



Digital Transformation

01 Developing an IS/IT Strategy

27 February 2023



Version Control

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Author:	Roger Jameson, Director Housing Information Solutions	Issue Date	27-Feb-2023
Reviewed by:	John Parkinson, Director, Housing Information Solutions Adam West, Head of Business CHIA NSW Alex Dordevic, Director Leading Practice, CHIA Vic	Review Date	

Version Control

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Distribution

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1. Introduction

This paper sets out a process, together with links to an Excel toolkit to help CHOs develop their own information systems and technology (IS / IT) strategy.

It provides a stepped-out process for the development of IS / IT strategies that may be adopted and applied.

Some CHOs may well have a strategy defined which sets out their technology and system objectives, however, it is distinctly possible that there are those which do not.

This document is designed for those CHOs which do not.

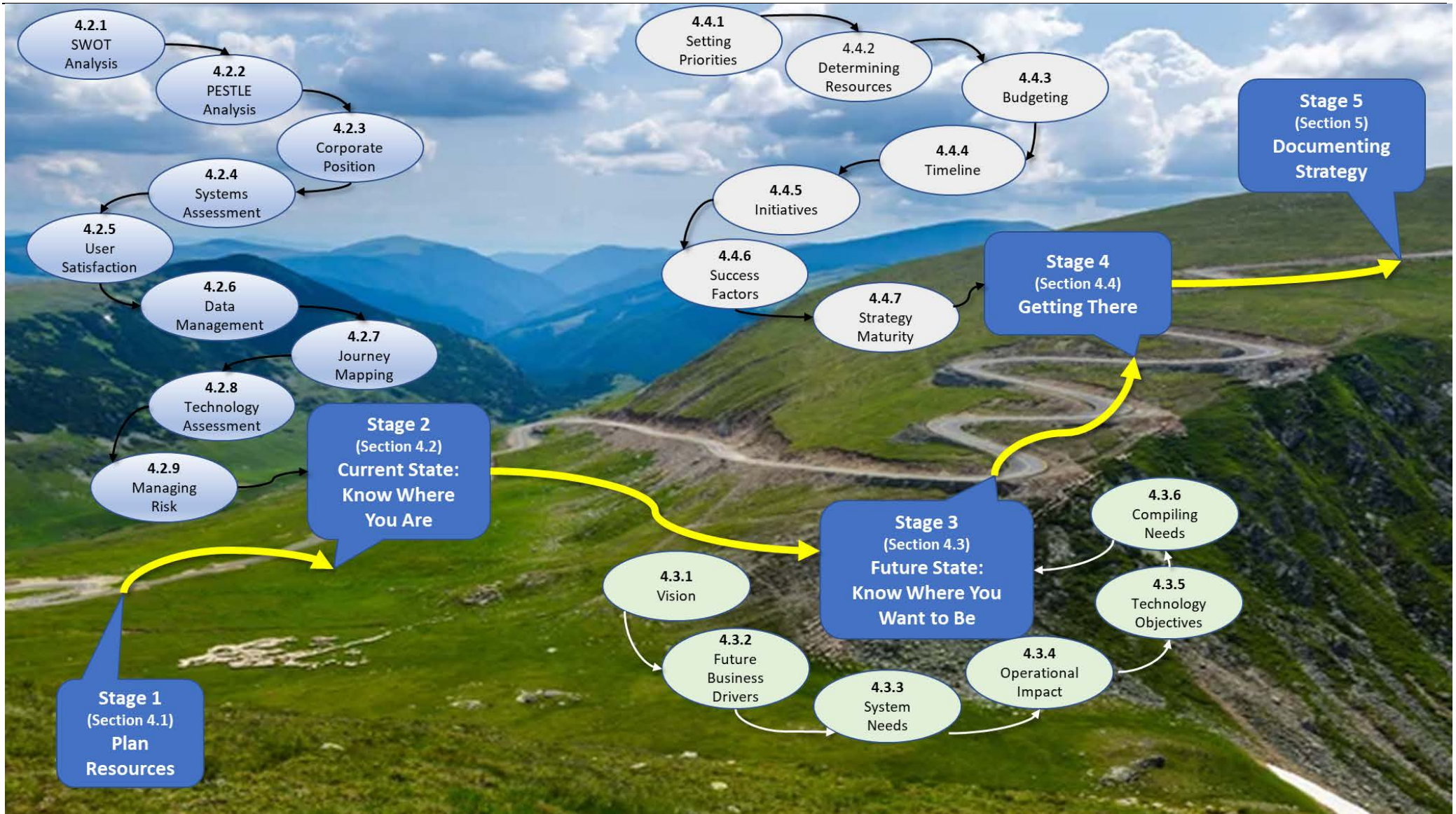
It takes you through the five key stages in developing such a strategy as shown overleaf.

Aligned to this document, is a Microsoft Excel toolkit (***IS / IT Strategy Toolkit.xlsx***) which provides a series of worksheets to use in preparing your strategy.

Reference each worksheet in the Toolkit as prompted as you work your way through this document.

A glossary of terms used in this document is provided in Section 6.

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1.1 How to Use This Guide

Developing an IS / IT strategy is very much like going on a journey as the above graphic illustrates with specific goals in mind.

A summary of the steps shown in the above illustration as well as guidance on how to use this document are set out below.

Stage	Sub-section	Summary of Actions
1 Plan Resources (Section 4.1)		1. Preparing a strategy will require sufficient resources and commitment to completing it.
		2. Appoint a member of the management team as project sponsor to oversee preparation.
		3. Involve business managers in the preparation of the strategy.
		4. Be sure to include representatives from across the CHO, with operational teams represented.
		5. Form a project team with clearly defined roles
2 Current State: Know Where You Are (Section 4.2)	4.2.1 SWOT Analysis	1. Assess and document your current strengths, weaknesses, opportunities and threats. 2. Undertake an objective assessment of where your CHO is now; what you have and whether these are sufficient to support you going forward 3. Use worksheet SWOT Analysis in IS / IT Strategy Toolkit.xlsx
	4.2.2 PESTLE Analysis	1. Assess the wider external factors which may impact your current position by conducting a PESTLE analysis 2. PESTLE is a broad fact-finding activity around the external factors that could affect a CHO's strategic decisions, helping it to maximise opportunities and minimise threats. 3. Assess the political, economic, social, technological, legal and environmental factors to assess how your CHO operates and the impact these may have on technology and system needs. 4. Use the PESTLE Analysis worksheet in IS / IT Strategy Toolkit.xlsx
	4.2.3 Corporate Position	1. Consider how your current IS / IT infrastructure and planning sits against the current business strategy
	4.2.4 Information Systems Assessment	1. Assess the capabilities of your current systems and the extent to which they are fit for purpose. 2. Identify any system related issues which may be posing an adverse impact on your operations and the way services are delivered. 3. Consider the impact issues may be having in terms of compliance, customer experience, functionality, optimisation, productivity and strategy.

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Stage	Sub-section	Summary of Actions
		<ol style="list-style-type: none"> 4. Once all issues have been identified and the associated impact has been assessed, prioritise the types of solutions. 5. Categorise your level of confidence and a rating as to the capabilities of your current systems portfolio. 6. Use the Gap Analysis worksheet in IS / IT Strategy Toolkit.xlsx to set out your current state assessment.
4.2.5	User Satisfaction	<ol style="list-style-type: none"> 1. Measure user satisfaction with your IS / IT infrastructure and portfolio. 2. Conduct an all-staff survey to understand the impact technology has on staff ability to perform their roles efficiently and effectively. 3. Identify current challenges and opportunities in applying technology to improve process performance and the colleague experience
4.2.6	Data Management	<ol style="list-style-type: none"> 1. Objectively review the quality of your data. 2. Assess the extent to which your data is accurate, locatable, accessible, interoperable, re-useable and reportable. 3. Establish data governance and ownership if you have not already done so. 4. Identify the measures needed to improve the quality of your data. 5. Determine how often you review your data and implement measures to regularly cleanse it.
4.2.7	Persona Journey Mapping	<ol style="list-style-type: none"> 1. Undertake persona journey mapping to identify pain points in relation to customer services; how IT is used by staff in a wide variety of situations; the issues being experienced and where technology improvements can be identified to improve the customer experience. 2. Understand what happens from the very first touchpoint through to the end point of whatever transaction or enquiry is being made, rather than guessing or assuming what the customer needs and how the service should be provided. 3. Refer also to Persona Journey Mapping Guide.pdf for the steps to take in mapping out customer and staff journeys in relation to specific operational functions.
4.2.8	Information Communications Technology Assessment	<ol style="list-style-type: none"> 1. Assess your level of technology maturity using the COBIT governance framework considering security and risk; strategy and governance; infrastructure and operations; applications; finance; service planning; project management; data and business intelligence; people and resources.

Stage	Sub-section	Summary of Actions
		2. Map these out in relation to levels of importance and effectiveness.
	4.2.9 Managing Risk	<ol style="list-style-type: none"> 1. Once you have identified the extent of issues related to your current systems and your technology infrastructure, together with the associated impact categories, assess the extent of risk that such issues pose to the current state. 2. Quantify risks based on the assessed likelihood of the situation occurring and the consequences that would need to be assessed 3. Identify the mitigation action required relative to the severity which has been calculated based on the risk matrix used in quantifying risks. 4. Assess the risks relevant to your organisation by using the Risk Assessment worksheet in IS / IT Strategy Toolkit.xlsx
3	Future State: Know Where You Want to Be (Section 4.3)	4.3.1 Vision <ol style="list-style-type: none"> 1. Set out the vision for the IS / IT strategy in determining where you want to be in terms of IS and IT, and how this supports the business. 2. Develop a draft set of principles, objectives and plans to form the future state using the information gathered from the current state assessment, together with feedback from stakeholders and a review of existing documentation and network/infrastructure topology
	4.3.2 Future Business Drivers	<ol style="list-style-type: none"> 1. Identify your key future business drivers. 2. Determine the impact on your organisation of future business drivers. 3. Identify the associated IS / IT implications with each future business driver. 4. For each business driver: <ol style="list-style-type: none"> a. List the objectives to be met b. List the current business issues affecting the desired outcome c. List the current technical issues affecting the desired outcome d. Describe the part of the organisation that the driver impacts e. List staff resources and roles needed to fulfil the objective f. List other resources needed (tools, support, physical facilities, suppliers, external contractors)

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Stage	Sub-section	Summary of Actions
		<ul style="list-style-type: none"> g. List information system gaps / capability of existing systems h. List technology issues <p>5. For each business driver assess the implications based on:</p> <ul style="list-style-type: none"> a. People b. Process c. Technology d. Data e. Sourcing f. Location g. Timing <p>6. Use the Business Drivers worksheet in IS / IT Strategy Toolkit.xlsx to map out your business and IT capabilities for each defined business driver and business initiative</p>
4.3.3	Information System Needs	<p>1. For each issue identified in relation to each situation in section 4.2.2, set out ideas for the future and the potential impact on service. What <i>could</i> the idea result in or what would be the <i>desired</i> impact of an improvement in how your current information system operates.</p> <p>2. Set out what is required to manage future initiatives, schemes or operations.</p> <p>3. Use the functionality gaps identified in your current state assessment to drive the formulation of requirements to better support operations and service delivery.</p>
4.3.4	System Impact on Operations	<p>1. Prioritise initiatives you have identified.</p> <p>2. Map out initial areas of priority based on your current state assessment in relation to importance and satisfaction.</p>
4.3.5	Technology Implications and Objectives	<p>1. Assess your current technology infrastructure against current trends and new developments.</p> <p>2. Map out initial areas of priority based on your current state assessment in relation to importance and satisfaction.</p> <p>3. Define key technology initiatives needed to support your business goals and future business drivers.</p>

Stage	Sub-section	Summary of Actions
	4.3.6 Compiling Needs	<ol style="list-style-type: none"> 1. Having identified your vision, future business drivers, your information system needs, the impact on your operations and assessing the technology implications and objectives, list out each business goal and the associated initiatives and your capabilities. 2. Define your business drivers 3. Determine the initiatives needed to support the driver 4. Assess your capabilities within your CHO to achieve them 5. From these align your key IT goals (note that a goal is broader and more general than an objective which is more precise and exact) 6. Similar to determining the organisational initiatives, determine the IS / IT initiatives to meet the IT goal in supporting the driver 7. Assess your capabilities from an IS / IT perspective whether you have the skills and resources in-house to support these initiatives
	4.3.7 Further References	<ol style="list-style-type: none"> 1. Further reference may also be made to the COBIT and ITIL® frameworks and which could be applied by CHOs in terms of IS / IT management. 2. The material provided in both is however vast and covers a huge array of aspects on IT governance.
4	Getting There (Section 4.4)	4.4.1 Priorities
		<ol style="list-style-type: none"> 1. For each business driver, prioritise what is achievable from what you have identified. 2. Create a criteria-based matrix and rank initiatives with selected staff rating each project using weighting factors from 1 to 5, where 1 is the least important and 5 the most important. 3. Determine your weighting factors e.g., risk to organisation if initiative not done; impact on service; impact on productivity; impact on reporting; impact on compliance etc. 4. Identify the resource implications from each project. 5. Use the Prioritising Initiatives worksheet in IS / IT Strategy Toolkit.xlsx to rank your priorities
		4.4.2 Resources
		<ol style="list-style-type: none"> 1. Determine whether the number and scope of IT initiatives may require additional staffing resources unless external consultants will be engaged. 2. Use the Initiative Detail worksheet in IS / IT Strategy Toolkit.xlsx to align the planned resources to each initiative

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Stage	Sub-section	Summary of Actions
	4.4.3 Budgeting	<ol style="list-style-type: none"> 1. Assess internal resources needed and the associated costs 2. Seek indicative quotes from suppliers 3. Assess the tangible and intangible benefits that can be gained in both the short-term and the longer-term. 4. Undertake the costing and budgetary planning only once initiatives have been prioritised. 5. Structure the IT budget aligned to the Key Initiative Plan to ensure consistency, with the subsidiary projects costed to provide an overall total 6. Use the Initiative Detail worksheet in <i>IS / IT Strategy Toolkit.xlsx</i> to align the planned costs related to each initiative
	4.4.4 Timeline	<ol style="list-style-type: none"> 1. Once initiatives have been prioritised aligned to the strategic business drivers, prepare a timeline showing how you will progress from current state to future state. 2. For each initiative, break this down into its own timeline, structuring it based on the related components
	4.4.5 Initiative Breakdown	<ol style="list-style-type: none"> 1. Break each initiative down in summary format based on description, category, costs, timeline, benefits, risks, dependencies and resources. 2. List your projects in worksheet 7. Initiative Detail in the <i>IS / IT Strategy Toolkit.xlsx</i> 3. Set out the overall timeline in worksheet 8. Roadmap in the <i>IS / IT Strategy Toolkit.xlsx</i>
	4.4.6 Critical Success Factors	<ol style="list-style-type: none"> 1. Define critical success factors in order that progress can be managed and monitored. 2. Establish a reporting framework so your management team can be updated on the progress of each project linked to each initiative.
	4.4.7 Strategy Maturity Level	<ol style="list-style-type: none"> 1. Based on the steps you have followed above, use the matrix provided in this sub-section to determine your <i>IS / IT</i> maturity level.
5	Strategy Structure (Section 5)	<ol style="list-style-type: none"> 1. Once all the worksheets have been completed in <i>IS / IT Strategy Toolkit.xlsx</i>, the planning and prioritisation processes are complete, you now know: <ol style="list-style-type: none"> a. Where you are now b. Where you want to be

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Stage	Sub-section	Summary of Actions
		<ul style="list-style-type: none">c. How you are going to get there2. You are now therefore ready to bring this all together in a format for consideration by your Board.3. Follow the suggested template in this section to compile your strategy document

2. Operational Background

The community housing sector has changed considerably over the past decade.

We have witnessed the following:

1. Establishment of the National Regulatory System for Community Housing
2. Establishment of the National Rental Affordability Scheme
3. State Government initiatives to tackle housing issues such as:
 - a. Social housing management transfers in NSW
 - b. The Big Build program in Victoria
4. Introduction of an array of affordable housing schemes
5. Leasing of properties from the private sector
6. Ongoing evolution of regulatory reporting and assessment of key performance indicators
7. Increasing homelessness and responses to it
8. Ongoing growth of the larger CHOs
9. CHOs merging to form larger organisations
10. CHOs beginning to operate inter-state and even nationally

For all of the above, it is highly likely that significant business strategic planning went into each element above, with staff appointed to manage the respective operational functions. To what extent however, did systems and technology planning form part of it?

Many CHOs which have grown during this period were using one system to manage tenancies, with perhaps some (limited) functionality to manage assets and maintenance and another to manage their finances and accounts. Business reporting was probably the best it could be at the time either by using the standard reports from that application or by extracting data to Excel to bolster the organisation's reporting capabilities.

Staff may have been accustomed to manual workarounds and to also using Excel to hold data in various ways on operational aspects and functions that the main system could not, with the result that there was an array of disparate data sources and no integration.

As some CHOs began to grow in size through property development, acquisition, leasing or management / ownership transfer, the main drivers from a systems perspective have tended to be:

1. Achieving full integration across tenancies, assets and finance, and alleviate the issues posed by data duplication and manual workarounds between previously used legacy systems.
2. Providing a 360-degree view of tenants, clients, applicants, household members, partners and stakeholders.
3. Improving operational efficiencies through the elimination of data duplication and manual data entry, and where practical, the introduction of business process workflows.
4. Ensuring that effective decision-making can be supported across their respective organisations and their sphere of operations.
5. Reducing overall operational costs.
6. Addressing areas of inconsistencies in service delivery.
7. Improving the levels of information across the organisation.

8. Enabling staff to provide quality advice and services to applicants and tenants,
9. Assessing the support housing options for residents.
10. Supporting tenancy and community engagement and consultation activities.
11. Reducing risk.
12. Introducing greater data security controls and auditing mechanisms.
13. Supporting improvements in strategic planning.
14. Generating much improved performance, reporting methods, and outputs.
15. Ensuring compliance with all legislative and service obligations
16. Enabling effective performance monitoring.
17. Supporting staff to work remotely in the field using mobile applications.
18. Automating processes through use of workflow and task management functionality, which prompt staff of tasks to be done, rather than requiring them to search.

In addition, specific types of software applications have been procured to fill a specific gap or area of service that the broader transactional based systems could not support.

3. Context & Approaches

How would you describe your systems and technology infrastructure? How much planning has gone into it?

Would you say you have a structured environment with fit-for-purpose systems and technology in place, or do you have a mish-mash of applications which do not talk to each other, procured over time to meet specific needs as they evolved?

Or perhaps you have been using, and are continuing to use, legacy applications which you have used for some considerable time and may perhaps still serve you well.

To what extent are you keeping up to speed with the ever advancing and rapid changes in technology and its implications as to how it could affect how you deliver services?

How will you use technology and software in a rapidly changing environment, both in relation to the housing environment as well as the technology environment to manage your business, deliver services, implement initiatives and best support staff in how they do all that? And last, not least, how well do your systems and technology infrastructure align with your business strategy?

Contrast where you are now with where you were 10 – 15 years ago in terms of what you used to hold information on your tenancies, assets and accounts.

You may, quite possibly, be using the same technology and systems as you were then.



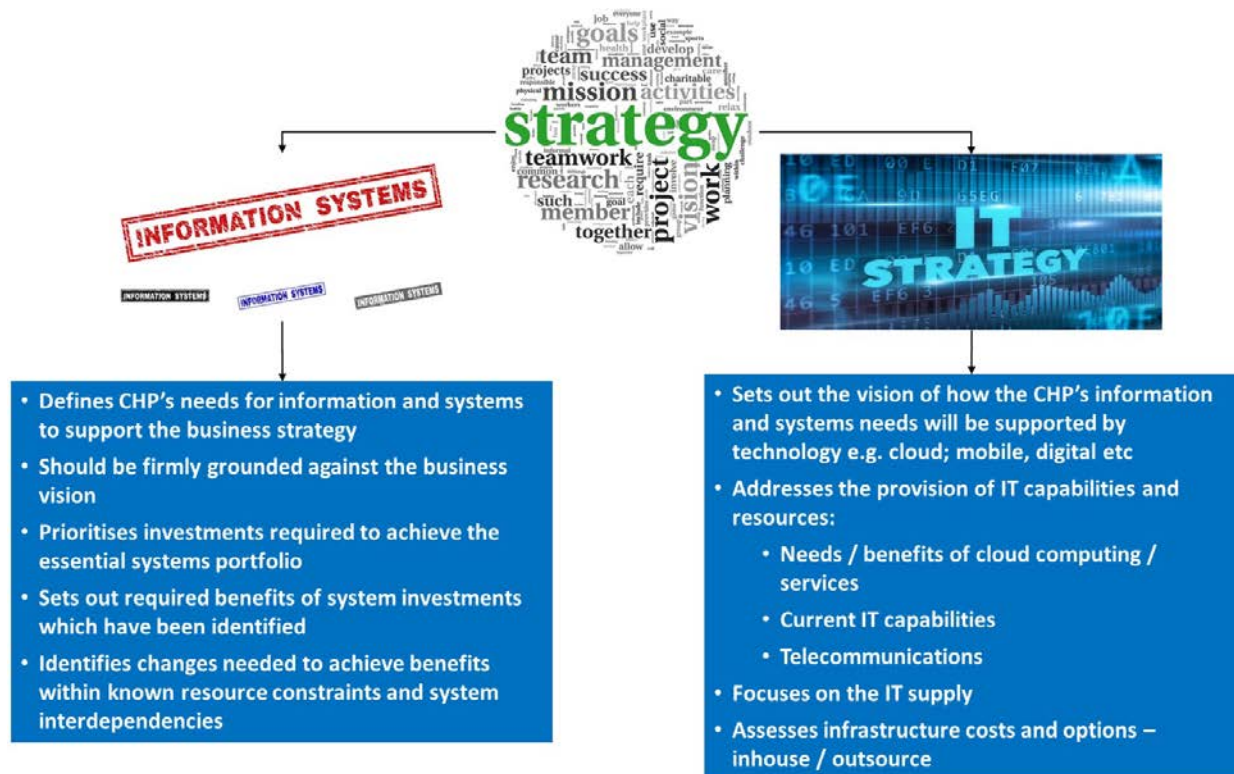
If you are not, what factors influenced you in changing in what you have and what you use? To what extent were such decisions aligned to the organisation’s business direction?

Wherever you are now, when it comes to making decisions on technology and systems, there **should** be a strategy defined which sets out the direction you need to go in the future.

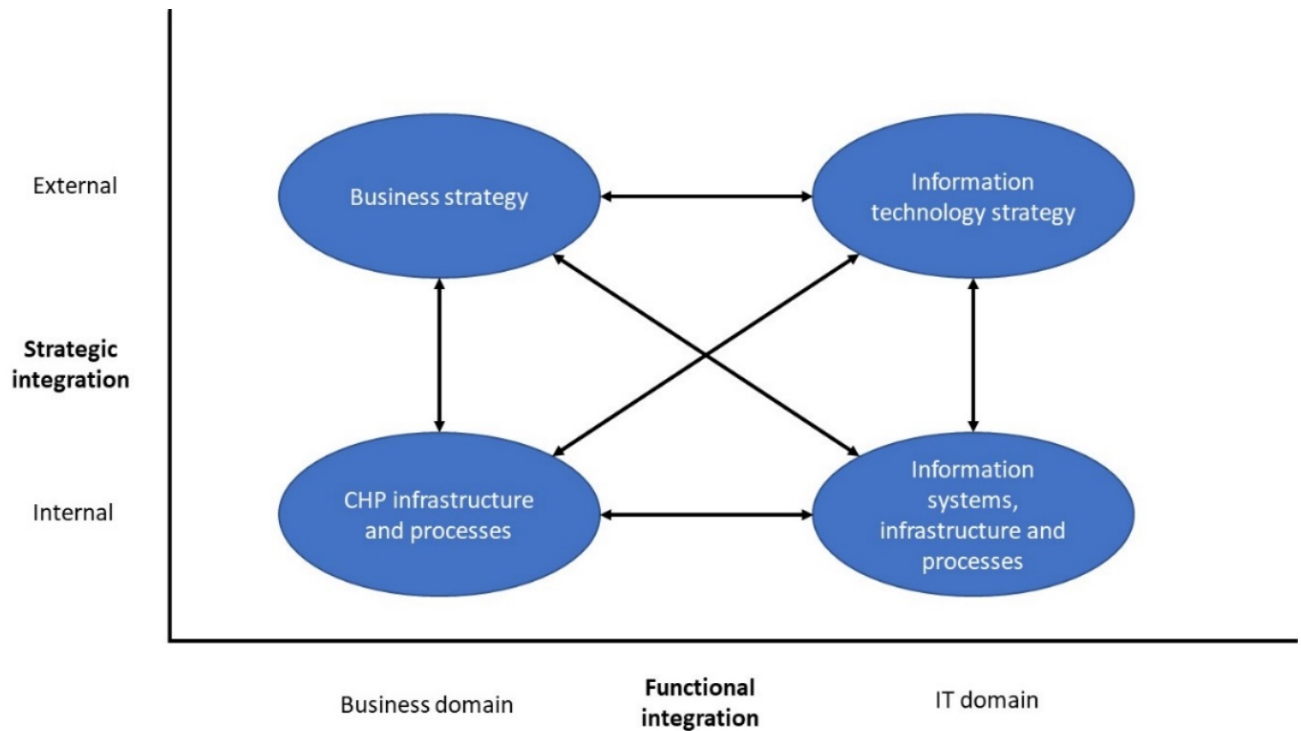
It is however, very important to be aware that in relation to managing information, there are **TWO** distinctions that need to be clearly understood:

Information Systems (IS)	Information Technology
<p>Deals with:</p> <ol style="list-style-type: none"> 1. What to do with information, systems and technology 2. How to manage software applications from a business perspective 	<p>Designates:</p> <ol style="list-style-type: none"> 1. What technology is needed to support how users and customers access information, i.e., hardware, software, networks and telecommunications 2. How technology is to be applied in delivering the information 3. How technology and resources is to be managed to meet the varying business needs

Both of the above can be incorporated within one overall IS / IT strategy but should be structured in two parts:



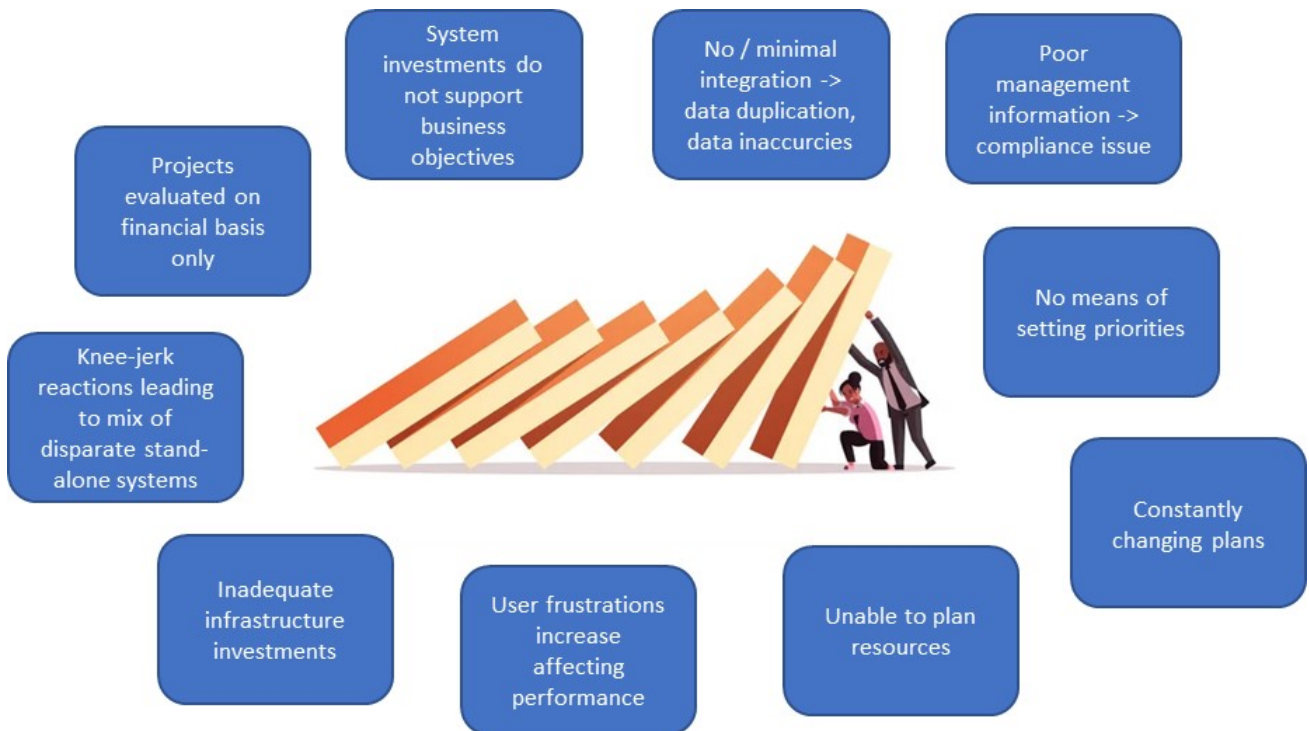
The concept of defining an IS / IT strategy is not new, neither is the recognition of how such a strategy needs to be aligned to the business. A common interpretation of business, information and technology alignment (as applied to community housing), is shown below:¹



The key reasons for preparing an IS / IT strategy are to ensure that the right decisions are made in providing the necessary information infrastructure required to support the CHO in achieving its business goals.

The impact of not having such a strategy in place can be significant as illustrated below:

¹ J.C. Henderson and N. Venkatraman, 'Strategic alignment: Leveraging information technology for transforming organisations', IBM Systems Journal, Vol. 32, No. 1, 4–16. See also N. Venkatraman, J.C Henderson and S. Oldach, 'Continuous strategic alignment: Exploiting information technology capabilities for competitive success', European Management Journal, Vol. 11, No. 2, 1993, 139–149; and J.N. Luftman, P.R. Lewis and S.H. Oldach, 'Transforming the enterprise: The alignment of business and information technology strategies', IBM Systems Journal, Vol. 32, No. 1, 1993, 198–221.



It should be remembered that having a good strategy is only a means to an end – its implementation is when the value of the strategy is actually realised.² All aspects of IS and IT should be designed to support the CHO in managing its operations and delivering services.

This document covers approaches to developing an IS / IT strategy. Whilst it makes references to digital transformation and includes examples of digital initiatives, these are provided in the context of their relevance to information systems. For CHOs, digital transformation is defined as the:

integration of digital technology into all areas of their operations fundamentally changing how the organisation can operate, delivering increased accessibility to tenants through the introduction of additional service channels and providing an enhanced customer experience.

Digital transformation is not solely about technology; it is about a readiness to innovate, deal with cultural change and create new services and / or initiative to cope with the current and emerging plethora of challenges facing CHOs today.

For this reason, it is important that a digital strategy is prepared separately to the IS / IT strategy in view of its likely breadth and scope, however, it will need to make references where appropriate to specific initiatives set out in the overall IS / IT strategy.

² Ward J. and Peppard J. (2002), Strategic Planning for Information Systems (Third Edition), Cranfield School of Management

4. Strategy Preparation

4.1 Stage 1: Plan Resources

Preparing a strategy will require sufficient resources and commitment to completing it.

For a small CHO, this could mean one staff member working on it for some time in collaborating with key stakeholders. A growing number of larger CHOs now have staff dedicated to IT who could facilitate the preparation of a strategy. It is however, important that a member of the CHO's management team e.g., Chief Financial Officer or, in rarer instances, the Chief Information Officer acts as the driver overseeing the process.

Subject to the size of your organisation, be sure to include representatives from across the CHO, with operational teams represented from tenancy, customer experience, assets, finance and compliance. It is recommended that a project team be formed with roles clearly defined with an estimate as to the amount of time that will need to be devoted to the project.

Ideally, the project team would commence this exercise once the CHO's business strategy for the next 3 – 5 years has already been defined and approved by the Board.

Once roles have been defined and a team appointed, a workshop should be held to kick off the project, present the reasons why an IS / IT strategy is needed and make it clear what is required from team members.

In aligning IS / IT to the overall business strategy, it is important that business managers are involved in defining the IS / IT strategy. IS / IT can also be an enabler in implementing specific business objectives, those that cannot be implemented without it. Digital transformation is a good example of this and, taking into account that digital transformation is more than just technology, the ultimate solutions significantly rely on the use of digital technology.

A similar approach should be adopted when undertaking a major systems implementation project, and the preparation of an IS / IT strategy is no different in terms of importance and structure.

Typically, all IS / IT strategies should contain a common set of characteristics, and these are set out below in this document.

4.2 Stage 2: Current State – Know Where You Are

The first phase in compiling an IS / IT Strategy is to assess your current state.

In doing so, it is important to undertake an objective assessment of where the CHO is now; what it has and whether these are sufficient to support it going forward.

Strategic planning should be undertaken as widely as possible, by assessing a range of internal and external factors. In theory, the CHO's business strategy should follow this approach and the preparation of an IS / IT strategy should likewise follow suit.

4.2.1 SWOT Analysis

Typically, this is undertaken by assessing the CHO's strengths, weaknesses, opportunities and threats (SWOT analysis). An example of this is provided below.

	Helpful to achieving the objective	Harmful to achieving the objective
Internal Origin CHP attributes	Strengths List known strong points e.g.: <ol style="list-style-type: none"> 1. Reputation / track record 2. People, skills and capabilities / staff retention 3. Results of initiatives 4. Awards 5. Tenant satisfaction level 6. Current system utilisation (if applicable) 7. Technology infrastructure (SaaS / cloud in place) 8. Strong technology change management skills 9. High level of digital readiness 10. Service orientation 	Weaknesses List known weaknesses e.g.: <ol style="list-style-type: none"> 1. Resource staffing constraints / turnover 2. Current system utilisation – gaps, issues, functions 3. Data issues – inaccuracies, duplication 4. Lack of technology investment 5. Poor quality management 6. Poor understanding of customer needs 7. Low level of digital readiness 8. Low tenant satisfaction 9. Persona journey mapping identified pain points
External Origin operational / environmental	Opportunities List known opportunities e.g.: <ol style="list-style-type: none"> 1. Government housing initiatives 2. Partnerships 3. Funding opportunities 4. Government change 5. CHP's business drivers 6. Tenant / customer requirements (if known) 7. Results of consultation exercises 8. Cloud computing, SaaS applications, trends / changes 9. Digital technologies 	Threats List known threats e.g.: <ol style="list-style-type: none"> 1. Performance levels / threat to re-registration 2. Compliance issues / poor data management 3. Non-competitive 4. No disaster recovery plan in place 5. Ongoing lack of success in gaining funding 6. Weak revenue position 7. Ageing stock / land availability 8. Cost of acquisition / delivery

Identify your strengths, weaknesses, opportunities and threats using worksheet SWOT Analysis in IS / IT Strategy Toolkit.xlsx

4.2.2 PESTLE Analysis

In addition to the above, it is also important to assess wider external factors in relation to the CHO's current position using the **PESTLE** approach.

PESTLE is a broad fact-finding activity around the external factors that could affect a CHO's strategic decisions, helping it to maximise opportunities and minimise threats. Using PESTLE, a CHO may assess and audit six external influences on how it operates, and these are listed below.

By analysing those factors, CHOs can assess any risks specific to their industry and organisation and make informed decisions. It can also highlight the potential for additional costs, and prompt further research to be built into future plans.

Factor	Examples
Political	<ul style="list-style-type: none"> • Government commitment to housing • Housing initiatives • Lobbying of needs • Regulatory compliance
Economic	<ul style="list-style-type: none"> • Market fluctuations • Borrowing capability • Funding opportunities • Financial performance and management • Level of investment needed

Factor	Examples
	<ul style="list-style-type: none"> • Costs of overheads • System / technology procurement costs • Capability in identifying return on investment • Identifying technology / system benefits • Adverse costs on maintaining the status quo • CHO current budgeting process <ul style="list-style-type: none"> ○ Assess how well the current budgeting process works ○ Alignment of project expenditure to business goals and drivers ○ Assess how IS / IT investments are prioritised
Social	<ul style="list-style-type: none"> • Changing demographics • Understanding of demographic needs • Recording demographics • Communications and channels • Community engagement and initiatives • Increasing demand for types of housing • Knowing your customer base – maintaining customer contact records
Technological	<ul style="list-style-type: none"> • Keeping pace with technology • Technology utilisation • Approach / attitude to deploying technology • Approach to implement technology initiatives • Maintaining the status quo • Fear of change • Systems capabilities and issues • Systems usage • Systems performance • Level of systems integration • Level of systems optimisation • Data management strategy in place • Supplier service and support • Digital readiness and maturity • Cybersecurity procedures in place • System security measures documented and in place • Disaster recovery policy in place
Legal	<ul style="list-style-type: none"> • Legal impact of business processes / rules • Changing regulatory rules • New rules driving policy creation and compliance • Training staff on regulations and implications on non-compliance • Audit requirements • Privacy compliance

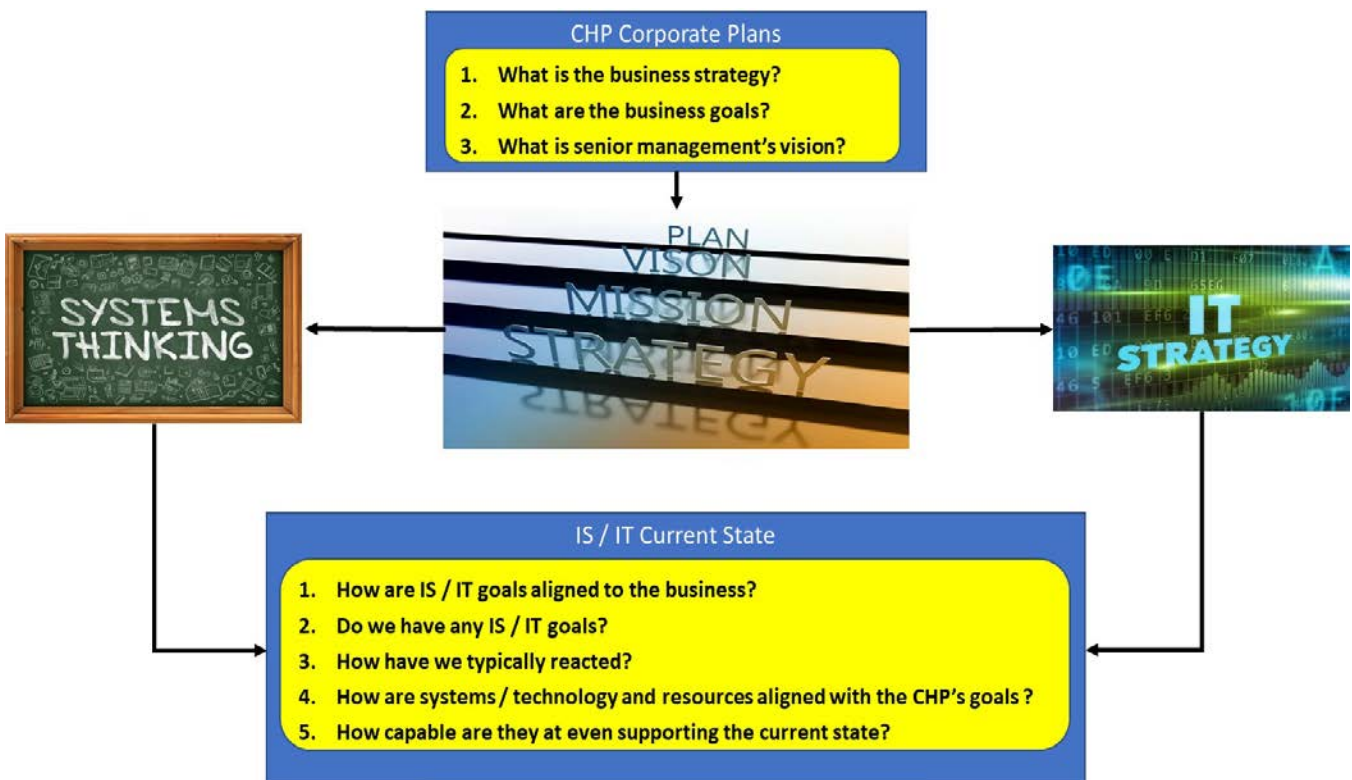
Factor	Examples
	<ul style="list-style-type: none"> Regulatory reporting
Environmental	<ul style="list-style-type: none"> Environmental policy in place Progression to digital – impact on paper-based processes Communication processes which offset carbon emissions Reductions in energy consumption Assessment of initiatives to address energy consumption – Internet of Things deployment in buildings and assets

Consider the factors appropriate or relevant to your organisation by using the PESTLE Analysis worksheet in IS / IT Strategy Toolkit.xlsx

Once the SWOT and PESTLE analysis has been completed, the next stage is to assess the maturity of IS and IT within the organisation, in other words **where are we now** and this should be assessed against a range of factors as set out below.

4.2.3 Corporate Position

Consider how your current IS / IT infrastructure and planning sits against the current business strategy:



Other questions to pose include:

1. What is the extent of CHO leadership and agreement on objectives, solutions and strategy?
2. What is the current level of alignment between IS / IT and the business?
3. To what extent is information management included and considered as part of the wider strategy?
4. How well connected is IS / IT within the CHO structure? IS / IT seen as an essential service or an afterthought?

5. To what extent is information management in catch-up mode trying to support business operations and initiatives?
6. To what extent is data treated as an asset and how IS / IT maintained in supporting the CHO's goals?
7. Is the value of information recognised within the CHO?

4.2.4 Information Systems Assessment

In assessing your current position, an assessment should be made as to the capabilities of your current systems. Information management is a key factor in how any organisation:

1. Administers its operations.
2. Delivers services.
3. Enhances organisational capability.
4. Seeks and achieves growth.

Managing information effectively therefore relies on the close alignment of systems capability and how they can support an organisation in meeting its needs.

For each system in use, assess whether each system is fit for purpose by identifying the extent of issues which are having an adverse impact on your operations and the way services are delivered. Ideally, this exercise should be undertaken in a workshop format with representatives from each team and should cover:

1. Business process or system functionality.
2. Business function administered by each team.
3. Situation causing the issue.
4. System(s) causing the issue.
5. System source type i.e., sole or a system combination
 - a. Where a combination of systems is in place, it is crucial to gain an understanding of the current touch points between each system. For instance, is a fully integrated set of data transfer exchanges in place or is there any manual intervention involved in needing to enter data more than once.
 - b. If systems are not fully integrated:
 - i. What are the problems being experienced?
 - ii. What is the impact on staff time and usage?
 - iii. What is the impact on productivity?
 - iv. What is the impact on data management and ensuring data remains synchronised?
 - v. Based on this, does this pose any issues in relation to the CHO's compliance and reporting obligations?
6. Details of the issue
7. Impact description of the issue
8. Impact categories:
 - a. For each issue, assess whether it has an impact on the following categories:

Impact Category	Category Definition
a. Compliance	<p>Use of system(s) and / or the current data configuration results in issues arising due to one or more of the following:</p> <ul style="list-style-type: none"> i. Inaccurate reports are being generated which is likely to have an adverse impact on your CHO's compliance obligations and therefore poses a significant risk to the organisation. ii. System configuration is resulting in inconsistencies in how data is captured and / or how services are being delivered. iii. Entry of incorrect, inaccurate data has an adverse impact on service delivery and reporting outputs with staff needing to check or verify details which they either can identify or immediately suspect as being incorrect. iv. Staff are spending additional time in checking accuracy of data due to the configuration and / or functionality. v. Staff must manually enter data and there is risk of human error in mistakenly entering the wrong information. vi. Lack of data consistency and / or data being held in multiple locations results in inconsistencies in reporting and therefore subsequent risk to compliance obligations. vii. Variety of data locations pose implications on where and how reports should be compiled
b. Customer experience	<p>Use of system(s) and / or the current data configuration results in issues arising due to one or more of the following:</p> <ul style="list-style-type: none"> i. Data accuracy and / or lack of real-time information results in staff being uncertain as to the advice that needs to be provided. ii. Data held in disparate systems which is not or incorrectly maintained, and which may result in misleading or inaccurate advice being given to customers. iii. Data duplication errors may result in different members of staff providing conflicting or incorrect advice to customers. iv. Inconsistent methods of communication across systems due to varying levels of functionality may result in inconsistencies in responding to and / or informing customers. v. Lack of functionality results in a poor experience e.g., such as lack of mobile applications; self-service; workflow etc. vi. Lack of adequate survey or reporting tools results in your CHO not fully knowing what customers think of their experience.

Impact Category	Category Definition
c. Functionality	<p>Ability of the current information systems to provide the required levels of functionality to support your CHO's operations:</p> <ul style="list-style-type: none"> i. What functionality weaknesses exist? ii. What impact do such functionality issues pose?
d. Optimisation	<p>Ability of the current information systems to perform specific tasks for which they are intended.</p> <ul style="list-style-type: none"> i. How well do the systems support specific operational tasks? ii. What issues are posed in relation to the system's current capability in supporting specific tasks?
e. Productivity	<p>Use of system(s) results in a combination of one or more of the following which has an adverse impact on staff productivity:</p> <ul style="list-style-type: none"> i. Needing to duplicate data held in one system in another by manually entering information or copying and pasting. ii. Manual data entry from another source such as paper forms or recording the information on-site due to lack of access to mobile technology. iii. Reliance on Microsoft Excel as an alternative repository due to the core transactional based system either not holding the data or has not been configured to do so. iv. Need to manually track progress on an activity due to lack of workflow and / or reporting.
f. Strategic	<p>Ability of the current information systems to support the delivery of your CHO's strategic objectives:</p> <ul style="list-style-type: none"> i. Does the system hold the data needed to sufficiently analyse operations and identify service areas needing improvement? ii. Do the reporting tools easily enable information to be easily extracted and analysed? iii. Is the system able to support the necessary level of reporting to inform the assessment of strategic options?

By generating a pivot table setting out the number of issues by each category, you will be able to glean a good understanding as to the extent to which your information systems are fit for purpose and whether they are capable of supporting your current state of operations and your information needs.

From this, you should be able to document the current picture, highlighting data / information gaps, identifying aspects such as:

1. Extent of data duplication.
2. Extent of data gaps.
3. Inefficiencies in operations.

4. Potential areas for inaccuracies.
5. Data inconsistencies arising due to one system not being manually updated as a result of data being entered in another.
6. Scope for business process improvements.
7. Extent of manual operations or interventions.
8. Extent of workarounds contributing to the level of inefficiency identified above.
9. Functionality gaps which result in time-consuming activity either through manual workarounds or data duplication.
10. Heavy reliance on copying or extracting data to Excel due to functionality limitations, thereby exacerbating the data management and quality problem.
11. Being unable to have or glean a 360-degree view of the person with whom staff are responding to or dealing with.
12. Inconsistent data mapping in relation to reporting needs and the current systems configuration.

Once all issues have been identified and the associated impact has been assessed, it is then important to prioritise the types of solutions. Areas to be addressed may be:

- a. Possible re-configuration and assessing whether business process changes would address these issues
- b. Data cleansing
- c. Integration / interface development
- d. Procure / license other modules provided by current systems supplier
- e. Full system replacement
 - i. To pursue this path, you then need to know and define what you need, such that you can undertake a software procurement with the right amount of due diligence.

Undertaking the above would also enable you to more effectively categorise your level of confidence and a rating as to the capabilities of your current systems portfolio. Of course, the above exercise may well reveal that you do not currently have systems capable of supporting specific business functions, which would therefore prompt a decision on the strategy to remedy this.

As part of the CHIA NSW and CHIA Vic digital transformation project, a high-level survey was distributed to member CHO organisations requesting CHOs to rate their current information systems based on the following criteria:

Rating	Definition
Excellent	Very effective, strong functionality and features, is very easy to use, intuitive, used by all staff, offers a good range of benefits and is well integrated
Good	Meets our needs, useful functionality, is reliable, working well, offers some benefits and is used by all staff
Satisfactory	Manages the basic tasks but could be better in certain areas, broadly supports the organisation and is used well by some staff who know how to use it)
Minor deficiencies	Supports basic tasks but has minor deficiencies and functionality weaknesses such that staff need to rely on a combination of workarounds or manual processing, system enhancements are needed to improve it

Rating	Definition
Major deficiencies	Does not support a range of operational functions such that there are many gaps, staff rely on workarounds which causes significant user frustration and many enhancements are needed

Whilst the above survey can be seen as an indicative and perhaps subjective assessment, the only true approach is to undertake a detailed gap analysis.

Use the Gap Analysis worksheet in IS / IT Strategy Toolkit.xlsx to set out your current state assessment.

4.2.5 User Satisfaction

In addition, to the gap analysis undertaken above, another aspect which should be included in the current state assessment is to measure user satisfaction with your IS / IT portfolio.

Conducting an all-staff survey to understand the impact technology has on staff ability to perform their roles efficiently and effectively will help to pinpoint issues or even reinforce issues which are identified from the current state gap analysis.

From this, you can begin to identify current challenges and opportunities in applying technology to improve process performance and the colleague experience.

In particular, canvassing staff can help to identify:

1. Overall satisfaction levels as to systems capability in supporting each team's needs.
2. Levels of confidence on system capability
3. Top system priorities which need to be addressed.
 - a. Summarise these for each team by high, medium and low
4. Top hardware / communications priorities which need to be addressed.
 - a. Mobile
 - b. PC / laptop performance
 - c. Network

4.2.6 Data Management

The above section cites examples where data quality needs to be taken into account in any information systems assessment.

The importance of data is often overlooked in some CHOs and its existence taken for granted.

One of the key operational functions for CHOs is of course to maintain their assets, regularly reviewing their condition and defining programmes to assess maintenance issues.

The same could, and indeed, should be said about data and treating this as an asset with its condition being regularly reviewed and maintained.

It is therefore imperative that CHOs should take a pro-active approach in managing their data. Without due care taken, the amount of effort to address evolving and compounding issues may well take significant resources and time to resolve.

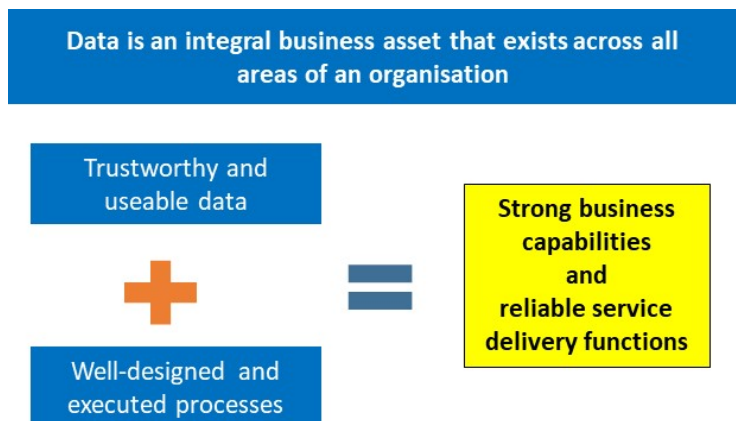
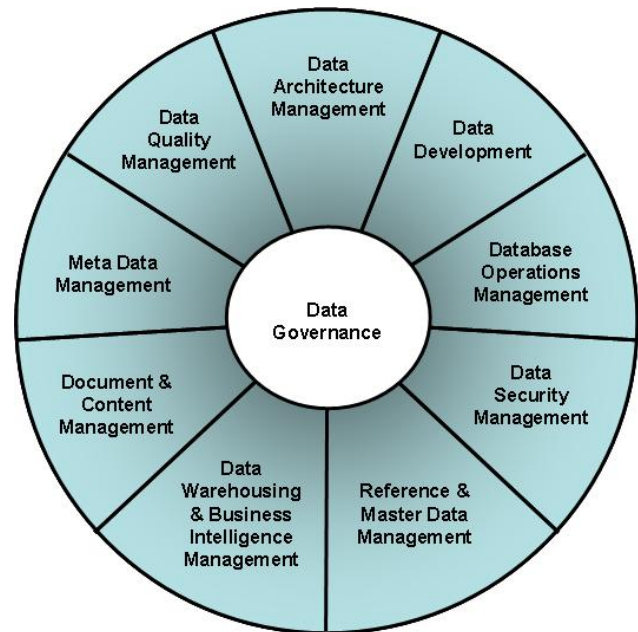
Data management is defined as the **planning, execution, and oversight** of policies, practices, and projects that **acquire, control, protect, deliver, and enhance** the value of data and information assets.³

The importance of data management and governance therefore needs to be assessed as part of the overall IS / IT strategy to ensure that data is:

1. Accurate
2. Locatable
3. Accessible
4. Interoperable, especially if a combination of systems is in use
5. Re-useable
6. Is held in the right place to ensure that reporting and analytics will generate the correct outputs

In the event that a combination of systems is in use and if the scope of interfaces is non-existent or limited, it is distinctly possible that current operating procedures may result in inconsistencies in how staff undertake routine tasks and operations.

Such inconsistencies could result in difficulties tracking performance with issues around data capture, measuring efficiency, quality output and uniformity.

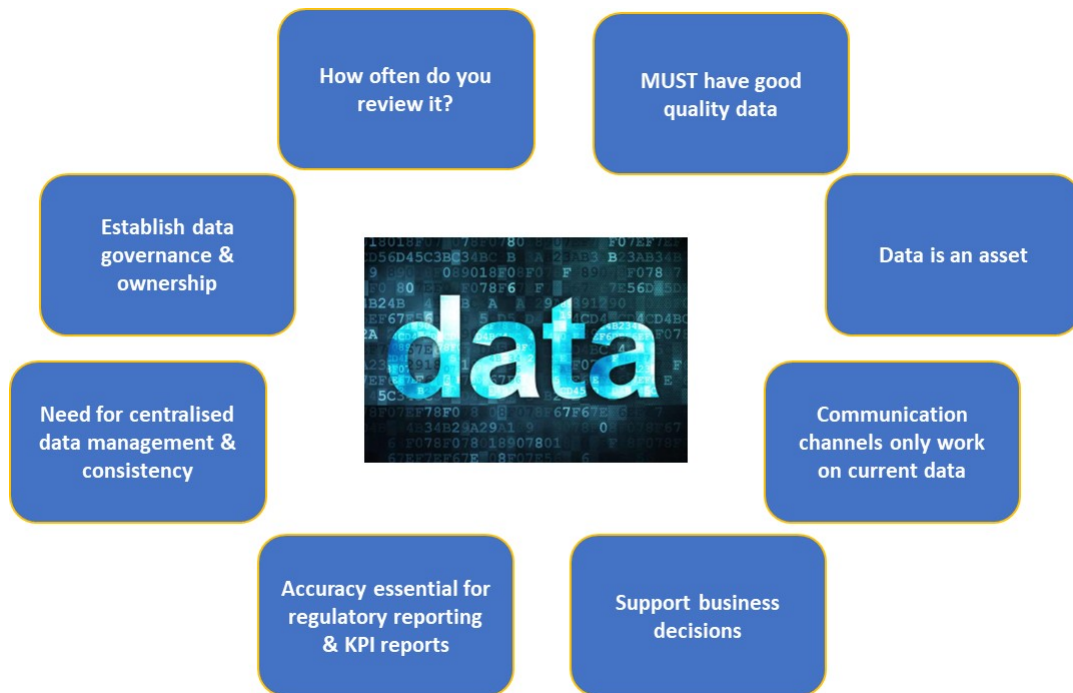


³ Data Management Association, A Guide to the Data Management Body of Knowledge, 2009
https://www.academia.edu/19992490/The_DAMA_Guide_to_the_Data_Management_Body_of_Knowledge_First_Edition

Inconsistent approaches in undertaking tasks and operations could also result in data quality issues, which may not be immediately identified, and instead may linger in the background until something goes wrong and somebody then asks pertinent questions as to why this has happened.

Data quality therefore could be due in part to users not maintaining data or perhaps the systems in use are not configured correctly to ensure that the correct information is entered in the first place.

Common principles relating to data management are illustrated below:



4.2.7 Persona Journey Mapping

Assessing persona journey mapping may also likely assist in identifying pain points in relation to customer services; how IT is used by staff in a wide variety of situations; the issues being experienced and where technology improvements can be identified to improve the customer experience.

Using types of personas, the purpose of journey mapping is to understand what happens from the very first touchpoint through to the end point of whatever transaction or enquiry is being made, rather than guessing or assuming what the customer needs and how the service should be provided. Furthermore, they are important in assessing where improvements such as the deployment of digital technology could be utilised and the extent to which digital services would be used.

The pain points and any associated issues identified should be included in the gap analysis assessment as set out in Section 4.2.4 above with the suggested improvements earmarked for discussion and prioritisation in the following section on where you want to be.

For example, if your digital readiness is low, persona journey mapping may contribute to your planning on the initiatives that could be implemented to improve services. This could be considered as a major business driver for the CHO and thus would be linked to the corresponding initiative(s) within the IS / IT strategy as to when digital technology is to be designed and implemented.

4.2.8 Information Communications Technology Assessment

A key aspect in assessing the current state of your ICT infrastructure is to determine its level of maturity.

Using the COBIT governance framework⁴, assess your level of maturing using the following matrix.

Select those that are relevant to your organisation.

For each topic, determine and highlight your maturity by the following

Legend	Description
Yellow	High importance and high effectiveness
Grey	Low importance and high effectiveness
Light Blue	Low importance and low effectiveness
Red	High importance and low effectiveness

⁴ <https://www.isaca.org/en/resources/cobit>

Digital Transformation
01 Developing an IS/IT Strategy

Security & Risk	Strategy & Governance	Infrastructure & Operations	Applications	Finance	Service Planning	Project Management	Data & BI	People & Resources
Security strategy	IT governance	Enterprise architecture	Application management	Cost & budget management	IT organisational design	Portfolio management	BI & reporting	Human resource management
Security management	IT strategy	Availability & capability management	Application selection process / procurement	Vendor management	Quality management	Project management	Data architecture <ul style="list-style-type: none"> this is dependent on your applications portfolio e.g.; you may have implemented a SaaS model for your core systems 	Leadership, culture & values
Risk management	Performance measurement	Asset management	Application development <ul style="list-style-type: none"> NB if relevant to your organisation some CHOs have resources capable of developing bespoke solution 	Cost optimisation	Service management	Requirements gathering	Data quality <ul style="list-style-type: none"> this should be under constant review the accuracy of your reports should highlight the extent of data inconsistencies 	Organisational change management <ul style="list-style-type: none"> NB this may be the CHO's risk and compliance function rather than IT Irrespective of whose responsibility, it needs to be included in the assessment
Incident & problem management	Business value	Operations management	Application development quality	Manage service costings				

Digital Transformation
01 Developing an IS/IT Strategy

Security & Risk	Strategy & Governance	Infrastructure & Operations	Applications	Finance	Service Planning	Project Management	Data & BI	People & Resources
			<ul style="list-style-type: none"> if relevant – see above 					
Internal audit	IT management & policies	Change management						
Business processes	Innovation	Configuration management						
External compliance	Stakeholder relations	Helpdesk / support						
Business continuity	Knowledge management							
Disaster recovery planning								

Questions to address in assessing the current information and communications technology infrastructure are:

1. What is the architecture of the current technology infrastructure? On the basis that on-premise servers are in use and IT services have not been outsourced, this should be documented and cover:
 - a. Hardware
 - b. Servers (physical and virtual)
 - i. List each type of server and its purpose.
 - ii. State the operating environment for each server.
 - c. Operating systems
 - d. Middleware
 - e. Current network capability
 - i. List the location of each location with the subnet address
 - f. Internet connections
 - i. List the number of Internet connections if more than one and state the purposes
 - g. Network devices
 - i. List the types of network devices in use (e.g., routers, switches, and wireless access points)
 - h. Network security
 - i. Firewall: state the firewall which provides gateway security
 - ii. VPN: state the number of site-to-site VPNs and whether e.g., each site has a firewall
 - iii. Email
 - State where mailboxes are stored (e.g., on an Exchange server or in Office 365 etc.)
 - State how email is filtered for viruses, spyware and spam
 - iv. File access: state how file access is management
 - v. Network drives: are drives mapped by a logon script
 - i. Desktop PCs and printers
 - i. State the number of PCs, laptops
 - ii. State the number of printers and locations by type
 - j. Mobile devices: state how these are provided to staff
 - k. Backups: state how backups are conducted. If this is outsourced, state who does this.
 - l. Telephony: state the communications infrastructure, and how this is managed.
 - m. List the lifecycles of all equipment in use setting out:
 - i. Cycle in years
 - ii. Rationale for lifecycle assessment

iii. Mitigating factors relating to usage and replacement

n. Display your current infrastructure in a topology diagram.

2. Is the technical environment up to date with the latest technologies?
3. How often is your IT upgraded?
4. Is your current technology infrastructure capable of supporting the business drivers?
5. Is your technology infrastructure approaching end of life?
6. How much do you pay in support costs?
7. What is the level of support service provided by your hardware provider(s)?
8. What is the capacity of your servers and storage facilities?
9. Are they near to reaching maximum capacity and do they have room for future expansion?
10. What is the impact of the above on your staff?
11. To what extent does the current technology infrastructure affect staff productivity? Is your IT infrastructure fit for purpose?
12. Do you intend to outsource your technology management to an IaaS provider?
13. Do you intend to outsource your office systems to Office 365 hosted on Microsoft Azure?
14. If you maintain systems in-house, what operating system versions are you running? How long will these be supported
15. What mobile devices are you running? Will they be capable of running mobile apps to support any business initiative you may be considering to support staff working remotely when visiting tenants?
16. What are the current levels of security?
17. Is a disaster recovery plan in place?
18. What measures are in place for cybersecurity?⁵
19. Is there a governance and risk management strategy in place in relation to your technical infrastructure?

If IT services are not outsourced and your CHO has an in-house IT team, other questions in need of assessing would cover:

1. Is the in-house service reliable and responsive?
2. Are the level of skills and experience sufficient to adequately manage and protect the CHO's technology and communications infrastructure?
 - a. Do IT staff have a good level of technical knowledge combined with a good overall business awareness?
3. What is the level of internal satisfaction in relation to the responsiveness of the in-house service?
 - a. Is this measured or reviewed in any way?
 - b. In what way could this be improved?
4. Relating back to the above section on corporate alignment, who identifies the business needs and solutions? Whose responsibility is this?

⁵ Approaches to cybersecurity are considered in a document additional to this strategy toolkit

4.2.9 Managing Risk

Once you have identified the extent of issues related to your current systems and your technology infrastructure, together with the associated impact categories, it is then important to assess the extent of risk that such issues pose to the current state.

Risk levels should be quantified based on the assessed likelihood of the situation occurring and the consequences that would need to be assessed, using the approach defined in AS/NZS 4360:2004 RISK MANAGEMENT Australian/New Zealand Standard⁶.

Risks should be categorised as follows:

		Consequences				
		Minimal	Minor	Moderate	Significant	Severe
Likelihood	Almost Certain	Moderate	Major	Major	Critical	Critical
	Likely	Moderate	Moderate	Major	Major	Critical
	Possible	Low	Moderate	Moderate	Moderate	Major
	Unlikely	Very Low	Low	Low	Moderate	Major
	Rare	Very Low	Very Low	Low	Moderate	Moderate
		N/A	Low	Medium	High	Extreme
		Impact				

Using the above matrix, a risk rating should then be calculated using the following criteria:

Rating	Key	Description
1	Very Low	Minimal Impact
2	Low	Limited Impact but issues to address contributing to wider risk
3	Moderate	Issues likely to arise but manageable
4	Major	Significant risk to operations if situation continues Issues probable or continue in current format and / or frequency Adverse impact on operations
5	Critical	Serious impact on operational efficiency Productivity seriously impacted Regulatory implications need to be addressed Organisation in potential jeopardy and failure; delays inevitable

For each risk, a mitigation action should be identified relative to the severity which has been calculated based on the above matrix.

The relationship between IS / IT risks with the wider business risks must be understood and addressed. Some organisations may only identify risks when conducting due diligence for a project, e.g., when procuring a new system or ensuring compliance etc. It is however important to assess the risks overall as part of preparing the IS / IT strategy.

The following obstacles may arise when assessing risks:

1. IS / IT risks may not be seen as having an impact on the wider business risks

⁶ <https://www.standards.org.au/standards-catalogue/sa-snz/publicsafety/ob-007/as-slash-nzs--4360-2004>

2. The CHO's approach to identifying risk may not be defined or may be minimal in scope based on past experience.
3. Varying approaches to identifying risk may have been undertaken in the past.
4. Attitudes and behaviours towards risk may contradict the desired risk culture.
5. Training may be needed in assessing risk and determining mitigation actions.
6. The CHO leadership team need to understand IS / IT associated risks.

Approaches to assessing risk in the past will likely have an impact on the CHO's level of maturity. Key factors in determining and also reviewing this maturity level are:



Assess the risks relevant to your organisation by using the Risk Assessment worksheet in IS / IT Strategy Toolkit.xlsx

Once you have compiled a register of risks in the Risk Assessment worksheet, generate pivot tables to analyse:

1. Number of risks by rating
2. Number of risks by risk category and factor
3. Sum of the risk ratings by risk category and factor

These will then indicate areas which are in need of priority attention and which need to be referenced in the IS / IT Strategy document.

4.3 Stage 3: Future State – Know Where You Want to Be

The purpose of this phase is to create a vision of where the CHO's use of technology and systems needs to be such as:



This is the ***where do we want / need to be*** phase of the exercise.

4.3.1 Vision

In approaching the future state, and taking into account the CHO's business goals, it is important to set out the vision for the IS / IT strategy in determining where you want to be in terms of IS and IT, and how this supports the business.

Using the information gathered from the current state assessment, together with feedback from stakeholders; a review of existing documentation and network/infrastructure topology, a draft set of principles, objectives and plans can be developed to form the future state which will form the IS / IT strategy.

Such principles could include a focus on e.g., customer impact, user experience, data, digital initiatives, data insights, all of which can be linked to overall business performance.

An example is set out below

Remember, a list of projects is not a strategic plan.

In essence, a key purpose of IT is to effectively support:

- **HOW your CHO operates and**
- **HOW staff can effectively deliver services.**



4.3.2 Future Business Drivers

In assessing where you are now in relation to your current technology and systems which are in use, you may have identified a range of issues and gaps in terms of their capabilities in supporting the current state i.e., your current level of operations.

As discussed above, it is crucially important to align your IS / IT strategy to your business objectives. If your current infrastructure and systems are posing issues in supporting your current level of operations, it is highly likely that they will be incapable of supporting any future business initiatives.

So, before you can determine **how you get there**, it is important to be clear about **where you want to be** not only from a business strategy perspective but also from an IS / IT perspective, in view of the related implications.

For example, a key business driver may be to improve the experience for your customers and a component of this is to develop better relationships with your customers. The reason for this is that your customers are at the heart of what you do, it's why you exist. You want to be trusted and recognised, and excel at doing the things you do. So, how would you do that? A key component of this business driver is to use customer data and intelligence, including service-related complaints, to understand what matters mostly to your customers and inform service improvements as well as maximizing your efficiency and impact. A key IT component of this is how to analyse customer data and this is clearly dependent on what data you hold and what system you use.

This example business driver is pretty clear in terms of what the organisation wants to do, but perhaps your current state assessment has revealed a number of issues such as:

1. Poor quality data is held on tenancy contact records
2. Your current system does not provide you with a 360-degree view of your customers, their needs and aspirations
3. You have poor customer contact channels

The above could therefore lead to one or a combination of IS / IT strategic goals needed to support this key business driver.

A good strategy links IS / IT initiatives to business drivers / goals

By aligning the IS / IT implications to a specific business driver, you can identify IT goals and, from this, break it down into the projects or initiatives that your CHO needs to factor into its overall strategic plan based on its capabilities.

For each business driver:

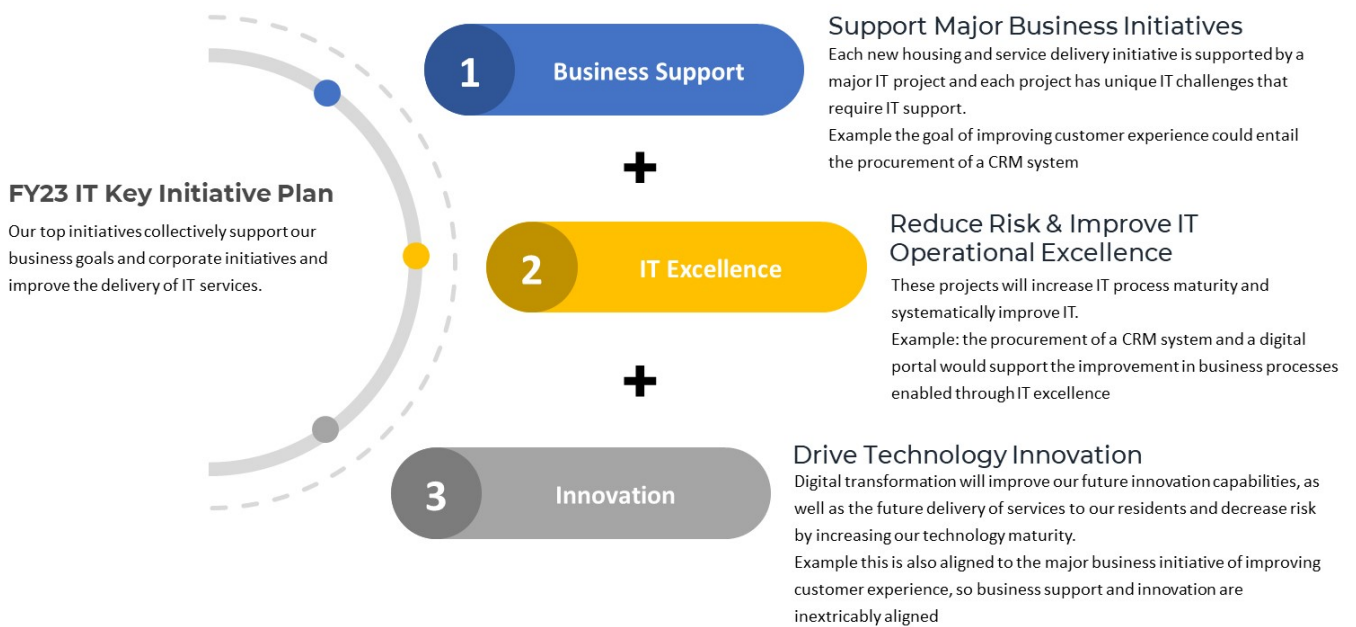
1. List the objectives to be met
2. List the current business issues affecting the desired outcome
3. List the current technical issues affecting the desired outcome
4. Describe the part of the organisation that the driver impacts
5. List staff resources and roles needed to fulfil the objective
6. List other resources needed (tools, support, physical facilities, suppliers, external contractors)
7. List information system gaps / capability of existing systems
8. List technology issues

For each business driver, it is important to assess the following:

Category	Description
1. People	<p>What are the capabilities from a business and IS / IT perspective?</p> <p>What impact will the new initiative have on staff roles and responsibilities e.g.</p> <ul style="list-style-type: none"> • What training will be required? • How and when will that be factored in? • What are the change management implications?
2. Process	<p>What impact will the <i>business driver</i> have on current processes?</p> <p>To what extent will new processes be defined?</p> <p>What impact will the <i>IS / IT initiative</i> have on the current process and to what extent can improvements be made. Think target state, efficiencies, improvements and benefits. There is no point implementing the initiative if the impact on the business process is not assessed and you intend to carry on doing things the same because that's how you've always done it.</p> <p>If the technology offers x, how best can we utilise it to deliver y and what do we need to do to ensure our business process can effectively support it?</p>
3. Technology	<p>What changes to applications and infrastructure are needed to ensure that the business drivers can be achieved?</p>
4. Data	<p>How good / strong / accurate / reliable is our data?</p> <p>How often do we review it?</p> <p>What are the changes from a data perspective that need to occur as a result of the business driver?</p>
5. Sourcing	<p>How will we source the solutions needed to support the business driver?</p> <p>Can our existing supplier(s) provide what we want or do we need to procure alternative / additional systems or technical solutions?</p> <p>What is the cost of sourcing?</p> <p>How will we factor this in?</p>

Category	Description
	How do we budget for it? How do we prioritise options and evaluate them?
6. Location	What additional locations or changes to locations will affect IT e.g., a business driver may be to respond to a government initiative to acquire or manage more properties resulting in a transfer. <ul style="list-style-type: none"> • How will we support the IS / IT needs at new office locations? • What are the implications if we 'inherit' an existing office location from a previous provider?
7. Timing	What are the timing implications to support each business driver? Do we have the resources to implement the related initiatives to support the business driver?

Once the above has been fully compiled, and, using different examples, it could be summarised as follows. Add as many goals as needed around the ellipse to reflect what your CHO is aiming to do:



Use the Business Drivers worksheet in IS / IT Strategy Toolkit.xlsx to map out your business and IT capabilities for each defined business driver and business initiative

4.3.3 Information System Needs

Once a clear definition of what the CHO is aiming to achieve is set out, the next steps are to ensure your information and technology needs are fully understood and that you assess what is needed for these to support the business drivers.

You should now know from the current state exercise, where your weaknesses and gaps lie in relation to systems and technology.

With each business driver in mind, for each issue identified in relation to each situation in section 4.2.2, set out ideas for the future and the potential impact on service. What *could* the idea result in or what would be the *desired* impact of an improvement in how your current information system operates.

From this future information needs can be identified for the organisation, which not only support the current state but also set out what is required to manage future initiatives, schemes or operations. The functionality gaps highlighted in assessing the current state should drive the formulation of requirements to better support operations and service delivery. Note that this topic is covered in a supplementary document which investigates and researches the available opportunities for IT improvements needed by CHOs.

For each area of operation, it is recommended that these are broken down by:

1. Functional objective
2. Functional component
3. Requirement
4. For each requirement, determine the level of priority i.e.
 - a. Mandatory i.e., it is essential this is supported by the information system to support the CHO in achieving its business drivers and operational needs
 - b. Highly desirable i.e., the functionality is important and it would result in an improvement in the efficiency or effectiveness of operations, but if absent, it would not prevent the delivery of services. If a system provided this feature, it would be considered as a high value-added factor
 - c. Desirable, i.e., the functionality:
 - i. would add value to operations, but it would not create significant additional burden if a system did not provide or support it and
 - ii. is not essential, however, if a system provided the feature, it would be considered as a value-added factor.

4.3.4 System Impact on Operations

Of course, the issue identified in the systems assessment above may not necessarily wholly be due to e.g., functionality. It is possible that some tasks are performed in the manner in which they are now may be due to the fact that staff have always done it this way (as indicated in section 4.3.2 above) and therefore they pass this information or method of working on to new staff. Furthermore, staff may be continuing with tasks and processes that require operational hurdles to be addressed such as the need to:

- Review policies and procedures.
- Encourage staff to see the whole picture of business so that they know why specific data has to be captured and cull processes that are no longer needed

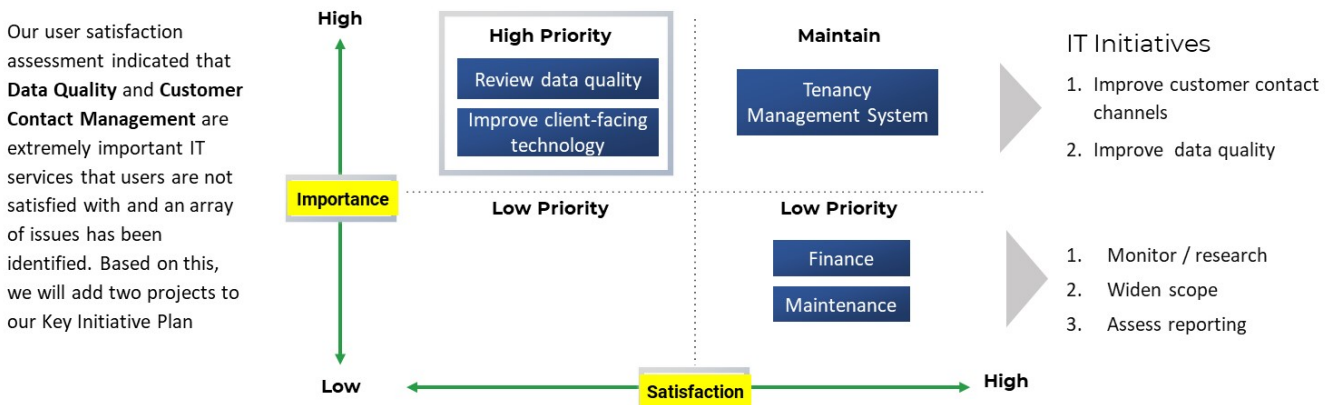
A potential impact of this is that staff may then have a better overview of the business and can contribute to further innovation and improvement.

Using the above examples, and on the basis that you are not currently taking full advantage of functionality provided in your current systems, key initiatives can be prioritised. Of course, another priority may be to undertake a full systems replacement if the current system lacks the functionality needed to support an improved customer experience combined with digital transformation.

Further consideration on prioritising initiatives is set out in the next section 4.4 Getting There i.e., how do we get there.

In the meantime, as part of where we want to be, the matrix illustrated below can be used to start mapping out initial areas of priority based on your current state assessment:

A focus on data quality and customer contact channels in FY23 will help us achieve our goal of transforming the customer experience



4.3.5 Technology Implications & Objectives

As noted above, the current state assessment needs to consider the technology and communications infrastructure, which also needs to be aligned to the current and future usage of your information systems, (noting that a key initiative may be to replace your current legacy systems with a fully integrated customer, tenancy and asset management system).

The provision of IT services is vital to a CHO's operations with service delivery, and to a large extent, is dependent on IT services such as email, data networks, servers and personal computers, telephony and increasingly the internet.

This therefore requires an effective and efficient technology infrastructure that is maintained and updated on a regular basis to provide the necessary functionality. An appropriate level of flexibility and scope for growth to reflect potential organisational changes and customer needs is also important.

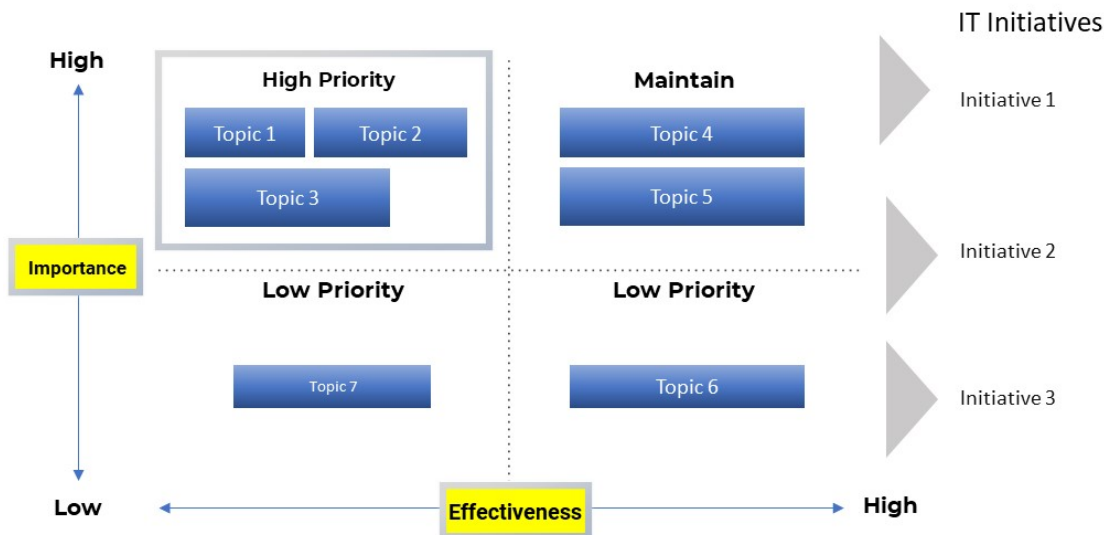
A software audit would help to determine current usage and future requirements in terms of the ICT infrastructure needed going forward. This could provide a clear indication of how respective elements of the new environment could be licensed when support contracts are up for renewal; what the renewal process would be with a breakdown of the costs.

In determining where you want to be as part of the future state, it is vitally important your organisation is up to speed with the latest technology trends.

1. How up to speed are you in researching technology trends?
2. How often do you assess the impact on your operations?
3. What is the level of investment needed?
4. If you operate on-premise servers and maintain this yourself, how is this working for you?
5. What technical resources do you have?
6. How does this balance out against IaaS models?

7. To what extent are you reliant on external technology / network support consultancies to maintain it?
 - a. What advice have you taken in recent years in relation to its current infrastructure?
8. Are there policies in place for managing the technical environment in a structured way?

Based on the assessment of the current ICT state, you should then be able to set which low-maturity topic is in need of addressing, which should then enable you to identify which process, technology and organisational-related initiatives are needed:



For example, key initiatives can be defined which could be:

1. Monitoring and retendering of the IT network and support contract.
2. Successful management of desktop computing and software.
3. Continued review and testing of our IT business continuity plans.
4. Develop and implement agile mobile working (hardware & software) options for staff.
5. Upgrade and move systems online.
6. Integration of ICT infrastructure.
7. Improve awareness of IT related strategic and operational priorities as detailed in the Business Plan and Risk Management Strategy.

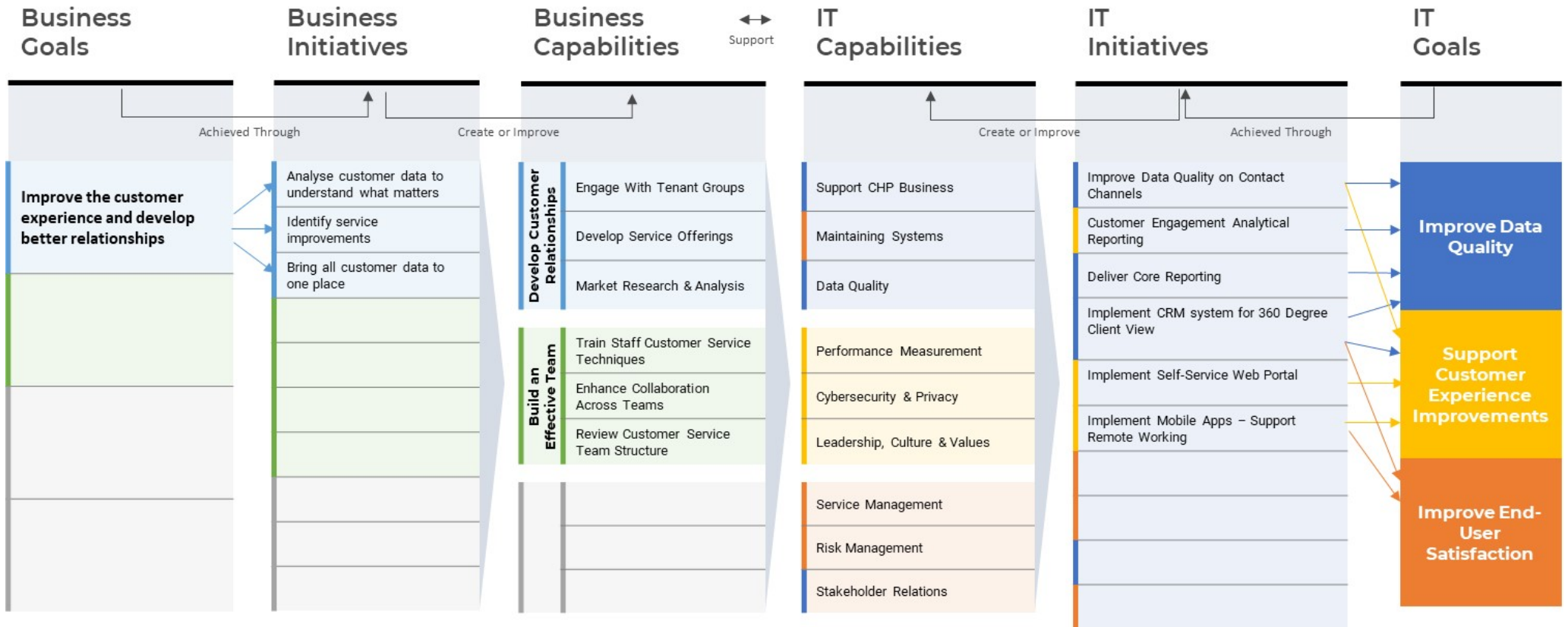
4.3.6 Compiling Needs

Taking the above into account, where you need to be can then be mapped out.

Use the framework in the template below to list out each business goal and the associated initiatives and capabilities. Inevitably there will be crossovers from each business driver to the IS / IT goals.

For the purposes of the chart, IS / IT is summarised below as just IT.

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The above is just an example of course, but say your capabilities did not cover cybersecurity, from an analysis of your current state, it may well have been identified as an issue, so therefore this topic would likely be an initiative whereby you seek assistance from specialist IT security consultancy organisations.

The sequence from the above is to therefore:

1. Define your business drivers
2. Determine the initiatives needed to support the driver
3. Assess your capabilities within your CHO to achieve them
4. From these align your key IT goals.
 - a. Note that a goal is broader and more general than an objective which is more precise and exact
5. Similar to determining the organisational initiatives, determine the IS / IT initiatives to meet the IT goal in supporting the driver
 - a. For each initiative define the objectives
 - b. An objective is more precise and exact, therefore set out what you are aiming to achieve
 - c. Use the SMART method in documenting the objectives for each IS / IT initiative, as this should also be used in prioritising projects which is discussed further below
6. Assess your capabilities from an IS / IT perspective whether you have the skills and resources in-house to support these initiatives and if not, what would you need to do?



4.3.7 Further References: COBIT / ITIL®

The purpose of this document is to set out an approach for CHOs to prepare an IS / IT strategy.

Further reference may also be made to the COBIT and ITIL® frameworks and which could be applied by CHOs in terms of IS / IT management.

The material provided in both is however vast and covers a huge array of aspects on IT governance.

A summary of both frameworks is listed below. Both frameworks are recommended for further reading:

	COBIT	ITIL
Meaning	Control Objectives for Information and Related Technology	Information Technology Infrastructure Library
Version	COBIT 2019	ITIL 4 released in 2019
Origin	<p>COBIT was first released in 1996 by the Information Systems Audit and Control Association® (ISACA) as a set of control objectives to aid the financial auditing community to work better around IT-related structures.</p> <p>https://www.isaca.org/resources/cobit</p>	<p>Developed by the British government’s Central Computer and Telecommunications Agency (CCTA) during the 1980s, ITIL first consisted of more than 30 books, developed, and released over time, that codified best practices in IT accumulated from many sources (including vendors’ best practices) around the world.</p>
History	<p>Following on from its first release in 1996, as value and potential beyond auditing became evident, ISACA released a more comprehensive version in 1998 and further expanded it by adding management guidelines in the third version released in the year 2000.</p> <p>The development of the AS 8015: <i>Australian Standard for Corporate Governance of Information and Communication Technology and the ISO/IEC 38500</i> in January 2005 and January 2007 respectively increased the degree of awareness of the need for reliable ICT governance components.</p> <p>The latest iteration, COBIT 2019, modernises the framework taking into account the immense expansion of IT across the world. It serves as a good umbrella framework for unifying processes across an organization.</p> <p>Within the COBIT Core Model, there are now 40 governance and management objectives. Due to user feedback and IT reliability and needs, COBIT 2019 offers more flexible options for deploying maturity and capability measurements so that IT goals can keep up with data-driven business goals.</p>	<p>In April 2001, CCTA, along with several other agencies, were combined into the UK Government’s Cabinet Office.</p> <p>Over the years, ITIL’s credibility and utility became recognised.</p> <p>In 2005 its practices contributed to and aligned with the ISO/IEC 20000 Service Management standard, the first international standard for IT service management. It is based on British standard BS15000.</p> <p>Since 2013, ITIL has been owned by Axelos — a joint venture between the Cabinet Office and Capita.</p> <p>To use ITIL internally, organisations do not need a license.</p> <p>In 2018, Axelos announced ITIL 4 — a major overhaul to the entire framework and the biggest change since ITIL version 3 was published in 2007.</p> <p>ITIL 4, which started rolling out in Q1 of 2019 offers a more agile, flexible and customisable version, encouraging less siloes, more collaboration, communication across the entire business and integrating agile and operations into ITSM strategies.</p>

	COBIT	ITIL
Definition	A set of guidelines for any organisation to develop, implement, monitor and improve technology governance	A framework for best practice, planning, and selection, geared to improving IT services to better meet an organisation's needs
Purpose	<p>Help organisations bridge the gap between IT and business goals</p> <p>Provide resources to build, oversee and improve implementation whilst:</p> <ul style="list-style-type: none"> • reducing costs; • maintaining privacy standards and • giving structure to IT functions in an organisation 	<p>Framework for organisations to manage IT services using a set of best practices, planning and selection, across the entire lifecycle.</p> <p>Focuses on IT service management, setting out the daily processes and routines which need to be undertaken by IT staff.</p>
Scope	Focuses on IT service management principles, but has a broader scope than ITIL as it covers the entire organisation	Focuses on IT service management, and not on the whole organisation. Remains within the domain of IT
Approach	A top-down approach, focusing more on IT service governance	A bottom-up approach, focusing more on IT service management
Components	<ol style="list-style-type: none"> 1. Control objectives 2. Frameworks 3. Management guidelines 4. Maturity models 5. Process descriptions 	<ol style="list-style-type: none"> 1. Service strategy 2. Service design 3. Service transition 4. Service operation 5. Continuous service improvement
Principles	<ol style="list-style-type: none"> 1. Applying a single integrated framework to an organisation 2. Enabling a holistic approach 3. End-to-end coverage of the organisation 4. Meeting stakeholder needs 5. Separating governance from management 	<ol style="list-style-type: none"> 1. Focus on value 2. Start where you are 3. Progress iteratively with feedback 4. Collaborate and promote visibility 5. Think and work holistically 6. Keep it simple and practical 7. Optimise and automate
Objectives	<ol style="list-style-type: none"> 1. Set IT in the right direction 2. Align IT goals to business goals 3. Bring IT values to the business 4. Manage resources, risks and IT efficiency 	<ol style="list-style-type: none"> 1. Organise all IT services and make them run smoothly 2. Create opportunities for constant operational perfection 3. Reduce the organisation's IT costs without sacrificing effectiveness 4. Improve decision-making within the organisation

In terms of IS / IT strategy, COBIT 2019 can offer guidance in aligning business goals with IT goals, whereas ITIL is focused more on IT service management.

4.4 Stage 4: Getting There

The final phase in preparing your strategy is **how do we get there** - in other words what do we need to do to reach the desired future state and by when.

Depending on what you have done before (or possibly not done before), it may feel or look a bit like this.

What should you do to cross the chasm now that you have identified what you need in terms of systems and technology?

How do you plan for what you need to do and how will that align to the business drivers, initiatives as well as addressing the known gaps you have identified?



4.4.1 Priorities

So, from assessing **where you need to be**, you have identified **what** you need.

The first thing to do in **getting there** and knowing **how to get there** is to prioritise, for each business driver, what is achievable from what you have identified.

By this point, you will have broken down your IS / IT initiatives aligned to the business drivers set out against the respective business and IT capabilities.

The SWOT and PESTLE analysis exercises will have revealed where your strengths and weaknesses are as well as the threats. Your current assessment of systems and technology will have revealed the extent of gaps in each area that has been examined.

The assessment of information needs will have taken into account the number of issues identified in relation to:

1. Compliance
2. Customer experience
3. Functionality
4. Optimisation
5. Productivity
6. Strategic

Your assessment of technology needs will have identified your level of maturity in relation to ICT in terms of importance and effectiveness.

The extent of weaknesses, threats and gaps will inform the priorities to a certain extent, but then dependencies come into play in terms of what must be done first or what is feasible in relation to the likely costs.

For example: in the case of a digital transformation initiative, what is more important: reviewing your data quality or procuring digital tools? What needs to be done first? It is clearly not sensible to add in software tools if the quality of your data means that staff are prone to making errors or your communications are not properly reaching your residents because the contact data you hold is incorrect.

It therefore makes sense to think of the system and technology needs as a set of building blocks or as a big jigsaw puzzle, where dependencies are known to exist or likely to exist. What is needed first or before something else can be done?

On top of this, to what extent has the CHO prioritised its business initiatives or are there a number of streams that will be undertaken in parallel?

If the CHO has prioritised its business projects in sequence, then it is clear that the identified IS / IT needs must follow suit. This clearly will inform the prioritisation of the related IT initiatives in a cascade type effect. Furthermore, perhaps a business driver cannot be achieved due to weaknesses or deficiencies in system or application x which will potentially put that business driver at risk.

If projects are to be undertaken in parallel and if IS / IT needs relate to each, then a key question is the resources that need to be deployed to each, how and when. Can these be done in-house or do specialist consultants need to be engaged?

Creating a criteria-based matrix is therefore an effective way of ranking initiatives with selected staff rating each project using weighting factors from 1 to 5, where 1 is the least important and 5 the most important. A suggested scoring matrix is shown below:

Ranking	Score
Very low / least important	1
Low	2
Medium	3
High	4
Critical	5

Criteria to be used in prioritising IS / IT initiatives can include:

1. Is there a clear need for urgency which overrides all other factors why this project must be done first?
2. Importance of IS / IT to business driver
3. Risk to organisation if initiative not done
4. Impact on service
5. Impact on customer experience
6. Impact on reporting
7. Impact on compliance
8. Impact on productivity
9. Ease of implementing
10. Gaining competitive advantage
11. Possible lack of budget to support
12. Insufficient resources
13. Risk – if the project is delayed or abandoned, what is the impact on the organisation? How will this affect the CHO's business strategy in achieving the overall business goals?



Weighting criteria can be aligned to each of the factors above. Examples are suggested below:

Criterion	Weight
Risk to organisation if initiative not done	35%
Impact on service	25%
Impact on productivity	20%
Impact on reporting	15%
Impact on compliance	10%

Assess each project based on the above and calculate the weighting factors to derive an overall total.

Once initiatives have been weighted, the business / IT matrix should be reviewed to ensure expectations are clear.

As set out above, IS / IT initiatives need to be aligned to the business drivers. With many CHO strategic plans being structured over a 3-year period, the list of IS / IT initiatives should be prioritised and sub-divided into 12-month slots.

Use the *Prioritising Initiatives* worksheet in IS / IT Strategy Toolkit.xlsx to rank your priorities

4.4.2 Resources

The number of and scope of IT initiatives may require additional staffing resources unless external consultants will be engaged.

For each initiative, list the additional resource requirements e.g.

- 0.25 FTE
- 0.5 FTE
- 1.0 FTE

Also indicate the functional area of IS / IT where that resource will be required.

Use the *Initiative Detail* worksheet in *IS / IT Strategy Toolkit.xlsx* to align the planned resources to each initiative

4.4.3 Budgeting

Each initiative will, of course, require funding from the IT budget.

Your CHO should have an annual IT budget with provision for capital and operating costs. A key aspect as part of the IS /IT strategy process is to determine the extent to which this either remains static or needs to increase to support the respective business drivers.

Costs will need to be estimated with sufficient contingency included to cater for any known unknown factors and to a certain extent, various other factors which may not be known. As part of the strategic planning process, preliminary work on costing each initiative can be identified by:

1. Assessing internal resources needed and the associated cost
 - a. Does the initiative merit in-house staff being seconded to the project full-time and their roles back-filled? Certainly, for the implementation of a replacement tenancy and asset management system (which may include finance), with a duration likely to be in the region of 9 -12 months, this approach is highly recommended
 - b. For shorter projects, how will these be resourced?
 - i. Do you have sufficient expertise in-house or will you need external consultants?
 - ii. Will in-house resources be available on a part-time basis?
 - iii. What is the size of your in-house IT team? Are they capable of undertaking the project alongside all other day-to-day activities?
2. Seeking indicative quotes from suppliers
 - a. For a possible software procurement, you may issue a Request for Information which can inform the strategic planning process
 - b. For technology, networking and communications, you probably have an existing supplier and a support contract in place. Your supplier will therefore be best placed to advise on indicative costs for planning purposes.
 - c. If you are exploring IaaS services, then such suppliers will be able to provide indicative costs
3. Assessing the tangible and intangible benefits that can be gained, short or longer term from investment that your CHO will be making

Costing and budgetary planning can only really be undertaken once you have prioritised your initiatives. All indicative costs therefore need to be collated and considered as part of the prioritisation process

Alongside the prioritisation process, an IS / IT investment framework needs to be in place for the financial approval or projects. This clearly needs to be intertwined as part of the CHO's annual budgeting process, aligned to the business strategic planning.

Structure the IT budget aligned to the Key Initiative Plan to ensure consistency, with the subsidiary projects costed to provide an overall total. Based on the example used in this toolkit, this could look like:

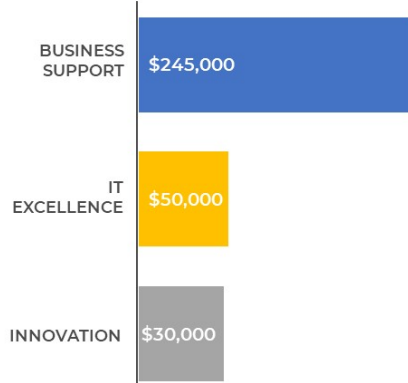
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Calculate the CapEx and OpEx deltas for the IT budget and compare to the previous financial year to determine the additional budget provision.

2023 Budget + Cost of 2022 Strategy = 2023 Budget

	Initiatives for FY23	Incremental Cost
1	Customer engagement reporting	10,000
2	Deliver core reporting improvements	25,000
3	License and implement CRM module	85,000
4	Implement self-service web portal	50,000
5	Implement mobile apps / remote working	35,000
6	Multi-Factor Authentication	15,000
7	Initiative 7	10,000
8	Initiative 8	5,000
9	Initiative 9	10,000
10	Review data quality on customer contacts	15,000
11	Implement cybersecurity monitoring tool	30,000
12	Upgrade file server	5,000
13	Acquire AI chatbot solution	30,000
14	Train Analyst on chatbot usage	0
	Total Incremental Cost	\$ 325K

Include incremental costs from key initiative profiles.



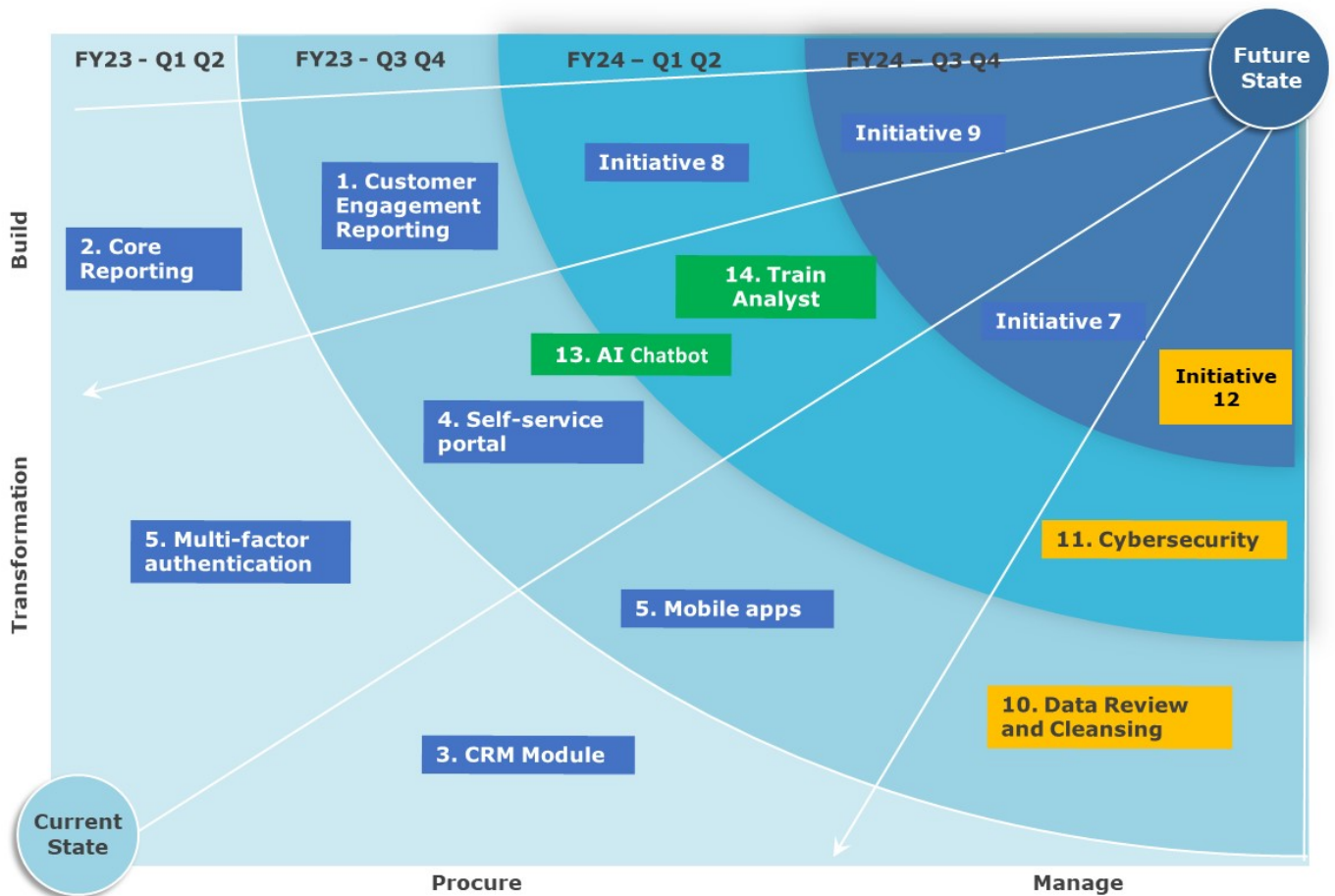
Budget	2023	2022
Capital		
Business Support	\$537,000	\$425,000
IT Excellence	\$350,000	\$310,000
Innovation	\$135,000	\$120,000
Subtotal	\$1,022,000	\$855,000
Operating		
Business Support	\$1,083,000	\$950,000
IT Excellence	\$760,000	\$750,000
Innovation	\$265,000	\$250,000
Subtotal	\$2,108,800	\$1,950,000
Total	\$3,130,000	\$2,695,000

+\$325K

Use the *Initiative Detail* worksheet in IS / IT Strategy Toolkit.xlsx to align the planned costs related to each initiative

4.4.4 Timeline

Once initiatives have been prioritised and aligned to the strategic business drivers, a timeline can be prepared. Due to the potential myriad of initiatives and related projects, it is best to summarise the initiatives in a sun ray diagram, as illustrated below:

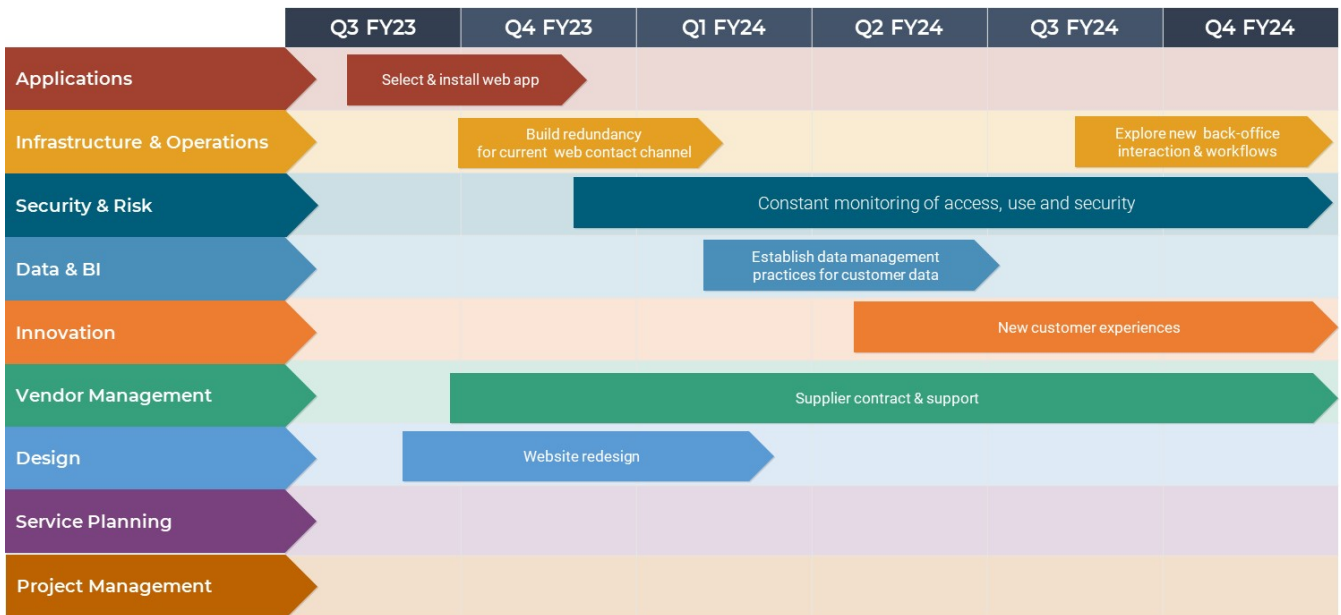


Key:



For each initiative, break this down into its own timeline but structuring based on the related components used in section 4.3 above not only from a strategic planning perspective but also setting out the IT service management components drawn from the COBIT framework. The example below relates to initiative 4 self-service procurement and implementation.

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4.4.5 Initiative Breakdown

Each initiative identified should be broken down in summary format as follows for inclusion in the strategy document as an appendix:

Component	Points to Consider
Description	Set out a summary description of the initiative
Category	Link the initiative to the programme category or strategic theme that has been identified
Costs	<p>Set out projected costs for budgeting purposes</p> <p>Example if the initiative relates to the procurement of a CRM system, provision will need to be made for:</p> <ul style="list-style-type: none"> • Software licensing (one-off cost or annual subscription) • Supplier implementation costs relating to: <ul style="list-style-type: none"> ○ Project management ○ Solution design / business analysis ○ Configuration ○ Training ○ Data migration ○ Integration ○ Go-live migration • Support costs (pre-paid or annual) • Internal costs to resource the project
Timeline	Set out in a Gantt timeline when the project will be undertaken over the period of the strategy
Benefits	<p>State the primary business benefits e.g.</p> <ul style="list-style-type: none"> • Improve data quality

Component	Points to Consider
	<ul style="list-style-type: none"> • Enhance customer contact channels • Make it easier for customers to work / connect with us • Make it easier for staff to work remotely • Automation of processes • Minimise manual work • Generate efficiencies • Improve decision-making • Create greater transparencies • Enhance collaboration across teams • Reduce silo working • Improve reporting capability • Utilise analytical information to drive innovation and better customer services
Risks	Set out the risks for each initiative in summary format together with the mitigation actions which have been identified from the risk matrix outlined above
Dependencies	Set out the dependencies e.g., <ul style="list-style-type: none"> • Other projects in progress • Preliminary work needed • Research needed • Procurement needed – link to related project • Completion of another project • Ability to release staff from other commitments • Recruitment of additional staff • Engage specialist consultants • Market research • Prepare request for information (if initiative relates to a procurement so you can glean estimated costs)
Resources	Aligned to the timeline, ensure that resources can be deployed to the project Set out: <ul style="list-style-type: none"> • Project sponsor • Project manager • Subject matter experts

List your projects in worksheet 7. Initiate Detail in the IS / IT Strategy Toolkit.xlsx

Set out the overall timeline in worksheet 8. Roadmap in the IS / IT Strategy Toolkit.xlsx

4.4.6 Critical Success Factors

Using the SMART approach outlined above, the progress of each initiative will need to be measured. Critical success factors therefore need to be defined in order that progress can be managed and monitored, which is of course a fundamental task in any project.

A reporting framework needs to be established to update the management team on the progress of each project linked to each initiative. There are various project reporting templates available and a suggested template is included at Appendix 1. Ideally, such project reports should be compiled monthly.

Such reports will be used to measure the progress of each project however metrics should be established to measure the **success** of each initiative against a **target** i.e., a critical success factor.

Using the IT goals in from section 4.7 above, these could be as follows:

Goal	Metric	Target
Improve data quality	Number of data inaccuracies found following review	Decrease the number of support issues logged 20%
	Level of user confidence in data records in relation to: <ul style="list-style-type: none"> • Accuracy • Entry validation • Mandatory fields 	Increase in level of user confidence across teams 90%
Improve customer experience	Establish use of self-service portal	Number of service requests received from tenants and answered through portal <ul style="list-style-type: none"> • 10% of all service requests year 1 • 20% of all service requests year 2 • 30% of all service requests year 3
Improve end-user satisfaction	Roll-out of mobile apps to all tenancy and property managers	Measure satisfaction in use of app 85% overall satisfaction

Combined with the above, an overall project status summary should be compiled setting out progress against project milestones and the proportion being completed on time.

Further analysis could be undertaken as part of the strategy review process of the outcome of each initiative. For example, the current state analysis sets out the need to identify the issues and gaps for each system in used by a range of criteria. As part of the review exercise, a similar review could be undertaken, using the Likert method⁷, whereby users are interviewed to assess their views on the success and outcome of the initiative e.g.:

1. Project importance to the CHO – did the outcomes of project x prove why it was needed

⁷ <https://www.simplypsychology.org/likert-scale.html>

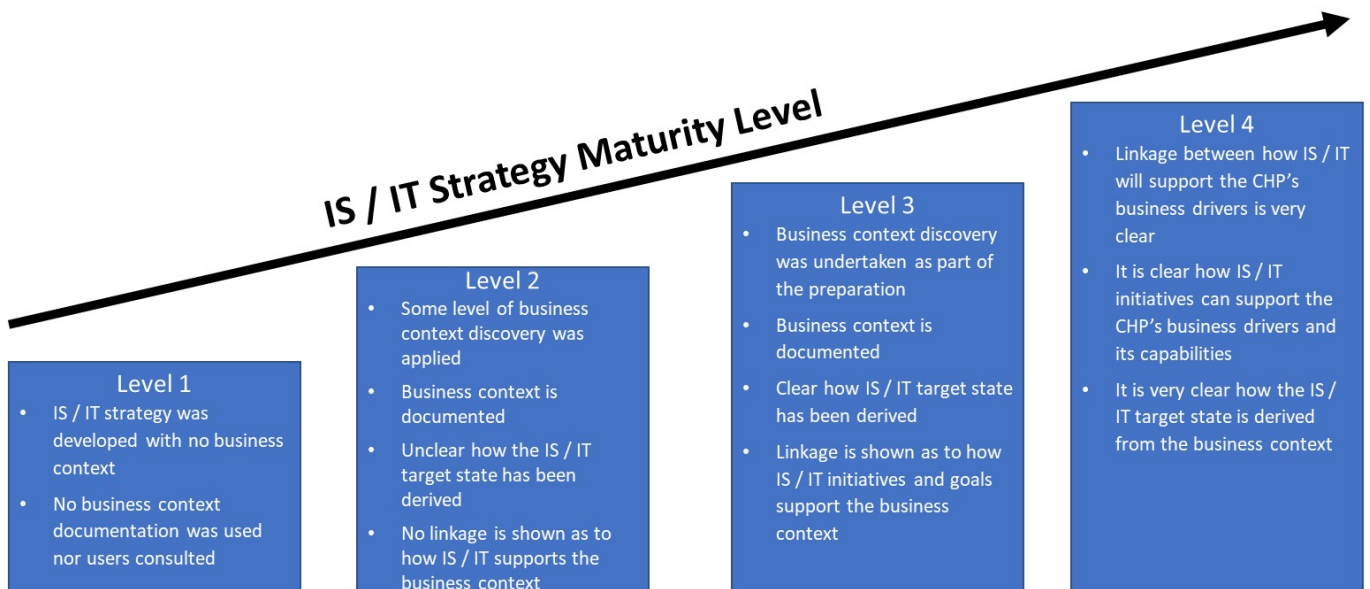
2. Level of satisfaction with the solution
3. Level of satisfaction with the training
4. The extent to which their user experience has improved
5. Level of communication provided throughout the project
6. The extent to which the solution has improved how it supports them in doing their job

Financial reporting should also be undertaken for each project to measure the level of project variance against the amount budgeted.

4.4.7 Strategy Maturity Level

Following the steps set out in this document will ensure that a high level of maturity is achieved in preparing your IS / IT Strategy (i.e., Level 4 illustrated below).

The levels of IS / IT strategy may be summarised as follows:



5. Stage 5: Strategy Structure

Once all the worksheets have been completed in *IS / IT Strategy Toolkit.xlsx*, the planning and prioritisation processes are complete, you now know:

1. Where you are now
2. Where you want to be
3. How you are going to get there

You are now therefore ready to bring this all together in a format for consideration by your Board.

A suggested structure for your IS / IT strategy is therefore set out below:

Section	Topics	Examples to include
1. Mission Statement	As a pre-cursor to the strategy content, set out a clear mission statement summarising in one sentence what you are intending to do.	<p>This could be structured as:</p> <p style="text-align: center;"><i>“We will [do x y z] which will result in [a b c] providing the organisation with benefits [1 2 3]”</i></p> <p>This could include words such as e.g.:</p> <ul style="list-style-type: none"> • digitally transform the organisation to provide a seamless, integrated customer experience and / or • establish a platform to deliver insight-driven and innovative service models and / or • a strong, robust foundation to support the CHO’s ongoing growth in addressing the current issues facing the organisation and taking advantage of the most recent Government initiatives etc.
2. Background	<ol style="list-style-type: none"> 1. Set out your IS / IT vision and purpose. 2. Set out the period which the strategy is to cover. 3. Set out the reasons for the new strategy (if not completed previously). 	<p>Good examples to set out as part of these topics may be:</p> <ol style="list-style-type: none"> 1. Technology is advancing rapidly and the CHO needs to exploit it to improve how it can deliver more customer-centric services and enable staff to better work remotely on-site

Section	Topics	Examples to include
	<ol style="list-style-type: none"> 4. Why is the IS / IT strategy being developed? 5. How will technology allow the CHO to improve or grow its services? 6. What has happened in the last x years to stimulate or prompt the development of this IS / IT strategy? 7. Summarise the overall business strategy and set out those areas where technology is needed <ul style="list-style-type: none"> o Summarise the business objectives o What has happened in the last x years (since publication of the previous strategy) 8. Set out the priority operational goals that the CHO is aiming to address, and summarise the number of initiatives linked to each goal. 9. Is there a theme to your strategy e.g., to focus on continuous improvement such as transforming the customer experience and utilisation of digital tools? 10. Set out how the strategy was developed. To what extent were staff (end users) / stakeholders consulted? What is their overall level of satisfaction and what bearing has this had on what you are intending to do? 	<ol style="list-style-type: none"> 2. This document provides a vision of how IT will be used efficiently, taking advantage of the opportunities that arise from on-going technological and organisational developments. 3. Organisational needs will drive the IT strategy as well as the external environment in which we operate within; to ensure any investment made will offer support the achievements of its objectives. 4. The housing sector is facing an array of new opportunities and challenges (e.g., Big Build program in Victoria; social housing management transfer program in NSW) and the CHO must plan for how use of technology can best support its response and future service operations. 5. Transform the CHO's capability and create new ways of working. 6. Fully exploit the benefits of new technology. IT underpins all areas of our work and this Strategy aims to ensure that all of our systems are intrinsically linked and we will continue to improve and develop in line with the aspirations of our internal and external customers. 7. We will continue to invest in IT over the next [x year] period in line with our business needs and renewal programme to achieve the very best outcomes for our staff and our customers, where it is financially feasible and worthwhile to do so. 8. Support greater degrees of collaboration across our teams to provide a more customer-centric service delivery method of operation. 9. What staff need to better support them in their roles and list the types of roles where technology is used. 10. Describe how technology and systems can support the CHO's priority goals e.g.: <i>"transforming our IS / IT will allow us to do x y z and will enable us and our tenants to do more with technology" etc.</i>

Section	Topics	Examples to include
<p>3. Challenges: Current Context / Business Orientation</p>	<ol style="list-style-type: none"> 1. Set out the business drivers; initiatives and the organisation's capabilities to implement them. 2. Based on the assessment of your IS / IT current state, set out the issues which have been identified; their impact on business operations; what needs to be addressed and why. 3. Based on the combination of the above, set out the IT goals; proposed initiatives and the IT capabilities to implement them. 4. Set out the implications if your CHO does not have the required resources to fulfil them. 5. What are the issues which your CHO needs to focus on? 6. Where does IS / IT sit in the organisation and where are its challenges? 	<ol style="list-style-type: none"> 1. Based on the case examples above and taking into account the case studies provided in the CHIA NSW and CHIA Vic guidance pack on digital transformation, the challenges could describe how changes in digital technology are offering huge potential in how services can be delivered in the future and from the persona journey mapping exercises undertaken with your tenants, your organisation either needs to or had already identified where digital channels could add significant value to how you deliver customer services. 2. Describe how technology has changed and the impact that has on the current state of the organisation and the possibilities for its future state. 3. Set out that the strategy considers the current structure of IS and IT in the organisation and what needs to be addressed. 4. Set out focus areas relevant to your organisation. This may be: <ol style="list-style-type: none"> a. Your values b. Your customers / residents / tenants c. Your staff and their roles d. The future and what you intend to do in being innovative. 5. Describe the current issues (based on the current state analysis) relating to specific areas of operation e.g., such as document management; managing contacts and enquiries, delivering a seamless experience which <i>diverts staff away from focusing on more value-added activities due to the productivity issues which have been documented</i> etc. How stable is this environment and what is the priority for maintaining this against introducing new, innovative solutions? 6. Describe if best use is being made of resources and the impact on costs

Section	Topics	Examples to include
		<ol style="list-style-type: none"> 7. Based on your current state analysis, set out how insightful you are and the extent to which you are (or maybe not) analysing customer-related data to assess current levels of service and drive new initiatives 8. Examples of challenges or themes to be covered could be: <ol style="list-style-type: none"> a. Customer services and the customer experience b. Data management, privacy and cybersecurity c. Infrastructure – rationalising IT services and implementing new initiatives.
4. Needs	<ol style="list-style-type: none"> 1. Set out opportunities and / or needs to support the organisation in moving forward. 2. Set out problem areas to be addressed. 3. Set out how operational needs and staff expectations have changed, describing any frustrations and corresponding impact on productivity. 4. Set out the needs and expectations of your customers, from the persona and customer journey mapping you will have done. 5. How does your service delivery model address the CHO's current needs? <ul style="list-style-type: none"> o (You will have an understanding of this from your analysis of your current IS / IT state) 6. How do you engage with your customers / tenants / renters / suppliers / agencies / third parties and what do you need to improve this? 	<ol style="list-style-type: none"> 1. This could describe how smart phone / mobile usage is now universal and your CHO needs to react to provide staff with the tools to work better more remotely. 2. Describe opportunities for deploying technology initiatives / developments and how many people utilise it for many of their day-to-day interactions with their respective providers. 3. There is of course a proportion of your customers / tenants who cannot have access to technology so this could be addressed and aligned to other part of the overall business strategy e.g., in improving the customer experience, we will explore partnerships with other service / technology partners to promote digital inclusion etc. 4. Describe if a new IT service model is needed to support the organisation's current and future needs.
5. Vision / Initiatives	<ol style="list-style-type: none"> 1. With challenges and needs now documented above, set out the scope for the deployment of new IS / IT 	<ol style="list-style-type: none"> 1. Summarise this from the mapping exercise undertaken in sections 4.2 and 4.3 above as well as from the Prioritising Initiatives; Initiative Detail and Roadmap

Section	Topics	Examples to include
	<p>initiatives to meet specific business needs or areas where critical improvements are needed.</p> <ol style="list-style-type: none"> 2. In response to the challenges set out above, list the future initiatives and, if relevant, any changes to the service model. <ul style="list-style-type: none"> ○ Describe the initiative ○ Describe what you will do ○ Describe how you will do it 3. Set out where transformation is needed in the organisation and how you will do it with IS / IT. 4. Describe your rationale and your approaches to identifying innovative opportunities and how you would implement them. 5. The current speed of change with technology can potentially make it challenging for board directors to focus on technology as a crucial strategic priority. The goal for the board is not therefore the understand the technology, but its implications. This therefore reinforces the need to clearly set out how the technology initiatives are aligned to the business drivers together with the anticipated benefits. 	<p>worksheets in the IS / IT Strategy Toolkit.xlsx, covering initiatives; capabilities; resources; culture; skills and service models</p> <ol style="list-style-type: none"> 2. List the business driver headings with the associated IS /IT initiative with a brief description as to how the IS /IT initiative will improve current state and the benefits it is aimed at achieving. 3. Set out what you must / will do in IS / IT terms to achieve your vision e.g.: <ul style="list-style-type: none"> ○ We will establish a data management strategy to ensure the accuracy of all customer data and address the current level of information silos ○ We will deploy mobile technology across all service delivery teams to support agile and remote working, enabling them to spend more time with tenants and doing work “in the field.” ○ We will procure and implement a fully integrated customer, tenancy and asset management system which offers joined-up working; supports collaboration across the business; removes the need for data duplication; and delivers insightful analytics through comprehensive reporting tools ○ We will focus on integrating all our core systems to ensure that no gaps exist in communication channels between teams ○ We will implement task-driven workflow-based software to pro-actively display pending tasks to staff to remove their need to continually search for activities which they <i>think</i> they need to do ○ [Select x from the above] will support y business drivers in our business strategy 4. Set out a technology roadmap if this is relevant to your organisation (this may already be in place).

Section	Topics	Examples to include
6. Budget Considerations & Resources	<ol style="list-style-type: none"> 1. Set out how the initiatives outlined above will be funded. 2. Describe how they have been prioritised from a budgetary perspective. 3. Set out what are capital and operational costs. 	<p>Include estimates where these have been quantified or provided by suppliers.</p>
7. Delivery Plan	<ol style="list-style-type: none"> 1. Group the initiatives defined above into specific programmes to more easily summarise the scope and effectively convey the timeline. 2. Objectives should be set out for each programme to maintain IS / IT business alignment. 	<ol style="list-style-type: none"> 1. Set out each component project as part of the programme. For example, a digital transformation programme may have a number of projects associated with it such as: <ol style="list-style-type: none"> a. Tenant self-service portal development b. Implementation of mobile technology c. Establishment of supplier portals with automation established for the processing of invoices d. Data review of customer contact information and preferred contact method e. Procurement of a CRM system / module 2. For each project, provide a brief description. 3. Set out the targeted outcomes for the programme so it is clear what you are intending to achieve. 4. Note that a topic such as digital transformation may also benefit from a specific strategy being compiled in view of the potential scope.
8. Timeline	<ol style="list-style-type: none"> 1. Set out a timeline for each initiative, ideally using a page for each. 2. Where appropriate, show how this is aligned to each business driver. 	<ol style="list-style-type: none"> 1. Ideally, use a timeline template such as a sun ray to effectively group initiatives by programme and year as the overall summary of the planned initiatives. 2. Then break each initiative down into its component parts using a standard Gantt style timeline approach.

Section	Topics	Examples to include
9. Visuals	1. Bolster the content of your strategy by using as many visuals and graphics as possible to best summarise your IS / IT strategy goals and objectives.	1. Graphs, charts and images make the document much more readable and better to summarise rather than relying on pages of text. 2. Using graphs, charts and images, consider how to summarise the strategy on one page.

6. Glossary of Terms

Term	Description
Artificial intelligence (AI)	The capability of a computer system to imitate human intelligence. Using mathematics and logic, the computer system simulates the reasoning that humans use to learn from new information and make decisions.
Business intelligence (BI)	Software tools which extract data from transactional based information systems where it can be analysed.
CHO	Community housing organisation.
Cloud	<p>A delivery model for enabling convenient, on-demand network access to a shared pool of computing resources in which various servers, applications, data, and other resources are integrated and provided as a service over the Internet that can be rapidly accessed with minimal management effort or service provider interaction.</p> <p>Multiple instances of one or more applications are operated in a shared (distributed) environment.</p> <p>This modern approach allows for infrastructure to be set up in locations with lower costs.</p> <p>It also maximizes load capacity, efficiency, and utilization.</p> <p>Resources are often virtualized (see below re: virtual machine).</p> <p>The terms private cloud and public cloud are sometimes used:</p> <ul style="list-style-type: none"> • Private cloud An internal private cloud environment may be deployed through e.g., desktop and server virtualisation, where the CHO owns and manages all the hardware and where the network is closed and secure. • Public cloud Run on an open network (as outlined above) where the hardware is not owned or located on premise.
Hosted service	<p>Technology services offered by the software provider hosting physical servers that are not situated on the customer's premises.</p> <p>The software being licensed is installed in a data centre by a hosting provider and typically includes monthly hosting and software maintenance fees.</p> <p>The system is available to clients, typically through a direct network connection via a virtual private network, Remote Desktop, etc.) that uses the Internet.</p> <p>It is important to distinguish between a hosted and a cloud service.</p> <p>Hosted services are offered by a vendor who owns and maintains physical servers in a private location.</p> <p>In contrast, cloud services are multi-tenanted - the sharing of resources and costs across a wide pool of users or businesses. Tenancy is one of the key differences between hosted versus cloud services. All tenants use the</p>

Term	Description
	same software, platform, or infrastructure solution, hosted by the same public cloud, but the organisation's data is isolated and inaccessible by anyone outside the business.
IaaS	<p>Infrastructure as a service</p> <ul style="list-style-type: none"> • A third-party provider hosts infrastructure components, such as servers and storage, as well as a virtualization layer. • The IaaS provider offers virtualized computing resources, such as virtual machines, over the internet or through dedicated connections • In IaaS, organisations rent the IT infrastructure—servers and virtual machines (VMs), storage, networks, operating systems—from a cloud provider on a pay-as-you-go basis. • Examples are: <ul style="list-style-type: none"> ○ Amazon Web Services (AWS) ○ Microsoft Azure
ICT	Information communications technology
IS	Information system(s)
IT	Information technology
ITSM	IT Service Management - activities that are performed by an organisation to design, build, deliver, operate and control IT services.
Middleware	<p>Software that lies between an operating system and the applications running on it, enabling communication and data management.</p> <p>Common middleware examples include database middleware, application server middleware, message-oriented middleware, web middleware, and transaction-processing monitors.</p> <p>While all middleware performs communication functions, the type to use will depend on what service is being used and what type of information needs to be communicated.</p> <p>This can include security authentication, transaction management, message queues, applications servers, web servers, and directories. Middleware can also be used for distributed processing with actions occurring in real time rather than sending data back and forth.</p>
Operating system	Software that controls the operation of a computer and directs the processing of programs (as by assigning storage space in memory and controlling input and output functions)
PaaS	<p>Platform as a service</p> <ul style="list-style-type: none"> • A third-party provider delivers hardware and software tools -- usually those needed for application development, including operating systems -- to its users as a service • PaaS is designed to make it easier for developers to quickly create web or mobile apps, without needing to set up or managing the underlying

Term	Description
	<p>infrastructure of servers, storage, network, and databases needed for development.</p>
Remote desktop	<p>A program or an operating system feature that allows a user to connect to a computer in another location, see that computer's desktop and interact with it as if it were local.</p> <p>Remote desktop software captures a device's screen and mouse and keyboard inputs and transmits them to another device, where a user can view or control it remotely.</p> <p>Examples of remote desktop software are:</p> <ul style="list-style-type: none"> • Citrix • Microsoft Remote Desktop Services (formally known as Terminal Services) • TeamViewer • ZohoAssist <p>Typically used in situations where software is hosted (see above)</p>
SaaS	<p>Software as a service</p> <ul style="list-style-type: none"> • A software distribution model offered by a cloud provider where software is accessed over the Internet rather than the software being loaded directly onto a locally available server or computer (for example, business applications and website hosting). • Users pay a subscription fee to gain access to the software, which is ready-made solution • The software provider may host the application directly or may contract a third-party cloud provider to host it. • SaaS software applications are typically accessed via web browsers • Some of the suppliers providing products to the community housing sector offer SaaS services
Server	<p>A computer that is used to run server software. A server requires two software components: an operating system and an application. The operating system acts as a platform for running the server application. It provides access to the underlying hardware resources and provides the dependency services that the application depends on.</p>
Virtual machine	<p>A computer file (typically called an image) that behaves like an actual computer. Multiple virtual machines can run simultaneously on the same physical computer.</p> <p>A virtual machine (VM) is a virtual environment that functions as a virtual computer system with its own CPU, memory, network interface, and storage, created on a physical hardware system (located off- or on-premises).</p>

Term	Description
	<p>VMs are isolated from the rest of the system, and multiple VMs can exist on a single piece of hardware, like a server. They can be moved between host servers depending on demand or to use resources more efficiently.</p> <p>VMs allow multiple different operating systems to run simultaneously on a single computer.</p> <p>Server consolidation is one of the main reasons why some organisations choose to use VMs. Most operating system and application deployments only use a small amount of the physical resources available when deployed to bare metal. By virtualizing your servers, you can place many virtual servers onto each physical server to improve hardware utilisation.</p> <p>This keeps you from needing to purchase additional physical resources, like hard drives, as well as reducing the need for power, space, and cooling in the datacentre.</p> <p>VMs provide additional disaster recovery options by enabling failover and redundancy that could previously only be achieved through additional hardware.</p>
Virtual private network (VPN)	A service that creates a safe, encrypted online connection.

Appendix 1 – Example Project Status Report Template

Organisation Logo

Project Name

Project Update Report

Date




Project Status Summary

1. Set out a concise summary of the project and overall progress here
- 2.

Project Issues

1. Summarise the project issues here
- 2.

Project Milestones

Key	Project On-track – No Issues 	Issues / Risks 	Behind Schedule - Action Needed 
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Project Milestone	Status	Planned Completion	Actual Completion	Issues
Insert milestone name here	On-track	[Date]	[Date]	Yes / No
Insert milestone name here	On-track			
Insert milestone name here	On-track			
Insert milestone name here	On-track			
Insert milestone name here	On-track			
Insert milestone name here	On-track			
Insert milestone name here	On-track			
Overall Project Status	On-track			

Project Risks

Rating	Description	
Critical	5	Project success in jeopardy / significant risk of project failure
Major	4	Serious impact on project progress and outcome / high risk of failure
Moderate	3	Effects will be felt / issues likely to arise resulting in possible delays and / or increased cost
Low	2	Needs to be considered for action
Very low	1	Desirable to address to enhance future proofing

Ref	Risk Category	Situation	Impact Assessment	Pre-Mitigation				Mitigation Actions
				Likelihood	Consequences	Risk Level	Rating	
1								
2								
3								

Planned Activities Completed ([Insert Date] to [Insert Date])

Project Stream	Activity
Insert name	1. Provide summary of what has been completed
	1.
	1.
	1.
	1.
	1.
	1.

Planned Activities Next Period ([Insert Date] to [Insert Date])

Project Stream	Activity
Insert name	1. Provide summary of what is to be undertaken
	1.
	1.
	1.
	1.

Appendices

Project Plan Summary

Provide a summary of the project tasks here.
Include a screen shot from the Microsoft Project plan to illustrate the position

Budget Summary

Contract Type	Contract Start Date	Contract Amount	Expenditure to date	Budget Balance	Estimated Date for full expenditure

Team Resources

Period	Name of Resource		Name of Resource		Name of Resource	
	Planned	Actual	Planned	Actual	Planned	Actual
w/c	Enter hours planned	Enter actual hours	Enter hours planned	Enter actual hours	Enter hours planned	Enter actual hours
w/c	Enter hours planned	Enter actual hours	Enter hours planned	Enter actual hours	Enter hours planned	Enter actual hours
Totals						