Digital, Data and Technology Strategy 2024-2029

A blueprint for digital success

Version control: final draft v1.2

DOCUMENT CONTROL

Version history

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1.0	Michelle Lord	Draft for comments/feedback by Digital Board	Digital Board	26.02.24
1.1	Michelle Lord	Digital Board feedback incorporated and draft for comment submitted to Transformation Board	Project sponsor	06.03.24
1.2	Michelle Lord	Transformation Board recommendations incorporated – mission 1.1 timeline and phasing, mission 4.1 culture and skills	Project sponsor	13.03.24

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Introduction

Between September 2023 and January 2024, Cambridge City Council (CCC) worked with [PUBLIC](#) on the drafting of a new, five-year Digital, Data, and Technology (DDaT) strategy for the Council. The goal of this strategy is to establish the Council's vision and framework for effectively managing digital, data, and technology over the next five years, including the reasons for change (the 'why'); objectives and scope for new interventions (the 'what'); what actions to take in order to get there (the 'how'); the responsible parties for those actions (the 'who'); a timeline for implementation (the 'when'); as well as indicative costs and benefits.

Our goal was to develop a DDaT strategy to synergise the Council's operations; foster innovation, by laying the foundations for the future use of emerging technologies like artificial intelligence (AI); and enhance the experience of both employees and citizens engaging with the council's services. This is a live document, to be regularly updated, and is the result of that work and represents a starting point, designed to evolve over time, from which will help achieve that vision.

Target state: where will we be in five years

This comprehensive digital transformation will not only enhance current services but also lay the groundwork for the Council to adapt and thrive in an increasingly digital future. Residents will benefit from faster, more personalised, and accessible services, while the Council itself will enjoy increased operational efficiency, better decision-making capabilities, and a more agile response to community needs.

Structuring the DDaT Strategy into four distinct strands allowed us to diagnose the current state of the Council and define the desired target state of the Council, to be developed over five years:

Strand 1: Data and information management

The data and information management strand focuses on improving the use of data. It aims to build an effective system for sharing data, which will aid better decision making and improve Council services. It includes improving data interoperability, boosting the digital skills of Council staff, setting clear data rules and structures, and ensuring strong information management and compliance.

Enhanced data interoperability and the fostering of a data-driven culture among Council staff will lead to more informed decision-making, efficient service delivery, and more personalised resident services. This internal efficiency will not only improve the speed and accuracy of responses to resident inquiries but also enable the Council to proactively address community-specific needs. As a result, residents will experience an improvement in the quality and responsiveness of Council services.

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Strand 2: Technology and innovation

This strand focuses on advancing our approach to technology at CCC. It aims to ensure that our IT systems are not just current but also efficient, user-friendly, and capable of working seamlessly with other systems. Moreover, we're aiming to derive maximum value from the IT services we procure externally. Central to this strand is the establishment of the Technical Design Authority (TDA) composed of members of CCC and representation from 3C ICT. The TDA will ensure effective technology-related decision making and actions at CCC, enabling the organisation to better set technology requirements, and ensure that IT-related procurement and contract management are conducted effectively. They will be our technology champions, guiding us towards smarter and more effective technology choices. For residents, this translates into more secure, efficient, and user-friendly digital interactions with the Council, enhancing the overall ease and quality of their digital engagements.

Strand 3: Digital customer journey

Digital customer journey focuses on reorienting the Council's approach so that it is more user centric. This strand aims to ensure that the entire Council's digital strategy revolves around serving customers, particularly through the Customer Services centre. It involves designing accessible, user-friendly customer journeys, prioritising high-usage and user feedback-driven journeys. These improvements extend to ensuring comprehensive accessibility for all users. This transformation aligns the Council's services closely with the needs and preferences of its citizens.

A unified digital experience across all services will simplify resident interactions, making them more intuitive and efficient. Emphasis on universal accessibility will ensure that these digital services are easily navigable and usable by all community members, thereby promoting inclusivity. Continuous resident engagement will ensure that services evolve in alignment with resident feedback and expectations, leading to more personalised and effective service experiences.

Strand 4: Digital and data skills development

The Council recognise the pressing need for upskilling to meet the demands of a modern organisation. Current capabilities in using digital tools, adopting agile methodologies, and making data-informed decisions are unevenly spread and under-developed among staff members. This strand will address the absence of continuous support and learning opportunities, such as regular workshops and accessible resources, and supports a structured approach to skill development in digital, data and technology.

The missions

Each strand is further broken down into missions. This allows us to more easily break down how to move from the current state to the desired target state.

Here are the missions we have developed within each strand:

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Strand	Missions	Description
STRAND 1: DATA AND INFORMATION MANAGEMENT	**1.1 Enhance data interoperability**	To refine the way CCC shares and utilises data across its key IT systems and to transfer data from outside IT systems (e.g., email, Word documents) into IT systems (e.g., Orchard, Storm). This aims to improve the resolution time for customer issues; improve the flow-through of information to improve planning; and to pave the way for future advancements, such as effectively leveraging AI applications.
	1.2 Improve the customer experience of digital services through better use of data	To optimise the customer service function at CCC by ensuring access to necessary data for both customer service staff and customers themselves, with the objective of boosting first point of contact resolution and enhancing self-serve options.
	1.3 Strengthen information management and data ethics	To update and ensure compliance and dissemination of the 3C ICT Shared Services Information Management Policy which sets out the guidelines for managing the data and information stored in the files and directories that comprise the electronic information repositories of the Council.
STRAND 2: TECHNOLOGY AND INNOVATION	**2.1 Empower technological transformation through the Technical Design Authority (TDA)**	To revamp technology management and decision-making processes at CCC through the establishment of a TDA. This mission focuses on ensuring that CCC gets value for money in its IT contracts; that those contracts contain optimal technology choices; and that effective management of the software lifecycle aligning with the Council's broader strategic technology goals is adhered to.
	2.2 Make technology buying and management smarter	To change how we buy and manage technology. Our focus is on systems that are easy to use, work well with others, and can adapt to new needs. This mission will allow CCC to make informed and strategic decisions regarding technology procurement and management.
	2.3 Transform how outsourced IT is managed	To transform the management of IT services that are shared with other groups, such as 3C ICT, Huntingdonshire District Council and South Cambridgeshire District Council, and ensuring they align with CCC's strategic digital goals. This will

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Strand	Missions	Description
		feed into the upcoming service review/renewal of the shared services agreement, establishing effective partnerships with external vendors, including a revision of the current 3CICT outsourcing model.
	2.4 Rationalise our IT estate	To ensure that CCC has oversight of the entirety of its IT contracts, including those within 3CICT, to verify efficiency, security, and cost-effectiveness, and support for the overall DDaT strategy. In short, to make sure CCC gets what it pays for, and that it pays for what it needs.
STRAND 3: DIGITAL CUSTOMER JOURNEY	3.1 Create a unified user experience across all digital services, ensuring universal accessibility	To ensure that all residents can effectively use Council services by creating a unified user experience across digital services; and ensuring that those services are accessible for everyone, aligning with Web Content Accessibility Guidelines (WCAG) and Government Digital Service (GDS) best practices, in addition to CCC's online content principles.
STRAND 4: DIGITAL AND DATA SKILLS DEVELOPMENT	4.1 Improve DDaT skills across the organisation	To empower Council staff with DDaT skills necessary to operate a modern organisation, such as the ability to confidently use digital tools, adopt agile methodologies, and make informed decisions based on data.

Strategy implementation timeline and dependencies map

The strategy and its missions will work together to achieve our overall goal of modernising CCC's approach to digital, data and technology. Below is a digital transformation map showing how these missions work together over a 5-year period to achieve our vision, and the interdependencies between them. The timeline is indicative only, and an additional more detailed action plan that specifies individual tasks will be added.

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Fig 1: Strategy approximate timeline and mission key dependencies map

Develop a DDaT Strategy to synergise the Council's operations, **lay the foundations** to foster innovation, and enhance the experience of both employees and citizens engaging with the Council's services
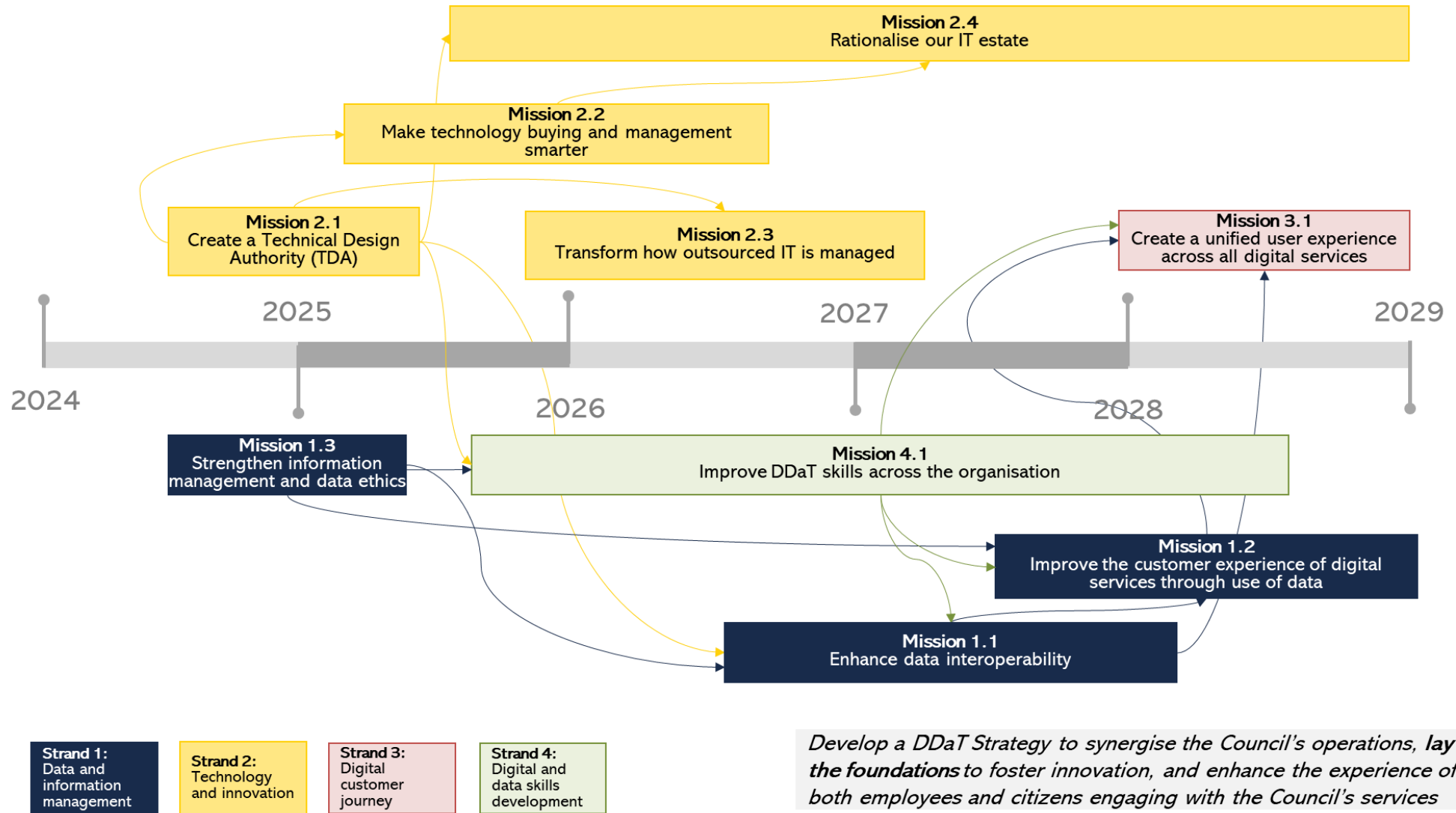
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Cost benefit analysis

Overall, the estimated total costs associated with implementing all missions in this strategy amount to £740,000, while the estimated total monetisable benefits within the lifetime of the strategy amount to £1,414,000.

Savings will also continue beyond the initial five-year period, and many non-financial benefits have been identified, including more time efficient and accessible service delivery for our customers. A more detailed breakdown cost-benefit analysis can be found under each mission within this strategy.

*Table 2: Costs and benefits by mission*

Strand	Mission	DDaT related new spend	Benefit Type	Annual £ estimated benefit[1]	Total estimated benefits (5 years)
Data and information governance	1.1 Enhance data interoperability	£640,000	Non-financial	–	–
	1.2 Improve the customer experience of digital services through better use of data	£20,000	Non-financial	–	–
	1.3 Strengthen information management and data ethics	–	Cost avoidance	–	–
Technology and innovation	2.1 Empower technological transformation through the Technical Design Authority (TDA)	–	Financial	£22,000	£67,000
	2.2 Make technology buying and management smarter	–	Financial	£175,000	£615,000
	2.3 Transform how outsourced IT is managed	–	Financial	£130,000	£390,000
	2.4 Rationalise our IT estate	–	Financial	£77,000	£116,000
Digital customer journey	3.1 Create a unified user experience across all digital services	–	Non-financial	–	–
Digital and data skills development	4.1 Improve DDaT skills across the organisation	£100,000	Financial	£75,000	£226,000
Total		**£760,000**		**£479,000**	**£1,414,000**

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[1] Based on estimated start date for individual missions within a five-year period (eg not all missions are delivered from year one)

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The chart below details the estimated spend year on year to implement and deliver the DDaT strategy:

Figure 2: Costs and benefits by year
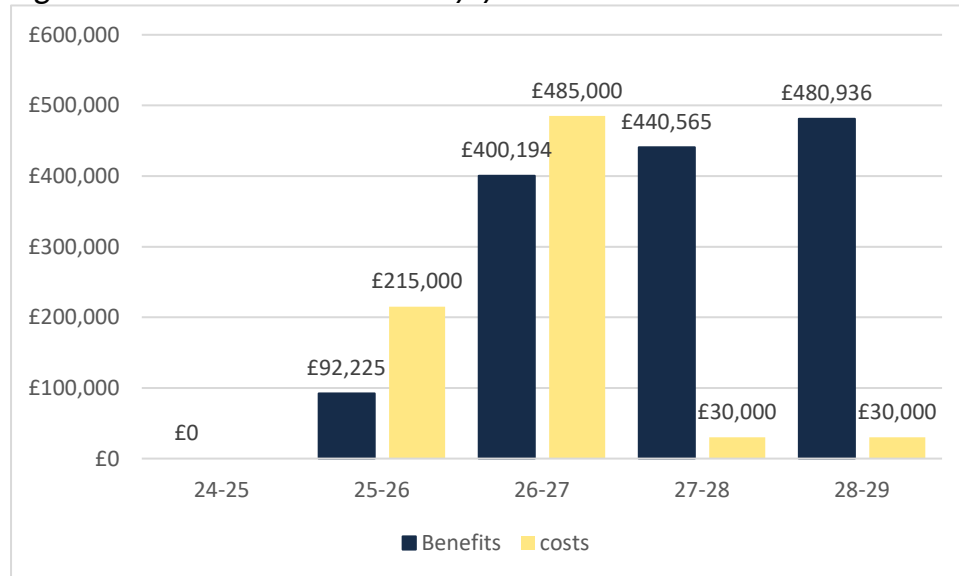
The costs are estimated to peak in year three, where we anticipate most of the investment will be made to make our data interoperable. Financial benefits are estimated to begin in 2025, following the introduction of missions that will improve how we procure systems, and outsource our IT[2].

Financial dependencies

The DDaT Strategy has several **critical dependencies and additional costs** which are intrinsic to its successful delivery. All individual missions are dependent upon capabilities outlined in the Digital Target Operating Model (DTOM), which will form part of the proposed Digital Service, and additional capabilities that will sit within a separate area of the Corporate Hub[3]. Applying the estimated cost of the DTOM recommended hybrid model, the salary costs associated with delivering the strategy is **£720,000** and is largely applied to new roles that will contribute a level of time and effort, over the lifetime of the strategy, are proposed as part of this model. Approximately **£50,000** is anticipated to be supported by Learning and Development for additional capability. In addition, an estimated **£200,000** relates to capabilities identified as having a DDaT skillset but will sit within the Corporate Hub, where they will perform other important duties within the Council.

In total, **£970,000** salary costs is estimated to contribute toward the delivery of the DDaT Strategy. The roles that will support this work are considered essential, particularly to deliver the data and information management strand but would also seriously impact our ability to deliver other missions. For the avoidance of doubt, it is assumed that these new capabilities will be provided by full-time roles with an estimated cost of **£320,000** per annum to the

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[2] Individual missions provide information on how benefits have been calculated.

[3] This includes roles with capabilities such as service design, user journey mapping, business analysis, product design, prototyping, and user research etc.

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Corporate Hub and between **£2.1 and £2.4 million** per annum in Digital Service (DTOM) related salaries.

Ownership and maintenance of the DDaT Strategy

To maintain the effectiveness and relevance of our Digital, Data, and Technology (DDaT) strategy, it is essential to have a structured approach for regular reviews and assessments. The Strategic Digital Lead is the owner of the DDaT Strategy. They are responsible for the authoring, execution, maintenance, and revision of the DDaT Strategy over the next five years.

By focusing on how the outcomes of the DDaT strategy align with the broader corporate objectives and target operating model (TOM) of CCC, they will provide strategic insights and ensure that the strategy's evolution is in line with the Council's long-term goals.

How to ensure this strategy remains up to date during execution

As CCC embarks on the journey to transform its digital services, it is crucial to recognise the importance of beginning each mission with a structured, insightful 'discovery' project. We recommend this approach to ensure that the Council's Digital, Data and Technology (DDaT) strategy remains aligned with evolving organisational priorities, realistic about staffing and resources, and responsive to the ever-changing technological landscape.

By recommending the initiation of each mission with a discovery project (see Appendix B for further details), we aim to provide CCC with a robust, structured, and thoughtful approach to implementing its DDaT strategy. This recommendation underlines the Council's commitment to delivering well-planned, effective, and adaptable digital services, ensuring that each step taken is in the best interest of the Council and the community it serves.

Appendices

Finally, the strategy includes a series of appendices:

- **Appendix A:** Methodology for developing the Digital, Data and Technology Strategy
- **Appendix B:** Diagnosing the as-is state of the Council: a synthesis of the research conducted to understand the current state of the Council as it relates to each Strand, providing valuable context and insight into the rationale driving strand objectives and missions.
- **Appendix C:** DLUHC local government digitalisation survey – details the results of survey conducted with multiple councils across the country, to help contextualise the DDaT Strategy of CCC with the performance of other councils
- **Appendices D, E, F and G:** Supporting materials for each mission and supplemental materials in an appendix, including:
  - Alignment to organisational structure – this section details the roles needed to execute each mission,

mapped to Responsible, Accountable, Consulted, and Informed (RACI) assignments.

- Performance indicators and success metrics – this section sets out the mission's key performance indicators and success metrics.
- Risk assessment and mitigation strategies – risks and mitigations to anticipate during execution of missions
- 5-year Roadmap – in a separate appendix, directional roadmaps can be found which sequence the priority actions into a project plan.
- Where relevant, additional supporting materials per mission have been added to the appendix

- **Appendix H:** Strategy execution, maintenance, and ownership
- **Appendix I:** Case studies – this section details examples of successful interventions in adjacent areas, such as other local governments, the Council or DLUHC, that we can learn from in relation to the Strand.
- **Appendix J:** proposed changes to DTOM dependent capabilities
- **Appendix K:** Design and delivery principles
  - Technical Design Authority rules
  - Data standards guidance
  - Online content principles
- **Appendix L:** Service assessment and lifecycle guidance
- **Appendix M:** Data access and API requirements – tender wording

- **Appendix N:** Digital Journeys research (Dorset Council and Cambridge City Council)

STRAND 1:
DATA AND INFORMATION MANAGEMENT

Our Cambridge

STRAND 1: DATA AND INFORMATION MANAGEMENT

Purpose

The overarching objective of the data and information strand is to develop strong internal processes to effectively collect, store, and manage the Council's disparate data sources across IT systems, setting a robust foundation for future adoption of emerging technologies including artificial intelligence[4], large language models (LLMs) and advanced data science. The missions and priority actions set out under this strand are designed to (1) facilitate streamlined data sharing across internal IT systems, (2) foster the Council workforce's digital and data skills and 3) build the Council into a data-driven organisation.

Defining the target state of the Council

Theory of change

With quicker access to comprehensive and integrated data, Council staff will be able to address inquiries and requests rapidly and accurately. This increased efficiency not only reduces wait times for residents but also boosts overall satisfaction with Council services. Moreover, the availability of rich, interconnected data enables staff to make well-informed decisions, ensuring that resources are allocated effectively, and solutions are tailored to specific community needs.

Furthermore, the Council's transformation into a data-driven organisation, bolstered by improved digital skills among staff (mission 4.1), paves the way for personalised services and proactive interventions for customers. Additionally, service quality will be improved more efficiently, as staff leverage data analytics and digital tools for continual service improvement. This approach ensures that the Council remains adaptable and responsive to changing community needs, fostering a dynamic and forward-thinking local government focused on delivering high-quality services.

Facilitating streamlined data sharing

User research has shown that CCC currently lacks data interoperability functions both internally and externally – data is held across the Council in multiple different systems that don't talk to each other – and a lack of data standardisation and consistency makes it difficult for data holders and users to collect, store and process data. This limits information sharing across Council teams, prevents effective decision-making, and lowers the quality of service provided.

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[4] The Council recognises and takes seriously challenges and fears associated with AI impacting jobs and is committed to ensuring that AI and data science are leveraged as tools to augment human work and make it more efficient, rather than as replacements for it

STRAND 1: DATA AND INFORMATION MANAGEMENT

Case studies

The 'case studies' (Appendix I) has several examples that highlight successful examples of change in local government (including CCC) related to this strand:

- Family Context – Empowering Social Workers to Safeguard Vulnerable Children in Leeds (Leeds City Council and Stockport Council)
- Shared Planning Service AI powered platform (Cambridge City Council)
- Region of Learning and digital badging (Cambridge City Council) – *to be added*
- Covid data management lessons learned (Cambridge City Council)

Mission 1.1: Enhance data interoperability

Objective and scope (the 'what')

To refine the way CCC shares and utilises data across its key IT systems and to transfer data from outside IT systems (e.g., email, Word documents) into internal IT systems (e.g., Orchard, Storm).

Reasons for change (the 'why')

This mission aims to have benefits across various sectors within the Council, including housing and housing repairs. Advancements in data interoperability can not only streamline customer service interactions but also empower staff across different departments with timely and accurate information. This in turn facilitates more informed decision-making and direction, supporting not just self-service options but also enhancing the overall efficiency of Council operations by helping employees be more efficient in their work – both in directly serving clients but also working with automated data to, for example, conduct planning and scheduling of work.

Overall, by integrating disparate data systems and improving data consistency, the Council can more effectively share information across departments. This leads to more informed decision-making and optimises service delivery. It lays the groundwork for future technological advancements, including the integration of AI and advanced data science, thereby ensuring a robust and responsive data infrastructure.

Priority actions to get there (the 'how')

Data interoperability can be achieved through various methods, each with its own level of manual involvement or automation. The ideal form of data interoperability is full automation, where IT systems can exchange data without humans in the loop.

This interoperability mission seeks to provide a pragmatic approach that delivers results in the short-to medium-term without reliance on APIs, uniform data standards, and central CRM systems. These standard methods pose enforcement challenges and are not presently viable within the IT landscape of CCC, where APIs are notably absent in many systems.

Comprehensive data and system inventory

- Continue the comprehensive inventory and catalogue of all data sources and systems begun in October 2023 to provide a comprehensive view of services, systems, functionality, ownership, and key information assets they hold, aiding staff in understanding and navigating Council resources
- Use this inventory to assess:
  - The technical feasibility – do the tools we use offer bulk import and export of data or middleware integration or API of any sort?
  - The practical need – what are the useful workflows that we are enabled to deliver if we do the integration.

Mission 1.1: Enhance data interoperability

- Establish prioritisation principles to determine order of approach to making systems interoperable.
  - Use this to define cost, effort, and business benefits to ensure changes are affordable and architecturally sound.
- Undertake a data landscape review as data demands reach digital services, capture the data requirements for business processes to gain a full understanding of the organisation's data.
- Develop a data model that will provide a detailed and clear definition of how data is stored within the council's core systems.
- Develop a corporate data dictionary with standard definitions and a common vocabulary across the organisation.
- CCC should determine, based on the data integration constraints of priority IT systems, whether it is feasible to pursue the short-and medium-term solutions listed below.
- If these prove to not be feasible due to technical constraints, then the right approach is to continue with the long-term approach, below, to incorporate middleware requirements into future procurement practices and contracts.

Migrate non-system data

- Identify data currently housed outside IT systems (e.g., Word docs, emails, Excel sheets), prioritising workflows based on what will have the most significant impact on service delivery and decision-making.
- Transfer data currently housed in non-IT formats into IT systems to make accessible by other systems. This should be done via an engagement and communications campaign across the Council to explain the benefits to employees of transferring data; the value it will bring to customers; and the impact that individuals can have to help make change in the Council.

Change business processes to bulk manual uploads

- Identify processes that currently involve non-bulk manual data uploads.
- Enable teams within the council to map and improve processes to use bulk-manual uploads.

Engage with the market and enable the implementation of middleware solutions

- Engage with the market, specifically middleware aggregator suppliers
- Enable teams within the council to implement middleware solutions based on the prioritisation exercise above to include a mechanism ongoing maintenance of the middleware solution

Incorporate middleware requirements

- Incorporate middleware requirements into future procurement practices and contracts

Mission 1.1: Enhance data interoperability

Implementation timeline (the 'when')[5]

The strategy for achieving enhanced data interoperability involves completing the comprehensive data and systems inventory as well as moving from non–bulk manual methods to bulk manual methods in the short term, using middleware solutions for partial automation in the medium term, and aiming for full automation through changes in procurement and contract management in the long term. This is considered a priority mission and should be the commenced as soon as resources are in place.

Short-term

Complete comprehensive Data and Systems inventory
- Complete inventory of data sources that was started in October 2023.
- Assess technical feasibility and practical needs of integrating systems and prioritise which systems to integrate first.
- Gain a full understanding of the data integration constraints of priority IT systems.

Move non–bulk manual[6] interoperability to bulk manual[7] interoperability:

- Ensure IT systems can export and import bulk data, most commonly .csv files.
- Change business processes so that rather than the non–bulk manual approach currently taken, the customer service team, for example, upload changes between systems at scale.
- Determine what cadence of data uploads is appropriate to ensure that there is no latency in the delivery of services. As a benchmark 1–2 times daily should be considered.

Medium term

Automate parts of interoperability solutions:

- Engage with the market to determine whether to build, buy (specifically middleware aggregator suppliers such as Mulesoft and Zapier, to see how those solutions can be used to meet the requirements of CCC), or re-use middleware solutions.
- Evaluate cost–benefit of different approaches technical approaches against the savings they enable.
- Use middleware solutions where possible with existing IT systems to automate download and upload of data between systems. Middleware solutions can be used to automatically convert data in .csv files into a usable format for other systems.

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[5] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project
[6] Non-bulk manual method: this is the current practice at CCC, where data is manually transferred between systems like Orchard and Storm via applications like Notes.

[7] Bulk manual method: this involves configuring IT systems to import and export large volumes of data, typically in .csv file format. Instead of manual one-by-one data handling, data is uploaded in bulk enabling 100, 1000 or more records to move at once.

Mission 1.1: Enhance data interoperability

- Once short–term changes are made to enable bulk manual interoperability, middleware can be used to automate half the process.

Long-term

Move to automatic[8] interoperability via changes to procurement and Contract Management:

- Incorporate middleware requirements into future procurement practices and contracts (noting dependency and alignment with mission 2.2)
- For new procurements, the technical requirement for data integration should be Restful APIs, which are industry standard.

Responsible parties (the 'who')

The Strategic Digital Lead is ultimately accountable for this mission and should call on the Technical Design Authority (TDA) for support in requirements setting, market engagement, managing the software lifecycle, horizon scanning for new solutions, and driving the overall actions of the mission through the organisation. It is anticipated that the middleware will be implemented using external support, and that the ongoing

maintenance will need to be included as part of the Digital Service resource. However, there are key functions from within the Digital Service and Corporate Hub which will be responsible for performing key tasks to deliver this mission, and include:

- Digital Service Management
- Digital Strategy Delivery
- Data Architecture
- ICT Contract Management
- Change Management and Delivery
- Solution Architecture
- Product Management[9]
- Business Analysis

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[8] Automatic method: the aim of interoperability, is achieved through IT systems integrated with APIs, allowing seamless data exchange without manual intervention.
[9] The product management function encompasses end-to-end lifecycle of service and product development. It includes design, functionality, delivery, and ongoing maintenance, reflecting a comprehensive view of our services from the users' perspective. This is a new function that supports a commitment to not only design services that are user-focused but also to manage and deliver them as holistic products that meet the evolving needs of our community.

Mission 1.1: Enhance data interoperability

Cost-benefit analysis[10]

Mission 1.1 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
£660,240	Non–Financial	–	–

- Indicative benefit (non–monetisable): 884 hours per annum from year 4 onwards.
- Indicative number of hours saved in housing–related transactions by customer service staff per year, where housing equals 48% of all calls received by customer service.
- Additional benefits from the support of digital channel shift to self–service solutions by citizens, getting throughput of information to services more quickly for more efficient planning
- Benefits calculated using a 12:1 ratio of transactions to hours saved based on a study done by Neath Port Talbot Council https://arvato.co.uk/wp-content/uploads/2022/02/Who-we-work-with-Neath-Port-Talbot-Feb2022.pdf

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[10] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Mission 1.2: Improve the customer experience of digital services through better use of data

Objective and scope (the 'what')

To optimise the customer service function at CCC by ensuring access to necessary data for both customer service staff and customers themselves, with the objective of boosting first point of contact resolution and enhancing self-serve options.

Reasons for change (the 'why')

By having a unified view of customer data, service agents can provide quicker, more accurate responses, and tailor services to individual needs at any given time, following a principle of being able to serve customers at 'any touch point at any time'.

Furthermore, interoperability facilitates the enhancement of self-service platforms, allowing residents to easily access services, track their requests, and find information without the need for direct interaction with customer service staff, thus reducing wait times and improving overall satisfaction. The ability to integrate data from various sources also means that CCC can anticipate and proactively address common customer issues, driving continuous improvement in service delivery and customer experience.

Implementing measures to foster better use of data across CCC will support digital channel shift, enabling automation of high-volume, low complexity tasks by customers, and thereby freeing up the Council workforce to spend more time on higher complexity customer interactions.

This mission aligns with the strand's objective of becoming a data-driven organisation, ensuring services are not only more efficient but also more attuned to the specific needs of the community.

Priority actions to get there (the 'how')

- Assess and enhance data utilisation:
  - Evaluate how the customer service team currently uses data, with a focus on identifying areas where data is under-utilised, not interoperable, and has a negative impact on customer service request resolution.
  - Determine what needs to be measured or evidenced (eg what do we need to understand, what problems do we need to solve), and if we have access to the data to demonstrate and support this, or if additional data collection is required.
  - Reinstate the Data Community of Practice as a forum to discuss challenges and solutions, develop capability, and support the use of data to build better services for customers.

Mission 1.2: Improve the customer experience of digital services through better use of data

- Streamline services for different customer groups:[11]
  - Prioritise services accessed by different customer segments to ensure efforts are focused on the most impactful areas for customers.
- Implement efficient data sharing mechanisms:
  - Deploy middleware solutions to enable quick and secure access to necessary data for customer service agents, improving response times and accuracy (noting dependency on mission 1.1).
  - Create comprehensive dashboards that provide a detailed view of all customer interactions and procedures, enhancing service delivery and customer insights, using PowerBI for example.
- Develop self-service platforms:
  - All customer-facing platforms should aim to be self-service by default. Self-service platforms will enable customers of CCC to fulfill needs independently without the need for customer service support and time (noting dependency on mission 3.1).
  - Ensure these platforms are intuitive and cater to the specific needs of CCC's diverse customer base, including provisions for accessibility and user-friendliness.

Implementation timeline (the 'when')[12]

The implementation of the middleware solutions is estimated to be completed during 2026, as these will be implemented sequentially. Upon completion of mission 1.1 (make data interoperable), the Council will be able to build more robust and automated dashboards from 2027. However, as the Council increases its understanding of the data it holds, we anticipate that data insights and sharing can begin from 2025.

Responsible parties (the 'who')

The key functions from within the Digital Service and Corporate Hub which will be responsible for performing key tasks to deliver this mission, include:

- Digital Service Management
- Digital Strategy Delivery
- Data Architecture
- Change Management and Delivery
- Service Design and User Research
- Product Management
- Software Development
- Business Analysis
- Data Analysis

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[11] Impact can be defined by speed of resolution, increase in use of self-service solutions, increase in time saved by customer service staff. For example, this could include developing and refining processes for booking jobs, particularly for housing repairs, using

customer data to streamline and personalise the experience (noting dependency on technical feasibility and prioritisation conducted in mission 1.1).

[12] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

Mission 1.2: Improve the customer experience of digital services through better use of data

- Performance Analysis
- Information Governance
- Automation and AI

The accountable person for this mission is the Strategic Delivery Lead.

Cost-benefit analysis[13]

Mission 1.2 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
£20,000	Non-Financial	–	–

- Indicative benefit (non-monetisable): 1,545 additional calls resolved first time per year which represents approximately 2% of total call volumes.
- Benefits calculated by applying difference of total number of First Contact Resolution (FCR) calls pre-and post-intervention due to better joined up data using data from Neath and Part Talbot Council.
- Additional benefits could come from the reduction of overall organisational complexity due to increased FCRs, i.e., not

needing additional time spent on processes for additional interactions

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[13] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Mission 1.3: Strengthen information management and data ethics

Objective and scope (the 'what')

This mission is to enhance how we manage, own, and protect our Council's data. We aim to do this by making sure our Information Management Policy is up to date, understood by everyone, and strictly followed. This policy is our blueprint for handling the vast amounts of information we hold. When complete, Council staff will be better versed in ethical data usage, and how this sits alongside our legal responsibilities.

We believe that managing our data centrally, instead of leaving it to individual departments, will make this process smoother and more efficient.

Reasons for change (the 'why')

It is essential that we ensure that data is managed responsibly and ethically as well as bolstering the way we protect personal data so that the Council remains in compliance with all relevant laws and regulations such as GDPR.

Efficient navigation and understanding of our data assets, ensuring compliance through regular audits and monitoring, and enhancing the reliability and security of data governance are all fundamental for the successful implementation of advanced data technologies and for maintaining public trust in the Council's digital transformation initiatives.

Enabling the Council to identify gaps in data collection or duplication, to question what is collected, and to influence data

that can be interconnected are critical to support the overarching aims of other missions within this strand.

Priority actions to get there (the 'how')

- Review and update, where appropriate, the Information Management Policy:
  - o Include ethical standards for data (at a project level), aligned with GDPR requirements. For example, incorporating and encouraging the application of the [Data Ethics Framework](#).
  - o Ensure the policy is accessible and understandable to all staff, regardless of their technical expertise.
  - o Provide guidance to the organisation on use of SharePoint, Teams channels and streamlining document management and tracking key documents, including naming conventions, file structures and version control to make them easy to navigate and locate.
  - o Keep an up-to-date record of when data has been validated and checked, and by whom, to ensure information is being processed correctly.
  - o Make information about what data CCC currently holds; what they are used for; who uses them; and the type of data they contain widely accessible, to ensure CCC staff can understand what existing data resources are available and who is responsible for them.
- Audit and compliance monitoring:

- o Implement an audit and compliance monitoring system to regularly assess data usage, adherence to Information Management policies, and GDPR compliance (noting dependency on mission 1.1 and ensuring data can be extracted from current IT systems for audit).
  - o Establish a feedback mechanism to continuously improve information management practices based on audit findings.
- Communicate the benefits of information management:
  - o Actively communicate how enhanced information management can support various Council activities, illustrating practical examples and benefits.
  - o Ensure that the advantages of robust information management and data governance are clearly understood across all levels of the Council, especially through joining up with the DDaT skills programme (noting dependency on mission 1.3).

Implementation timeline (the 'when')[14]

It is the recommendation of the DDaT Strategy that this is one of the first missions to be implemented as it will determine how successful other data and information management missions will be. It is anticipated that this would commence in 2024, and then be carefully monitored going forwards for the lifetime of the strategy.

Responsible parties (the 'who')

Responsibility for information management sits with the Information Governance team, with the accountable person being the Information Governance Manager and Data Protection Officer. It is our recommendation that the IG team work closely with the Council and the Digital Service on how the policy is communicated, maintained and the data inventory is kept up to date.

Cost-benefit analysis[15]

Mission 1.4 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
-	Cost Avoidance	-	-

- There is potential cost avoidance of £120,000 (based on a fine issued by ICO to Stoke-on-Trent Council for personally identifiable information (PII) violations).

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[14] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

[15] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

STRAND 2:
TECHNOLOGY AND INNOVATION

STRAND 2: TECHNOLOGY AND INNOVATION

Purpose

Strand two is about advancing our approach to technology at CCC. The purpose is to ensure that all systems across our IT landscape are not just current but also efficient, user-friendly, and capable of working seamlessly with other systems. Moreover, we're aiming to derive maximum value from the IT services we procure externally.

The objective of this strand is to provide a strong foundation for more advanced or innovation use of technology in the future. The interrelated missions and priority actions set out under this strand are designed to (1) improve systems and processes to ensure the effective technology management, procurement, and outsourcing, and (2) streamline and modernise the Council's IT estate.

Defining the target state of the Council

Theory of change

The establishment of the Technical Design Authority (TDA) will lead to more efficient, user-friendly, and integrated IT systems, streamlining the digital experience for users. Additionally, smarter technology procurement and management, along with improved management of outsourced IT services, will ensure high-quality, resilient digital services that align with the Council's strategic goals and those of partners.

The commitment to modernise the Council's IT infrastructure will lead to more secure and sustainable digital services. As the IT systems become more current and adaptable, they will support a range of user-centric initiatives, including advanced technologies like AI. The focus on user-centric service design will ensure that Council services are not only technically sound but also deeply resonant with community needs. This shift promises services that are more tailored and relevant and reliable, leading to a seamless blend of functionality, design, and ease of use. Through these efforts, CCC will be poised in the future to become a leader in local government technology innovation, continuously improving its services to meet and exceed the expectations of its community.

Technical Design Authority

Central to this strand is the establishment of the Technical Design Authority (TDA) composed of members of CCC staff as it increases its capabilities under the DTOM, and our ICT provider. The TDA will be the driving force behind all technology-related decisions and actions at CCC, encompassing a wide range of responsibilities from ensuring technology requirements are in place, to ensuring that procurement and contract management are conducted effectively by the organisation. Members of the TDA will be our technology champions, guiding us towards smarter and more effective technology choices.

STRAND 2: TECHNOLOGY AND INNOVATION

Improving systems and processes to ensure effective technology management, procurement, and outsourcing

This strategy has been developed to enable the Council to create a responsive and modern technology environment that meets the dynamic needs of our community, as well as laying the foundations for advanced technology applications, particularly in the realm of artificial intelligence (AI).

Streamline and modernise the Council's IT Estate

User research has shown that there are many systems in the Council which are not interoperable or are not working optimally for users. There are also systems that do similar but slightly different things. To overcome these challenges, this strategy will ensure the Council's IT systems are current, adaptable, user-centric, interoperable, and avoid duplication.

Case studies

The 'case studies' (Appendix I) has two examples that highlight successful examples of change in local government (including CCCC) related to this strand:

- Procuring technology for housing services across the county (Redbridge, Woking, Greenwich, Kingston, Sutton, Adur and Worthing Councils)
- IEG4 contract procurement lessons learned (Cambridge City Council)

Mission 2.1: Empower technological transformation through a Technical Design Authority (TDA)

Objective and scope (the 'what')
To re-vision technology management and decision-making processes at CCC through the establishment of a Technical Design Authority (TDA). Overall, the establishment of the TDA is a critical step in advancing CCC's approach to technology. The TDA's role in empowering the Council to set technology standards and support the Council in ensuring effective procurement and contract management, that aligns with the strategies wider objective of ensuring IT systems are not only current but also efficient and user-friendly.

Reasons for change (the 'why')
This mission focuses on ensuring that CCC gets value for money in its IT contracts; that those contracts contain optimal technology choices; and that effective management of the software lifecycle aligning with the Council's broader strategic technology goals is adhered to.

As a collective, the TDA will enable an improved (and shared) Intelligent Client function that removes single person dependency, and streamline the delivery process across the DDaT strategy, providing oversight for consistent and coherent reporting to leadership and throughout the organisation. For this reason, it is also imperative that the TDA be staffed with people who work full time at CCC, as this will provide them with the properly aligned organisational knowledge and political will.

With the TDA's governance, CCC will be poised to adapt and evolve its DDaT strategy over time, maintaining its relevance and effectiveness in an ever-changing digital landscape. Regular updates, reviews, and maintenance conducted by the TDA will underpin a dynamic approach to technology management, placing CCC in a strong position to meet the current and future needs of its residents and staff.

Priority actions to get there (the 'how')
The actions of the TDA will have many interdependencies on other missions listed in the strategy. The responsibilities of the TDA should include the following:

Requirements setting guided by product management
* Work closely with representatives from different departments to ensure colleagues have fully considered our IT, user, and technical requirements.
* Ensure these requirements genuinely reflect the needs of those who use these systems.

Software lifecycle guided by solution architecture
* Support the Council to introduce, maintain, and eventually retire various software solutions, to include the identification and monitoring of who is the contract signatory, contract owner, system owner, and budget holder to ensure accountability.

Mission 2.1: Empower technological transformation through a Technical Design Authority (TDA)

- Maintain a systems and applications catalogue that tracks the lifecycle stage of each software, aiding in timely decisions about vendor re-engagement and market exploration.

Horizon scanning guided by product management

- Actively participating in external forums like the LGA, DLUHC, SOCITM, and engaging with academic insights from institutions like the University of Cambridge.
- Keeping the Council abreast of emerging technology trends, innovations, and best practices, ensuring CCC's technology strategy is forward-looking and dynamic.

Establish the TDA

- Determine structure and operational model:
  - Formulate the structure and operational model for the TDA, ensuring it has clear roles, responsibilities, and authority within the Council.
  - Align TDA activities with other missions in the DDaT strategy to ensure cohesive and synergistic progress across initiatives.
  - Appoint members to the TDA (see appendix K for recommendation)
  - Map and define process for organisation to use TDA (what circumstances, how do they do it), then implement and support with the change management of the organisation to this new process
- Define governance and operating procedures:
  - Develop and document governance frameworks and operating procedures that outline how the TDA will function and make decisions.
  - Communicate the mandate of the TDA across the organisation
- Develop ongoing strategy review and adaptation:
  - Establish a regular cadence of meetings for the TDA to review progress of the DDaT strategy and see whether adjustments need to be made
  - Conduct reporting to the rest of the organisation on the progress of the DDaT Strategy and the rationale behind any changes to its approach
  - Create a feedback loop with Council departments and external stakeholders to ensure the TDA's work remains aligned with user needs and strategic goals.
  - Schedule regular review sessions to assess the TDA's effectiveness and adapt its approach to meet evolving needs and challenges.

Mission 2.1: Empower technological transformation through a Technical Design Authority (TDA)

Implementation timeline (the 'when')[16]

Establishing the TDA is a priority mission for the Council. Whilst new roles are recruited by the Council, mechanisms should be explored as soon as possible that means that the Council has oversight of all system or license related requests (which currently bypass the Council and go straight to 3C ICT).

Responsible parties (the 'who')

The accountable person for the TDA will the Strategic Digital Lead. The following functions are likely to be involved in the TDA:

- Digital Service Management
- Strategy Delivery
- ICT Contract Management
- ICT Finance
- Solution Architecture
- Data Architecture
- Change Management and Delivery
- Product Management
- 3C ICT

Cost-benefit analysis[17]

Mission 2.1 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
–	Financial	22,000	£64,000

- There is potential financial benefit of £64,000 over 5 years
- Expected benefits gained from 5% improvement to missions 1.3, 2.2, 2.3 and 2.4 because of improved governance created by setting up the TDA.

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[16] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

[17] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Mission 2.2: Make technology buying and management smarter

Objective and scope (the 'what')

To transform the way that CCC buys and manages technology. Our focus is on systems that are easy to use, work well with others, and can adapt to new needs.

Reasons for change (the 'why')

This mission will allow CCC to make informed and strategic decisions regarding technology procurement and management. The Council will have a robust set of guidelines that streamline the purchasing process, ensuring that all technology acquisitions are user-friendly, interoperable with existing systems, and flexible enough to meet future demands. CCC will benefit from a workforce that is trained in modern procurement practices and understands the importance of aligning technology choices with the Council's strategic objectives. This includes recognising when to innovate and when to utilise existing solutions, maximising the value from the Council's IT investments. It will also allow CCC to improve its relationship with its technology partners and vendors.

Improved contract management procedures will allow for better oversight and more effective use of technology resources. The Council will have the ability to audit, review, and manage contracts proactively, thus avoiding unnecessary expenditure and fostering a culture of financial prudence. As a result, CCC will be positioned to respond more dynamically to the needs of its residents and the operational requirements of its services, all while adhering to the principles of good governance and fiscal responsibility. This mission will help CCC to clarify roles and responsibilities in procurement and contract management, ensuring clear understanding and ownership among all involved parties, and aligning to DTOM. This will include a focus on learning to say 'no' – knowing when not to procure and instead opt for re-use or existing solutions.

Overall, optimising procurement practices is key to deriving maximum value from externally procured IT services. By refining these processes, CCC can ensure that its investments in technology are cost-effective, high-quality, and strategically aligned with its digital transformation goals.

Priority actions to get there (the 'how')

Work with the CCC procurement team to add additional steps and guidelines as part of technology buying

- Get user research, product management, and business analysis to work with procurement to determine a) what the Council needs (requirements) and b) what is legal for the Council to procure as additional guidance.
- Evaluate technology purchases based on clearly defined business requirements, user stories, and technical specifications.
- Address the need for a process that considers products beyond traditional 'IT', integrating IoT/pro-tech solutions like

Mission 2.2: Make technology buying and management smarter

fleet procurement and the installation of sensors and other IT devices in Council properties.

Enhance staff training and role clarification
- Implement comprehensive training for staff representing business analysis, and digital product management, in procurement (note dependency with mission 4.1 (skills development) and role specific training).
- Assess whether this function best sits at the 1, 2, or 3 council level as a shared training opportunity/cost.

Audit contracts and take a targeted approach to their management
- Conduct a thorough audit of existing contracts, focusing on those requiring immediate attention and improvement.
- Make sure the existing contract register at CCC (Proactis) can be used to track renewal dates and manage contracts effectively based on KPIs.
- Identify contracts that fall below the value required by the contract register, to ensure a comprehensive picture is obtained.
- Identify where service areas have purchased software licenses that can be accessed online, without 3C ICT permission (e.g., Miro).

- Based upon the audit outcomes, take a targeted approach to improving procurement and contract management on a contract-by-contract basis.

Adopt best practices in technology buying and management including
- Engage in pilot projects, ensuring systems are ready for use before full-scale implementation.
- Strengthen market engagement processes to identify leading vendors, focusing on robust supplier relationships and best-in-class technology.
- Foster a partnership approach with suppliers, including incentives for good practices and penalties for poor performance.
- Implement mandatory contract management and review processes for regular vendor interactions.

Market engagement guided by ICT contract management
- Develop knowledge of the best market offerings from IT vendors and use this to guide our decisions in vendor selection, contract negotiations, and ensure we request the most suitable technology solutions.

Engage with the wider stakeholder ecosystem
- Establish and maintain formal communication channels with counterparts at 3C ICT and Councils with shared services,

Mission 2.2: Make technology buying and management smarter

ensuring a cohesive approach to IT strategy and implementation across different administrative levels and service areas.

- Proactively engage with external organisations serving the citizens of CCC, such as the NHS and local business groups, to align CCC's digital transformation with the broader needs and expectations of the community.
- Regularly assess and incorporate feedback from these external stakeholders, ensuring that CCC's IT initiatives are not only internally coherent but also externally relevant and supportive of wider community objectives.
- Ensure alignment with other parts of CCC including the Transformation and Digital Boards – it is important that there is not duplication of effort across these Boards and that responsibilities are clearly delineated.

Implementation timeline (the 'when')[18]

The implementation of this mission is dependent upon the successful establishment and running of the Technical Design Authority (mission 2.1). With the TDA in place, it is anticipated that the Council will experience of the benefits of this mission from 2025 onwards.

Responsible parties (the 'who')

It is important that the ownership of this mission sit within the CCC organisation. Procurement needs to align completely with the technical and product requirements of CCC, and as such must sit in the organisation with those roles. There should be close coordination with SCDC and HDC to understand how the technical and product requirements of CCC interrelate with the technical and product requirements of the other councils.

Cost-benefit analysis[19]

Mission 2.2 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
–	Financial	£175,000	£614,000

- There is potential financial benefit of £614,000 over 5 years
- Expected benefits based on 10% reduction to total cost of ICT contracts per year.
- 10% multiplier based on a case study from the UK Multi-Academy Trust

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[18] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

[19] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Mission 2.3: Transform how outsourced IT is managed

Objective and scope (the 'what')

To transform the management of IT services that are shared with other groups, such as 3C ICT, Huntingdonshire District Council and South Cambridgeshire District Council, and ensuring they align with CCC's strategic digital goals. This will ensure that as part of the next upcoming review/renewal of the shared services agreement (and in line with the DTOM), that effective partnerships with external vendors are established, including a revision of the current 3C ICT outsourcing model.

Reasons for change (the 'why')

Upon the realisation of this mission, CCC will be empowered to foster more collaborative and mutually beneficial relationships with IT service providers. This will open potential avenues for co-developing products and driving cost reductions while ensuring that the processes of requirements setting, and product management remain under CCC's control.

By maintaining ownership of requirements setting and product management, CCC will ensure that all digital services and infrastructure are built upon a deep understanding of the user experience, whether they are staff or residents. Additionally, with the Technical Design Authority (TDA) providing clear governance, CCC will be able to maintain oversight of outsourced IT functions, ensuring that external partners are held accountable and that services are delivered efficiently and in alignment with the Council's strategic objectives.

Overall, reviewing and revamping how outsourced IT services are managed is crucial for maintaining an efficient and current IT estate. By improving oversight and management of these services, the Council can ensure that outsourced IT solutions are not only effective but also align with the Council's broader technology strategy. This mission aligns with the strand's focus on efficiency and user-friendliness, ensuring outsourced IT services contribute positively to the Council's digital transformation journey.

Priority actions to get there (the 'how')

Strengthen contract management capabilities

- Implement a contract management system to oversee the entire lifecycle of IT service contracts, from initiation and performance monitoring to renewal or termination.
- Train staff in contract management best practices to ensure they can effectively manage and negotiate IT service contracts, ensuring value for money and service quality.

Define and communicate requirements with external providers

- Inform 3CICT and Huntingdonshire District Council and South Cambridgeshire District Council about the adoption of the new DTOM. Specify precisely what the DTOM roles will do.
- Assign specific counterparts at the individual level for them to interface with in each other organisation; describe how they will work together; and set a cadence and structure for

meeting that allows the partnership to be unambiguous and clear from the beginning

- Develop a formal process for defining, communicating, and updating business and technical requirements to external IT service providers and partners.
- On an ongoing basis, ensure that the requirements reflect CCC's strategic objectives and are clearly understood by all external partners, including 3C ICT, Huntingdonshire District Council, and South Cambridgeshire District Council.

Enhance partnership and collaboration

- Launch a stakeholder engagement campaign to foster stronger partnerships with key technology stakeholders such as Greater Cambridge Partnership and Smart Cambridge, ensuring that technology initiatives are aligned, and synergies are maximised. One immediate example is exploring how technology developed in the Smart Cambridge traffic and transport projects can be used in adjacent use cases across the Council, like asset management and sustainability.
- Establish regular communication channels and joint working groups to facilitate collaboration and knowledge sharing across different technology projects.

Establish a monitoring and review mechanism

- Implement a robust monitoring and review mechanism to regularly assess the performance of outsourced IT services against agreed-upon KPIs and service level agreements.
- Conduct regular review meetings with IT service providers to discuss performance, address issues, and identify opportunities for service improvement.

Implementation timeline (the 'when')[20]

This mission is dependent upon the outcome of the work currently being done on the Digital Target Operating Model, and the 3C ICT Service Review. The current agreement ends in September 2025, and it is anticipated that the enhanced ways of working with partners will commence from 2026 onwards.

Responsible parties (the 'who')

The accountable person for the implementation of the DTOM is the Strategic Digital Lead. There should not be the expectation that the TDA or CCC can technically execute everything it needs. Once business and product requirements are set, technical requirements can then be set by partners such as vendors or 3C ICT, who must be regularly engaged with by the TDA to ensure

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[20] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

Mission 2.3: Transform how outsourced IT is managed

that all requirements are being adhered to. The key capabilities that need to be involved include:

- Digital Service management
- Strategy Delivery
- ICT contract Management
- ICT Finance
- Enterprise Architecture
- Solution Architecture
- Data Architecture
- Change Management
- Service Design
- Product Management
- Business Analysis
- Learning and Development

- There is potential financial benefit of £390,000 over 5 years
- Financial benefits of £130,000 per year are aligned to those identified in the DTOM hybrid model.

Cost-benefit analysis[21]

Mission 2.3 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
–	Financial	£130,000	£390,000

[21] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Mission 2.4: Rationalise our IT estate

Objective and scope (the 'what')

To ensure that CCC has oversight of the entirety of its IT contracts, including those within 3CICT, to verify efficiency, security, and cost-effectiveness, and support for the overall DDaT strategy. In short, to make sure CCC gets what it pays for, and that it pays for what it needs.

Reasons for change (the 'why')

Overall, rationalising the IT estate involves streamlining and modernising the Council's technology infrastructure. This mission is critical in ensuring that the Council's IT systems are adaptable, interoperable, and user centric. By focusing on creating a more coherent and integrated IT environment, this mission directly supports the strand's objective of enhancing IT service delivery in line with current best practices and preparing the foundation for future technology applications, including AI and advanced digital services.

Priority actions to get there (the 'how')

Below are near-term, specific IT systems changes that we recommend based on our work over the past months:

IEG4 replacement evaluation

- Conduct thorough research on the existing IEG4 system to decide how to remove elements of products or integrations that CCC does not require/use.
  - This decision should be based on cost-effectiveness, system performance, and alignment with the Council's broader digital strategy. Discuss this with IEG4 in contract negotiations in January 2024.
  - During the contract extension with IEG4, the council should consider the integration capabilities and cost implications of renewing versus procuring a new service.

Strategic priorities for improvement of CCC's IT estate

- IT systems assessment and decision framework:
  - Conduct a comprehensive review of all current IT systems to assess their efficiency, security, and alignment with CCC's strategic goals.
  - Develop a decision framework based on the assessment to determine which systems to retain, upgrade, or decommission.
- Assessment of cloud migration feasibility:
  - Review each system to determine if it can be moved to the cloud.
  - Given that on-premises solutions carry higher risks, focus on identifying opportunities for secure and cost-effective cloud migration.
- Personal data protection analysis:
  - Examine each system to identify if any Personally Identifiable Information (PII) is held.
  - Ensure all systems comply with data protection regulations and the Council's data privacy standards.

Mission 2.4: Rationalise our IT estate

- o Understand if Data Protection Impact Assessments (DPIA) and Records of Processing Activities (RoPA) have been completed.
- Function duplication review:
  - o Scrutinise the functionality of all systems to identify any overlaps.
  - o Look for systems capable of performing multiple functions to consolidate the number of systems in use.
- Ownership and expertise evaluation:
  - o Review the ownership structure of each system.
  - o Ensure owners have the necessary experience in drafting business and product requirements, as well as success criteria.
  - o Consider further consolidation of ownership where feasible.
- Supplier consolidation:
  - o Investigate the possibility of reducing the number of suppliers. This will streamline procurement processes and potentially lead to cost savings.
- Elimination of redundant systems:
  - o Actively seek to eliminate any systems that are no longer in use. Work towards exiting these contracts to free up resources for more critical IT needs.
- Strategic IT systems roadmap development:

- o Create a strategic IT systems roadmap that outlines the timeline and process for implementing IT recommendations.
- o Align the roadmap with the broader goals of the DDaT strategy to ensure coherence and synergy across all missions.
- Stakeholder engagement and feedback mechanism:
  - o Establish a regular feedback mechanism involving all relevant stakeholders within CCC to ensure the IT rationalisation process is in line with the practical needs of the organisation.
  - o Use feedback to continuously refine the IT systems roadmap and make informed decisions about IT investments.

Responsible parties (the 'who')

Overall accountability for this mission is the Strategic Digital Lead. Functions and capabilities that will likely be responsible for supporting the delivery of this mission include:

- Digital Service Manager
- Digital Strategy Delivery
- ICT Contract Management
- ICT Finance

Mission 2.4: Rationalise our IT estate

- Enterprise Architecture
- Solution Architecture
- Data Architecture
- Change Management
- Product management
- Business Analysis
- Information Governance

Implementation timeline (the 'when')[22]

Rationalising the Council's IT estate is dependent upon the success of other missions within this strand, particularly regarding requirements setting. A review of existing systems needs to be conducted to establish an up-to-date technology roadmap and the direction of travel. As existing contracts come to an end, it is estimated that the reduction in systems could begin to be realised from 2025.

Cost-benefit analysis[23]

Mission 2.4 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
–	Financial	£77,000	£115,000

- There is potential financial benefit of £115,000 over 5 years
- The financial benefit over 5 years is only likely to be realizable in towards the end of the 5-year strategy
- Benefits calculated at 25% of the cost of on-prem contracts
- 25% multiplier based on research by Analysis Mason for Nokia regarding the benefits of moving to SaaS services.

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[22] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

[23] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Our Cambridge

STRAND 3:
DIGITAL CUSTOMER JOURNEY

STRAND 3: DIGITAL CUSTOMER JOURNEY

Purpose

The Digital Customer Journey strand means reorienting the Council's approach to be more user centric. This extends to ensuring comprehensive accessibility for all users across digital and online services in line with CCCs accessibility guidance as well as the latest national accessibility standard (WCAG)[24]. This transformation aligns the Council's services closely with the needs and preferences of its citizens.

The overarching objective of the Digital Customer Journey Strand is to streamline resident interactions with the Council through a unified user experience across all services. The mission and priority actions set out under this strand are designed to (1) simplify and enhance the way that resident's access and use Council services, making every interaction more intuitive and efficient and (2) ensure universal accessibility.

Defining the target state of the Council

Theory of change

The creation of a unified user experience across all digital platforms is central to this transformation, aiming to simplify and streamline resident access to these services. This unified approach will facilitate a more intuitive and efficient interaction, reducing complexity and saving time for citizens. By prioritising accessible and user-friendly customer journeys, the strand aims to revolutionise the digital interface between the Council and its residents, ensuring that high-usage services and feedback-driven enhancements lead to a more satisfying and effective user experience.

In addition to simplifying access, the strand places a strong emphasis on universal accessibility. This means that digital services will be designed to be navigable and usable by everyone, adhering to the highest standards of Web Content Accessibility Guidelines (WCAG) and Government Digital Service (GDS) best practices. Such inclusivity ensures that all members of the community, regardless of their abilities or tech-savviness, have equal access to Council services. This user-centric service design, underpinned by ongoing resident engagement, ensures that services evolve based on real-time feedback, aligning closely with the needs and expectations of the community. This responsive approach will make Council services more relevant, personalised, and effective, markedly improving the digital experience for all CCC residents.

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[24] Legally we must comply with WCAG 2.1 AA but from October 2024, GDS will start testing against WCAG 2.2 AA. Web Content Accessibility Guidelines (WCAG) 2.2 (w3.org)

STRAND 3: DIGITAL CUSTOMER JOURNEY

Simplifying and enhancing the way resident access and use of Council services

This strategy has been developed to enable the Council to create a unified user experience across its web estate, that the Council's services are universally accessible, and our digital services are comprehensive, simple, well-structured, and easy to navigate and used by everyone, irrespective of their individual capabilities.

Case studies

The 'case studies' (Appendix I) has an example that highlights successful examples of change in local government (including CCC) related to this strand:

- Using service design to improve the user journey of housing repairs across the country (London Borough of Southwark, City of Lincoln, Gravesham Borough Council).

Mission 3.1: Create a unified user experience across all digital services to ensure universal accessibility

Objective and scope (the 'what')

To ensure that all residents can effectively use Council services by creating a unified user experience across digital services; and ensuring that those services are accessible for everyone, aligning with Web Content Accessibility Guidelines (WCAG) and Government Digital Service (GDS) best practices, in addition to CCC's online content principles.

Reasons for change (the 'why')

Upon the successful completion of this mission, CCC will significantly advance in providing equitable and efficient digital services. The mission will lead to a coherent and harmonious user experience across all digital touchpoints, ensuring that services are not only accessible to all residents but also intuitively designed to meet their diverse needs. This alignment with Web Content Accessibility Guidelines (WCAG) and Government Digital Service (GDS) best practices will ensure that digital services are not only compliant but also set a standard for inclusivity.

Moreover, creating a unified user experience across all digital services will promote digital channel shift by promoting automated and streamlined service delivery, reducing burdens on CCC's workforce whilst maintaining and improving quality of service provision for those with the most need.

To clarify, we do not recommend the implementation of single sign-on at CCC. Rather, we recommend that all digital services be moved toward a common user experience. Based on our understanding of the current state of the Council, single sign-on is not a realistic goal at this stage. We also understand from engaging with CCC that this was tried in the past and failed due to the sheer scale of investment this would require.

Overall, this mission is pivotal in realising the Digital Customer Journey Strand's objective of streamlining resident interactions with CCC that is user-centric, intuitive, and efficient, to significantly enhance how residents' access and utilise its services. This approach not only simplifies the interaction process but also guarantees that these digital services are universally accessible. Adhering to high standards of accessibility and user-friendliness ensures that all community members, regardless of their abilities or tech-savviness, can effortlessly navigate and benefit from the Council's services. This mission underpins the strand's commitment to providing a seamless, inclusive digital customer journey, aligning closely with the needs and expectations of the community, and fostering a more satisfying and effective user experience.

Priority actions to get there (the 'how')

This should build on the work done by 6bythree for CCC on the Website & Customer Journey Strategy Paper of 2022. Based on this work, where possible, implement straightforward self-service digital journeys for most services, allowing customer service teams to concentrate on high-priority or complex cases (note dependency on mission 1.2).

Mission 3.1: Create a unified user experience across all digital services to ensure universal accessibility

Comprehensive accessibility audit and inclusive redesign, building on the 2023 work by Zesty

- Alongside use of the Silktide, an online tool that highlights accessibility issues, to conduct an exhaustive audit of digital platforms with citizens via user testing and monitoring tools to identify and remove accessibility barriers.
- Make sure that self-service digital journeys are accessible to users with diverse needs by implementing inclusive design principles.
- Determine and define the prioritisation rationale that will identify what aspects or criteria will be used to assess aspects of user experience.
- According to audit, rework online forms and relevant digital platforms and interfaces to enhance user-friendliness and inclusivity.
  - Ensure online forms and relevant digital platforms interface are in line with latest Web Content Accessibility Guidelines (WCAG).
- Take a portfolio approach to improving usability and accessibility by prioritising which services to work with first based on the results of the audit

Establish a seamless digital service design, integrating various service areas for a smooth user journey

- Establish a consistent design language across all service areas through an update of the CCC style guide if appropriate.
  - This should include consistent language, styling, and branding, e.g., all buttons being the same size, colour, and location so users know where to expect them. Domains should follow the same template, i.e. [service].cambridge.gov.uk, so that it is clear to users that they are on the same trusted site.
- Create detailed user journey maps for prioritised service areas, identifying touchpoints, pain points, and opportunities for improvement. Ensure that this work ties in with the work of the TDA in developing and maintaining a log of user requirements.

Development of unified service design with non-digital alternatives[25]

- Engage in user research to understand the diverse needs and preferences of residents

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[25] This action is dependent upon the Council investing in new capabilities such as service design and user experience (which are not currently within the organisation)

Mission 3.1: Create a unified user experience across all digital services to ensure universal accessibility

- Perform an accessibility assessment for all digital services to ensure they meet inclusive design standards and CCC accessibility guidance and documents.
- Strategise and plan non-digital counterparts for each digital service that consider various non-digital formats such as phone services, in-person assistance, and paper forms.

Resident feedback mechanism and maintenance

- Establish and execute on a continuous cycle of user testing and feedback loops to continually improve digital and non-digital services based on resident input.
- Regularly ensure that CCC's accessibility guidelines align with the latest surveys of users and best practices from across the UK.
- Launch communications campaigns to inform residents about the changes and improvements in digital services
- Ensure resident feedback follows and aligns with the Our Cambridge engagement strategy.

Responsible parties (the 'who')

The accountable person will be the Strategic Digital Lead who will work closely with the Customer Service Operations Manager and Web Manager. There are a high number of different functions that will be responsible to deliver this mission, most functions required will be corporate hub roles:

- Web Management
- Digital Service Management
- Strategy Delivery
- ICT Contract Management
- Service Design and User Research
- User Analytics & Behaviours
- User Acceptance Testing
- User Journey and Outcome Mapping
- Prototyping and Usability Testing
- Product Management
- Change Management and Delivery
- Digital Communication
- Information Governance

Implementation timeline (the 'when')[26]

Creating a unified user experience has a high reliance on the Council making key data sets interoperable (mission 1.1) and how these insights support improving first contact resolution rates, as well as the Council Digital Target Operating Model, and additional

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[26] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

Mission 3.1: Create a unified user experience across all digital services to ensure universal accessibility

capabilities required as part of the Corporate Hub. It is anticipated that this mission could be fully realised in 2028.

Cost-benefit analysis[27]

Mission 3.1 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
–	Non–Financial	–	–

- There is non–financial benefit of improved digital accessibility for 18,715 people
- This benefit is calculated at 15% of the population of Cambridge who are of either working or pension age.
- The 15% multiplier is based on the percentage of the population with accessibility issues shown in the Digital Nation UK 2023 report produced by the Good Things Foundation

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[27] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

STRAND 4:

DIGITAL AND DATA SKILLS AND DEVELOPMENT

STRAND 4: DIGITAL AND DATA SKILLS DEVELOPMENT

Purpose

The overarching objective of the digital and data skills development strand it to provide a training programme and further develop the Council workforce's digital and data skills, as part of becoming a data-driven organisation.

Defining the target state of the Council

Theory of change

User research has shown that CCC currently has a limited ability to use data safely and efficiently, as well as onboard new digital team members with more advanced technical capabilities. To overcome these challenges, this strategy will support current staff to adopt new methods and tools and, should there be a need and sound business case, enable the Council to meaningfully employ data scientists and data analysts as part of their staff in the future. This includes integrating new ways of working to foster a data-driven organisation, such as via the expansion of data-related roles like data analysts, who focus beyond traditional service boundaries.

Case studies

The 'case studies' (Appendix I) has an example that highlights successful examples of change in local government (including CCC) related to this strand:

- Courses on Digital and Agile for Local Government (DLUHC)

Mission 4.1: Improve DDaT skills across the organisation

Objective and scope (the 'what')

To empower all Council staff with DDaT skills through a targeted training programme, necessary to operate a modern organisation, such as the ability to confidently use digital tools, adopt agile methodologies, and make informed decisions based on data. This will form part of the People and Culture Strategy.

Reasons for change (the 'why')

Our teams of staff and managers need to have the skills, capacity, capability, and culture to consistently recognise the power of digital thinking, customer-centric process design and agile development, to achieve the vision, set out in this Strategy. We will need to recruit people with these skills, and train/develop the people already here who want to move forward on this journey, evolving our management culture and processes to enable us to adapt to new, flexible, and dynamic ways of working.

Upskilling staff on DDaT concepts will spur creativity and innovation, leading to the generation of better ideas and solutions for digital services. A deeper understanding of data ethics and governance across the organisation will foster more ethical decision-making and a culture that prioritises the responsible use of data. Moreover, with a workforce well-versed in the practical application of digital tools, adherence to policies surrounding the use of platforms like SharePoint will improve, ensuring that data is managed and shared effectively and securely.

Fostering digital and data skills among CCC staff is key to realising the vision of a data-driven organisation. By empowering employees with the necessary skills and tools to effectively use data, the Council ensures a workforce capable of making the most of its digital transformation. This aligns with enhancing the Council's internal data handling capabilities but also preparing the team for future technological advancements and data-driven decision-making processes.

Priority actions to get there (the 'how')

Discovery: mapping skills and identifying practical training needs

- What do we need to know: build on user research conducted for DDaT Strategy that established baseline staff skills and gain an even deeper understanding of the skills that people require. Establish what skills are most important for employees to know, both as a baseline and on a more role-specific level.
- What do we already know: conduct a gap analysis based on what people need to know using currently available information and where necessary new surveys. Conduct skills surveys across the Council, focusing on practical data handling skills, such as extracting relevant information for application in specific services, i.e., street cleansing. Skills surveys should seek to establish both cross-cutting and role-

or team-specific skills strengths and weaknesses, aligned to the expectations set in the People and Culture Strategy, DDaT Strategy, and DTOM.

- Utilise this information to inform how digital and data skills could be embedded into new job descriptions moving forward, and where not met by candidates, mandatory and early training is identified for new recruits.

Design: comprehensive training programme development

- Assess the existing CCC training offer compared to skills requirements survey to establish gaps in the current offer.
- Create a DDaT skills training programme that includes topics such as basic IT skills, MS apps (currently under utilised), agile delivery, data analysis, accessibility training (to meet WCAG standard[28]) PowerBI, digital fundamentals, user journey mapping, data ethics and governance.
- Ensure the training programme is tailored to different roles, providing specialised knowledge where needed and aligning with new and changing job descriptions.
- It is recommended to structure the development of DDaT skills into the following tiers:
  - o Tier 1: Fundamental DDaT training, covering basic digital literacy and essential tools.
  - o Tier 2: Create role-specific modules, incorporating external expertise and adapting practices to suit various Council roles.
  - o Tier 3: Focus on leadership training to facilitate digital enablement and cultural change.
- Evaluate and engage with potential new providers of online and in-person learning programmes.
- Calculate likely time commitment required by staff at the different tier levels to ensure it is deliverable.
- Consider the best mode for delivering training, e.g., self-serve through CCC e-learning platform, external e-training offer (e.g., Open University), learning promoted and badged via the Region of Learning e-platform such as locally provided skills bootcamps[29], in-person, mentoring, train the trainer, and peer to peer learning etc.
- Implement skill recognition and digital badging (working with the Region of Learning team) to acknowledge skills development and promote learning development and/or internal career pathways, and support staff to access, progress and utilise these.

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[28] The Web Content Accessibility Guidelines (WCAG) are technical standards on web accessibility to make web content more accessible for people with disabilities, with four principles: perceivable, operable, understandable, and robust.

[29] For example, CPCA held skills bootcamps to upskill staff offering L3 Cyber Security, Level 4 Digital Accessibility Specialist, Level 5 Full Stack Coding etc, can be incorporated into digitally badged pathways by the Region of Learning.

Mission 4.1 Improve DDaT skills across the organisation

- At this stage, we recommend the following modes for each Tier:
  - Tier 1: CCC learning and development in person/e-learning courses and workshops
  - Tier 2: Combination of tier 1 courses with tailored in-person sessions
  - Tier 3: In-depth, in-person sessions
- Determine who receives what training programmes. At this stage, we recommend the following division:
  - Tier 1: Any employee of CCC (where need is identified)
  - Tier 2: Team leaders
  - Tier 3: Leadership Team and members of Corporate Management Team
- Exit strategy for how the learnings and skills levels will be maintained after the programme is finished

Delivery
- Delivery of training programmes designed in previous step.
- Development and iteration to establish a continuous learning culture:
  - Integrate digital skills development into HR processes, ensuring that training aligns with staff career development and job descriptions.
  - Utilise the skills taxonomy used by Region of Learning to accurately capture skills acquisition over the entire organisation and use this data to evidence skills

growth/progress and the effects of the training programme on the organisation.
  - Incentivisation of learning to retain skills and continue to learn, through techniques such as follow-up sessions; recognition and reward schemes; digital badging; career development opportunities and pathways; flexible learning options; peer learning and mentorship; practical application and embedding of skills; and linking learning to the Council's goals.
  - Monitoring and evaluation – regular skills surveys and adaptation of learning programmes. This will be aligned to the evidence-based internal performance management as set out in the CTOM.
  - Regularly update training content accordingly to stay aligned with evolving digital trends and the specific needs of the Council's services.
- Follow up support:
  - Show and tell sessions where staff present how they have embedded learning, for example PowerBi dashboard creation
  - Establish support group/forum for trainees to ask questions

Mission 4.1: Improve DDaT skills across the organisation

o Re-launch Digital Champions network who can support colleagues get the most out of our tools, and share new ways of working or best practice[30]

Implementation timeline (the 'when')[31]

Pending the approval of the People and Culture Strategy, we anticipate the discovery and design elements of this mission commencing during 2024/25, and delivery rollout beginning in 2025. The training will be annually assessed, dependent upon staff retention and new roles or capabilities required by the Council.

Responsible parties (the 'who')

This strategy recommends **a dedicated Officer with responsibility for design and coordinate delivery is recruited as part of the Learning and Development team**, with advice from the Digital Service to ensure it is meeting the organisation's needs. In addition to this the following functions are likely to need to be used:

- Strategy delivery
- ICT contract management
- Service Design

- User research and design
- User analytics and behaviours
- Technical analysis
- ICT consultancy
- Service delivery management

Cost-benefit analysis[32]

Mission 4.1 costs summary

DDaT related new spend	Benefit Type	Annual estimated benefit £	Total estimated benefits (5 years)
£100,000	Financial	£75,000	£225,000

- **£100,000** represents spending aligned to training delivery (e.g., is directly attributable to the DDaT strategy). This is an estimate only, and some costs may be met through the People and Culture Strategy.
- It is anticipated that resource for the dedicated Officer will be funded through Learning and Development, and this is dependency of the People and Culture Strategy.
- Indicative financial benefits are £225,000 over 5 years

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[30] This could include championing how we improve accessibility of information

[31] A detailed action plan and implementation roadmap for each mission will be made available separately, developed as part of this project

[32] Costs and benefits are assumptions based. All missions should conduct a thorough discovery phase to re-visit costs and benefits. See the appendix of supporting materials for this mission for a further breakdown of how this benefit was calculated, and cost model.

Mission 4.1: Improve DDaT skills across the organisation

- Benefits are based on a 6% uplift in productivity due to reskilling a proportion of staff who are likely to benefit[33] from tier one training according to 2023 Our Cambridge communication and digital survey data.
- The 6% multiplier Based on McKinsey analysis of economic impact of reskilling in UK organisations of on average 6-12%.

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[33] Based on the percentage of staff that said they had very low confidence in accessing and using data in their role and estimated gross salary costs.