Plymouth City Council

Information

Communication

Technology

Strategy

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Foreword

This document sets out the standards for delivery of Information Technology (IT) for Plymouth City Council, and articulates the vision and roadmap for the Authority moving forward to March 2011.

ICT means all technologies, processes, disciplines and skills that are provided by the ICT function (department) or that involve ICT. These range from the management of projects and business change to the management of the organisations technical architecture and include the procedures and skills that enable the productive application of data and information.

The aim of this document is to provide those working for, and with, the Authority the 'high-level' vision and roadmap of the Authority's intentions with regard to the continued, business led, technology implementation plans. It is not a detailed breakdown of the entire individual work-streams that combine to form the ICT programme. That information will be found within the individual programme and project plans.

The overall objective of this strategy is to support the transformation of Plymouth City Council into an excellently informed and customer focused Authority delivering its services in the most effective and efficient means. This will ensure that the Council is well placed to play a leading role in the local community, delivering excellent outcomes to the citizens of Plymouth.

To date, much has been achieved and PCC is now fitter to face the challenges of the future. We cannot sit back as there is constant change to be addressed through careful consideration and planning.

This strategy looks to develop on this continuing foundation building and deliver to PCC a support service that underpins excellent service delivery. This will be achieved through the continuing integration of end-user, ICT's customers, requirements into an overall planning process that determines the priorities for ICT and the Council as a whole within a sustainable investment programme.

Neville Cannon
Head of ICT

1. Introduction

The Plymouth 2020 local strategic partnership has a shared vision of making Plymouth "One of Europe's finest, most vibrant waterfront cities, where an outstanding quality of life is enjoyed by everyone" by 2020.

To achieve this shared vision the partners have agreed to focus their priorities around four themed areas aimed at making the city healthy, wealthy, safe and wise. The diagram below shows how the vision for the city is being delivered through theme groups and supported by the partnership.

Partners have their own visions and strategies that ultimately aim to deliver that shared vision for the city. Plymouth City Council's vision is to deliver excellent local services to Plymouth residents and has set itself the goal of becoming an "excellent" authority by 2012.

Priorities for achieving excellence

The Council has identified 14 key priorities to help achieve excellence and the shared vision for the city. These are organised under the three themes of improving our customers' experience, improving our city and improving our council. The priorities are:

Improving our customers' experience

- Improving customer service
- Involving and informing customers

Improving our city

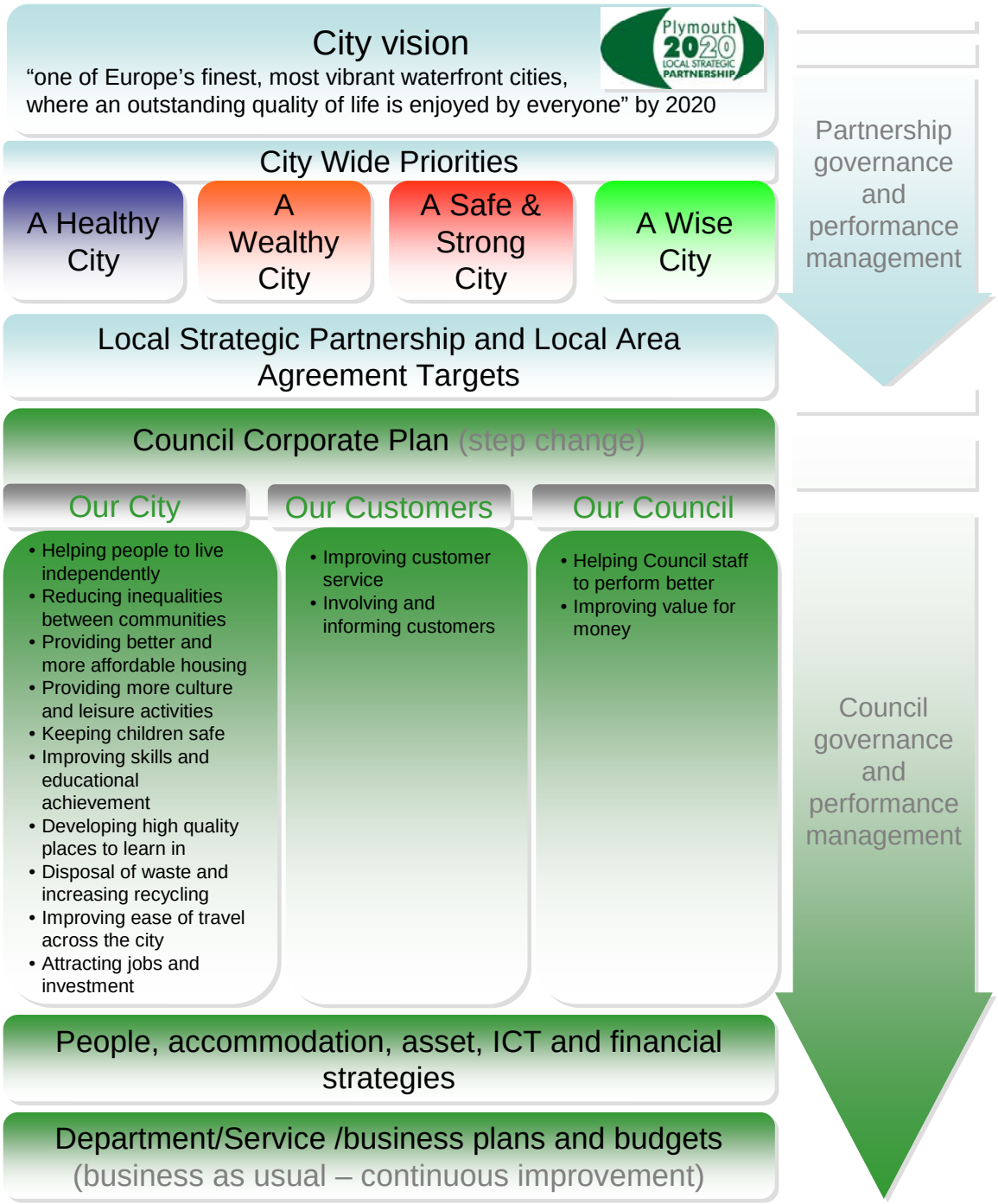
- Helping people to live independently
- Reducing inequalities between communities
- Providing better and more affordable housing
- Providing more culture and leisure activities
- Keeping children safe
- Improving skills and educational achievement
- Developing high quality places to learn in
- Disposing of waste and increasing recycling
- Improving ease of travel across the city
- Attracting jobs and investment

Improving our council

- Helping Council staff to perform better
- Providing better value for money.

Focusing on achieving these priorities will enable the Council to achieve high levels of customer satisfaction and reach – and retain – a Comprehensive Area Assessment rating of "excellent". The Council's planning and budget setting for FY 09/10 and beyond has been developed on the basis of focusing on these priorities.

This document sets out how the ICT Strategy supports the delivery of the Corporate Priorities to help the Council transform itself by 2012 in order to realise this vision. This strategy has been developed in alignment with the Accommodation Strategy, the People Strategy and the Financial Plan to provide integrated support to the corporate goals. The diagram below illustrates the relationship between the city goals, the Council's Corporate Improvement Priorities and the support required from the ICT Strategy:



2. Executive Summary

Information lies at the heart of what Plymouth City Council (PCC) does. How we capture, store and use information is vital to the services we provide to the public and key to us meeting our corporate objectives and improving our overall performance.

It is essential, therefore, that we handle this information in ways that directly support our services, which are secure, resilient, robust and offer real value for money. The technology used in support of our systems is a means to an end, which we must ensure is utilised effectively and efficiently.

Therefore the overall aim of this Information Communication Technology (ICT) Strategy is to support fully Plymouth City Council's Corporate Plan; it's associated Corporate Improvement Priorities and improve the outcomes for the city of Plymouth.

ICT supports the operations of the business departments. It is focused on reducing risk, maximising our ability to exploit information and increase value for money. To do this we have five principle objectives:

- To ensure that the service delivered represents value for money.
- Joining up partner organisations effectively
- Ensure that assets (information, processes, systems and technology) are shared and reused as much as possible.
- Ensuring that PCC fully exploits its information to achieve its objectives.
- Ensuring compliance across the organisation to reduce operational and reputational risks.

A key step towards achieving these objectives is our commitment to developing a common infrastructure across the Authority. This has been recognised in earlier strategies and continues with the formal adoption of enterprise architecture. This common infrastructure will provide an efficient, robust platform for delivery departments and partners upon which they can build business applications and service their information, security, and change management needs. It also facilitates standardisation of office provision as required by the Accommodation Strategy and supports the transition to the latter stages of office development referred to in that Strategy. This is a complex transition and will be planned over the period to 2012 and will encompass plans for the Corporate estate over the same period.

The means to achieve this will be the creation of an enterprise architecture framework. **Enterprise Architecture** is the organising logic for business processes and IT infrastructure reflecting the integration and standardisation requirements of the Council's (and latterly the LSP's) operating model. It will be based on mapping our systems, processes, information flows and dependencies firstly across the Council and subsequently will need to be

expanded to encompass the LSP. This is not an end in itself but an evolving activity that will help identify the options and subsequently inform the investment appraisal process. The primary purpose of describing the architecture of an enterprise is to improve the effectiveness or efficiency of the business itself. This includes simple operational aspects such as office moves. Currently IT equipment and furniture is moved adding to the planning complexity of such moves and ultimately their cost. This is recognised within the Accommodation Strategy and both departments are working together to drive out the required VFM cost savings.

We will need to work with partners and delivery groups in aligning their ICT strategies, providing principles and standards agreed collectively. This will support the Local Strategic Partnership (LSP) ability to fulfil its role to deliver improved services to the public.

Funding the ICT activities of the Authority will remain a key challenge over the period of this strategy, as it will take this time to deliver the Medium Term Financial Plan (MTFP) and all its forthcoming pressures. With the ongoing requirements to deliver modern services, which are invariably dependent upon better use of IT, ICT will remain in need of investment throughout the life of this strategy and beyond. However some gains (for example from flexible working) will be made along the way and it is therefore imperative that every opportunity to realise savings is taken. This requires the appropriate consolidation of services and functions in order to affect economies of scale without hindering performance and the flexibility of the operation.

If the Authority is too reach its aim of being recognised as Excellent, then there are a number of desired outcomes that are required to be delivered by individual Directorates. These, in turn, are supported by four strategies that are interrelated and must be mutually supportive if the necessary benefits are to be achieved and subsequently deliver the ambition of the Council.

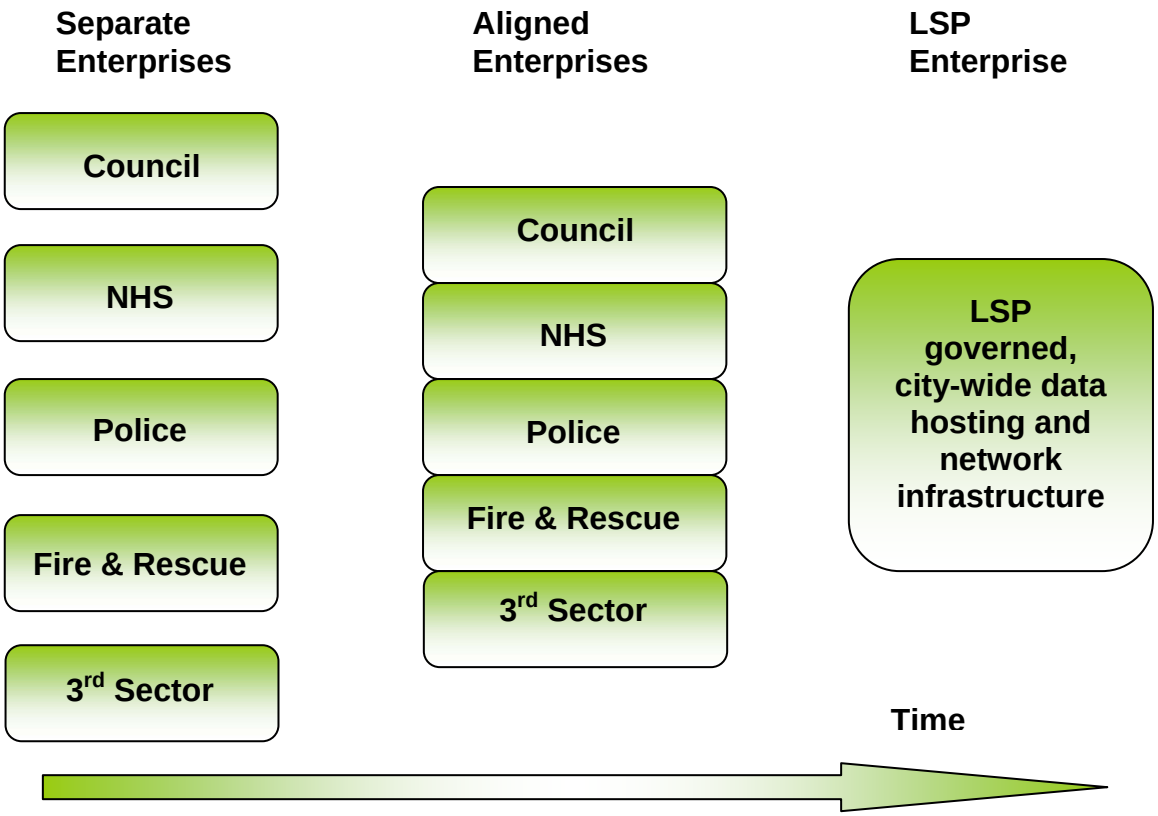
However, the emerging security threats and the need for increased shared working will play an increasingly significant factor in the planning of high availability, resilient and secure service provision.

ICT systems increasingly need to communicate with each other, both within the Council and with an increasing number of bodies and partners. To support this, and to aid the combating of fraud, there are certain services such as identity management, for which interoperability between systems is essential. However, communication between systems is ineffective without an

agreed strategy for joining together processes and determining responsibility for controlling any given data source.

While much of the required urgent remedial action to safeguard the continuing operations of the Authority has been completed; the failures that have occurred have provided necessary reminders that ICT plays a crucial role in the continued operations of the Council. Furthermore that many future service delivery enhancements are reliant on a resilient ICT application and infrastructure. Developing the business continuity plans and arrangements therefore will be a central feature of all new project planning and implementations.

This move to encompass enterprise-wide applications and licensing is leading the consolidation drive within PCC. The Authority has historically operated from within Directorate silos. This has hampered previous attempts to benefit from economies of scale and from the simplification of the numerous applications, operating systems and hardware platforms. The Authority has now embarked on a process that will establish Microsoft Windows XP (and a possible move to Vista when appropriate) as the Standard Desktop operating system, leased PC's and a consolidated UNIX platform.



Finally we will continue to develop the ISD profession corporately which will ensure that the Authority has the capability to exploit its information in a secure and efficient manner.
In summary, the main outcome of this strategy will be to ensure that the organisation has spent money, and focused staff's efforts on activities that most fully support the business' strategies and goals; and stops spending resources on things that don't!

3. Purpose Aims and Scope

3.1 Purpose

The ICT Strategy supports the Council in achieving its purpose, its vision and its ambition by supporting the activities directed at meeting its Corporate Improvement Priorities (CIPS).

This strategy cannot sit in isolation and must be considered alongside the HR, Accommodation and financial strategies for the Authority, if the Council is to deliver maximum benefits and to increase the rate of improvement.

Adopting and delivering new ways of working is crucial to the continued improvement of PCC and so these strategies will require to be fully integrated and resourced appropriately to ensure delivery of the required outcomes.

New flexible ways of working such as hot-desking and home working require a co-ordinated approach to provide suitable facilities, technology and supportive management culture and ability. Therefore this strategy will continue to be developed collaboratively with our internal partners and the outputs will be seen in the detailed ICT annual action plans and through the provision of suitable HR activities to provide the necessary management policy framework and the required culture change.

ICT Vision
To support the continuous improvement of operational service delivery, by enabling informed decision making, through the use of secure and appropriate access to information when and where needed via a professional ICT service.

3.2 Aim

The aim of the ICT Strategy is to maximise the benefits of using ICT to PCC as a whole in achieving its corporate objectives. PCC recognises the need to work closely with our partners and the government departments and agencies to ensure the information systems and technology used is appropriately joined up. Examples include the use of Government Connect and Government Gateway.

One of the principle assets of PCC is the information it gathers and holds. The effective and intelligent use of information is critical to the success of the Authority. The ICT strategy is about ensuring we make the most effective and efficient use of our information, reducing risk and improving value for money.

PCC is aware of the need to seriously commit to establishing an environmentally sustainable operation. An aim of this strategy is, therefore, to assess its current IT landscape and to take a co-ordinated approach to further developing ICT in ways which are environmentally responsible and

sustainable. This sustainable agenda is also a driver for a number of initiatives that can bring real business benefits, efficiencies and better control of IT.

ICT accountabilities align with the corporate governance model and thus:

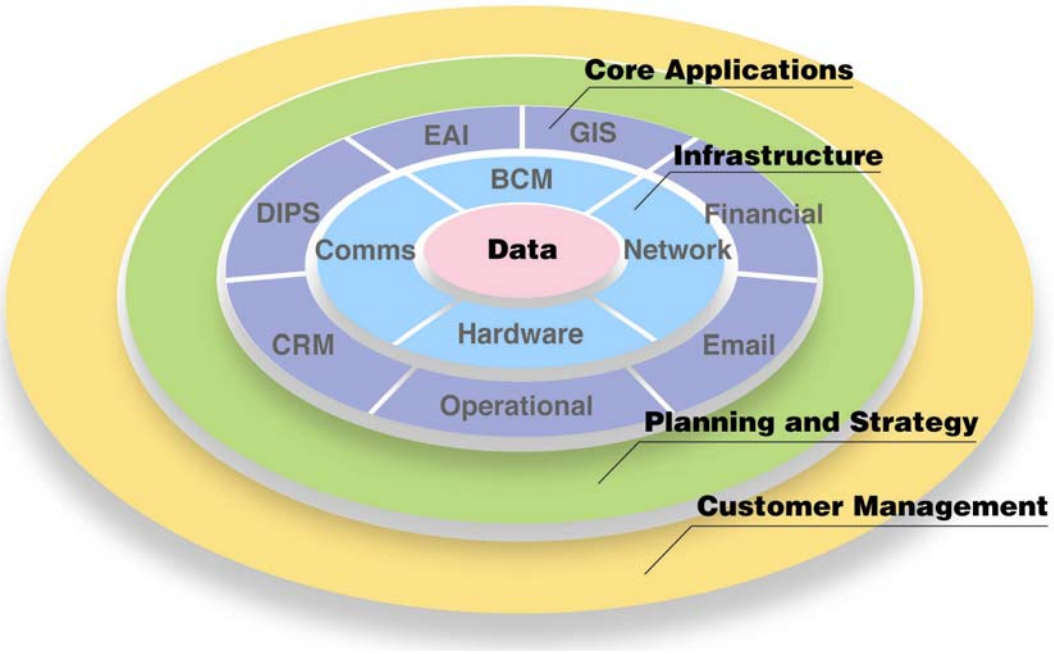
- Support the delivery of a prioritised capital programme
- Ensure that ICT projects are project and programme managed effectively.
- Provides strategic advice to Directorates and the Corporate Management Team, providing leadership for the ICT strategy and profession including the development of operational policies on ICT matters as well as encouraging ICT-enabled change programmes where appropriate.
- Drives forward the continued improvements in records management and information security.
- Provides a robust and resilient infrastructure and architecture to deliver all the Authority's Line-of-Business applications.

An aim of this strategy is recognising the need for flexibility which means that it is designed to evolve as the organisation moves forward and improves in a balanced and coherent manner. All aspects must remain in tune and in touch with each other, or unnecessary stress and strain will be put on individual components. Strategy is therefore not a one-time event, this needs to be a living and breathing document/process and engagement of the wider Authority is to be welcomed through the evolution of the Technology Project Board into an enterprise governance board that will be known as the ***Plymouth Information Technology Board*** (PITB) and will be the link to the Local Strategic Partnership to drive forward common, city-wide, strategies.

3.3 Scope

While the Plymouth City Council Corporate Plan runs to 2011, this strategy has a longer planning horizon of 2012 to take account of the long-term nature of ICT provision.

A key principle of this strategy is to provide enterprise technical and information architectures and services, where appropriate, to achieve the necessary economies of scale, reduce replication and maximise the benefit from utilisation of agreed standards. This is a structured way of capturing and describing PCC's information, processes, systems and technology.



The core applications highlighted provide the priorities for the enterprise systems. These building blocks are augmented by those critical line-of-business (LOB) applications that form the operational sector. These applications will also see themselves shown prominently within the business continuity plans.

This is aided by the centralisation of the ICT spend from across the Authority. It is accepted that while smaller departmental solutions may be speedier in implementation they often limit the overall scope of benefit realisation. Furthermore there is no guarantee that current departmental or even Council boundaries will remain static, hence there is even greater need to ensure that a flexible information architecture exists.

There will clearly need to be a balance between tactical and strategic investment and while technologies such as Unified Communications will undoubtedly play an active future role the benefits realised, from this or any specific technology or solution, must be prioritised to ensure ICT investment actively supports the financial ability of the Authority while enhancing operational capability and reducing operational risk.

This, in essence, is the enablement of agile IT.

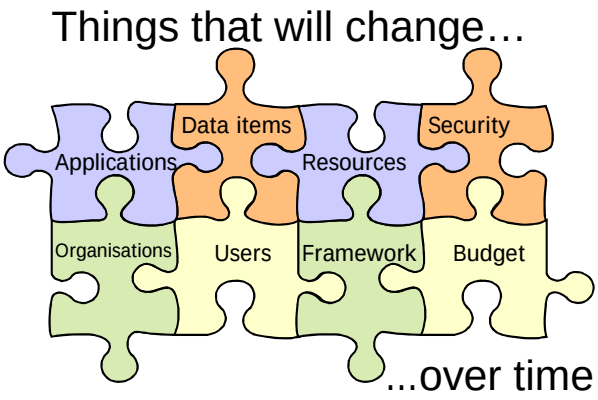
3.4 A Challenging Climate

In common with other organisations, PCC faces the challenge of effectively managing risks related to the information it handles and stores, particularly at a time when the volume and complexity of information is growing rapidly. These risks apply not only to potential misuse or loss of information but also the risks associated with not sharing information appropriately. These risks particularly apply where information flows, or should flow, across organisational boundaries.

There is also a high degree of IT-enabled change both in progress and planned across all of the Authority's business areas. Much of this relates to business processes, the introduction of new or replacement systems and the interchange of information. This change represents a significant investment by the council, the aim of which is to improve frontline services.

Within this context, the aim of the ICT strategy is to assist the Authority in managing and reducing the exposure to risk and maximising the benefits from its investment.

Such an ICT strategy can only deliver tangible benefits if the Authority has the appropriate level of capability. Accordingly, the development of the ICT profession within the council forms a key part of the strategy, which will be translated into actions to develop the skills of existing staff and strengthen the existing team through the recruitment of suitably skilled and experienced resources.



To highlight the change in emphasis from technology towards information management it is intended that the Head of ICT role provides a focal point for the continuing drive to improve information management and data quality standards across the council.

4. ICT Strategy Objectives

The overarching objective of the ICT strategy is to support the operations of the businesses of Plymouth City Council. With this in mind, the Authority has developed 5 principal objectives.

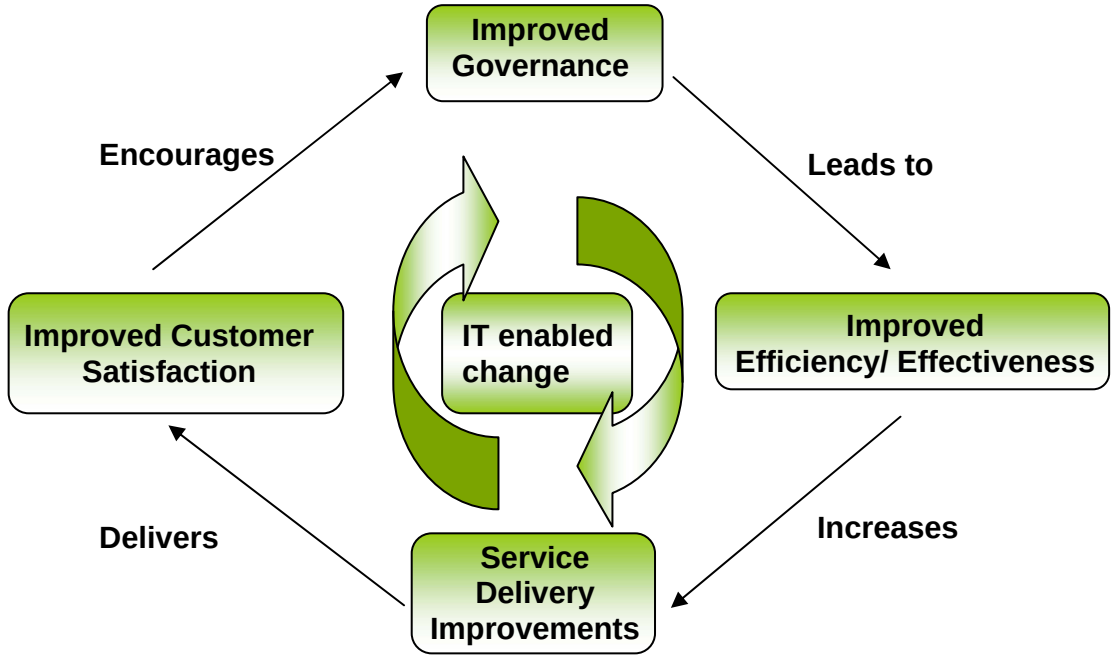
- To ensure that the service delivered represents value for money.
- Joining us and our partner organisations effectively.
- Ensure that assets (information, processes, systems and technology) are shared and reused as much as possible.
- Ensuring that PCC fully exploits information to achieve its objectives.
- Driving compliance across the organisation to reduce operational and reputational risks.

Principal Objectives

- **VFM:** deliver services that demonstrably demonstrate that they represent value for money.
- **Joining up:** improve effectiveness and reduce operational and reputational risk by joining up ICT capabilities where there is a need to work together with partner organisations.
- **Sharing and Re-Use:** improve efficiency and reduce costs through sharing, re-use and commonality of ICT capabilities across the Authority.
- **Information Exploitation:** ensure we make the best use of the information we collect and store in the public interest whilst increasing our confidence in our ability to protect our data, particularly that relating to individuals.
- **Compliance:** reduce the cost of compliance, and risk of non-compliance with ICT-related legislation, regulation and government strategies

The Plymouth Information Technology Board (PITB) will be established and this group will own and agree the standards and principles that will define how these objectives will be delivered across the organisation. The aim of this group will be to ensure that the services provided are cost-effective, secure, robust and resilient via, wherever possible, the enterprise architecture.

It is expected that these objectives will follow the virtuous circle of objectives shown over.



Virtuous Objectives Circle

5. Delivering the ICT Strategy

5.1 Progress and Achievements

The last few years has seen the ISD transform. ICT spend has been centralised, the department has been restructured and operate ITIL best practice standards. It has seen the desktop being refreshed and the removal of the Mainframe and Novell servers. The processes and skills to deliver systems analysis, development and support have been consolidated to provide a more efficient and effective service.

Improvements have also been delivered with the introduction of standardised business case templates for investments and improved project and programme mangement.

Key business applications, such as Housing, Council Tax and Benefits, Social Care, Education and Planning have been replaced or upgraded. We have also moved HR and Payroll off of the Mainframe, allowing this to be decommissioned and onto a new SAP platform.

The new structure has facilitated two new posts, those of the Technical Architect and the Information Security Manager. These two roles have given focus and direct attention to the creation of an enterprise architecture model for PCC and been responsible for the creation of a Devon-wide Security Policy and baselined standards.

A common infrastruture for the Authority is being developed in conjunction with a developing ‘roadmap’ to meet future council needs.

PCC has also played an instrumental role in the development and national roll out of Governement Connect. This adoption and development of national standards and working with Government Departments is set to continue.

The Authority has also adopted an Information Management Strategy, developed as part of an ongoing Information Assurance programme which is being designed to deliver control and compliance measures, management processes and to develop an information management culture.

5.2 Continuing the Journey

The aims and objectives outlined earlier apply to four key aspects over the coming years. These are:

- Enterprise Architecture
- Information Management (including Information Assurance)
- Future IT Provision
- ICT Profession and Skills

5.2.1 Enterprise Architecture

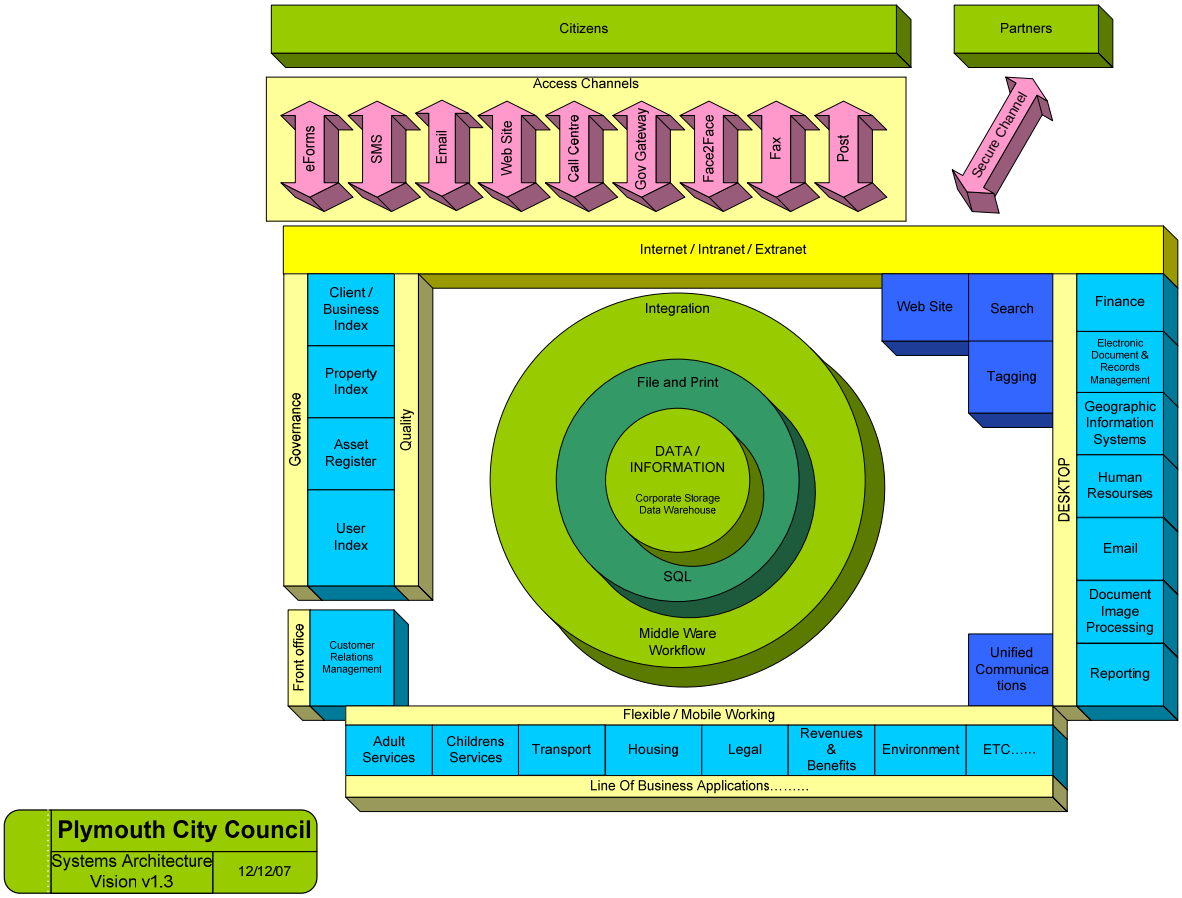
The Enterprise Architecture is a structured way of capturing and describing PCC's information, processes, systems and technology. It provides a way of mapping IT elements across the organisation and its boundaries and assists in highlighting the interdependencies between systems and information flows.

Adopting this model delivers many benefits, for example costs savings, risk reduction and improved customer service.

It will also assist the Authority in meeting its statutory returns as well as government targets and initiatives such as the 'Tell us once' campaign. In addition it will inform the development of sustainability plans as we drive forward to reduce our carbon footprint in line with Council policies and targets.

A new initiative process is also being added to provide early visibility of, and influence over new initiatives at their formative stage. The technical roadmap will be a cornerstone of this process.

The diagram below shows the IT system components of the developing architecture.



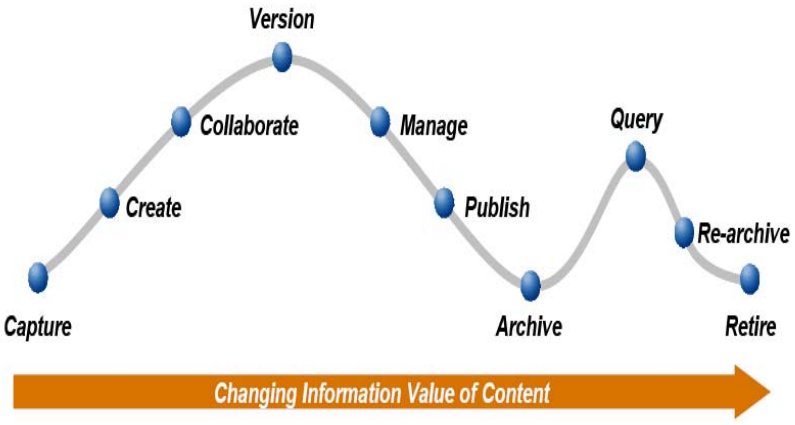
5.2.2 Information Management

Information and records management are critical elements of the overall Information Assurance Programme that is currently being established. Over the lifecycle of this strategy a number of information related initiatives will be undertaken to modernise and formalise our information management arrangements, policies and procedures. These activities will cover three workstreams:

- Delivering control and compliance measures.
- Establishing an information management culture.
- Establishing data quality management processes.

More broadly on information management we shall endeavour to continue work on creating the capabilities to improve knowledge management across the Authority; specifically with the production of tools, policies and standards.

Improving information assurance is a critical outcome from adoption of the enterprise architecture and tools such as Government Connect secure email system (GCmail). We will therefore need to ensure that we align our activities with the government agenda by acknowledging best practice as proposed by documents such as "*A National Information Assurance Strategy*" from the Cabinet Office.



The ability to protect information will become the focus of our security activities and will become intrinsic elements of our future strategy and policy development. These developments will undoubtedly impact the guidance we must offer staff. Therefore to ensure compliance we will make certain that staff have sufficeint training, knowledge and understanding of information management risks and can better demonstrate compliance and good Information Management (IM) practices across the businesses.

5.2.3 Future IT Provision

The model for ICT was for a move to a centralised service, and this has been established. This move has resulted in significant savings being delivered. Tighter contract management has become possible and consolidation is now being driven forward, extending the sharing and re-use model.

This consolidation will continue and the centralised model will continue to be utilised to provide a shared service model for commodity IT services.

PCC plans to have an IT infrastructure that exploits virtualisation technology; a fully enabled mobile working environment; a single and resilient network that enables secure working within an integrated provision, robust data repositories and application services and appropriate data recovery (likely to be via cold or warm stand-by systems); and more integrated voice, data and video services. Future applications will need to conform to more open standards and a Service Orientated Architecture (SOA), being modular and achieving greater levels of interoperability and will be primarily based upon component and packaged software.

Establishment of the principles to underpin these future plans is being developed with the Technical Architect and the PITB. These principles are in the separately appended document; ***'Enterprise Information Management Principles'***.

It is hoped that these best practice principles will be able to be adopted across the LSP as this will enable the necessary behaviours to develop and provide the basic decision framework within which strategy alignment can occur.

5.2.4 ICT Profession and Skills

Plymouth City Council is committed to developing the performance, capability and capacity of IT, knowledge, information and records management professionals and end users in delivering the strategies and operational needs of the business.

ICT has undertaken a review of role profiles and is continuing in the professionalisation of its staff. ICT will work to ensure that competencies model, the adoption of industry standard qualifications, more robust management of the IT and IM professions and a strengthening of performance management standards will provide PCC with the skills and competencies required to deliver improvements in this area.

> **Government's** ambition for technology enabled change is challenging but achievable provided it is accompanied by a step–change in the professionalism with which it is delivered. This requires: coherent, joined up leadership and governance; portfolio management of the technology programmes; development of IT professionalism and skills; strengthening of the controls and support to ensure reliable project delivery; improvements in supplier management; and a systematic focus on innovation.
>
> Cabinet Office,
> Chief Information Officer Council website 2007

The required competencies and any gap analysis will be unertaken utlising the Skills Framework for the Information Age (SFIA) as its baseline measure as this is an ICT industry standard framework.

5.2.5 Key ICT Strategy Products

The following key strategy products will be delivered in 2008/09:

- ICT Strategy scope and objectives (this document)
- ICT strategy action plan
- Enterprise Architecture systems and technology views
- ICT standards and principles
- ICT Roadmap

- Information Assurance products (arising from the Information Assurance Programme)

- ICT profession action plan

- Sustainable IT action plan

5.3 Governance, Organisation, Roles and Responsibilities

5.3.1 Corporate Governance

The HICT and the Directorate ICT Programme Boards (DICTPB) are responsible for ensuring that they take full acount of ICT planning and operations throughout the lifecycle of the project and or programme. This includes ensuring compliance with corporate guidelines on capital bids and monitoring.

The Plymouth Information Technology Board (PITB) is responsible for overseeing all aspects of ICT which requires a cross-cutting view. It provides a steer by concensus, with decisions regarding the Enterprise Architecture and provides the central driver to ensure that consolidation is embedded within the Service planning process. The secretariat for the PITB sits within the ICT Department.

Each DICTPB will also be responsible for determining the respective Directorate priorities. Where capacity issues are encountered, the PITB, will make any final arbitration or decision, as delegated by the Corporate Management Team (CMT). The HICT is a member of the PITB and strengthens the governance of the Board by ensuring projects and programmes adhere to the PCC ICT strategic objectives and standards.

The DICTPBs and the PITB will be supported on specialist technical matters by the establishment of a Technical Design Authority. This group will be responsible for ensuring that future introductions of technology are compatible with the existing infrstructure and future roadmap.

5.3.2 Roles and Responsibilities

The DICTPBs are responsible for:

- Determining the overall requirements for their Directorate, including required timescales and relative priorities.

- Develop ICT strategies or service plan requirements that incorporate agreed corporate initiatives

- Ensuring ICT strategies contribute to the overall vision, aims, objectives and core values of the Council.

- Overseeing the business resource input to the change programme or project.

- Establishing appropriate planning processes for business change programmes.

- Ownership of the information they use to deliver their business functions, and compliance with corporate information assurance and data handling measures.

- The specification and high-level design of the systems to implement its business

- Making use of the IT and IM centrally provided IT services according to the overall agreement on the use of the resource.

The HICT has responsiblities to:

- Provide strategic advice on critical ICT issues, including information risk.

- Ensuring that ICT strategies contribute to the delivery of 'Best Value'

- Play an integral role in council central activities by setting the ICT strategy and contributing and ICT viewpoint on: strategic policy and objectives, planning, approval, performance, risk and audit processes.

- Provide leadership for the IT profession including developing and managing the implementation of the strategy.

- Encourage ICT-enabled change programmes and ensure their fit with the ICT Strategy and enterprise architecture.

- Provide the Authority link with external bodies in relation to the provision of ICT services or general ICT matters.

- Provide ICT input to corporate processes including:

    - Business Planning
    - Operating Reviews
    - Capital Programme Board
    - Corporate Impact Group
    - Programme and Project initiation

Appendix A Glossary

CIP's – Corporate Improvement Priorities, the 14, focussed, priority action areas for the Council's contribution to improved outcomes for the City.

Enterprise Architecture is the organising logic for business processes and IT infrastructure reflecting the integration and standardisation requirements of the firm's operating model. This drives forward consolidation and seeks to ensure single core systems are used where possible.

ICT – Information Communications Technology

ISD - Information Services Division

PITB – Plymouth Information Technology Board, the governance mechanism for ensuring operational business requirements, the city's LSP partners and PCC's strategy and action plans align to maximise benefit.

SOA -In computing, **Service-oriented architecture** provides methods for systems development and integration where systems group functionality around business processes and package these as *interoperable services*. SOA also describes IT infrastructure which allows different applications to exchange data with one another as they participate in business processes. Service-orientation aims at a *loose coupling* of services with operating systems, programming languages and other technologies which underlie applications. SOA separates functions into distinct units, or services, which developers make accessible over a network in order that users can combine and reuse them in the production of business applications. These services communicate with each other by passing data from one service to another, or by coordinating an activity between two or more services.

TOGAF -**The Open Group Architecture Framework** is a framework for Enterprise Architecture which provides a comprehensive approach to the design, planning, implementation, and governance of an enterprise information architecture. The architecture is typically modeled at four levels or domains; Business, Application, Data, Technology. A set of foundation architectures are provided to enable the architecture team to envision the current and future state of the architecture.