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West Lindsey
DISTRICT COUNCIL
The Entrepreneurial Council

CPR.33 15/16
Corporate Policy and Resources Committee
Date: 10th November 2015

Report on the IT Strategic Overview and Action Plan

Report by:	Director of Resources
Contact Officer:	Ian Knowles Director of Resources 01427 676500 Ian.knowles@west-lindsey.gov.uk
Purpose / Summary:	This paper sets out a proposed action plan to develop our IT estate in support of the Corporate Plan. Members are asked to agree the action plan as set out.

RECOMMENDATIONS:

Members are asked to agree :

1 – That the actions set out will support the Corporate Plan,

2 – That the principles set out in appendix 3 be implemented subject to development with the Service Leadership Team.

3 – That an update report is presented to committee after six months of implementation.

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IMPLICATIONS

Legal: This paper contains a number of actions that will ensure we comply with our legal obligations with regards to data security and information governance.

Financial: There are no direct financial implications from this paper. Should any of the individual actions require additional funding this will be reported separately. FIN/87/16

Staffing : There are no direct staffing implications within this paper.

Equality and Diversity including Human Rights : There are no equality issues raised by this paper.

Risk Assessment : The IT Strategic Overview and Action plan will support the mitigation of key risks around business continuity, data security and project delivery.

Climate Related Risks and Opportunities :

The IT action plan and strategic overview will be delivered in a way that reduces the carbon footprint of the West Lindsey District Council.

Title and Location of any Background Papers used in the preparation of this report:

Call in and Urgency:

Is the decision one which Rule 14.7 of the Scrutiny Procedure Rules apply?

| i.e. is the report exempt from being called in due to urgency (in consultation with C&I chairman) | **Yes** | | **No** | x |

Key Decision:

| A matter which affects two or more wards, or has significant financial implications | **Yes** | | **No** | x |

ICT Strategic Overview – Five Year Outlook
2015 – 2020

1   Introduction

The role of ICT has grown in importance over the last decade. Information technology is now a key part of how services are delivered and increasing customer benefits.

The advent of agile working and the development of a mobile workforce increases service reliance on technology and makes the IT estate critical to the success of services and the organisation.

This paper provides a strategic overview at appendix 2 which shows a range of strategic drivers for IT, establishes a vision and identifies four focus areas. The actions arising from the overview are summarised in appendix 1.

2   Conclusion

In conclusion, the attached action plan will provide the foundations for developing IT as a key part of our Customer First Strategy and support the continued development of an agile workforce. The introduction of an Enterprise Architecture approach will ensure that we improve our performance for delivery of IT projects and maximise the benefits to be achieved. A review and update on the strategic positioning of IT and an update on progress against these action plans should be undertaken on an annual basis.

3   Recommendations

Members are asked to agree:

1 – That the actions set out will support the Corporate Plan,

   2   – That the principles set out in appendix 3 be implemented subject to development with the Service Leadership Team.

   3   – That an update report is presented to committee following six months of implementation.

IT Action Plan

Customer First

The Strategic Lead – Customer First, will develop a Customer Strategy for the Authority which will improve our delivery to residents and customers whilst increasing channel shift to greater on-line access.

The resulting strategy will be supported by the following actions arising from the IT strategic overview (appendix 2):

1 – Implement and develop the new website to facilitate easier online access and integration with the back office systems.

2 – Develop a single customer view so that a residents complete interactions with the Council are captured in one place for easy access.

3 – Investigate the options for introducing CRM into the organisation and how it would be used to support the improvement of customer services.

Modern Working Practices

Developing a modern working environment for all employees requires a culture that is continually renewing working practices and improving our approach to technical development of IT solutions and underlying infrastructure. The actions arising from the IT strategic overview can be analysed into two aspects; Tools for the job and Technical Governance.

Tools for the job

1 – Develop a project that will integrate our telephony systems (mobile and desktop) to reduce the range of numbers available and ensure the availability of individuals.

2 – Introduce a rolling refresh of IT devices for individual use and improve the benefits of a mobile and agile workforce. The current approach would seek to replace all devices after a year five year period, the revised plan would aim to initiate the replacement in year three but develop a staged approach that would provide a flexible replacement policy that was appropriate for each service area.

3 – Over the last three years the Council has saved £77k from reduced needs for printing and stationary. To continue this downward trend in the demand for paper and printing all systems development will be designed to be 'paper light'.

4 – Legacy Systems – The organisation has over 60 systems across the services we deliver.

The Enterprise Architect will ensure these systems are fit for purpose and provide the service teams with appropriate tools for the job through a rolling review of systems. Priority

will be given to those systems currently being identified for review by the services themselves.

5 - Latest Operating Systems –

The IT Support team will ensure that the latest operating systems are deployed through an ongoing review of the latest technology and planned implementation when appropriate.

6 – Usability of Minerva –

Over the last two years Minerva has grown and developed to become the repository for all documentation and internal communications. It is now timely for the way Minerva is utilised to be reviewed and future development to be standardised and increase its user friendliness. The Enterprise Architect supported by the Corporate Systems Group (CSG) will undertake the review and plan the implementation of changes.

Technical Governance

1 – Develop a whole life costing approach to the introduction of new systems, ensuring the approach has sufficient flexibility for the range of activities undertaken by the Council.

2 – Establish a project within the IT Teams to introduce ITIL (Information Technology Infrastructure Library) to improve the quality and efficiency of the service. This would include appropriate training for the team.

3 – Ensure the organisations programme and project management approach is fully understood and implemented for all IT projects.

4 – The IT teams will develop a clear set of metrics that will be appropriately benchmarked and implement aspirational targets and standards.

5 – Enterprise Architecture – The arrangement of IT systems, infrastructure and devices is collectively known as the Enterprise Architecture. The design and assembly of the constituent parts needs to be coordinated in a way that ensure an efficient, cost effective and dependable IT estate. To ensure we are able to manage the development and improvement of our IT architecture we will undertake the following:
- Introduce an Enterprise Architecture Board
  - The Corporate Systems Group already exists and will be responsible for compliance with the principles set out in appendix 4

- Agree the principles set out as appendix 4

- Nominate an officer as the Enterprise Architect – This is not an additional post but the specific designation of an existing officer.

6 – Information and Data Security – To ensure the Council is compliant with the information and data security regulation and legislation a set of principles have been developed

(Appendix 3). These principles will be the responsibility of the SIRO (Senior Information Risk Officer) and the Corporate Information Governance Group.

7 – Shared Services – Over the last three years we have been developing a shared IT infrastructure with North Kesteven. The technical work has been completed this summer. It is now necessary to establish a shared support team to maximise the benefits of the shares infrastructure.

8 – Further Infrastructure modernisation – The shared service with NK has utilised an element of virtualisation (maximising the capacity of dedicated hardware through intelligent software), this approach will be developed and include the exploration of 'cloud' based approached to infrastructure management.

9 – Helpdesk Improvements – As part of the shared service with NK a shared helpdesk will be implemented and self-help facilities will be developed.

General Overview
To ensure we implement an environment of continual improvement the following actions will be implemented:

1 – Alignment with the Corporate Plan – The IT overview and action plan has been developed to support the existing Corporate Plan. When the revised Corporate Plan is complete a review of the IT strategy and action plan will be undertaken to ensure continued compliance.

2 – Future Thinking – The overview document reflects on some of the current developments within the IT industry. The Strategic Leads and Service Leadership Team will work with the Corporate Systems Team to develop appropriate mechanisms to ensure that this organisation takes full advantage of new technologies and maximise the benefit for residents.

3 – Compliance and Business Continuity – As data security becomes increasingly important in an increasingly digital and mobile age, the Corporate Information Governance Group (CIGG) will be tasked with ensuring we undertake regular reviews and tests of our data security arrangements and business continuity arrangements.

4 – Performance criteria will be established for both Systems Development and Support teams which will be incorporated into the Progress and Delivery reports to ensure IT seeks continuous improvement.

ICT Strategic Overview - Five Year Outlook
2015 – 2020

ICT Strategic Overview – Five Year Outlook
2015 – 2020

Contents

2   Executive Summary

The next five years will witness significant changes across the public sector. The shape and size of the council is likely to change but the need to provide high levels of service to our citizens will remain and be set against a backdrop of reduced budgets. With these new challenges will come new opportunities; using ICT to enable the Council to achieve efficiencies, providing the infrastructure to support shared services and most importantly, keeping pace with citizens' changing needs and expectations

The need for efficient, 'fit for purpose' ICT services has never been greater. With an ever growing reliance on ICT in our everyday activities; developments such as the need for faster broadband speeds, the need for increased availability of wireless connectivity for agile working and the wider use of social and business tools available on the internet, are just some of the key strategic enablers that will impact on ICT across the organisation over the next 5 years.

ICT is no longer just a support service; it has become a critical service. If it is unavailable, the organisation cannot operate. It has the ability to transform the way services are organised and delivered. It has a fundamental role to play in improving efficiency, reducing cost across the organisation and underpinning the organisational change programme. The Strategy to 2020 sets out how we will ensure that the council's ICT infrastructure will support services in responding to these challenges.

This document outlines how ICT Strategy will support the Council's Corporate Plan and provide:

- 'Fit for purpose', efficient ICT services which enable and support effective and reliable service delivery
- Governance which will ensure the right projects and initiatives are delivered and they are delivered in a controlled and timely manner.
- A cost effective ICT infrastructure that reduces duplication, streamlines work flows and access to information, offers best value and delivers a return on investment
- A safe and secure ICT network that reduces risks, repels external threats and complies with relevant legislation
- A future-proof, proactive and innovative commissioning service for all ICT investment.

The future of the authority lies in a true partnership of public, private and voluntary bodies to deliver effective and appropriate public services for our citizens. Effective collaboration will widen our horizons and open up opportunities for innovation in service provision and administration.

 Our strategy is made up of four key programmes:

- **Working Where the Work Is** – to develop ICT facilities and services that allow staff to work effectively from any location, often referred to as agile working
- **Enabled Citizens, Businesses & Members** – to implement tools and technologies which put the citizen, business managers and staff in control of their information and communication to transform the way that services can be delivered
- **Superfast Broadband** - to secure public and private sector investment to enable the provision of superfast broadband infrastructure to over 90% of homes and businesses; and to promote take-up across the West Lindsey district

• **Core Systems Development -** to sustain the ICT systems and technologies which underpin the council. This includes developing our SharePoint platform to provide back office efficiency, control and compliance, Service Management information, improvements to usability and access for customers (both internally and externally) and multi-organisation working.

3   Strategic Drivers

West Lindsey District Council is a complex and diverse organisation and we are experiencing a fundamental change in the way we operate internally and the way we relate externally to citizens, local businesses, other public services providers, partners and central government. We need to deliver better value by working in partnership with other service providers to allow more choice and improve achievement of our priority outcomes. Regardless of our area of activity, effective service provision is becoming ever more dependent on how we, as individuals, teams and organisations embrace, manage, develop and apply ICT. We live in a world increasingly digitally enabled with greater reliance on faster broadband and wireless connectivity. Our aim is for the ICT strategy service to be a key enabler for the existing activities and aspirations of the Council and the various partnerships and groups that work with us to improve the wider "well-being" of the area. This ICT strategy supports where it can the 5 key themes of the West Lindsey District Council Corporate Plan as well as the broader subjects of governance and risk management.

- A Prosperous and Enterprising District
    - Asset Acquisition, Disposal and management
    - Job creation, NNETS and Apprenticeships
    - Open for Business
- An Accessible and Connected District
    - Broadband
    - E-accessibility
    - Mobile accessibility
- A Green District where people what to live, work and visit.
    - Green premier energy solutions
    - Drive down waste and support rural initiatives
- Active and Healthy Citizens and Communities
    - Increasing community action and volunteering
    - Promote well-being and healthy communities
    - Address the wider determinants of health
- Organisational transformation
    - Value for Money through the efficient, economic and effective delivery of services.

The key drivers influencing our strategy are illustrated in the diagram below:
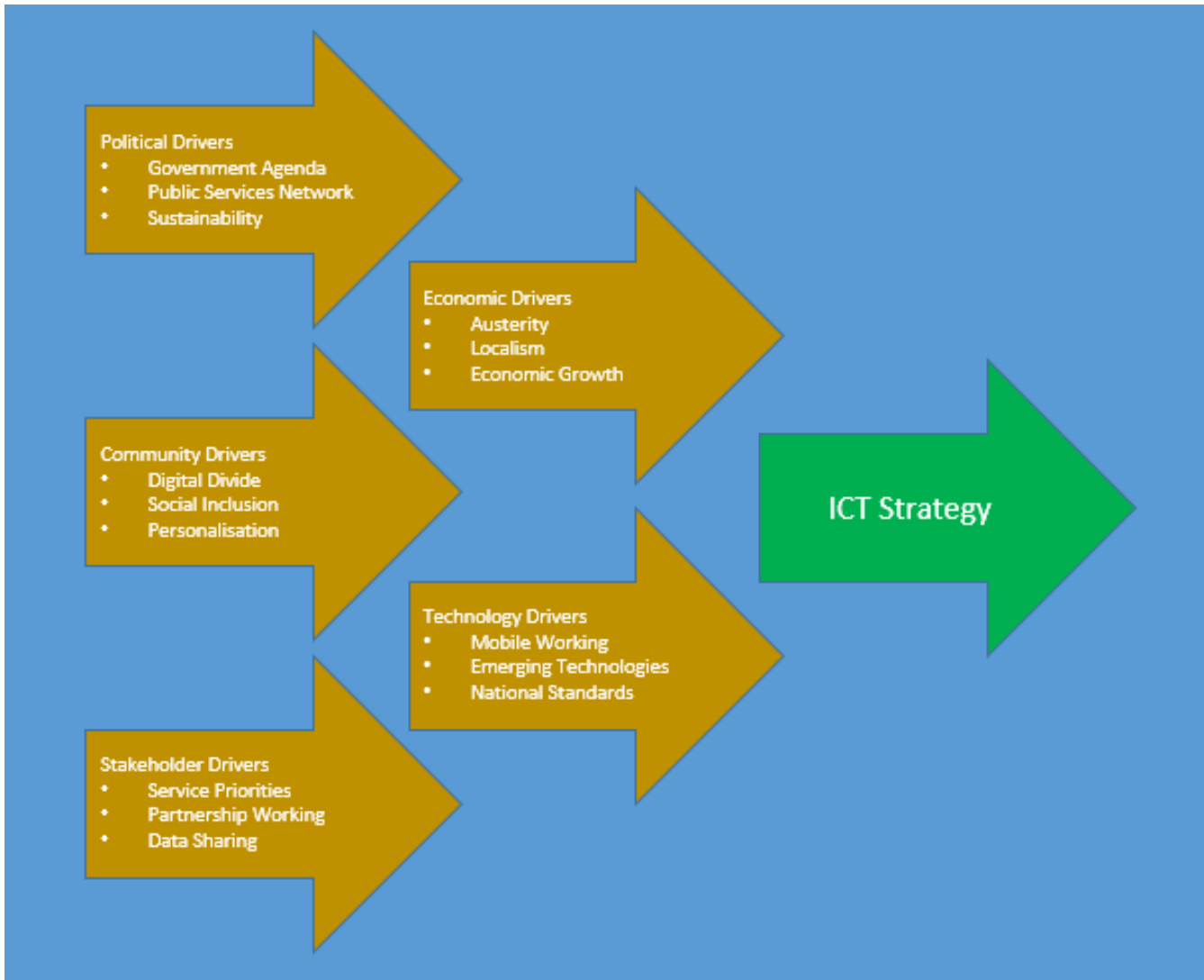
3.1 Political Drivers

The government view transparency as a foundation stone of accountability and a powerful means of promoting efficiency. The taxpayer has a right to see how their money is being spent. In this tight fiscal climate it is important that we can manage our high volume and diverse information sources effectively so that we can publish data appropriately and in a timely manner.

In order to support multi-agency and collaborative working, the Government is driving forward the creation of a Public Service Network (PSN) infrastructure. We will to work proactively with public sector colleagues across the Lincolnshire sub-region to develop the emPSN and to ensure that this network is cost sustainable, secure, compliant, resilient, scalable and future-proof.

The UK has an overarching target to reduce greenhouse gases by 26% or more by 2020 and by at least 60% by 2050. The Council has set targets to reduce carbon dioxide emissions with a view to ultimately achieving carbon neutrality. In order to reduce the overall carbon footprint of the authority, we will ensure that ICT provision embraces sustainability principles wherever possible.

3.2   Community and Social Drivers

Lincolnshire is a county of contrasts, from remote sparsely populated areas, to major townships, with significant wealth and health inequalities. Many of these demographic and social issues have been exacerbated by both the recession and commercial imperatives, making it difficult for the needs of specific groups to be reflected in local, national and regional policies. With the implementation of digital communications and investment in superfast broadband, which can reach and empower local communities, we will be able to reflect local needs, drive costs down and remove the digital divide which exists between our urban and rural areas.

It is important that our citizens are not disadvantaged by lack of access to the opportunities that ICT presents. We will continue to deliver technology that can enable the personalisation of services and engage our staff and citizens so that whatever their background or circumstances they may have similar opportunities in life.

3.3   Economic Drivers

Reductions in public funding, to support national deficit reduction targets, mean that we have to become very skilful at achieving outcomes with reducing financial resources, continuously striving to maximise outputs and optimise processes. We will harness the power of technological developments to change the way our services are delivered, driving down costs while continuously striving to improve levels of service, optimise processes and broaden the options for accessing and delivering services.

The focus on efficiency also strengthens the need to consider Joint and Shared services. There are many opportunities to share services locally, regionally and nationally and we need to fully explore the potential benefits.

The Localism agenda and our local strategic partnerships allow organisations to work together effectively in true collaboration. ICT will enable these partnerships to communicate easily, collaborate electronically and access information and knowledge seamlessly.

Business growth is a key driver for economic recovery; through the investment of superfast broadband infrastructure we will support our businesses. Small and medium sized enterprises, in particular, will be able to maximise the take-up and exploitation of technology enabled by faster broadband connectivity e.g. high definition video conferencing, 'cloud computing', international trade and e-commerce.

3.4   Technology Drivers

West Lindsey District Council's office accommodation strategy is driving forward the optimisation of our valuable office space. Not all staff will be allocated dedicated desks and there is a target to increase the ratio of staff to desks wherever we can as service delivery processes begin to change through the effective adoption of technology.

Staff will be encouraged to work in the most efficient and effective manner possible in whichever of the Council's network of main offices and locality bases is most appropriate for each particular activity. We will ensure the effective exploitation of ICT technology to ensure that all staff have access to appropriate resources to undertake their work in a variety of locations.

With advances in computing power and capability, the widespread use of the internet and the growing affordability of many devices, it is now possible to take advantage of a wide variety of digital services. The marketplace moves quickly and it is important to actively investigate emerging tool sets to stay abreast of developments and the possibilities they present.

Over the past 5 years or so the growth in personal use of smart phones, laptops and tablet computing has overtaken the capability and perceptions of Council owned ICT. This is a key challenge and opportunity for us, to enable staff to work productively at home if they choose and even use their own devices at work where appropriate.

Our corporate headquarters in Gainsborough pioneered the provision of free Wi-Fi access to visitors of all the Lincolnshire Districts over five years ago, and continues to support this increasingly important service, key to collaborative working with our suppliers and partners.
 We will ensure that the provision and use of ICT within the authority is compliant where legislative requirements and government standards dictate. These include the Government Connect Code of Connection, Payment Card Industry Standards, and Data Protection Act 1998.

3.5 Stakeholder Drivers

Our service 'clients' rightly expect their ICT solutions to deliver information access, storage, processing and reporting facilities for practitioners and appropriate partners. Although complex data sharing requirements, legacy systems and differing partner technologies present significant challenges to provide efficient connections with partners and suppliers, we will strive to deliver fit for purpose and future-proof services.

ICT now plays an increasing role supporting the Council's front line services. In addition, these services now need to reduce costs without compromising service standards or reducing access or uptake particularly among more vulnerable or disadvantaged service users. We will continue to provide and develop new services for our citizens that are efficient, effective, equitable and empowering putting the customer at the heart of what we do.

4   ICT – The Vision

ICT will continue to support the major schemes and programmes of work across the Council as well as the day to day operations and so it will be vital to continue to invest in the development of a cost effective, well managed and secure ICT infrastructure that will:

- Enable everyone (internally and externally) to collaborate and access information electronically when, where and how they need it
- Allow services to be delivered more efficiently and effectively, to enable better strategic commissioning and delivery of frontline services
- Help us to capture, process, store and retrieve information reliably and conveniently from multiple access points.

Our vision will be underpinned by the following core principles across each of our key stakeholder groups:
Citizens and Businesses can become self-reliant and take personal responsibility, are able to:

- Find information about Council services and how to use them at any time of day and from any part of the district and beyond
- Have quick and easy access to information from any device e.g. smart phone, laptop, tablet
- Access information through a variety of channels e.g. internet, email, social media, letter, phone, face-to-face
- Be confident that their personal details and information we retain are managed securely, processed and shared responsibly
- Express views and make decisions on services and plans

Elected Members can support their communities by retrieving and using information at any time, from anywhere in order to:

- inform decisions
- monitor the effectiveness and efficiency of services
- engage in effective scrutiny of Council strategies, policies and operations
- to understand and respond to the needs of constituents

Managers and staff can deliver quality and best value, are able to:

- Access Council ICT systems and services from any location using a variety of devices e.g. Smartphone, tablet, laptop in line with business need
- Retrieve timely and accurate information at any time using self-service tools
- Contact and collaborate with colleagues and partners across the organisation using a variety of different channels e.g. phone, email, text, video
- Move and work easily between roles and departments as a result of standardised equipment and processes.

Partner organisations can work with the Council to ensure best outcomes, are able to:

- Exchange information with the Council safely, securely and appropriately
- Integrate and harmonise ICT processes to improve efficiency and deliver benefits to citizens and local businesses
- Ensure that individuals do not get 'lost' between agencies.

Behind each of these core principles is a vital need to ensure ICT have and deliver an **information focussed approach** to ensure better analysis of the data we hold, including making more use of technology around informatics, to design the best interventions and influence partner and/or community actions. Whilst we can all relate to the physical components of ICT, e.g. the servers, processors, and disks, it is the information these components hold that is the real asset to any organisation.

Unlocking the power of the information assets at our disposal, and targeting our resources based on the evidence this intelligence provides, is at the heart of our approach to *localism* and key to our transformation into the *Entrepreneurial Council*.

5   Key Focus Areas

5.1 Customer Self-Service

- West Lindsey District Council is offering a choice in the way people access services.
- Making the web the channel of choice for most citizens offers the opportunity to achieve significant savings for the council, while at the same time offering a better service.
- The financial case is powerful when one considers the cost of the three main channels. Estimates vary, but one provided by SocITM shows:

Face to face	£8.23 per visit
Phone	£3.21 per call
Web	£0.39 per visitor

Source: SocITMInsight (December 2009)

- To be successful in encouraging citizens to use web access to services and information we need to ensure their experience is a positive one otherwise they will be unlikely to return.
- All access channels need to be supported by a "single customer view" – one data source showing all information for that customer (citizen or business). This will provide a consistent model for all customer contact across the Council. A master record of customers (including businesses) will be held and updated by the council to provide consistent, accurate customer data to enable effective and efficient resolution of customer enquiries. Information captured will provide customer insight to enable greater customer focus and tailored delivery of future services.

- A key challenge will be to embrace the rapidly increasing use of smartphones. It is estimated that 92% of all phones will be smartphones by 2017 with a wide range of digital interactions being made via handheld devices

- Access to services by the Internet and for reporting of emergencies is available 24 hours a day, 7 days a week. The Council intends that all services that can be efficiently delivered electronically will be, including the development of self-service solutions. The use of broadband and digital services is being promoted through marketing and publicity to improve take up. Access for disabled people and excluded groups is an integral part of the approach, and will be delivered through working with partner organisations.
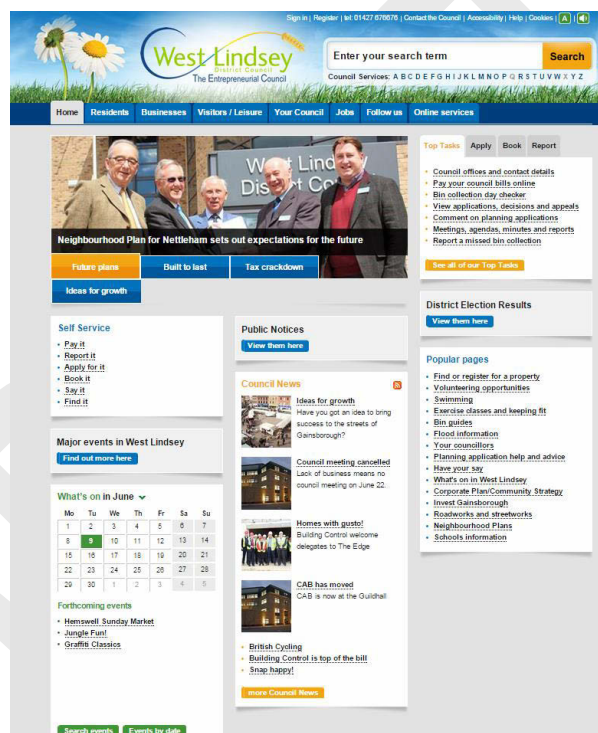
- All access channels should capture management information on take-up and customer satisfaction and we will use this information to continually review and improve services. We will encourage the take-up of electronic channels. We will seek to reduce the high-cost channels by marketing or incentivising the low-cost channels.

5.2 *Modern Working Practices*

- The Agile working programme is changing the way we work. The programme is delivering significant efficiencies by introducing modern work styles such as hot-desking, mobile working and home working, reducing and rationalising office

accommodation and eliminating unnecessary bureaucracy and administration. The efficiencies achieved are being invested into delivering improved services by increasing staff time allocated to service delivery, greater contact with the customer and improved access to supporting information.

- West Lindsey District Council will continually review its structure, services and cost base in order to ensure that the Council operates in the most efficient and effective way possible. A key element of this will be the use of technology to improve productivity, service delivery and value for money.

- Investment is being made into new technologies, equipping the mobile worker, home worker and traditional office worker with the appropriate tools necessary to do their job. Investment is being made into retained property to ensure it will support the new ways of working and the expectations of a modern council. All new ICT projects will be based on whole life costing with benefits and efficiency savings identified in advance to feed into the project prioritisation and decision process.

- Relevant staff are being equipped with the technology to go out into the community and link back to council's systems quickly and effectively. Our technical architecture supports staff mobility, equipping them to go to customers. To support this, security of information and its communication is being continually reviewed and improved.

- We are using facilities that are flexible and as future-proof as possible, reducing the numbers of devices that someone needs to carry or use, integrating communications and using wireless technologies wherever practical.

- We will continue to invest in virtualisation of both desktop and servers to reduce cost and improve efficiency. The service will embed ITIL (Information Technology Infrastructure Library), which is a set of concepts and practices for good practice in Information Technology Services Management.

ITIL will ensure:
- Better general IT support of business operations.
- A move from reactive to proactive management.
- A clearer view of user and IT support roles and responsibilities

For the Service Desk it will support:

- More efficient working.
- Improved staff utilisation.
- Greater perceived IT benefit from users.
- Improved first time fix rate.
- Improved Incident Management
- Reduced business impact of incidents by timely resolutions.
- Reduction in reactive incident resolution activity.

- We will embed best practice Project and Programme management processes and standards to ensure projects are prioritised, initiated and delivered in a controlled and timely way – delivering the best benefit in the least time – with a key focus on benefits tracking and realisation.
- Touch down points around the district provide hot-desking facilities for mobile staff/
- We will drive the council towards a 'paper-light' policy (the ability to print where necessary, but with minimal paper storage).
- We will continue to monitor technology developments in order to identify where they can add value to services and citizens. We will ensure that the council maintains awareness of how technology can help deliver corporate priorities and innovative approaches to service delivery that support its business plans, service ambitions and the wider organisational review. Fast changing technologies lead to opportunities for service innovation and organisational design that might previously have been unimaginable.

5.3 Governance

5.3.1 IT Governance

We will ensure that a structure is implemented that will ensure we align our ICT strategy with our corporate plan, helping ensuring that the council stays on track to achieve our strategies and goals, and implementing good ways to measure IT's performance.
We will make sure that all stakeholders' interests are taken into account and that processes provide measurable results.
Our IT governance framework address key questions, such as how the IT department is functioning overall, what key metrics management needs and what return IT is giving back to the council from the investment its making.

5.3.2 Architecture Governance

We will introduce Architecture Governance into the West Lindsey ICT department with Enterprise Architect tasks fulfilled by an ICT staff member, Architecture Principles and an Architecture Board to oversee the governance.

5.3.2.1 Enterprise Architect

The nominated enterprise architect, who will understand the council's operations and business areas and be able to dive deeply into technology issues, will take West

Lindsey's corporate plan and define the IT systems architecture to support that strategy.

5.3.2.2   *Architecture Principles*

We will use architecture principles (see Appendix B) that define the underlying general rules and guidelines for the use and deployment of all IT resources and assets across the enterprise. They reflect a level of consensus among the various elements of the council, and form the basis for making future IT decisions

5.3.2.3   *Architecture Board*

In order to help ensure a successful ICT and architecture strategy for WLDC we will use cross-organization Architecture Board to oversee the implementation of the strategy and initiative/project selection. This body should be representative of all the key stakeholders in the architecture, and will typically comprise a group of senior staff responsible for the review and maintenance of the overall architecture – not just from ICT.

5.4   *Information and Data Security*

- The Internet has resulted in the Council, its partners and citizens having access to unprecedented information. The Council requires accurate and timely information on which to make informed decisions. Modern services require greater access and sharing of information. Staff need to be able to work collaboratively across different sites and with partners through the use of new technology.

- The Council will need to maximise the use and value of its data assets, both within and beyond the Council. Core to this will be increased data transparency, publishing and sharing information in a manner that is useful and interesting.

- Managers will be able to obtain all relevant information on demand (self-service), and ensure that decisions are taken in full light of available knowledge (especially service related knowledge).

- Flexible, home and remote working will continue to move the Council forward in managing performance by outputs and results.

- We will ensure that there is effective data handling and exchange across all areas of the council and with our partners.

- We will embed and maintain security standards to ensure that we protect information and information systems so that individuals and organisations have confidence in our ability to manage their personal information securely.

- We are applying robust arrangements for authentication and security that are compliant with nationally agreed standards. In addition we pro-actively monitor data security in order to safeguard the Council's information and system. This applies to those elements of the systems that are internal to the Council and those provided by external partners.

- We continue to strengthen business continuity procedures and disaster recovery, underpinned by regular testing of business continuity procedures.

5.5 Service Delivery Models

- We will continue to explore alternate service delivery models and introduce these where they represent best value for the council. The ICT infrastructure and contractual relationships with suppliers will need to be flexible in order respond to the changing shape of the authority, whether this is outsourced services, commissioned services, community ownership or shared services.

- We continue to deliver best of breed solutions and engage with partners where necessary to add value and address shortage of skills or capacity. Importantly, technology will strengthen corporate working and transformation.

- We are working in partnership with other authorities to explore the potential for further shared service delivery on top of those services already in place for core infrastructure, service support and the running of the Revenue and Benefits system.

- We will leverage the benefits from working in partnership with other public sector organisations. This enables sharing best practice, innovation and development of new approaches to improve the delivery of services and enhance democratic engagement.

- We will continue to explore opportunities for emerging technologies and delivery models, including:
    - external hosting of applications
    - Infrastructure as a Service (IaaS)
    - Software as a Service (SaaS)
    - The emerging Cloud technologies and public sector network
    - The increased use of mobile devices by citizens and social media such as FaceBook, Twitter, blogging and more offer new ways to engage with citizens

5.6 Green IT

- We will optimise our application portfolio. Only those applications that are essential to running the organisation will be maintained. We will apply Application Lifecycle Management to ensure that for all systems there are reviews in place to identify future development, replacement or cessation requirements.

- The use of existing applications and hardware will be maximised including reuse where possible, and equipment disposal will meet WEEE requirements. Where possible, third sector organisations are used for recycling of legacy equipment.

- We take into account the total cost of ownership, including energy and disposal costs, over the lifecycle of a device or system, not just the procurement cost. Where possible, efforts will also be made to reduce the total cost of ownership through leveraging existing applications and negotiating with suppliers.

- Environmental criteria will be specified for all new devices including energy consumption and robust energy management facilities.

- We will develop and promote "paper-light" environments in which documents are stored electronically and shared electronically rather than in paper format.
- We will continue the rolling programme of infrastructure, applications and desktop refresh, moving towards an integrated voice, data and communications solution.
- We are improving the efficiency of existing servers to ensure resilience and performance, deploying desktop and server virtualisation which can extend the life of desktop PCs. We provide drop in facilities for mobile staff supported by appropriate levels of access to Council ICT resources.
- We will use recycled products wherever feasible.

6 How is the ICT Strategy Delivered?

The ICT Strategy Team identify, procure and commission ICT technologies and services in response to service 'clients' needs, and work proactively to identify opportunities and anticipate business needs. The Team will sustain, improve and enhance the effective delivery of front-line Council services to the wider community and partners. This is conducted with regard to costs, benefits, legislation, government standards, and emerging technologies.

Implementing a transformed organisation, including an ICT system which supports innovation and affordable frontline delivery is a major change programme. It is a portfolio of four themed programmes:

1. Commercial Culture
2. Customer First
3. Tools For The Job
4. Sound Foundations

There are a range of projects under each of these headings that will require an ICT input and will need to be developed within the principles agree in this document.

6.1 *Departmental ICT provision*

In addition to the central ICT budget, Services hold Revenue and Capital budgets covering application licences and associated maintenance contracts. Early in the lifetime of this strategy a review is likely to be undertaken in order to verify the effectiveness of delegated ICT budgets and to ensure that effective links exist between Service area and corporate priorities.

6.2 *Purchase of computer equipment such as PC's, laptops and printers*

West Lindsey has an estate of around 500 desktop computers and laptops. The purchase of this type of equipment is made from a centralised contract using a corporate ICT Strategy held revenue budget.

6.3 *ICT Shared Services*

The Council is committed to the concept of shared services and our operational ICT capability is delivered via the ICT Shared Service which is jointly funded with North Kesteven District Council. The ICT Shared Service is tasked to develop, operate and deliver a cost-effective, quality and efficient ICT service that reduces costs while

enabling each authority to pursue their respective operational and strategic agendas. These will include:

- Provision, operation and maintenance of ICT infrastructure
- Systems and servers
- Desktops, laptops, printers etc.
- Networks (wide and local area networks)
- Security defences and telephone infrastructure
- Operational running and maintenance of applications
- Provision of help-desk services to support end users
- Provision of system and application development services

7 Future thinking

It is vital that ICT have a forward thinking approach, and keep up-to-date with technical trends is a key part of this. The West Lindsey District Council and the ICT department and the council as a whole should all consider how these technical trends and innovations could add improvements to our staff and citizens.

In August 2014, Gartner published its latest Hype Cycle for Emerging Technologies. Its central theme was 'Digital Business' and this annual hype cycle produced by Gartner illustrates how a technology, IT method or management discipline, stacks up against others in terms of maturity – generally following a curve of much excitement and "hype", then disillusionment and then certain technologies with catch-on and become a productive reality.

As a brief analysis of this particular "hype cycle" - expectations regarding the "Internet of Things" and wearable technology are currently particularly high, according to Gartner's report, but already shows disillusionment with regarding so called "Big Data". Gamification and Augmented Reality already is approaching the bottom, which is almost reached by cloud computing and NFC now, however, most likely expected to quickly reach the "Plateau of Productivity". It goes up on issues such as Virtual Reality and In-Memory Analytics, while 3D printing for companies is already approaching the plateau.
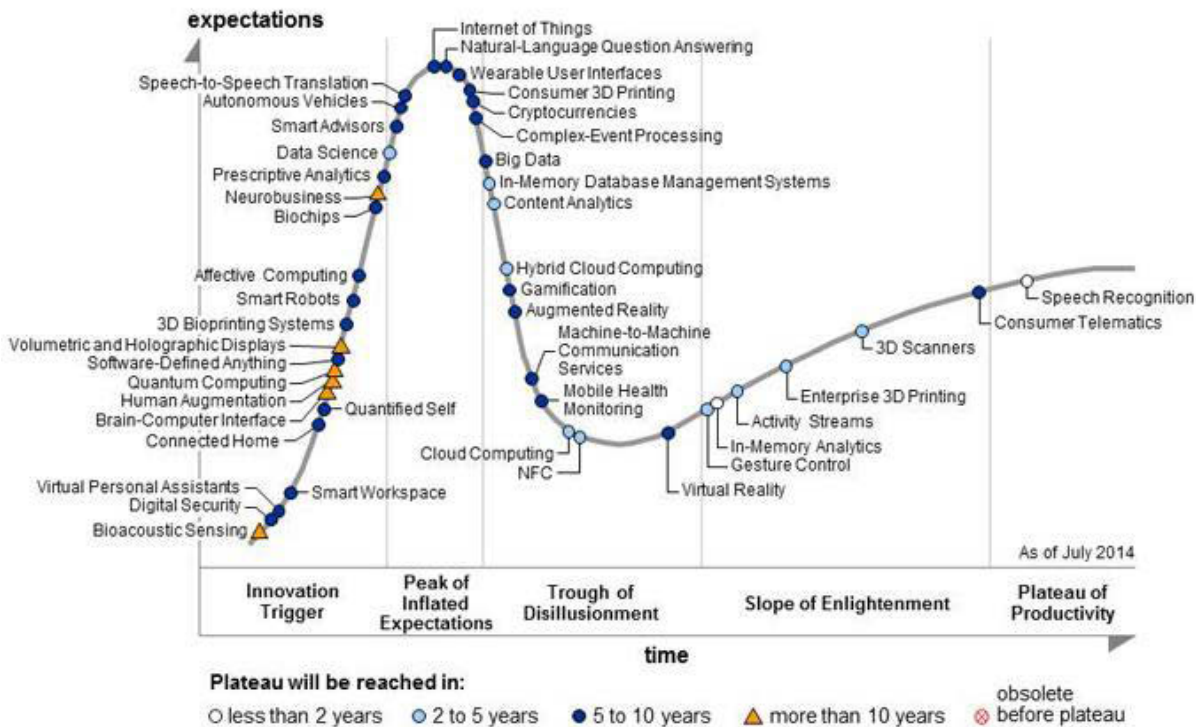
There will only a small subset of analysis like this that could be seen as directly useful in the provision of council services internally and externally – however we will use this and other 3rd party analysis to shape the future of our ICT.

Below are some examples of possible future influences on our strategy taken from the hype cycle above:

Internet of things – many different everyday objects becoming "connected" and relaying information back to their owners. Imagine bus stops that could count the number of people waiting, or bins that could report back when they are full (or not) – both of which could bring influence on-demand service.

3d Printing – the "printing" of objects rather than usual manufacturing. Could we "print" items for our maintenance teams?

Cloud Computing – as described elsewhere in this document, many software solutions have now been commoditised and can be bought off-the-shelf and hosted by their suppliers rather than having our own hardware and support overhead

In-memory databases and analytics – the performance increases that are available now for the running of databases and analytics allow huge datasets to be processed in a fraction of the time traditional DBMS allowed. In conjunction with things like a "single customer view" (and single business view) this would allow for complex but timely analysis of our customers that may help improve our customer service approach.

Autonomous Vehicles – these are on their way. Do we need to make an allowances for them appearing on our roads? What if service vehicles – refuse lorries for example – became autonomous?

Wearable User Interfaces – There has been a huge increase in the use of wearable technology with health monitoring and exercise tracking being one of the main uses. Could WLDC tap into this as part of its active and healthy citizen aims?

8 Context

Across the Council we are responsible for over 60 legacy application systems currently in use, with in excess of 300 desktop PC's and laptops/tablets (using various installed software), digital telephone systems; a multitude of telecommunication lines and contracts and two data centres at Gainsborough and Sleaford

This mixed estate of applications, hardware, infrastructure and data centres presents a clear opportunity, and challenges, to reduce ongoing costs and to improve resilience through rationalisation and harmonisation, subject to consultation with services.

The ICT Development Team will work with suppliers and service providers to identify opportunities for innovation with new and enhanced technologies. This enables the team to work with front-line services to specify commission and oversee the delivery of technical solutions, services and research to meet business requirements and service delivery priorities.

With a complex ICT environment it is important to ensure that information, systems and data are protected from inappropriate access, loss or malicious attack. Regular tests and audits of the defences are undertaken to ensure compliance with government standards and the delivery of effective, secure and safe services.

Our policies, procedures and standards have been developed to assist and guide both suppliers and users; these are regularly reviewed and updated in line with best practice guidelines and legislation. In developing and enhancing our ICT systems and their supporting infrastructure, we work in partnership with other organisations and agencies. These range from our immediate geographical neighbours such as City of Lincoln Council, Boston Borough Council and South Kesteven District Council; partners in service delivery such as the NHS, PCT's, Police, Fire and Rescue; through to partnerships with voluntary and private sector organisations. The ICT Development Team will continue to actively seek partnerships to provide integrated information systems, safe sharing protocols and drive efficiency savings.

9 Summary

ICT will have a critical and expanding role in enabling the Council's ambition, by providing effective methods for customers to access and use our services and to develop new working practices which will improve both our service quality and staff productivity whilst reducing overall costs.

As we move more towards more virtualised ICT provision and internet based services, we will align ourselves with the direction of travel for the industry. In turn this will correspond well with our aspirations of being a flexible and dynamic organisation, able to flex our resources in line with changing business needs.

However in order to maximise the potential of our ICT resources and skills, services will need to engage fully with us to realise the service improvements and cost efficiencies we all seek. As we move towards greater collaboration, shared accommodation and multi-disciplinary teams with our partners across the public sector, the expectations of how our ICT resources can become the key enabler will increase. Only by working with us to truly challenge assumptions, review service requirements from first principles and develop innovative solutions can we develop mutual trust and succeed in our objectives.

10 Further Information

A number of other documents and strategies help to inform and to lead this high level overview of the strategic direction of ICT.
These include:

Corporate documents and strategies:
- Corporate Plan
- Commercial Board Plan
- Entrepreneurial Board Plan
- Growth Board Plan
- Transformation Board Plan
- Customer Access Strategy (including e-Accessibility Project)
- Green Strategy & Carbon Management Plan
- Communication Strategy
- Asset Utilisation Plan
- Information Governance Strategy

ICT related strategies:
- HMG ICT Strategy
- Corporate Systems Development Plan
- Server Estate Strategy

11 Appendix A – Key Activities and Outcomes

The following summarises some of the improvements and changes users will see over the life of this strategy.

Activity	Outcome
1 - Development of a rolling device refresh programme.	Review and procurement of modern devices (smartphones, tablets, laptops and desktops) will improve reliability and productivity.
2 - Deployment of the latest operating systems and desktop applications.	Ensure the Council has modern, flexible collaborative systems to optimise performance and productivity and underpin modern flexible working.
3 - Further infrastructure modernisation including further virtualisation.	Improved reliability of servers and reduced running costs.
4 - Develop a new modern transactional website or portal integrated with quality, consolidated customer data.	Improved self-service for citizens with reduced transaction costs for the council.
5 - Further development usability of West Lindsey District Council Intranet	Improved records management, access to data and information, and collaboration.
6 - Removal or replacement of identified legacy or underperforming systems. Part of continual review cycle.	Improved management of systems, reduced risk of failure improved internal use and better customer service.
7 - Continue annual review of Information Security requirements.	Ensure data and information is managed securely and that Business Continuity Plans are effective.
8 - Improve Help Desk responsiveness by introducing new structure, electronic self-service and e-forms.	Improve productivity by improving the response to problems and encouraging users to resolve common issues themselves.
9 - Review service performance, and benchmark our performance internally and externally.	Ensure we balance value for money with performance and demonstrate value for money.
10 - Leverage the benefits of Cloud solutions.	Reduction in overall total cost of ownership and greater flexibility in sourcing and implementing solutions.

12 Appendix B – Enterprise Architecture Principles

These Architecture Principles provide a framework within which West Lindsey District Council makes conscious decisions about information management and supporting ICT. They act as a guide to establishing relevant evaluation criteria for projects, thus exerting a strong influence on the selection of products and services that make up individual solution architectures in the later stages of managing Enterprise Architecture compliance.

They have been derived from best practice, notably TOGAF with rationales and implications included in order to provide guidance to projects in their application to individual solutions.

12.1 Business Principles

12.1.1 BP1: Primacy of Principles	
Statement:	These principles apply to all Departments within the Council.
Rationale:	The only way we can provide a consistent and measurable level of quality information to customers and decision-makers is if all Departments abide by these common principles.
Implications:	• Without this principle, exclusions, favouritism, and inconsistency would rapidly undermine the management of information. • ICT initiatives, projects and new systems will not be approved until they are examined for compliance with these principles. • Any conflict with a principle must be resolved by changing the blueprint of the initiative or obtaining dispensation
12.1.2 BP2: Maximise Benefit to the Council and its customers	
Statement:	ICT decisions are made to provide maximum benefit to the Council as a whole, including its customers and staff
Rationale:	This principle embodies "service above self". Decisions made from a Council-wide perspective have greater long-term value than decisions made from any particular Department's perspective. Maximum return on investment requires information management decisions to adhere to Council-wide drivers and priorities. No isolated initiative will detract from the benefit of the whole. However, this principle will not preclude any Department from getting its job done.
Implications:	• Achieving maximum Council-wide benefit will require changes in the way the Council plans and manages information. Technology alone will not bring about this change. • Some Departments may have to concede their own preferences for the greater benefit of the entire Council. • Application development priorities must be established by the entire Council for the entire Council. • Applications components should be shared across organisational boundaries. • Information management initiatives should be conducted in accordance with the Council's strategic plans. Individual Departments should pursue information management initiatives which conform to the blueprints and priorities established by the Council. However, the Council may update the plan

	as and when needed to meet new innovation and opportunities. • As needs arise, priorities will be adjusted as part of Programme/Portfolio Management via Enterprise Board or Transformation Board

12.1.3 BP3: ICT involves everybody

Statement:	All Departments in the Council should participate in ICT decisions needed to accomplish the Council's business objectives.
Rationale:	Information users are the key customers in the application of technology to address a business need. In order to ensure ICT is aligned with the business, all Departments in the Council must be involved in all aspects of the information management environment. Subject Matter Experts from across the Council and the technical staff responsible for developing and sustaining the information management environment need to come together as a team to jointly define the goals and objectives of ICT.
Implications:	• To operate as a team every internal customer, will need to accept responsibility for developing ICT environment. • Commitment of resources will be required to implement this principle.

12.1.4 BP4: Business Continuity

Statement:	Council core operations should be maintained in spite of system interruptions.
Rationale:	As system operations become more pervasive, the Council becomes more dependent on them; therefore, the reliability of such systems must be considered throughout their design and use. Business premises throughout the Council must be provided with the capability to continue their business functions regardless of external events. Hardware failure, natural disasters, and data corruption should not be allowed to disrupt or stop Council activities. The Council's business functions must be capable of operating on alternative information delivery mechanisms.
Implications:	• Dependency on shared system applications mandates that the risks of business interruption must be established in advance and managed. Management includes but is not limited to periodic reviews, testing for vulnerability and exposure, or designing mission-critical services to assure business function continuity through redundant or alternative capabilities. • Recoverability, redundancy, and maintainability should be addressed at the time of design. • Applications must be assessed for criticality and impact on the Council's mission, in order to determine what level of continuity is required and what corresponding recovery plan is necessary.

12.1.5 BP5: Common Use Applications/Services

Statement:	Development of shared applications/services used across the Council, or with other councils and wider government are preferred over the development of similar or duplicate services which are only provided to a particular business function.
Rationale:	Duplicate capability is expensive to develop and maintain; it also proliferates conflicting data.

Implications:	• Business functions which depend on a common capability which does not serve the entire Council must change over to the replacement Council or government wide capability. • Individual projects will not be allowed to develop capabilities for their own use which are similar or duplicates of Council or government wide capabilities. In this way, expenditures of scarce resources to develop essentially the same capability in marginally different ways will be reduced. • Data and information used to support Council decision-making should be standardised to a much greater extent than previously. Smaller siloed capabilities which may produce different data should be avoided. The resulting capability will become part of the Council-wide system, and the data it produces will be shared across the Council as "one version of the truth".

12.1.6 BP6: Compliance with Legislation	
Statement:	The Council's ICT Management processes must comply with all relevant legislation, policies, and regulations.
Rationale:	Council policy is to abide by legislation, policies, and regulations. This will not preclude business process improvements that lead to changes in legislation, policies and regulations.
Implications:	• The Council must be mindful to comply with legislation, regulations, and external policies regarding the collection, retention, and management of data. • Education and access to the rules. Efficiency, need, and common sense are not the only drivers. Changes in legislation and changes in regulations may drive changes in processes or applications.

12.1.7 BP7: Responsibilities are clear	
Statement:	The responsibilities for owning and implementing processes and infrastructure that enables solutions to meet business requirements for functionality, service levels, cost, and delivery timing must be made clear and must be adhered to.
Rationale:	Expectations must be aligned with capabilities and costs so that all projects are cost-effective. Efficient and effective solutions have reasonable costs and clear benefits.
Implications:	• A process must be created to prioritise projects. • The Council must define processes to manage business unit expectations. • Data, application, and technology models (blueprints) must be created to enable integrated quality solutions and to maximise results.

12.2 Information Principles

12.2.1 IP1: Data is an Asset that is shared and accessible	
Statement:	Data is an asset that has value to the Council and is managed accordingly.
Rationale:	Data is a valuable corporate resource; it has real, measurable value. In simple terms, the purpose of data is to aid decision-making. Accurate, timely data is critical to accurate, timely decisions. Most corporate assets are carefully managed, and data is no exception. Data is the foundation of the Council's decision-making, so it must also be carefully managed to ensure that the Council knows

	where it is, can rely upon its accuracy, and can obtain it when and where it's needed.
Implications:	• This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that everyone within the Council understands the relationship between value of data, sharing of data, and accessibility to data. • Information Asset Owners must have the authority and means to manage the data for which they are accountable. • The role of Information Asset Owner is critical because obsolete, incorrect, or inconsistent data could be passed to Council personnel and adversely affect decisions across the Council. • Part of the role of Information Asset Owner, who manages the data, is to ensure data quality. Procedures must be developed and used to prevent and correct errors in the information and to improve those processes that produce flawed information. Data quality will need to be measured and steps taken to improve data quality - it is probable that policy and procedures will need to be developed for this as well. • A forum with comprehensive Council-wide representation should decide on process changes suggested by the IAO. • Since data is an asset of value to the entire Council, Information Asset Owners accountable for properly managing the data must be assigned at the Council level.

12.2.2 IP2: Data is shared

Statement:	Users have access to the data necessary to perform their duties; therefore, data is shared across Council functions and Departments.
Rationale:	Timely access to accurate data is essential to improving the quality and efficiency of Council decision-making. It is less costly to maintain timely, accurate data in a single location, and then share it, than it is to maintain duplicate data in multiple locations. The Council holds a wealth of data, but it is stored in a multitude of databases. The speed of data collection, creation, transfer, and assimilation is driven by the ability of the Council to efficiently share these islands of information across the enterprise. Shared data will result in improved decisions since the Council will rely on fewer (ultimately one virtual) sources of more accurate and timely managed data for all of decision-making. Electronically shared data will result in increased efficiency when existing data entities can be used, without re-keying, to create new entities.
Implications:	• This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that everyone within the Council understand the relationship between value of data, sharing of data, and accessibility to data. • To enable data sharing the Council must develop and abide by a common set of policies, procedures, and standards governing data management and access for both the short and the long term.

	• For the short term, to preserve the Council's significant investment in legacy systems, there must be investment in enabling infrastructure capable of migrating legacy system data into a shared data environment. • The Council will also need to develop standard data models, data elements, and other metadata that defines this shared environment and develop a repository for storing this metadata to make it accessible. • For both the short term and the long term the Council must adopt common methods and tools for creating, maintaining, and accessing the data shared across the Council. • Data sharing will require a significant cultural change. • This principle of data sharing will continually "bump up against" the principle of data security. Under no circumstances should the data sharing principle cause confidential data to be compromised. • Data made available for sharing will have to be relied upon by all users to execute their respective tasks. This will ensure that only the most accurate and timely data is relied upon for decision-making. Shared data will become the Council-wide single "version of the truth".

12.2.3 IP3: Data is Accessible

Statement:	Data is accessible for all customers as required to satisfy their needs.
Rationale:	Wide access to data leads to efficiency and effectiveness in decision-making, and affords timely response to information requests and service delivery. Using information must be considered from a Council perspective to allow access by a wide variety of users. Staff and partner time is saved and consistency of data is improved. In the case of road users there is a need to satisfy the Council's commitment to informed travellers
Implications:	• This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that everyone within the Council understand the relationship between value of data, sharing of data, and accessibility to data. • Accessibility involves the ease with which users obtain information. • The way information is accessed and displayed must be sufficiently adaptable to meet a wide range of Council users and their corresponding methods of access. • Access to data does not constitute understanding of the data. Consumers should exercise caution to avoid misinterpreting information.

12.2.4 IP4: Data Trustee

Statement:	Each data element has a trustee accountable for data quality.
Rationale:	One of the benefits of an architected environment is the ability to share data across the Council. As the degree of data sharing grows and business units rely upon common information, it becomes essential that only the data trustee makes decisions about the content of data. Since data can lose its integrity when it is entered multiple times, the data trustee will have sole responsibility for data entry which

	eliminates redundant human effort and data storage resources. Note: A trustee is different than an IAO - a trustee is responsible for accuracy and currency of the data, while responsibilities of an IAO may be broader and include data standardisation and definition tasks.
Implications:	• The data trustee will be responsible for meeting quality requirements levied upon the data for which the trustee is accountable. • It is essential that the trustee has the ability to provide user confidence in the data based upon attributes such as "data source". • It is essential to identify the true source of the data in order that the data authority can be assigned this trustee responsibility. This does not mean that classified sources will be revealed nor does it mean the source will be the trustee. • Information should be captured electronically once and immediately validated as close to the source as possible. Quality control measures must be implemented to ensure the integrity of the data. • As a result of sharing data across the Council, the trustee is accountable and responsible for the accuracy and currency of their designated data element(s) and, subsequently, must then recognise the importance of this trusteeship responsibility.

12.2.5 IP5: Common Vocabulary and Data Definitions

Statement:	Data is defined consistently throughout the Council, and the definitions are understandable and available to all users.
Rationale:	The data that will be used in the development of services must have a common definition throughout the Council to enable sharing of data. A common vocabulary will facilitate communications and enable dialogue to be effective. In addition, it is required to interface systems and exchange data.
Implications:	• Organisations are often lulled into thinking that this issue is adequately addressed because there are people with "data administration" job titles and forums with charters implying responsibility. Significant additional energy and resources must be committed to this task. It is a critical success factor for the improvement of the information environment. This is separate from, but related to, the issue of data element definition, which is addressed by a broad community - this is more like a common vocabulary and definition. • The Council must establish the initial common vocabulary for the business based on open standards where available. The definitions will be used uniformly throughout the Council. • Whenever a new data definition is required, the definition effort will be co-coordinated and reconciled with the corporate "glossary" of data descriptions. The Council data administrator will provide this co-ordination. • Ambiguities resulting from multiple parochial definitions of data must give way to accepted Council-wide definitions and understanding. • Multiple data standardisation initiatives need to be coordinated.

	• Functional data administration responsibilities must be assigned.
12.2.6 IP6: Data Security	
Statement:	Data is protected from unauthorised use and disclosure. In addition to the traditional aspects of national security classification, this includes, but is not limited to, protection of pre-decisional, sensitive and proprietary information.
Rationale:	Open sharing of information and the release of information via relevant legislation must be balanced against the need to restrict the availability of classified, proprietary, and sensitive information. Existing legislation and regulations require the safeguarding of national security and the privacy of data, while permitting free and open access. Pre-decisional (work-in-progress, not yet authorised for release) information must be protected to avoid unwarranted speculation, misinterpretation, and inappropriate use.
Implications:	• Aggregation of data, both classified and unclassified, will create a large target requiring review and de-classification procedures to maintain appropriate control. Information Asset Owners and/or functional users must determine whether the aggregation results in an increased classification level. There will need to be appropriate policies and procedures to handle this review and de-classification. Access to information based on a need-to-know policy will force regular reviews of the body of information. • The current practice of having separate systems to contain different classifications needs to be rethought. • In order to adequately provide access to open information while maintaining secure information, security needs must be identified and developed at the data level, not the service level. • Data security safeguards can be put in place to restrict access to "view only", or "never see". Sensitivity labelling for access to pre-decisional, decisional, classified, sensitive, or proprietary information must be determined. • Security must be designed into data elements from the beginning; it cannot be added later. Systems, data, and technologies must be protected from unauthorised access and manipulation. Council information must be safeguarded against inadvertent or unauthorised alteration, sabotage, disaster, or disclosure. • Need new policies on managing duration of protection for pre-decisional information and other works-in-progress, in consideration of content freshness.

12.3 Application Principles

12.3.1 AP1: Technology Independence	
Statement:	Applications are independent of specific technology choices and therefore can operate on a variety of technology platforms.
Rationale:	Independence of applications from the underlying technology allows applications to be developed, upgraded, and operated in the most cost-effective and timely way.

	Otherwise technology, which is subject to continual obsolescence and vendor dependence, becomes the driver rather than the user requirements themselves. Realising that every decision made with respect to ICT makes the Council dependent on that technology, the intent of this principle is to ensure that Application Software is not dependent on specific hardware and operating systems software.
Implications:	• This principle will require standards which support portability. • For Commercial Off-The-Shelf (COTS) solutions there may be limited choices, as many of these applications may be technology and platform-dependent. • Subsystem interfaces will need to be developed to enable legacy applications to interoperate with applications and operating environments developed under the enterprise architecture. • Middleware should be used to decouple applications from specific software solutions.

12.3.2 AP2: Ease-of-Use

Statement:	Applications must be easy to use. The underlying technology must be transparent to users, so they can concentrate on tasks at hand.
Rationale:	The more a user has to understand the underlying technology, the less productive that user is. Ease-of-use is a positive incentive for use of applications. It encourages users to work within the Council's integrated ICT environment instead of developing isolated systems to accomplish the task in a siloed environment. Most of the knowledge required to operate one system will be similar to others. Training is kept to a minimum, and the risk of using a system improperly is low. Using an application should be as intuitive as driving a different car.
Implications:	• Applications will be required to have a common "look and feel" and support ergonomic requirements. Hence, the common look and feel standard must be designed and usability test criteria must be developed. • Guidelines for user interfaces should not be constrained by narrow assumptions about user location, language, systems training, or physical capability. Factors such as linguistics, customer physical infirmities (visual acuity, ability to use keyboard/mouse), and proficiency in the use of technology have broad ramifications in determining the ease-of-use of an application.

12.3.3 AP3: Re-use before buy before build

Statement:	The Council will adopt a strategy of re-use (of existing components and services) before buying before developing a bespoke solution.
Rationale:	Obtaining best Value For Money and Return on Investment – leveraging the Council's assets to the full.
Implications:	• Technology should be used to decouple applications from specific software solutions. • Technology platform adapters will be required to leverage existing investments in middleware. These

	adapters provide a native interface to the underlying technologies and present a standard XML interface.
12.3.4 AP5: Valid input of data	
Statement:	Applications must ensure, through their user interface, that only valid data is entered manually by users.
Rationale:	Users must not input data which is out of line with the underlying data models/schemas. Current user interfaces and subsequent problems in being able to exchange and automatically process that input data is well known, e.g. users filling in fields with unstructured free text renders the data almost impossible to process automatically and extract business information from it. Likewise if the valid range of values that a user can input does not reflect those in the data model there has to be a translation process somewhere along the way which leads to inaccuracies and errors.
Implications:	• Where possible, data to be entered into applications should be selected from a possible range, e.g. through radio buttons, check boxes and drop-down lists. • Whenever data is keyed in manually, strict data validation rules and routines must be applied.

12.4 Technology Principles

12.4.1 TP1: Requirements-Based Change	
Statement:	Only in response to business needs are changes to applications and technology made.
Rationale:	This principle will foster an atmosphere where the ICT environment changes in response to the needs of the business, rather than having the business change in response to ICT changes. This is to ensure that the purpose of the ICT support - the transaction of business - is the basis for any proposed change. Unintended effects on business due to ICT changes will be minimised. A change in technology may provide an opportunity to improve the business process and, hence, change business needs.
Implications:	• Changes in implementation will follow full examination of the proposed changes using the Enterprise Architecture. • The Council will not fund a technical improvement or system development unless a documented business case exists. • Change management processes conforming to this principle will be developed and implemented. • This principle may conflict with the responsive change principle. The Council must ensure the requirements documentation process does not hinder responsive change to meet legitimate business needs. The purpose of this principle is to keep the Council focused on business, not technology needs - responsive change is also a business need.
12.4.2 TP2: Responsive Change Management	
Statement:	Changes to the Council's ICT environment are implemented in a timely manner.
Rationale:	If people are to be expected to work within the Council's ICT environment, that environment must be responsive to their needs.

Implications:	• The Council has to develop processes for managing and implementing change that does not create undue delays. • A user who feels a need for change will need to connect with a Subject Matter Expert to facilitate explanation and implementation of that need. • If the Council is going to make changes, it must keep the architectures updated. • Adopting this principle might require additional resources. • This will conflict with other principles (e.g. maximum Council-wide benefit, enterprise-wide applications, etc.).
12.4.3 TP3: Control Technical Diversity	
Statement:	Technological diversity is controlled to minimise the non-trivial cost of maintaining expertise in, and connectivity between, multiple ICT environments.
Rationale:	There is a real, non-trivial cost of infrastructure required to support alternative technologies. Limiting the number of supported components will simplify maintainability and reduce costs. The business advantages of minimum technical diversity include: standard packaging of components; predictable implementation impact; predictable valuations and returns; redefined testing; utility status; and increased flexibility to accommodate technological advancements. Common technology across the enterprise brings the benefits of economies of scale to the Council. Technical administration and support costs are better controlled when limited resources can focus on this shared set of technology.
Implications:	• Policies, standards, and procedures that govern acquisition of technology must be tied directly to this principle. • Technology options will be constrained by the choices available within the supported standards. Procedures for augmenting the acceptable technology set to meet evolving requirements will be developed and implemented. • This does not mean freezing the technology baseline. Technology advances can be welcomed and the standards portfolio may be updated when compatibility with the current infrastructure, improvement in operational efficiency, or a required capability has been demonstrated.
12.4.4 TP4: Interoperability	
Statement:	Software and hardware should conform to defined standards that promote interoperability for data, applications, services and technology.
Rationale:	Standards help ensure consistency, thus improving the ability to manage services, improve user satisfaction, and protect existing ICT investments, thus maximising Return on Investment and reducing costs. Standards for interoperability additionally help ensure support from multiple vendors for their products, and facilitate supply chain integration.
Implications:	• Interoperability standards and industry standards will be followed unless there is a compelling business reason to implement a non-standard solution.

	• A process for setting standards, reviewing and revising them periodically, and granting exceptions must be established.
	• The existing ICT platforms must be identified and documented.

13 Enterprise Architecture Principles

These Architecture Principles provide a framework within which West Lindsey District Council makes conscious decisions about information management and supporting ICT. They act as a guide to establishing relevant evaluation criteria for projects, thus exerting a strong influence on the selection of products and services that make up individual solution architectures in the later stages of managing Enterprise Architecture compliance.

They have been derived from best practice, notably TOGAF with rationales and implications included in order to provide guidance to projects in their application to individual solutions.

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Implications:	• Achieving maximum Council-wide benefit will require changes in the way the Council plans and manages information. Technology alone will not bring about this change. • Some Departments may have to concede their own preferences for the greater benefit of the entire Council. • Application development priorities must be established by the entire Council for the entire Council. • Applications components should be shared across organisational boundaries. • Information management initiatives should be conducted in accordance with the Council's strategic

	plans. Individual Departments should pursue information management initiatives which conform to the blueprints and priorities established by the Council. However, the Council may update the plan as and when needed to meet new innovation and opportunities. • As needs arise, priorities will be adjusted as part of Programme/Portfolio Management via Enterprise Board or Transformation Board

13.1.3 BP3: ICT involves everybody

Statement:	All Departments in the Council should participate in ICT decisions needed to accomplish the Council's business objectives.
Rationale:	Information users are the key customers in the application of technology to address a business need. In order to ensure ICT is aligned with the business, all Departments in the Council must be involved in all aspects of the information management environment. Subject Matter Experts from across the Council and the technical staff responsible for developing and sustaining the information management environment need to come together as a team to jointly define the goals and objectives of ICT.
Implications:	• To operate as a team every internal customer, will need to accept responsibility for developing ICT environment. • Commitment of resources will be required to implement this principle.

13.1.4 BP4: Business Continuity

Statement:	Council core operations should be maintained in spite of system interruptions.
Rationale:	As system operations become more pervasive, the Council becomes more dependent on them; therefore, the reliability of such systems must be considered throughout their design and use. Business premises throughout the Council must be provided with the capability to continue their business functions regardless of external events. Hardware failure, natural disasters, and data corruption should not be allowed to disrupt or stop Council activities. The Council's business functions must be capable of operating on alternative information delivery mechanisms.
Implications:	• Dependency on shared system applications mandates that the risks of business interruption must be established in advance and managed. Management includes but is not limited to periodic reviews, testing for vulnerability and exposure, or designing mission-critical services to assure business function continuity through redundant or alternative capabilities. • Recoverability, redundancy, and maintainability should be addressed at the time of design. • Applications must be assessed for criticality and impact on the Council's mission, in order to determine what level of continuity is required and what corresponding recovery plan is necessary.

13.1.5 BP5: Common Use Applications/Services

Statement:	Development of shared applications/services used across the Council, or with other councils and wider government are preferred over the development of similar or duplicate

	services which are only provided to a particular business function.
Rationale:	Duplicate capability is expensive to develop and maintain; it also proliferates conflicting data.
Implications:	• Business functions which depend on a common capability which does not serve the entire Council must change over to the replacement Council or government wide capability. • Individual projects will not be allowed to develop capabilities for their own use which are similar or duplicates of Council or government wide capabilities. In this way, expenditures of scarce resources to develop essentially the same capability in marginally different ways will be reduced. • Data and information used to support Council decision-making should be standardised to a much greater extent than previously. Smaller siloed capabilities which may produce different data should be avoided. The resulting capability will become part of the Council-wide system, and the data it produces will be shared across the Council as "one version of the truth".

13.1.6 BP6: Compliance with Legislation

Statement:	The Council's ICT Management processes must comply with all relevant legislation, policies, and regulations.
Rationale:	Council policy is to abide by legislation, policies, and regulations. This will not preclude business process improvements that lead to changes in legislation, policies and regulations.
Implications:	• The Council must be mindful to comply with legislation, regulations, and external policies regarding the collection, retention, and management of data. • Education and access to the rules. Efficiency, need, and common sense are not the only drivers. Changes in legislation and changes in regulations may drive changes in processes or applications.

13.1.7 BP7: Responsibilities are clear

Statement:	The responsibilities for owning and implementing processes and infrastructure that enables solutions to meet business requirements for functionality, service levels, cost, and delivery timing must be made clear and must be adhered to.
Rationale:	Expectations must be aligned with capabilities and costs so that all projects are cost-effective. Efficient and effective solutions have reasonable costs and clear benefits.
Implications:	• A process must be created to prioritise projects. • The Council must define processes to manage business unit expectations. • Data, application, and technology models (blueprints) must be created to enable integrated quality solutions and to maximise results.

13.2 Information Principles

13.2.1 IP1: Data is an Asset that is shared and accessible

Statement:	Data is an asset that has value to the Council and is managed accordingly.
Rationale:	Data is a valuable corporate resource; it has real, measurable value. In simple terms, the purpose of data is to aid decision-making. Accurate, timely data is critical to

	accurate, timely decisions. Most corporate assets are carefully managed, and data is no exception. Data is the foundation of the Council's decision-making, so it must also be carefully managed to ensure that the Council knows where it is, can rely upon its accuracy, and can obtain it when and where it's needed.
Implications:	• This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that everyone within the Council understands the relationship between value of data, sharing of data, and accessibility to data. • Information Asset Owners must have the authority and means to manage the data for which they are accountable. • The role of Information Asset Owner is critical because obsolete, incorrect, or inconsistent data could be passed to Council personnel and adversely affect decisions across the Council. • Part of the role of Information Asset Owner, who manages the data, is to ensure data quality. Procedures must be developed and used to prevent and correct errors in the information and to improve those processes that produce flawed information. Data quality will need to be measured and steps taken to improve data quality - it is probable that policy and procedures will need to be developed for this as well. • A forum with comprehensive Council-wide representation should decide on process changes suggested by the IAO. • Since data is an asset of value to the entire Council, Information Asset Owners accountable for properly managing the data must be assigned at the Council level.

13.2.2 IP2: Data is shared

Statement:	Users have access to the data necessary to perform their duties; therefore, data is shared across Council functions and Departments.
Rationale:	Timely access to accurate data is essential to improving the quality and efficiency of Council decision-making. It is less costly to maintain timely, accurate data in a single location, and then share it, than it is to maintain duplicate data in multiple locations. The Council holds a wealth of data, but it is stored in a multitude of databases. The speed of data collection, creation, transfer, and assimilation is driven by the ability of the Council to efficiently share these islands of information across the enterprise. Shared data will result in improved decisions since the Council will rely on fewer (ultimately one virtual) sources of more accurate and timely managed data for all of decision-making. Electronically shared data will result in increased efficiency when existing data entities can be used, without re-keying, to create new entities.
Implications:	• This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that everyone within the Council understand the relationship between value of data, sharing of data, and accessibility to data.

	• To enable data sharing the Council must develop and abide by a common set of policies, procedures, and standards governing data management and access for both the short and the long term.
	• For the short term, to preserve the Council's significant investment in legacy systems, there must be investment in enabling infrastructure capable of migrating legacy system data into a shared data environment.
	• The Council will also need to develop standard data models, data elements, and other metadata that defines this shared environment and develop a repository for storing this metadata to make it accessible.
	• For both the short term and the long term the Council must adopt common methods and tools for creating, maintaining, and accessing the data shared across the Council.
	• Data sharing will require a significant cultural change.
	• This principle of data sharing will continually "bump up against" the principle of data security. Under no circumstances should the data sharing principle cause confidential data to be compromised.
	• Data made available for sharing will have to be relied upon by all users to execute their respective tasks. This will ensure that only the most accurate and timely data is relied upon for decision-making. Shared data will become the Council-wide single "version of the truth".

13.2.3 IP3: Data is Accessible

Statement:	Data is accessible for all customers as required to satisfy their needs.
Rationale:	Wide access to data leads to efficiency and effectiveness in decision-making, and affords timely response to information requests and service delivery. Using information must be considered from a Council perspective to allow access by a wide variety of users. Staff and partner time is saved and consistency of data is improved. In the case of road users there is a need to satisfy the Council's commitment to informed travellers
Implications:	• This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that everyone within the Council understand the relationship between value of data, sharing of data, and accessibility to data.
	• Accessibility involves the ease with which users obtain information.
	• The way information is accessed and displayed must be sufficiently adaptable to meet a wide range of Council users and their corresponding methods of access.
	• Access to data does not constitute understanding of the data. Consumers should exercise caution to avoid misinterpreting information.

13.2.4 IP4: Data Trustee

Statement:	Each data element has a trustee accountable for data quality.
Rationale:	One of the benefits of an architected environment is the ability to share data across the Council. As the degree of data sharing grows and business units rely upon common information, it becomes essential that only the data trustee

	makes decisions about the content of data. Since data can lose its integrity when it is entered multiple times, the data trustee will have sole responsibility for data entry which eliminates redundant human effort and data storage resources. Note: A trustee is different than an IAO - a trustee is responsible for accuracy and currency of the data, while responsibilities of an IAO may be broader and include data standardisation and definition tasks.
Implications:	• The data trustee will be responsible for meeting quality requirements levied upon the data for which the trustee is accountable. • It is essential that the trustee has the ability to provide user confidence in the data based upon attributes such as "data source". • It is essential to identify the true source of the data in order that the data authority can be assigned this trustee responsibility. This does not mean that classified sources will be revealed nor does it mean the source will be the trustee. • Information should be captured electronically once and immediately validated as close to the source as possible. Quality control measures must be implemented to ensure the integrity of the data. • As a result of sharing data across the Council, the trustee is accountable and responsible for the accuracy and currency of their designated data element(s) and, subsequently, must then recognise the importance of this trusteeship responsibility.

13.2.5 IP5: Common Vocabulary and Data Definitions

Statement:	Data is defined consistently throughout the Council, and the definitions are understandable and available to all users.
Rationale:	The data that will be used in the development of services must have a common definition throughout the Council to enable sharing of data. A common vocabulary will facilitate communications and enable dialogue to be effective. In addition, it is required to interface systems and exchange data.
Implications:	• Organisations are often lulled into thinking that this issue is adequately addressed because there are people with "data administration" job titles and forums with charters implying responsibility. Significant additional energy and resources must be committed to this task. It is a critical success factor for the improvement of the information environment. This is separate from, but related to, the issue of data element definition, which is addressed by a broad community - this is more like a common vocabulary and definition. • The Council must establish the initial common vocabulary for the business based on open standards where available. The definitions will be used uniformly throughout the Council. • Whenever a new data definition is required, the definition effort will be co-coordinated and reconciled with the corporate "glossary" of data descriptions. The Council data administrator will provide this co-ordination.

	• Ambiguities resulting from multiple parochial definitions of data must give way to accepted Council-wide definitions and understanding. • Multiple data standardisation initiatives need to be coordinated. • Functional data administration responsibilities must be assigned.
13.2.6 IP6: Data Security	
Statement:	Data is protected from unauthorised use and disclosure. In addition to the traditional aspects of national security classification, this includes, but is not limited to, protection of pre-decisional, sensitive and proprietary information.
Rationale:	Open sharing of information and the release of information via relevant legislation must be balanced against the need to restrict the availability of classified, proprietary, and sensitive information. Existing legislation and regulations require the safeguarding of national security and the privacy of data, while permitting free and open access. Pre-decisional (work-in-progress, not yet authorised for release) information must be protected to avoid unwarranted speculation, misinterpretation, and inappropriate use.
Implications:	• Aggregation of data, both classified and unclassified, will create a large target requiring review and de-classification procedures to maintain appropriate control. Information Asset Owners and/or functional users must determine whether the aggregation results in an increased classification level. There will need to be appropriate policies and procedures to handle this review and de-classification. Access to information based on a need-to-know policy will force regular reviews of the body of information. • The current practice of having separate systems to contain different classifications needs to be rethought. • In order to adequately provide access to open information while maintaining secure information, security needs must be identified and developed at the data level, not the service level. • Data security safeguards can be put in place to restrict access to "view only", or "never see". Sensitivity labelling for access to pre-decisional, decisional, classified, sensitive, or proprietary information must be determined. • Security must be designed into data elements from the beginning; it cannot be added later. Systems, data, and technologies must be protected from unauthorised access and manipulation. Council information must be safeguarded against inadvertent or unauthorised alteration, sabotage, disaster, or disclosure. • Need new policies on managing duration of protection for pre-decisional information and other works-in-progress, in consideration of content freshness.

13.3 Application Principles

13.3.1 AP1: Technology Independence	
Statement:	Applications are independent of specific technology choices and therefore can operate on a variety of technology platforms.
Rationale:	Independence of applications from the underlying technology allows applications to be developed, upgraded, and operated in the most cost-effective and timely way. Otherwise technology, which is subject to continual obsolescence and vendor dependence, becomes the driver rather than the user requirements themselves. Realising that every decision made with respect to ICT makes the Council dependent on that technology, the intent of this principle is to ensure that Application Software is not dependent on specific hardware and operating systems software.
Implications:	• This principle will require standards which support portability. • For Commercial Off-The-Shelf (COTS) solutions there may be limited choices, as many of these applications may be technology and platform-dependent. • Subsystem interfaces will need to be developed to enable legacy applications to interoperate with applications and operating environments developed under the enterprise architecture. • Middleware should be used to decouple applications from specific software solutions.

13.3.2 AP2: Ease-of-Use	
Statement:	Applications must be easy to use. The underlying technology must be transparent to users, so they can concentrate on tasks at hand.
Rationale:	The more a user has to understand the underlying technology, the less productive that user is. Ease-of-use is a positive incentive for use of applications. It encourages users to work within the Council's integrated ICT environment instead of developing isolated systems to accomplish the task in a siloed environment. Most of the knowledge required to operate one system will be similar to others. Training is kept to a minimum, and the risk of using a system improperly is low. Using an application should be as intuitive as driving a different car.
Implications:	• Applications will be required to have a common "look and feel" and support ergonomic requirements. Hence, the common look and feel standard must be designed and usability test criteria must be developed. • Guidelines for user interfaces should not be constrained by narrow assumptions about user location, language, systems training, or physical capability. Factors such as linguistics, customer physical infirmities (visual acuity, ability to use keyboard/mouse), and proficiency in the use of technology have broad ramifications in determining the ease-of-use of an application.

13.3.3 AP3: Re-use before buy before build	
Statement:	The Council will adopt a strategy of re-use (of existing components and services) before buying before developing a bespoke solution.
Rationale:	Obtaining best Value For Money and Return on Investment – leveraging the Council's assets to the full.
Implications:	• Technology should be used to decouple applications from specific software solutions. • Technology platform adapters will be required to leverage existing investments in middleware. These adapters provide a native interface to the underlying technologies and present a standard XML interface.
13.3.4 AP5: Valid input of data	
Statement:	Applications must ensure, through their user interface, that only valid data is entered manually by users.
Rationale:	Users must not input data which is out of line with the underlying data models/schemas. Current user interfaces and subsequent problems in being able to exchange and automatically process that input data is well known, e.g. users filling in fields with unstructured free text renders the data almost impossible to process automatically and extract business information from it. Likewise if the valid range of values that a user can input does not reflect those in the data model there has to be a translation process somewhere along the way which leads to inaccuracies and errors.
Implications:	• Where possible, data to be entered into applications should be selected from a possible range, e.g. through radio buttons, check boxes and drop-down lists. • Whenever data is keyed in manually, strict data validation rules and routines must be applied.

13.4 Technology Principles

13.4.1 TP1: Requirements-Based Change	
Statement:	Only in response to business needs are changes to applications and technology made.
Rationale:	This principle will foster an atmosphere where the ICT environment changes in response to the needs of the business, rather than having the business change in response to ICT changes. This is to ensure that the purpose of the ICT support - the transaction of business - is the basis for any proposed change. Unintended effects on business due to ICT changes will be minimised. A change in technology may provide an opportunity to improve the business process and, hence, change business needs.
Implications:	• Changes in implementation will follow full examination of the proposed changes using the Enterprise Architecture. • The Council will not fund a technical improvement or system development unless a documented business case exists. • Change management processes conforming to this principle will be developed and implemented. • This principle may conflict with the responsive change principle. The Council must ensure the requirements documentation process does not hinder responsive change to meet legitimate business needs. The purpose

	of this principle is to keep the Council focused on business, not technology needs - responsive change is also a business need.

13.4.2 TP2: Responsive Change Management

Statement:	Changes to the Council's ICT environment are implemented in a timely manner.
Rationale:	If people are to be expected to work within the Council's ICT environment, that environment must be responsive to their needs.
Implications:	• The Council has to develop processes for managing and implementing change that does not create undue delays. • A user who feels a need for change will need to connect with a Subject Matter Expert to facilitate explanation and implementation of that need. • If the Council is going to make changes, it must keep the architectures updated. • Adopting this principle might require additional resources. • This will conflict with other principles (e.g. maximum Council-wide benefit, enterprise-wide applications, etc.).

13.4.3 TP3: Control Technical Diversity

Statement:	Technological diversity is controlled to minimise the non-trivial cost of maintaining expertise in, and connectivity between, multiple ICT environments.
Rationale:	There is a real, non-trivial cost of infrastructure required to support alternative technologies. Limiting the number of supported components will simplify maintainability and reduce costs. The business advantages of minimum technical diversity include: standard packaging of components; predictable implementation impact; predictable valuations and returns; redefined testing; utility status; and increased flexibility to accommodate technological advancements. Common technology across the enterprise brings the benefits of economies of scale to the Council. Technical administration and support costs are better controlled when limited resources can focus on this shared set of technology.
Implications:	• Policies, standards, and procedures that govern acquisition of technology must be tied directly to this principle. • Technology options will be constrained by the choices available within the supported standards. Procedures for augmenting the acceptable technology set to meet evolving requirements will be developed and implemented. • This does not mean freezing the technology baseline. Technology advances can be welcomed and the standards portfolio may be updated when compatibility with the current infrastructure, improvement in operational efficiency, or a required capability has been demonstrated.

13.4.4 TP4: Interoperability

Statement:	Software and hardware should conform to defined standards that promote interoperability for data, applications, services and technology.

Rationale:	Standards help ensure consistency, thus improving the ability to manage services, improve user satisfaction, and protect existing ICT investments, thus maximising Return on Investment and reducing costs. Standards for interoperability additionally help ensure support from multiple vendors for their products, and facilitate supply chain integration.
Implications:	- Interoperability standards and industry standards will be followed unless there is a compelling business reason to implement a non-standard solution. - A process for setting standards, reviewing and revising them periodically, and granting exceptions must be established. - The existing ICT platforms must be identified and documented.

Data Security and Compliance Principles

- The Internet has resulted in the Council, its partners and citizens having access to unprecedented information. The Council requires accurate and timely information on which to make informed decisions. Modern services require greater access and sharing of information. Staff need to be able to work collaboratively across different sites and with partners through the use of new technology.

- The Council will need to maximise the use and value of its data assets, both within and beyond the Council. Core to this will be increased data transparency, publishing and sharing information in a manner that is useful and interesting.

- Managers will be able to obtain all relevant information on demand (self-service), and ensure that decisions are taken in full light of available knowledge (especially service related knowledge).

- Flexible, home and remote working will continue to move the Council forward in managing performance by outputs and results.

- We will ensure that there is effective data handling and exchange across all areas of the council and with our partners.

- We will embed and maintain security standards to ensure that we protect information and information systems so that individuals and organisations have confidence in our ability to manage their personal information securely.

- We are applying robust arrangements for authentication and security that are compliant with nationally agreed standards. In addition we pro-actively monitor data security in order to safeguard the Council's information and system. This applies to those elements of the systems that are internal to the Council and those provided by external partners.

- We continue to strengthen business continuity procedures and disaster recovery, underpinned by regular testing of business continuity procedures.