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EVALUATING EGOVERNMENT CHANGE IN THE REGIONAL CONTEXT

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Abstract

Much governmental change internationally is expressed in terms of associated processes of e-Government change. However, much existing literature on e-Government is descriptive and lacks context. There is little attempt to place this form of organisational change in both its local context and the wider context of national and trans-national change in the public sector. Without such context it is difficult to understand and interpret the ways in which particular governments and their agencies struggle with differing conceptions of e-Government.

This paper presents a case study of a significant e-Government change programme being undertaken by a regional administration in the UK – the National Assembly for Wales. The paper describes the strategic plan developed for e-Government within this body and situates this strategy in terms of its local context. We also set this case study in the wider context of the New Public Management movement, the developing literature on the nature of e-Government and relate this to the concept of governance. We posit that the institution described in this case is struggling with nascent forms of what we refer to as network governance. Such forms of governance are particularly interesting because of the critical importance effective informatics infrastructure plays in organizational performance.

Keywords: e-Government, Strategy, Network Governance.

1 INTRODUCTION

Much governmental change internationally is predicated upon associated processes of e-Government change. However, the existing literature on e-Government is frequently descriptive and a-contextual (Accenture, 2002; CapGemini, 2005). There is little attempt to place this form of organisational change in both its local context and the wider context of national and trans-national change in the public sector. It particularly does not acknowledge the genesis of this phenomenon in the wider international agenda of public sector reform. We therefore argue that without such context it is difficult to understand and interpret the ways in which particular government bodies and their agencies struggle with differing conceptions of e-Government.

This paper presents a case study of the development of strategy associated with a significant e-Government change programme being undertaken by the National Assembly for Wales (NAfW). *Merlin* is the name given to an extended 10 year programme of business change, programme management and applications development and delivery of ICT services which began in May 2004. As part of the Merlin partnership a *foundation project* was established, which developed a draft statement of vision for the NAfW. The vision includes the four change themes of customer focus, efficient service delivery, effective policy development and informed decision-making and governance. The project also produced a business model for the NAfW based on this vision consisting of a value-chain model of key processes needed by the organisation in the medium-term. The business model has been used to generate a 10-year programme of change projects with a significant proportion of ICT-enabled change.

Merlin is particularly interesting because the programme is innovative in suggesting the parallel importance of process and technical change for the NAfW. It is likely to be the largest change initiative undertaken in this region of the UK. The programme also has the potential for being a catalyst for change amongst the public sector in Wales and is likely to impact upon the private and voluntary sectors in the region.

In this paper we evaluate both the vision and business model proposed against the developing discourse on the nature of e-Government and its association with reform of the public services in the UK. We also set this case study in the wider context of the New Public Management movement, the concept of governance and the developing literature on the nature of e-Government.

The description of the case is based on a documentary analysis of the NAfW's change plan, unstructured interviews with a number of key personnel within the Merlin programme and discussions with regional stakeholders likely to be impacted by the programme. The case is reflected against developing conceptions of eGovernment generated from discussion with people involved in change programmes of this nature both in the UK and Europe more widely.

We posit that Merlin can be seen as part of the attempt to introduce a nascent form of network governance into a devolved regional administration. We posit that such forms of governance are particularly interesting for the Information Systems community because of the critical importance informatics infrastructure plays in organisational performance.

2 THE NATIONAL ASSEMBLY FOR WALES

Wales is now part of the devolved governmental structure of the UK. In May 1997, The Labour Government came to power in the UK with a promise of devolution for Wales and Scotland from the London-based government. In July 1997, the Westminster Government published the White Paper *A Voice for Wales* outlining its proposals for devolution. These proposals were endorsed in a referendum throughout Wales in September 1997. Parliament in Westminster then passed the Government of Wales Act 1998, which enabled the transfer of the powers and responsibilities from the Secretary of

State for Wales to the National Assembly for Wales (NAfW). The 60 member Assembly met for the first time on 12 May, 1999.

While the Scottish Executive was given some primary legislative powers such as the option to raise taxes, only secondary legislative powers were originally granted to the Welsh Assembly. However, the devolved Assembly is able to implement policy in a range of areas, which include agriculture, health, local government and education. The NAFW also was given control of a number of so-called Assembly-sponsored public bodies (ASPBs) such as the Welsh Development Agency, the Wales Tourist Board and the Welsh Language Board.

Two major changes to structures of government are currently being enacted in Wales which form the political context for our evaluation. First, a new *Government of Wales* act provides the Assembly with the capability to enact primary legislation in collaboration with the Westminster parliament. Second, some of the major ASPBs in Wales (including those listed above) have been dissolved and their functions assimilated within the devolved administration.

3 THE MERLIN PROGRAMME

Merlin is a successor to Osiris – the National Assembly for Wales’ ICT services programme. In January 1997 the then Welsh office entered into a seven year Private Finance Initiative (PFI) contract with Siemens Business Services (SBS) (National Audit Office, 2002). The contract was for the provision of an information technology infrastructure of networked computers and office automation to support the work of the regional administration.

Since the Osiris contract was due to expire in January 2004, the NAFW engaged in a long period of procurement for its replacement, to be known as Merlin. Merlin as originally specified was to be much broader in scope than Osiris and was to include the provision of additional services and an explicit intention to develop more efficient business processes throughout the NAFW.

Merlin is an extended 10 year programme of business change (led by PA Consulting), programme management and applications development (led by Cap Gemini Ernst and Young) and delivery of ICT services (led by Siemens) (Wales Audit Office, 2006). As part of the Merlin partnership a *foundation project* was established on 27th February 2004 with a brief to develop a blueprint of change for the Assembly (NAFW, 2004).

The Foundation Project produced a statement of the vision for the NAFW, which includes the following four change themes:

- Customer Focus. An Assembly Government responsive to the needs of the people of Wales and customers of public services in Wales.
- Efficient Service Delivery. An Assembly Government, which is an exemplar of accurate and efficient provision of services in its own right, and effective in influencing and supporting the quality of the services provided by the public sector in Wales.
- Effective Policy Development. An Assembly Government adept at defining and implementing coherent, evidence-based policy that reconciles the needs of stakeholders while delivering the required outcomes; and swift to offer new options for service policies that are not achieving the required results.
- Informed Decision-Making and Governance. An Assembly Government of unquestioned propriety in decision making, underpinned by the recognition of information as a key corporate asset - collected once, managed effectively and used appropriately.

A key part of the output from the foundation project is the production of a new operating model for the NAFW based on what is referred to as an end-to-end value chain framework. This is referred to as the new ‘shape’ of the NAFW and consists of a representation of high-level processes to be undertaken by this organisation.

In the new business model these processes have been grouped in five categories supported and enabled by a sixth category, corporate assets and enablers. These process categories are listed below:

- Policy Development and Alignment - this includes the sub-processes *Define citizen needs and strategic direction* and *Develop policy and align with budgets*. Within the NAFW, policy development and implementation is done across a wide range of areas and is currently aligned with ministerial portfolios, with corporate coordination around outcomes. The new business model places emphasis on integrating the operational and financial planning cycle to ensure Ministerial imperatives are met, that NAFW's business strategy is achieved and that resource allocation is optimum to the desired outcomes.
- Policy Implementation At the core of the new business model is the objective of ensuring that policy is developed and implemented consistently. The business model assumes an increase in the skills of staff involved in policy development and implementation, driven in the main through the automation and standardization of administrative work. The clear aim is to free-up professional staff to focus on their areas of expertise.
- Service Delivery Wales - this includes the sub-processes: *Administer investments and disbursements*, *Build capacity* and *Provide direct services*. The new business model is designed to support improved service delivery in a number of ways. For example, the business model includes an initiative to standardise the processing of grants administered by the NAFW into a number of similar 'clusters' – automating such processes as registration, information provision, workflow and payments. Similarly, the business model expresses the intention to streamline some inspectorate processes operated by the NAFW. The approach is designed to focus inspectors on time with clients rather than on administrative tasks.
- Customer and Partner Management - this includes the sub-processes *Manage delivery agents* and *Manage customer contact*. The business model gives much more emphasis to customer and partner management than is currently the case within the NAFW. Consultation, communication and service delivery is expected to be enhanced through greater use of the Internet. In addition to the provision of a single customer and partner contact system, the business model is designed around a 'thin' customer contact or service centre providing the basis for integrating inbound customer access. It is expected that this will lead to improvements in the quality of service delivered to customers and in administrative efficiency as policy departments are freed from responding to routine enquiries.
- Support Functions - this include the processes *Provide expert and professional support* and *Provide transactional and clerical support*. Support functions are categorized in terms of either centres of excellence such as teams of lawyers, HR professionals or accountants or transaction centres such as grants and support services. The intention is to streamline routine transactions and manage interaction between customer departments and support functions through service level agreements.
- Assets and Enablers. The business model is held together by a number of enablers and shared assets. Enablers include citizen consultation (including e-Consultation), process ownership to improve cross portfolio work and performance management (including the use of balanced score-carding). Shared assets include people, knowledge and technology. The intention is to use technologies such as electronic records and document management and a new intranet to improve collaborative working and knowledge sharing.

These process groupings run through the new business model and interact to provide service to customers (either directly or via partners). This process view is recognised as being a fundamental shift away from the traditional functional or organisational view (sometimes referred to as 'silo-based structures and thinking' within the NAFW).

The business model described above has been used to provide an overall framework for the organisation and to select a range of projects under the Merlin change programme. This is referred to as a balanced portfolio of change projects by the Assembly and includes:

- The introduction of tools for better policy development.
- The introduction of customer relationship management and a customer focus philosophy.
- The establishment of integrated records management.

- The introduction of content management.
- The rationalisation of grants processing and streamlining inspections processes.

In the following sections we reflect the case of Merlin against two major contextual themes. First, we consider definitions of government and governance and relate these concepts to that of the value-chain and models of control. Second, we consider the essential features of a paradigm which has supplied the motive force for much e-Government change internationally – that of the New Public Management. Both these themes have heavily influenced the development of the new business model for the NAFW described above.

4 GOVERNMENT AND GOVERNANCE

The term government generally connotes a political organization, which is comprised of the individuals and institutions that are authorised to formulate public policies and conduct affairs of state. Governments are normally tasked with establishing and regulating the interrelationships of the individuals, groups and organisations within the boundaries of some territorial domain (Margetts, 1999).

Government can either be described in terms of institutions or in terms of key processes. The institutional viewpoint is a structural viewpoint. It considers government in terms of three major functions (Pratchett, 1999):

- Enabling and supporting democracy
- Developing and implementing policy
- Delivering services

As we shall see, eGovernment, at least in the context of the UK, has traditionally focused on the last of these functions, perhaps because of the ease with which a model of service delivery has been adapted from the commercial sector (Beynon-Davies and Martin, 2004). However, ICT may play a key role in supporting the so-called policy cycle and of democratic processes.

Alternatively, government can be considered in dynamic or in system's terms as the major control process in a political system. It is this process-view that is generally referred to as governance and in our mind has close associations with the related concepts of the value-chain and value-network.

Organisations can be conceived of as chains of human activity systems (Checkland, 1999) associated with the production and dissemination of value. In this view, organisations consist of value-creating systems (Paolini, 1999). For commercial organisations the value created will typically constitute products. For public sector organisations value will typically be embodied in the services such organisations provide. Within the community value will constitute social capital – networks of information, trust and reciprocity (Putnam, 2000).

The idea of the value-chain is normally attributed to the work of Michael Porter (Porter, 1985). However, Porter's original value-chain model has been seen as deficient in a number of ways and as a result, the idea of the value-chain has been much expanded. Organisations are now portrayed as interrelating and interacting in complex networks of value production and distribution. A particular organisation will take on roles within a number of different chains of value within such networks. ICT is seen to offer the potential for more efficacious, efficient and effective delivery of value along these value-chains.

A key pre-supposition is that private, public and voluntary sector organisations can all be modelled as value-creating systems that exist within a larger value network. In this view, organisations are seen as consisting of a series of inter-dependent chains made up of interdependent human activity systems that deliver value. Four chains are significant for most organisations: the internal, supply, customer and community chains.

Conceiving of organisations as value-creating systems raises the critical question of how organisations are controlled or governed. Thompson (Thompson, 2003) argues that there are three possible approaches to controlling the flow of value (goods, services, social capital) along value-chains in the value-network:

- **Hierarchies.** Hierarchies coordinate flow by controlling and directing it at a higher level in management structures. In hierarchies, order is designed and consciously organised to achieve outcomes. This is the traditional form of control exercised within and between government organisations. In government this typically constitutes bureaucratic control since behaviour is very much rule-governed. In hierarchies, the mechanisms of operation involve bureaucratic monitoring and interventions. Hierarchies demonstrate overt, planned, purposeful governance.
- **Markets.** Markets coordinate flow through forces of supply and demand and external transactions between actors in some exchange relationship. In markets, order develops from spontaneously generated outcomes. This is the form of control for government promoted by the *New Public Management* (see section 5) since in markets behaviour arises from private competitive decisions. In markets operations are governed by price, competition and self-interest. Markets do not display any overt form of governance. Governance in markets is implicit and emergent rather than planned.
- **Networks.** Networks are a mediating form of coordination and governance between hierarchies and markets (Thompson, 2003). There are two distinct forms: an organised variant that involves conscious directive action to establish and sustain the network (and hence overlaps with the hierarchy form) and a self-organising variant in which order arises from non-directive interactions between members (and hence overlaps with markets). Hence, networks may display both designed and spontaneously generated outcomes. Overall, the behaviour in networks is normally one of cooperation and consensus-seeking; the mechanisms of operation are loyalty, reciprocity and trust and the forms of governance may be both formally organised and self-organised.

The process-view offers some insight into the institutional change affecting governments, particularly in the Western hemisphere. As discussed above, it is possible to consider the process of governance as the control process of government. Hence, it is possible for governance processes to assume one or more of these forms of control. Traditionally, government bodies have exercised control through bureaucratic hierarchies. *New Public Management* (see section 5) has introduced market-based models of control into government processes. More recently commentators have discussed the rise of network forms of governance arising from the increased distribution of structures of power in the polity. In the modern western world governance is now undertaken by a network of stakeholders not all of which are traditional political organisations or even public sector organisations (Taylor and Burt, 2001). In this view, the network of stakeholders demands an increasingly sophisticated web of technology to support communication and coordination.

5 THE NEW PUBLIC MANAGEMENT

Customer focus and efficient service delivery are part of the key vision for the NAFW. These constitute classic New Public Management (NPM) themes. In this section we briefly portray some of the International context for this change movement in the public sector. We then describe some of the UK context and the Welsh Assembly Government's (WAG) recent response to this agenda – the *Public Services Programme*. We conclude the section with an examination of this programme in terms of the NPM ethos and its reliance on ICT-enabled process change.

We would argue that many of the themes discussed in the section on government and governance have been enacted in a major international agenda of public sector reform frequently known as the New Public Management or public sector modernisation. In the early 1990s Osborne and Gaebler (Osborne and Gaebler, 1992) published an influential examination of US government entitled *Reinventing Government* which called for more effective public administrations based around ideas of results-based and customer-focused government.

The fundamental features of NPM include:

- Process. Osborne and Gaebler believe that the public sector should be interested in the process of governance not in the structures of government. Therefore, this philosophy advocates the separation of the purchaser and provider functions in government.
- Management. Hughes (Hughes, 2003) refers to NPM as a movement from the limitations of administration to the more encompassing realm of management. There has been key emphasis on the importance of strategic management for government and the introduction of rational planning processes into government organisations (Martin, 2002).
- Markets. NPM promotes a drive towards greater competition in the public sector, implicitly introducing a market-based model for control into the public sector (Martin, 2002). This typically involves improving performance through government functions facing market tests. It also involves reducing government functions through privatisation and contracting out services to other bodies. Performance is compared with other providers through benchmarking and engaging in partnerships and projects with the private sector.
- Monitors. NPM promotes the drive towards more explicit standards of performance. Greater attention is paid to results, organisational and personal objectives are clearly set and measurement of achievement is conducted through performance indicators. It sees an important role for external review and inspection within government. Government agencies are expected to establish key service delivery targets against which their performance will be assessed to see if continuous improvement is being achieved. This means extensive use of contracts in public administration. Coordination of a nexus of contracts with providers creates huge demands for efficient information handling.
- Customers. Government bodies are required to orient their activities around a customer focus. Osborne and Gaebler (Osborne and Gaebler, 1992) call for an empowering of citizens by pushing control out of the bureaucracy, into the community. They also feel that the focus of government organisations should be not merely on providing public services but in catalysing all sectors (public, private and voluntary) into action to solve community problems.

UK central government and regional government have responded to this change movement with a number of initiatives. In particular, at the UK level a major review of Public sector service provision has been conducted (Gershon review) (Gershon, 2004) and at the regional level WAG has published its key public services strategy for the next five years – *Making the Connections* and also conducted a review of public sector services in the region (Beecham review) (Beecham, 2006).

Modernisation as represented in the NPM movement has been explicitly on the agenda in the UK since the late 1990s embodied in the 1999 *Modernising Government* white paper. More recently, NPM thinking can be seen to underlie an independent review of public sector efficiency led by Sir Peter Gershon. The Gershon review (Beecham, 2006) identified a number of areas where efficiency gains should enable central government to trim down back-office functions and release extra resource for front-office activities. Efficiency gain is estimated at 2.5% of the cost of public services per year and would reach £20 billion per year in 2007-2008. The review identified six main areas where efficiency gains could be achieved including rationalising back office operations, introducing more effective procurement processes and better managing transactional services at both local and national level.

The *Making the Connections* strategy (WAG, 2004) was announced in November 2004 and can be seen as a Welsh reaction to wider UK initiatives such as Gershon. The strategy sets out a detailed vision for the future Welsh public service built on four principles: putting citizens at the centre, equality and social justice, working together as the Welsh Public Service and value for money. The strategy incorporated Assembly Sponsored Public Body (ASPB) reform as mentioned in section 2 and also set out the regional government's stance on efficiency, collaborative working, managing the delivery chain, citizen focused service delivery and supporting the workforce.

A number of NPM themes are clearly evident in *Making the Connections*; although they are given a specifically regional flavour in particular areas:

- Process. The strategy maintains that ‘Joint working is vital to deliver public services of top quality: they must be responsive to the needs of individuals and communities, delivered efficiently and driven by a commitment to equality and social justice’.
- Management. The strategy looks to strategic management in which better procurement processes, streamlining support functions and sharing them across units, shaping services more effectively to meet public need and better utilisation of the human resource will be ways of achieving efficiency improvement.
- Markets. The strategy does not wholeheartedly support the market-based model generally proposed under NPM. It argues that ‘improving service delivery will be achieved by more coordination between providers to deliver sustainable, top-quality, responsive services, rather than by increased competition between providers’. Having said this it also states that ‘Services should be delivered by whichever organisations are best placed to secure the outcome we need. In many cases, this will involve partnership with the voluntary and private sectors.’
- Monitors. Performance indicators are an inherent part of this strategy. It intends to introduce a number of value for money (VFM) targets for public sector bodies in Wales. These indicators will target a saving of £600 M in the Welsh public sector budget by 2010 through a 1% service improvement per year for five years.
- Customers. A clear customer or citizen focus is evident in the strategy. It claims the need to maximise the resources going to front-line service delivery and that support services will be increasingly shared between organisations to achieve efficiencies through the application of ‘the most up-to-date processes and technologies’. The strategy mentions the development of citizen-centred services and includes four strands for achieving this – democratic accountability, better front-line access and support, greater responsiveness and stronger participation.

6 ELECTRONIC GOVERNMENT

It has now become accepted that electronic government can be seen to be very much an instrument of the public sector modernisation agenda. However, the definition of what e-Government means is in continual flux and has been subject to some change over the years (Beynon-Davies, Forthcoming).

Fundamentally, e-Government inherits the NPM focus on the value-network. The trend to use ICT to re-structure aspects of the internal value-chain of organisations has been ongoing for a number of decades. Recently, increasing interest has been expressed in using ICT to re-engineer aspects of public sector customer and supply chains. ICT is also being used to build bridges between the public sector organisation and the larger community and between government agencies in partnerships.

Over the last decade literature on e-Government has substantially increased, particularly focused on documenting the experience of e-Government internationally (Accenture, 2002). This has led to some emerging conceptions of what the breadth of the term e-Government means (Curtin, Sommer and Vis-Sommer, 2004). It has also led to a number of attempts to provide frameworks for benchmarking e-Government progress (Foley and Ghani, 2004).

However, our reading of the literature leads us to conclude that a number of deficiencies are present in current documented conceptions of e-Government. We would argue that such deficiencies revolve around the lack of a holistic conception of e-Government which takes account of the socio-technical nature of the phenomena. E-government arises at the juncture of information and communications technology (ICT) and government processes. Therefore, below we offer a definition of e-Government framed in terms of the socio-technical construct of the value network which we believe acts as a useful intellectual device for understanding the relationship between e-Government and parallel developments in the e-Business arena.

Curtin et al define e-Government as ‘the use of any and all forms of information and communications technology (ICT) by governments and their agents to enhance operations, the delivery of public information and services, citizen engagement and public participation, and the very process of

governance' (Curtin, Sommer et al., 2004). In this definition, e-Government is seen as a lever for public sector modernisation. It is particularly seen as a lever for process change amongst government administrations with significant potential for performance improvement in the public sector. The definition also includes consideration of interaction with external agents particularly through the use of ICT to enable and enhance democratic participation. Hence, using this definition, e-Democracy (Porebski, 2002) can be considered a part of e-Government along with e-Administration.

There is undoubtedly a close parallel between the modernisation agenda discussed in section 3 and the e-Government agenda internationally. The electronic government agenda is normally seen to have originated in the Clinton Administration in the US in the early 1990s. At this time, Vice-President Al Gore associated the development of the 'Information Superhighway' with the reinvention of Government. Since the 1990s most major nation-states internationally have instituted programmes for e-Government. The consulting organisation Accenture reports on international progress in e-Government and consistently has placed the governments of the US, Canada and Singapore at the top of the list, closely followed by a raft of European nations (Jupp, 2004).

The UK eGovernment agenda can be seen to have originated out of the *Modernising Government* White Paper, published in March 1999. This paper outlined a strategy for Information Age Government with the initial aim of e-enabling all Government's services by 2008. It focused on better services for citizens and businesses and aimed to make more effective use of Government's information resources. The strategy challenged all public sector organisations to innovate and implement e-business methods and it challenged the centre of government to provide common infrastructure. In addition, in March 2000 the Prime Minister moved forward this White Paper and committed the Government to getting all Government services online by December 2005 and ensuring that everyone who wanted it had access to the Internet by end of 2005.

Electronic Government strategy in the UK has therefore focused until comparatively recently on one aspect of the government value network – that of government to citizen. However, it is possible to identify at least four other major forms of e-Government in terms of the value-network discussed above. These forms are located around the major value-chains within the network and hence typically involve different stakeholders.

- Internal e-Government. Internal electronic government refers to the enablement of internal processes within the government body itself with ICT. The major stakeholder involved is the employee of the government body and the value-chain supported is the internal value-chain.
- Government to Citizen (G2C). Holmes (Holmes, 2001) refers to this as A2C – administration to citizen and it is a form of external e-Government. It is particularly involved in supporting the customer-chain of the government body. Since the major stakeholder involved is the citizen, many of the so-called customer chain issues in e-Business are replicated in G2C. However, many distinct issues arise located in the public sector nature of service provision such as diffuse sometimes conflicting goals characteristic of government bodies and the difficulties inherent in the customer/citizen distinction. The key promise of e-Government in this area is particularly seen as the process of dis-intermediation – providing direct contact between citizen and government.
- Government to Business (G2B). Government to Business e-Government concerns electronic enablement of the relationships between government bodies and the private sector. One of the major forms of such relationship is the management of the supply chain. Hence, many of such supply chain issues are similar in nature to e-Business issues in this area. However, many features of the context of public sector procurement shape the relevance of technological solutions in this area.
- Government to Government (G2G). Much of e-Government success is predicated on delivering what has been referred to as 'joined-up' government. This is the key issue for G2G e-government – the use of e-government to support intra-government cooperation and collaboration. We would argue that this is an internal value-chain issue for the super-system of government.
- Citizen to Citizen (C2C). C2C e-Government concerns enablement of the community chain of government bodies with ICT. C2C interaction is not traditionally seen to be a part of government.

However, we argue it is likely to be an important part of future governance, particularly in the way it links with two of the other functions of government – democratic accountability and policy-making.

7 REFLECTIONS ON THE NAFW'S STRATEGY FOR ELECTRONIC GOVERNMENT

Although the *Making the Connections* strategy was published some time after the initiation of *Merlin*, it seems generally accepted that this strategy forms the broader context for *Merlin*. In particular, the design of the business model for the NAFW which guides *Merlin* clearly needs to reflect the aspirations expressed in this public services strategy. Effective delivery of the *Merlin* programme is also critical to many of the targets expressed in the larger area of Public Service change in Wales.

Both *Making the Connections* and *Merlin* can be seen to follow much of the philosophy expressed in the New Public Management. This is particularly evident in the way the current business model guiding the *Merlin* programme is expressed. For instance, the value-chain approach used is very much oriented towards a process and customer-oriented view of the public sector organisation. The focus on performance management is also critical to these strategies. However, although *Making the Connections* like *Gershon* casts efficiency as the dominant performance goal, there is a greater emphasis on collaboration rather than competition in the regional strategy in this area. The public services strategy for Wales was recently independently reviewed by a panel chaired by Lord Beecham (Beecham, 2006) and this review suggests greater collaboration and cooperation between public sector agencies in Wales.

We would argue that this reflects something of the struggle with a nascent form of network governance being undertaken by this regional government. In hierarchies information flow can be centralised whereas markets rely on records of contractual exchange relationships. In network forms of governance, data sharing between actors is essential to facilitate coordination and cooperation. Hence, we would expect the informatics infrastructure supporting these three forms to range in terms of increasing complexity and importance.

Greater use of electronic government is clearly positioned as an enabler of the public services strategy in Wales. This demands improvements in the public sector ICT infrastructure in Wales to enable diverse public sector bodies to work together and achieve targets such as a reduction in paperwork for front-line staff mentioned in *Making the Connections*.

However, there are clear difficulties in adapting popular models of e-Government to that of the NAFW and its partners. Importantly, the concept of the customer of the Assembly is diffuse one – possibly including all the actors in Wales. This means that the service delivery model, popular in many definitions of e-Government does not appear to marry well with the Assembly because this body is not responsible for much service delivery currently.

This limitation is evident if we take an example from eEurope (EC, 2002). The European strategy for the Information Society defined 20 basic services that it believes are most amenable to e-Enablement – 8 services to business and 12 to citizens (Table 1).

Table 1: 20 Basic e-Government Services

Citizens (G2C)	Business (G2B)
Income taxes	Social contribution for employees
Job search	Corporate tax
Social security benefits	VAT
Personal documents	Registration of a new company
Car registration	Submission of data to the statistical office
Application for building permission	Custom declaration
Declaration to the police	Environment-related permits
Public libraries	Public procurement
Birth and marriage certificates	
Enrolment in higher education	
Announcement of moving	
Health-related services	

Very few of the services listed in table 1 are currently under direct control of the NAFW. Service delivery in Wales is primarily located either higher up in the government hierarchy within the remit of central government or at lower levels in the governmental hierarchy, particularly the local government level. Hence tax and VAT collection are UK services whereas public libraries and marriage certification take place at the level of local authorities.

Perhaps not surprisingly, the current *Merlin* strategy appears primarily focused on a more limited conception of e-Government. The aim in the first phase of the change programme (until April 2008) is to enable executive and the administration with more effective ICT infrastructure (internal e-Government). Other aspects of e-Government are given secondary priority in the initial phase. For instance, although some G2C and G2B issues appear in the first phase, the major change elements in these areas appear to be deferred to the second phase of the programme. Likewise, G2G is not really elaborated except in the sense of supporting partnership working and the re-location of key functions around Wales. C2C is not really considered at Assembly level.

Nevertheless, certain aspects of a more encompassing model of e-Government may prove important in the longer term for the devolved government administration in Wales. For instance, with the merger of major Assembly Sponsored Public Bodies with the NAFW, significant structural change is likely to make significant demands for an integrated information infrastructure. However, this is likely to be constrained by a number of differing legacy information systems within each of the previous ASPBs, particularly in the area of customer relationship management (WAG, 2006).

G2C issues are also starting to assume greater significance as an increasing range of services such as payments to schools (ELWA) and tourist information (WTB) are incorporated into the remit of the Assembly itself. More recently, WAG have announced a major programme of e-Enabled services in support of the *Making the Connections* strategy. The professed aim is to coordinate a series of initiatives in collaboration with local authorities in Wales which will integrate service provision around multiple channels including Web sites, contact centres and walk-in 'one-stop' shops for face-to-face interaction between government agencies and citizens.

In the G2B area attempts are being made to introduce electronic procurement as the preferred channel of interaction between local businesses and government agencies at both regional and local levels.

This is being managed through a body known as *Value Wales* which is tasked with providing central support for procurement across the public sector in the region.

One would also expect that G2G issues such as links between the information systems of the Assembly and local authorities in Wales will become more significant. There is a renewed effort directed at improving electronic government generally at the local authority level within the region. One effective way of doing this is through the promotion of standards for back-office systems used by local authorities in Wales. Currently, for instance, each of the 22 local authorities within Wales under the control of the Assembly has purchased back-office infrastructure independently of other authorities. The aim over the medium-term appears to be to rationalise such infrastructure investment around inter-operable systems.

8 CONCLUSION

We would argue that the case presented in this paper is interesting from a number of points of view. First, it is an important example of the development of large e-Government strategy that incorporates both technical and organisational change. It therefore provides one instance of how government organisations are struggling with the construction of e-Government strategy. Second, the case illustrates how this strategy is necessarily enacted within local, national and international context.

In one sense, the foundations of *Merlin* are built on established world-views (Checkland, 1987) of the importance of public sector modernisation, the push to e-Government to support modernisation aims and the effective use of informatics management to achieve e-Government objectives. Recently, it has been argued that e-Government can be a significant factor in the economic competitiveness of nation states (IDABC eGovernment Observatory, 2005), achieved primarily through delivering efficiencies in the public sector and reducing the cost of regulatory compliance for customers of government. Both these elements are evident in the strategy for the *Merlin* programme.

Heeks (Heeks, 1999) has argued that ICT in government is typically used in one of three ways. It is used to support existing business processes, to supplant certain processes with automation or to innovate new processes. Clearly the greatest potential but also the greatest risk lies in innovation with ICT. Because of this, a number of researchers and commentators on the e-Government agenda have cast doubt on the leverage potential of ICT in the government domain. Fountaine (Fontaine, 2001), for instance, argues that current initiatives in e-Government, at least in the US, display very little evidence of deep process change. Instead, the use of ICT is patched onto existing government structures with the aim of making them more efficient.

It is therefore perhaps not surprising to find the NAFW's current change plan directed primarily at the support function in the short term with some longer term aims expressed for supplanting key common processes with certain degrees of automation. However, achieving effective back-end integration of systems amongst the shifting sands of ASPB merger and enhanced powers for the NAFW will be a significant achievement in itself.

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