Purpose: This document defines the recommended approaches to disseminate, document and share, in a systematic, structured manner, the information which is available at the completion of a Project or at Proposal completion, whether or not this has resulted in contract award or loss to a competing party.

Introduction: For Projects being completed, contrary to this being thought of as the last step in the Project implementation cycle, this is actually the point where a contribution to future success and sound Risk Management actually begins. Before embarking upon any new Proposal, part of the pre-bid Risk Management Process should cause us to ask ourselves questions along the lines of — what happened last time?, what worked well?, what didn’t go well?, what happened with this particular Client?, what happened at this particular Site, Area, Region, Country or Project-Type or Size or Similar or Technology or Contract type? Were our “As-Sold” Estimate Allowances, Contingency, Risk Allowances and Funded Liabilities adequate or deficient? Did Contract clauses which we found acceptable at signing, in the event, actually “eat our lunch”? The best source of all of this information and data is in a properly prepared and readily retrievable Project Close-Out Report and Summary of Lessons Learned from previous work.

In this document we examine below what ECRI considers to be an outline of Best Practice for Proposal and Project Close-Out / Lessons Learned reporting.

Application: The following applies to both Proposal and Project implementation phases of work:

1. Close-out definition:

   Close-out typically refers to:

   “a phase in the proposal / project life-cycle when objectives are formally reviewed by the project team and stakeholders, so that knowledge can be captured and shared for future benefit.”

   Close-out helps develop items required to formally arrive at contractual completion with Clients, vendors and subcontractors and build awareness of processes, responsibilities and techniques used during implementation.

   It is a key component of the Knowledge Management & Continual Improvement processes.

2. Close-out key objectives:
A. Provides a forum for discussion where the team can capture lessons to be learned (including generic risks, effective responses and process improvements) and permit internal dissemination to appropriate parties. This would include commentary on any special implementation methodology or tools used.

B. Carried out in a timely manner, provides an opportunity for past successes to be replicated and past failures to be avoided when preparing successive Proposals.

C. Allows necessary inputs to prepare and issue the Final Proposal or Project Report as an accurate record of Proposal or Project performance and history.

3. Close-out benefits:

From a Risk Awareness and Management perspective:

A. Helps ensure risk identification occurs across the Company and at all levels.
   (i) Reinforces that risks can and should be controlled / managed by all team members.
   (ii) Reinforces that risks need to be managed across business units / departments.
B. Helps ensure Risk is reported and disseminated in a timely manner.
C. Ensures risks are assessed and treated in a consistent way.
D. Supports Knowledge Capture, transfer and sharing
E. Can be used to reinforce senior management commitment and support for the Risk Management Process.
F. Allows for the Organisation to measure Risk management Maturity ("RMM")

4. Close-Out Process Steps:

A. Plan.
   - Agree to level of effort as a function of Proposal / Project size, complexity, technology or of general level of importance to the Company.
   - Proposal / Project / PRM Close-out Plan to state format i.e. interview, interdisciplinary meeting or workshop?
   - When? How often? At completion, 80-90% completion or at key milestones ( see later recommendations )?

B. Gather.
   -- Led by appropriate person in accordance with 5. and 7. below
   - Facilitated by Corporate Support Group / SME (Subject Matter Expert) where considered appropriate.
   - Supported by Proposal / Project team and disciplines.

C. Analyze.
- Utilize Proposal / Project data and feedback together with Risk Metrics and consider effectiveness of communication.

D. Share.
- Load Knowledge Base and ensure dissemination &/or exchange.
- Output used as part of the pre-bid Proposal preparation and RM process!

It is an iterative process, not serial.

Benefits from the RM Close-out process outputs are often enjoyed before inputs are collated. For this reason, much depends on the participant’s goodwill and belief that the process has something to offer.

5. Close – Out Timing

The above diagram illustrates the points in Proposal / Project implementation when the timing of close-out process steps could take place but this will depend on Proposal / Project type, size and complexity and agreed Close-Out Plan. Also, while key information should be gathered throughout the Proposal / Project life-cycle, the acquisition system should allow data and lessons learned to be loaded at any time.

Planning of the close-out process however should be performed as soon as possible and as mentioned, updates made as often as necessary (e.g. to reflect changes in environment &/or objectives / requirements).

Close-out activities could also be undertaken at functional or milestone completion or at the formal end point of an activity or initiative when this has been either completed, or terminated early.

It is generally accepted however that timing for data and information collection is one of the keys to successful close-out. It certainly should not be left until final completion of either a Proposal or Project. In some Companies, proper and adequate close-out is considered to be of such importance to future success that it is linked to individual performance assessment and the Company’s compensation strategy.
6. Proposal Close-Out, Post Mortems and Lessons Learned is normally conducted under the management and responsibility of the Lead Sales / Account Manager with Proposal Manager and team support. The same applies to up-dating historical files. Dependent upon the magnitude of the Proposal however, the exercise might be facilitated by a Corporate Support Group / Subject Matter Expert. It has been found that the latter’s involvement could be useful in ensuring an objective assessment is made and in dealing with any “bias” or other “bereavement” symptoms such as self-denial and shock in the event of project loss.

A. Internal Post Mortem - Every Proposal (major and minor) should perform some degree of Internal Post Mortem. With smaller Proposals, the internal review and development of Lessons Learned might consist of interviewing Team members and preparing a simple Close-Out note. On larger Proposals, a formal interdisciplinary meeting or (facilitated) workshop might be more appropriate. Standard Forms are often used to ensure common agendas in gathering facts, figures and data for both Close-Out reports and Lessons Learned but it should be kept in mind that opinions and impressions can also be useful.

If the prospect is won, determine what were the winning evaluation factors, why was the job won and what can be learned to pass on as Lessons? What went well and what didn’t go so well? Was the Proposal deficient but the work was won anyway? What was learnt about the client and bidding process?

If the prospect was lost - Why? – commercial terms, implementation strategy, key personnel, equipment, materials, construction pricing? What was learnt about the competition and Client. What went well and what didn’t go so well? Should the work have been won but there was failure to convince the Client? These are the type of questions which should be addressed.

In addition, Proposal budget performance and recommendations for continuous improvement and future application with Client, Project-type, Geographic Location, Other Factors need to be addressed. In addition, an up-date of Proposal Data Base and historical (electronic) files needs to be made to ensure that material is readily retrievable for future use.

Win or lose, the material gathered and internal recommendations can be of significant value for the next Proposal.

B. External Post Mortem – Always request a formal Client debriefing, win or lose? The Client’s perspectives, weighted evaluations, opinions and judgments should be extremely valuable but there is some evidence that the effectiveness of this is very much dependent upon the type of Client. With major international corporations employing sophisticated Contractor evaluation techniques, there is undoubtedly merit with much useful information to be obtained. With smaller Clients or those in certain geographic regions or with minimal maturity in their Proposal evaluation and / or risk management
practices, there might be little or no value in such an exercise. In the latter case, there might be greater benefit in just talking to contacts in the Client organization.

Win or lose, the data to be gathered, material to be obtained and questions needed to be answered are similar to those with Internal Post mortems.

**C. Proposal Close-Out Report**

Close-out during the proposal phase should, at a minimum, encompass the following:

Proposal Close-out Report:
- Client
  - New or repeat customer?
  - One-off or potential for follow-on work?
  - Mature or sophisticated enough to provide an input?
- Project type, size, technology, location, site (familiar to organization?).
- Contract type.
- Win or lose?
- Adequacy of proposal plan (emphasis on monetary budget, man-hour estimate and schedule).
- Adequacy of Project implementation plan, schedule, people etc.
- Adequacy of risk plan (emphasis on available resources, level of effort, deliverables).
- Availability of relevant historic data i.e. relative strength or weakness of the output from prior close-out efforts.
- Feedback from Internal or External Post Mortem
- Up-Date information to Proposal Data Base and Key Historical Data with retrieval preferably using a search engine.

**D. Lessons Learned**

Win or lose, always prepare a Lessons Learned. This is often seen as an integral part of the Proposal Close-Out Report but structured in such a way as to be able to be used and distributed separately. Should consider as a minimum:

- What worked well?
- What didn’t work well and how to improve or avoid repeat?
- Relevant Feedback from Internal or External Post Mortem

**7. Project Close-Out Report and Lessons Learned**
The Project Close-Out Report should represent an accurate record of the actual events which took place on the Project and provide a meaningful narrative and record of statistical information for easy retrieval. It is important that this reflects “the real world” and is issued timeously after completion, however this is contractually defined, and when no significant claims or payments remains to be collected by Contractor. The basic objective of such a Report is knowledge acquisition which is part of the continuous improvement process and which should lead to improved success rates on future opportunities and better pricing, better contractual structure, better teaming, Project execution and Risk Management on future work. Lessons Learned is an important part of the Project close-out and reporting process.

The Project Manager has overall responsible for all Project close-out activities including preparation of the Project Close-Out Report. This is usually prepared against a Standard Format to ensure consistency across all projects and to facilitate data collection and subsequent retrieval of information and data. It is considered essential that major Project team / disciplines ( Home and Branch Office, Procurement, Project Services, HR, Safety, Project Accounting, QA/QM, Construction, Start-Up and Commissioning etc. ) contribute to the Report against the accepted Standard Format during the life of the Project and that this is not considered as a chore left until the end or even worse, at some undetermined point after completion.

A. Project Close-Out Report
Mandatory Report content to include items such as:
- General information on Project, Client, Location, Site, Schedule, Contract Form etc.
- Safety Record
- Quality Record
- Client Satisfaction / Evaluation surveys
- Teaming Relationships ( with consortium partners, joint ventures, licensors / others )
- Claims and disputes record
- Close-Out Financial Records
- “As-Sold ” versus “As Delivered ” statistical data, with appropriate handling of changes aspect, covering analysis of base cost, estimate allowances, contingency, risk allowances, funded liability and the like
- Separate sections on Home / Branch Office, Procurement and Construction ( start-up, commissioning, performance test demonstration and beneficial operation as appropriate )
- Project Progress photos
- Report distribution requirements and archiving
- Up-date historical ( electronic ) files for material to be readily retrievable preferably using a search engine

B. Lessons Learned
This is usually an integral part of the final Project Close-Out Report and should consider as a minimum:
-- What worked well?
-- What didn't work well and how to improve or avoid repeat?
-- Occurred and emergent Project Risks against the "As-Sold" Risk Register
-- Any relevant Client Feedback
C. Analyse - Specifically from a Risk Management Perspective – Risk Metrics

Examples of simple Risk Metrics include:

- **Occurred Risk**, 
  - POR - Percentage of occurred risk in relation to the total number of identified major risks (Will vary from project to project).
  - ORE - Percentage of occurred risk that was emergent (Would expect this to be say <15% following effective PRM ID. Results >15% indicate need for Detailed Review and Corrective Action if necessary).
  - ORT - Percentage of occurred risk that was managed within tolerance (effective PRM should ensure this is at least 80% to 90%).

- **Savings / Losses**, 
  - SLD - Schedule under / overrun expressed in days.
  - SLC - Cost under / overrun expressed in the project currency.
  - SLDP - Schedule under / overrun expressed as a percentage above / below original baseline value.
  - SLCP - Cost under / overrun expressed as a percentage above / below original baseline value.
  - SLA - Percentage of loss / gain in relation to the Risk Appetite detailed in the Risk Management Plan (i.e. % +/- Risk Appetite - if PRM has been effective, this should be reflected by very low values).

8. Share – Knowledge Transfer

The **Lead Sales / Account Manager** or **Project Manager** or where appropriate the Facilitator will load findings into a Knowledge Base. Decision needs to be made as to whether data will be disseminated internally and / or exchanged externally.

The support group will ensure findings are disseminated amongst like projects / relevant stakeholders and in good time i.e. output can be used as part of the pre-bid process.

The chosen Knowledge Base may take different forms:
  - Traditional library (limited opportunity for continuous improvement).
  - Collaborative website (e.g. Autodesk Buzzsaw). Dedicated Knowledge Management tool (e.g. MS SharePoint).