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INFORMATION MANAGEMENT EXPERTS

Enterprise Information Management Maturity Assessment & Strategic Roadmap
COVENTRY CITY COUNCIL

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1. Executive Summary

Coventry City Council initiated the development of this Enterprise Information Management (EIM) Assessment and Strategic Roadmap to support the identification of the key workstreams and activities that are required to implement their vision and desired future state for information management and sharing, both internally and externally with partners and the community. Council recognises that its EIM environment needs to be reviewed and improved, and that this will be a key enabler for improved service delivery.

This report is a result of Council stakeholders and In-Form Consult (IFC) working together to explore EIM challenges and opportunities. It describes the current practices and tools used and assesses the maturity of the Council EIM environment against an industry standard model. The results of the maturity assessment and the current state analysis were used to inform the development of a strategic roadmap for EIM. The report outlines a path towards a more effective EIM environment where compliance and productivity are increased, and information related risks and costs are reduced. It also provides a baseline on which the success of future EIM initiatives can be measured.

The recommendations and roadmap in this report will be analysed by Council and IFC to develop action and resource plans which define the responsibility and exact timeframes for the activities.

1.1 Key Findings

Council is well placed to build on a solid foundation of EIM practices and ongoing initiatives to harvest the benefits of some key activities in 2016 and beyond. A number of key themes are prominent in the report findings and these are outlined below along with critical recommendations provided to deliver the desired future state.

1.1.1 Information Accessibility, Quality and Ownership

Current State

Information ownership, accountability and quality were cited as key issues, especially for critical data entities such as customer and property, meaning there is a lack of consistency across systems and processes and multiple sources exist for the same data. Accurate and current information is often difficult to locate, hampering business operations, predictive analysis and innovation. The theme of improving information consistency, accountability and reducing silo-ed processes was the key theme across the stakeholder engagement.

Desired State

Council understands what information and data it holds and where, ownership and accountability for these strategic assets is implemented, improving information quality, outcomes and reducing duplication and data protection risks.

Key IFC Recommendations

Perform an Information Asset Audit and develop an Information Asset Register.

The undertaking of an information audit and the development of an information asset register will provide clarity around what information assets the Council holds. It will define who is accountable for quality and usage, significantly support improved information findability and enhance compliance levels with key legislation such as the Data Protection Act and the Freedom of Information Act. The register should be aligned to the Council retention and disposal schedule to facilitate effective retention and disposal. This activity will provide the foundation for achieving the goal of a single version of the truth and the integration of service activities.

Develop Information Asset Owners

Information and data custodians will need to be formally identified and take responsibility for managing, standardising and cleansing datasets – this will enhance the flow of information and data

between systems and services, improve quality and reduce duplication. A role description should be defined and activities included in performance reviews.

1.1.2   Value of Information Management

Current State

The Council information culture varies across services and business areas however it was reported that often insufficient time is devoted to information management tasks such as appropriate storage, naming, versioning and classification which is affecting information accessibility, quality, and collaboration. Initiatives have been launched regarding data protection obligations however there is a lack of awareness of the value of information quality and openness and the significant benefits this can provide. This has resulted in silo-ed EIM processes, multiple copies of the same information and difficulties sharing information between services.

Desired State

Employees understand the value of effective information management and this is embedded into day to day business activities. Information is recognised as a strategic asset that supports intelligent decisions, innovation and productivity gains. Information openness, sharing and collaboration is balanced with security and privacy that meets legislative requirements.

Key IFC Recommendations

Develop IM Education Program

Deployment of an IM Education Program, via eLearning or classroom delivery, through induction processes and the Council learning and development platform, will inform employees of best practice relating to information management and how effective information processes benefits Council. The Program should include EIM principles, examples of where EIM can and has provided benefit and reduced cost, guidelines for when to use Council EIM tools (SharePoint, OneDrive, Information@Work), processes such as for Freedom of Information, and key definitions.

Education of Council staff through this Program will provide the consistency that improves information quality, reduces silo-ed processes, and reduces costs related to duplication and unnecessary archiving. Information will be more accessible, promoting collaboration.

Develop IM Standard

Develop and implement an Information Management Standard – to include, but not limited to:

- Definition of key Council information management principles
- Key definitions e.g. of a record and a child record
- Guidance on when to use Line of Business (LOB) systems, Information@Work, shared drives and SharePoint
- Organisation-wide document naming conventions
- Council procedures e.g. when to retain physical copies, IL2 versus IL3 requirements
- Alignment to the Council EIM Policy framework

The key elements of the standard should be communicated via the IM Education Program, and performance against this standard audited by designated staff members (e.g. IM Champion, Change Agent). This standard will support effective information and data governance and promote consistency of information process and storage.

1.1.3   Additional Key Themes and Recommendations

Further critical and valuable recommendations have been made in this report, which are described in section 6:

EIM Dimension	Recommendations
Governance	• Review IM policy framework

	• Prepare for EU General Data Protection Regulation changes • Develop Records Manager
Master Data Management	• Develop Master Data Management plan • Perform analysis of in house MDM versus purchased MDM tool
Knowledge Management and Communications	• Review and improve EIM communications via intranet • Review handover processes for staff leaving Council • Develop EIM Communications plan • Review KM tools (Yammer, SharePoint newsfeeds)
Strategy	• Finalise EIM Strategy • Baselining and benefits realisation
Information Sharing & Open Data	• Review partner template agreements, clarify processes, optimise • Develop Open Data Strategy

1.2   Maturity Assessment

The maturity assessment highlighted that the Council has a low-medium maturity across all EIM dimensions, with the current maturity levels being either Formative (Level 2) or Developing (Level 3), using a scale of one to five where one is the lowest maturity and five the highest.

This is reflective of the growing understanding of the importance of information and data management at Council, coupled with key challenges of data ownership, silo-ed processes and difficulties accessing a single source of the truth as outlined in this report. This maturity level is cause for optimism as it is not unlike similar local government organisations and no dimension of EIM scored the lowest value of one, which many organisations that IFC has support have scored.

A business impact value has been assigned to each dimension which illustrates the impact the maturity level has on business operations. A traffic light system is used where:

- Green indicates good, little to no impact
- Amber indicates business operations are being impacted, action is required
- Red indicates critical issues, business operations are severely impacted

Maturity Dimension	Current Maturity Level	Future (target) Maturity Level	Business Impact
Governance	3	4	
Strategy	2	4	
Value	2	4	
Asset Management	3	4	
Access and Security	3	4	
People	2	4	
Processes	2	4	
Quality	2	4	
Architecture	2	4	
Platforms	3	4	

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1.3   Quick Wins

Council has an opportunity to gain benefits from some quick win activities in the next three months. The following quick wins have been extracted from the roadmap.

Update Document Management processes to include naming conventions and usage audit

Current processes used in the SharePoint deployment do not include guidance on organisational, service or team naming conventions. Consistency of record naming will significantly enhance information findability, particularly as the most common search that will be run in SharePoint is using a document or record name. It is recommended that the Kickstart Project Officers incorporate the definition of naming conventions as part of the engagement process with business areas.

SharePoint usage audits by the Project Officers are recommended after a business area has gone live to ensure documents and records are being stored appropriately. These should be performed once a week for one to four weeks, depending on the uptake and capability of the business area staff. This will enhance user adoption as it ensures SharePoint is used to its full potential with documents and records stored in the correct location, with appropriate metadata applied.

Deliver SharePoint Learning workshop to project team and team librarians

It is recommended that the transformation project team and key stakeholders/team librarians from the early adopters attend an IM solution best practice in SharePoint workshop. A two day workshop in the best practice approach to developing and maintaining SharePoint and Office 365 solutions will support the optimised use of team sites, in particular the use of metadata, which will enhance user experience and user adoption.

Review paper child record processes

Children's Services open a paper file for every child case, and even if the file is immediately closed, the file is archived to Iron Mountain. It is recommended that this process is reviewed as it is inefficient and is creating unnecessary storage costs.

Review GIS data access controls

An information access and security risk exists for GIS data on the network drive as this is open in read/write format to all MapInfo users. This is presenting a risk of information being modified inappropriately or lost and Council being in breach of the Public Sector Mapping Agreement which allows Council to receive free ordnance survey data. It is recommended that a needs assessment is performed for read/write access to this data and access removed where required.

Investigate cost saving of scanning opportunities

Some Council business areas have significant volumes of paper assets that are required to be kept for long retention periods (Occupational Health and Safety have 45 year retention requirement for some of their medical records) and other areas e.g. Employment Services are employing temporary resources to support the cleansing and weeding of old personnel files before scanning onto Information@Work. It is recommended that a review is performed of the potential efficiency gains and cost savings of bulk scanning these records.

Review ERDF paper retention requirements

There is a perception at Council that all records of projects delivered with European Regional Development Fund (ERDF) grants, must be retained for 25 years in paper form, and this paper retention process has been followed for some time. Review of this requirement may provide immediate opportunities for storage cost savings and process efficiency gains.

CONTENTS

2. Introduction

2.1 Background

Coventry City Council (Council) is undertaking a significant programme of work aimed at improving the management and sharing of information across employees, partners and the community. The Kickstart programme is aligned to an estates consolidation and will fundamentally change the way Council operates internally and engages with partners and the citizens of Coventry. The move to different ways of working in new Council premises requires a significant reduction in the processing and storage of paper files, and a transition to more flexible and "digital by default" information environment.

Key to this transition is the development of an overarching vision and strategy for Information Management (IM). The Council has developed a draft high level strategy and is currently defining the workstreams and activities necessary to embed the principles of the strategy into business operations. Due to the wide ranging nature of the workstreams and activities involved – from information governance to data management to process modernisation and change management – Council is undertaking an EIM maturity assessment that will assess the current state across the dimensions of Enterprise Information Management and analyse this state against the vision to inform a strategic roadmap. This will provide a baseline state against which the success of future IM initiatives can be measured.

In the current climate of reduced funds available to public sector organisations, there is an increased need for prioritisation of projects and identification of efficiency gains and cost savings. In-Form Consult (IFC), a specialist information management consultancy, has been engaged to support Council develop the EIM roadmap and scope has been allocated within the engagement post the completion of this report to define responsibilities for actions and formulation of the resource plan for roadmap activities.

2.2 Document Scope

The scope of this document is to describe the current state for Enterprise Information Management at Council, the key risks associated with the EIM environment, the desired future state, and to provide recommendations that form a strategic roadmap. A maturity assessment will be performed against an industry standard IM Maturity Model.

2.3 Methodology and Approach

IFC engaged with nominated Council employees that provided representation from all Directorates through a variety of methods. The methods of engagement were:

- Group workshops
- Interviews
- Meetings
- Questionnaire

The discovery sessions were held on site between the 14th January and the 4th February 2016. A list of the stakeholders and the method of engagement used can be found in Appendix 1.

Research was conducted by IFC both pre and post site visits with the main focus being the documentation provided by Joe Sansom, Transformation Programme Delivery Manager, Helen Lynch, Legal Services Manager and Paul Ward, Head of ICT, Strategy and Systems . These reference documents are listed in Appendix 3.

2.4 What is Enterprise Information Management?

Information includes all forms of data, electronic and physical information that is captured, produced, stored and distributed. It is anything from application forms, reports, e-mails, to videos and commentary on social media sites. Information management, therefore, is how we organise,

collect, store and use the wide range of information Council has in order to deliver services and achieve its priorities.

A record, which is one of the key forms of information is defined as:

"Information created, received and maintained as evidence and as an asset by an organisation or person, in pursuance of legal obligations or in the transaction of business". Source - ISO 30300:2011, BS10008:2014 and ISO/DIS 15489.

Information flows through an organisation and is used by all employees in every business decision, and so an organisational structure must be capable of managing this information throughout the information lifecycle regardless of source or format. The Association for Information and Image Management (AIIM) defines the focus of IM as "the ability of organisations to capture, manage, preserve, store and deliver the right information to the right people at the right time".

The diagram below depicts the key elements of Enterprise Information Management, which highlights many of the dimensions that will be assessed in this report.
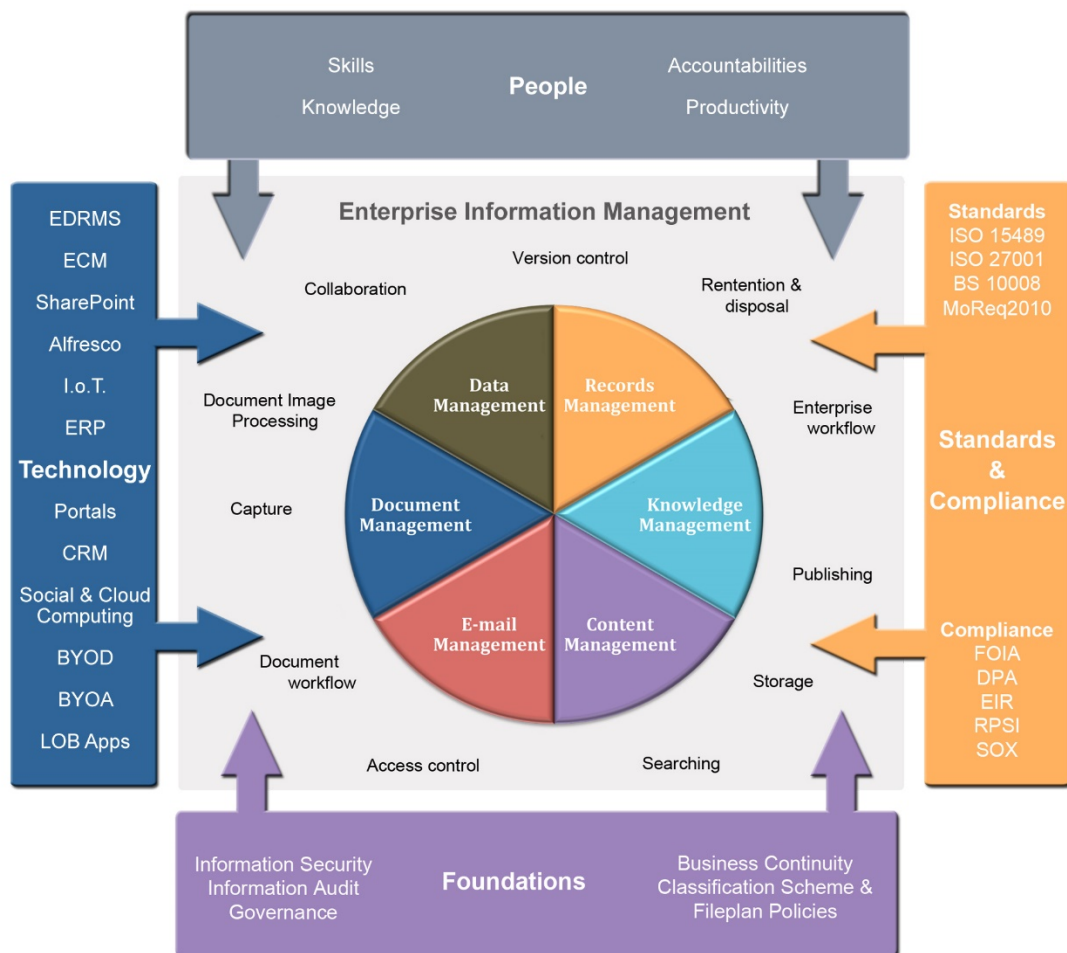
2.4.1 Knowledge Management

This report has also assessed the knowledge management landscape at Council. Knowledge Management (KM) is defined as "a business process that formalises the use of an organisation's intellectual assets as distinct from its information assets" (Gartner, 2012). The goals of KM are distinct from EIM in that KM aims to:

- Increase the connections between people (who have knowledge) that would likely not occur without the help of a KM system (Terra and Angeloni, 2007)
- Provide context for and validate available information

Enterprise Information Management is generally limited in scope to information assets which have already been captured (or are explicit e.g. documented). Knowledge Management includes the explicit and tacit (uncaptured) knowledge of people. Tacit knowledge refers to intuitive and experience-based knowledge which is understood without openly being expressed; it includes skills, capabilities, expertise, and is only found in individuals. Explicit knowledge on the other hand refers to formalised and codified knowledge which is easy to identify, store and retrieve, and is found in documents, databases, notes and manuals.

2.5 Benefits of Effective Information Management

Information is woven through the fabric of every modern organisation, consequently employing effective methods to control this rich source of knowledge is fundamental to achieving greater productivity and competitiveness. Effective information, knowledge and data management provides four key benefits to organisations:

- Reducing risk
- Reducing cost
- Achieving compliance
- Productivity gains

Operational and productivity gains can be significant as increased confidence in company information empowers employees to make prompt, informed and intelligent decisions. In an environment of accessible, accurate information where employees are able to share and collaborate easily, time wasted looking for information is much reduced, significantly increasing organisational productivity.

Some of the key benefits of effective information management include:

- Increased efficiency of service delivery
- Delivery of savings associated with reduced manual processes and paper-based storage
- Improved disaster resistance
- Improved sharing and collaboration unlocks the corporate knowledge bases
- Reduced legal liability exposure
- Increased employee capability through integration and automation of processes
- Enhanced customer experience
- Increased ability to innovate

> *"We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely."*
>
> E.O Wilson (1999): *Consilience - The Unity of Knowledge*

3. Current State Findings

3.1 Strategy, Governance and Compliance

3.1.1 Strategy

Council has recently formed an Information Management Strategy Group whose purpose is to support and drive forward the information programme and its various workstreams, and to provide the Strategic Management Board with the assurance that effective information governance is in place at Council. The group is made of up key stakeholders across Council directorates and ICT, the Caldecott Guardian, the Senior Information Risk Owner, data controllers and representatives from the Customer Journey program.

Council has developed a draft framework for an information strategy programme, and a cabinet report is being finalised which seeks endorsement of IM principles and the IM programme of work. The ICT Strategy sets out principles and vision for Information and Data Assets, and the Document Management workstream (SharePoint/Information@Work deployment) also defines document management principles. No formal EIM strategy exists.

3.1.2 Governance

An information policy framework exists including, but not limited to, a Data Protection Policy, an Information Security Management Policy, Information Sharing Protocol and a Records Management Policy; these are available via the intranet. Stakeholders reported that these are not easy to find, that there are overlaps between policies and that the Information Governance intranet pages do not link well to current policies. Supporting guidance exists for policies and some of these need review in line with the Information Commissioners Office (ICO) code of practice. An IG toolkit is being developed that includes a data protection guideline for line managers.

An Information Governance corporate service exists covering the development, implementation, maintenance and review of information governance policies and processes. This team is currently in the process of recruiting a key governance role, a Senior Information Governance Officer, who is expected to commence employment in April 2016. Council does not have a Records Manager. The Information Governance team provides guidance to Council employees relating to their compliance obligations for key information legislation, such the Data Protection Act 1998, the Freedom of Information Act 2000 and Environmental Information Regulations 2004. They also provide advice relating to information sharing, re-use of public sector information and corporate records management. The Information Governance team does not cover data governance relating to data management (see section 3.5).

3.1.3 Compliance

Council are PSN (Public Services Network) compliant which means that its infrastructure has been reviewed by the Cabinet Office and deemed sufficiently robust and secure to connect the PSN.

Council has recently undergone an ICO information governance audit, which focused on Children's, Social, Revenues and Benefits service areas. This was a result of a number of data breaches, which Council reported to the ICO and an audit was agreed. The ICO report was delivered in October 2015 and is not yet finalised as discussion is still taking place regarding Council's acceptance of the recommendations.

Stakeholders demonstrated some good awareness and compliance with the Data Protection Act (such as in the Revenues and Benefits area) however there are regular breaches, mostly related to accidental breaches or paper processes. Some business areas, such as Procurement, raised compliance challenges with the DPA and this was thought to be as it was not given sufficient priority and time to achieve appropriate compliance levels.

Compliance with the Freedom of Information Act is supported by a FOI SharePoint portal which stakeholders reported they either didn't know about or could not use efficiently due to a lack of training.

3.2 People, Processes, Knowledge and Change Management

3.2.1 People

Council employees work in silos and this is partly a legacy of the services having "grown up" separately. There are instances of good information management processes and culture, in areas such as Employment Services and Revenues and Benefits and when dealing with information relating to a child social case, however there are also many less structured and efficient information areas where employees do not see IM as a priority. This is compounded by the ongoing workforce restructures which means staff have less time to devote to what is seen as non-priority tasks such as managing information.

There is a growing awareness of EIM issues, particularly relating to the disparate systems and repositories for information and data, and the amount of time spent re-keying data and duplication. Some stakeholders reported a lack of trust due to low maturity in other service areas information management processes, which meant that copies of contracts for examples are being held locally.

3.2.2 Processes

Stakeholders reported that the current information processes at Council are resulting in duplication, version control issues and a difficulty locating a single source of truth for information. Different services and teams have different information structures; Special Education Needs areas for example are saving and storing duplicate information relating to 0-25 year olds, which could be useful (or even vital) to other services. Construction reported versioning issues relating to building documentation and cabinet report versioning was raised as a challenge due to not knowing who owns the report.

The move to digital by default access channels and processes is progressing and some service areas have business processes that have been automated by workflows, e.g. via Information@Work or Protocol for child cases, however there are still inefficient paper processes in operation. Children's Services for example open a paper file for every child case, and even if the file is immediately closed, the file is archived to Iron Mountain.

No consistent naming conventions are being used, and stakeholders reported there are no corporate document templates available. A lot of time is spent moving documents to the correct places and re-keying of data due to lack of integration between systems and standardisation of information and data processes.

3.2.3 Change Management & Training

A Data Protection Act (DPA) eLearning module is available via the Council Learning Management System which articulates the key elements of the DPA and employee obligations around it. This is a part of employee inductions. Data Protection Data briefings and Information Governance training have also been rolled out. There is no training or learning around other information topics. There was a perception among some stakeholders that Council messages have focussed too much on the protection and security of information and what not to do, and this has not been balanced by outlining the benefits of openness and increased sharing and collaboration.

Communication campaigns have been run to increase organisational awareness of data responsibilities, such as the Don't Gamble With Data campaign, and DPA communications, however no overarching communication plan exists for EIM initiatives.

Change Agents have been deployed throughout the business to support the Kickstart Program and the move to unified communications and user adoption of new technology such as SharePoint. There is no organisational change manager or team who manages the change agents, this function is spread across roles in the directorates.

Team Librarians, who may have been change agents, are identified in the SharePoint team site implementations who are responsible for approving new groups or metadata tags and provide guidance and support to colleagues. This role is primarily to be used during the transition but will

also be used on an ongoing basis; it has yet to be decided whether this role will become the IM Champion.

3.2.4 Knowledge Management

Knowledge sharing is a challenge for Council with no consistently used method for sharing best practice, lessons learnt or other valuable experiences that would enhance delivery of service. Some co-location techniques have been used (e.g. the Multi Agency Safeguarding Hub - where all statutory and non-statutory safeguarding partners are embedded together in an integrated workplace) and the KM tool Yammer has been deployed however stakeholders reported the deployment was not successful due to lack of guidance on how and when to use it.

With the Council in such a transformation stage and employees being offered voluntary redundancy, significant loss of corporate knowledge is taking place every time someone leaves Council. Handover activities are managed by line managers however it was reported that there is inconsistency in how this corporate memory, which employees know but have not built into processes, shared with others or documented, is being retained.

3.3 Information Access, Security and Lifecycle Management

3.3.1 Information Access

Stakeholders reported that searching for information can be extremely challenging, especially on the network drive folders, unless you know where to look or know someone who can direct you to the latest version of a document. This is hampering some stakeholder's ability to perform their role with the volume of data repositories and systems stated as a key challenge. Construction reported difficulties relating to versioning and cabinet report version control issues were

The shared drives use a classification based on team structures which don't exist anymore and there is often no clear owner for a folder. This lack of identified data owners means that in scenarios where the helpdesk receive a request for access to an internal audit network folder for example, it is difficult to validate and action this request. Data imports have started from Resource Link (HR system) to Active Directory that populate the line manager information to rectify this.

Systems where data is being searched, such as in Academy (Revenue and Benefits data), Anite (Information@Work) and Protocol, where identifiers including a property or child reference number can be used, were reported to be easily searched. Due to the volume of systems in the Council landscape however this data is held in multiple systems, in multiple formats, many of which are not referenced back to a master source, which for property or street information should be the LLPG (Local Land Property Gazetteer).

Information access concerns were raised over GIS data on the network drive which is open in read/write form to any internal user of MapInfo. This access should be view only except where required. Council are required to maintain and secure the Local Land and Property Gazetteer data as part of the Public Sector Mapping Agreement (or Data Corporation Agreement?) in order to receive free ordnance survey data. Council are assessed against this and if found to be in breach of the agreement they may be removed from the PSMA which means ordnance survey data would have to be paid for.

Access concerns were also raised relating to accounts being left open when an employee goes on long term leave or maternity leave, mainly because the business updates the helpdesk less than 10% of the time if an employee goes on this type of leave. The use of USBs was raised as a risk relating to access and re-use of information, such as GIS data which is third party data and Council does not own. USB policy controls exist relating to Removable Media, however no technical controls are in place.

3.3.2 Information Security & Privacy

Council has an Information Security Management System (ISMS) Framework which is a policy framework relating to information governance and security management, which aligns to best practice from the ISO 27001 standard. Information security is essentially focussed on being safe from danger or threat (as opposed to privacy which is concerned with control over personal information) and Council have a number of key elements of information security deployed including boundary firewalls, internet gateways and desktop security measures including malware protection. An annual penetration test is conducted by an external company to ensure adequate protections are in place.

Information is secured via Active Directory groups on the network drive and restricted sign-ons for access to data in line of business systems. Few network drive security breaches are raised however the structure of the shared folders means that sometimes access has to be given to entire service area folders when this access is not needed. Challenges are experienced also relating to a lack of identified data owners for network drive folders e.g. the helpdesk receives a request asking for access to an internal audit network folder and it is often not clear who owns the data and should be consulted about access to it. Data imports are ongoing from Resource Link that are populating line manager information in Active Directory which will assist identifying requestor's line managers in this scenario.

Council has undertaken a privacy impact assessment for the move to Office 365 and this covers their use of cloud services via Microsoft Azure. A privacy impact assessment is being undertaken with Adult Education regarding their transition to the use of cloud repositories.

Privacy breaches are fairly frequent with IT Security regularly reporting emails containing personal information being sent to personal accounts (e.g. Gmail) and there are a number of accidental breaches relating to either human error or paper records. Some areas are more vigilant with regard to disclosure of personal data such as Public Health who regularly anonymise patient identifiable data and push back on the provision of data from which individuals may be identified without their consent.

A Council privacy statement review is ongoing around consent for customer information being used and this is aimed at targeting some of the data sharing challenges that exist (discussed in section 3.6).

3.3.3 Information Lifecycle Management

The information lifecycle relates to the management of an information asset from creation through to when it can be deleted or disposed. Council has an enterprise retention and disposal schedule however much of the information and data held at Council does not go through a formal retention and disposal process; the information is retained permanently. Finance stated they retain most of their information and network drive information in the main does not have retention and disposal processes applied.

SharePoint is introducing expiry dates for team documents which has been set at 3 years from the date last modified. At this point the document will be flagged for deletion and a document library column is being used to indicate when a document will expire. Systems such as Information @ Work have good retention structures where periods are set against document types and Protocol has retention periods per case. Some business areas have robust disposal processes e.g. in Sensory and Physical Support Service in the People Directorate, where paper files are regularly reviewed, moved when a child leaves school then shredded after five years.

Council has no information asset register which defines what information assets it holds and this was stated by stakeholders as a priority task moving forward. Information is not recognised as an asset, which is contributing to information being stored permanently rather than deleted or destroyed at the appropriate time. It was stated that Council will incur excessive storage costs if this is replicated in the cloud where costs are higher. It was also thought a lot of archive boxes are being held at the

Iron Mountain archive unnecessarily and that insufficient weeding is taking place before a file is sent to physical archive.

3.4 Technology and Repositories

3.4.1 Technology

The Council technology landscape is evolving to meet the changing demands of the workforce and physical office environments – employees are working from home more and customers are demanding online access to services. The move to cloud technologies is a key theme in the Council's ICT Strategy and where practical, cloud solutions are being implemented, such as the move to Microsoft Azure, O365 and SharePoint. SharePoint team sites are being progressively implemented where documents will be stored electronically by default, maximising opportunities for collaboration and minimising paper based storage and duplication. Local drives are being replaced by One Drive.

Council is mid-way through a systems consolidation which incorporates the transition to Agresso for critical systems such as HR, Payroll and Finance. The system landscape consists of 600 line of business systems, 150 core systems and 20 critical systems. Challenges have been experienced identifying master sources for the multiple data hierarchies for this transition and also locating appropriate vendor or solution partner contracts which sometimes don't exist. Integration between systems is a challenge, such as with Protocol which stores child records and Care Director which stores the records when the child becomes an Adult, however there is no integration between the two systems.

Information@Work has been used since 2004; its compliance with IL3 mean it is a suitable repository for sensitive information such as for Social Care documents. It is used primarily for records relating to any form of case management and workflow functionality and the Document Management business analysts are currently working with the areas such as Children's Services on their transition to Information@Work.

The intranet is used to publish Council plans, policies and procedures and stakeholders reported that it is very hard to use and to locate information; the intranet platform is transitioning to SharePoint.

3.4.2 Repositories

Currently a large proportion of information is stored on Council shared drives (I and P drive); these have been de-duplicated however there is still over 70TB of electronic information and data on these drives. Some of the key repositories are:

Repository	Information Types
Care Director (MS Dynamics)	Adult records
Protocol	Children's records
Information @ Work	Revenue and Benefits, Council Tax, HR information
Academy	Revenues and Benefits data
Capita	Education, School Admissions, pupil records
Shared Network drives	Corporate records across Directorates
Personal drives	Personal and corporate information
Agresso	Capital, HR, Finance
Intend	Tender packs
Talent Link	Recruitment data

Resource Link	Employment and Payroll data
SharePoint	Team documents
Intranet	Policies and Procedures
Outlook	Functional, project mailboxes

Many of these systems are localised and integration is limited, and duplicate data is held in multiple locations. The Traffic and Transport business area reported they have major challenges due to volumes of systems they have to work with to provide their services.

Outlook is used as a repository with functional and project mailboxes in use and it is heavily used to share information via attachments which is contributing to the duplication issues.

3.5   Data Management and Business Intelligence

There is an increasing focus on data across Council and how it can be used to improve services and to make informed policy decisions. Initiatives have commenced to improve data management and the sharing of data between corporate systems, including the development of a Data Warehouse as part of the Information Assets and Data ICT Programme. Corporate Management information is being developed via the data warehouse which means that the published data has been validated and is accurate. Microsoft BizTalk, an enterprise middleware tool, is being used as an integration tool between key Council systems e.g. payment info for Agresso, to translate Fizcodes (from legacy systems) to new codes. A Customer Journey Program is ongoing which is focussing on channel shift and new data techniques to help inform new solutions, and progressing towards a single view of customers.

Data ownership, accountability, quality and duplication were cited as key issues, especially for critical data entities such as customer and property, which means there is a lack of consistency across tier one systems and a difficulty locating a single source of truth. Data processes are silo-ed across services and systems which means re-keying of data is common which increases human intervention and therefore the chance of error.

There is frustration around the amount of data cleansing and manipulation required to get accurate data and there is a lot of time is spent correcting data quality. Currently Council has no register of key datasets and who owns them. These challenges mean it is very difficult for Council to proactively engage with customers based on their feedback or behaviours. No centralised reporting function exists at Council, and stakeholders reported it is often not clear how to locate reports or raw data.

3.5.1   GIS Data

The Council uses two main types of GIS data – base ordnance survey data which is often purchased from third parties, and business created data e.g. by Highway Maintenance, Environmental teams. GIS data is managed and published primarily by the Insight team for Council users to view and create maps, such as of layers of Council owned land in Coventry. GIS data is stored on the network drive or in the application in which it is being used (MapInfo, AutoCAD).

Duplication, version control and naming convention challenges exist meaning it is often unclear if the correct version of a map has been located on the network drive. No metadata is used to support efficient search and retrieval of GIS maps.

Copyright issues were also raised as any internal MapInfo user could copy the GIS network drive folder and re-use the data or pass it to third parties. This is a risk as Council does not own the data. Scenarios have occurred where GIS users have left Council and their access (via their email address) is not de-activated for some time meaning the data could be being used or copied inappropriately.

3.5.2   Data Warehouse

The Data Warehouse, built in Microsoft SQL 2012, provides a centralised repository for data from disparate sources where it is being transformed and visualised into meaningful information for employees. Data is progressively being extracted from source systems, transformed and loaded into Council's suite of BI tools – to date Adult Social Care, Finance (from Agresso), Employee HR (from Resource Link) data has been extracted into the Warehouse. The ultimate aim of the Data Warehouse is to provide a single view of a person or household.

Data owners or stewards, where known, are being asked to provide data quality and validation support through click and fix reports which they receive via email. There is no defined role (with role description) for the data stewards, with the list of data stewards held in a table in SQL. The stewards often do not have the time to devote to this task and it is seen as a low priority activity.

3.5.3   Business Intelligence (BI)

A number of BI tools are in use at Council:

- Power Pivot - used via Microsoft Excel mostly by accountants or managers interested in line by line detail
- Microsoft Power BI, which is used for transactional real time reporting, which can be viewed in O365
- SQL Server Reporting Services – provides static reports with exact format e.g. for care workers who have no need for dynamic reports or statutory reports. These can be automated and sent to care workers
- Operational reports come from operational systems

3.5.4   Master Data Management (MDM)

Council is in the early stages of assessing Master Data Management requirements and technologies. MDM is the use of technology to merge and transform data from various sources into single consolidated "golden records" for central datasets; systems are integrated on the basis of a single version of the truth such as for people and property, the two key Council entities.

Currently Council has significant challenges linking data between systems e.g. the Council tax system (Academy) does not link to the Local Land Property Gazetteer (LLPG), the electoral system. MDM technology has been investigated however it is cost prohibitive and consideration is being given to performing MDM in-house through the leveraging of the Data Warehouse structure and processes (e.g. separate out the transfer stage from data warehousing into master data management). Stakeholders expressed concern about how MDM would be implemented relating to the prioritisation of changes to customer data in System A versus System B.

3.6   Open Data and Information Sharing

3.6.1   Open Data

There continues to be a strong push from central government via its http://data.gov.uk/ initiative for data to be published and freely shared wherever possible. Council publishes key data via its website, with the aim of this high level Open Data to create transparency and accountability. Much of the data is what is required to be shared by law, with some service areas publishing more specific data. The Information Governance team manages what is published, along with the individual teams/service areas managing the other published information.

Open data is shared via the Insight team on Council Headline Statistics including performance, crime, social care, health, housing, local economy. Some data is purchased from third parties e.g. NHS data, customer segmentation data, address data, map data. The Insights team collate and publish high level open data and are focussed on corporate data analysis and activities that support the delivery of the Council Plan, and providing lower levels of detail to the currently published reports. Insights works closely with Local Enterprise Partnerships (LEPs), which are voluntary

partnerships between Council and businesses that support economic growth and job creation within Coventry.

No Open Data Strategy exists to define how open data will be used more in the future to generate revenue and how Council will leverage the Smart City model. Stakeholders reported there are a number of internal policies/procedures relating to Open Data but that they weren't very visible and the awareness of them is low.

It was reported that the benefits of open data are not sufficiently understood which means service areas do not devote a great deal of time to it.

3.6.2   Information Sharing

Information is shared well in some Council services, particularly in Children's Services where social workers understand how important it is to share information to safeguard children. The information sharing culture is good in Adult Services also however there are more barriers to sharing in this service (consent, Adults have more rights).

There was a perception amongst some stakeholders that the key Council messages were to protect information and not to share it, which they thought was re-iterated by the Data Protection Act training. Some service areas are reluctant to share data due to security and privacy concerns with the fear of being punished for publishing something that should not be published outweighing the benefits or desire to publish information.

Non sensitive document sharing is mostly via email attachments and the network drive which will be supplemented by SharePoint links in the future. Attachments are sometimes password protected if they do contain personal information e.g. Occupational Health and Safety medical reports.

Challenges are being experienced around the ability to share data internally such as housing benefit or social security data as the law dictates that it cannot be used for another function, even if the same member of staff is responsible for the different functions. Strict guidelines exist for the use of the Department of Work and Pensions data and there are significant benefits that could be unlocked if this data could be shared.

Customers have occasionally provided feedback to Council that they are not happy to accept the default of their details being shared with other functions as a result of their interaction with the Council service area. This update of details often does not filter through anyway as the chain (often of manual spreadsheets) is not sufficiently robust.

3.6.3   Partner/Inter-Agency Sharing

Information sharing to partners or with other Councils is via phone, letter, email or the UK Government Connect Secure Extranet (GCSX), which is a secure wide area network (WAN) that enables local public-sector organisations to share data privately, particularly with central government departments such as the National Health Service (NHS) and the Police. It was not known whether guidelines existed for when to use the GCSX, the expectation is that line managers will know. For information sharing in general, an Information Sharing Protocol exists and employees contact the Information Governance team for guidance. Employees are nervous about sharing information without the Information Governance team's approval.

Council collaborates often with the NHS, the police and commissioned services such as drug and alcohol recovery specialists, and with other Councils. There are many information sharing agreements in place e.g. for Health and Social Care in Coventry and Rugby or other Public Health and NHS organisations who have their own information standards. The Public Health 0-5 program has an Information Sharing Protocol, where parents are asked for their consent for information to be shared with the 0-5 network of GPs, midwifes and health visitors.

Data sharing challenges exist relating to NHS data primarily because of the number of different NHS organisations that Council works with – the NHS, the trusts, Coventry and Warwickshire partnerships, Ambulance Services, Clinical Commissioning Groups, General Practitioners and NHS

England. These are all separate data sources. Commissioned services have on occasion sent emails to Council with identifiable personal information.

3.7   Online Services and Customer Self Service

A number of transformational activities are ongoing or have recently been delivered aimed at re-shaping the relationship between Council and the community it serves. A Customer Journey Program has been initiated which is focussed on the provision of a new building for customer self-service (which has now opened) and channel shift and data warehousing activities, working towards a single view of customers. The goal is simplified customer interaction with Council and a customer service environment where members of the community can easily view the status of their request (one of the most popular calls to the Coventry service desks).

Council have recently updated their Coventry.gov.uk website which is modern and mobile optimised. JADU, a leading local government website and content management system development agency, were engaged to develop the site.

Integral to the new website is an online customer account component (provided by the Firmstep platform), launched in 2015, which supports the channel shift drive by enhancing citizen interaction and service delivery online. Selecting a My Account link seamlessly directs users to the online account system at myaccount.coventry.gov.uk.

Key services currently offered online include Council Tax, Housing and Environmental services. Not all services are online, the most frequently used were targeted first. A roadmap of other services has been developed however the schedule has not been met as time has had to be taken to optimise some inefficient service delivery processes.

Challenges for the online services move include the Council Tax / Benefits links not linking to key Council systems e.g. changes requested via the Housing Benefit - Change of Address option are picked up by a back office team who manually enter in the Housing Benefit system (Academy). The Revenues and Benefits teams began their customer journey before the Firmstep platform was released and so this means they use a different system to manage enquiries and requests. Services all have different back end systems, and this obviously creates challenges providing accurate data via the CRM and website.

4. Current State Analysis

4.1 Key Current State Risks

#	Risk	Reason for Risk	Likelihood of occurrence	Impact of occurrence
1	Risk of accurate information not being available when required to make service delivery decisions	Difficulty accessing a single source of truth, multiple systems and locations for the same data. Information not named, versioned, classified consistently.	High	High – service delivery delays, inefficiency, reputational damage
2	Risk of corporate knowledge loss	No methodology for tacit to explicit knowledge transfer, particularly when employees leave Council	High	Medium – productivity and service delivery issues
3	Risk of data protection breaches	Breaches due to lack of awareness of DPA and value of effective information management, data duplication creates accuracy and currency issues	High	High – financial penalties from the Information Commissioner
4	Risk of information not being retained or destroyed in appropriate timeframes as stipulated by legislation	Little retention and disposal processes on network drive data, data being kept longer than is necessary	Medium	Medium – unnecessary storage costs
5	Risk of copyright infringement	GIS data not secured appropriately, USB restrictions not in place to prevent bulk copy of Council information	Medium	Medium – legal challenges, loss of free access to ordnance survey data

4.2 Maturity Assessment

To be effective, information and data management require a number of key building blocks to be in place including successful strategies, governance, practices and technology. An organisation's EIM maturity level can be measured against these elements where maturity reflects key components such as the completeness of the EIM lifecycle, the awareness of the strategic importance of accurate and accessible data, or the expansion of an IM system from department to enterprise level.

IFC has adapted one of the most commonly used global Maturity Models, ECM3, to evaluate and measure Council's maturity, the results of which provide valuable insights into roadmap activities and prioritisation moving forwards. The model provides a structured framework for building an information management roadmap, in the context of an overall EIM strategy. The model uses graded levels of capabilities, from rudimentary information collection and basic control to increasingly sophisticated levels of management and integration through to a mature state of information optimisation and continuous improvement.

The assessment provides a baseline perspective of enterprise information management against the industry standard model using a defined scoring mechanism. A future state maturity level has been assigned which is a realistic target state for Council that highlights the current capability gap.

There are ten Dimensions in which maturity is measured.

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1. **Governance** – the provision of information rules, accountability, ownership and guidance
2. **Strategy** – the presence of an EIM strategy, alignment with strategic goals, programs of work
3. **Value** – awareness and understanding of EIM value proposition
4. **Asset Management** – lifecycle management of information including retention and disposal
5. **Access & Security** – access channels and accessibility of information, information security
6. **People** – behaviours, culture, capability
7. **Processes** – knowledge, consistency and effectiveness of information related processes
8. **Quality** – information accuracy and currency, staff aware of their role in information quality
9. **Architecture** – enterprise and information architecture
10. **Platforms** – technology, repositories and their usage

Each of these Dimensions is measured on a scale from one to five, with one as the lowest maturity and five as the highest.

1. **Ad Hoc**
2. **Formative**
3. **Developing**
4. **Operational**
5. **Optimised**

These are explained in more detail in Appendix 3.

4.3   Maturity Assessment Results

The maturity assessment highlighted that the Council has a low-medium maturity across all dimensions, however no EIM dimension scores the lowest level of 1.

The current maturity levels are either Formative (Level 2) or Developing (Level 3) which is reflective of the growing understanding of the importance of information and data management at Council, coupled with key challenges of data ownership, silo-ed processes and difficulties accessing a single source of the truth as outlined in this report.

Council Information Management Maturity Levels
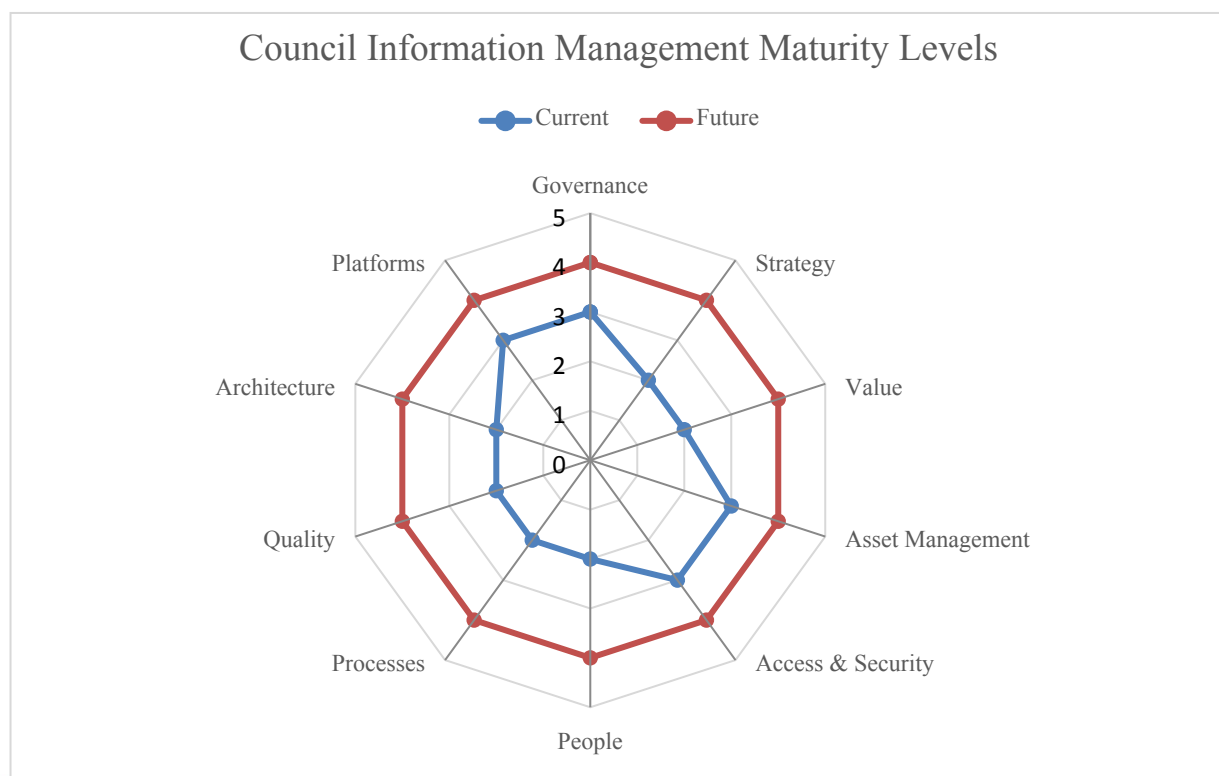
The table below describes the maturity assessment results and highlights the current capability gaps between current and future state. The target future state maturity level represents a realistic level that Council can achieve through the implementation of the recommendations in this report. If Council is successful in implementing the required changes to transform EIM across the dimensions, and with continued investment and executive support, optimised maturity levels (5) are achievable.

Maturity Dimension	Current Maturity Level	Detail	Future Maturity Level
Governance	3	Council has as governance function for information but this does not cover data. Ownership and accountability issues exist. Key roles are being recruited and an ICO governance audit is ongoing. A policy framework exists.	4
Strategy	2	Council does not have an IM strategy which covers enterprise wide IM disciplines and initiatives. Some IM related projects and reviews are in progress.	4
Value	2	There is some awareness of the value proposition and benefits of effective information management, however this is inconsistent across Council.	4
Asset Management	3	An enterprise retention and disposal schedule has been developed and SharePoint expiry dates are being introduced.	4
Access and Security	3	An ISMS is in place including an Access Control Policy. Staff have issues finding information and a single source of truth, particularly relating to historical events. No enterprise search functionality exists.	4
People	2	Council staff are aware of their DPA obligations and there is a growing awareness of EIM issues particularly around data. The information culture and varying capabilities are a challenge – EIM is often not seen as a priority.	4
Processes	2	Processes are silo-ed and not standardised across Council, and manual or paper processes exist. Many processes have not been analysed, documented and automated via workflows.	4
Quality	2	Council experiences issues in locating accurate, current and consistent data. Many employees do not prioritise producing quality information through consistent methods of saving, naming, classifying or versioning information. Multiple copies of the same data are held across Council.	4
Architecture	2	Council does not have a defined enterprise or information architecture, integration between systems is a major challenge and data is not standardised across data locations. Data Warehouse	4

		and Customer Journey initiatives are ongoing to improve data flow and usage.	
Platforms	3	Council has a large volume of data and information platforms, with little integration between them. A systems consolidation is ongoing and network drive processes are being transitioned to SharePoint. The network drives are poorly classified and the intranet is difficult to use. Platforms such as Yammer have been deployed without success.	4

5.   Information Vision and Future State

The future state vision for information and data assets at Council, as defined in the draft Information Management Strategy, is:

> *We will exploit information as a strategic asset, using recognised best practice, legislation and technology to minimise requests for information, store only what we need to and increase our ability to deliver value for money, customer focused services to the benefit of Coventry, our customers and the council.*

The Council ICT Strategy expands on this to state that the vision is to "provide accurate and consolidated records for our most important information. This will enable services to manage and control their own information in an accurate and efficient way. Where required and relevant, data will be shared across the organisation and externally to help design and underpin better public services. We will store information in a secure and robust location that will enable services to make best use of management information".

The key characteristics of this improved enterprise information environment for the Council, its staff and partners are:

- **A single version of the truth**
  - Golden records for people and property data
  - Information is accurate and consolidated
  - Information is collected once and re-used across services

- **Accountability and Ownership**
  - Core information assets identified and owned
  - Information is managed appropriately, lawfully and supports compliance

- **Information is recognised as an asset**
  - Information recognised as a strategic asset and managed as such
  - Improved information quality = improved information outcomes and less risk
  - Accessible accurate information supports predictive analysis and innovation

- **Secure but Open**
  - Information is secure and private where needed
  - Balanced with information openness, sharing and collaboration

- **Agile and Automated**
  - Business processes are streamlined, modernised and automated
  - Services are integrated, customers can easily interact with Council

- **Effective IM embedded in workforce activities**
  - Employees understand the value of effective information management and their Data Protection Act obligations

6. Recommendations & Roadmap

Practical recommendations have been provided to assist the Council develop a roadmap of actions required to achieve the future state. For planning purposes the recommendations have been prioritised into the following categories:

Recommendation Category	Timeframe
QUICK WINS	Next 3 months
NOW - CRITICAL	Next 6 months
SOON - IMPORTANT	6 – 12 months
LATER - VALUABLE	12 months +
CONTINUE	n/a

The CONTINUE recommendation relates to activities that are currently ongoing that are a vital part of the EIM transformation as they relate to how Council uses the improved and more accessible data to understand demand and optimise service delivery through predictive analysis.

This section is followed by a roadmap illustrating the dependencies of the recommendations and a recommended sequence of activities.

The roadmap is not a composite project plan in itself; some of the components require plans and schedules to be developed as they are significant bodies of work. The time it will take to reach the future state is an estimate based on the current state analysis and IFC's industry experience and can be adjusted as required. Some parts of the roadmap have interdependencies and so if executed, the dependencies should be considered as pre-requisites to the subsequent activities.

Due to the amount of change required, the final EIM roadmap should be regularly reviewed and updated to ensure it remains aligned to organisational needs.

6.1 Recommendations Matrix & Roadmap

Current State Dimension	Related Risk, ICO Action	Recommendation	Priority	Outcome/Benefit	Effort	SME Support Recommended
Information Access, Security and Lifecycle Management Strategy, Governance & Compliance Data Management and Business Intelligence	1, 5 a19	**Perform Information Asset Audit and Develop Information Asset Register** Leverage work completed by service areas in the FAB process, existing disaster recovery data, and supplement with a survey to identify Council key information assets. Detail the assets, where they reside, how they are used, which service, function and/or application owns them. Assign value to assets and map the register to the retention and disposal schedule.	NOW	• Information ownership, accountability and security • Significantly enhanced information findability • Essential business continuity artefact is developed • Enhances compliance with the Freedom of Information Act (FOIA) and the Data Protection Act.	50 days	Yes
Strategy, Governance & Compliance People, Processes, Knowledge and Change Management Data Management and Business Intelligence	1, 3, 5 a13, a19	**Define Information Asset Owners (IAO)** Formally define an Information Asset Owner role that delivers ownership and accountability for key Council datasets. Implement an IAO user group to progress cleansing and standardisation of datasets. Include IAO role responsibilities in performance reviews.	NOW	• Information ownership and accountability • Improved data quality • Reduced silo-ed processes	5 days	Optional
Information Access, Security and Lifecycle Management Strategy, Governance & Compliance	1, 5 C39	**Simplify current Council retention and disposal schedules** Simplify the current retention and disposal schedule v1.8 by categorising records into Minor, Normal, Major, Permanent, Exceptions (as per IFC recommendation May 2015). Align the schedules to filing methods	NOW	• The retention and disposal schedule is significantly easier to implement • Improved information security and findability • Enhances compliance with the Freedom of Information Act	5 days	Yes

		identified in the information asset register, adjust the schedules where appropriate to align to how information is filed.		(FOIA) and the Date Protection Act.		
People, Processes, Knowledge and Change Management	1, 2, 3, 4 b5, b6, b9, b14	**Develop IM Education Program** Align to current induction process either via classroom or eLearning, and educate existing employees, particularly information and data owners, and senior roles, via Refresher sessions. The purpose is to inform employees of their responsibilities relating to Council information, to maintaining its quality and accessibility, sharing and collaboration, and balancing this with Data Protection Act requirements. Communicate key elements of the Information Standard and guidance on processes such as the Freedom of Information SharePoint portal.	NOW	• Employees better understand the importance of effective information management • Delivers Information Principles 1 – 7 as stated in draft IM Strategy • Reduced silo-ed information processes and duplication	8 days (Dependent of method of delivery)	Optional
Strategy, Governance & Compliance People, Processes, Knowledge and Change Management	1, 2, 3, 4	**Develop IM Standard** Formalise elements of IM Education Programme, publish via Council intranet, and align to Policy Framework review. Content to include: • Guidance on when to use Line of Business (LOB) systems, Information@Work, shared drives and SharePoint, relating to IL2 versus IL3 requirements • Definition of Council information management principles • Procedures e.g. when to retain physical copies and when to scan.	NOW	• Improved information quality and findability, consistency and standardisation of storage • Supports effective information and data governance • Supports FAB processes with Children and Adult Social Care Services • Reduced silo-ed processes and duplication	7 days	Optional

		• Key definitions e.g. of a child record • Definition of organisational naming conventions				
Strategy, Governance & Compliance	1, 3, 4 a2, a5	**Review Council Information and Data Policy Framework** Perform gap analysis of current information, records and data policies, and develop policy map. Update, create and merge policies as required. Define the process and artefacts required for implementation of policy framework e.g. updated procedures, work instructions, supporting guidance in line with ICO code of practice	NOW	• Comprehensive policy framework provides a robust set of business rules for information, records and data management at Council • Foundation for delivery of all Information Principles	Fixed effort of 5 days for gap analysis. Variable amount for policy update depending on requirement	Yes
People, Processes, Knowledge and Change Management	1	**Develop EIM Communication Plan** Establish key messages, develop plan for communication of all project and information activities, align to organisational Learning and Development plans. Include practical examples of where EIM has successfully provided tangible benefit.	NOW	• Practical examples provide evidence of EIM success • Clear, consistent and timely communications supports user adoption of new solutions and IM awareness	10 days	Optional
People, Processes, Knowledge and Change Management	2	**Review handover and knowledge capture processes when staff leave Council** Review the handover processes used by line managers, the standardisation of these processes, and implement opportunities to improve knowledge capture and transfer.	NOW	• Reduced corporate knowledge loss • Increased service delivery efficiency through greater sharing of lessons learned and best practice	5 days	Optional
Strategy, Governance & Compliance	1, 2, 3, 4	**Finalise Enterprise Information Management Strategy** Leverage this report and the Information	NOW	• Defines the strategic direction for all information related activities • Defines information principles	5 days	Yes

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		Management Strategy ppt to create an Enterprise Information Strategy that defines the current state, drivers, vision, principles and capabilities required to deliver the future state. Define a "Strategy on a Page" that can be presented to all audiences.		to be used in all EIM activities • Alignment of information, knowledge, collaboration and records management initiatives		
Strategy, Governance & Compliance	1, 2, 3, 4	**Benefit realisation and performance monitoring against strategic targets** Using a 6 month review cycle, define performance monitoring and benefits realisation processes against enterprise information strategic targets. Leverage this report to baseline the current state, develop the metrics to be monitored, and future state outcomes. Expected benefits from individual initiatives should be identified, clearly defined and linked to the Council's priorities and objectives.	NOW	• Provides evidence of EIM's contribution to the delivery of Council's objectives • Return on investment more easily identified • Ensures timely information strategy implementation	5 days	Yes
People, Processes, Knowledge and Change Management Strategy, Governance & Compliance	1, 4	**Update Document Management processes to include impact analysis** Perform an impact analysis three months post a business area going live with SharePoint or Information@Work via workshop and/or survey. Identify success stories and challenges.	NOW	• Identifies areas that require additional focus or training • Success stories increase user adoption	3 days	Optional
Data Management and Business Intelligence	1, 2	**Develop Master Data Management plan** Develop a plan for implementation of an enterprise architecture that facilitates master data transfer between key systems. Define the current state, establish the principles,	SOON	• Clearly defined plan for move to MDM and single view of customer and property • Platform for development of single view of customer and property	10 days	Optional

		required roles and responsibilities, define the required processes.				
Data Management and Business Intelligence	1, 2	**Perform cost benefit analysis of MDM technology against in-house MDM** Evaluate MDM technology offerings and cost, and compare this to effort/feasibility of in-house MDM process and tool development.	SOON	• Definition of most cost effective method of MDM implementation	10 days	Optional
Strategy, Governance & Compliance	1, 3, 4 a14	**Implement Records Manager role** Assign responsibility to an existing resource or procure a new role. Role to define audit strategy against Governance measures. This is a key role for Council to provide guidance, support and authority for recordkeeping activities, challenges and ownership for the Retention and Disposal Schedule.	SOON	• Delivers guidance, support and authority for recordkeeping activities and challenges • Ownership of retention and disposal schedule, and business classification schemes • Oversight of Council information and records legislative requirements	N/A IFC can provide a contract resource for this role	Optional
Strategy, Governance & Compliance, People, Processes, Knowledge and Change Management Technology and Repositories	1 a2, a5	**Review and update Information Governance intranet pages** Review the current Information Governance pages and links to current policies. Develop Information Management pages that communicate the IM Standard, link to the IM Education Program, the updated policy framework, DPA obligations. Align to intranet upgrade to SharePoint.	SOON	• Information Management is more visible across Council • Key EIM information and success stories enhance user adoption	5 days	Optional
Technology and Repositories	1	**Evaluate SharePoint - Outlook integration tool** Evaluate integration tools that enable the saving of emails directly to SharePoint from	SOON	• Pre-requisite for improved email management • Enhanced user adoption of SharePoint	8 days	Yes

		within Outlook. Develop use cases based on benefits sought or risks mitigated, develop scoring mechanism.				
People, Processes, Knowledge and Change Management Technology and Repositories	2	**Review Yammer and SharePoint newsfeeds suitability as knowledge sharing tools** Review the Yammer implementation, assess functionality and employee perception of tool. Assess against SharePoint newsfeed functionality.	SOON	• Existing tool suitability defined for increased knowledge capture and sharing • Reduced corporate memory loss	5 days	Yes
Strategy, Governance & Compliance	3	**Review and prepare for upcoming EU General Data Protection Regulation changes** Review, monitor and prepare for proposed EU GDPR changes that will change Council's data protection obligations.	SOON	• Council are prepared for the EU General Data Protection Regulation changes and required governance and process changes are planned	10 days	Yes
Open Data and Information Sharing	1 c21, c23	**Review Information Sharing Guidelines and Agreements for Partners** Assess the current information sharing activities with partners and opportunities for improvement. Review existing template agreements, clarify processes, assess against central government recommendations.	SOON	• Standardised information sharing approaches • Clear processes for establishing new information sharing agreements with partners. • Accurate and current partner information supports high quality Council service delivery	10 days	Yes
Open Data & Information Sharing	n/a	**Develop Open Data Strategy** Definition of strategy for sharing Council datasets. Assessment of what to open fully or discretionary, when to open and why, privacy impact, cost benefit analysis of data releases. Identification of the benefits of open data and	LATER	• Revenue generation • Stimulated economic growth through entrepreneurial use of data • Improved FOI compliance • Social benefits of public access to data	20 days	Yes

		alignment to models such as the Smart City model.		• Complements inter-agency data sharing		
Technology and Repositories	1	**Deploy SharePoint – Outlook integration tool** Deploy the SharePoint – Outlook integration tool to SharePoint users.	LATER	• Email management greatly enhanced • Key Council records stored in Outlook mailboxes more visible and accessible	5 days	Optional
Data Management and Business Intelligence	1	**Continue Customer Journey Program activities** Customer Journey Program and Voice of Customer (VoC) activities should be continued to implement new data techniques to more proactively manage customers. This includes channel shift initiatives, route cause analysis of complaints, improving quality assurance processes and predictive modelling.	CONTINUE	• Improved customer experience • Improved service delivery through better understanding of demand • Progression towards a single view of customers	n/a	Optional
Technology and Repositories People, Processes, Knowledge and Change Management	1, 3, 4	**Deliver SharePoint Learning Workshop to project team and team librarians** Deliver a two day SharePoint workshop to the transformation project team and key stakeholders/team librarians from the early adopters. Focus of workshop is best practice for designing IM solutions using SharePoint and how this can be embedding into Council IM deployment activities.	QUICK WIN	• Optimised use of metadata in SharePoint team sites • Enhanced user experience and user adoption	2 days	Yes
People, Processes, Knowledge and Change Management	1, 4	**Update Document Management processes to include naming conventions and usage audit**	QUICK WIN	• Consistent and effective naming support information findability • Audit enhances user capability,	2 days	Optional

Strategy, Governance & Compliance		Update current processes used by the Document Management workstream in the SharePoint deployment to include the identification of naming conventions and an audit process to validate effective usage of the system post go-live		information quality and user adoption		
People, Processes, Knowledge and Change Management	1	**Review paper child record processes** Review process for a paper file being opened for every child; update process to only open paper files where required.	QUICK WIN	• Reduction in paper processes and Iron Mountain storage costs	1 day	Optional
Information Access, Security and Lifecycle Management	3, 5	**Review GIS data access controls** Review the access controls on the GIS network drive folders. Perform needs assessment and remove read/write access where required.	QUICK WIN	• Reduced risk of information being modified or lost • Reduced risk of financial penalty (free access to ordnance survey data via PSMA (Public Sector Mapping Agreement) being rescinded)	2 days	Optional
Information Access, Security and Lifecycle Management	n/a	**Investigate cost saving of scanning opportunities** Liaise with a scanning provider to ascertain the cost of bulk scanning Occupational Health and Safety and Employment Services records.	QUICK WIN	• Cost saving on physical storage and temporary resources	1 day	Optional
Information Access, Security and Lifecycle Management	n/a	**Review ERDF paper retention requirements** Validate European Regional Development Fund (ERDF) grant requirements, adjust processes and scan records if cost effective.	QUICK WIN	• Cost saving on physical storage • Efficiency gains of electronic processes	2 days	Optional

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Coventry CC EIM Roadmap

	2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

Strategy Governance Compliance

- Review Council Information and Data Policy Framework
- Review and prepare for upcoming EU General Data Protection Regulation changes
- Finalise Enterprise Information Management Strategy
- Implement Records Manager role
- Benefit realisation and performance monitoring against strategic targets ●

People Processes Knowledge Change

- Develop EIM Communication Plan ●
- Update Document Management processes to include naming conventions and usage audit
- Develop IM Education Program
- Review and update Information Governance intranet pages ●
- Update Document Management processes to include impact analysis
- Review paper child record processes
- Develop IM Standard ●
- Review Yammer and SharePoint newsfeeds suitability as knowledge sharing tools
- Deliver SharePoint Learning Workshop to project team and team librarians
- Review handover and knowledge capture processes when staff leave Council

Data Technology Architecture

- Develop Master Data Management plan ●
- Implement Master Data Management
- Perform cost benefit analysis of MDM technology against in-house MDM ●
- Deploy SharePoint – Outlook integration tool
- Evaluate SharePoint - Outlook integration tool
- Continue Customer Journey Program Activities

Access Security Lifecycle

- Investigate cost saving of scanning opportunities
- Information Asset Audit & Register Development
- Review GIS data access controls
- Simplify current Council retention and disposal schedules
- Review ERDF paper retention requirements
- Define Information Asset Owners ●

Sharing Open Data

- Review Information Sharing Guidelines and Agreements for Partners
- Develop Open Data Strategy

NOW	SOON	LATER	QUICK WIN	CONTINUE	● has dependencies

7.   Conclusion

Coventry City Council, like all local government agencies, is under increasing pressure to deliver better services to the community and employees, meet compliance rules, boost efficiency all the while keeping a tight rein on costs. Improved enterprise information management is key to achieving these goals and this is recognised in the Council Plan, the vision for the next ten years, which refers to key themes of "new ways of working through culture change" and "making the most of assets". Accessible, quality information and data play a critical role in the ability of staff to deliver high quality services to residents, partners and internal Council employees.

The EIM maturity assessment has found that whilst there is a lot of work to do, Council is well placed to continue the transformation of information processes and to build a more solid foundation of governance, capability and knowledge sharing to address the current state risks and to realise the significant benefits of improved enterprise information management.

This report supports the next steps towards addressing the key EIM issues and embedding the effective management of these key assets into the organisational culture. The roadmap articulates what activities need to be prioritised and these will be analysed further to identify the appropriate resources and exact timeframes for implementation.

With the assimilation and implementation of the recommendations in this report and strong leadership support, Council can transform operations and the ratepayer experience, and deliver innovative, agile services in the digital era.

Appendix 1 - Stakeholders

Stakeholder	Role/Business Area	Engagement method
Joe Sansom	Transformation Programme Delivery Manager, Major Projects and Transformation	Interview
Andrew Baker	Insight Manager (Intelligence)	Meeting
Clare Storey	Transformation Program Manager, Customer Journey Program	Meeting
Emily Burn	Insight Program Officer	Meeting
John Day	System and Data Integration Team Lead	Meeting
Helen Lynch	Legal Services Manager	Meeting
Martin Boyle	Systems Data Officer, Insight Team	Interview
Hayley Doolan	Programme Officer (Customer Insight), Insight Team	Interview
Paul Ward	Head of ICT, Strategy and Systems	Interview
Marc Greenwood	Head of Business Systems, Social Care Systems	Workshop
Alex Hood	Business Services Centre Manager for Safeguarding +	Workshop
Chris Horn	Team Manager, Referral and Assessment Service, Children's Social Care	Workshop
Isabel Merrifield	Caldecott Guardian	Workshop
Barrie Strain	Revenues Manager	Meeting
Glenda Cowley	Benefits Manager	Meeting
Joanne Lorimer	Senior HR Officer	Workshop
Yassir Mahmood	Learning & Development Manager	Workshop
Alison Hook	Website and Intranet	Workshop
Julie McSorley	HR Recruitment	Workshop
Angie White	Occupational Health, Safety and Wellbeing Manager	Workshop
Alison Court	Recruitment	Workshop
Joanne Moynihan	Communications Officer	Workshop
Paul Jackson	Technical Security Team Lead	Interview
Paul Jennings	Corporate Finance Manager	Workshop
Carolyn Prince	Lead Accountant (Annual Financial Cycle)	Workshop
Claire Maddocks	Finance Systems Accountant	Workshop
Mick Burn	Procurement Manager	Workshop
Phil Baggott	Lead Accountant, Corporate Finance	Workshop
Tracey Miller	Head of Planning and Regulation	Workshop
Chris Dowell	Planning Liaison and System support Officer	Workshop

Ruth Gaskell	Corporate Property Information Manager – Land and Building	Workshop
Karen Seager	Highways, Traffic and Transportation	Workshop
Sudha Panchal	Economy and Jobs	Workshop
Martin Vickery	Construction and Planning	Workshop
Sue Heawood	School Admissions Manager,	Workshop
Nicola Hallam	MIS Officer for Adult Education	Workshop
Becky Twite	Education Libraries and Adult Learning	Workshop
Jane Moore	Director of Public Health	Interview
Amanda Durrant	Payroll Manager	Meeting
Public Health SMT	Various	Meeting
Elaine Charley	Business Solutions Co-Ordinator	Meeting
John Batstone	Project Support Officer	Meeting
Joy McLanaghan	Project Support Officer	Meeting

Appendix 2 – Reference Documentation Provided

The following documentation was provided for reference or reviewed during the development of this report.

- Council Plan 2015
- Information Management Strategy (3)
- ICT Strategy Reboot DRAFT FINAL
- Info Management Group 210915 (2)
- ICT Strategy Theme Cards DRAFT
- Chief_Executive_s_Structure_Chart_2015
- People_Directorate_overall_structure_08_10_2015
- Public_Health_Structure_Chart
- Resources_Directorate_Structure_Chart_2015
- policy_v1_2_Feb_11_TE (Data Quality Policy)
- Records_Management_Policy_v3_0_Approved[1]
- Good_practice_guide_to_disposing_of_information
- Foster_Carers_Information_Security_Standards_for_Record_Keeping[1]
- Information Sharing Programme Board TOR V2.0 Final July 2015
- Information Management – bringing it together merged 16 Jun
- Coventry ICO Audit Report Action Plan
- S372 2a Risk_Management_Strategy[1]
- Coventry Information Sharing Protocol
- 12-372 1a IG Management Arrangements Table
- MASTER TEMPLATE_QTRLY REPORT
- PSNCustomerCertificate-CoventryCityCouncil
- JD & PS Information Governance Administrator
- JD & PS Information Governance Officer
- JD & PS Senior Information Governance Officer
- IG Team Structure
- Legal Team Structure
- Revised Audit and Risk Structure
- Place and Regulatory team structure
- 12-144 2b The roles of Information Governance March 2015
- 12-252 S2b Code_of_conduct[1]
- Authorisation for access to confidential info and form of undertaking
- 1.1.1 Policies, Values and Principles (Values)
- 12-252 2b Induction_checklist[1]
- Agency_Workers_Manager_s_checklist1
- Childrens Confidentiality Policy
- Childrens Recording Policy
- Confidentiality Agreement
- Confidential Adoption Information – Form of undertaking
- Risk Management Strategy
- Data Protection Responsibilities for Line Mgrs
- Data Protection Policy Statement
- Information Inc Mment Process Diagram v0.2
- Schedules 2 and 3 DPA
- Coventry report final 2 July 2015
- Activity Roadmap

Appendix 3 – Maturity Model Details

7.1 EIM Maturity Levels

EIM maturity is broken down into five levels that identify the readiness to realise EIM benefits.

Level	State	Characteristics
1	Ad Hoc	No formal management or governance of unstructured information. Disparate repositories including network drives used as document stores, resulting in high levels of re-work, inability to find information and end user frustration.
2	Formative	Functional or project driven approaches used to manage some information. Various technologies are deployed but are inconsistently used. Opportunities for improvement identified.
3	Developing	Notions of the information management lifecycle beginning to be incorporated. Processes have been analysed and EIM plans are in place however they are yet to be deployed.
4	Operational	Information is managed throughout the organisation albeit in diverse systems. Information architecture understood. Retention and disposal schedules applied to critical information. Collaboration and social information management in place.
5	Optimised	Information is managed as a strategically important asset. Solid understanding of core information management principles and business drivers enables organisational agility.

Adapted from ECM3 Maturity Model Version 2.0 – June 2010.

7.2 Information Maturity Dimensions

The information maturity dimensions in this assessment cover the key components of successful EIM. These dimensions apply across organisations regardless of industry, size, business objectives and are in no particular order.

Dimension	Description
Governance	Governance includes the presence of an overarching governance structure that ensures a cohesive approach to information management through appropriate authority, strategy, communication and the empowering of stakeholders to realise the benefits of EIM. It covers the extent of policies and procedures addressing information management and the meeting of compliance obligations.
Strategy	Strategy includes the presence of information management strategies, the alignment of business and IT strategies and overarching strategies that are aligned to organisational strategic goals. Information management strategy should cover all facets of EIM, ensuring

Dimension	Description
	programs of work are aligned rather than an environment of local or tactical solutions being deployed.
Value	Value includes the organisational awareness of the business value of information management and the role it plays in effective business operations. This covers awareness amongst key stakeholders such as Executives, IT and staff. Maturity is also dependent on whether an understanding of the value of information management is considered a core employee skill and included as part of education or communication programs and HR reviews.
Asset Management	Asset Management covers the completeness of lifecycle management for documents and records from creation to storage to disposal, how well the stages of information lifecycle are defined and how much information goes through a formal lifecycle. The use of enterprise or business classification schemes and retention and disposal schemes illustrate maturity in this area as these provide the structure, business rules and automation for asset management.
Access & Security	The accessibility or findability of information is a key component of successful EIM. Factors here include the amount of time spent looking for information, the presence of efficient search tools, the ability to locate a single source of truth and the efficiency of access channels. This dimension includes to what extent access to information is restricted through appropriate security models and measures.
People	The People dimension covers information behaviours and culture within an organisation and the capability of staff relating to information management principles and tools. Information sharing and effective collaboration are key outputs of maturity in this dimension.
Processes	Processes covers the extent to which core business and information orientated processes have been analysed, documented and automated via workflows. Low maturity in this dimension is evidenced by inconsistent manual or paper based processes, with higher maturity including automated processes that span departments and systems and the use of eForms and workflow/business process management solutions.
Quality	The Quality dimension is the accuracy, currency and consistency of information and the level of awareness amongst staff of their role in producing quality information. Quality is evidenced by the use of corporate taxonomies, consistent methods of saving, versioning and classifying information, and standards for metadata, file naming and numbering.
Architecture	Architecture covers the use of an Enterprise Architecture that provides consistent principles and practices to guide organisations through the business, information, process, and technology changes necessary to execute strategies. This dimension has a focus on information architecture, a component of enterprise architecture that identifies the information centric components of an IT environment, defines the sources and flows of information in business activities, the rules for classification, security, ownership and the relationships to Blue Care's objectives.
Platforms	Platforms covers what information management technology and information repositories exist and whether they are used in a consistent and effective manner. Systems may be department specific, disparate or enterprise wide. Platforms also covers whether staff know what technology or repository to use and when depending on the information related requirement.

7.3   Maturity Dimensions Matrix

For each maturity level, general characteristics can be defined for the ten information dimensions.

Maturity Level	Governance	Strategy	Value	Asset Management	Access & Security	People	Processes	Quality	Architecture	Platforms
5 Optimised	Proactive review and adaptation; staff feedback key to processes.	Strategic vision implemented, regular performance monitoring and optimisation of EIM environment	EIM value leveraged across the organisation through information management best practice	All information goes through lifecycle management.	Information access is rapid and reliable. Search, security and classification become central services.	All staff appropriately capable. EIM designated a core skill and part of HR reviews	Robust exception handling and experimentation within information framework	Information quality is high, monitored and new ways of automating quality assurance and control are continuously investigated.	Continuous improvement of architectural practices, External recognition of quality of the architectural maturity.	Proactive approach to platforms. Piloting and prototyping recent technologies looking for the next step forward.
4 Operational	Policies and procedures deployed enterprise wide. Governance function in place	EIM Strategic goals and framework components deployed.	Staff and Executives aware and understand value of EIM. EIM incorporated in staff education programs.	Implementation of electronic and paper based RM across the enterprise	Enterprise or federated search tools enable timely access to information. Security and access controls model deployed.	Executive sponsorship of EIM as a practice. Process and information analysis are core skills	Automated processes span systems and departments	Enterprise classification scheme and information conventions deployed for naming, numbering, versioning	Enterprise and information architecture deployed	Platforms are integrated and appropriate functionality is utilised.
3 Developing	Development of information governance function, policies and procedures	EIM Strategy and framework developed.	EIM value proposition understood by Executives and plans in place to educate staff.	Enterprise Retention and Disposal Schedule developed.	Enterprise Search capability explored. Security and Access Controls model developed.	Communication and education plans in place around EIM business value	Modelling of inter–departmental processes to prep for automation	Information naming, numbering, versioning and classification developing.	Enterprise and information architecture developing	There are several different technologies in place and it is left up to the business to decide how it wants to use them.
2 Formative	Some policies; few or no formal procedures for information. Diverse accountability for information.	No EIM strategy but some information related initiatives planned or in progress	Some awareness but limited understanding of EIM value proposition	Staff starting to understand importance of information lifecycle management. Centralised records / archival function formed.	Search indexed tuned and basic metadata applied. Security managed via individual systems	Growing awareness of EIM issues and lack of management services	Basic process analysis facilitates ad hoc workflows	Some information quality awareness and , and but no standardisation or consistency	Enterprise architecture developing	Some EIM platforms exist but are not utilised effectively or widely.
1 Adhoc	No policies or procedures. People are not aware of what their responsibilities are for the information they own.	No EIM strategy in place; no EIM related initiatives planned or in progress.	No awareness or understanding of EIM value proposition.	No or ad hoc management of information lifecycle.	Staff cannot access information easily and security either not present or too restrictive.	Information management is undertaken with a low level of capability.	Few or no standardised procedures around information	Low information quality. Staff not aware of their role or importance of information quality	No enterprise or information architecture	Primary information management undertaken using basic technologies (file shares).