking

The Panel were outward looking in their work: examining best practice from outside of Wales, and outside of the UK. The Panel were subject to input from missions to Poland and Sweden, and Panel members had personal experience from England, Scotland, France and North America.

Communication of their work and the role of communication in improving the uptake of resources management were key considerations throughout the Panel's

term; communication was considered a key part of the Panel's final recommendations document 'Low Carbon Wales' (EPRM, 2007) as specifically set out in Objective E of that document.

7.1.3.3 Competency: Innovative and creative

This, perhaps more than any other, is the area where the Panel represented a more modern way of formulating policy and satisfied the criteria of effectiveness. The flexibility and independence given the Panel, as policy advisors, were at a level higher than traditionally used, and this is shown most strongly in that the Panel were able to set and agree their own terms of reference.

The EPRM, by its very nature, questioned the established rhetoric. It was considered a way for the Welsh Assembly Government to encourage new ideas and to open suggestions to others. The ways of working of the Panel (the expert participative model), through group methods such as brainstorming, are considered innovative in comparison to the traditional method, while the outputs of the Panel, although tempered by input from experienced Welsh Assembly Government officials, sought to identify all areas that impacted upon the resource efficiency of business, not just to consider business support. In questioning the accepted norms, the Panel's recommendations resulted in more controversial aspects, such as the formation of a cross-departmental working group with a dedicated budget, and a single absolute metric.

It can be concluded from the above that the Panel's methods were novel in their own right, as well as complying with the requirements under the theme 'vision' in modern policy making.

7.1.4 Theme: Effectiveness

The competencies to be considered under this heading are: whether the initiative was evidence based, inclusive and joined-up.

7.1.4.1 Competency: Evidence based

The Welsh Assembly Government's guidance on evidence recognises that policy making is complex and sometimes unpredictable, and that having a robust evidence base helps policy makers better to understand the potential impact of policy options and also to track progress and outcomes. A case has been made that the Panel's work can be considered both representative of the available information and valid, according to the Welsh Assembly Government's criteria for evidence, shown in Section 6.5.

The evidence uncovered through research, and used during the process, was supportive of the policy and was also targeted towards the citizen: specifically in this case towards business. Therefore the outcomes of the Panel's work, and in some cases its process, can be described and defended as evidence, suitable for supporting evidence based policy recommendations. The policy recommendations of the Panel were based on a wide swathe of evidence, both newly commissioned (the discussion and recording of the Panel's own experiences, the consultants' report on the performance of the BEAP and the presentations given by guest speakers in the field) and existing (evidence brought together by the Panel members and researchers). This evidence was not simply taken at its face value, but was also tested with stakeholders at workshops, meetings, through an internet-based consultation and a business questionnaire.

7.1.4.2 Competency: Inclusive

It is difficult to measure accurately how inclusive the Panel's policy recommendations actually are. Certainly, they were created with the needs of business people, businesses, other organisations and citizens in mind; through the consultation processes they involved many of the stakeholders, not least the existing business support providers. The Panel were also keen to gather experiences from those who were the recipients of, or deliverers of, previous policies.

The expert participative model appears to comply in many cases with the various requirements stated in the literature on the subject. The process gave access to the tools, training and resources required over a credible period of time; these resources are not available to other, less formal, types of participatory groups such as public meetings or consultation conferences. The more time intensive groups, such as joint decision making, conciliation or negotiation groups (being made up primarily of public sector decision makers, high level executives and legal professionals) are not as representative of a wider public or sector of society as were the Panel members. As already shown using Arnstein's typology, in Section 6.6.6.7, the EPRM seemed to take the middle ground in relation to the resources volunteered into the exercise and also in relation to the impact that it could have.

The group who initiated the Panel's work made no formal attempt to ensure the Panel's representativeness of the general population. Although no special effort was made to include representatives from minority groups, which could have been considered positive discrimination, the Panel did include male and female, black and white, and Welsh speaking representatives from different backgrounds. However, there is a limit to the level at which a relatively small group could have been truly representative of the Welsh population. All applicants to the Panel through the Nolan process could be described as 'elites': well educated, well resourced, middle aged individuals in full time employment, or comfortable retirement.

The Nolan process also added credibility to the Panel's work as public participation. While the Nolan Committee was not set up specifically with public participation groups in mind, the seven principles of public life that the Committee adopted: selflessness, integrity, objectivity, accountability, openness, honesty and leadership, can be considered as valuable to any type of decision making group. By adhering to these principles during both its appointments phase and its day to day work, the Panel maximised its independence and legitimacy in the eyes of the wider public and also of the Welsh Assembly Government.

It is therefore reasonable to conclude that the Panel's work can be considered a legitimate process of public participation, albeit the participation of an interested

public. As long as any recognition of the model takes account of the potential limitations that this posed, it should be possible to replicate the process.

7.1.4.3 Competency: Joined-up

The Panel took a holistic view throughout their work, and were able to do this because most were unfamiliar with the unspoken institutional boundaries that existed prior to their becoming Panel members. In being single-minded about their vision to 'inspire businesses to become increasingly resource efficient' the Panel often suggested changes to institutional arrangements if these would lead to improved delivery of support or would reduce the barriers faced by business; the recommendations in 'Low Carbon Wales' (EPRM, 2007), particularly Objective A, are obvious examples of this. The way in which Panel members made efforts to share their thoughts and recommendations with as wide a group as possible, from early 2006 through to the end of the process, also points towards a high level of functional, joined-up working.

In the latter stages of its work the Panel considered the five objectives mentioned in the 'Low Carbon Wales' document to be cross-cutting, not only across the structure of decision making organisations but also across their major themes of 'Energy' and 'Materials'. A further aspect of the joined-up, holistic approach that was key to the Panel's thinking was its understanding and consideration of sustainable development. All Panel members made an effort to consider not only the economic and environmental impacts of their recommendations, but also the social aspects.

It can be concluded from the above that the Panel's methods resulted in a valid evidence base and credible public participation. Using the criteria from this theme, the work of the Panel was effective.

7.1.5 Theme: Continuous Improvement

The three competencies to be considered under this heading are the Panel's capacity for review, for evaluation and for lessons to be learnt.

7.1.5.1 Competency: Review

Two subjects can be considered here: firstly, the Panel's review of the existing policy, BEAP, and other policies around the UK, Europe and the world; secondly, the review of the Panel's policy recommendations.

The Panel was integral in the commissioning of the evaluation report into the past and present performance of the BEAP by third party consultants. This was a key part of the Panel's terms, and the findings of this evaluation informed the Panel's final recommendations. However, the Panel had mixed levels of confidence in some areas of the review, and the Panel's documents did not specifically state how their recommendations would overcome shortfalls in the BEAP, or suggest how positive experiences from BEAP should be built into future policy.

The Panel did identify as part of their work, and include as an appendix in 'Low Carbon Wales' (EPRM, 2007), a methodology for the delivery of their process which included an aspect of monitoring and review. Due to the chosen structure of this final document, detailed aspects of the monitoring and review process were not published but it was agreed that these details would be passed on to policy development officials should the process be adopted by the Welsh Assembly Government.

7.1.5.2 Competency: Evaluation

Although the final published document of recommendations omitted detailed aspects of monitoring and evaluation, the Panel had been keen that these would be built into the policy process as a way of ensuring feedback into the process. This was to be expected; as third party individuals, often used to working within a business-led project management system, the process of evaluation and feedback programmes was familiar to them, and often ingrained as standard practice.

However, the final version of the Panel's document did not include this level of evaluation, as it was considered to be outside of the remit of the Panel by the policy officials of the Welsh Assembly Government who had commissioned the Panel's work.

7.1.5.3 Competency: Learns lessons

This is an area that would perhaps have been incorporated into the process if the Panel had been able to progress with their policy recommendations further, rather than presenting them to the Minister prior to the Policy Integration Tool stage, as shown in Fig. 6.1. Without greater input by the Panel into the detailed delivery of the process, how lessons learnt would be captured and used for other policies cannot be speculated.

It can be concluded from the above that the Panel's work constituted some success under the theme 'continuous improvement'; however this is difficult to judge until the Panel's recommendations have been implemented.

7.1.6 Conclusions on the EPRM process

The analysis in Chapter 6 concluded that the EPRM process was a legitimate process of public participation, albeit that it involved an interested public, and that it created evidence based recommendations. Using this data and evaluating it in terms of the SPMT criteria, as above, it can also be concluded that the EPRM model of public participation does result in effective recommendations that could inform policy making, and that the potential for the policies which result to be adopted and effective is high. However, much of the final policy outcome relies on the policy development teams within government, and so the greatest fit is seen under the theme headings of 'Vision' and 'Effectiveness'.

7.2 The expert participative model

What appears to have made the work of the EPRM distinctive, and novel, was its ability not only to provide a method for businesses to inform decision making directly (which it could be argued is already provided by organisations such as the Confederation of British Industry (CBI, 2007) and Federation of Small Business (Start, 2007)), but also to allow a group of business representatives to be decision making in its own right. In this way, the Panel could add value to the traditional Welsh Assembly Government policy making procedure through direct influence and the status of the group as a 'trusted advisor'.

It appears that the expert participative model used by the Panel is particularly useful in soliciting views where decisions will directly affect business, being able to predict stakeholder (i.e. commerce or industry) reactions which would otherwise be outside of a decision maker's sphere of knowledge. It is notoriously difficult for public policy makers to engage business early in the decision making process in a successful and fruitful manner. The expert participative model, as typified by the EPRM, appears to overcome this barrier as well as having another effect; it fosters ownership by representatives of business and industry of those decisions made on their behalf. Some factors about why this is considered difficult were explained in Section 3.8.3.

Although the methods used for group discussion with facilitation are likely to be transferable to any similar task, they are particularly suited to a business and/or public sector group familiar with such disciplined ways of working. In addition, a business-led panel is likely to recognise much more quickly the importance of strict adherence to the procedures that give it validity and credibility. The subject of replication or transference of this process to other policy making situations has been broached in Section 6.9 and, as stated there, little reason exists to think that the process could not be repeated in a similar non-autonomous state. However as a largely intrinsic case study, further research would be needed to verify this situation.

The subject of trust and, more generally, the group dynamics are of key importance when considering repetition, and should not be discounted as factors of success for

any panel. Much of the success of the EPRM was due in no small part to working relationships within the Panel, created during their early meetings, and the advocacy of the Chair, ex-officio members, and the researchers when they joined after the first year.

The delay in the formal recognition of the Panel's work to date means that no conclusion can be made directly about the issues of credibility and bias. However, the indirect and informal impacts of the Panel and its work show that it is considered to be credible by groups outside of the Welsh Assembly Government and also by individuals within the Civil Service. Of the outputs mentioned in Section 6.7, some are seen directly in policies created by, and adopted by, business. In addition, the Panel members (in reflective interview) considered the Panel process to have provided them with a useful education in the process of policy making by the Welsh Assembly Government, allowing them to become more effective participants in future consultation or lobbying. This is a further reminder that a level of power for the implementation of policies exists outside of government, and that an expert panel such as this can inform and perhaps affect implementation on a wider scale than just through the recognised channels of formal elected government.

The use of a brief to identify targets and the provision of time and resources are particularly important to any expert panel; this was certainly true with the EPRM. Without targets, there would have been no focus or motivation for the Panel members and the initiative would very likely have become a 'talking shop' that only discussed existing views. Time and project management experience are additional factors that made the expert participative model so suitable for business input. Given a similar brief and the ability to write their own terms of reference, there is the likelihood that any similar panel would only produce highly controversial suggestions with no evidence base or ability to deliver if they did not have project management experience and a pragmatic approach (as provided by the business representatives of the Panel).

Many of the factors used to deliver the EPRM could be repeated and used on a wider scale, as suggested in Section 6.9. This conclusion is conditional on the

assumption that any expert panel put in place sits within a landscape where policy making is considered important, as is found in non-autonomous governments where legislative powers are limited and policy making is considered highly important, and that resources are given to the panel to help them to complete their work.

In summary the process is novel and repeatable, with certain caveats. The work of the Panel resulted in viable, sensible public policy suggestions, many of which are being implemented within both the public and private sector. This is to be expected because the Panel's work constituted credible public participation and created, and used, a valid evidence base.

7.3 Limitations of the study

This study has resulted in some interesting and useful findings, not least of which are the Panel's recommendations for policy. However, the process is not without its limitations.

First of the limitations is that the body of research for the Panel, and about the Panel, started one year into the Panel's work. This in turn meant that this course of investigation had no input into the membership of the Panel, which may otherwise have addressed some of the issues relating to its representativeness. Entering into the process after the first year of the Panel's work also posed limitations on the level and type of study that could be undertaken by the author. By the end of the first year a certain amount of the Panel's group dynamics had been set and it was difficult to determine the basis behind such relationships without any level of prior observation.

Further to this, reflective interviews with all Panel members could not be achieved. Although all members were invited to participate in interviews, or failing that to take part in telephone interviews or to complete questionnaires, some did not respond.

Using the guide criteria produced by the UK Government, and adopted by the Welsh Assembly Government, analysis concludes that the EPRM process was

innovative and had vision. In addition it was effectively joined-up and inclusive, with a high potential to 'learn lessons'. However, this last factor relies heavily on the policy recommendations being made into policy by decision makers and this has yet to come to pass. Although the early signs are good (the Panel has indirectly influenced a high number of studies, policy documents and other organisations), the reality of whether the Panel process is an acceptable alternative to the more traditional representative democratic process of policy making, and palatable to the bureaucratic Civil Service, has yet to be proven. This study has successfully shown that public participation methods can be used to create policy ideas in Wales, but it has also demonstrated the need for a decision maker to accept them formally and to implement them. This is where the EPRM process was least effective, and where it could be considered to have lost an element of credibility as far as the Panel members were concerned.

In evaluating these potential limitations, it could be argued that they are not all necessarily negative issues, but in fact add a level of credibility to the outputs. The discussion and analysis described in this thesis are based on real-life observations without the controls or artificial environments that are often associated with academic study. While the presence of the researchers will have had some impact on the final outcomes of the Panel, their contribution has been considered an active part of the Panel's work during the analysis, rather than an element to be accounted for and removed in order to normalise the data. Without the pre-existing reason for the Panel, and the timeframe and objectives set by decision makers rather than academics, it is likely that the same high levels of legitimacy would not have been achieved, nor would the same level of effort have been made by the Panel.

7.4 Ongoing and future work

The activity of the researchers, post-EPRM, provided a further aid to the Panel's recommendations being put into practice. The researchers were able to take the evidence based recommendations, which they were party to during their time with the Panel, and make use of those recommendations in their new roles.

The researchers new roles included input to, and implementation of: the Microgeneration Action Plan for Wales; the Climate Change Commission for Wales; the Sustainable Development Commission's 'Low Carbon Region' project for the Wales Spatial Plan; the Green Jobs Strategy; the Sustainable Development Commitment of the University of Wales; the Education for Sustainable Development and Global Citizenship activities within Swansea University; and the Technium Sustainable Technologies business incubation process.

Their work with the EPRM proved an excellent basis for the researchers' chosen field of work; it gave them a body of experience, and a quality and breadth of knowledge in the fields of resource management and sustainable development. As a result of their work during the two years of facilitation of the Panel, the researchers were able to use their experience to inform a similar expert panel brought together to inform a regional Knowledge Economy Strategy (Davies *et al.*, 2007).

Finally, a further programme of research has been agreed; that research programme will continue to observe, examine and analyse the progress of the Panel's recommendations for a maximum of three years from the date on which the Panel handed their recommendations to the Minister for Enterprise, Innovation and Networks. This should allow conclusions to be drawn regarding the further reaching and longer lasting impact of the Panel's work.

APPENDICES

SCHEDULE OF APPENDICES

Appendix A. Explanation of the criteria used in the SPMT document, Professional Policy Making

Appendix B. Note on typical meeting practice

Appendix C. Timetable of activities undertaken during the course of the Panel's work

Appendix D. List of outputs of the EPRM project

Appendix E. Stimulus materials used in Panel meetings

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- Meeting B
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- Meeting M
- Meeting First Minister
- Meeting Andrew Davies
- Meeting WAG consultation

Appendix F. Questionnaire for reflective interviews

APPENDIX A

Full list of criteria under the SPMT headings

PROFESSIONAL POLICY MAKING – CORE COMPETENCIES

Forward looking – takes a long term view, based on statistical trends and informed predictions, of the likely impact of policy

Outward looking – takes account of factors in the national, European and international situation and communicates policy effectively

Innovative and creative – questions established ways of dealing with things and encourages new ideas; open to comments and suggestions of others

Using evidence – uses best available evidence from a wide range of sources and involves key stakeholders at an early stage

Inclusive – takes account of the impact on the needs of all those directly or indirectly affected by the policy

Joined up – looks beyond institutional boundaries to the Government's strategic objectives; establishes the ethical and legal base for policy

Evaluates – builds systematic evaluation of early outcomes into the policy process

After SPMT (1999) Figure 4.

APPENDIX B

Note on general meeting practice

The meetings followed a set pattern, both during the first year and afterwards. In order to make the process as useful but also familiar as possible to the group members, the meetings were structured as business meetings with a Chair, secretary and structured agenda and key 'business' that needed to be addressed that day.

Before the official start to the meeting, the Panel members would talk informally and have refreshments, during this time the Chair would try to speak with all Panel members. Prior to the meeting commencing, the Researchers would use this time to set up a presentation or pass around papers. They may also speak with Panel members informally about issues, or even personal matters, towards the end of the Panel's work when most were more familiar with each other.

Prior to the meeting, the Secretariat would have circulated any papers or presentations electronically to the group, and also printed out copies for members to refer to during the meeting.

During the meeting, the Panel would sit around three sides of a board room style table, with the Chair placed centrally and the Secretariat next to them and the screen for presentations on the fourth side.

During the early meetings members had name cards on the meeting table, but once the group were more familiar with each other (after meeting 6) these were no longer required.

The Chair would start the meeting using a standard agenda format; welcome, apologies, introductions, minutes of previous meeting checked for accuracy and content by page and then go through the agenda of the day. All members had opportunity to comment on the minutes prior to the meeting and also add to the agenda if they felt necessary, so this part of the meeting was often short.

The Panel had a strict timetable in which to deliver their recommendations, and this was often reiterated during the Panel's meetings in order to focus effort. Matters arising from the previous meeting were often included in the agenda, so were rarely discussed.

The meeting format that was adopted became standardised; each meeting started with input from the previous meeting, stimulus materials were shown and then discussed. The Panel would then deliberate, with the aim of resulting in either consensus or discourse. The meeting would be concluded with the research and discussion areas, as well as forward work plan for the next two meetings being agreed.

Sample agenda from a Panel meeting

Expert Panel on Resources Management

Date: 10th August 05

Time: 11:00am – 3:00pm

Venue: Conference Room 1, Welsh Assembly

Government Building, Cathays Park, Cardiff

Item 1: **Introduction and Apologies**

Item 2: **Agree Minutes of 22June and Matters Arising**

Paper: EPRM 03-05 Minutes

Item 3: **Feedback from Steering Group Meeting**

Presentation from Marc Clement

Item 4: **Summary of Work - Task and Finish Groups**

Presentation by Louisa and Gavin

EPRM 04-05 (p1)

EPRM 04-05 (p2)

Break: At approximately 12:15pm for 30 minutes

Item 5: **Discussion of Summary of Work**

Break: At approximately 2:15pm for 15 minutes

Item 6: **Discussion of 'Communications' against**

Summary of Work

Item 7: **A.O.B**

APPENDIX C

Timetable of activities undertaken by the researchers during their two years with the Panel

Date	Work undertaken
Apr-05	Dr Gavin Bunting commences contract Louisa Huxtable commences contract Panel meeting (A) - research agenda provided by Panel Individual meetings with Panel members and BEAP delivery partners
May-05	Individual meetings with Panel members and BEAP delivery partners Rationalise research priorities Create timetable for work Produce stimulus materials for next Panel meeting
Jun-05	Pre-meeting with Chair and secretariat Panel meeting (B) Sub-group meeting - Materials Sub group meeting - Energy Widen and complete evidence base
Jul-05	Rationalise ranking results from Panel members Prepare stimulus materials for next Panel meeting (C). Commenced work on desk study report Pre-meeting with Chair and secretariat
Aug-05	Panel meeting (C) Continue research Prepare stimulus materials for sub-groups Co-ordinate sub-group meetings Complete and send out desk study report
Sep-05	Sub-group meeting - Materials Sub-group meeting - Energy Organise findings from sub-group meetings for the Chair Edit and re-send out desk study report
Oct-05	Pre-meeting with Chair and secretariat Update and send out timetable for work Further research into key areas identified by Panel

- Prepare stimulus materials for next Panel meeting (D).
- Nov-05 Pre-meeting with Chair and secretariat
Collate and structure tables of findings to date
Pre-meeting with Chair and secretariat
Create structure for the strategic recommendations
Pre-meeting with Chair and secretariat
Prepare stimulus materials and information documents for next Panel meeting (E)
- Dec-05 Panel meeting (E)
Prepare first draft of recommendations document based on meeting
Undertake new research to inform Panel members
Prepare stimulus materials for next Panel meeting (F)
- Jan-06 Panel meeting (F)
Redraft recommendations documents
Update evidence base document
- Feb-06 Update evidence base document
Continue research into key areas requested by the Panel
Prepare stimulus materials for meeting with senior policy officials with WAG
Meet with senior policy officials
Prepare stimulus materials for next Panel meeting (G)
- Mar-06 Panel meeting (G)
Amend recommendations documents
Coordinate sub-group meetings
- Apr-06 Prepare information and stimulus materials for sub-group meetings
Sub-group meeting - Demand
Sub-group meeting - Supply
Collate information from sub-groups for the Chair
Second meeting with senior policy officials from WAG
- May-06 Pre-meeting with Chair and secretariat
Prepare stimulus materials for next Panel meeting (H)
Panel meeting (H)
Initial amendments to the recommendations document to produce a consultation

Jun-06	<p>Prepare and submit academic paper for conference in Cardiff</p> <p>Email co-ordination of amendments to the consultation document</p> <p>Preparation of stimulus materials for next Panel meeting (I)</p>
Jul-06	<p>Pre-meeting with Chair</p> <p>Preparation of further stimulus materials for next Panel meeting (I)</p> <p>Panel meeting (I)</p> <p>Co-ordinate and send out the consultation document</p> <p>Co-ordinate and arrange workshops</p>
Aug-06	<p>Prepare and submit paper for conference</p> <p>Collect and collate responses to the consultation document</p> <p>Continue research into key areas of activity recommended by the Panel</p>
Sep-06	<p>Pre-meeting with Chair and secretariat</p> <p>Prepare stimulus materials for next Panel meeting (J)</p> <p>Panel meeting (J)</p>
Oct-06	<p>Re-draft recommendations document, now entitled 'Strategic Recommendations'</p> <p>Commence draft of more detailed document, entitled 'Detailed Recommendations'</p> <p>Preparation of presentation for Ministerial meeting</p> <p>Meeting with Minister for Enterprise, Innovation and Networks</p> <p>Collate response from the Minister for the Panel</p> <p>Prepare stimulus materials for the next Panel meeting (K)</p> <p>Panel meeting (K)</p>
Nov-06	<p>Re-draft both documents as a result of feedback from Panel meeting K</p> <p>Preparation of stimulus materials for the next Panel meeting (L)</p>
Dec-06	<p>Panel meeting (L)</p> <p>Amendments to draft documents - collated into a single document</p> <p>Preparation of stimulus materials for the First Minister's meeting</p> <p>Meeting with the First Minister</p>
Jan-06	<p>Amendments to the recommendations document, now entitled 'Low Carbon Wales'</p> <p>Preparation of stimulus materials and feedback to the Panel for next meeting (M)</p>

Panel meeting (M)

- Feb-06 Collate feedback from Panel meeting and emails for final version
Prepare 'Low Carbon Wales' for print and publication
Prepare website text
- Mar-06 Prepare publicity and launch information for the publication
Prepare research and evidence basis for scrutiny as a result of publication
Prepare distribution lists for Low Carbon Wales document.
- Apr-06 Final preparations for publication
Attend launch
Prepare and submit paper for conferences

APPENDIX D

List of outputs of the EPRM project

Year 1

- 1 timetable
- 1 terms of reference (4 aims)
- 1 annual report
- 1 map of policy areas
- 2 characterisation diagrams of the resources management field

Years 2 and 3

- 14 areas for research, under the headings materials, energy and communications
- 2 themes
- 8 subthemes
- 8 cross cutting themes
- 129 areas of influence
- 180 detailed recommendations
- 40 long term objectives
- 24 short term objectives
- 11 common areas
- 1 cross cutting government structure
- 1 consultation document (15 responses)
- 1 questionnaire undertaken by Business Environment Co-ordinators (8 responses)
- 1 workshop for business support providers
- 12 priority actions
- 5 holistic strategic recommendations
- 1 presentation to the Minister for Enterprise, Innovation and Networks (Wales)
- 1 presentation of the First Minister of Wales
- 1 strategic recommendations document
- 1 launch
- 3 press releases
- 2 web pages

APPENDIX E – Stimulus materials used by the researchers

Meeting A

Meeting B

Meeting C

Meeting D

Meeting E

Meeting F

Meeting H

Meeting I

Meeting J

Meeting L

Meeting M

Meeting First Minister

Meeting Andrew Davies

Meeting WAG consultation

APPENDIX F

Questions used for reflective interview

The interviewer met with EPRM members individually, one year after last meeting. This delay was to allow a period after the final submission of the panel's work for its progress through government to start, in order for Panel members to state their feelings about the way that the Panel's work had been dealt with.

- Interviewees were met individually
- Interviews were recorded for accuracy purposes. Some interviewees chose to answer the questions electronically, due to time constraints.
- Interviews lasted between 1 and 2 hours.

Questions

1. Have you taken part in a Nolan Committee before?
2. How did you find the interview process?
 - a. Do you feel that your views were widely representative of business?
3. Do you consider that the work of the Expert Panel was useful?
 - a. Please answer carefully stating reasons
4. What was your particular agenda in agreeing to take part in the Panel's work? Did your employer encourage you to take part?
5. Did you find that the addition of the researchers in the second and third years assisted the work of the panel?
 - a. Did you feel that the research input influenced the Panel's decision making i.e. added an additional dynamic? Was it positive or negative?
6. Did you find the facilitation techniques used for reaching consensus or stimulating debate were useful?
7. Do you think that the facilitation techniques affected the final decisions that were made, i.e. through bias or interest?
8. Were you pleased with the final recommendations document that was presented to the Minister?
9. Did you feel that you were able to express your views during meetings or one-to-one sessions, or via other mediums
10. Did you feel that your views were taken into account fully during the process?

11. Do you feel that your views were affected by taking part in the panel processes? Have your opinions on any particular aspect been changed/affected?
Did you feel that the dynamic/relationships between Panel members was effective?
12. Do you feel that the EPRM process was useful in providing government with views on resource efficiency representative of business, and suitable for business to comply with?
13. Was there a sector or area missing from the panel?
14. Did you undertake research into the area prior to becoming part of the panel? Or prior to specific meetings?
15. At any time was there a conflict of interest that may have affected your work on the panel?
16. Was the assistance of Assembly Government staff useful?
How? OR Why not?
17. Would you have preferred meetings without Assembly Government staff?
18. As part of the EPRM process, do you feel that you made a difference to Welsh Assembly Government policy?

Questions specific to the civil servants involved with the Business and Environment Action Plan or Microgeneration Action Plan

- a. How many people worked on the team to produce this plan?
- b. What was the protocol that you went through? Did you use the Policy Gateway or a similar process?
- c. How significant was the Scoping Report in formulating the policy?
- d. How significant were the 9 competencies drawn up by the Strategic Policy Making Team in creating this report?
- e. Was there a steering group
- f. How does the minister's input affect the process?
- g. Was there enough expertise available to deliver the process effectively?
- h. How is further research obtained?
- i. Would research input be useful
- j. Do you feel that it is representative of the client / targeted stakeholders?
- k. What are useful factors for this process?
- l. What factors are missing?
- m. What would you add?

- n. Is it representative of the client/ targeted public?
- o. Is participation valued in the process?
- p. How long did the process in question take?
- q. How long does the policy making process generally take?

REFERENCES

- Ahmed, R. (2005). Public participation in the recycling programme in Malaysia; Petaling Jaya as a case study. Leeds: Ph.D. Thesis.
- Ananda, J. (2007). Implementing participatory decision making in forest planning. *Environmental Management*, 39, 534-544.
- Arnstein, S.R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216-224.
- Barbagallo, F. (2003). Public participation and controversy involving science: an Irish perspective. Dublin: Ph.D. Thesis.
- Begon, M., Mortimer, M. and Thompson, D.J. (1996). *Population ecology. A unified study of animals and plants. (3rd ed.)*. London: Blackwell Publishing.
- Birkland, T.A. (2001). *An introduction to the policy process: theories, concepts and models of public policy making*. Armonk, N.Y.: M.E. Sharp.
- Blair, A. (2004). Speech to the Prince of Wales' Business and Environment Charity: 14 Sept 2004. G8 Gleneagles New Website. [Online]. Available from:
<http://www.g8.gov.uk/servlet/Front?pagename=OpenMarket/Xcelerate/ShowPage&c=Page&cid=1078995903270&aid=1097485779120> [Accessed: 01/11/2008]
- Blair, A. (2005). UK Presidency - Priorities as set out by the UK Prime Minister to the European Parliament: 23 June 2005. EU Presidency of the EU 2005 website. [Online]. Available from:
<http://www.eu2005.gov.uk/servlet/Front?pagename=OpenMarket/Xcelerate/ShowPage&c=Page&cid=1119518580438> [Accessed: 01/11/2008]
- Boaz, A. and Ashby, D. (2003). Fit for purpose? Assessing research quality for evidence based policy and practice. *ESRC UK Centre for evidence based policy and practice: Working Paper 11*.
- Booth, C. (1902-1903). *Life and labour of the people in London*. London: MacMillan.
- Bostrom, A. and Lashof, D. (2007). Weather or climate change? In: Moser, S.C. and Dilling, L., (Eds.), *Creating a climate for change: communicating climate change and facilitating social change*. Cambridge: Cambridge University Press.

Braun, K. and Schultz, S. (2007). Pure publics and embodied expertise. Privileged forms of publics in the policy area of genetic testing. *In the Proceedings of the 4th Annual ECPR General Conference, Pisa, September 2007.*

Bryman, A. and Bell, E. (2007). *Business research methods*. Oxford: Oxford University Press.

Bunting, G., Huxtable, L.A. and Clement, R.M. (2006). Strategic solutions for resource efficiency. *Paper presented to the 13th International Greening of Industry Network (GIN) Conference, Cardiff, July 2006.*

Burton, P. (2006). Modernising the policy process: making policy research more significant? *Policy Studies*, 27(3), 173-195.

Cabinet Office (2002). The Ministerial Code: 2002. [Online]. Available from: http://www.cabinetoffice.gov.uk/media/cabinetoffice/propriety_and_ethics/assets/ministerial_code_current.pdf [Accessed: 12/10/08]

Calef, D. and Goble, R. (2007). The allure of technology: how France and California promoted electric and hybrid vehicles to reduce urban air pollution. *Policy Sciences*, 40, 1-34.

Carr, D.S., Selin, S.W. and Schuett, M.A. (1998). Managing public forests: understanding the role of collaborative planning. *Environmental Management*, 22 (5), 767-776.

Chestney, N. (2008). Voluntary carbon offsetting not yet crisis victim. *Reuters*, Oct 15 2008.

Christchurch City Council (2002). Target zero case study: Christchurch City Council paper reduction project. [Online]. Available from: <http://www.waimakariri.govt.nz/services/waste/Business%20Efficiency/14.%30CaseStudy%20-%20CCC%20Paper%20Reduction.pdf>. [Accessed:10/10/08]

Clement, R.M. (2008). Presentation to senior higher education staff in Wales. 21st May 2008. Wales Millennium Centre, Cardiff.

Coleman, W.D. (1985). Analyzing the associative action of business: policy advocacy and policy participation. *Canadian Public Administration*, 28, 413-433.

- Confederation of Business and Industry (CBI) (2007). *Climate change: everyone's business. Report of the CBI climate change task force*. CBI.
- Crow, A.J. (2005). The influence of councillors' attitudes towards local representation and public participation on the nature of local politics. Birmingham: Ph.D. Thesis.
- Cuello Nieto, C. (1997). Towards a holistic approach to the ideal of sustainability. *Phil. & Tech.*, 2:2 Winter 1997.
- Dahl, R.A. (1989). *Democracy and its critics*. New Haven, CT: Yale University Press.
- Davies, G.H., Huxtable, L.A., Abbey, J.V. and Bunting, G. (2007). Using experts in the identification of challenges to the development of Regional Knowledge Economy. *In the Proceedings of the 6th International Conference on Quality, Reliability and Maintenance, Oxford, March 2007*.
- de Graaf, J., Wann, D. and Naylor, T.H. (2001). *Affluenza: the all-consuming epidemic*. San Francisco: Berrett-Koehler Publishers.
- Deacon, R.M. (2002). *The governance of Wales: the Welsh Office and policy process 1964-1999*. Cardiff: Welsh Academic Press.
- Doyle, A. (2008). Evidence of warming growing day by day – Pachauri. *Reuters, Oct 7 2008*.
- Dryzek, J.S. (1990). *Discursive democracy: politics, policy and political science*. New York: Cambridge University Press.
- Energy Saving Trust (no date). Energy saving lightbulbs and fitting. [Online]. Available from: [http:// www.energysavingtrust.org.uk/Energy-saving-products/Energy-saving-lightbulbs-and-fittings](http://www.energysavingtrust.org.uk/Energy-saving-products/Energy-saving-lightbulbs-and-fittings). [Accessed:10/10/08]
- Enviros Consulting (2006). *Business and environment action plan: evaluation of impact and delivery*. Enviros.
- Estonian Ministry of Environment (2005). Estonian national strategy on sustainable development: sustainable Estonia 21. Estonia.
- Expert Panel on Resources Management (EPRM) (2005). *Expert Panel on Resources Management for Wales: First Annual Report*. Cardiff: Welsh Assembly Government.

Expert Panel on Resources Management (EPRM) (2006). *A strategy to improve the resource efficiency of organisations in Wales. A consultation*. Swansea: EPRM and Swansea University.

Expert Panel on Resources Management (EPRM) (2007). *Low carbon Wales: to improve resource efficiency in Wales*. Cardiff: Welsh Assembly Government.

Geertz, C. (1973). Thick description: toward an interpretive theory of culture, in: *The interpretation of cultures: selected essays* (pp. 3-30). New York: Basic Books.

Gill J. and Johnson P. (2002). *Research methods for managers*. London: Sage.

Gouldner, A.W. (1954). *Patterns of industrial bureaucracy*. Glencoe, Ill: Free Press.

Government Social Research (no date). Evidence checklist: twenty questions to ask when planning evidence requirements. In: "Why does evidence matter?" [Online]. Restricted access document on the Welsh Assembly Government Intranet. [Accessed: 12/07/08]

Greenbaum, T.L. (1998). *The handbook for focus group research*. Thousand Oaks: Sage Publications.

Gu, L. and Sheate, W.R. (2005). Institutional challenges for EIA implementation in China: a case study of development versus environmental protection. *Environmental Management*, 36(1), 125-142.

Haller, S.F. and Gerrie, J. (2007). The role of science in public policy: higher reason, or reason for hire? *Journal of Agricultural and Environmental Ethics*, 20, 139-165.

Hampton, G. (1999). Environmental quality and public participation. *Policy Sciences*, 32, 163-174.

Hampton, G. (2004). Enhancing public participation through narrative analysis. *Policy Sciences*, 37, 261-276.

Harmon, M.D. (2006). Affluenza: a world values test. *International Communication Gazette*, 68 (2), 119-130.

Hawkesworth, M. (1988). *Theoretical issues in policy analysis*. Albany, NY: State University of New York Press.

Hendriks, C.M. (2005). Participatory storylines and their influence on deliberative forums. *Policy Sciences*, 38, 1-20.

Holder, J. and Lee, M. (2007). Public participation in decision making. In: J. Holder and M. Lee (Eds.), *Environmental Protection, Law and Policy*, (2nd ed.) Cambridge: Cambridge University Press.

Houghton, J. (2004). *Global warming: the complete briefing*, (3rd ed.). Cambridge: Cambridge University Press.

Houghton, J. (2005). *Second report of session 2005-06. The economics of climate change*. Report to the House of Lords Select Committee on Economic Affairs. London: The Stationery Office.

Huxtable, L.A., Bunting, G., Clement, R.M. and Probert, E.J. (2006). Identifying strategies for efficient resource management by businesses in Wales. *In the Proceedings of the Corporate Responsibility Research Conference, Dublin, September 2006*.

Huxtable, L.A., Bunting, G., Clement, R.M. and Probert, E.J. (2007). Public participatory policy making in Wales - case study of the Expert Panel on Resources Management. *In the Proceedings of the 4th Annual ECPR General Conference, Pisa, September 2007*.

INCO (2004). *Good neighbours: INCO 2004 social responsibility summary report*. Clydach: INCO.

Intergovernmental Panel on Climate Change (IPCC) (2007). Climate change: the fourth IPCC assessment report. [Online].

Available from: <http://www.ipcc.ch/ipccreports/index.htm> [Accessed: 01/10/08]

Jaeger, C.C., Kasemir, B., Stoll-Kleemann, D., Schibli, D. and Dohinden, U. (2000). Climate change and the voice of the public. *Integrated assessment*, 1, 339-349.

Khan, A.A. (2002). Public participation in environmental impact assessment in the developing and developed worlds: Pakistan and UK perspectives. Manchester Metropolitan: Ph.D. Thesis.

Kelly, C. (2006). Environmental management and sustainable development: business balls. [Online]. Available from: <http://www.businessballs.com/environmentalmanagement.htm> [Accessed; 25/09/08].

Keung, J.K.-Y. (1991). Public participation in planning in developing countries. Cardiff: Ph.D. Thesis.

Kitzinger, J. and Barbour, R.S. (1998). Introduction: the challenge and promise of focus groups. In: J. Kitzinger and R.S. Barbour, (Eds.), *Developing focus group research* (pp 2-4). London: Sage.

Klein, G. K., Smith, N.C. and John, A. (2004). Why we boycott: consumer motivations for boycott participation. *Journal of Marketing*, 68(3), 92-109.

Kooiman, J. (Ed.) (1993) *Modern Governance*. London: Sage.

Korfmacher, K.S. (2001). The politics of participation in watershed modelling. *Environmental Management*, 27 (2), 161-176.

Lovelock, J. (2000). *Gaia: a new look at life on earth*. Oxford: Oxford University Press

Meadows, D.H., Meadows, D.L., Randers, J. and Behrens, W.W. (1972). *The limits to growth*. New York: Universe Books.

Mickwitz, P., Melanen, M., Rosenstrom, U. and Seppala, J. (2006). Regional eco-efficiency indicators - a participatory approach. *Journal of Cleaner Production*, 14, 1603 – 161.

Morgan, D.L. (1997). *Focus groups as qualitative research*. (2nd ed.). Thousand Oaks: Sage University Papers.

National Assembly Advisory Group (1998). *Recommendations*. Cardiff: NAfW.

National Assembly for Wales (NAfW) (1999). *Starting to live differently. The sustainable development scheme of the National Assembly for Wales*. Cardiff: NAfW.

National Assembly for Wales (NAfW) (2006). Cabinet Written Statement: Business and Environment Action Plan for Wales - Third Annual Report 2005-06. Andrew Davies, Minister for Enterprise, Innovation and Networks. 9 August 2006.

National Assembly for Wales (NAfW) (2007). *One Wales: a progressive agenda for Wales*. Cardiff: NAfW.

National Conference of State Legislatures (2004). [Online]. Available from: www.ncsl.org/programs/energy/glossary.htm [Accessed: 01/04/06]

Nelson, C.W.P. (2005). 'Enhanced' public participation and the involvement of the general public of Salisbury in the south west area multi modal study: an assessment of Labour's modernised approach to better decision making. Aberdeen: Ph.D. Thesis.

Noble, B.F. (2006). *Introduction to environmental impact assessment: a guide to principles and practice*. Oxford: Oxford University Press.

Nolan Committee (1996). *First Report on Standards in Public Life*. Volume 1: Report Cm 2850. London: The Stationery Office.

Nunneri, C. and Hofmann, J. (2005). A participatory approach for integrated river basin management in the Elbe catchment. *Estuarine Coastal and Shelf Science*, 62, 521 -537.

Nutley, S.M., Davies, H.T.O. and Walter, I. (2002). Evidence based policy and practice: cross sector lessons from the UK. *ESRC UK Centre for Evidence Based Policy and Practice, Working Paper 9*.

Nutley, S. M., Davies, H.T. O. and Walter, I. (2003). From knowing to doing: a framework for understanding the evidence-into-practice agenda, *Evaluation*, 9(2), 125-148.

O'Connor, B.M.A. (1987). Public participation: an aid or a hindrance to representative democracy. Edinburgh: MPhil. Thesis.

Office for National Statistics (2006). Stats Wales 2006. [Online]. Available from: <http://new.wales.gov.uk/statswales> [Accessed 04/11/2008]

Office for National Statistics (2008a). Wales population - a demographic overview. [Online]. Available from: <http://new.wales.gov.uk/topics/statistics/statswales/?lang=en> [Accessed: 28/10/08]

Office for National Statistics (2008b). Wales in Figures. [Online]. Available from: <http://new.wales.gov.uk/statsdocs/compendia/walesfigs08e.pdf?lang=en> [Accessed:28/10/08]

Parkins, L.R. (2006). De-centering environmental governance: a short history and analysis of democratic processes in the forest sector of Alberta, Canada. *Policy Sciences*, 39, 183-203.

Parsons, D.W. (2007a). Policy design: an approach to integrating empirical and normative arguments. *In the Proceedings of the 4th Annual ECPR General Conference, Pisa, September 2007*.

Parsons, D.W. (2007b). Policy analysis in Britain. In: F. Fischer, G. Miller and M.S. Sideny, (Eds.), *Handbook of public policy analysis: theory, politics and methods* (pp 537- 552). New York: Cambridge University Press.

Parsons, C. (2008). NY museum's climate change show dives into politics. *Reuters*, Oct 15 2008.

Patton, M.Q. (1980). *Qualitative evaluation methods*. London: Sage.

Pollack, M.A. (1997). Representing diffuse interests in EC policy-making. *Journal of European Public Policy*, 4(4), 572-590.

Rashed, A.Y.M.G.E-D. (1995). Public participation in the conservation of historical environment: a case study of Luxor City, Egypt. York: D.Phil. Thesis.

Ray, L. (2004). Don't rock the boat: expectations, fears and opposition to EU-level policy making. In: G. Marks and M.R. Steenbergen, (Eds.), *European Integration and Political Conflict* (pp 51-61). Cambridge: Cambridge University Press.

Renn, O., Webler, T., Rakel, H., Dienel, P. and Johnson, B. (1993). Public participation in decision making: a three step procedure. *Policy Sciences*, 26(3), 189-214.

Richie, J. and Spencer, L. (2002). Qualitative data analysis for applied policy research. In: A.M. Huberman and M.B. Miles, (Eds.). *The Qualitative Researcher's Companion*. Thousand Oaks: Sage.

Rowe, G. and Frewer, L.J. (2004). Evaluating public-participation exercises: a research agenda. *Science Technology Human Values*, 29(4), 512-556.

Royles, E. (2006). Civil society and the new democracy in post-devolution Wales - a case study of the EU structural funds. *Regional and Federal Studies*, 16 (2), 137-156.

Saunders, M., Lewis, P. and Thornhill, A. (2003). *Research methods for business students*. Harlow: FT Prentice Hall.

Shaw, M. (2007). Principles that underline sustainable development. News with Views. 2007. [Online]. Available from: <http://www.newswithviews.com/Shaw/michael9.htm> [Accessed: 01/11/2008]

Simpson, J. and Weiner, E. (Eds.) (1989). *Oxford English Dictionary*. (2nd ed.). Broadbridge: Clarendon Press.

Smith, L.G., Nell, C.V. and Prystupa, MV. (1997). The converging dynamics of interest representation in resources management. *Environmental Management*, 21 (2), 139-146.

Snowdonia National Park Authority (SNPA) (2007). Sustainable development policy. [Leaflet] Snowdonia: SNPA.

Solesbury, W. (2001). Evidence based policy, whence it came and where it's going. *ESRC UK Centre for Evidence Based Policy and Practice: working paper 1. Pre-publication version submitted to Planning Policy and Practice. October 2001.*

Stake R.E. (2005). Qualitative case studies. In: N. Denzin and Y. Lincoln, (Eds.), *The Sage Handbook of Qualitative Research* (pp 443-465). London: Sage.

Start, E. (2007). Briefing note on corporate social responsibility. FSB Website. [Online]. Available from: <http://www.fsb.org.uk/documentstore/filedetails.asp?id=76> [Accessed 01/12/08]

Stern, N. (2006). *The economics of climate change: the Stern review*. Cambridge: Cambridge University Press.

Stockholm Environment Institute (SEI) (2008). *Wales' carbon footprint*. Stockholm: SEI.

Stouffer, S.A. (1941). Notes on the case-study and the unique case. *Sociometry*, 4, 349-357.

Strategic Policy Making Team (SPMT) (1999). Professional policy making for the twenty first century: report by Strategic Policy Making Team, Cabinet Office. [Online]. Available from: <http://www.nationalschool.gov.uk/policyhub/docs/profpolicymaking.pdf>. [Accessed: 21/10/2008]

Strategic Policy Unit (2006a). Guidance for using the Policy Gateway Process. [Online]. Restricted access document. Available: Welsh Assembly Government Intranet. [Accessed 22/06/07]

Strategic Policy Unit (2006b). Strategic policy unit internal guidance. [Online]. Restricted access document. Available: Welsh Assembly Government Intranet. [Accessed: 27/03/07]

Swansea University (2008). *Institute of Innovation strategic plan*. [Leaflet] Swansea: Institute of Innovation.

Tan, H.J. (2000). The meaning of public participation in planning: three case studies in Taiwan. Sheffield: Ph.D. Thesis.

Thompson, W.B. (2001). Policy making through thick and thin: thick description as a methodology for communications and democracy. *Policy Sciences*, 34, 63-77.

Turoff, M. (1975). The policy Delphi. In: H.A. Linstone and M. Turoff, (Eds.). *The Delphi method: techniques and applications*. Reading, MA: Addison Wesley.

UK Government (1999a). *A better quality of life: a strategy for sustainable development for the UK*. London: The Stationery Office.

UK Parliament (1999b). Modernising Government White Paper (Cm. 4310). [Online] Available from:
<http://www.archive.official-documents.co.uk/document/cm43/4310/4310-01.htm>.
[Accessed 25/07/08]

UK Government (2000). Freedom of Information Act 2000 (C. 36). [Online]. Available from:
<http://www.opsi.gov.uk/acts/acts1998/19980038.htm>. [Accessed: 01/12/08]

United Nations (UN) (1998). Kyoto Protocol to the UN Framework Convention on Climate Change. [Online]. Available from: <http://unfccc.int/resource/docs/convkp/kpeng.pdf>
[Accessed: 01/10/08]

United Nations (UN) (2007). World population prospects, the 2006 revision population database. [Online]. Available from: <http://esa.un.org/unpp/> [Accessed: 05/10/08]

United Nations Conference on Trade and Development (UNCTAD) (2003). Item 3 on the provisional agenda expert meeting on definitions and dimensions of environmental goods and services. 5 July 2003 [Online]. Available from:
http://www.unctad.org/en/docs/c1em21d2_en.pdf [Accessed: 01/12/08]

United Nations Framework Convention on Climate Change (UNFCCC) (2008a). Fact Sheet: Stepping up international action on climate change. The road to Copenhagen. [Online].

Available from:

http://unfccc.int/files/press/backgrounders/application/pdf/the_road_to_copenhagen.pdf

[Accessed: 21/10/08]

United Nations Framework Convention on Climate Change (UNFCCC) (2008b). Status of ratification. [Online]. Available from:

http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php [Accessed:

01/11/2008]

University of Wales (2008). University of Wales sustainable development commitment. [Leaflet] Cardiff: University of Wales.

Van de Kerkhof, M. (2006). Making a difference: on the constraints of consensus building and the relevance of deliberation in stakeholder dialogues. *Policy Sciences*, 39, 279-299.

Van den Hove, S. (2000). Participatory approaches to environmental policy making: the European Commission climate policy process as a case study. *Ecological Economics*, 33, 457-472.

Van Maanen, J. (1988). *Tales of the field: on writing ethnography*. Chicago: University of Chicago Press.

Vasseur, L. et al (1997). Advisory committee: a powerful tool for helping decision makers in environmental issues. *Environmental Management*, 21 (3), 359-363.

Veon, J. (1996). Sustainable development. Women's group. [Online]. Available from:

<http://www.womensgroup.org/SUSDEV.html> [Accessed: 01/11/08]

Vision in Print (no date). Materials waste reduction case study. [Online]. Available from:

<http://www.visioninprint.co.uk/MaterialsWasteStudy.ink> [Accessed: 10/10/08]

Wackernagel, M., Schulz, N.B., Deumling, D., Linares, A.C., Jenkins, M., Kapos, V., Monfreda, C., Loh, J., Myers, N., Norgaard, R., and Randers, J. Tracking (2002). Tracking the ecological overshoot of the human ecology. *In the Proceedings of the National Academy of Sciences* 99(14), 9266-9271.

Webler, T., Tuler, S. and Krueger, R. (2001). What is a good public participation process? Five perspectives from the public. *Environmental Management*, 27(3), 435-450.

Welsh Assembly Government (WAG) (2002). *A winning Wales*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2003). *Business and environment action plan*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2004a). *Second sustainable development action plan*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2004b). *Making the connections: delivering better services for Wales. The Welsh Assembly Government vision for better services*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2004c) *Business and environment action plan: first annual report 2003/04*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2005). *Business and environment action plan: second annual report 2004/05*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2006a). *Business and environment action plan: third annual report 2005/06*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2006b). *Business and environment action plan: case studies*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2006c). Policy Gateway Process. Internal document. [Online]. Available from: Welsh Assembly Government Intranet Site. [Accessed: 12/06/07]

Welsh Assembly Government (WAG) (2006d). *Environment strategy action plan*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2007a). *Climate change adaptation plan*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2007b). *Environmental goods and services report 2007*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2007c). *Microgeneration action plan for Wales*. Cardiff: Welsh Assembly Government.

Welsh Assembly Government (WAG) (2008). *Green jobs strategy for Wales. Consultation*. Cardiff: Welsh Assembly Government.

Wildavsky, A. (1979). *Speaking truth to power: the art and craft of policy analysis*. Boston: Little, Brown and Company.

World Business Council for Sustainable Development (WBCSD) (2006). The eco-efficiency model. [Online]. Available from:
<http://www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=MTgwmJc>
[Accessed: 25/09/08]

World Commission on Environment and Development (WCED) (1987). *Our common future*. Published as Annex to United Nations General Assembly Document A/42/427, Development and International Co-operation.

WWF Cymru (2007). *One planet Wales: pathways to a sustainable future*. Manchester University: Centre for Urban and Regional Economy.

Yin R.K. (1994). *Case study research design and methods*. London: Sage.

Ziamou, T. (1998). *Public participation in administrative rulemaking: a comparative study of the American and of European (English, German, Greek) legal systems*. Oxford: D.Phil. Thesis.