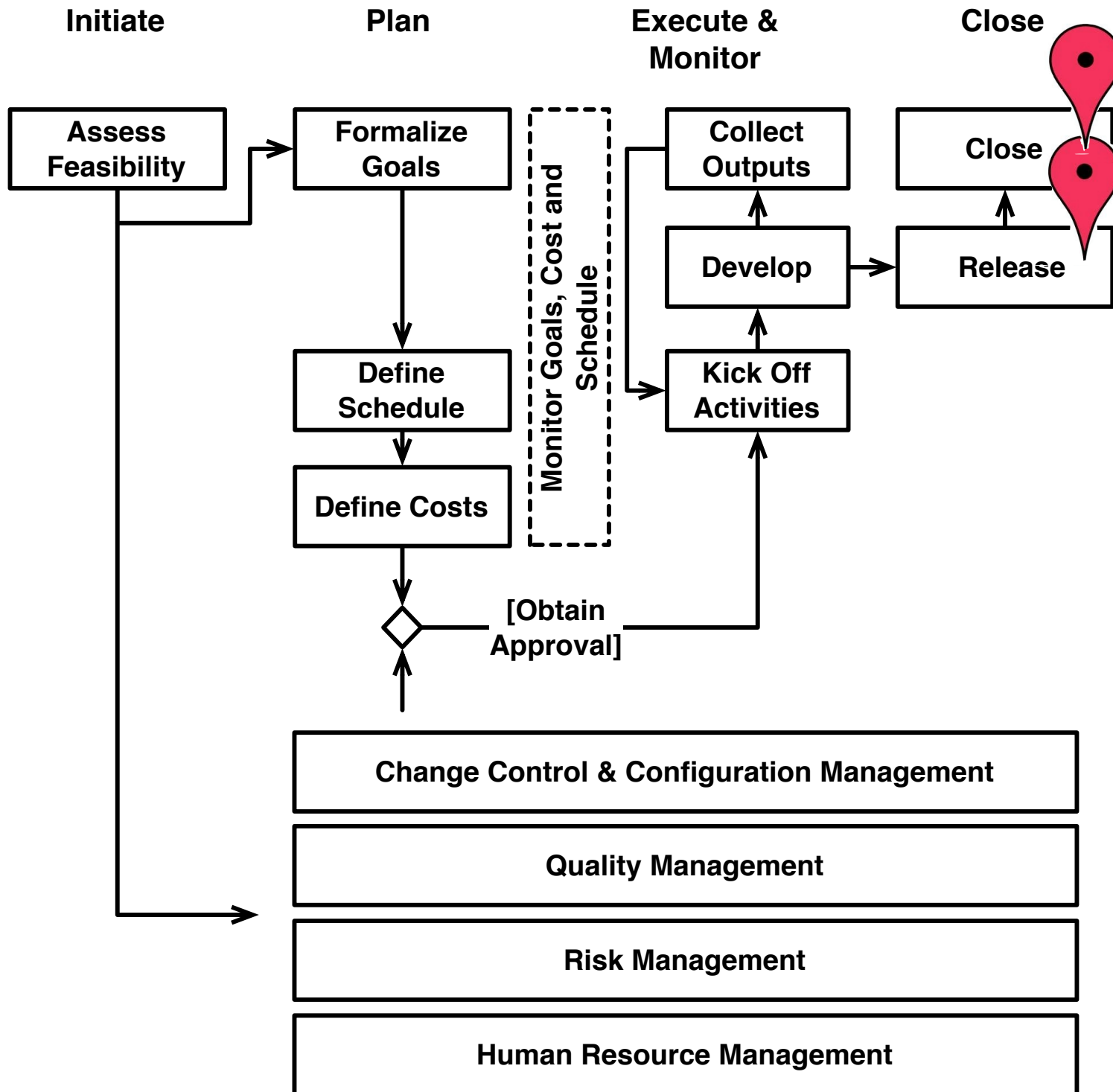


# Project Closing

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Termination by management because the project failed (objectives not met, superseded, not profitable)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

<b>Cost Metrics</b>	<b>Schedule Metrics</b>	<b>Quality Metrics</b>
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