

# Governance, Risk and Best Value Committee

10:00am, Tuesday 21<sup>st</sup> September 2021

## Quarterly Status Update – Digital Services

Executive/routine Wards Council Commitments	Executive All
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### 1. Recommendations

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- 1.1 It is recommended that the Committee reviews, scrutinises and notes the progress detailed in this quarterly update.

**Stephen S. Moir**

Executive Director of Corporate Services

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## Quarterly Status Update – Digital Services Programme

### 2. Executive Summary

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- 2.1 The purpose of this report is to provide a quarterly progress update upon the Council's Digital Services programme of works and the delivery of the Digital and Smart City Strategy. The Council and our technology partner, CGI UK Limited, have continued to work to increase the pace of delivery to improve core digital services, achieve further improvement and progress the associated major systems changes and developments which will further enable and enhance our customer facing services and the internal business operations of the Council.

### 3. Background

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#### **Council Digital and Smart City Strategy**

- 3.1 In October 2020, the Policy and Sustainability Committee approved the Council's new Digital and Smart City Strategy (2020-2023) which describes how we will embrace innovative technical solutions to meet rapidly evolving and changing citizen and business needs, respond to the changing shape of the organisation, provide value for money and enable us to respond to opportunities for improved joint working with our community planning partners.
- 3.2 Our strategic technology partnership with CGI was extended to the end of March 2029 following negotiations between the Council and CGI with formal approval to the extension being given by the Finance and Resources Committee on 27 August 2020. This contract extension enables the Council to deliver further digital enhancements and improvements to our services and will yield further financial savings, building upon the progress made in partnership with CGI to date. As a part of this extension, a greater focus will be given to digital change management, enhanced service delivery and the development of new strategic solutions.
- 3.3 The digital environment in which we operate continues to evolve. The approved Digital and Smart City Strategy and our extended partnership with CGI provide a clear strategic direction, leadership, capacity and support for both the Council and the City's future digital ambitions. These ambitions will be aligned with the Council's refreshed business plan, the Edinburgh 2050 City Vision, the work of the Adaptation

and Renewal programme and the work with community planning partners and the Edinburgh and South East of Scotland City Region Deal.

- 3.4 The implementation of the Strategy has been supported by significant investment in Digitally Empowered Learning and Smart Cities specific projects, approved by the Council at the Budget setting meeting on 18<sup>th</sup> February 2021.

## 4. Main report

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- 4.1 Since the last quarterly update to the Committee, improvements have continued to be made in both service delivery and incident management, along with progress and delivery in our Strategic Programme of Work.

### **Strategic Programme of Work**

- 4.2 The Digital Services Strategic Programme of Work presents a portfolio of projects to support the execution of the Council's Digital and Smart City Strategy over the next 18 months. The remaining elements of the delivery of the six main transformational programmes previously reported on, Enterprise Resource Planning (ERP) and Business Intelligence, are incorporated within this and updates are provided for these. The Committee should also note that a 'deep dive' into the ERP programme is separately provided as part of the Change Portfolio update report, as part of the agenda for this meeting.
- 4.3 The Digital and Smart City Strategy defines the principles that support project decisions and choices in relation to priorities, funding models, resourcing, scheduling, hosting, security and application architectures.
- 4.4 Progress on the work programme will continue to be reported to this Committee, quarterly. A high-level snapshot of the August 2021-22 plan is included in Appendix 3 for reference. Key highlights from the programme are detailed in this report.

### **Enterprise Resource Planning (ERP)**

- 4.5 The ERP Programme, which will deliver a range of upgrades and improved interfaces between core systems in Finance, HR/Payroll and Banking and Payments Services is now in full delivery with contracts in place with the Council, CGI, and the sub-contracted Oracle integration and managed service partner.
- 4.6 Key activities include the Oracle Financials R12 upgrade which has now completed phase one of system integration testing and is on track to complete in January 2022. Work is also underway to upgrade the Frontier budget management system onto a new hardware infrastructure.
- 4.7 Confirmed programme costs have been built into the financial model, which is rigorously monitored by Finance and the programme board. The Council's contract with our HR and Payroll system provider has been extended to March 2023. Internal Audit remain fully engaged with and provide agile audit support for this programme.

### **Citizen Digital Enablement (Channel Shift)**

- 4.8 We are continuing to expand the range of online services offered to citizens through our CRM system. Over July work was approved to progress a project to integrate the CRM with our housing and workforce scheduling systems to allow citizens to book housing repair appointments online. Further planning is now underway around the development of a CRM knowledge base, and new webchat / web-bot solutions.
- 4.9 We have also launched new forms to support garden waste registrations which are open until 1 September 2021. Last year garden waste customers helped us turn over 20,000 tonnes of garden waste into compost, which is used on farms, gardens and greenspaces.

### **MyLearning Hub**

- 4.10 On 2 August the Council successfully deployed its new online learning platform - MyLearning Hub - which replaces CECil, LearnPro and Thrive. This provides a more engaging and modern learning experience for all employees, including the ability to connect and collaborate. Employees without a Council email address can use their personal email address to access the platform from any device.

### **Social Care Rostering / Workforce Management**

- 4.11 Work continues on the business case for a new rostering and mobile workforce solution for Homecare and Reablement services. The project will drive efficiencies and support new ways of working to deliver the best quality of care, adopting a three conversations approach, and supporting individuals to live independently in their own home, offering the right care and support, at the right time and in the right place. The business case for this solution has been approved by the Edinburgh Integration Joint Board and a report will be submitted to the Finance and Resources Committee for consideration in October 2021.

### **Housing Repairs and Mobile Working**

- 4.12 We successfully closed Phase 2 of the Housing Repairs project which has delivered a new mobile workforce management solution for Empty Homes and Gas Servicing as well as further enhancements to the Repairs archiving system.
- 4.13 Planning activities are now underway for Phase 3 which will deliver further efficiencies and service improvements.

### **Business Intelligence**

- 4.14 The Business Intelligence project aims to integrate and leverage software information assets, and to transform data into actionable insights that drive the Council's strategic and tactical business decisions.
- 4.15 Construction of the waste collection dashboards (RouteSmart and Confirm) are now in the final stages of Operational Acceptance Testing which will continue over August and September. In parallel, the team are working on further dashboards for Human Resources and Homelessness services.

### **Print Project**

- 4.16 Delivery work is now underway between CGI and Apogee to design and set-up a model office environment to allow us to test the new print devices and the associated management software, on both the Corporate and Learning and Teaching environments. Following completion of these trials the project will then require to rollout new devices across approximately 350 sites within Edinburgh and two outdoor education centres situated near Aviemore and Dunoon.

### **Civica CX**

- 4.17 Good progress continues to be made on the Civica CX project which will replace the legacy “Civica APP” system with an upgraded cloud-based solution to drive business improvement and transformation across Licencing, Trading Standards, Food Safety and Hygiene. The project is being delivered in phases with Phase 1 now underway to transition Licencing from APP onto CX and planning for Phase 2 is in progress.

### **Computer Aided Facilities Management (CAFM)**

- 4.18 A project is currently underway between Digital Services and Property and Facilities Management, to phase out the AS400 legacy system and introduce a new solution for the management of the corporate and operational estate.
- 4.19 As part of the project we successfully migrated the CAFM application into the Technology Forge (system vendor) Cloud - which both improves performance and offers new features and functionality.

### **Housing Asset Management**

- 4.20 Following the successful upgrade of iWorld Housing to version 6.19, further planning is underway to upgrade to version 6.22 which introduces Housing Asset Management, Asbestos and Condition Surveying functions. The first phase of this programme is scheduled to go live in Quarter 1 of 2022.

### **Choice Based Lettings**

- 4.21 We recently upgraded our core Housing database and rolled out a new version of the Key-To-Choice application which the Council hosts on behalf of the EdIndex Partnership, enabling tenants to bid for Council and Housing Association properties through an online portal. The project remains in an early “go live” support phase with a focus on ensuring that any snagging issues are resolved, and business operations are working at maximum efficiency. Further phases of the project are now in planning.

### **Property and Capital Programmes – Digital Infrastructure**

- 4.22 Over the coming months there is a very busy schedule of digital infrastructure projects to support the Council’s 5-year Asset Management Works and Capital Investment Programme.
- 4.23 This includes installation of networks, Wi-Fi, and ICT equipment to support: the new Frogston Primary School; James Gillespies High School; Currie Primary School; the

new St Crispin's Special School; Panmure Hub; Canaan Lane Primary School; and, the new Castlebrae High School in addition to work associated with the ongoing 1140 hours nursery expansion programme.

### **Hosted IDOX**

- 4.24 Proposals were received from CGI in April and are now under review, to migrate Uniform into the IDOX Cloud and move towards a cycle of automatic system upgrades. The proposal also includes the upgrade of the Public Access Portal which provides an efficient and easy-to-use way for members of the public to search for and track planning applications.

### **HIS (Homelessness) Application Replacement**

- 4.25 We are continuing to work closely with Homelessness Services to provide early-life support for their new Northgate case management system. Further work is now planned for phase 2 of the project to automate processes and drive further efficiencies.

### **End User Device Refresh programme**

- 4.26 Over the summer we successfully completed the rollout of the ultra-high specification PCs for AutoCAD users within the Capital Programme Team and work was also completed to upgrade Cashless Catering PCs within schools.
- 4.27 This leaves a very small number of active Windows 7 devices on the estate which have been retained for specific purposes e.g. access to legacy applications. These all have Microsoft extended support and are being addressed on a device by device basis.

### **Waste Management**

- 4.28 Work has completed to deploy ICT infrastructure: networks; firewalls; databases; and, applications for the new weighbridge system at the Bankhead and Seafeld depots, with final configurations and testing scheduled over September to October.
- 4.29 The information that this software provides will help the Council better control wastage, reduce running costs, improve recycling, and ensure compliance with legal requirements.

### **Citizen Account Portal**

- 4.30 A new Revenues and Benefits citizen account portal was successfully rolled out last year to provide secure online access for the public to view and interrogate account and claim information, check bills/notices/statements, and register for e-billing.
- 4.31 Over the reporting period, we have successfully rolled out further printed outputs through the same solution bringing increased efficiency and system consolidation and enabling us to decommission the old platform.

### **Microsoft 365 and Remote Working**

4.32 Over the last quarter, a number of significant Microsoft 365 technical, security and user-facing improvements have commenced or have been fully rolled out. These include:

- conclusion of the migration of all corporate Council-owned iPhones, iPad and Android devices from the AirWatch platform to MS Intune;
- implementation of the Self-Service Password Reset capability to allow all corporate users to reset forgotten passwords;
- the OneDrive for Business full roll out which is underway and due to complete by the end of October;
- Skype for Business decommission will complete by October 31<sup>st</sup>;
- planning for the Microsoft Information Protection content classification and protection tool is underway with early pilots due in September;
- development of a strategy for release of further Teams and MS365 applications is in planning; and,
- continued updates to the Teams application including seminars, breakout room support and improved presentation capabilities.

### **Contact Centre Home Working**

4.33 Following the introduction of the capability to use work telephony systems from home in April 2020 for some key staff, demand has increased from the original 60 contact centre agents to over 90 agents.

4.34 The infrastructure was upgraded and extended to a capacity of 1,000 telephones in December 2020. This work is crucial to ensure that the Council is able to support our staff to work safely and remotely whilst providing essential services to the public.

4.35 The Mitel telephony system was also upgraded to enable integration with the customer contact system, Verint, and to provide extended access from home to office telephone functions such as hunt groups, and office extension numbers.

4.36 In addition, “softphone” enhancements to the telephony system are now underway which will enable key users to use their laptops at any location with a network connection to make and receive telephone calls. This will also deliver new capabilities for future contact centre enhancements.

4.37 These improvements create greater flexibility for future service design models and agile service delivery.

### **Partnership Working**

4.38 We are continuing to work with NHS National Services Scotland (NHS NSS) and using our in-house Geographical Information Systems (GIS) capability to improve the data we have in modelling COVID-19 outbreaks to assist in our response to this.

- 4.39 This work is part of a wider data sharing project with NHS NSS and both Glasgow City Council and Aberdeen City Council. NHS Lothian is following the outputs of this work closely and we are sharing this with them.

### **Resilience**

- 4.40 Outlook Web Access was enabled in early 2020 for all corporate network users enabling access to Email, Calendars and Skype for Business on compatible personal devices. This covers over 7,000 Corporate network Council staff.
- 4.41 We have further increased the capacity of our remote working tool to support 7,000 concurrent users as we now have in excess of 5,000 laptops across the Corporate network.

### **Empowered Learning**

- 4.42 Work began in April 2021 on the delivery of the Empowered Learning solution which will provide every pupil from P6 to S6 with a device and access to devices for all P1 to P5 pupils as well as augmentation of our existing wireless network in schools.
- 4.43 The work is being carried out in partnership with CGI.
- 4.44 Benefits of this programme include:
- Equity of access from P6 to S6, ensuring all pupils have personal access to digital learning with their teacher in school or at home;
  - Effective digital workflow to increase engagement, improve teacher feedback and raise attainment;
  - A range of powerful accessibility features to improve access to the curriculum for pupils with additional support needs;
  - Learners can work online simultaneously in a class or collaboratively outside the classroom;
  - High quality digital applications for productivity and creativity, providing increased personalisation and choice; and,
  - Development of learning, thinking and digital literacy skills vital for success in today's rapidly evolving, technological society.
- 4.45 Network surveys have now been completed for all Primary, Secondary and Special schools identifying the upgrades required to support the new solution.
- 4.46 The solution itself has been developed and is now being tested before the pilot school implementation in October 2021.
- 4.47 Communications have taken place with all Head Teacher groups before the summer break, with further communication planned for the new session. Additionally, engagement is planned for both pupils and parents/carers in the coming months.
- 4.48 Work is progressing on the training programme, Aspire2Be, which will support teachers and support staff involved in the rollout of devices.

## Digital and Smart City Strategy

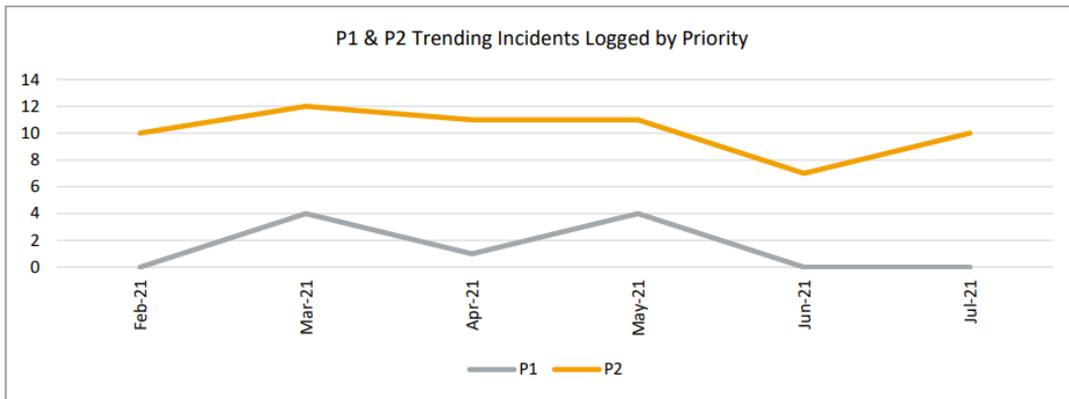
- 4.49 The Implementation Plan to support the Digital and Smart City Strategy has been developed and can be found in Appendix 4.
- 4.50 This Plan will be reported as part of this quarterly update and will be reported to Policy and Sustainability Committee annually in the update on the delivery of the Strategy. Key deliverables which are significantly changed, or which will no longer be taken forward will be added to the table at the end of this. There are no deliverables in this category at this point.

## Core Digital Service Performance

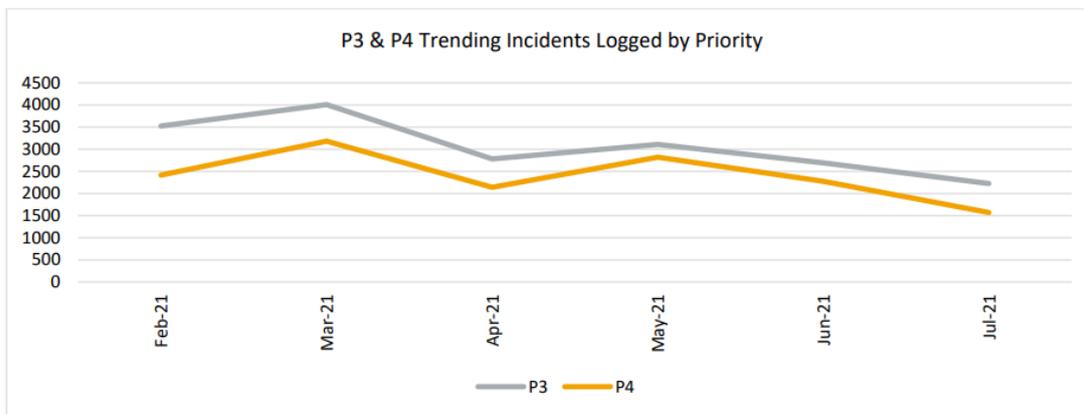
- 4.51 Service performance is driven through a set of twenty-four key contractual measures that, in turn translate to a set of key performance indicators (KPIs). Service incidents definitions can be found in Appendix 1.
- 4.52 Since the last report to Committee, service level agreement (SLA) attainment levels have continued to remain stable and at normal/expected levels.
- 4.53 Customer (User) satisfaction scores for the last two quarters remain high – which has been consistent throughout the last year despite more challenging working conditions. Levels have dipped slightly over June/July attributable to the lead times for provision of new laptops. This is a global supply chain issue and we have been working with CGI and our framework suppliers to source devices as quickly as possible in a challenging marketplace.



- 4.54 The volume of Priority 1 (P1), or the highest severity incidents, remains low whilst the volume of Priority 2 (P2) incidents continues to remain at a stable and acceptable level.



4.55 The overall volume of non-critical Priority 3 (P3) and Priority 4 (P4) incidents shows a steady and stable pattern over the last six months with a slight dip over the summer months as colleagues take leave and schools close for the break.

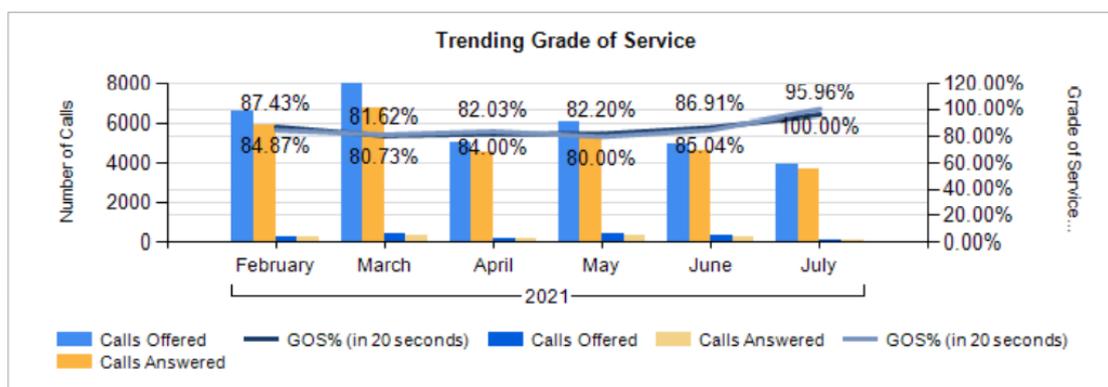


#### 4.56 Call Volumes – Priority 1 to 4

Priority	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Total
Critical (P1)	0	4	1	4	0	0	9
High (P2)	10	12	11	11	7	10	61
Medium (P3)	3,526	4,009	2,783	3,108	2,691	2,225	18,342
Low (P4)	2,418	3,183	2,138	2,818	2,272	1,570	14,399
<b>Total</b>	<b>5,954</b>	<b>7,208</b>	<b>4,933</b>	<b>5,941</b>	<b>4,970</b>	<b>3,805</b>	<b>32,811</b>

4.57 Call volumes have remained at stable and acceptable levels. Appendix 2 provides a comparison of P1-P4 calls over four full years and 2021 to date and highlights the overall reduction in calls over the last few years and the stabilisation of volumes.

4.58 As our call volumes have stabilised and colleagues have become accustomed to remote working, the grade of service has improved.



## Cyber Security Management

- 4.59 The Council and CGI teams are collaboratively managing Security Risks continuously across the estate. The security risks cover a range of issues from the new Cyber Resilience Framework vendor management to user account privileges that ensure the Government or legal frameworks by service improvements, integration or removal, are not at risk.
- 4.60 The Security Risk Management Plan (RMP) has continued its quarterly reviews and risk owners have been asked to provide regular updates to improve on the risk appetite by both partners in this framework, the Council and CGI. Enhanced reporting has been developed between key stakeholders within CGI and the Council.
- 4.61 The submission for the annual Public Services Network (PSN) Code of Connectivity Certification was submitted in December 2020 and awarded in March 2021. Work will commence in September 2021 in preparation for our 2022 submission
- 4.62 The Council has again successfully achieved both the Cyber Essentials and Cyber Essentials Plus enhanced certification in September 2021.
- 4.63 The Council continues to gather evidence to support the Scottish Government's Public Sector Cyber Action Plan Cyber Resilience Framework (PSCAP CRF), no requests for updates have yet come from the Scottish Government, but the Council Cyber team is in active and ongoing dialogue with them
- 4.64 During the pandemic, and with more users working remotely, security incidents have remained low thanks to the training programmes and communication plans set out by the Council. Monthly e-Learning for Cyber Security has been successfully rolled out across the Council and preparations are ongoing regarding the content for the next 6 months.
- 4.65 The Microsoft 365 roll out created some security challenges, which were within our acceptable risk appetite, due to the agile and essential method of deployment. A full security review of the core components of MS365 is has been completed and is in the final stages of agreement between the Council and CGI. The new mobile device management (MDM) platform, Intune, has enabled us to have greater control and management of our mobile device estate.

- 4.66 Monthly automated vulnerability scanning is now in place across both Corporate and Learning and Teaching estates. The Council and CGI are working through the vulnerabilities identified with a view to reducing the overall numbers. The Council has also asked CGI to undertake Penetration Testing of the Learning and Teaching Environment once schools are back and devices again connected to the network.
- 4.67 With more Council staff working remotely, the security posture will need to change as the dynamic security landscape changes. The Council and CGI will work to produce Security guidance for remote working to reflect the changes in our working lives.
- 4.68 The Council is an active member of the Cisp community, an initiative developed by the National Cyber Security Centre (NCSC) to allow for collaboration on Cyber Security initiatives and also provides a platform for sharing threat intelligence information.

### **Governance, Benchmarking and Contract Management**

- 4.69 The Council and CGI have an operational governance framework in place, built upon the requirements of the partnership contract. This includes regular reporting to the Corporate Leadership Team's Change Board on the delivery and development of major transformation programmes, in accordance with the Council's approved approach to managing major projects and change.
- 4.69 The Council seeks to benchmark our IT Services against sectoral best practice. We are currently involved in the Society for Innovation, Technology and Modernisation (Socitm) Improve Benchmarking which, for 2021, is a User Satisfaction Survey and the Local Government Digital Office Scottish Technical Asset Management Platform (STAMP) which focusses on the software and platforms used across Scottish Local Government.

### **Audit**

- 4.70 There are 3 Audit Reports produced as a result of the 2021/22 Internal Audit Plan which are solely 'owned' by Digital Services and CGI:

- Development and Communication of the Digital and Smart City Strategy;
- Cyber Security – Technology Vulnerability Management; and,
- CGI Performance Reporting

With significant involvement in a further 2 planned audits:

- Records Management and Information Security; and,
- Technology Availability in Schools (Empowered Learning).

- 4.71 The audit for the Development and Communication of the Digital and Smart City Strategy is already underway with the Terms of Reference agreed and fieldwork underway.
- 4.72 Digital Services currently has 20 open audit management actions owned by either by the Council or CGI. A further 3 actions are with Internal Audit for validation following updates of evidence for closure. The actions from the 3 recent audit

reports relating to Mobile Device Management, Technology Resilience and Network Management are included in this figure. All current open actions are within their due date, i.e. none are reporting as overdue.

- 4.73 Digital Services is also a contributor to 14 audit actions owned by other Directorates/Divisions.
- 4.74 All actions are being actively managed and kept under regular review by the Service Director and the Digital Services Senior Management Team. The Chief Digital Officer also meets regularly with the Head of Audit and Risk/Chief Internal Auditor to discuss and review audit related issues.

### **CGI Community Benefits**

- 4.75 As part of their Community Benefits work, CGI are supporting The One City Trust which is an independent charity that supports equality and inclusion in Edinburgh supported by the Lord Provost. It runs a Grant Funding programme to local qualifying organisations. CGI is featured in the Application Form as a partner and provider of pro-bono IT work.
- 4.76 CGI have recently committed to work with four organisations as part of this:
- **Corstorphine Community Centre** want to provide a technical hub for community use and require help with WiFi and IT infrastructure improvements
  - **Four Square** seeks to improve the Union Canal for all local communities and will receive help with website development and running a digital public consultation
  - **Networking Key Services** support the mental health of the young South Asian community and would like access to technical knowledge and trouble shooting skills
  - **The Open Door** provide a drop-in centre for men over 60 and will receive help to develop a new website.

## **5. Next Steps**

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- 5.1 The Council continues to further strengthen and improve our management, governance, security and delivery arrangements for the digital programme in partnership with CGI. The approval of our Digital and Smart City Strategy provides the strategic direction for the next phases of our digital developments. The approval of this strategy also informs the future prioritisation of investment, both capital and revenue, in digital activities.

## **6. Financial impact**

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- 6.1 Our partnership with CGI is saving the Council an estimated £6m per annum against the 2015/16 baseline spend on ICT with our former partner, BT. Over the

first phase of the Council's contract with CGI, this will save £45 million. The Committee should note that this saving has already been fully assumed and incorporated as part of the Council's Medium-Term Financial Framework and planning assumptions.

- 6.2 During 2018 the Finances and Resources Committee approved a negotiated 'variation' to the baseline contract which realised a further £11m of savings and reset of all digital transformation programmes.
- 6.3 On the 27 August 2020, the Finance and Resources Committee approved a 6-year extension to end March 2029 following negotiations between CGI and the Council, realising a further saving of £14.1m. This contract extension enables the Council to realise financial savings and build on the progress made in partnership with CGI, with greater focus upon change management and enhanced service delivery.

## **7. Stakeholder/Community Impact**

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- 7.1 The Council's Corporate Leadership Team (CLT) risk register formally identifies digital capabilities and information governance as a risk and ensures that adequate mitigations and active management of risks continues to be undertaken. This is further complemented by risk reporting and management in respect of information governance, including GDPR compliance.
- 7.2 The Council's Change Board actively monitors and tracks progress on all Council wide programmes ensuring that targeted action is taken should timelines, benefits or costings deviate from the original business case, this includes the ICT programme.

## **8. Background reading/external references**

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- 8.1 [Digital and Smart City Strategy](#)
- 8.2 [GRBV Quarterly Status Update - Digital Services May 2021](#)
- 8.3 [GRBV Quarterly Status Update - Digital Services January 2021](#)
- 8.4 [GRBV Quarterly Status Update - Digital Services September 2020](#)

## **9. Appendices**

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- 9.1 Appendix 1 - Incident Definitions
- 9.2 Appendix 2 - Year on Year service level agreement (SLA) Volume Comparison 2017-2021
- 9.3 Appendix 3 – Strategic Programme of Work
- 9.4 Appendix 4 – Digital and Smart City Strategy – Implementation Plan

## Appendix 1 - Incident Definitions

### "Severity 1 Service Incident"

A Service Incident which, in the reasonable opinion of the Authority:

- (a) constitutes a loss of the Services which prevents a large group (of at least 50) End Users from working; or
- (b) has a critical impact on the activities of the Authority; or
- (c) causes significant financial loss and/or disruption to the Authority; or
- (d) results in any material loss or corruption of Authority Data; or
- (e) results in a P1 being Non-Available; or
- (f) causes an entire business area to be unable to work.

Non-exhaustive examples include: A failure of the Services to provide user authentication service; or at least 50 End Users unable to work or a P1 failings its KPI Availability targets.

### "Severity 2 Service Incident"

A Service Incident which, in the reasonable opinion of the Authority:

- (a) has the potential to have a major (but not critical) adverse impact on the activities of the Authority and no workaround acceptable to the Authority is available; or
- (b) has the potential to cause a financial loss and/or disruption to the Authority which is more than trivial but less severe than the significant financial loss described in the definition of a Service 1 Service Incident; or
- (c) causes financial loss and/or disruption to the Authority; or
- (d) affects greater than 25 but less than 50 End Users; or
- (e) results in a P2 Application being Non-Available.

Non-exhaustive examples include: Corruption of organisational database tables or loss of ability to update Authority Data.

### "Severity 3 Service Incident"

A Service Incident which, in the reasonable opinion of the Authority:

- (a) has the potential to have a major adverse impact on the activities of the Authority which can be reduced to a moderate adverse impact due to the availability of a workaround acceptable to the Authority; or
- (b) has the potential to have a moderate adverse impact on the activities of the Authority; or
- (c) affects less than 25 End Users; or
- (d) results in a P3 Application being Non-Available;

Non-exhaustive examples include: inability to access data or a class of customers.

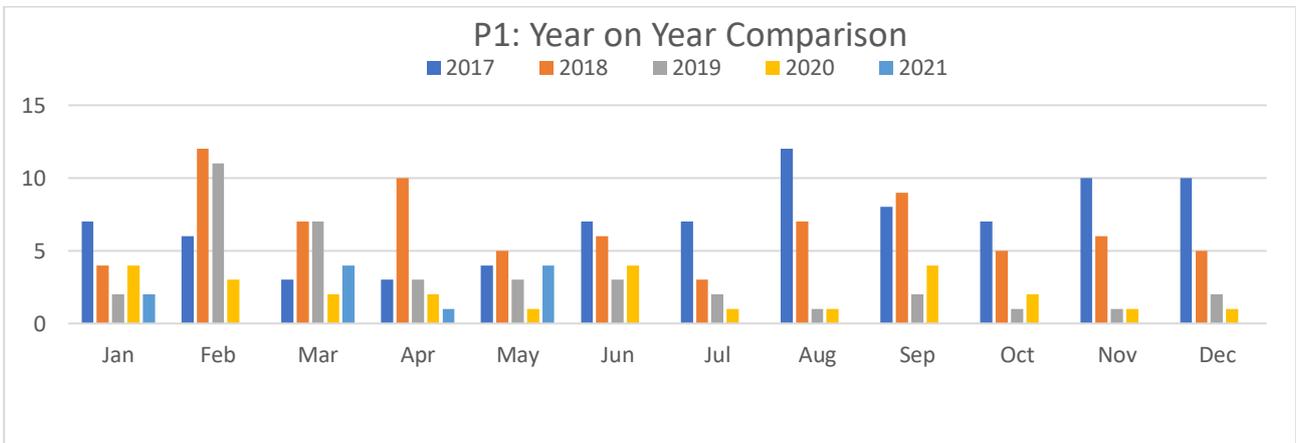
### "Severity 4 Service Incident"

A Service Incident which, in the reasonable opinion of the Authority has the potential to have a minor adverse impact on the provision of the Services to End Users.

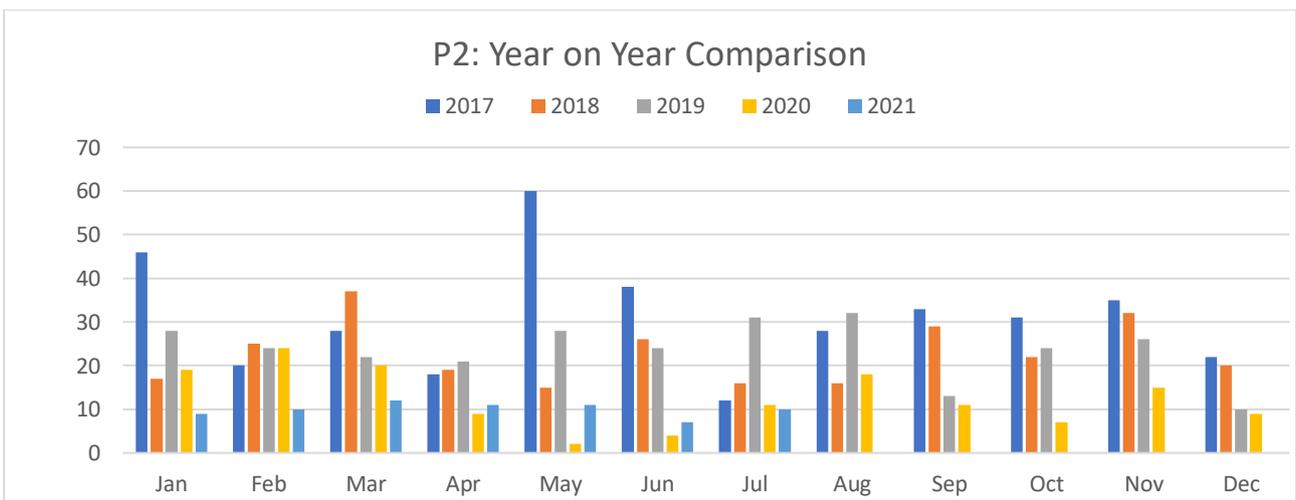
Non-exhaustive examples include an inability to access data for a single customer.

## Appendix 2 - Year on Year SLA Volume Comparison – 2017-2021

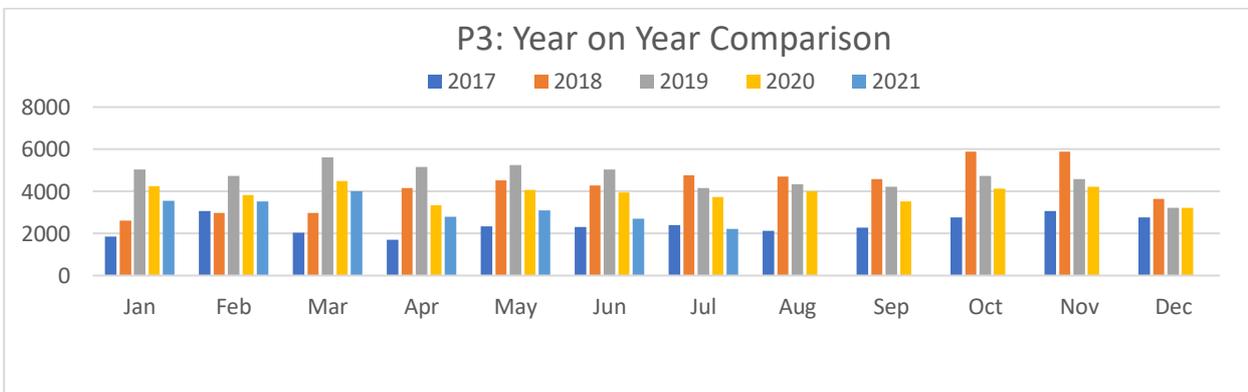
### P1: Year on Year Comparison



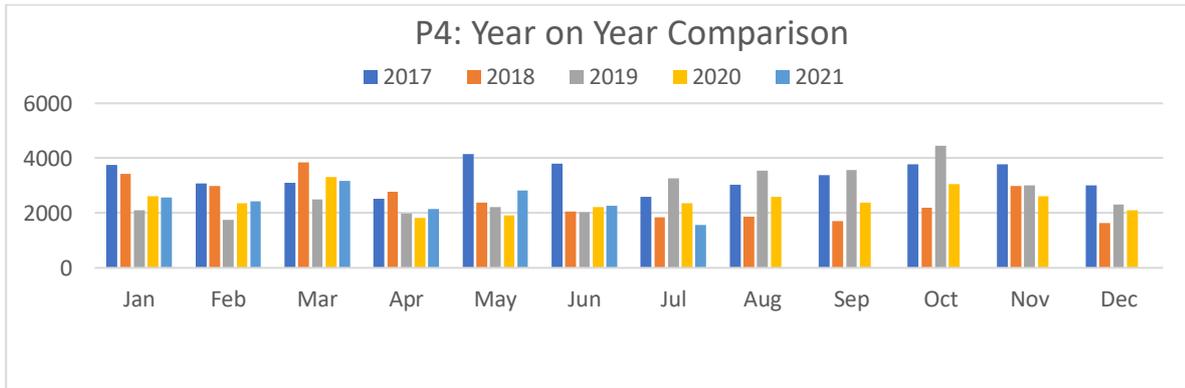
### P2: Year on Year Comparison



### P3: Year on Year Comparison



## P4: Year on Year Comparison









# **DIGITAL AND SMART CITY STRATEGY IMPLEMENTATION PLAN**

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**2020 - 2023**

The Digital and Smart City Strategy Implementation Plan focuses on a number of key deliverables. We recognise that our strategic objectives and key deliverables will support the broader aims and goals of the Council. We aim to support this by delivering and providing technologies as key enablers for change and improvement that will transform the way we work and engage with our citizens. Delivery of these technologies will support in the operational and strategic delivery of Council services.

We will maximise the potential of digital technologies to improve outcomes and services for all our citizens, councillors, colleagues, visitors and businesses. The vision of the Digital and Smart City Strategy will support the goals of the Council's Business Plan and adoption of the principles of the Edinburgh 2050 City Vision.



The deliverables set out in the table(s) below are split across these themes in line with Council goals. We will monitor and report on the key objectives from our strategy under each theme heading, along with the Digital Services Technology Roadmap.

The table below sets out key deliverables and milestone delivery dates from our **Technology Roadmap** and will be updated quarterly.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
Core Technology & Platforms - Cloud Migration Strategy	<ul style="list-style-type: none"> <li>Cloud Migration Strategy adopted</li> </ul>	<ul style="list-style-type: none"> <li>Develop pilot and adoption plan</li> <li>Begin migration pilots</li> </ul>	<ul style="list-style-type: none"> <li>Engage and consult key stakeholders on benefits and opportunities of Cloud adoption</li> </ul>	<ul style="list-style-type: none"> <li>Phase 1 Cloud migration work</li> </ul>	<ul style="list-style-type: none"> <li>Continued Cloud migration work</li> </ul>	<ul style="list-style-type: none"> <li>Review Strategy and update to reflect current technologies, security, and the Council's technology landscape</li> <li>Final moves to Cloud</li> <li>Minimum on premise</li> </ul>
Core Technology & Platforms - Maximise Microsoft 365 capabilities		<ul style="list-style-type: none"> <li>Maximise potential of Microsoft365 to support Learning &amp; Teaching operationally, delivery of curriculum, and strengthen wider community links</li> </ul>	<ul style="list-style-type: none"> <li>Exploit the potential of MS Teams for collaboration opportunities</li> <li>Potential to drive innovation further with adoption of additional Microsoft 365 capabilities</li> <li>Explore opportunities to further use Power BI</li> </ul>		<ul style="list-style-type: none"> <li>Maximise potential MS365 for low code for Council-based innovation and development (Digital and power user-based)</li> <li>develop "patterns" for low code use cases</li> </ul>	<ul style="list-style-type: none"> <li>Teams and SharePoint online lifecycle management (BAU)</li> </ul>
Core Technology & Platforms - Mobile/Flexible Working	<ul style="list-style-type: none"> <li>Mobile/Flexible UYOD</li> <li>Microsoft app adoption</li> <li>Microsoft 365 Application strategy in planning</li> </ul>		<ul style="list-style-type: none"> <li>VPN review</li> </ul>	<ul style="list-style-type: none"> <li>Review thin client delivery options</li> <li>WVD pilot</li> <li>Mobile Homecare rostering solution for Social Work</li> </ul>	<ul style="list-style-type: none"> <li>Review of solution to support flexible working</li> </ul>	<ul style="list-style-type: none"> <li>New solution in place</li> </ul>
Architecture	<ul style="list-style-type: none"> <li>Governance framework developed, agreed, and implemented</li> <li>EA Principles agreed</li> <li>Ongoing design reviews</li> </ul>	<ul style="list-style-type: none"> <li>Application Currency Review (ongoing)</li> <li>MDM migration</li> </ul>	<ul style="list-style-type: none"> <li>Commence application consolidation (combined with Cloud Migration)</li> <li>Smart Cities</li> <li>Shared app database (CGI and the Council)</li> </ul>	<ul style="list-style-type: none"> <li>Data used for modelling services through Business Intelligence project</li> <li>Review &amp; streamline network services</li> </ul>	<ul style="list-style-type: none"> <li>Following delivery of a consolidated application list we will work to produce a standardised toolset of strategic applications</li> </ul>	<ul style="list-style-type: none"> <li>Drive further efficiencies by streamlining application set</li> </ul>
Governance	<ul style="list-style-type: none"> <li>ICT technology Acceptable use policy implemented</li> <li>Digital and Smart City Strategy</li> </ul>	<ul style="list-style-type: none"> <li>EADA</li> <li>Change Board</li> <li>Digital Strategy Group</li> <li>Improved departmental Digital Governance e.g. RM's engagement with departmental SLTs</li> </ul>	<ul style="list-style-type: none"> <li>Shadow IT review</li> <li>GIS strategy</li> <li>Review our current Open data provision</li> </ul>	<ul style="list-style-type: none"> <li>Reflect national picture</li> <li>Open Data Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Governance Review</li> </ul>	<ul style="list-style-type: none"> <li>Digital Strategy Review</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>Teams unified communications</li> <li>Team collaboration</li> <li>Mobile Device Management re-platform (Intune)</li> <li>Outlook Online</li> <li>self-service password reset</li> </ul>	<ul style="list-style-type: none"> <li>Tele/Health Care</li> <li>Smart Cities</li> </ul>	<ul style="list-style-type: none"> <li>Employee Portal Self Service</li> <li>Power App pilots (commence)</li> </ul>	<ul style="list-style-type: none"> <li>Smart Cities</li> <li>DDI (data driven innovation)</li> <li>Improved mobile connectivity across City</li> </ul>	<ul style="list-style-type: none"> <li>Increased Automation</li> <li>5G Rollout underway</li> <li>City Public Wireless Review</li> </ul>	<ul style="list-style-type: none"> <li>Continued Innovation</li> </ul>
Technology & Infrastructure		<ul style="list-style-type: none"> <li>Tablet/Smartphone offerings</li> </ul>	<ul style="list-style-type: none"> <li>Digital Learning</li> </ul>	<ul style="list-style-type: none"> <li>Device Review</li> <li>WAN Review</li> </ul>	<ul style="list-style-type: none"> <li>Device Refresh</li> </ul>	<ul style="list-style-type: none"> <li>Full estate Review</li> <li>Review Cloud readiness estate</li> </ul>

## Technology Solution - Digital print & mail strategy

The Council has already embarked on an ambitious strategy to become paperless.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p>Digital print &amp; mail (paperless) strategy</p> <p>Reducing our use of paper and print through the Print and Mail Programme.</p>	<ul style="list-style-type: none"> <li>• "My letters" desktop sending of Royal Mail letters using online system.</li> <li>• Digital Mail assistant – scanning of inbound mail to the Council direct to recipients e mail account</li> <li>• Digital Scanner technology deployed to allow scanning of FOI's and legacy paperwork to digital archives</li> <li>• Recycled Paper for copiers and envelopes introduced</li> <li>• Reduced mailing vehicles and physical mail pickups by 80% contributing to carbon reduction targets</li> </ul>	<ul style="list-style-type: none"> <li>• Deploy papercut software – centralising bulk printing</li> <li>• Develop and communicate a Council wide print policy and framework.</li> <li>• Start paper form usage reduction processes</li> <li>• Reducing storage space for legacy and future documents</li> <li>• Increase back scanning of archive to reduce storage footprint</li> </ul>	<ul style="list-style-type: none"> <li>• Deploy Multi-Functional Devices to schools and corporate estate to a reduced footprint</li> <li>• Introduce local printing and scanning hubs</li> <li>• Introduce individual printing transparency and billing for MFD copier usage</li> <li>• Identifying Lean and automation opportunities and developing and deploying them while promoting digital processes rather paper-based ones</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce colour and black and white printing</li> <li>• Reduce volumes of A3 printing</li> <li>• Reduce transactional mailing volumes for all centralised mailings – using document composition tools and expertise</li> <li>• Identifying Lean and automation opportunities and developing and deploying them while promoting digital processes rather paper-based ones</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying Lean and automation opportunities and developing and deploying them while promoting digital processes rather paper-based ones</li> <li>• Reduced energy consumption evident from using newer more efficient Multi-Functional Devices</li> </ul>	<ul style="list-style-type: none"> <li>• Look to reduce centralised printing facilities footprint in line with much more reduced demand where possible</li> <li>• Deploy scanning to SharePoint once SharePoint has been rolled out – TBC</li> </ul>

## Technology Solution - Customer Digital Engagement

Though the Customer Digital Engagement programme we will look to create a single view of our customers to better model and shape our services and provide more targeted support to those citizens who need it most.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<ul style="list-style-type: none"> <li>Customer Digital Engagement</li> <li>Move from traditional customer engagement routes to omnichannel, providing citizens with greater choice around how to transact and the 24/7 ability to pay, report or request public services.</li> </ul>	<ul style="list-style-type: none"> <li>Report forms for: Litter, Road, Pavement, Streetlight, Pothole, Road Sign, Graffiti, Dog Fouling, Overhanging tree, bush or foliage problem</li> <li>Grit Bin Requires Filling, Missed Bins (communal and individual)/ Communal Bin full or Overflowing</li> <li>Request a Grit Bin, Recycling Bin or Box, Special Uplift/Bulky Waste, Assisted Bin collection</li> <li>Garden Waste subscription Register for Garden Waste/ Garden waste change of details</li> <li>View Account History/Transaction</li> <li>Change of Details</li> <li>Set up Account/Create a Citizen</li> <li>Compliment, Suggestion or Complaint/ General Enquiry</li> <li>Building Payment, Fixed Penalty Notice</li> <li>Payment, Sheltered Housing T.V. License Payment</li> <li>ESRS - Shared Repairs, roadworks penalty notice</li> <li>Pay us back - housing benefit</li> <li>Pay your Council Tax or Business rates, Council rent</li> <li>Non-emergency housing repairs</li> <li>School Transport</li> <li>Adult and Children Social Care</li> <li>Assessment forms</li> </ul>	<ul style="list-style-type: none"> <li>Omni Channel – give customers choice of channels to transact with the council, maximising the proportion of digital transactions and reduce where possible face-to-face transactions</li> <li>Citizen centric – put citizens at the centre of what we do by engaging them in the design and delivery of services</li> <li>Digital by default – implement a digital approach to the delivery of services</li> <li>Mobile first – priority to ensuring that that services can be delivered through mobile technology</li> </ul>	<ul style="list-style-type: none"> <li>Fully Integrated Housing Repairs process</li> <li>Consolidate Knowledge Base that can be surfaced through the CRM</li> <li>Full integration of comms platforms (i.e. Mitel, Social media) with Verint CRM</li> </ul>	<ul style="list-style-type: none"> <li>To be confirmed - options include:</li> <li>Integration of Civica CX with Verint</li> <li>Integration of Civica EDM with Verint</li> <li>Replace myGovScot single sign on platform with a fit for purpose solution that includes facility for business accounts</li> </ul>		<ul style="list-style-type: none"> <li>Customer Digital Engagement programme - create a single view of our customer transactions to shape our services and provide targeted support where needed. This will use:</li> <li>UPRN &amp; UCRN as key identifiers</li> <li>Provide single source of truth on the customer and the services they consume</li> <li>Enable personalised and localised services to be delivered</li> <li>Support pro-active grouping of services around user needs</li> </ul>

## Technology Solution - Data as an asset

Our data is an asset that is of value to the organisation and our partners that needs to be managed accordingly.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p>Data as an asset</p> <ul style="list-style-type: none"> <li>• Through better use of systems, we will ensure that our data is:</li> <li>• Easier to identify and find</li> <li>• Managed consistently across the organisation</li> <li>• Transferrable into information to support our evidence-based decision making</li> <li>• Support the work of our localities</li> <li>• Stored once and defined by effective metadata and information governance framework/rules</li> <li>• Structured to support a single view of the customer</li> <li>• Subject to constant analysis and review cycle to ensure effectiveness data management and governance (IGU)</li> <li>• Ensure our data is used and shared ethically</li> <li>• Open data where possible and capable of exploiting Smart City Data</li> <li>• Exploitable by AI in generating potential automations, additional intelligence, security heuristics etc</li> </ul>	<p>GIS Developments</p> <ul style="list-style-type: none"> <li>• Continuing to work with NHS National Services Scotland using our in-house Geographical Information Systems (GIS) capability to improve the data we have in modelling COVID-19 outbreaks and to assist in our response to this. This work is part of a wider data sharing project with NHS NSS and both Glasgow City Council and Aberdeen City Council. NHS Lothian is following the outputs of this work closely and we are sharing this with them</li> </ul>	<p>Business Intelligence</p> <ul style="list-style-type: none"> <li>• The Business Intelligence project aims to integrate and leverage software information assets, and to transform data into actionable insights that drive the Council's strategic and tactical business decisions.</li> <li>• Construction of the waste collection dashboards (RouteSmart and Confirm) are now in the final stages of Operational Acceptance Testing expected go live Q2 2021. In parallel, the team are working on dashboards for HR and Homelessness services</li> </ul>	<p>LSCMI Upgrade</p> <ul style="list-style-type: none"> <li>• Migrating H&amp;SC Level Service/Case Management Inventory to new Scottish Government service</li> <li>• Digital Services to work with IGU to support and contribute to Data Strategy</li> </ul>	<p>Health &amp; Social Care rostering</p> <ul style="list-style-type: none"> <li>• Upgrade of online workforce management and rostering system - timescales to be finalised</li> </ul>	<p>We will work with services to improve the tools that enable a Council-wide approach to business intelligence to enhance services and digital engagement with our customers and communities.</p>	<p>We will highlight the benefits of sharing open data and its use to help model and shape our services and our city.</p>

## Digital capabilities and services - Security

We will ensure that Council infrastructure is secure and resilient, and that continuity of services is maintained using appropriate technical measures to protect our network and the data we hold in our systems.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p>Security</p> <ul style="list-style-type: none"> <li>The security challenges we face are increasing and ever changing. As well as more documented attack routes such as virus or ransom ware, other challenges are emerging. Our increased use of multiple and remote devices creates a challenge to protecting this as our increased use of systems and who accesses them increases the attack surface for those wishing to compromise our security.</li> </ul>	<ul style="list-style-type: none"> <li>Follow National Cyber Security Centre (NCSC) current guidelines, including NCSC 10 steps to Cyber Security – ongoing every year</li> <li>Ensure compliance with Cyber Resilience Framework, CE+, PSN</li> <li>Improve cyber defences e.g. phishing</li> <li>Enhance password policy for Corporate</li> <li>Provide comprehensive security and awareness platform for all staff to detect, deter and defend against cyber threats - delivered through MetaCompliance</li> <li>Work with partners across the public sector through participation in the Cyber Security Information sharing partnership (CISP) and the Scottish Local Authority Information Security Group (SLAISG)</li> <li>Develop a comprehensive communication plan for cyber security</li> </ul>	<ul style="list-style-type: none"> <li>Follow NCSC guidelines</li> <li>Ensure compliance with Cyber Resilience Framework</li> <li>Improve cyber defences</li> <li>Implementation of all NCSC active cyber defence tools – implementation of DMARC/DKIM</li> <li>Enhance password policy for Learning &amp; Teaching</li> <li>Support cloud first strategy by moving the onus on patching to vendor/contract - by moving services to the cloud</li> <li>Work with public sector partners through participation in the Cyber Security Information sharing partnership (CISP) and the Scottish Local Authority Information Security Group (SLAISG) - ongoing</li> <li>Maintain and develop cyber risk management framework – joint cyber risk register</li> <li>Update comms plan for cyber security</li> </ul>	<ul style="list-style-type: none"> <li>Follow NCSC current guidelines</li> <li>Ensure compliance with Cyber Resilience Framework</li> <li>Improve cyber defences</li> <li>Enhance password policy for Learning &amp; Teaching</li> <li>Implementation of DMARC/DKIM</li> <li>Improve cyber defences data loss prevention – work with IGU</li> <li>Develop a comprehensive communication plan for cyber security – ongoing</li> <li>Improve cyber defences network access control as part of Network management audit</li> </ul>	<ul style="list-style-type: none"> <li>Follow NCSC current guidelines</li> <li>Ensure compliance with Cyber Resilience Framework</li> <li>Improve cyber defences</li> <li>Implementation of DMARC/DKIM</li> <li>Support the implementation of a framework to manage shadow IT</li> <li>Support cloud first strategy by moving the onus on patching to vendor/contract - by moving services to the cloud</li> <li>Review thin client delivery to improve security – support technology “Refresh”</li> <li>implementation of all NCSC active cyber defence tools – implementation of DMARC/DKIM</li> <li>Update comms plan for cyber security</li> </ul>	<ul style="list-style-type: none"> <li>Follow NCSC current guidelines</li> <li>Ensure compliance with Cyber Resilience Framework</li> <li>Improve cyber defences</li> <li>Continued delivery of security and awareness platform</li> <li>Implementation of DMARC/DKIM</li> <li>Work with public sector partners through participation in the Cyber Security Information sharing partnership (CISP) and the Scottish Local Authority Information Security Group (SLAISG) -ongoing</li> <li>Maintain and develop cyber risk management framework – joint cyber risk register</li> <li>Update comms plan for cyber security</li> </ul>	<ul style="list-style-type: none"> <li>Follow NCSC current guidelines</li> <li>Ensure compliance with Cyber Resilience Framework</li> <li>Improve cyber defences</li> <li>Improve cyber defences data loss prevention</li> <li>Implementation of NCSC active cyber defence tools</li> <li>Upgrade/remove legacy applications – support cloud first strategy adoption</li> <li>Continued delivery of security and awareness platform</li> <li>Work with public sector partners through participation in the Cyber Security Information sharing partnership (CISP) and the Scottish Local Authority Information Security Group (SLAISG) - ongoing</li> <li>Maintain and develop cyber risk management framework – joint cyber risk register</li> <li>Update comms plan for cyber security</li> </ul>

## Digital capabilities and services – Standards

We plan to measure performance to improve our service both strategically and operationally using metrics to measure success.

We will focus on transforming our service provision to better meet the changing requirement of the organisation and a modern workforce. Using industry standard practices for IT service management that focuses on aligning IT services with the needs of business approach.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<b>Performance Management</b> Measuring performance to continually drive improvements and customer satisfaction.	<ul style="list-style-type: none"> <li>Monthly CSR meetings</li> <li>CSI (Continuing Service Improvement)</li> <li>discussed as part of CSR meeting</li> </ul>	<ul style="list-style-type: none"> <li>Incident response and resolution analyse to ensure meeting SLAs</li> <li>Customer satisfaction review</li> <li>Continue to progress innovation. E.g. Amelia</li> <li>RMs to set up meeting with Business areas re strategy</li> </ul>	<ul style="list-style-type: none"> <li>Review KPIs</li> <li>Look to improve service related to customer feedback</li> <li>Have trackers set up relating to Strategy with Business areas</li> </ul>	<ul style="list-style-type: none"> <li>Implement KPI changes</li> <li>Review Trackers</li> </ul>	<ul style="list-style-type: none"> <li>Reassess KPI changes impact</li> <li>Over-arching review of Business areas matching strategy</li> </ul>	
<b>Service Management</b> Improve service management provision through delivery of continual improvements for users.		<ul style="list-style-type: none"> <li>Improving user experience piloting Chat- bot Amelia</li> <li>Continual improvement of Service Catalogue</li> <li>Continue to Promote use of My-ICT</li> <li>ITIL training for appropriate staff</li> </ul>	<ul style="list-style-type: none"> <li>Roll out of Chat- bot</li> <li>Continual Service Improvements</li> <li>Monitor uptake of My-ICT</li> <li>Ensure ITIL standards are being met</li> <li>Review Digital Services Customer facing processes</li> <li>Continued focus on CSI</li> </ul>	<ul style="list-style-type: none"> <li>Chat Bot embedded</li> <li>Work with Comms to promote channel shift online</li> <li>Implement Digital Service Customer facing review Outputs</li> </ul>	<ul style="list-style-type: none"> <li>Move to more online tools – self service</li> </ul>	<ul style="list-style-type: none"> <li>Service Strategy Review</li> </ul>

## Digital capabilities and services - Standards

We will apply a blended approach to project change management which will bring together the best elements of the Prince2 and Agile methodologies. Change requests will be assessed and coordinated through a joint change review board. The board will check that requests have a supporting business case and align to our enterprise reference architectural principles and technology roadmap. The change process will include options to fast-track legislative and emergency requests.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<b>Change Management</b> Establish and embed improved change management processes that meet the needs of the Council for technology change requests and project and portfolio management.	<ul style="list-style-type: none"> <li>Weekly Programme Boards and Risk Reviews to ensure effective management of project risks and plans, and regular highlight reporting</li> <li>Application of PRINCE2 project management methodology for all major projects</li> <li>Quality Gate processes in place to evaluate, authorise, and monitor projects through their lifecycle</li> <li>Weekly Relationship Management meetings with CGI to provide guidance and quality check change requests</li> <li>Weekly Joint Change Review Board to review the progress of changes requests and discuss risks, escalations, and prioritisations</li> <li>Formal reporting of Change Performance SLA's through the Monthly Partnership Board</li> </ul>	<ul style="list-style-type: none"> <li>Development and sign-off of the Change Improvement Action Plan between the Council and CGI</li> <li>Launch of Emergency / Resilience Change Process to fast-track legislative and emergency requests</li> <li>Early adoption of Hybrid Agile / Waterfall models enabling more iterative approaches to project delivery e.g. for CDE &amp; Print projects</li> <li>Cloud First work underway to transition Licensing onto "Software as a Service" running on the Civica cloud</li> </ul>	<ul style="list-style-type: none"> <li>Development of Annual Digital Business Plans in place with each Service area - ensuring alignment with the Digital and Smart City Strategy</li> <li>Consolidation of digital business plans into the Council-wide 2022/23 Strategic Programme of Work (SPoW)</li> <li>Relaunch the change process guidelines on the ORB</li> <li>Emergency / Resilience Change Processes fully operational</li> <li>Digital Working Groups established across all directorates to improve collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Establish a network of Digital Champions embedded within service areas</li> <li>Cloud First – further developments to transition the next tranche of applications onto the Cloud</li> <li>Simple and Complex Change Performance review including change backlogs, delivery on time, value-for-money, and customer satisfaction</li> <li>Introduce online submission &amp; tracking for all change requests via the Remedy self-service portal</li> </ul>	<ul style="list-style-type: none"> <li>Annual refresh of Digital Business Plans with each Service area - ensuring alignment with the Digital and Smart City Strategy</li> <li>Extending in-house development capacity e.g. Business Intelligence and Website accessibility</li> <li>Cloud First – business case developments and projects to transition the next tranche of applications onto the Cloud / SaaS Model</li> </ul>	<ul style="list-style-type: none"> <li>Embedding Continuous Improvement into our change processes</li> <li>Cloud First -majority of applications move onto the cloud</li> <li>Agile Waterfall becomes the dominant delivery model - applying a more iterative approach focused on fine-tuning deliverables to the needs of the business</li> <li>Move towards a portfolio approach to digital programme management, in line with future business demand</li> </ul>

## Digital capabilities and services - Standards

Develop capability to be responsive to changing business needs. Embrace more agile and customer focused apps to support improved digital engagement with our citizens.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p><b>Business Solutions</b> As well as changes to our Infrastructure and the way we transform our business, we need to position our line of business systems to be an engine for change.</p>	<p><b>Total Mobile (Housing Repairs and Mobile Working)</b></p> <ul style="list-style-type: none"> <li>Phase 2 delivered a new mobile workforce management solution for Empty Homes and Gas Servicing and further enhancements to the Repairs archiving system</li> <li>Activity surrounding Phase 3 to bring further efficiencies is now in flight</li> </ul> <p><b>Payment Gateway Upgrade</b></p> <ul style="list-style-type: none"> <li>Project underway to migrate the Barclaycard payment gateway from 'Smartpay A' to 'Smartpay Fuse'. This covers online payments for a wide range of services including the contact centre, outdoor learning, planning applications, and the adult education programme</li> </ul> <p><b>HIS (Homeless) Application Replacement</b></p> <ul style="list-style-type: none"> <li>Continue to work with Homelessness Services to provide early-life support for their new Northgate case management system. Further work is now planned for phase 2 of the project to automate processes and drive further efficiencies</li> </ul>	<p>Ensuring systems are fit for purpose:</p> <ul style="list-style-type: none"> <li>Departments to carry out audits of all their key systems</li> </ul> <p>Ensuring that the data we hold, is needed, accurate and up to date:</p> <ul style="list-style-type: none"> <li>Information Governance and departments to carry out audit</li> </ul> <p>Developing systems and staff capability to be responsive to changing business needs:</p> <ul style="list-style-type: none"> <li>Change process to ensure that futureproofing is always considered in terms of system agility and staff capacities</li> </ul>	<ul style="list-style-type: none"> <li>Council Relationship Managers to attend Strategic meetings with Business areas to ensure any developments match the Digital strategy</li> </ul>	<p>Rationalising our portfolio to reduce datasets, costs and improve sharing of data:</p> <ul style="list-style-type: none"> <li>Change process to always consider re-use ahead of off-the-shelf, ahead of bespoke and new.</li> <li>Update and review "Council on a Page" Enterprise Architecture to uncover potential for rationalisation</li> <li>Review of RM Board attendance and outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Relationship Managers Embedded in Business area Strategic meetings</li> </ul>	<ul style="list-style-type: none"> <li>Relationship Managers to identify other opportunities</li> </ul>

## Governance

A balanced governance model will provide flexibility with optimal discipline.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
A range of governance tools will be put in place to provide assurance that the technologies we implement, and the investments made to put these in place, serve the strategic aims of the Council, the business needs of services and are in line with this Strategy.	As part of our already established Weekly Programme and Risk Review meetings we will: <ul style="list-style-type: none"> <li>ensure that the key deliverables from this strategy are subject to the same governance arrangements to ensure effective management of project risks and plans, and regular highlight reporting</li> </ul>	In addition to the Strategy implementation plan and its reporting requirements to Corporate Leadership Team, we will: <ul style="list-style-type: none"> <li>establish a Smart Cities Board</li> <li>All proposed changes, projects and programmes will be required to have: <ul style="list-style-type: none"> <li>an approved business case</li> <li>funding available to implement and maintain the change through lifetime of the proposed solution</li> </ul> </li> <li>Investment related to the individual projects or programmes and be provided by the Service responsible for the change</li> <li>We will set up: <ul style="list-style-type: none"> <li>Enterprise Architecture Authority Design (EADA)</li> <li>Change Board</li> <li>Digital Strategy Group</li> <li>Improved departmental Digital Governance</li> <li>Joint Council/CGI Disaster Recovery Board due to be re-established</li> </ul> </li> <li>We will: <ul style="list-style-type: none"> <li>Work with Internal Audit to review and assess the adequacy and effectiveness of the processes and governance controls established to support development, communication, and implementation of the Council's Digital and Smart City Strategy</li> </ul> </li> </ul>	The Enterprise Architecture Board will be re-invigorated and: <ul style="list-style-type: none"> <li>ensure that we have an agreed baseline architecture</li> <li>guide technology investment decisions - including funding investments</li> <li>review technology standards, processes, and procedures</li> <li>make recommendations for the implementation plan and future technology strategies</li> <li>Review of shadow IT - procurement to be managed under a new framework/system by Feb 22</li> </ul>	<ul style="list-style-type: none"> <li>Reflect national picture</li> </ul>	We will take forward: <ul style="list-style-type: none"> <li>updated cloud and cyber security strategies</li> <li>clear ICT governance arrangements</li> <li>participation in national and regional programmes</li> <li>collaborative working with partners</li> <li>strategic alignment with Council goals and vision</li> <li>opportunities for innovation</li> <li>Governance review</li> </ul>	<ul style="list-style-type: none"> <li>Digital Strategy review</li> </ul>

## Digital Council and Smart City - Digital Learning

To realise our vision, partners at both a national and local level will work together to achieve all four of the interrelated objectives that are central to successful digital learning, teaching and assessment:

- Develop the skills and confidence of educators in the appropriate and effective use of digital technology to support learning and teaching
- Improve access to digital technology for all learners
- Ensure that digital technology is a central consideration in all areas of curriculum and assessment delivery
- Empower leaders of change to drive innovation and investment in digital technology for learning and teaching

Key deliverable	Delivered to date	December 2021	June 2022	December 2022	June 2023	2023 and beyond
<p><b>Digital Learning</b> Supports and promotes the appropriate and effective use of digital technology within education to give all City of Edinburgh learners the opportunity to improve their educational outcomes and to develop digital skills that will be vital for life, learning and work in an increasingly digital world.</p>	<ul style="list-style-type: none"> <li>• Digital Learning and Teaching framework shared with all education staff</li> <li>• Cross sectoral Digital Learning Board established</li> <li>• Funding and agreement to embark on Empowered Learning project</li> <li>• Key staff identified to create staff networks that will support Empowered Learning</li> <li>• Engagement with educational staff networks, third parties, and council colleagues to create and populate Learning Management System (Thrive)</li> <li>• Enhanced engagement of core platform MS365 to ensure continuity of resources, allow networking between settings and safe interactions with external partners.</li> <li>• Introduction of core interactive multi-media curricular content platform (ClickView)</li> <li>• Engagement with National E-Learning offer (eSgoil and West OS) as hosted on ClickView</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure reviews conducted at each educational establishment (Early Years, Primary, Secondary and Special schools)</li> <li>• Improvements to infrastructure made at each educational setting</li> <li>• Deployment of 1 to 1 devices for all Secondary teaching staff and Secondary learners</li> <li>• Appointment of 3 Digital Learning Development Officers to support Digital Learning Coordinator network and the development of e-learning materials</li> <li>• Digital Learning Coordinator networks engaged to support teaching staff, learners, and their wider school communities</li> <li>• Promote engagement with Learning Management System (Thrive)</li> <li>• Edinburgh Learns curricular teams will support the review and update of curricular progressions and subsequent training opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Empowering school leaders to drive innovative changes within their setting</li> <li>• Providing professional learning opportunities for staff and ensuring equity of access to such opportunities by embracing e-learning (DLC networks and Thrive)</li> <li>• Focusing on STEAM subjects to ensure learners are prepared with a digital toolset fit for future life and workspace</li> </ul>	<ul style="list-style-type: none"> <li>• Deployment of 1 to 1 devices for all Early, Primary and Special teaching staff</li> <li>• Deployment of 1 to 1 devices for P6 &amp; P7 learners</li> <li>• Deployment of devices in a ratio of 1 to 5 for P1 – P5 learners</li> <li>• Deployment of devices to Special and EY learners as appropriate to those settings</li> <li>• Providing professional learning opportunities for staff and ensuring equity of access to such opportunities by embracing e-learning (DLC networks and Thrive)</li> </ul>	<ul style="list-style-type: none"> <li>• Developing our employees to be comfortable with the technologies we use to deliver service</li> <li>• Providing and promoting e-learning to enhance digital skills</li> <li>• Continuing professional learning opportunities for teaching staff</li> <li>• Edinburgh Learns curricular groups to support evaluation of Empowered Learning identifying areas for further support and next steps</li> </ul>	<ul style="list-style-type: none"> <li>• Review and refresh Empowered Learning provision</li> </ul>

## Digital Council and Smart City - Digital Skills

Consumer technology growth has created a new digital era. There is an increased need for consumers to develop their own digital literacy and cyber resilience skills to engage digitally with the Council and our customers must feel empowered to do so.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p><b>Digital Skills</b> To be the Digital Council we aspire to be we will need different skills and knowledge. We will need:</p> <p><b>Council</b></p> <ul style="list-style-type: none"> <li>• Leaders who understand the value technology brings to our organisation</li> <li>• Leaders who develop digital skills to become digital leaders</li> <li>• A digitally skilled workforce who engage with professional development to further develop and enhance digital skills</li> </ul> <p><b>Customers</b></p> <ul style="list-style-type: none"> <li>• Citizens who feel confident in their digital skills and secure in their ability to promote their own cyber resilience</li> <li>• Citizens who engage with Smart City and Digital Council initiatives providing feedback that helps to shape future improvements</li> </ul> <p><b>Schools and Lifelong learning</b></p> <ul style="list-style-type: none"> <li>• Learners who engage with opportunities to develop their digital literacies</li> <li>• Learners who develop their understanding of their own cyber resilience to be safe and secure when using digital tools.</li> <li>• Learners who have digital skills for life, learning and work. Skills that will empower them to become the digital citizens and workforce of the future</li> <li>• Teachers who utilize digital tools to support their working, develop high-quality teaching and effective assessment methods</li> </ul>	Elected Member ICT and Digital Sounding Board meetings		<p>We will do this by:</p> <ul style="list-style-type: none"> <li>• Developing our employees to be comfortable with the technologies we use to deliver services</li> <li>• Providing and promoting e-learning to enhance digital skills</li> <li>• Providing professional learning opportunities for staff and ensuring equity of access to such opportunities by embracing e-learning</li> </ul>	<p>We will do this by:</p> <ul style="list-style-type: none"> <li>• Provide and signpost a wide range of digital support tools and materials</li> <li>• Provide adult learning opportunities using e-learning opportunities</li> <li>• Deliver digital inclusion learning opportunities for citizens via our libraries</li> <li>• Designing services and support capabilities that deliver digital inclusion for all our citizens</li> <li>• Embracing social media as a tool for engagement and communication both internally and externally</li> </ul> <p>We will do this by:</p> <ul style="list-style-type: none"> <li>• Supporting schools and early years to access and deliver a 21st century educational experience</li> <li>• Empowering school leaders to drive innovative changes within their setting</li> <li>• Providing up to date infrastructure, hardware, and software to ensure learning to enable learning that provides the best future life chances for all learners</li> <li>• Focusing on STEAM subjects to ensure learners are prepared with a digital toolset fit for future life and workspace</li> <li>• Embracing our core platform MS365 to ensure continuity of resources, allow networking between settings and safe interactions with external partners</li> </ul>	Review digital literacy and cyber resilience skills against participation and engagement, identify gaps and develop opportunities for further engaging and empowering customers and colleagues	Review digital literacy and cyber resilience skills against participation and engagement, identify gaps and develop opportunities for further engaging and empowering customers and colleagues

## Digital Council and Smart City - Digital Inclusion

Digital inclusion is about ensuring the benefits of the internet and digital technologies are available to everyone. This is important not only to ensure that citizens can access Council services, but also to support the Council's central priorities of reducing poverty and improving well-being. Our aim is to provide our citizens with access to digital connectivity and that we can provide support for our citizens to gain digital skills and the confidence to use them.

Key deliverable	Delivered to date	Sept – Dec 2021	March 2022	Sept – Dec 2022	2023	Beyond 2023
<p><b>Digital inclusion</b> We will:</p> <ul style="list-style-type: none"> <li>• Ensure connectivity is available in our community spaces including libraries, schools, and early years settings</li> <li>• Ensure citizens can access resources within our libraries</li> <li>• Ensure citizens can access learning opportunities to further their digital skills and cyber resilience abilities</li> <li>• Ensure that digital literacies are embedded into all aspects of the curriculum</li> <li>• Foster positive relationships between families and early years settings/schools allowing for support opportunities to be identified</li> <li>• Provide equity of access to digital resources for all learners in schools</li> <li>• Ensure that citizens on low incomes are involved in the design and development of digital services that matter to them</li> <li>• Ensure low cost affordable broadband is available for Council tenants</li> <li>• Working with partners CityFibre to enable FTTP (fibre to premises) rollout across the City</li> <li>• Work with third sector partners to promote access to affordable digital equipment</li> <li>• Working with 3rd sector partners to provide families with connectivity and devices as part of the SG Connecting Scotland programme. Connecting Scotland is a Scottish Government initiative being managed by the Scottish Council for Voluntary Organisations set up during the pandemic to provide funding to support organisations to help get every citizen in Scotland online</li> </ul>	<ul style="list-style-type: none"> <li>• In March 2020, at the start of the Covid-19 pandemic, we worked to provide our most vulnerable families with devices and connectivity</li> <li>• Schools worked during lockdown to provide devices to pupils to enable remote learning</li> <li>• Funding and agreement to embark on Empowered Learning project, Empowering Learners through access to digital platforms &amp; apps</li> <li>• Ensuring that all our Council owned homes have a fast and reliable broadband service will support our colleagues across the Council to work in a more mobile and efficient way while ensuring our tenant's needs are met. This will also enable services across the Council, such as the Smart Cities project to continue to develop their programme to reduce/eliminate the barrier of internet access.</li> <li>• City of Edinburgh council is working in partnership with CityFibre and Openreach to provide super-fast fibre broadband infrastructure to all our council own homes. Through open networks, this infrastructure will prove our tenants with the ability to choose from over 600 different broadband providers, ensuring they have access to the best deals without any set up costs, to date 8,917 homes have been connected</li> </ul>	<ul style="list-style-type: none"> <li>• Delivery of Empowered Learning which will see nearly 40,000 digital devices to children and teachers in the city, training and roll out of this solution will start August/September - deployment of 1 to 1 devices for all Secondary teaching staff and Secondary learners</li> <li>• We will continue to work with our partners to identify and develop opportunities around our digital infrastructure to improve connectivity, improved connectivity will mean that our citizens, councillors, colleagues, visitors and businesses will benefit from full use of our digital services and increase participation in a digital city</li> <li>• CityFibre and broadband infrastructure work well underway, now reviewing options to utilise this infrastructure and settle on a final strategy upon completion of research and due diligence</li> </ul>	<p>Edinburgh Poverty Commission identified that action must be taken to address and ensure that digital participation opportunities are made available for those living with poverty. We will:</p> <ul style="list-style-type: none"> <li>• Support the delivery of measures set out in the Council's Our Future Council; Our Future City plan to provide digital inclusion opportunities for our citizens. We will continue to identify opportunities, develop plans and work with partners to exploit and deliver these commitments throughout the lifespan of the strategy</li> <li>• Continue to explore and develop digital connectivity opportunities</li> <li>• CityFibre and broadband connectivity work continues</li> </ul>	<ul style="list-style-type: none"> <li>• Providing up to date infrastructure and hardware Edinburgh Libraries will provide three distinct digital support offers to customers which we believe will help improve digital skills on a local level.</li> <li>• Get Online – volunteer led 1:1 support for all learners. Sessions are informal and user-led and will be underpinned by the Good Things Foundation's Learn My Way online modules and resources</li> <li>• Get Online with BT Skills for Tomorrow. Skills for Tomorrow is a major new programme by BT designed to empower 10 million people by giving them the skills they need to flourish for the digital future, supporting learners in improving their digital literacy and enabling them to make use of digital technologies in ways that will help reduce long-term unemployment</li> <li>• Get Online – VIP</li> <li>• Smart technology and many e-resources offer accessibility functions which can support and facilitate access for customers with sight loss and visual impairment. Get Online VIP sessions explore people's needs and provide the right support through small workshops and demonstrations of Apple iPads</li> <li>• As part of their Community Benefits commitments CGI will undertake work to improve digital inclusion and participation</li> <li>• Deployment of 1 to 1 devices for all Early, Primary and Special teaching staff</li> <li>• Deployment of 1 to 1 devices for P6 &amp; P7 learners</li> <li>• Deployment of devices in a ratio of 1 to 5 for P1 – P5 learners</li> <li>• Continue to explore and develop digital connectivity opportunities</li> <li>• CityFibre and broadband connectivity work continues</li> </ul>	<ul style="list-style-type: none"> <li>• Edinburgh Learns curricular groups to support evaluation of Empowered Learning identifying areas for further support and next steps</li> <li>• Continue to explore and develop connectivity opportunities</li> <li>• CityFibre and broadband connectivity work continues</li> </ul>	<ul style="list-style-type: none"> <li>• Review and refresh Empowered Learning provision In planning to be confirmed:</li> <li>• Replace desktops and software in all library locations</li> <li>• Provide an Online Public Access Catalogue (OPAC) in every library location</li> <li>• Upgrade of People's Network and potential for introduction of "tablet" technology</li> <li>• Self-service kiosks</li> <li>• Review of digital connectivity infrastructure and development of plans to meet with current and future technologies</li> <li>• CityFibre expect to have completed their build by the end of 2024</li> </ul>

## Digital Council and Smart City - Smart Cities

A smart city is an urban area that uses different types of Internet of Things (IoT) sensors to collect data then use insights gained from this to manage assets, resources, and services. Our vision for a smart city is the application of data and technology to increase efficiency, minimise costs and enhance convenience.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p>Smart Cities</p> <p>Our aim for Edinburgh is to:</p> <ul style="list-style-type: none"> <li>• Make the city more liveable, workable, and sustainable</li> <li>• Have world class connectivity</li> <li>• Manage the city resources as effectively and intelligently as possible</li> <li>• Deliver world-class citizen-centric city services</li> <li>• Underpin a continuous process of reinvention, transformation, and creativity</li> <li>• Support economic development and long-term prosperity</li> <li>• Improve resilience</li> </ul> <p>Empower citizens to become Smart/Digital Citizens of the future.</p> <ul style="list-style-type: none"> <li>• For Edinburgh this will include:</li> <li>• connectivity – 5G and FTTP</li> <li>• sensor technology, IoT, AI</li> <li>• smart parking and EV charging</li> <li>• wearable and mobile tech</li> <li>• smart public transport</li> <li>• city Wi-Fi</li> <li>• smart energy</li> <li>• health and social care</li> <li>• smart citizens</li> <li>• DDI</li> <li>• conversational platforms</li> <li>• GPS/GLONASS and location analytics</li> <li>• greater citizen engagement</li> </ul>		<p>We will continue over the course of the Strategy to reshape our IT services and help to reshape the city with a fully integrated IoT Platform. This will enable Edinburgh to take advantage of the opportunities afforded by new and transformative technologies to become a digital Council and a world leading Smart City.</p> <p>Through our Customer Digital Engagement and Web programme, we will be:</p> <ul style="list-style-type: none"> <li>• Digital by default – implement a digital approach to the delivery of services</li> <li>• Citizen centric – put citizens at the centre of what we do by</li> </ul> <p>Working with SFT/Infralink to encourage increased 4G/5G coverage across the City including working with our Planning team.</p>	<p>The City of Edinburgh Council is developing an operations centre to support smart city services. This internet of things (IoT) platform will be able to incorporate artificial intelligence (AI), smart bin and housing sensors, upgraded CCTV and analytics technologies. This concept is underway and will be delivered over the course of the coming years in phases.</p> <p>Edinburgh's plan for a Smart City Operations Centre foundational platform and sensors benefitting from 8th City European Regional Development Fund support. The 8th City Programme is one of 3 workstreams delivered by the Scottish Cities Alliance, a partnership of Scotland's seven cities and the Scottish Government</p> <p>Engagement with all mobile operators/infrastructure providers to encourage improved connectivity.</p>	<ul style="list-style-type: none"> <li>• By delivering our Digital Skills and Digital Inclusion commitments, we will:</li> <li>• Provide and signpost a wide range of digital support tools and materials</li> <li>• Provide adult learning opportunities using</li> <li>• Deliver digital inclusion learning opportunities for citizens</li> <li>• Design services and support capabilities that deliver digital inclusion for all our citizens</li> <li>• Embrace social media as a tool for engagement</li> <li>• Smart City Operations Centre work continues</li> </ul>	<p>By treating data as an asset, we will:</p> <ul style="list-style-type: none"> <li>• work with services to improve the tools that enable a Council-wide approach to business intelligence to enhance services and digital engagement with our customers and communities</li> <li>• Smart City Operations Centre work continues</li> </ul> <p>Ongoing projects to improve 4G/5G coverage through use of Council Assets to improve coverage.</p>	<p>We will review our Smart City capability and create a portfolio of smart city projects that balances short-term versus long-term impact, risks, investment, and social value, and establishes key strategic outcomes. As part of the work of the board, we will:</p> <ul style="list-style-type: none"> <li>• Develop a structured innovation management framework and innovation toolkit that builds on best practice from a broad range of relevant sectors</li> <li>• Work with 3rd party telecoms providers to exploit the connectivity available to us</li> <li>• Adopt and support the development of relevant Scottish UK and international Smart Cities actions and standards to build trust and confidence, ensure interoperability, and provide shared frameworks for city transformation plans</li> <li>• Develop governance to ensure a well-integrated smart city approach and coordinated governance of critical elements associated with portfolio, data and information management, cybersecurity, procurement, ethics, and privacy</li> <li>• Connect and share smart city knowledge, learning and assets</li> <li>• Introduce incubator projects at low cost to pilot tech benefits to solve real world problems</li> <li>• Smart City Operations Centre work continues</li> </ul>

## Digital Council and Smart City - Innovation

Innovation is about addressing problems in new and original ways that better meet the needs of customers.

Many developments in both the systems we use and in Smart Cities technology are experienced as innovation, having a disruptive impact on how services have previously been experienced or delivered; both positive and negative.

Key deliverable	Delivered to date	Sept – Dec 2021	March 2022	Sept 2022	2023	Beyond 2023
<p>The Council sees two forms of innovation driving empowerment:</p> <ul style="list-style-type: none"> <li>un-proven: The first focuses on new 'unproven' technology, where the Council would be an early adopter</li> <li>proven: The second is the adoption of new, or re-use of existing, proven technologies by the Council. This approach will be supported through a business case approach.</li> </ul> <p>Both approaches will be supported as appropriate to the technology and the solution.</p>	<ul style="list-style-type: none"> <li>Teams unified communications</li> <li>Team collaboration (on request)</li> <li>Mobile Device Management re-platform (Intune)</li> <li>Outlook Online</li> <li>BYOD</li> <li>self-service password reset</li> <li>Our Shared Repairs service was a Challenge Sponsor in the Scottish Government's CivTech 4.0 Innovation Programme, supported by Digital Services Relationship Management, its aim being to produce from scratch an app that would help encourage owners of the city's 17,000 tenements to keep their shared properties well maintained and safe.</li> <li>Phase 1 has been completed: The creation of Novoville Shared Repairs app, that owners can use to chat and build community, report common repairs required, vote as required by law, get and accept quotes from Trusted Traders, carry out repairs and pay their share due for work done</li> </ul>	<ul style="list-style-type: none"> <li>OneDrive for Business</li> <li>CivTech/Novoville Phase 2 (pending business case approval) continues with the Shared Repairs team: is an internal case management cloud-based system for the Mixed Tenure Pilot. To provide the council's Mixed Tenure team with a dashboard that can be used to manage and track the legal process required to progress repairs in the Councils part owned mixed tenure blocks.</li> <li>Continue to use technology and innovation to assist in new ways of working</li> </ul>	<p>We will:</p> <ul style="list-style-type: none"> <li>Promote an understanding of new products, process, services, or technologies that are emerging in the market, both locally and globally as well as from SMEs and well-established providers</li> <li>Support an innovative culture across the Council</li> <li>Enable third parties to pitch innovative concepts to the Council following procurement guidelines</li> <li>Provide a structured mechanism for the Council to explore and manage its technology innovation portfolio</li> <li>Engage and consult key stakeholders on benefits and opportunities of Cloud adoption</li> </ul> <p>We will:</p> <ul style="list-style-type: none"> <li>Encourage cross-departmental re-use and sharing of systems/resources</li> <li>Continue to use technology and innovation to assist in new ways of working</li> </ul>	<ul style="list-style-type: none"> <li>Continue to explore and exploit innovation and collaboration opportunities through DDI (data driven innovation)</li> <li>Review strategy and update to reflect current innovations, technologies, security, and the Council's technology landscape</li> <li>Empowering school leaders to drive innovative changes within their setting</li> <li>Continue Cloud migration</li> <li>Continue to use technology and innovation to assist in new ways of working</li> </ul>	<ul style="list-style-type: none"> <li>Identify opportunities to Increase and drive automation</li> <li>Continue Cloud migration</li> <li>Continue to use technology and innovation to assist in new ways of working</li> </ul>	<p>Potential to drive innovation further with adoption of additional Microsoft 365 capabilities:</p> <ul style="list-style-type: none"> <li>e.g. low code no-code (PowerApps and Flow)</li> <li>migration of G drives to Teams/SharePoint and a range of other new 365 tools</li> <li>Identify further innovation opportunities</li> <li>Final Cloud migration strategy move</li> <li>Continue to use technology and innovation to assist in new ways of working</li> </ul>

## Digital Council and Smart City - Technology Sustainability

The City of Edinburgh Council has set an ambitious city-wide target to become carbon neutral by 2030.

Key deliverable	Delivered to date	Sept 2021	March 2022	Sept 2022	2023	Beyond 2023
<p><b>Technology sustainability</b> Digital Services and our delivery partners for technology and Smart Cities are committed to contributing to this carbon neutral target in several ways including reducing:</p> <ul style="list-style-type: none"> <li>• Energy use</li> <li>• Carbon emissions</li> <li>• The amount of waste generated</li> <li>• The effects of climate change</li> </ul>	<p>To date, we have:</p> <ul style="list-style-type: none"> <li>• Reduced carbon emissions by implementing an automatic shutdown of PCs in pilot areas across the Council in the evenings and over weekends</li> <li>• Installed multi-function devices to replace printers and copiers across the Council</li> <li>• Chosen technology solutions with virtualisation of servers or cloud hosting where possible to promote better value, save energy and reduce heat output and comply with the European Code of Conduct for the operation of data centres energy efficiency</li> <li>• Disposed of hardware responsibly and in accordance with the waste electrical and electronic equipment (WEEE) Directive and recycled equipment where possible</li> <li>• Extended the lifecycle of PCs and other hardware assets to take advantage of both cost savings and reducing waste</li> <li>• Implemented home/remote working solutions that reduce travel between sites and between home and work</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to collect and dispose of hardware responsibly and in accordance with the waste electrical and electronic equipment (WEEE) Directive and recycled equipment where possible when lifting of Covid restrictions allow</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to collect and dispose of hardware responsibly and in accordance with the waste electrical and electronic equipment (WEEE) Directive and recycled equipment where possible when lifting of Covid restrictions allow</li> </ul>	<ul style="list-style-type: none"> <li>• Review WAN</li> <li>• Device review</li> <li>• Complete Win2K8 server decommission - reducing number of servers</li> </ul>	<ul style="list-style-type: none"> <li>• Commence device refresh planning focusing on how we can make this more sustainable e.g. use of thin client (remote connection to central server rather than the reliance on local hard drive will mean less need for enhanced devices)</li> </ul>	<ul style="list-style-type: none"> <li>• Support 2030 Climate Strategy where digital technology as an enabler can contribute</li> <li>• CGI has committed to achieving net zero carbon emissions by 2030 with respect to carbon emissions</li> <li>• The City of Edinburgh Council has committed to become a "net-zero" city by 2030. Digital Services will work with CGI to reduce CO2 emissions and achieve these sustainability goals through innovative energy solutions</li> </ul>

Key deliverables that aren't viable for progression will be shown in the table below. There can be several reasons why this can happen, as technology is an enabler it may be that the technology to deliver these has changed significantly, or largescale business delivery review is undertaken which means a different technology approach is required. As part of our overarching principles we will balance delivery, quality, best value, and scope. We will focus on ensuring the delivery of quality solutions that offer best value and meet requirements across the entire organisation. This table will be updated quarterly.

Strategic Theme	Key deliverable not initiated	Rationale