
MANAGEMENT BOARD**Introducing Parliamentary ICT strategy for 2010-2015, assumptions and principles**

Note by the Director of Parliamentary ICT

The paper attached presents the draft opening chapters for a Parliamentary ICT strategy for 2010-2015. A great deal of work has been done on analysing and developing technical details and proposals but these opening chapters present a picture of the future trends in ICT and what that may mean for working practices in Parliament, an outline of the assumptions of the core issues faced by both House Management Boards together with an analysis of what that may mean for the ICT strategy, and an outline of the Principles drawn from both the future trends and the core issues and priorities to be used to develop the detailed technical design of the ICT strategy.

This paper was presented to PICTAB on 10 March where it was endorsed. Comments made during the discussion are included in this amended paper.

The Management Board is asked to:

1. Note the ICT trends and opportunities
2. Discuss, amend and agree the assumptions made about the strategic direction for a Parliament of the twenty first century. If the assumptions made about the business drivers and direction are not correct, then the ICT strategy may also be incorrect. The Management Board is therefore asked to comment and amend these assumptions
3. Discuss and agree the ICT principles. These are based on the assumptions made about the business strategic direction. The Management Board is therefore asked to comment on and approve these Principles.

Once this foundation stone has been agreed, PICT will amend the current detailed ICT strategy for the consideration and approval of a future management board.

Joan Miller

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Creating ICT for a 21st Century Parliament, ICT Strategy 2010-2015

1. Background and Context for the Parliamentary ICT Strategy

PICT was created in 2006 as a central ICT function for both Houses in order to provide a more strategic and cohesive approach to providing ICT to support the business of Parliament.

The guiding aims for PICT were to:

- Develop and support joined up and resilient electronic systems
- Provide efficiency or economies in ICT investment
- Provide specialist ICT advice to support strategic Parliamentary development

PICT's first ICT strategy (2006-2009) and the first 3 years of PICT were spent in centralising the ICT function and forming the new Department. Concentrating on the first two bullet points above, Parliamentary ICT systems were made more stable. Organisational structure and finances and the tricky governance issues for the new jointly owned Department were addressed.

This ICT strategy (2010-2015) now takes us towards the strategic purpose of PICT, that is, to provide the forward thinking advice on ICT trends and opportunities that will inform and assist the developing Parliamentary vision for the twenty first century.

In this document we have made assumptions about the future strategy and developments of Parliamentary business over the next 10 years. From these assumptions, and, drawing on standard ICT good practice, we have developed the ICT Principles outlined in section 4 which will be used for all future ICT developments.

Later sections will describe the technical development and investment programme to meet the proposed strategic requirements of ICT in supporting Parliament in the period 2010 to 2015.

2. Future Trends: where in the world has ICT got to?

This section seeks to explain historic trends in ICT that have influenced the ways in which Parliament has developed in the last two decades of the 20th century and the future trends which will provide opportunity for the development of the 21st century Parliament.

Over the last 30 years ICT has become a core support service for all the services that make the Parliament institution work. The way in which ICT has been provided

and used has been through several cycles during this period and new ICT in each decade has changed the expectations of the way in which work is done. For instance:

1980s Number crunching: In the 1980s mainframe computing hardware would fill a room and the desk top terminal was the slave to the central computer and often it felt as if the user was too. Business use and benefits were focussed primarily on large scale transactional services, particularly finance. Towards the end of the decade standalone word processing functions began to appear, replacing typing pools.

1990s Faster pace of working life: In the 1990s processing power had increased and computers had become smaller and less sensitive to their environment. ICT applications developed that provided work flow functions and knowledge stores for specific business purposes. The business benefits were perceived to be about the “transformation” agenda, in other words being able to streamline or automate business processes for teams based across many locations. Email and word processing became the primary business communication tools for most desk based workers. From a slow start at the beginning of the 1990s, there was rapid growth in availability of networks and desktop PCs as electronic communication became as common place and as important as face to face working practices. Workers came to expect rapid communications and instant responses to questions. Paper letters and memos have been replaced by emails, significantly changing the working practice of decades.

2000s Growing collaboration in the work place: In the late 1990s and the 2000’s the Internet age was born. Driven by universal availability of ICT and networks, and by a push around the world for freely available electronic communication, the workplace moved wholesale to the Internet for transactions (web selling and transactions), for communications (email and attachments) and for knowledge sharing (google, Wikipedia). The speed and quantity of electronic communication continued to increase and business benefits included the ability to access expert advice systems at the push of a button. As the huge stores of personal and confidential data grew, the business focus became data security, which was seen as physical and server security within closed networks.

The pace of ICT development and the adoption and adaption of its use by people in the work place continues at ever increasing speeds. PICT’s “Research and Development” budget has been used during 2009/10 to identify some key trends and opportunities which are described in the next bullet points.

2010s Personalisation of ICT, collaborative and transparent ways of working: By the early 2010s ICT has become pervasively mobile, universal, knowledge rich

(expert and inexpert knowledge), increasingly location independent, extremely fast to publish and readily available. As a result some working trends appear to be:

- Workers expect to be able to pick up information and communications at speed, at any time of day or evening, from any location and on the move.
- The working day has spread into the social day – the two are beginning to meld together for many workers who are always “on-call” on their mobile devices. This will apply equally to Members, Members’ staff and staff of the House.
- Workplace collaboration has become more transparent as groups of people want to work together by talking on line, writing documents together from different locations, or by accessing common data stores to derive new individual benefits. And they wish to do this in more public ways, that is, using public websites and using the most up to date electronic equipment, for instance, from the latest mobile phone to e-notepads connecting by Wifi or GPRS to the internet. This way of working may be quite alien to the way people are used to working now and although accepted at the norm by the new computer generation, may be seen as high risk by many current users.
- The expectation of speed of decision making and turn around has again increased and along with it the expectation that recipients of demands for information or services will be able to respond quickly too.
- On line transactions and trading are now the norm rather than the exception.
- Increasingly “the public” expect to be visible and received on line, demanding to have their say in decision making. The world of ICT and Knowledge driven mass communications is beginning to be incorporated into the role of decision making. People who have become used to having an online voice now expect to be heard and to contribute to issues of policy in a meaningful way.
- Many people are engaging in the “social networks” or social media. This means they communicate across boundaries of organisation, culture and country, and in doing so have extended their spheres of influence. There is also a new “digitally disadvantaged” group of those who do not do so.

Data and knowledge are the key components of this trend. Data is now separated from the applications and technical hardware so that it can be used and reused in many different ways. ICT products have become personalised rather than

“enterprise”. Instead of the large scale business systems of the past, we are seeing data created in open standards, independent of applications, and with the ability to extract and join up different data sets in new combinations which are relevant to the individual rather than just to the group. Instead of command and control technology environments we will see personalised environments. Put simply, business scale ICT will soon be able to provide individual and personalised service for the business user in much the same way that home users currently experience their own technology.

The business benefits and how this new opportunity will work are still unclear, but the opportunity will only be limited by the imagination of the business user and how things might change, rather than by the limitations or restrictions of technology.

What does this mean for Parliament and for Parliament’s ICT strategy? ICT is a product of potential; it does not work on its own. It takes a combination of ICT potential (and sometimes ICT limitations) and the business drivers and requirements to create an effective ICT strategy that provides benefits to the organisation as a whole. Whereas the role of ICT has moved from centralised to decentralised control and back again on a cyclical pattern over the last 30 years, the role of strong business and centralised ICT partnership is most likely to be the most productive pattern for the future.

3. Parliament for the 21st century, some assumptions.

This section sets out the assumptions made about the wider Parliamentary organisational risks and the strategic direction being identified by the Management Boards in both Houses.

Some of the risks and opportunities that affect Parliament currently are:

- ***The reputation risk***, relevant to both Houses, exemplified by the recent focus and public engagement in the debate on Members’ expenses. This has led both House Management Boards to think purposefully of their role in supporting the institution of Parliament as well as their role in supporting individual Members in their work for Parliament. They are seeking a Parliament that is respected, efficient, effective and informed.
- ***The financial risk***, relevant to both Houses as public sector funding faces cuts in the face of the global recession. The future direction is about more done for less, providing an opportunity for investment in efficiencies and an assessment of the need for real change as well as an imperative in making the change work to achieve savings.

- ***The risk of initiative overload.*** The two key risks outlined above have released a wave of change across a wide spectrum of departments and offices and this challenges the capacity of Parliament to deal with all the dependencies. In the absence of clear priorities or cohesive planning there would be a risk of work overload and duplicate or conflicting effort.
- ***The risk of data safety and security.*** Electronically held data has come increasingly under threat from commercially and politically motivated hackers. The risk to Parliamentary data must be managed through clear data security and storage policies and actions and efficient storage mechanisms which reduce the possibility of data loss and the consequent reputational risk.
- ***The risk and opportunity for ICT enabled changes.*** ICT has become a 24x7 operation with little room for failures. The expectation of Parliamentary users for greater speed, collaboration and integration of services significantly increases expectations and dependency on ICT services. The extreme diversity of the requirements of Parliamentary users require basic ICT provision to be robust as well as leading edge as Parliamentary users move swiftly to grasp the opportunities of the new world described in the last section.

This leads to the following assumptions behind the ICT strategy for 2010-2015:

- ***The core business of Parliament is the procedural business of the Chambers and Committees.*** This also includes some of the information and publication services that connect the public to Parliament. The work involved is highly bespoke and the skill sets specific to the UK Parliament. The ICT systems that support that work is as a consequence also highly bespoke and not replicated in other organisations. The characteristics of this ICT are specific to the unique workflows, subject to constant and instant change and require near 100% availability for speed of publication. This strategy therefore assumes these to be the key priorities for ICT development and support and that this development and support will be provided by specific and expert Parliamentary ICT staff. Specifically this priority in terms of current developments relates to the Procedural Programme, CPIMF programme and parts of the Web Programme.
- ***Working with Members remains a core and specific Parliamentary function.*** The nature of the Parliamentary customer group is individual and the ways in which they support the unique Parliamentary process is extremely diverse and in many cases unique. It is therefore assumed that for the foreseeable future there remains a specific and professional ICT role in developing ICT solutions to meet this diverse range of requirements. These

solutions may be drawn from a variety of suppliers but must act cohesively to support the requirements of mobility, flexibility, and ease of access to collaborative electronic environments.

- ***Planning and strategy for ICT (and any service) are core Parliamentary requirements.*** It is a well established principle that if an organisation wishes to manage its own future direction it must own the capacity to develop and manage their own strategic objectives. It is therefore assumed that the strategic planning and management of Parliamentary ICT is a core service based within Parliament. The core competency for this function includes specific and deep ICT skills, ICT procurement skills and ICT development and planning skills and a research and development function. It also includes skills in the management and integration of data and systems to provide the collaboration across the knowledge systems.
- ***Other Parliamentary services are more generic in nature,*** that is, they are services that can be observed in other organisations and are by their nature less specific and unique to the work of Parliament. These services include buildings and facilities management, finance and HR service, security services, visitor services and some of the information services and perhaps even the archives service. It is assumed therefore that these services might either be supported by ready made ICT packages (ready made systems) and that these services can be supported by more generic ICT skills which may be found inside or outside of the organisation. Specifically in terms of current developments this relates to the Facilities Programme, the HAIS and HAISL programmes, and more generic Information Services Programmes.
- ***ICT Communications services are generic services and could be provided in the fast developing generic “cloud”.*** These services include email, general files stores (the output files of MS Office) and more general applications and services. This strategy assumes that these services are also more generic in nature and ICT skills can be found from within or from without the organisation. The development of commercial cloud services (and perhaps Software as a Service (SaaS)) means there may be medium term options to buy into these services. This service may also replace some generic packages. Specifically this relates to all customer groups using email and Office services and would represent a next wave Infrastructure Programme.

Financial restraint is a key driver. It is assumed that the demand for volume, flexibility and reliability of ICT will grow, as it has predictably over the last 30 years. However this strategy assumes that a key objective for the next five years will be to contain as far as possible that growth within diminishing

Parliamentary funding levels. It is further assumed that investment in ICT business projects should create savings, both in the cost of business process costs and in PICT revenue costs.

In summary these assumptions predicate that the priorities for the ICT strategy will be:

- The core priority for ICT is investment in skills and support for the unique Parliamentary functions, that is, the Procedural services and the knowledge services that support them.
- A second priority is the core skill sets required to support the creation of solutions for Parliamentary customers, particularly Members in their role of Parliamentarians, and for the strategic planning, management and contract management of ICT services.
- ICT support for the other Administration tasks, in their role of making the institution work may be provided by packaged services which may in future be sourced from the “cloud”.
- In a multi-sourced environment, with Parliamentary data being held in packages or services, a core requirement for internal PICT management will include strategic planning, solutions advice and expertise, contract management, data management, data integration, data security and programme and project management.
- Financial considerations and VfM will be a key determinant in decisions on ICT provision. A key objective is to contribute positively to achieving the overall savings the Houses will need to make whilst providing for growing demand for ICT services.

4. PICT Guiding ICT Principles

The core Principles outlined below are derived from the analysis of future ICT trends and impact on business working practices, from the assumptions made about the core functions, requirements and priorities of Parliament in the next five years outlined in the previous sections. These Principles inform the development of the detailed ICT strategy that will support future Parliamentary developments as a whole.

The Principles are:

1. For any given activity PICT seeks as the technology authority to **work with the appropriate business partner(s)** in Parliament to support productivity, innovation, value for money, cost reduction and risk reduction. As the technology authority PICT will be responsible for services on the PN, security and usage policy. This will not preclude user owned devices (such as iPhone) connecting to the PN, providing that they do not compromise security.
2. PICT recognises that, in order to meet the business challenges facing Parliament, it must **be sufficiently flexible to meet the requirements of different customer groups and sufficiently agile to adapt to changing circumstances** at the operational, tactical and strategic levels.
3. PICT must develop, own and maintain **a coherent overarching ICT strategy and plan for Parliament** and therefore retain the capacity to commission research and create new strategies and plans.
4. PICT will make sure all proposed ICT developments take a clear **Value for Money investment approach**, ensuring that investment drives out **real cost savings** wherever possible, and including business and PICT budget reductions.
5. Parliament is information rich and highly information dependent. **Systems to record, manage and publish core Parliamentary work are therefore critical to Parliament**; consequently the capability to develop and maintain such production systems is a core competence for PICT and Parliament. PICT will host such systems under Parliamentary control on the Parliamentary Network (PN) with resilience ensured by the off-site data centre.
6. Parliament also owns data for which external hosting may be acceptable and economical. **PICT will review hosting policies with its partners and consider “cloud” solutions where mature and secure options are available, beginning with smaller services from 2010, and developing a comprehensive hosting strategy by 2015.**
7. The transition to greater reliance on external third party hosting requires PICT to develop **a stronger and professionalised ICT contract management capability** in order to ensure the maximum benefit for customers from supplier relationships. **It is not in the interests of Parliament to develop a long-term dependency on a single supplier.** PICT will always retain the capacity to change supplier strategies and switch suppliers.

8. **PICT will be responsible for the technical administration and integrity of Parliamentary electronic data and software**, negotiating licensing and escrow arrangements, where appropriate, to ensure continuity of critical systems. PICT will also ensure that Parliamentary data which is properly in the public domain will be continuously available to external users. PICT will also support colleagues in both Houses responsible for the regulation of parliamentary electronic data to manage it effectively and securely in accordance with agreed information management principles and policies.
9. PICT will propose **commercial off the shelf (COTS) solutions wherever possible** to deal with processes and requirements which are not peculiar to the Parliamentary environment and will not apply bespoke alterations or enhancements to these solutions where this would add to the cost or difficulty of a future upgrade or migration.
10. PICT will apply a **presumption of open standards** to all areas with exemptions only where there is no appropriate open standard solution to meet critical business requirements.
11. ICT should operate in accordance with Parliamentary policy on the **depreciation of assets and investments** which will reflect the pace of technology change and the need to plan continuously to keep solutions current. At the same time PICT will work with its partners to **reduce the total cost of ownership (TCO) of ICT systems, including negative environmental impacts** throughout the cycle.