

**Manchester City Council
Report for Information**

Report to: Resources and Governance Scrutiny Committee – 21 July 2016
Executive – 27 July 2016

Subject: Our ICT Strategy

Report of: Bob Brown, CIO

Summary

This report presents the updated strategy for Information, Communications and Technology (ICT) for the Council over the period 2016-19 with a view to set out the strategic direction for a critical area for the business over the medium term.

Recommendations

This report is presented to seek comments and feedback, specifically on the following:

- Executive Members note and comment on the *Our ICT Strategy* appended.
- Note the emerging status of Information and Data Strategy.
- Note the further investment being made and required to continue to deliver the Council's ambitions and the ICT vision.

Wards Affected: All

Manchester Strategy outcomes	Summary of the contribution to the strategy
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	The Our ICT Strategy supports the ambition of the Our Manchester Strategy in delivering a thriving and sustainable city through the investment and use of state of the art technology
A highly skilled city: world class and home grown talent sustaining the city's economic success	The introduction of newer, advanced technologies increases the skillset of Council staff both in terms of supporting and use of the technology, introducing modern ways of working.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	Use of technology enables efficient service delivery from the Council, reaching a wider group of citizens and customers.

A liveable and low carbon city: a destination of choice to live, visit, work	Technology that enables mobile working contributes to the low carbon agenda through paperless offices and less need to travel to meetings through the use of video conferencing and online collaboration tools.
A connected city: world class infrastructure and connectivity to drive growth	This Strategy will invest in the digital connectivity of the City Council and its partners.

Full details are in the body of the report, along with any implications for

- Equal Opportunities Policy
- Risk Management
- Legal Considerations

Financial Consequences – Revenue

Section 4 of the report sets out the consequences of the Strategy for Revenue and Capital.

Financial Consequences – Capital

Section 4 of the report sets out the consequences of the Strategy for Revenue and Capital.

ICT has approved investment of £9.5m. Anything beyond that will need to go through Gateway, and fit with the Council's capital strategy. Some of the future projects will be to support the requirements of the business, these projects could generate savings outside of ICT. These benefits will be articulated in the business cases that will be produced for the Capital Gateway process.

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Background documents (available for public inspection):

None

1. Introduction

- 1.1 This report presents the updated strategy for Information, Communications and Technology (ICT) for the Council over the period 2016-19 with a view to set out the strategic direction for a critical area for the business over the medium term. The strategy has been named Our ICT Strategy to reflect alignment with the Our Manchester Strategy.
- 1.2 The strategy draws together the foundations for better use of data and intelligence for the organisation and the transformational activity underway with the ICT Service to build the necessary technical platforms to support an informed, efficient and effective organisation.
- 1.3 The strategy was presented in draft in January 2016 and has been further developed through consultation with Directorate Boards and key stakeholders. This report will be taken to and Executive (29th June) and to Finance Scrutiny (30th June) for review and ratification.

2. Recommendations

- 2.1 This report is presented to seek comments and feedback, in advance of submission to Executive and Finance Scrutiny, specifically on the following:
 - Executive Members note and comment on the *Our ICT Strategy* appended.
 - Note the emerging status of Information and Data Strategy.
 - Note the further investment being made and required to continue to deliver the Council's ambitions and the ICT vision.

3. Approach to strategy development

- 3.1 The ICT Strategy appended to this report brings together the emerging strategic direction of both the ICT Service and PRI. The strategy reflects the states of maturity and progress being made both in terms of ICT developments and the associated activity for Information and Data Management.
- 3.2 An Information Strategy Task and Finish Group led by the City Treasurer and Head of PRI is working to further develop plans and will report later in the year. At that stage, the ICT Strategy will be refreshed, if necessary, to reflect any adjustments required.

4. Investment in ICT

First phase ICT investment

- 4.1 The first phase, supported by £9.5m additional investment for 2015/17, has been focussed on improving resilience and day-to-day functionality of the ICT

estate. Each project as it is developed has a business case that is approved against the £9.5m investment fund. This has included:

- The relocation of the Council's data centre into a consolidated data centre.
- Investment in infrastructure and Mobile Working funding to improve the Council's IT infrastructure, and update the applications that the Council uses. This includes providing up to date ICT equipment for staff which will allow the Council to adapt to more flexible and agile ways of working, and provide access to more secure systems.
- Upgrades to the Council's applications and case management systems. The upgrade to the ONE system to support the management of education processes followed by the social work case management system (MOSAIC) as the next priority in 2016/17.
- The annual updates to the council's resource management system (SAP) will be followed up by further enhancements as prioritised by the review. This is part of the agreed strategy to move to ICT estate programme estate to one version prior to the latest version ("n-1").

Second phase ICT investment

4.2 The above will provide an effective platform for the next stage of investment which is being developed to focus on the delivery of the Council's priorities and will support key areas such as:

- Enhanced **disaster recovery** capability.
- The delivery of more **effective and efficient ways of working within the Council**, for example, the work to review the Council's Corporate Core will require considerable ICT input in order to ensure core processes across Legal Services, Finance and the HR/OD service are as efficient and effective as possible. This will include the implementation of the recommendations from the recent transactional review of the HROD service.
- **More integrated front line working** between the council and partners, for example ensuring joint teams from across health and social care can access the appropriate case based information required and neighbourhood delivery teams have the mobile technology they need.
- The delivery of maximum **efficiencies through the rationalisation of its property** and ICT estate and new ways of working.

4.3 The proposals to support the above are being developed in conjunction with Directorates and Partners and will form an important part of the Council's Capital Investment Strategy.

4.4 Continued investment in ICT as part of a multi-year capital investment programme will be needed in future to support the following areas:

- **Ongoing service stability** – bringing the legacy position up to date, building upon work delivered annually to reach a target level of service

- **Technology refresh** - as hardware/software dates and needs to be upgraded or replaced in cycles over time, managed through a rolling programme
- **Data Centre services** – to continue to ensure stable, reliable services, secure information and to minimise down time for business systems
- **Business transformation** – business ambitions supported through developments in technical capability to work more efficiently and effectively, automating lean processes
- **Data and Information as an asset and information security** – ensuring data quality and availability, compliance with information security considerations as the world becomes more digital through its transactions
- **Technology innovation including Internet of Everything** – taking advantage of new unobtrusive technologies to capture data that enables the Council to project forward and anticipate demand for services.

- 4.5 Table 1 sets out the investment to date on key ICT projects and estimated future investment against technical developments identified by ICT as part of delivery Our ICT Strategy. Individual business cases will be developed for each of the future elements as the specific business requirements are captured. This is not the full extent of funding required for ICT investment in the Council and will grow to include the major areas for investment identified by working closely with the Directorates. Strategic cases are likely to include for example: the updating of SAP; intranet and internet development, funding Universal Access; updating Libraries; investing in the integration of Health and Social Care; investment in a corporate Electronic Document and Management system; tools to manage and mine data to deliver better reporting and intelligence.
- 4.6 Investment plans are based on business cases that identify cash savings or efficiencies. There is potential for these savings to either be taken as part of the Corporate Core savings plan or be set aside to fund future investment in ICT by funding borrowing costs.
- 4.7 The investment identifies estimated costs under capital but some of the future proposed investment could be revenue in nature, depending on the architectural route followed. If, for example, collaboration lends itself to a fully integrated cloud-based service, it is likely that a lot of the application development for resident, for example, could be revenue expenditure.

5. Key developments 2016/17

- 5.1 The high level delivery plan for 2016-19 is set out in Our ICT Strategy (appended). The major ICT priorities for 2016/17 being:
- The Hosting Platform Programme focussing on Disaster Recovery, Telephony Upgrade and Data Centre Remediation. Appropriately skilled staff are being secured to architect the solution prior to delivery later in 2016/17.

- Telephony upgrade to address outdated technology, including critical technology for the Council's Contact Centre, an initial port of call for our customers.
- Remediation of the Data Centre, including consideration of the current generator, security access, electricity works and monitoring. A Core Switch upgrade is planned for May 2016.
- Disaster Recovery, including consideration of business continuity and alternative delivery models for securing a stable and resilient ICT service and systems to maintain business as usual activities.
- Implementation of a new collaboration platform which will be a key enabler to supporting more efficient ways of working enabling mobile access, information sharing and collaborative working, instant messaging and video-conferencing. The new technology will be class leading and support opportunities across the council and create new interaction channels with our colleagues, residents and partners in new 'digital' ways, we should expect this technology to help reduce costs and improve productivity.
- Implementation of a service management platform and procedures to enable effective management of ICT and other services.

6. Contributing to the Manchester Strategy

(a) A thriving and sustainable city

- 6.1 The Our ICT Strategy supports the ambition of the Our Manchester Strategy in delivering a thriving and sustainable city through the investment and use of state of the art technology.

(b) A highly skilled city

- 6.2 The introduction of newer, advanced technologies increases the skillset of Council staff both in terms of supporting and use of the technology, introducing modern ways of working.

(c) A progressive and equitable city

- 6.3 Use of technology enables efficient service delivery from the Council, reaching a wider group of citizens and customers.

(d) A liveable and low carbon city

- 6.4 Technology that enables mobile working contributes to the low carbon agenda through paperless offices and less need to travel to meetings through the use of video conferencing and online collaboration tools.

(e) A connected city

- 6.5 This Strategy will invest in the digital connectivity of the City Council and its partners.

7. Key Policies and Considerations

(a) Equal Opportunities

7.1 Technology supports equal opportunities through adaptations

(b) Risk Management

7.2 The *Our ICT Strategy* and ICT Service is underpinned by an approach to risk management through Service level risk registers and risk management at project level.

(c) Legal Considerations

7.3 None.

Table 1: ICT investment

Area for investment	Capital £m	Description	Impact	2016/17	2017/18	2018/19	2019/20
DELIVERED OR IN PROGRESS							
Compliance	2.6	Bring the MCC ICT estate inline with the increased regulatory legal and security requirements including PSN and PCI DSS compliance	PSN Compliance Achieved New AV rolled out and Key services patched XP estate in process of being removed	Q1			
		Upgrade all windows 2003 servers Achieve PCI DSS Ensure ongoing maintenance schedules in place Implement proactive security monitoring	Improved security services in place Improved resistance to Virus, Ransomware and denial of service attacks PSN and PCI accreditation in place and renewed each year	Q2			
Service management	1.1	Implement a new process request platform which will streamline technology services but also provide a platform for other process flow requirements.	Reduction in time to log and process IT calls Improved asset management and tracking (reducing waste and spend on hardware) Improved availability of services due to monitoring, alerting and better impact analysis of changes	Q2-4			
Technology refresh	3.9	Updates to technology - Citrix, New Collaboration Platform, DWS, upgrade to Social Care system MOSAIC	Updating technical platforms	Q1-4			

Area for investment	Capital £m	Description	Impact	2016/17	2017/18	2018/19	2019/20
Business transformation	0.6	Laptops issued to Social Workers to enable mobile working	Greater amount of time being customer-facing, less need to travel back to the office.	Q1			
PLANNED							
Ongoing service stability	1.3	Hosting Platform - Phase 1 Improvements to the Hosting platform, including strengthening the Data Centre infrastructure, better disaster recovery position (but not full - see phase 2), better internet resilience	Improve ICT service availability and business continuity	Q3-4			
TOTAL	9.5						
FUTURE PLANS							
Ongoing service stability	10.0	Hosting Platform - Phase 2. Contact Centre upgrade to update technical systems. Improved networking - WIFI and Wide and Local Area Networks. Re-tender for Wan and internet services post 2019	Better performing Contact Centre with updated tools better service. Better WIFI access to enable mobile working. Better value contracts for internet and networking.		Q1-4	Q1-4	Q1-4
Technology and Internet of things	2.0	e.g. Audio Visual and buildings of the future -	e.g. enable remote meetings. Reduce carbon footprint		Q1-4	Q1-4	Q1-4
Technology refresh	10.0	Refreshing technology within co-location Data Centres	N-1 compliance		Q4	Q1-4	Q1

Area for investment	Capital £m	Description	Impact	2016/17	2017/18	2018/19	2019/20
		Windows 10 (inc desktop/Wyse/Laptop refresh). Productivity/ desktop tools upgrade - hardware and software	Desktop upgrade - hardware and software		Q1-4	Q1-4	Q1-4
		Mobile Phone, Tablet, Traffic Light Refresh. Could be funded by Supplier as part of the contract	Mobile contract and rolling refresh programme	Q4			Q4
Business transformation aligned to business strategy	10.0	Application Transformation and Upgrades (eg Mosaic, Paris, SAP, ONESystem, Internet and Intranet), MOSAIC, EDRM, MAES improvements	Potential for business transformation enhanced through technical innovation - business cases to be developed	TBC	TBC	TBC	TBC
TOTAL	32.0						



OUR ICT STRATEGY 2016-19

Owner: Bob Brown, CIO
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1 Introduction

This is Manchester City Council's Information, Communications and Technology (ICT) Strategy for the period 2016-19, named *Our ICT Strategy*, to align with and underpin the ambition set out in the *Our Manchester Strategy* and associated Council plans. Our ICT Strategy also supports the priorities set out in the Greater Manchester (GM) Strategy and Plan, *Taking Charge* of Health and Social Care.

Our ICT Strategy addresses:

- current drivers for change including customer-facing, financial, technological and information security factors.
- delivering better public services for less through public service reform;
- a better informed Council in the context of public sector reform and devolution through active management of data quality and harnessing intelligence from existing data sources;
- information and technical design principles to enable greater consolidation of technical solutions and more cost-effective ICT services;
- the governance required to manage information and technical resources effectively while balancing the approach to risk and innovation that suits the appetite for change for the Council and its partners;
- investment in appropriate delivery models and technical infrastructure to support business processes in ways that are secure, effective and robust, transforming the experience of people interacting with and working within the Council.

2 Strategic Context – supporting Our Manchester

2.1 Profile of demand for services

Growing population

By 2020 the population of Manchester is projected to be 578,000, with significant increases in children of secondary school age, a growing proportion of economically active adults and increases in older people aged 60/64-74 age group. The nature of the population is changing with more residents living within the extended city.

Ageing population

Pressures on adult social care will continue to grow. To continue to deliver to this cohort requires a step change in pace and reform of public services in order to improve outcomes with less resources. In the future, social care will be delivered to adults through an integrated approach to assessment in neighbourhood care teams with health partners. For children, specialist social care services could be commissioned through GM-wide Centres of Excellence.

Economic growth

Manchester has recently experienced the biggest economic growth outside of London with over 390,000 jobs now within the city and a further 44,000 new jobs anticipated over the next ten years. This has driven a demand for office space for skilled staff. However, unemployment remains for 53,500 residents who need to be supported to take advantage of the economic growth and reduce dependency on public services.

2.2 Public Sector Reform and Devolution

Our Manchester

The *Our Manchester Strategy 2025* has five themes of a: thriving and sustainable city; highly skilled city; progressive and equitable city; liveable and low carbon city; and connected city. The subject of digital enablement runs throughout these overarching strategies, a key theme of the ICT and Information strategy.

The government's austerity agenda has had an impact on the Council's funding and has necessitated a review of services in terms of the ways in which they are delivered, including the review of Core services. The devolution agenda and the progress of the GMCA will demand a continual review of how technology, systems and data are implemented to deliver greater efficiencies and savings.

Our ICT Strategy and partnership working

ICT collaboration work has begun with Trafford Council, while some shared arrangements exist for elements of disaster recovery with Salford Council. Whilst the establishment of Greater Manchester Combined Authority is in its infancy, it is anticipated that as it matures a central ICT Leadership team capacity will evolve within its structure to set the ICT framework and principles that will underpin

delivery in local authorities and partner agencies. This will be critical to the delivery of the Combined Authority's ambitions and accountabilities.

Data sharing

Data sharing, pan-public sector intelligence and common ICT platforms are common themes in the business strategies driving the Council and the wider public sector partnership.

GMCA

The GMCA is a vehicle for Manchester City Council to realise its ambitions. The direction of travel for the Greater Manchester Combined Authority (GMCA) and specific initiatives like the integration of Health and Social Care will require consideration of interoperability across systems for the transfer of data and clarity about the requirements for data sharing. Work is ongoing to define the current opportunities.

The Greater Manchester Combined Authority's *Stronger Together 2013-20* sustainable Community Strategy also provides context for improving social and environmental sustainability by combining business growth and success with public service reform including a focus on troubled families, early years, health and social care, employment and skills, and the justice system. This strategy relies upon an approach to information sharing and digital platforms that will enable greater efficiency across public services and self-reliance for individuals.

2.3 Council priorities

Key challenges underpinning the Council priorities for 2016/17, and therefore requirements for investment in technology, are:

- As part of the **Adults and Children's Directorate** priorities with a technical underpinning: upgrade of the Social Care system incorporating best practice in Adults and Children's social work services (MiCare and MOSAIC); implementation of the Children's Services Improvement Plan and the fundamental review of all public services to children across GM supported through ICT; GM devolution of health and social care supporting integration of health and social care in the city, including Mental Health and enabling joint working at the Living Longer Living better hubs; upgrade of the ONE system to ensuring that the Education teams benefit from new functionality and are compliant with statutory changes; a shift to a strengths-based model of assessment which connects people with support available in and a strong relationship with the voluntary sector communities.
- Developing an holistic view of customers, communities and businesses to enable the appropriate model for service delivery from targeted service to **universal provision**. This would mean harvesting information from different data sources, ensuring better data quality and delivering **better intelligence** from existing and new data sources.

- The **Growth and Neighbourhoods Directorate** is facing pressures with a growing population and increasing public expectations. This translates to pressure on housing, transport and neighbourhood services such as leisure services, accessible transport, affordable housing, skills and training within a context of economic growth. It has brought necessary changes to waste collection to bring significant improvements to neighbourhood cleanliness and resident satisfaction, including necessary support systems. They will also be developing and managing city neighbourhoods within an environment of diminishing public funding, to ensure that services are joined up. Estates Rationalisation is looking to reduce and modernise the Council's property footprint. These new spaces will benefit from investment in technology to reduce the need to travel, enable anytime/anywhere collaboration and digitising paper records to make best use of office facilities. The Transformation of Libraries will be supported by technology that improves the user experience – accessing information, media and literature in ways that engage and encourage participation.
- The **Corporate Core Directorate** is undergoing a fundamental review early in 2016 which will suggest a way forward to support the Council by driving leadership and reform; enabling the Council to function effectively, ensure good governance and accountability and deliver high-quality, customer focused services and value for money. The core systems to support financial and HR transactions (SAP) will be reviewed and further developed to increase automation of lean processes to gain efficiency. Legal Services are increasingly seeking to digitise casework and communicate with the Courts and customers online. Generic casework systems that enable e-bundling will also support the Coroner to manage documentation.
- **Budget and Medium term Financial Plan.** The opportunity to re-think processes, this would affect corporate processes such as HR, Finance, Procurement as well as other back office processes influencing directions in core management systems. The implementation of ICT can support **lean processes** to achieve efficiencies and savings.
- Both **Information and ICT Services** are part of the Corporate Core. The Our ICT strategy will come together with the emerging information strategy and should be considered in the context of devolution, health and social care integration and the changing shape of back office support for Manchester and other GM authorities. Changing the internal operation of the Council's most commonly used systems and processes to increase productivity is a priority.
- **Business cases for change** being put forward by Directorates show an increasing demand for stable, reliable technology that delivers innovation to business process. The transformative and innovation potential for savings and efficient business is predicated on a resilient infrastructure and so plans previously agreed for investment in ICT are continuing.

3 Drivers for Change

3.1 Global disruptive factors

The convergence of trends in use of social media, mobile and consumer-driven technologies based in cloud-computing is having a huge impact on traditional business and public services alike, delivering new opportunities to innovate:

- **Social media:** people are sharing detailed information about themselves, the products they use, and how they like or dislike a service by reporting their experience online. Harnessing customer information through their use of social media allows organisations to better understand their customers, or potential customers, in ways never before possible.
- **Cloud computing:** increasingly cost-effective and easy-to-access data processing and storage are available through the internet and are becoming more prevalent in use both by individuals and organisations.
- **Mobile:** It is commonplace that people want to be able to access information and services, wherever they are located. Devices are used to communicate easily, enabling integration of work and non-work tasks while providing easy access to relevant online applications and information.
- **Internet of things:** The combination of technical capabilities provided through remote sensors connected via the internet to data intelligence hubs provides a whole new perspective on how technology can help to inform daily life. The Council and its partners has been successful in winning a £10m government-led fund to explore this smart city potential within Manchester under the CityVerve project, looking at the use of technologies to support better ways of living and working in the City.

3.2 Council drivers for change

The Council has drivers for change that are threaded throughout its Strategies and plans and are reflected in this strategy:

- **Being digital by default:** efficiency, security and accessibility of information through digital media make it a pre-requisite for efficient processes. With process review this can transform the business and deliver better, cost-effective services.
- **Reducing office space:** the estates rationalisation programme will return savings to the Council while increasing flexible working for staff. This links to increased digitisation of paper records, reducing the impact on the environment through less printing and energy consumption in the storage of paper-based information.
- **Public and Staff expectations:** the public have a greater awareness of their rights to access information and staff need to be able to share information to deliver effective services internally and in partnership with others.

- **Enhancing Social Value:** ensuring that the public pound spent on technical solutions in the GM area has greatest impact in terms of the GM community.
- **Mobile and flexible working:** providing tools to allow staff to work where they need to rather than being office-based increases efficiency and reduces the need for office-space.
- **Compliance with information security legislation and regulation:** balancing the dual pressures of making Open Data available to increase transparency and enable opportunity while providing security of personal information. This is reinforced through regulation and inspection.
- **Better information to support decision-making:** providing data and analysis which enhances decision-making through predictive modelling, data visualisation and big data analytics.

4 Vision – Our Future

This vision centres on data and information as key assets to the Council with an ICT Service that supports the Council to nurture and utilise good information governance. The future success of the Council is founded on rich, multifaceted, 'real time' data that is available through self-service online. It is based on robust digital platforms required to deliver the power of information at the finger tips, delivered through easy to use technology in ways that are convenient, reduce bureaucratic processes and carbon footprint.

The *Our ICT Strategy* vision is:

To be the most business-aligned ICT Service leading the way in which public services are transformed through the power of technical innovation, data analytics and intelligence, for the benefit of the Greater Manchester community.

5 Objectives

Flowing from this vision are the following objectives for the service:

5.1 Business-aligned ICT Service

Deliver a stable, robust, customer-focused and quality-driven ICT and Information service. This will be done by:

- Being customer-focused in the delivery of quality ICT and Data services and being pro-active in supporting the business in its priorities
- Delivering cost effective and value for money ICT and information services and reducing the unit cost of basic information tools and intelligence for the Council
- Retaining an engaged and motivated team who are skilled and continually learning
- Providing a stable and reliable ICT infrastructure that is secure, robust and fit for the future ambition for the Council and the communities that it serves

5.2 Delivering innovation

Support innovation and business transformation through the better use of information and technology. This will be done by:

- Streamlining business processes and deliver innovation in business practice through the implementation of common technology platforms and automated workflow

- Promoting self-service through the use of easy-to-use, personalised and universal online services for staff and customers
- Improving work-life balance and reduce the office and carbon footprint by supporting anytime, anywhere working through mobile technology
- Working in partnership across Greater Manchester to facilitate appropriate data sharing and delivery of support services to meet the devolution agenda

5.3 Information as an asset

Delivering value, managing risk and forecasting demand to the Council by managing data and information as a valuable asset. This will be done by:

- Managing data and information as a valuable asset, with appropriate governance to control information risk.
- Developing business intelligence tools to support effective decision-making.
- Driving improvements in data quality based on effective accountability
- Developing arrangements to make data available across systems to enhance service delivery.
- Developing skills in data transformation and analysis to enhance reporting processes.

6 Our Journey

In terms of what this strategy delivers for the future, it will mean different things for different people, see also Appendix 2:

- **Customers** being delighted by accessing Council services that are a pleasure to use because they anticipate the customer need. Payments, bookings, view off accounts are available online, are intuitive and can be viewed easily on mobile devices. The customer is empowered to influence service delivery so that they get closer to what they need.
- **Citizens** engage in the democratic function by participating through social media and becoming part of virtual as well as geographic communities, exercising their ability to develop communities of interest to improve quality of life.
- **Elected Members** enabled to perform their democratic function by accessing information and reviewing progress on enquiries online. Also having access to performance information through online dashboards.
- **Council employees** empowered by being able to access Council and other information through mobile devices so that they can work seamlessly from Council Office to partner offices to public meeting spaces. Access through WIFI is secured so that information is protected and is readily available. Universal Access is delivered to enable all staff to be supported through online Council information and self-service through the internet.
- **Council managers** enabled to view summary statistics on performance through easy to read dashboards available online with an ability to drill down to the detail. Data is good quality and available through powerful tools for managers to query customer demand and use of services over different time periods and across geography. Modelling of customer behaviour or demand helps to inform policy, procedures and the targeting of service delivery.
- **Council staff and Elected Members** will be more aware of their responsibilities around data and information, from the security of personal data to the value to the organisation of accurate, timely data. The workforce will become increasingly skilled in managing data and information to maintain its value. ICT literacy will be essential. Monitoring of systems access will be standard practice to ensure security of information and compliance with legislation.
- Working closely with **partners** on shared data to be able to spend the public purse in a way that is targeted and appropriate. Shared customers receive an holistic service from across the public sector. The move of a person from one public service provider to another is painless and seamless with no confusion across providers or double entry of information, for example, when an older person with caring needs moves from a hospital back to their home and the care of their GP and community nurses.

7 Service design and principles

7.1 ICT design

ICT is taking an architectural approach to the design of technology to support the Council's core business. This means that rather than buying multiple solutions in isolation across the Council's business landscape, a more coherent approach is being taken with direction from the Design Authority. This coherence in design ensures that the Council maximises its use of technical capability while reducing the number of systems that it needs to support.

This increasing simplicity in design makes the provision of ICT more cost effective. This leads, for example, to technologies that hold data once to be used many times, or that support common business processes across different areas of the business e.g. capturing an address of a customer. This maintains data integrity and improves intelligence gleaned from these systems. It also ensures that ICT is bought with universal access in mind so that all employees of the Council can access systems that carry relevant information e.g. HR records, payroll, performance management.

A detailed list of ICT design principles are included in Appendix 2 and will continue to be reviewed by the Design Authority to suit the requirements of the business.

7.2 Delivering information as an asset

The Council holds extensive stores of data. This is a valuable asset, the transformation of which could allow the Council to:

- Make better decisions based on data from individual cases up to major strategic and policy matters.
- Increased data sharing and analysis to deliver cross-service, pan public sector insight on specific issues e.g. troubled Families.
- Provide management information, to demonstrate the effectiveness and accountability of the Council.
- Provide management information to identify and drive the delivery of efficiencies and service improvements.
- Work collaboratively across public, private and voluntary sector organisations to build true partnership across to support the Greater Manchester agenda.
- Drive commercial activity e.g. opportunities provided through the publication of Open Data.

Currently the processes to deliver information from existing data sources are cumbersome and resource intensive. Through investment in data governance

and data ownership, the quality of data held will improve. Through better technology and processes, the user directly in ways that are fit for purpose and provided in the right place at the right time in the right way can access information.

7.3 Information and ICT Services

Performance, Research and Intelligence

A review of the Council's arrangements to exploit information and data as an asset highlighted a need to refresh our vision of what is expected as part of an information strategy.

An Information Strategy Task and Finish Group, led by the City Treasurer and Head of PRI will set direction for data quality and governance as part of the ICT Strategy by mid 2016. It will address: strategic direction, data quality and ownership, data integration, data availability, reporting and validation and governance.

ICT Service

ICT supports around 6,600¹ users of technology and supports over 400 different locations, which require ICT services. The infrastructure and application needs have continued to grow over the last 10 years and is complex and interdependent.

A successful ICT function is critical to enabling the delivery of the Council and City's priorities and budget strategy. The ICT Service has undergone a period of review and restructure during 20-15/16, driven by the recognition that the service needs to adjust and invest to meet the current and future demands of the business. This review has delivered a new target operating model and a set of design principles to put the service on a transformational journey likely to continue for another 2-3 years.

ICT will be an equal partner with the Council's business areas to ensure that solutions are reviewed as part of the enterprise architecture and comply with Information and ICT design principles. This balances the requirements of the business with the need to deliver cost effective ICT-based solutions.

Combining Information and ICT Services

Together as support services, ICT and PRI provide the critical technical platforms, data reporting and insight that facilitate the Council's progress on its journey towards meeting its objectives at strategic and operational levels.

¹ ICT supports c.6,577 pieces of equipment (Desktop Computers, Thin client terminals, Laptops etc.) - excluding, WIFI Services, Computer Screens, CAG Tokens, Printers, Fax Machines, Mobile, Desktop Phones and Tablets.

A combined ICT and Information Strategy, that includes the concerns of data governance, ensures infrastructure investment and software application strategies dovetail with the requirements to make data more readily available and accessible across services and other public bodies, suggests an improved stance for the Council on better information management.

The ICT and PRI Teams are at different states of maturity and investment in their strategic trajectories. The opportunity provided by this strategy is to align the strategic intent and achieve a greater impact.

8 Governance

8.1 ICT Governance

The ICT stakeholder community plays a critical role helping to shape, guide, support and direct the service. Governance of ICT has been set up to ensure that the ICT Service is transparent in its execution of strategy and can remain aligned to business need, particularly at a senior level within the Council:

- **Finance Scrutiny** provides political overview on ICT strategy and performance holding the CIO to account on a regular basis.
- The **ICT Board** provides leadership at executive level, including representation from the ICT Lead Member to monitor service performance and delivery of projects.
- The **Directorate ICT Boards** provide regular engagement between senior management and their ICT Strategic Business Partners with an aim to prioritise project developments – this includes one for each Directorate: Corporate Core, Children and Families and Growth & Neighbourhoods.
- **Project Prioritisation Group** provides a cross-Directorate forum to discuss the relative priorities for ICT investment in project delivery.
- **Design Authority** provides the agreed direction of travel for investment in technology across the Council while managing temporary derogations. The Design Authority represents ICT's leadership of technical direction within a context of senior business direction. Weekly reviews of technical changes are managed through a Change Advisory Board within the ICT Service.
- **Operational Groups** e.g. MiCare and SAP supports operational level discussion around major ICT systems between the ICT Service and the key stakeholders.
- **Service Reviews**. There will be regular Service Reviews between Business and ICT to discuss service performance and issues.

Further adjustments may need to be made to the governance as the model matures, to ensure clear routes to engagement and the communication of benefits realised from ICT involvement in business change and transformation. Extended governance will also be created to manage the evolving collaborative relationships that reach beyond the Council in support of the Greater Manchester ambition.

8.2 Information Governance

Enabling the Council's data to act as a valuable asset requires high quality data available where it is needed to aid service delivery and decision-making. These aspects are enhanced by having a clear understanding and record of the data

held, its purpose and its uses. In order to achieve the maximum benefit from the above, investment will require better management and handling of data. A new post to lead the development of Information Strategy is being recruited to drive forward this work. The main priorities include a significant improvement in data quality and reporting capability, enabled by investment in systems and skills addressing the significant risks that were identified in the review of data governance.

The considerations around data security and standards are governed through the Corporate Information Assurance and Risk Group (CIARG) chaired by the Council's Strategic Information Risk Owner (SIRO), City Solicitor. It is also an integral part of the annual Public Services Network (PSN) compliance activity managed through ICT governance. The current focus of CIARG is an action plan in response to the Information Commissioner's audit report 2014/5. Future governance for information is being reviewed to ensure strategic alignment with ICT and the wider business requirements for intelligence.

9 Managing risk

9.1 Risk appetite

The appetite for the ambition reflected in this strategy is balanced with the risks of not investing in a future that is highly dependent upon information and the technical infrastructure that captures, stores and provides tools to access, analyse and present in ways that support digital business.

The Council's success in a financially-constrained environment will depend upon quality data and the insight that can be provided through appropriate technology to capture, analyse, store and present intelligence.

Information governance is a growing consideration for the Council that needs to control access to sensitive data and ensure that there are no data or information security breaches. The risk to the Council in this area will grow without continued vigilance and appropriate governance.

These aspects will be further developed as the Information Strategy progresses.

9.2 Business Continuity and Disaster Recovery

The loss of information systems for the Council could be catastrophic to the business without well-developed and up-to-date business continuity and disaster recovery plans to protect online access to information. Lessons learned from Post Implementation Reviews of incidents will help inform the business case for Disaster Recovery and Business Continuity to be submitted in 2016.

The service will be underpinned by full business continuity planning and disaster recovery within 18 months. Critical systems have been defined and appropriate plans are in place.

10 Quality Standards and performance

10.1 Customer engagement

Improving engagement, communications and governance is core to the ICT strategic direction, with a view to vastly improving the customer experience and perception of ICT Service Delivery. Feedback will help inform continuous improvement to service.

At a strategic level, the ICT Strategic Business Partners will work pro-actively with the Directorates to set direction for investment in data and ICT solutions with priorities negotiated through the Directorate ICT Boards and Project Prioritisation Group.

Regular feedback will be sought through surveys to assess customer satisfaction and contact tracked through the ICT Service Desk to monitor peaks and troughs in customer demand for support. This information will be analysed to predict future need, ensuring ICT is more proactive e.g. the *Know IT All* service providing a drop-in service for colleagues with issues with devices, which has proved popular with customers and will be extended with more drop-in locations in line with the Estates Transformation programme.

10.2 Quality, performance management and reporting

ICT performance is reported on a regular basis to ICT Board and Finance Scrutiny Committee, focusing on performance measures across service, delivery, process, structure and people. This provides greater visibility of ICT performance.

Service level agreements and Operating agreements will be agreed with the Directorates business areas to ensure that both the ICT Service and business managers are clear about expectations around service delivery with a regular reporting on performance based on agreed parameters. A service management tool will be used to support self-service in terms of service operations and reporting. Contracts and inter-departmental targets will be set to underpin these SLAs to ensure achievability. They will be reported on in monthly Service Reviews and to the ICT Board.

Benchmarking will be used to demonstrate the value for money services being provided using industry standard and best practice through organisations such as SOCITM, ITSMF. Where applicable, ICT will be striving for recognition through awards, certification and compliance to standards e.g. PSN, PCI-DSS.

Individual targets and performance will be managed against the objectives of the ICT Strategy to ensure an alignment of activity to strategic intent.

11 Investment in ICT and enabling savings

11.1 Investment for ICT

The main financial goals of the ICT Strategy will be to:

- Continually review and reduce costs of standard ICT supply – per unit costs.
- Remove redundancy in technical capability and ensuring value for money from ICT suppliers.
- Leverage significant savings and income generation potential within the wider Council business through investment in automation of processes, self service capability and mobile working. ICT solutions should not be used to automate poor process. Challenge to business processes through lean thinking will be a fundamental element of ICT solution design and implementation.
- Leverage greater value from data by ensuring data quality through automation of information governance.
- Enable greater efficiency in the business through mobility of staff with the capability to be linked back to Council information systems.
- Drive out saving through collaboration across GM and leverage government frameworks procuring a GM solution where appropriate.
- Ensure delivery of Social Value through ICT contracts as per the Council's Sustainable Procurement Policy

Investment plans are based on business cases that identify cash savings or efficiencies. There is potential for these savings to either be taken as part of the Corporate Core savings plan or be set aside to fund future investment in ICT by funding borrowing costs.

The investment identifies estimated costs under capital but some of the future proposed investment could be revenue in nature, depending on the architectural route followed. If, for example, collaboration lends itself to a fully integrated cloud-based service, it is likely that a lot of the application development for resident, for example, could be revenue expenditure.

First phase ICT investment

The first phase, supported by £9.5m additional investment for 2015/17 has been focussed on improving resilience and day-to-day functionality of the ICT estate. This has included:

- The relocation of the Council's data centre into a consolidated data centre.

- Investment in infrastructure and Mobile Working funding to improve the Council's IT infrastructure, and update the applications that the Council uses. This includes providing up to date ICT equipment for staff which will allow the Council to adapt to more flexible and agile ways of working, and provide access to more secure systems.
- Upgrades to the Council's applications and case management systems. The upgrade to the One system to support the management of education processes followed by the social work case management system as the next priority in 2016/17. The annual updates to the council's resource management system (SAP) will be followed up by further enhancements as prioritised by the review. This is part of the agreed strategy to move to ICT estate programme estate to one version prior to the latest version ("n-1").

Second phase ICT investment

The above will provide an effective platform for the next stage of investment which is being developed to focus on the delivery of the Council's priorities and will support key areas such as:

- enhanced disaster recovery capability
- the delivery of more effective and efficient ways of working within the Council - for example the work to review the Council's Corporate Core will require considerable ICT input in order to ensure core processes across Legal Services, Finance and the HR/OD service are as efficient and effective as possible. This will include the implementation of the recommendations from the recent transactional review of the HROD service.
- more integrated front line working between the council and partners, for example ensuring joint teams from across health and social care can access the appropriate case based information required and neighbourhood delivery teams have the mobile technology they need
- the delivery of maximum efficiencies through the rationalisation of its property and ICT estate and new ways of working

The proposals to support the above are being developed in conjunction with Directorates and Partners and will form an important part of the Council's Capital Investment Strategy.

Continued investment in ICT as part of a multi-year capital investment programme will be needed in future to support the following areas:

- **Ongoing service stability** – bringing the legacy position up to date, building upon work delivered annually to reach a target level of service

- **Technology refresh** - as hardware/software dates and needs to be upgraded or replaced in cycles over time, managed through a rolling programme
- **Data Centre services** – to continue to ensure stable, reliable services, secure information and to minimise down time for business systems
- **Business transformation** – business ambitions supported through developments in technical capability to work more efficiently and effectively, automating lean processes
- **Data and Information as an asset and information security** – ensuring data quality and availability, compliance with information security considerations as the world becomes more digital through its transactions
- **Technology innovation** including Internet of Everything – taking advantage of new unobtrusive technologies to capture data that enables the Council to project forward and anticipate demand for services.

Table 1 sets out the investment to date on key ICT projects and estimated future investment against technical developments identified by ICT as part of delivery *Our ICT Strategy*. Individual business cases will be developed for each of the future elements as the specific business requirements are captured. This is not the full extent of funding required for ICT investment in the Council and will grow to include the major areas for investment identified by working closely with the Directorates.

Strategic cases are likely to include for example: the updating of SAP; intranet and internet development, funding Universal Access; updating Libraries; investing in the integration of Health and Social Care; investment in a corporate Electronic Document and Management system; and tools to manage and mine data to deliver better reporting and intelligence. These business cases will evolve as part of the business cycle for investment in process improvements.

Table 1: ICT investment

Area for investment	Capital £m	Impact	Phase
DELIVERED OR IN PROGRESS			
Compliance	2.6	PSN Compliance Achieved New AV rolled out and Key services patched XP estate in process of being removed	2016/17 Q1
		Improved security services in place Improved resistance to Virus, Ransomware and denial of service attacks PSN and PCI accreditation in place and renewed each year	2016/17 Q2
Service management	1.1	Reduction in time to log and process IT calls Improved asset management and tracking (reducing waste and spend on hardware) Improved availability of services due to monitoring, alerting and better impact analysis of changes	2016/17 Q2-4
Technology refresh	3.9	Updating technical platforms including a new collaboration platform	2016/17 Q1-4
Business transformation	0.6	Greater amount of time being customer-facing, less need to travel back to the office.	2016/17 Q1
PLANNED			
Ongoing service stability	1.3	Improve ICT service availability and business continuity/ disaster recovery	2016/17 Q3-4
TOTAL	9.5		
FUTURE PLANS			
Ongoing service stability	10.0	Better performing Contact Centre with updated tools better service. Better WIFI access to enable mobile working. Better value contracts for internet and networking.	2017-20
Technology and Internet of things	2.0	e.g. enable remote meetings. Reduce carbon footprint	2017-20
Technology refresh	10.0	N-1 compliance	2017/18 Q4 – 2019/20 Q1
		Desktop upgrade - hardware and software	2017-20
		Mobile contract and rolling refresh programme	2016/17 Q4 and 2019/20 Q4

Area for investment	Capital £m	Impact	Phase
Business transformation aligned to business strategy	10.0	Potential for business transformation enhanced through technical innovation - business cases to be developed	TBC
TOTAL	32.0		

11.2 ICT Delivery plan

The high level delivery plan for 2016-19 is set out in Appendix 3. The activity is described against the three strategic objectives with major ICT priorities being:

- Upgrade to core software that delivers desktop services to most ICT users at the Council (Citrix)
- An initial scoping of investment needed to improve the network infrastructure with a review of the Communications Rooms
- Implementation of a service management platform and underpinning processes (ITIL), initially to be implemented in ICT, but available as a platform for wider use by services with comparable processes.
- Implementation of a new collaboration platform which will be a key enabler to supporting more efficient ways of working enabling mobile access, information sharing and collaborative working, instant messaging and video-conferencing. The new technology will be class leading and support opportunities across the council and create new interaction channels with our colleagues, residents and partners in new 'digital' ways, we should expect this technology to help reduce costs and improve productivity. The opportunity to implement these solutions is close and we expect to reach our decision on the technology we will recommend to implement in June 2016.
- The Hosting Platform Programme will focus on Disaster Recovery, Telephony Upgrade and Data Centre Remediation. Appropriately skilled staff are being secured to architect the solution prior to delivery later in 2016/17.
 - Telephony upgrade to address outdated technology, including critical technology for the Council's Contact Centre, an initial port of call for our customers.
 - Remediation of the Data Centre, including consideration of the current generator, security access, electricity works and monitoring. A Core Switch upgrade is planned for May 2016.




- The Disaster Recovery position needs to be improved to secure the Council's ICT systems.
- Libraries transformation programme to improve the customer experience through digital technologies

11.3 Developing the Information Strategy

In order to achieve the maximum benefit from the above investment will require the better management and handling of data. A new post to lead the development of the Information Strategy is being recruited to drive forward this work.

The Information Strategy Task Group, led by the City Treasurer and Head of PRI will report later in 2016. This emerging thinking on Information Strategy will be integrated with the ICT Strategy. The level of detail in the delivery plan reflects the different stages of maturity

Appendix 1 – The Journey

	 INITIAL STABILISATION 2015-16	 CONSOLIDATION 2016-17	 BUSINESS EFFICIENCY 2017-19
RESIDENT	<p>Some online services, but disjointed experience with some processing by letter or by phone calls.</p> <p>Service outages.</p>	<p>Improvements to customer experience when interacting with the Council. Greater ability to use online services</p> <p>Improved security in processes – payment cards and interactions online.</p>	<p>Easy to use services that fully utilise self service 24x7</p> <p>Better and seamless services involving e.g. Health and Social Care</p> <p>Faster resolution of problems</p>
STAFF & ELECTED MEMBERS	<p>Manual, duplicated and inefficient processes</p> <p>Paper-based processes with multiple layers of permissions</p> <p>Older technical tools, prone to being unreliable, not compatible with newer technologies or ceasing to function</p>	<p>Roadmaps for investment in ICT against Directorate priorities being formed and agreed.</p> <p>Digitising of paper records e.g. Employee Contract Records. New print tools to maximise the shift to digital communications</p> <p>Updated desktop with greater mobility supported</p> <p>More efficient use of office space. Model Office set up with facilities to reduce travel e.g. video conferencing.</p>	<p>Working fully mobile for those who need it with appropriate levels of security</p> <p>Digitised information- digital more prominent in working practice</p> <p>Ability for all staff to access email, intranet and HR - Universal access to information through any device</p> <p>Clearer contract management of ICT services SLA/ OLAs in place. Outages are planned and less frequent.</p>
PARTNERS	<p>Some partnership working across GM – reciprocal arrangements</p> <p>GMCA organisation developing with incoherent architecture</p>	<p>Forming joint arrangements e.g. LLLB Centres, better DR arrangements, supporting GMCA</p>	<p>Strong GM arrangements e.g. GM Connect, LLLB centres achieving maturity in data sharing</p> <p>Innovation</p>
ICT SERVICE	<p>TOM negotiated and beginning to be populated</p> <p>Secure accreditation achieved - PSN</p> <p>ICT Strategy drafted</p> <p>ICT Governance initiated</p>	<p>Fully populated ICT Service with recruitment support for BAU and projects</p> <p>Increased coherence in ICT design</p> <p>More detail on strategic direction for Data, Information and business intelligence</p> <p>Programme Management Office – formalised project delivery</p>	<p>Better performance with staff engagement and improved satisfaction/ employer of choice status</p> <p>Innovation/ service awards</p> <p>Wider collaboration in service delivery across Greater Manchester – models of joint delivery</p>

Appendix 2 - ICT Principles

Principle	Description
General	
G1: Apply Principles Universally	<i>These principles apply to all parts of ICT.</i>
G2: Maximise Benefit to Manchester City Council	<i>Decisions are made to provide maximum benefit to Manchester City Council as a whole.</i>
G3: Business Continuity and Availability	<i>Appropriate levels of Business Continuity and Availability will be maintained.</i>
G4: Compliance with the Law	<i>All Architecture information management processes and systems must comply with all relevant laws, policies and regulations.</i>
G5: Consolidation	<i>Consolidation is considered at all times and there is a proactive drive towards reducing proliferation and complexity.</i>
G6: Fit for purpose	<i>Solutions will not be designed to the Nth degree, nor will their designs disproportionately compromise the key objectives and goals.</i>
G7: Common Vocabulary	<i>Objects are defined consistently throughout the enterprise, and the definitions are understandable and available to all users.</i>
Management	
M1: Proactive Business Leadership	<i>Business leaders, including those of ICT, all engage proactively on key IT planning activities.</i>
M2: ICT Responsibility	<i>The ICT Architecture team is responsible for defining and implementing best practice IT processes.</i>
M3: Management of Intellectual Property (IP)	<i>ICT need to know when to Develop and Protect, Leverage others or Give IP away. This must be reflected in the ICT architecture, implementation and governance.</i>
M4: Responsive Change Management at a Manageable Cost	<i>Changes to the enterprise information environment are implemented in a timely manner and at a cost effective rate.</i>
Applications/Software	
A1: Be Service Oriented	<i>The architecture is based on a design of services which mirror real-world Manchester City Council activities encapsulating the enterprise (or inter-enterprise) business processes.</i>
A2: Ease-of-Use	<i>Applications and services are easy to use. The underlying technology implementation is transparent to users, so they can concentrate on tasks at hand.</i>
A3: Reduce Manual Processes	<i>Manual processes are reduced and removed, but only when there is a valid business case for doing so.</i>
A4: Open Standards Integration	<i>Integration of systems is viewed as a strategic capability separate to each individual system, rather than something that is thought of as part of each individual system.</i>
A5: Replace Legacy Systems	<i>Legacy systems will be replaced, but only when there is a valid business case for doing so</i>

Principle	Description
Appropriately	
A6: Only Build Where a Competitive Advantage/specialism Exists for the Council	<i>ICT will only carry out development when this achieves a clear competitive advantage or, a specialism of solution(s) is required to Manchester City Council.</i>
A7: Application Security.	<i>Applications and services are secured from unauthorised access</i>
A8: Testability	<i>Application and services (component) should be designed within ease of testing in mind</i>
A9: Operability	<i>Applications and services are robust and fault-tolerant, providing clear error reporting, diagnostic and performance monitoring facilities.</i>
A10: Scalability	<i>Applications and services are designed and demonstrated to scale linearly, and the capacity limits of the current production hardware configuration are known.</i>
Data	
D1: Data is an Asset	<i>Data is an asset that has value to the enterprise and is managed accordingly.</i>
D2: Data is shared	<i>Data is shared across organisational and technical boundaries.</i>
D3: Data is Accessible	<i>Data is accessible for users to perform their duties</i>
D4: Data Security	<i>Data is protected from unauthorized use and disclosure.</i>
D5: Data Creation	<i>All enterprise data is captured once, at the point of its creation.</i>
Technology	
T1: Maximise Technology Independence	<i>Applications are independent of specific technology choices and therefore can operate on a variety of technology platforms.</i>
T2: Manage Technological Diversity	<i>The number of technologies should be reduced wherever possible.</i>
T3: Technology Selection through Use Cases and Non-Functional Requirement	<i>All utilisation of technology should have a clear rationale, articulated by both use cases and specification of non-functional requirements.</i>

Appendix 3 - ICT Strategic Delivery plan 2016-19

