Making the decision to implement an EDRMS is one that should not be taken lightly.  The commitment required to ensure an effective implementation that is adopted by users should not be underestimated.  Inadequate funding, under resourcing or using inappropriately skilled staff will all have a detrimental effect and result in a system that is poorly used.

Having said that, it is also true that a correctly implemented system will produce significant long term benefits for both the organisation and individual staff.

The following list provides a high level overview of the work required to adequately plan for the implementation of an EDRMS.  This overview assumes that funding still needs to be approved by senior management. NOTE: the sequencing of some tasks may vary.

The purchase & implementation of an EDRMS should follow a standard process:
1.     Develop an EDRMS Business Case and secure written approval and funding for implementation
2.     Develop a Project Management (eg PRINCE2) & Governance methodology
3.     Undertake a review of the current recordkeeping environment and a business analysis of individual business units.
4.     Develop a detailed Project Implementation Plan including Gantt Chart
5.     Develop a Project Benefits Register and measurement methodology
6.     Develop a specification of technical and functional requirements
7.     Develop and of a Tender Evaluation Methodology & Contract Negotiation Strategy
8.     Develop a Risk Management Plan
9.     Establish a project organisation structure
10.    Develop a comprehensive Change Management Plan including Communication/Marketing Plan
11.    Develop a comprehensive Training Plan which includes training session plans
12.    Develop a Records Migration Plan & Testing Plan (if required)
13.    Undertake a pilot review (develop lessons learnt document)
14.    Develop organisational deployment plan
15.    Develop an implementation configuration agreement.
16.    Undertake a Post Implementation Review

Listed below is further detail related to each of the above tasks.

**Developing your Business Case**

Depending on the organisation within which you work, your business case will most likely focus on different issues. For many years the private sector were (and in many instances still are) primarily interested in their Return on Investment (ROI) i.e. how long it takes to recoup the dollars spent implementing the system. This position will gradually change as more and more organisations understand the implications of legislation such as the Crimes (Document Destruction) Act 2006 and the Evidence (Document Unavailability) Act 2006.

Unfortunately proving a ROI in the case of an EDRMS implementation is not always easy, as many of the benefits are intangible. Typical arguments such as the time saved in document retrieval, although true, are difficult to quantify and vary greatly between the types of office workers.

In most cases the public sector have very different drivers. For the most part public agencies have fairly prescriptive record keeping obligations to meet and it is a relative easy matter to determine the level to which they are compliant. "Selling" them on an EDRMS is often a matter of pointing out that they are failing to meet regulatory record keeping requirements and pointing out the risks to which they are exposed.

Regardless of your organisation, most have a single end focus – the provision of improved service to clients. Your business case must therefore be built on sound logic and clearly detail the expected benefits that will result from implementation, including, where possible, improved customer service. It is these benefits that you must measure against when determining the success or otherwise of your EDRMS implementation.

**Project Management & Governance**

All significant technology projects should follow a standard project management methodology (PMM) and an EDRMS implementation is no different. Proven PMM's provide the framework for effective management of budgets, timeframes, risks, quality and resources (human and other) etc.

However, it is important not to implement a methodology that is too onerous for the project i.e. it overburdens the project without providing equal benefit. The methodology should be commensurate with the level of risk involved and number of resources available.

In determining the overall project management approach it is also necessary to determine how the project will be resourced e.g. internal or external staff, the availability of resources skilled in particular tasks e.g. data migration, the tightness of timeframes etc.

It is not unusual to source in a Project Manager with particular expertise in EDRMS implementations to oversee in-house staff expertise. Using this method ensures that in-house staff are up-skilled during the implementation and the learnings remain in-house.

**Understanding your requirements**

A Functional Business Analysis is the most critical step you can undertake in an EDRMS implementation. Understanding where your organisation is and where it should be in terms of its record keeping requirements, is the first step to ensuring you select the most appropriate EDRMS product. In order to gain a complete understanding of organisational requirements it will be necessary to undertake a review of current records management practices and

requirements and consult with each organisational business unit in relation to their individual functional requirements.

It will be necessary at this point to determine/capture a myriad of information which will eventually flow into your requirements specification and help you build the records management control documentation (framework tools) e.g. Records Management Policy, Business Classification Scheme, Retention and Disposal Schedule, Thesaurus, RM & EDRMS Business Rules etc. needed for all successful records management operations. This is also your key opportunity to gather requirements on an organisational wide basis.

Keep in mind that it may not be possible to satisfy everyone. If only a couple of staff use a particular application that does not integrate out of the box with your chosen EDRMS, it may be wiser to satisfy their requirement to capture and make the document available via windows "drag and drop" functionality, thus avoiding potentially costly integration that may need to be redone every time you upversion your EDRMS.

Conducting functional business analysis also provides:
- an indication of resource requirements for the EDRMS deployment;
- the identification of inefficient and ineffective practices and duplication of effort;
- information on the requirements for the organisation's governance model;
- identification of relationships between workgroups;
- detailed information on IT architecture; and
- information on suitable sites for a pilot.

The output of this process will produce the first stage in the development of the:
- roles and responsibilities of staff once the EDRMS has been implemented;
- policies, procedures and business rules that need to be developed;
- information on appropriate security structures/models; and
- possible workflow and process re-engineering opportunities.


**Project Implementation Plan**
Whilst it seems like an obvious step in the process, it is imperative that the progress of the implementation be carefully monitored via an approved Implementation Plan. It is also important not to underestimate the level of detail required in the plan.

There are many tools you can use to develop your implementation plan, from a basic spreadsheet to a sophisticated application specific project planning tool. What is important is that you don't miss any of the steps required of the implementation.

Typically you should insert the major activities first and then go back and break them down into their individual components. Next you can determine the duration of tasks and identify any specific skill sets you will need (note that a task may be to secure a specific skill set) and finally you can allocate the necessary resources to each task. This one paragraph has made the process sound very simple and whilst it is not an overly complex activity, it does require clarity of thought and a logical mind.

Accurate programming of the start and end dates and dependencies between tasks is critical to the smooth running of the project and ensuring that individual tasks do not get overlooked. Milestones also need to be highlighted as these provide goals to aim for and enable the breaking up of large tasks into smaller manageable "chuncks".

Managing the implementation in accordance with your plan will require some flexibility. The plan itself may need to be adjusted many times throughout the course of the project. It is for this reason that you may hear project managers say their plan is set in sand but their goal (the successful implementation of an EDRMS) is set in concrete.

**Project Benefits Register**
There are few better ways to measuring the success of your implementation than to monitor outcomes against a set of predetermined criteria and in many instances project management methodologies will demand this.

In the case of an EDRMS implementation there is no better way than to develop a Project Benefits Register. Such a register is made up of the identified benefits detailed in your Business Case. Each benefit must be accompanied by a method to define success and a method for measuring success.

The Project Benefits Register should be used as another tool to monitor progress. Regular reviews of the Benefits Register, where the project team members ask "how are we moving toward the achievement of this benefit?" should be undertaken. Do not fall for the trap of only revisiting the Benefits Register toward project's end, at that stage it may be too late to correct an issue that helps you achieve success.

**Develop a Requirements Specification**
The requirements specification must include functional and technical requirements and typically it is released to the market place together with Contract and Tendering Conditions and a project brief and/or background to help vendors understand the circumstances under which the EDRMS will be implemented.

This is a critical component of the overall project. If a requirement is not included in the specification or contract negotiations you can not then expect a product vendor to be responsible if it is later determined that their product can not perform a particular function.

Typically the specification will include a range of functional requirements e.g. the system must enable standard reporting without the need to purchase another product, and a range of technical requirements relating to the environment within which the EDRMS must operate e.g. the system must be compatible with the current organisational SOE and integrate with the desktop environment providing transparent user operation with e.g. MS Windows/Office 2003 applications.

The functional requirements will vary depending on needs but could include:
- Useability/user friendliness
- Record type item structures
- File management
- Document management
- Email & facsimile management
- Electronic drawing management
- Workflow
- Scanning & Imaging
- File & Document tracking/movement

- Searching/retrieval
- Archiving & disposal
- Security & audit
- Reporting
- Web capability
- System administration
- Special requirements e.g. VERS Compliance

Technical requirements may include:
- Implementation requirements
- Ongoing support
- Training & documentation
- Interfacing requirements
- Technical environment e.g. database type requirements, communications etc.
- System management
- Peripherals – Printers, scanners, Barcode readers etc.
- Backup media, offsite storage, recovery and housekeeping

**Tender Evaluation Methodology & Contract Negotiation Strategy**

Having developed the requirements specification it is now necessary to develop a Tender Evaluation Methodology. The methodology can take several forms but the most common is a series of templates within which raw scores are entered.

With advanced methodologies the template (often a spreadsheet) will have inbuilt formula which calculates a score based on the entered raw score. The methodology should be built to determine a short-list of preferred products before then determining the preferred product. The methodology may include site visits to reference sites and possibly benchmarking though the later is becoming less common due to the advanced nature of most products.

The methodology must calculate scores for all selection criteria taking into account the pre-determined weighting. To ensure a completely open and fair process it is recommended that the Evaluation Methodology be determined prior to the receipt of tenders.

A Contract Negotiation Strategy should also be developed prior to the receipt of tenders on the understanding that this will be a "living" document which may change depending on the short-listed products. It is true that the negotiation strategy may alter depending on the preferred product.

Before entering into negotiation it is important for the project team to determine what expertise they require e.g. is special legal representation required due to the complex nature of the proposed contract?

It is also important to determine which of your non-mandatory requirements you are prepared to negotiate away in return for those that you aren't prepared to move on. Often at this stage in the process you are simply trying to finalise the minute detail of the contract and taking into account the Best and Final Offer (BAFO) of the preferred tenderer. The negotiation Strategy should provide clear guidelines as to what is permissible in the negotiation process e.g. allowing non compliance with a mandatory requirement should not be permitted regardless of what is offered in return.

**Develop a Risk Management Plan**
A fully detailed risk management plan which identifies all potential and real project risks must be developed. The project Steering Committee must support and promote risk management strategies and accept the time and resource implications of any countermeasures, which must be built into the project budget.

The risk management plan must invoke a consistent approach to risk management which is fully embedded in the project management processes. It must identify risk tolerances and responsibilities for the management of risks.
The plan must also identify how each risk it to be measured and the level of risk determined. This should be done in accordance with an approved Risk Rating which has been developed for the project.

The following categories can be used as a starting point for identifying the main areas of risk in relation to an EDRMS project.

- Strategic/Commercial Risks
  - Under-performance to specification
  - Collapse/insolvency of contractors
  - Failure of suppliers to meet contractual commitments, this could be in terms of quality, quantity, timescales or their own exposure to risk
  - Insufficient capital revenues
  - Market fluctuations
  - Fraud / theft
  - The situation being non-insurable (or cost of insurance outweighs the benefit)

- Legal and Regulatory
  - New or changed legislation may invalidate existing assumptions
  - Failure to obtain appropriate approval, e.g. planning, consent
  - Unforseen inclusion of contingent liabilities
  - Loss of intellectual property rights
  - Failure to achieve satisfactory contractual arrangements

- Organisational/Management/Human factors
  - Management incompetence
  - Inadequate adoption of management practices
  - Poor leadership
  - Key personnel have inadequate authority to fulfil their roles
  - Lack of clarity over roles and responsibilities
  - Vested interests creating conflict and compromising the overall aims
  - Individual or group interests given unwarranted priority
  - Personality clashes
  - Lack of operational support
  - Health and safety constraints.

- Environmental
  - Natural disasters, Storms, flooding, tempests
  - Pollution incidents
  - Transport problems, including aircraft / vehicle collisions.

- Technical/Operational/Infrastructure

- o Inadequate design
- o Professional negligence
- o Infrastructure failure
- o Operation lifetime lower than expected
- o Safety being compromised
- o Performance failure
- o Scope 'creep'
- o Unclear expectations
- o Breaches in security / information scrutiny
- o Lack or inadequacy of business continuity.

**Establish a Project Organisation Structure**
As part of organizing the project groups it is necessary to develop a Project Organisation document which details all stakeholders, steering committee members, project team members, and sponsor etc. The document should provide the detail of reporting relationships and specific responsibilities for all team members etc.

Establishing a Steering Committee consisting of critical senior stakeholders is one of the keys to ensuring ongoing interest in the successful implementation of the EDRMS. Generally speaking the more senior the committee members are in the organisation the better, but they should have a vested interest in the project.

Of equal if not greater importance is the role of Project Sponsor. Once again the Project Sponsor should have a vested interest in the project. Typically they will be the person who reports to the executive management team of the organisation and "drive" the project at that level.

An effective project team is critical to the success of the project and if necessary organisations should be prepared to source external expertise if required. The level of resourcing is also critical as under resourcing the project will result in consistently poor or delayed results.

**Change Management Plan (including Communication/Marketing Plan)**
The ultimate success of the EDRMS implementation will depend largely on the acceptance and usage of the system by the organisations staff. Whilst a mandate from the Chief Executive may create the initial impetus for use, this will only work in the long term if the reasons for implementation are understood across the organisation and the system does not impede staff in their daily work.

The change management and communication/marketing plan is developed as a means to identify all the factors associated with communicating the impending change to the organisation in the most open, honest and effective manner.

Whilst appropriate training is important to system understanding and uptake, no amount of training will substitute for a user understanding the "what's in it for me" component of the system. Generally speaking the less a system encroaches on the daily tasks of an employee the more successful they will be.

The plan must include a detailed Communication & Marketing plan which details:
- what will be communicated (including a consistent message)
- by what means it will be communicated

- who will be communicated with
- how often and when communication will occur

Keep in mind that the one-size-fits-all approach is not a sound vehicle to effectively communicate important information, especially if staff are expected to modify behaviour and practices as a result.

Localised branding may also form part of the Marketing component of the plan. This has proven to be successful and negates any negativity that may be created should the original vendor be taken over or merged with another company.

Another critical component of the Changes Management Plan should focus on the impending changes for existing Records Management staff. It is essential that these staff be well supported and have an involvement in critical parts of the implementation e.g. system selection and configuration which ensures they have a level of ownership.

The change management plan should also:
- Demonstrate advantages, like the enhancement to current work practices, increased productivity and service delivery quality to managers and staff through champions and the success of the program in pilot sites
- Provide the ability for staff to give feedback or raise issues relating to the system
- Locate, support and empower project champions to assist with the successful uptake of the EDRMS
- Provide an effective and well-planned education and training program to support the change management process.

**Training Plan**

A Training Plan is sometimes included as part of the Change Management Plan, but whatever form it comes in it must address all of the particular requirements for staff undertaking different roles. Once again a one size fits all approach will rarely work.

The overall purpose of the plan is to provide details of which staff members are to be trained in what skills. The Training Plan will include:
- A schedule of training sessions, session attendees, session locations, times and durations.
- A back up date to "capture" those staff unable to attend scheduled training.
- A training Session Plan for each type/level of training to be provided. Each session plan must include:
  - Details of expected outcomes of the session.
  - Prerequisite skills required.
  - The topics/functions to be presented, in the order they are to be presented and the approximate delivery duration of each topic/function.
  - The method of training delivery to be used for each topic/function e.g. group discussion and exercises, individual tasks, the use of audio, visual techniques.
  - Training aids to be used.
  - An outline of how trainee "competence" will be assessed.

The training plan must also consider the logistical components related to resources (rooms, equipment and people) and how these can be managed in a way that does not adversely impact on the organisations operations.

The plan must be based on an assessment of the expected roles and responsibilities of users as well as an understanding of the current levels of knowledge and skill within the user staff.

**Records Migration Plan & Testing**

It is rare for a records migration plan to go exactly as planned, for despite the best laid plans, data migration is an inexact process. Unfortunately no 2 systems are identical and it is extremely unlikely that metadata element captured in one will transfer to the other in exactly the same manner.

Migration is a costly exercise and organisations need to carefully determine the need for such an exercise before embarking upon it. Generally speaking the "value" of the records in the original system should determine whether or not migration should take place. Other considerations may include the potential "ease" of migration, the cost and the level of data "cleansing" required to ensure a successful migration.

Keep in mind that it is unfair to ask vendors to submit a cost for migration without having first provided them an opportunity to view the current data being proposed for migration.

The Data Migration Plan must map each metadata element from the old system to its "new" field/location in the new system. The plan should detail each metadata element that may not migrate easily or be represented in the same manner in the new system and the reason why. It should also identify any metadata elements that can not be migrated and why.

Having agreed on the Data Migration Plan it is now necessary to develop a Data Migration Test Plan. Using the mapping agreed to, the Test Plan should detail multiple random samples of each metadata element from the old system and detail how and where they should be represented in the new system. Using the Test Plan is then merely a matter of comparing what should have happened (according to the Data Migration Plan) to what has happened in the real world of the new system.

Do not underestimate the effort required to undertake adequate data migration testing. Multiple samples of each metadata element should be checked and it is advisable to include staff who are very familiar with the metadata in the old system e.g. records management staff, in the data migration testing.

**Pilot Review**

Generally speaking the purpose for undertaking a Pilot review is to assess whether identified objectives for the pilot stage have been achieved and whether there are any significant issues that would impede the broader organisational deployment.

The review should, as a minimum:
- measure expected organisational benefits against realised benefits
- measure expected key user benefits against realised benefits
- summarise the expected key functional requirements against realised outcomes
- measure system take up/user acceptance
- report on system impact on the IT infrastructure
- report on any "showstoppers" or significant impediments (if applicable)
- provide detail of lessons learnt and improvement/value add opportunities

The measurement of outcomes should be against the predetermined benefits register and success criteria.  Discussions and workshops with pilot users and Project Team members should also form a significant component of the review.  System generated statistics may also provide a level of anecdotal evidence of success or failure.

**Organisational Deployment Plan**
When planning the wider organisational deployment it is important to refine/improve your deployment methods in accordance with the lessons learnt via the pilot review.

The deployment plan provides an opportunity to take into account organisational issues that are out of your control e.g. it is unwise to program the Finance area of your organisation for deployment around budget or end of financial year times.

There are various methods for programming deployment e.g. along departmental lines, cross functional lines or geographical lines etc.  Whatever method chosen the deployment plan should include a contingency allowance of 5% to 10% depending on the size of each deployment group.

**Implementation & Configuration Agreement**
Early in the project you should have undertaken a review which included the determination of general requirements for each Business Unit.  Prior to deployment you have a second opportunity to revise specific requirements.  This opportunity is via the development of an Implementation & Configuration Agreement.

Whilst the development of this document provides a unique opportunity to re-engineer business processes in conjunction with those staff that will be impacted most by the introduction of an EDRMS i.e. general users, it also provides an opportunity for the Project Team to gain agreement on a number of issues including the resource input required from the Business Unit.

The Implementation and Configuration agreement will include amongst other things:
- Security model
- Workgroup model
- Implementation details (mini project plan)
- Anticipated benefits
- Environmental scan (for later measurement purposes)
- Deliverables
- Responsibilities of the parties
- Business Unit resource commitment
- Mapping of network drives to BCS

**Post Implementation Review**
The purpose of the post implementation review is to measure the effectiveness of the system against the predetermined requirements and the anticipated benefits and to establish an ongoing monitoring regime.

The review should include a determination of:
- record generation and capture in accordance with the record keeping requirements of the organisation;
- system take up and usage; and

- the level to which anticipated benefits have been achieved

Methods for undertaking the review could include:
- interviewing management, staff and other stakeholders,
- conducting surveys,
- examining documentation developed during the earlier phases of the systems development project, and
- observing and randomly checking operations.

The post implementation review should also include an evaluation of the training program. Typically this can best be achieved by monitoring subsequent successful operation of the records system and undertaking random audits of system use, both volume and accuracy. Surveying users in relation to training will also produce valuable data.

And finally it is also important to measure the skill levels of records staff against the identified requirements.

## About the Author

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Having worked in the Records and Information Management industry since 1976 and as a consultant since 1995, John Sim possesses wide and varied experience in the public and private business sectors.

From system reviews, strategic planning, policy & procedure development & implementation, archival management and process re-engineering to his more recent work in the evaluation, selection and implementation of Electronic Document & Records Management Systems (EDRMS), John has consulted to major private corporations and a wide range of government entities.  He has extensive experience in all facets of EDRMS Change and Project Management.

In addition to his consulting work, John is a qualified workplace trainer and assessor and he is a former sessional lecturer in Records Management Principles and Operations at Swinburne University of Technology.  John's training background also includes the development and delivery of 9 workshops based on AS ISO 15489 – Australian Standard Records Management which have been delivered across 5 Australian states.