A guide to managing knowledge

Turning information into capability
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Foreword

The need for effective knowledge management is compelling. In today’s information driven economy, the community demands a higher level of accountability from the public sector, while agencies are expected to adapt and innovate to improve the quality of service delivery.

Agencies face a growing challenge to attract and retain staff. The workforce continues to age and many agencies have a critical mass of long-term employees who have substantial knowledge and experience, which could potentially be lost at any time. The risks for knowledge retention and transfer need to be effectively managed to ensure public sector agencies can successfully deliver government outcomes on an ongoing basis.

This guide provides a contemporary approach to begin the knowledge management process in your agency, including how to build a business case, identifying where the current and potential knowledge gaps exist and a selection of tips and techniques as well as public sector case studies.

Effective knowledge management provides significant opportunities for public sector agencies to improve productivity and successfully deliver government outcomes over time. I thank those who have been involved in developing this guide and invite feedback from all agencies to continue to develop the knowledge management tools and resources that will enable improved performance and service delivery to the Western Australian community.

M C Wauchope
PUBLIC SECTOR COMMISSIONER
Executive summary

This practical guide has been developed as part of a suite of resources to support improved leadership, strategic human resource management and informed workforce planning across the Western Australian public sector.

Targeted at senior executives, human resource practitioners and line managers, the information aims to provide an overview of knowledge management, its importance for the Western Australian public sector, and the practical benefits knowledge management can bring to individual agencies to improve their workforce management processes.

There are many approaches to the concept of knowledge management and this resource includes ideas on how to develop a knowledge management framework, together with some tools and techniques to assess and select appropriate knowledge management options in a public sector context.

Case studies referred to in this guide provide details of approaches adopted by a variety of agencies across the Western Australian public sector. A list of resources and references has also been provided to support the development of knowledge management activities.
1. What is knowledge management?

Knowledge management is about enabling individuals, teams and entire organisations to collectively and systematically create, share, and apply knowledge to improve the achievement of their business objectives.

Knowledge management can help identify and manage gaps in the ways that knowledge circulates within an organisation. It also assists in identifying future knowledge required within an organisation in changing circumstances, for example, when an employee retires.

For employees retiring or leaving, a structured approach to knowledge management provides an opportunity to leave a ‘legacy’ of their acquired learning. It also ensures that key corporate knowledge is captured and not lost when the person leaves the organisation. For public sector agencies this helps to ensure consistent and improved service delivery to the Western Australian community.

Knowledge management aims to enhance the ability of an agency to share or ‘transfer’ knowledge between individuals or groups. Knowledge transfer is most effective when there is a planned approach to knowledge management. The key to success for knowledge management is the ability or willingness of an agency to collaborate at all levels so learning and knowledge transfer can occur. The alternative is a situation in which knowledge and information is not shared and collaboration is limited: this outcome only stores information which soon becomes redundant over time.

Knowledge management aims to access and build on the skills and knowledge of all employees through the “design, review and implementation of both social and technological processes to improve the application of knowledge in the collective interest of stakeholders”.¹

Knowledge is guaranteed to be lost by those agencies that do not plan for change and turnover in their workforce. Those agencies with an ageing workforce, or who rely on the undocumented knowledge of specific staff, are most at risk. To ensure effective operations, the responsibility to champion a knowledge management culture within an organisation must be recognised and shared by all executives.

When knowledge is shared, it benefits everyone. Public sector executives and managers benefit directly through increased productivity and capability. Existing employees feel valued for their knowledge, while new employees are more likely to be retained through the learning environment that knowledge management can create.

2. What is knowledge?

Knowledge is often confused with the concept of information or the gathering of data. But information on its own means very little. Information and data can only evolve into knowledge when they are interpreted and usefully applied. Therefore, knowledge can be thought of as the experience and skills acquired through education, theory and the practical application and understanding of information and data.
The following table demonstrates the distinctions between data capture, the organisation of information and knowledge management.

**Diagram 1. Data capture and information management versus knowledge management**

<table>
<thead>
<tr>
<th>Data capture and storage</th>
<th>Information management</th>
<th>Knowledge management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is dependent on the quality of systems and operations available, prone to human error and cannot add value by itself</td>
<td>Supports existing operations. It is a tangible, systems-based asset that can be copied or transferred</td>
<td>Supports improvement and innovation. It is an intangible asset developed through human interaction that is not easy to identify or copy</td>
</tr>
<tr>
<td>Is a snapshot of a specific time period (e.g. 30 June – end of financial year)</td>
<td>Only delivers the content available</td>
<td>Information is filtered and interpreted through collaboration</td>
</tr>
<tr>
<td>Stagnant figures, statistics or documents that require an expert to translate into information</td>
<td>One-way information</td>
<td>Requires ongoing contributions and feedback</td>
</tr>
<tr>
<td>Data is out of date directly after its capture, it is historical in nature. Data capture is generally automated</td>
<td>Assumes information can be standardised and automated</td>
<td>It is not easy to standardise and automation provides limited benefits</td>
</tr>
</tbody>
</table>

Adapted from: Department of State and Regional Development, Victoria (2001) *Knowledge Management: How it works for Government Online*
Knowledge can be thought of as either explicit or tacit.

**Explicit knowledge** is knowledge that can be captured and codified, expressed in words, numbers or symbols, and is easily articulated in processes, procedures, products and practices. It can be stored electronically or on paper, on the web or via other visual or oral sources. It has a tangible form and can therefore be relatively easily transferred, stored and communicated.

**Tacit knowledge** is more elusive as it is developed through personal skills, experience, judgment and intuition; moreover, it accumulates over time. Tacit knowledge is also known as ‘a gut feeling’ or even as wisdom, and can be hard to communicate. Its effective transfer generally requires extensive personal contact and trust. The majority of an agency’s knowledge is tacit and not necessarily documented. This is the typical knowledge that the public sector is at risk of losing as a result of the ageing workforce.

Given the extensive tacit knowledge of public sector employees, relying exclusively on Information Communication Technology (ICT) networks and the internet to provide access to this knowledge may not, therefore, be effective or appropriate. However, if used well and integrated to the needs of employees, ICT can make knowledge sharing easier.

Examples of ICT that facilitate knowledge management include computer supported meetings, internet conferencing, email, bulletin boards, discussion groups and blogs. However, it is important to bear in mind that technology is only one enabler for knowledge management and it is constantly changing.

The emphasis of knowledge management strategies should be the communication actions of people, rather than the technology that facilitates that communication.

### 3. Culture

It is clear that what employees know about performing their work is a highly valuable, often intangible asset for organisations. Organisations with a knowledge focus recognise the value of that knowledge through the implementation of a practical, deliberate, whole of organisation commitment to practices and techniques that encourage the flow of knowledge and information. They facilitate a culture of trust where people feel safe in sharing their knowledge.

People influence how knowledge is managed and interpreted. Knowledge is created and shared through relationships and networks. Employee networks are built on an organisation’s structure, systems, culture and leadership, and these influence what knowledge is valued and how that knowledge is transferred in the organisation. An effective knowledge management system can be used to build a culture where individuals see sharing knowledge as part of their role.

Time for knowledge transfer should be built into normal workflow as a lack of time is often cited as the primary obstacle to effective knowledge management.
All knowledge passes through a psychosocial filter based on the social confidence of the person with the knowledge and how credibly they are perceived by others. The filter is like an invisible bubble around each individual that influences the knowledge process based on whom the person was comfortable approaching, whom they regarded as credible and whom they were willing to trust. The filter is different for each individual but can be more highly refined for knowledge workers who hold their knowledge in high regard.

4. Knowledge management framework

A knowledge management framework should underpin the agency’s strategic direction and link directly to the priority issues of the agency. The framework should aim to educate staff on the value of knowledge management and engage staff to identify examples of excellence to deliver the agency’s strategic success.

This requires a shared understanding of what knowledge assets are and how they can add value. A knowledge asset can be defined as information ‘owned’ by an organisation that could be used to enhance value. Experience within an organisation is naturally fragmented along divisional and business lines. If staff are engaged to drive the knowledge management agenda, the knowledge efforts should align with service delivery priorities and focus on improved efficiency to bring more immediate benefits.

The agency’s executive and senior management team must commit to action and endorse the knowledge management challenges and priorities. This builds trust and the relationships required to foster knowledge sharing. **Knowledge management can then assist to develop and retain the best employees to position the agency to anticipate change.** An increased understanding of workforce demographics and culture change needs assists in building a learning organisation.

There are a number of models to describe the success factors for a knowledge management framework. The following diagram highlights the key factors of leadership, culture, infrastructure, technology and continuous improvement.
Diagram 2. Example of a knowledge management framework

<table>
<thead>
<tr>
<th>Success factors</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Clear strategic focus for knowledge management and visible management commitment</td>
</tr>
<tr>
<td>Culture</td>
<td>Shared mindset → Staff capabilities → Capability for change</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Roles → Structures → Policies and processes</td>
</tr>
<tr>
<td>Technology</td>
<td>Design, functionality, integration, speed, simplicity, access</td>
</tr>
<tr>
<td>Continuous improvement</td>
<td>Metrics for contribution, usage, effectiveness</td>
</tr>
</tbody>
</table>

Adapted from: Andrews (2003), ‘Get businesslike about knowledge management’.

5. The business case for managing knowledge

All levels of government are expected to operate with accountability and transparency and most public sector agencies are knowledge intensive. Knowledge is often the core product or activity delivered by a skilled and educated workforce across the public sector.

5.1 Objectives and benefits

All initiatives for knowledge management need to contribute to the organisational goals and strategic directions of the agency. Knowledge management assists in identifying, developing and retaining those employees with critical expertise. The benefits of knowledge management are reflected through improved relationships and strengthened networks which people use to create and build knowledge. Benefits can include:

- increased staff retention, created through the value placed on experience and knowledge
- improved productivity provided through an increasingly engaged workforce
- enhanced innovation by sharing ideas through communities of practice
- addressing the issues created by increased career autonomy, the ageing workforce and skills shortages.

A more specific example of one of the benefits referred to above could be retaining an employee a little longer because they feel valued for their knowledge and experience; another example might be offsetting the negative operational impact from the turnover of mobile staff by sharing their knowledge amongst a wider group of employees.
5.2 Framework development

Knowledge management must be positioned in a way that clearly identifies its value to the agency. Developing a framework starts with identifying how knowledge management underpins the agency’s strategy and business plan to deliver on government outcomes. It is essential to identify and define the type of leadership, culture, infrastructure, technology and continuous improvement systems required for success.\textsuperscript{i}x If knowledge management work is limited to an operational level, without the support of executive management, it will have a limited impact on the agency’s performance.

5.3 Risks of inaction

The public sector has an ageing workforce. This has increased the need to retain knowledge as older employees retire. \textit{Turnover, either through retirement or an increasingly mobile workforce, creates the risk of a loss of knowledge.} This risk can be a significant expense through reduced efficiency, costly errors and decreased innovation. It is a false saving to take no action in response to the knowledge management challenge. Knowledge is guaranteed to be lost by those agencies who do not respond to the identified risks.

The business case for knowledge management is strong – there are risks and implications if no action is taken.

\textbf{Knowledge risk is high if critical knowledge is held by only one or two staff and is not captured and documented.} Knowledge takes time to develop and it is difficult to transfer between people, teams or locations. Knowledge management must be managed in a positive way, to target the most important processes and services, to build capability and to encourage exiting staff to remain connected to the agency. It is impossible to document everything so coaching and training need to supplement the knowledge transfer process.

5.4 Implementation

Each agency will need to implement a plan that complements their knowledge base and the services they deliver. The plan starts with a review of the agency’s age profile, the retention and training participation rates, and a map of knowledge critical for service delivery. This information provides the basis to develop a knowledge management framework and is the first step in a long-term process that will need to be underpinned by effective change management. Each agency will develop different strategic initiatives that align with their own organisational culture. One measure of the success of the implementation of a knowledge management framework could be the reduced time it would take for a new starter to be confident and productive in their new role.
6. How to get started

To identify how knowledge flows within your agency, the first step is to understand how individuals and teams share information. This includes how people interact with the external environment, for example, the community, customers, suppliers, industry and other levels of government. The analysis also includes the ICT infrastructure and the professional and social networks of employees, for example, membership of professional associations.

6.1 Understand how your staff access knowledge and document it

Understanding relationships is essential; establish ‘who knows whom’ and ‘who shares with whom’.

There are a number of techniques that can be used to analyse the relationships between employees, groups and systems to understand the flow of information in an organisation. Techniques such as Social Network Analysis (SNA)* can be used to understand and document informal relationships (‘who knows whom’ and ‘who shares with whom’). This information is not detailed in the formal structure or organisational chart of an agency. If managers understand the relationships that support or impede knowledge sharing, action can be taken to:

- **identify** those that have an informal knowledge sharing role
- **engage** leaders, experts, mentors
- **identify bottlenecks** to knowledge transfer between employees or groups
- **target** where better knowledge sharing will have the most impact
- **raise awareness** of the importance of informal networks.

The Australian Standard for knowledge management describes a knowledge map as ‘a visual presentation of knowledge processes, sources, assets, flows, gaps and barriers across and within an organisation’. There is no standard process to create a knowledge map. The mapping process should identify the gaps, duplications and inefficiencies as well as making knowledge visible so that the way it is shared and transferred can be improved. A knowledge map should also capture the expertise and links between people across an agency. It can be developed through any combination of observation, interviews, focus groups, process tracking and surveys. The culture of each agency, the type of expertise that is being captured, the business systems and the nature of the services delivered will all determine the appropriate techniques required to create a knowledge map.
A process to identify and transfer the priority knowledge of an employee who is leaving.

One Western Australian public sector agency has researched the number of long-term employees who could potentially retire at the same time. The process they have developed is used for all staff that exit, for whatever reason. They recognise that knowledge transfer is broader than a standard handover to a new employee. It has a long-term focus and requires the departing employee to identify all key relationships linked to their role where they may need to transfer their knowledge.

It covers long term issues rather than immediate tasks and it invites staff to identify the critical knowledge they have that contributes to the organisation’s service delivery. The agency’s knowledge transfer process commences with the employee’s manager but may involve a much larger group of employees. A plan is developed and a strategy to implement the agreed actions is put in place. This includes practical suggestions to share knowledge, including writing a case study, demonstrating key tasks, coaching another employee, implementing a training session, participating in brainstorming sessions and sharing tips for success and short stories of their experiences.

An example of the above process is detailed in a flowchart at Appendix C.

One way to map knowledge can be to arrange the agency’s knowledge flow into operational processes or activities. This helps to identify who performs an activity, what inputs are required and how knowledge flows to support specific tasks. A series of diagrams can then be used to identify key priorities and improve knowledge flow across an agency.

The Australian Standard\textsuperscript{xii} includes an assessment tool to assist agencies to gauge the maturity of their knowledge management activities. It is important to remember that the matrix is not a purely linear process; in reality an agency can be at different concurrent points on the matrix. The rating process can assist agencies to develop realistic goals for knowledge management within the agency.
Diagram 3. A matrix for knowledge management—the knowledge continuum

### People
- **Elements**
  - People working in groups or teams
  - Individualised work functions
  - Autonomous decision making
  - Hierarchical structures

### Process
- **Elements**
  - Knowledge is contained in objects
  - No standard processes
  - Knowledge activities not rewarded
  - High levels of duplication

### Technology
- **Elements**
  - Non-existent
  - Information on individual computers
  - Lack of standards for interoperability

### Content
- **Elements**
  - Messy chaotic and unstructured
  - Ad hoc and in silos
  - Independent pools of Information held locally

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6.2 Develop a strategic vision and communication strategy

A good communication strategy will reinforce that knowledge management is not just about systems and data but access to wisdom to increase capability.

Individual employees and teams will only engage in knowledge management if they benefit directly from the process. A vision statement and communication strategy can be used to drive the change, build capability and increase employee commitment. The vision must also link knowledge management to the agency’s service delivery issues. In particular, employees should be able to identify the potential of knowledge management to improve a specific process, for example, customer relationship management or risk management.

A strong communications strategy will increase trust among employees. Trust is essential, as knowledge is a resource that has inherent status and power. Attempts to manage, control, or organise knowledge may attract resistance. Feedback on a proposed vision can be sought from employees and used to identify what will work and what won’t work and why. This information can identify what motivates people to share their knowledge and this, in turn, can be recognised, encouraged and rewarded.

A transparent approach to knowledge management in a Western Australian public sector agency

One Western Australian public sector agency has implemented the Business Excellence Framework, linked to all aspects of the organisation’s service delivery and the outcomes achieved. One key area of capability under the Business Excellence Framework is ‘data, information and knowledge’.

The Framework provides a solid yet transparent platform for the agency to implement strategies to improve how knowledge is retained, shared and used, without the need to identify them under a separate ‘knowledge management’ initiative. The agency has made a conscious decision to not appoint a Knowledge Manager but instead relies on a systematic and structured approach to assess the performance of its leadership and management systems.

Agencies could adopt this or a similar approach by finding a clear and logical path to embed knowledge management into day-to-day operations, the culture and the agency’s performance measurement mechanisms. For example, the Western Australian Police have linked performance management with knowledge management and the planning process, as outlined on the next page.
WA Police - Linking performance with knowledge management

WA Police have introduced the ‘4me2achieve’ performance system, supported by a new coaching approach, designed to encourage ‘healthy conversations’ between managers and staff. The performance management system clearly links individual goals and performance at the local, corporate and public sector level through integration with the planning framework. This ensures individuals are able to understand how their performance impacts on the overall performance of the agency. It also provides an opportunity to share relevant information and learn from it to build the knowledge base for the individual, the team and the agency.

Diagram 4. WA Police integrated planning framework
6.3 Manage the risks

A knowledge manager ensures the agency’s knowledge assets focus on increasing capability

Risk management can be applied at many levels within a knowledge management framework. Retiring employees can assist by identifying the knowledge at risk of being lost. Further information on the challenges and opportunities of an ageing workforce is also available in *A guide to managing an ageing workforce* published by the Public Sector Commission. Career development and succession planning programs can build the knowledge needed by staff to prepare for future roles. **Risk can occur where agency knowledge is lost, is not shared or is under-utilised by existing employees.**

Risk factors should be identified and then strategies to address those risk factors developed and implemented. Workforce planning to support knowledge management and reduce knowledge risk requires a full understanding of the agency’s capabilities and how they are applied and expanded. Larger agencies may decide to appoint a knowledge manager to ensure the benefit to the agency of knowledge assets is maximised.

The role of an information officer and a knowledge manager are different. The responsibilities of a knowledge manager are broader and include:

- developing an overall framework that guides knowledge management
- actively promoting the knowledge agenda internally and externally
- developing the knowledge infrastructure
- facilitating connections, coordination and communications.
Within the Department of Fire and Emergency Services (DFES), knowledge management is well understood from the risk management perspective. DFES has links to state, national and international emergency response situations and participates on a wide range of multidisciplinary committees, task forces and advisory bodies.

Knowledge about operational processes is well documented and updated due to DFES’s involvement with cross agency committees. This includes reviewing major incidents in other jurisdictions to ensure learning from those events (for example, the February 2009 Victorian bushfires, the Queensland floods).

DFES is also proactive in undertaking relevant research and working with communities and other agencies to prevent hazards and mitigate the effects of events such as fires, cyclones, storms and floods. After major events, DFES plays an ongoing role with many communities helping to recover and improve emergency management plans and systems.

6.4 Process options for knowledge management

There are many approaches to implementing a knowledge management process. The most suitable for your agency will depend on the current state of your agency’s knowledge transfer (Section 6.1), the selected vision and communication strategy (Section 6.2), and the risks that need to be managed (Section 6.3). A range of functional areas must work together and be responsible for taking action.
Diagram 5. Process options for knowledge management

<table>
<thead>
<tr>
<th>1. Improve the way knowledge is accessed</th>
<th>Responsible officer/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish a knowledge management awareness session to inform employees.</td>
<td>Human Resources, Strategic or Business Planning areas/Information Management/Customer Service Managers and ICT Managers/professionals</td>
</tr>
<tr>
<td>Review the business plan, customer service charter and performance measures to include a knowledge management component.</td>
<td></td>
</tr>
<tr>
<td>Identify areas where knowledge is recognised as contributing to success.</td>
<td></td>
</tr>
<tr>
<td>Implement mentoring to enable employees to pass on their tacit knowledge.</td>
<td></td>
</tr>
<tr>
<td>Implement a shared drive to store documents for access by groups of staff.</td>
<td></td>
</tr>
<tr>
<td>Standardise templates and software used by employees and contractors.</td>
<td></td>
</tr>
<tr>
<td>Review how the agency seeks customer feedback and uses this information, and identify areas for improvement.</td>
<td></td>
</tr>
</tbody>
</table>
2. **Improve the coordination and infrastructure for knowledge**

<table>
<thead>
<tr>
<th>Responsible officer/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Managers, Senior and Executive Management, Human Resources and ICT Managers/professionals.</td>
</tr>
</tbody>
</table>

- Appoint a knowledge manager and rotate the role for shared responsibility.
- Develop a formal knowledge management plan.
- Form an implementation team with representatives from across the agency.
- Standardise IT infrastructure so that all staff have access to appropriate databases.
- Identify knowledge champions from each work area and support them.
- Introduce interactive access and use of the intranet including a knowledge management message board.
- Ensure that sharing knowledge is interpreted by employees as a way of gaining efficiency, not losing personal power.

3. **Increase the knowledge base**

<table>
<thead>
<tr>
<th>Responsible officer/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Managers, Senior and Executive Management, Human Resources and ICT Managers/professionals.</td>
</tr>
</tbody>
</table>

- Establish uncensored formal channels to share learning (meetings, email, and intranet) to enable staff to share knowledge freely.
- Encourage informal knowledge exchanges by changing the physical workplace to facilitate communication between staff.
- Encourage broad participation in debriefing and reviews of completed projects.
- Implement a system to publicly acknowledge (via staff bulletin, newsletter or intranet) knowledge sharing – encourage staff to tell their stories.

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6.5 Tools and techniques

There are three types of tools and techniques that could be incorporated into the knowledge management process that is selected and implemented by an agency:

A. those that are used to **store, transfer and re-use** knowledge
B. those that are used to **improve organisational learning**
C. those that **encourage collaboration**.

When considering the appropriate tools or techniques to apply, it should be noted that knowledge has a time component. If knowledge is not accessed, updated and improved it will become redundant and lose its value as an asset.

### A. Tools and techniques to store, transfer and re-use knowledge

<table>
<thead>
<tr>
<th>Tool/Technique</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxonomies</td>
<td>Systems that can be applied to documents in physical and electronic folders through logical and easy-to-use naming conventions that increase timely access to documents.</td>
</tr>
<tr>
<td>Exit interviews</td>
<td>Exit interviews capture and store knowledge that would otherwise be lost through staff turnover. Refer to Learning from leaving: A guide to exit interviews for the WA public sector at: <a href="http://www.publicsector.wa.gov.au/workforce/workforce-planning-data">www.publicsector.wa.gov.au/workforce/workforce-planning-data</a></td>
</tr>
<tr>
<td>How to guides</td>
<td>How to guides enable the capture, documentation and dissemination of information to employees to make better use of existing knowledge. The ultimate goal is to capture an effective sequence or process with enough accuracy so that it can be repeated with the same positive results.</td>
</tr>
<tr>
<td>Staff profile pages</td>
<td>Electronic directories store information about staff and can include details about knowledge, skills, experience, interests and hobbies as well as names, job titles, groups and contact details. They have the potential to facilitate connections between staff, leading to valuable new collaborative opportunities.</td>
</tr>
<tr>
<td>Shared network drives</td>
<td>Computer networks that use a series of shared drives to store documents, and policies that identify clear and acceptable use of these drives, are common in most agencies.</td>
</tr>
</tbody>
</table>
Examples of tools and techniques implemented in the Western Australian public sector

Innovation forum

One agency has launched a discussion board where any employee can post an idea about projects or activities the agency could implement.

If ideas receive informal support and gain momentum through the discussion board forum, they are taken up by a project group and progressed on behalf of the agency.

Brain dumps

Another agency encourages key technical staff to record important information about their jobs onto tapes before they leave so this knowledge can be accessed by other staff in the future.

<table>
<thead>
<tr>
<th>B. Tools and techniques to improve organisational learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer assist</td>
</tr>
<tr>
<td>After-action reviews</td>
</tr>
<tr>
<td>Intranet strategies</td>
</tr>
<tr>
<td>Email guidelines</td>
</tr>
</tbody>
</table>
Most staff are directly involved in classroom teaching, and one of the biggest challenges is simply getting the team together to network and share knowledge. To address this logistical issue, the agency has created a “Communications Corridor” by ensuring no classes are scheduled on Thursday mornings. This means that all staff can then be available to meet during this period without detriment to the educational schedule. Staff can meet with their colleagues as a group or they can schedule one-on-one meetings during this period knowing that they are not putting a colleague in the position of having to work around class requirements. Other agencies may have similar operational pressures where there may be a need to re-think how the operating environment works in the short term so that knowledge management can be accessed for the long term benefit of the agency.

### C. Tools and techniques to collaborate

<table>
<thead>
<tr>
<th>Tool/Technique</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mind-mapping</td>
<td>A non-linear method to arrange ideas or information and cluster them; for example it could be used to agree on an overall concept, a shared perspective or to organise tasks for a project.</td>
</tr>
<tr>
<td>Collaborative workspaces</td>
<td>A virtual work environment where ideas and knowledge can be shared and created, analysed and discussed. Simple examples are blogs and wikis but more sophisticated computer software can be used to implement a more advanced approach.</td>
</tr>
<tr>
<td>Communities of practice / centre of excellence</td>
<td>Internal and external experts come together to share their expertise in an environment that brings together groups that cross organisational boundaries.</td>
</tr>
<tr>
<td>e-conference and messaging services</td>
<td>Enables the easy sharing of ideas, information and news and are facilitated by email and web technologies. As technology now enables video and voice communication, this could take the form of a virtual ‘chat room’ where people can talk in groups or on a one to one basis.</td>
</tr>
<tr>
<td>Video streaming</td>
<td>Video streaming can turn a structured e-discussion into a video conference.</td>
</tr>
<tr>
<td>Podcasting</td>
<td>A method of distributing multimedia files, such as audio programs or music videos, over the internet for playback on mobile devices and personal computers.</td>
</tr>
<tr>
<td>Social network services</td>
<td>Collaboration through intranet promotes dialogue, debate, learning and improves communication either face-to-face or in a geographically dispersed organisation. Social Network Services can include discussion forums, internal bulletins, surveys, corporate calendars, team workspaces and project team pages.</td>
</tr>
<tr>
<td>E-learning</td>
<td>E-learning can be applied to long distance and on demand learning at a reduced cost while overcoming the issues of a geographically dispersed workforce.</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Blogs</td>
<td>Blogs enable groups of people to electronically discuss areas of interest in different ways, and to review different opinions and information about subjects of interest.</td>
</tr>
<tr>
<td>Story telling</td>
<td>Story telling teaches lessons, exchanges ideas, changes behaviours and builds communities. Stories allow people to listen to a memorable experience that can capture tacit knowledge, encourage innovation and inspire behaviour.</td>
</tr>
</tbody>
</table>

**Disability Services Commission – building a culture of collaboration**

The Disability Services Commission (DSC) has developed a number of strategies to increase the level of collaboration within the agency, with other government agencies, as well as between the DSC and the private sector.

The strength of the DSC’s culture is central to developing and enhancing collaboration. For example, the Workforce Planning team is building the foundation for good quality forecasting on workforce demographics to ensure that future knowledge management challenges can be met. Meanwhile the Policy and Strategy Directorate has been engaged in a process of improving the quality of the data used for planning and reporting.

Alongside these activities, a small informal group within the agency’s policy group recognised the value of a formal knowledge management approach. This group developed proposals to formally initiate a knowledge management strategy within DSC to support the ongoing work of the Corporate Executive in linking each of the initiatives.

DSC can be described as having started the knowledge management journey and provides a clear demonstration that good knowledge management efforts often begin from very different places within an organisation.

**6.6 Change management and linking to other areas**

Employee feedback to troubleshoot and resolve issues helps to probe for opportunities, develop solutions and ensure that knowledge management initiatives are successful. Feedback can be used to refine implementation and overcome the natural resistance to change.
A pilot program can be used to trial different knowledge management initiatives prior to investing in full implementation. A team of people to champion knowledge management initiatives and take action to reward positive behaviour or “quick wins” can contribute to success. There is also benefit in recognising stakeholder relationships, particularly customers and the community, within the knowledge management process. Leaders and managers can shape an agency’s culture through their actions and behaviour.

When their actions lead to an increase in trust, it is easier to retain knowledge-rich employees and encourage them to share knowledge.\textsuperscript{xv}

\textbf{WA Police - problem-based learning}

WA Police has moved towards problem based learning as a way of enhancing knowledge sharing. Case studies and shared stories or experiences are used to create a strong learning environment and encourage knowledge sharing. In respect to the unsuccessful prosecution of a case, an open discussion session was held between agency management, the Department of Public Prosecutions, key staff involved in the case and other invited parties. Due to the leadership style adopted, the discussion led to shared understanding rather than blame.

\textbf{6.7 Evaluation}

All projects should be evaluated to understand the lessons that can be learned from success and failure.\textsuperscript{xvi} Knowledge management initiatives can be measured for the impact on an agency’s capacity to acquire, retain and use knowledge efficiently, effectively and ethically. The Australian Standard outlines a number of approaches for measuring the success of knowledge management, including:

- \textbf{evaluating} what has been implemented and the impact it has had
- \textbf{identifying} changes in intellectual capital
- \textbf{targeting} selected behaviours and interactions as indicators of success.

A baseline can be used to benchmark and compare how the agency performs in the future. In addition, the success of any knowledge management initiative can be assessed by measuring a change in the agency’s intellectual capital. \textbf{Intellectual capital can be defined as the sum of employee knowledge, applied experience and professional skills that may enhance the performance of the agency}. Both of these methods require a periodic review of specific indicators developed within the agency’s operating environment. Stakeholder feedback is a common method to evaluate performance. This can be reinforced through a link to the agency’s planning and performance management function.

An example of an assessment tool is included at Appendix D.
7. Future directions for knowledge management

Several agencies contributed examples of their current knowledge management processes and strategic initiatives to support this guide. Even within this small sample there was a huge variance in the methods that were considered the most effective. The approaches that were used to integrate knowledge management into the operations of the agency to achieve positive outcomes varied widely.

This guide is intended only to provide an insight into some of the options and considerations for the WA public sector as it seeks to gain the benefits of a structured approach to knowledge management. A list of resources and references has also been provided to support the development of activity in this important area of work.

8. Electronic resources

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM World</td>
<td><a href="http://www.kmworld.com">www.kmworld.com</a></td>
</tr>
<tr>
<td>Knowledge Management Australia</td>
<td><a href="http://www.kmaustralia.com">www.kmaustralia.com</a></td>
</tr>
<tr>
<td>KM Best Practice</td>
<td><a href="http://www.kmbestpractices.com">http://www.kmbestpractices.com</a></td>
</tr>
<tr>
<td>Value Networks</td>
<td><a href="http://www.valuenetworks.com">www.valuenetworks.com</a></td>
</tr>
<tr>
<td>CiO.com</td>
<td><a href="http://www.cio.com/article/40343/Knowledge_Management_Definition_and_Solutions">www.cio.com/article/40343/Knowledge_Management_Definition_and_Solutions</a></td>
</tr>
<tr>
<td>Knowledge Management Tools (KMT)</td>
<td><a href="http://www.knowledge-management-tools.net">www.knowledge-management-tools.net</a></td>
</tr>
<tr>
<td>Mind Tools</td>
<td><a href="http://www.mindtools.com/pages/article/newISS_87.htm">www.mindtools.com/pages/article/newISS_87.htm</a></td>
</tr>
<tr>
<td>Improvement and Development Agency for local government, UK</td>
<td><a href="http://www.idea.gov.uk/idk/aio/8595069">www.idea.gov.uk/idk/aio/8595069</a></td>
</tr>
<tr>
<td>actKM</td>
<td><a href="http://www.actkm.org">www.actkm.org</a></td>
</tr>
<tr>
<td>David Skyme &amp; Associates</td>
<td><a href="http://www.skyrme.com/resource/10myths.htm">www.skyrme.com/resource/10myths.htm</a></td>
</tr>
</tbody>
</table>
Appendix A - Survey to assess the environment for knowledge management

Knowledge context (the agency’s services and products)

1. What are the main products or services that your agency provides to the Western Australia public?

2. How do you communicate this activity in simple terms to your workforce and the Western Australia community? Does your agency use models, stories, analogies or marketing tools?

3. Where is your most valuable knowledge located? Is it in accessible documents or in people’s heads?

4. What knowledge does the organisation need? What knowledge is critical for the business outcomes?

5. How would you rate and describe the organisation’s current understanding of knowledge management processes and practices?

Knowledge management and people

6. What percentage of your workforce is involved with providing the services you have listed above? What percentage is involved with supporting and/or managing the systems, infrastructure and business processes to provide those services?

7. How is information shared after key events (for example, the closeout of a project or significant customer service interaction, or the results of customer satisfaction survey)?

8. How does the agency encourage knowledge sharing between employees (for example, through monthly meetings, de-briefing sessions, involvement in business/strategic planning, case studies)?

9. How do you identify the people who have critical tacit knowledge (the knowledge acquired from personal experience that is not documented)?

10. What methods do you use to capture important information and wisdom before employees leave either when retiring or moving to another organisation?

11. How are networks encouraged across formal organisational structures, divisions, branches or other ‘silos’?

12. How do people in your agency know who to go to if they need information on a particular issue?

13. How does the agency transfer knowledge between individuals ‘on-the-job’?

14. How are employees encouraged to identify and share their information and experience?
Knowledge and processes (systems, practices, procedures and policies)

15. How is the important information for your agency identified, verified for accuracy, protected and made available to other employees?

16. What are the key activities that assist and support timely information to be shared between employees (to improve services or to make decisions)?

17. Do you have, or have you trialled, a process to manage your knowledge? If so, was it successful?

18. Have you conducted a knowledge audit or made a risk assessment to identify the critical information needed for quality customer service?

19. Have you created a position for the management of the organisation’s knowledge (for example, a Knowledge Manager)?

20. Does the agency use online communities or other technology to distribute information, improve networking and share knowledge?

21. Do you have knowledge management policy or procedures for the organisation?

22. How are your key information systems integrated?

23. How do you evaluate the effectiveness of your knowledge management activity?

24. What are the ‘norms’ between people and groups for sharing information?

25. Do your information systems provide up-to-date information (real-time information for your customers and employees)?

26. How is the agency’s information managed to identify changes to improve service delivery?

27. What happens in your agency that hinders knowledge sharing?
Appendix B - Sample questions to identity and prioritise knowledge

People

- Does the current culture reward knowledge sharing or knowledge hoarding?
- Are workers skilled knowledge users and creators?

Process

- How is knowledge currently stored, organised and shared?
- Do current work practices support the capture of explicit knowledge?
- Do work processes include opportunities to share tacit knowledge?
- What regulatory requirements will affect knowledge management? This may include privacy requirements, freedom of information, intellectual property, security or any legislation with information management requirements.

Technology

- What systems are in place to support knowledge (for example, workflow, intranets, electronic records and document management, accessible and useable information systems)?
- Where is explicit knowledge located and how is it structured?

Appendix C – Sample process knowledge transfer

<table>
<thead>
<tr>
<th>Knowledge transfer needs identified</th>
<th>Action</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Line Manager advised by HR of employee’s pending departure</td>
<td>Line Manager initiates the KM transfer process and explores options e.g. phased retirement, coaching, project work etc</td>
</tr>
<tr>
<td></td>
<td>Line Manager meets with exiting employee to scope knowledge transfer needs.</td>
<td>Refer to tools in guide and customise for individual agency use</td>
</tr>
<tr>
<td></td>
<td>Scope KM needs with exiting employee, Line Manager and other stakeholders.</td>
<td>Knowledge Manager or equivalent analyses the results of discussions to identify the KM transfer priorities</td>
</tr>
<tr>
<td></td>
<td>Knowledge transfer priorities identified and developed into a transfer plan.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan implemented</th>
<th>Action</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implement action plan</td>
<td>KM provides support and guidance for action plans to be conducted by existing staff and stakeholders.</td>
</tr>
<tr>
<td></td>
<td>Finalise output and discuss any outstanding issues and how these should be resolved</td>
<td>Final discussions are held with exiting employee and Line Manager to ensure plan has been implemented in full.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Closeout</th>
<th>Action</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Outcome documented by Line Manager</td>
<td>All documents, recordings and data are presented to the Line Manager and Knowledge Manager to complete closeout</td>
</tr>
<tr>
<td></td>
<td>Final closeout</td>
<td></td>
</tr>
</tbody>
</table>

Further information to develop a process for knowledge management and exit interviews can be found in *Learning from leaving – A guide to exit interviews in the WA public sector* and *A guide to managing an ageing workforce: maximising the experience of mature-age workers through modern employment practices.*
Appendix D – Rating knowledge management to assess the action required

The Australian Local Government Association\textsuperscript{xvi} has developed a knowledge management toolkit that can be used to rank where an organisation is placed compared to others on their ability to leverage knowledge. Some examples extracted have been adapted from the matrix.

<table>
<thead>
<tr>
<th>Knowledge blocked</th>
<th>Knowledge aware</th>
<th>Knowledge centred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge is not considered a part of our asset base</td>
<td>Knowledge is valued but it is not considered an asset</td>
<td>Knowledge is recognised as an asset</td>
</tr>
<tr>
<td>The flow of knowledge across the organisation is not considered</td>
<td>The flow of knowledge is recognised as valuable but it has not been mapped</td>
<td>Knowledge has been mapped and builds on the flow of knowledge in our agency</td>
</tr>
<tr>
<td>Experts never identify important knowledge for use by other users</td>
<td>Experts sometimes identify information that should be made available for others</td>
<td>Experts actively identify and share knowledge in an ongoing and proactive way that encourages new ideas</td>
</tr>
<tr>
<td>Employees are not able to search across applications/databases</td>
<td>Some employees are able to search across multiple systems and databases</td>
<td>All employees can search across a variety of systems and databases that are integrated</td>
</tr>
<tr>
<td>When employees finish a project there is never time to de-brief and share learning to identify improvements</td>
<td>When a project is finished it is closed out and the outcome is documented and discussed with those in the project team</td>
<td>When a project is finished the outcome is shared across all teams that could benefit from the learning that was identified in the closeout report</td>
</tr>
<tr>
<td>In our organisation, failure is viewed negatively and blame attributed to individuals/team</td>
<td>In our organisation, failure is sometimes considered an opportunity to learn</td>
<td>In our organisation, failure is considered an opportunity to learn</td>
</tr>
<tr>
<td>Our planning process is top-down</td>
<td>Our planning process involves a cross section of managers but does not include the use of scenarios</td>
<td>Our planning process involves a cross section of employees at all levels and includes scenarios so decisions can be made to respond to environment changes</td>
</tr>
<tr>
<td>Knowledge blocked</td>
<td>Knowledge aware</td>
<td>Knowledge centred</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Employees identify themselves as working for a section/branch and/or division not the agency</td>
<td>Employees recognise that there are common interests and responsibilities across the departments/branches</td>
<td>Employees see themselves as members of multiple communities and it is therefore easier to transfer knowledge across organisational boundaries/silos</td>
</tr>
<tr>
<td>Employees are fearful that sharing knowledge will erode their ‘power’ base and expertise</td>
<td>Employees are yet to be convinced that knowledge sharing will not erode their job security and ‘power’ in the agency</td>
<td>Employees do not fear sharing; they understand that the process increases the individual’s reputation for expertise</td>
</tr>
<tr>
<td>Employees have little or no knowledge of others in their agency beyond their immediate work area</td>
<td>People can sometimes identify others outside their immediate work area that might benefit from their knowledge on the basis of direct interaction with them</td>
<td>People can easily identify others outside their work area that would benefit from their knowledge and they actively seek them out at critical opportunities</td>
</tr>
<tr>
<td>Nobody feels free to speak up if they have an opinion or idea to offer</td>
<td>Some people feel free to speak up if they have an opinion or idea to offer</td>
<td>Everyone feels free to speak up if they have an opinion or idea to offer</td>
</tr>
<tr>
<td>All meetings are formally structured</td>
<td>Some of our meetings or some parts of our meetings are formally structured</td>
<td>Meetings are informal to maximise creativity and problem solving</td>
</tr>
<tr>
<td>Our work place is rigid, rules driven and bureaucratic</td>
<td>Experience in our agency depends on the individual team, some are rigid others are flexible</td>
<td>Our agency would be consistently described as a flexible organisation that can adapt to change easily</td>
</tr>
<tr>
<td>Nobody is able to describe how their input can affect overall performance</td>
<td>Some people understand how their input contributes to the agency’s performance but they are generally managers</td>
<td>Everyone understands how their input improves performance for the agency as a whole</td>
</tr>
</tbody>
</table>
References


vii Society for Human Resource Management (2009), Leveraging HR and knowledge management in challenging economy. SHRM Research Quarterly, second quarter.


A guide to managing knowledge


Other articles


