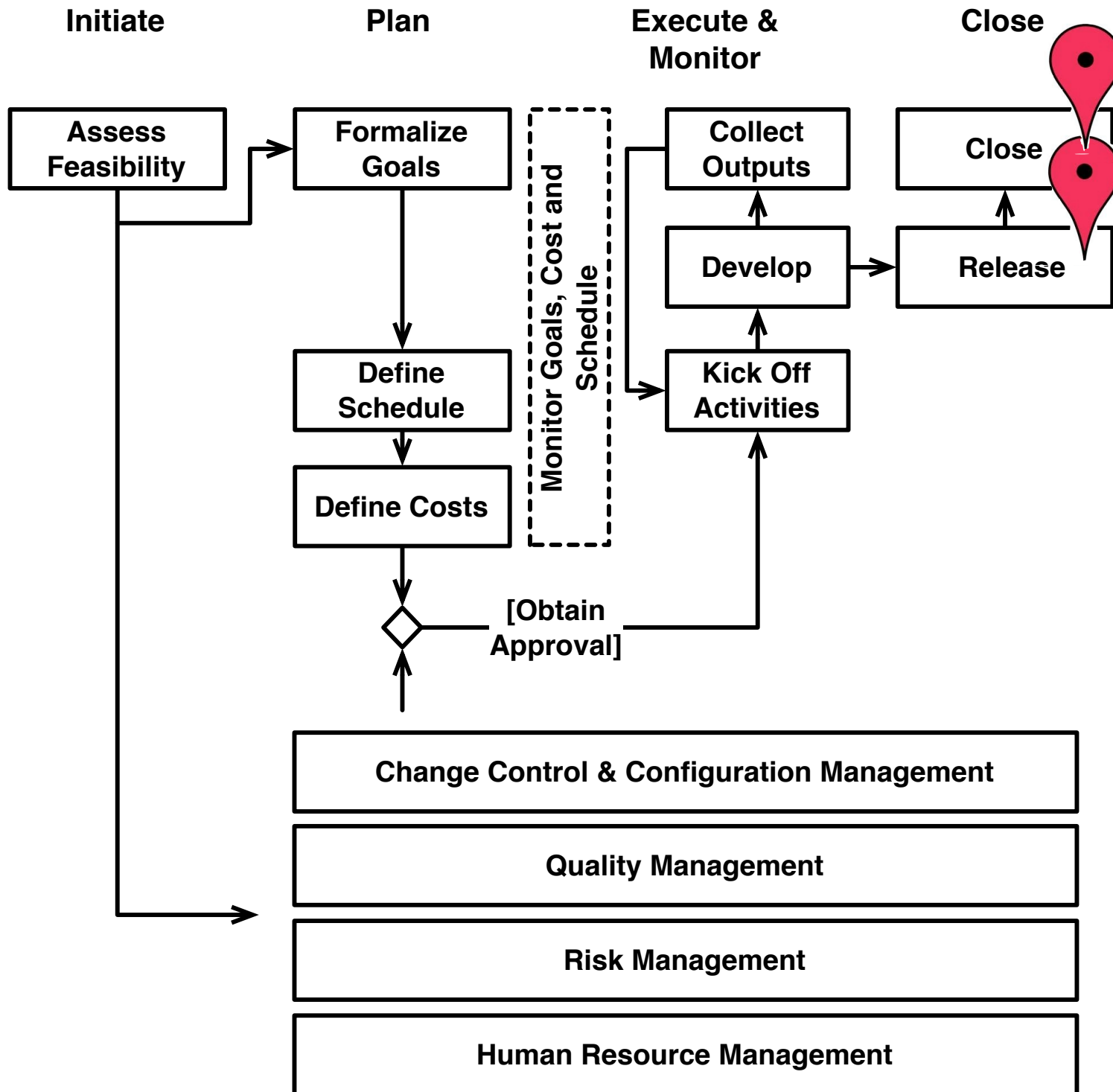


Project Closing

Goals of the Unit

- All projects come to an end
- Many project, however, live a long period in “limbo” land, not active but neither properly closed
- The goal of a good project manager is ensuring projects are properly closed
- Goals of the Unit:
 - Understanding what activities need to be performed to close a project
 - Understanding why projects are not properly closed
 - Understanding the risks of not properly closing a project



Types of Project Closing

- **Termination by integration and termination by addition**

Successful cases: project outputs integrated and/or used as input for another project/production

- **Termination by starvation**

Project ends because resources run out.

- **Termination by extinction**

Termination by management because the project failed (objectives not met, superseded, not profitable)

Project Closing

Project closing is the last phase of a project, when the project outputs are handed over to the stakeholders, contractual agreements properly taken care of, and project records elicited and stored for future reference

- Main goals:
 - Ensuring project outputs can be used
 - Ensuring there are no pending/further obligations
 - Taking stock and learning

Why Projects are not Properly Closed

- For unsuccessful projects
 - Little interest by the team
- For all projects
 - Decreasing interest by the project team
 - Cost of performing closing activities
 - Closing activities require little or no creativity
 - Underestimation of how much implicit knowledge there is
 - Underestimation of how fast know-how can get lost
 - Reluctance to release resources for opportunistic reasons
 - Emotional factor

Project Closing Process

- Getting client acceptance
- Installing Project Deliverables
- Archiving old Deliverables
- Documenting the Project
- Performing a Financial Closure
- Performing Post-Implementation Audit
- Releasing Staff

Getting Client Acceptance

- Ceremonial acceptance
 - No formal procedure or formal record for accepting project deliverables
 - Scenarios: gentlemen agreement; reaching project deadlines
- Formal acceptance
 - Formal procedure for accepting project deliverables
 - System testing/client approval

Post-Implementation Audit (Post-mortem)

- We hate doing the same mistakes over and over again
- The goal of a post-mortem is a critical analysis of the project in order to learn and improve, avoiding to repeat the same mistakes
- Different formats and levels of formality are possible
- Unsuccessful projects provide a lot of information
- Useful lessons also from successful projects (what worked, what we could have done better)

Structure of a Post-Mortem

- **Conduct project survey**

Elicit main issues and strengths of the project

- **Collect objective information**

Elicit quantitative measures about the project

- **Hold a debriefing meeting**

- **Conduct a project history day**

Find the root causes of problems

- **Publish the results**

Make sure your organization, your team, and you can learn from the experience

Post-Mortem Metrics

- A quantitative assessment allows a more precise evaluation of the project
- Data can be used for future estimations
- Metrics include:

Cost Metrics	Schedule Metrics	Quality Metrics
Planned Effort and Estimated SLOC	Original Schedule	
Actual Effort and Actual SLOC	Final Schedule	
History of changes to requirements and code	History of schedule slippage events	Errors at each stage

Post-Mortem Results Structure

- The outputs of a post-mortem audit are published in a document
- The document can be used to disseminate the lesson learned and to work as a reference for future similar project
- A post-mortem report can be organized as follows:
 - Project description: information about the project, to give context
 - The good: what worked well
 - The bad: the three worst factors that impeded the teams to meet goals
 - The ugly: a prescription for improvement

Releasing Staff

- Transition to new activities can be disruptive for the team (consider, e.g, a project lasting for years)
- Two important aspects:
 - Ensuring proper recognition to experience gained in the project and results obtained
 - Ensuring proper tasks are assigned to the team members