IIT ROORKEE

NPTEL ONLINE CERTIFICATION COURSE

Project Management for Managers

Lec – 06

Types of Projects and Project Life Cycle

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Types of Projects

a)Based on duration: Long term 10 +, medium ?, short less than ?.

b)Based on investment: High 200m and above, medium 30-200m, low between 5-30m, cottage 5m. (Limits may vary according to States,Departments,Products)

MSMEs in India

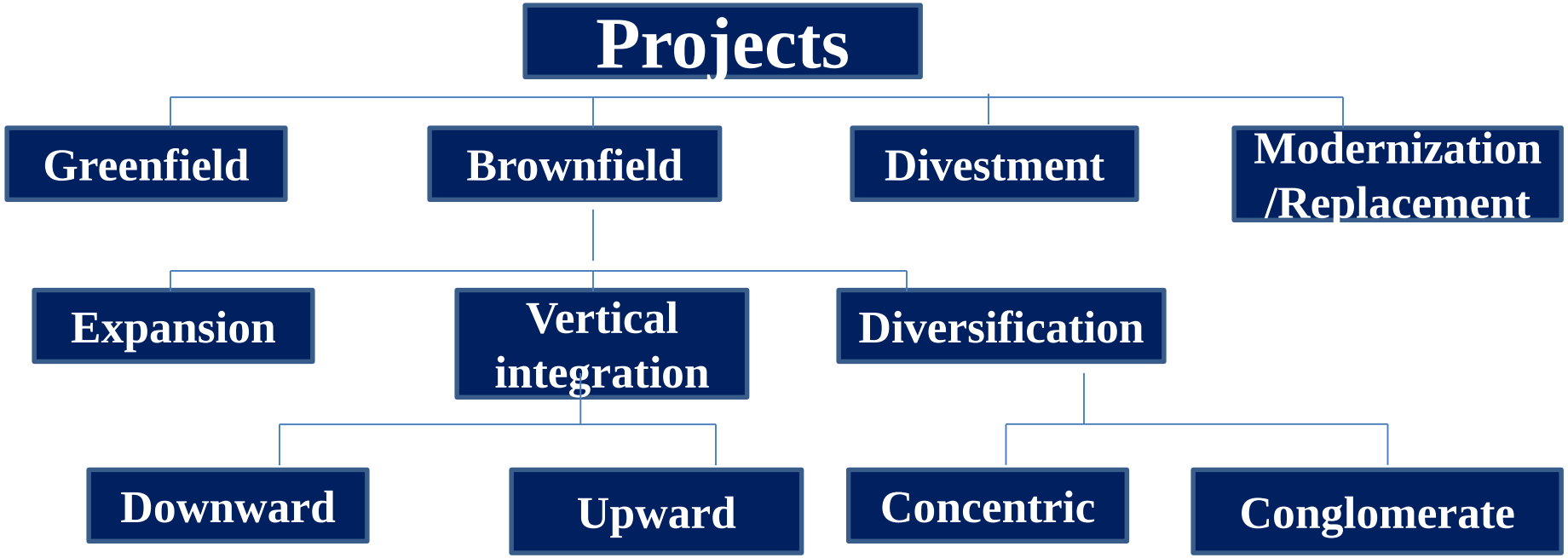
Classification	Manufacturing enterprises*	Service enterprises**
Micro	Rs 25 lac	Rs 10 lac
Small	Rs 5 crore	Rs 2 crore
Medium	Rs 10 crore	Rs 5 crore

* Plant and machinery ** Equipment

Types of Projects

c)Based on ownership: Govt, public sector, corporate, cooperative???, proprietorship, partnership (PPP).

d)Based on risk:



d)Based on risk:

1.Greenfield project/grass root project- new venture by fresh entrepreneur/ promoter.

2.Brown field projects- existing promoter company or existing projects goes for **addition of product/capacity.**

Brown field projects

Expansion projects- add capacity through mkt intensification or mkt development.

Vertical integration **projects-degree** to which a firm owns its **upstream suppliers** and **down stream customers** is called vertical integration .

Vertical integration

Forward integration:?????

Backward integration: ?????

Vertical integration

Forward integration: **downward** expansion is called forward integration, ex.- steel industry moves for manufacturing of steel pipes (ONGC?).

Backward integration: **upstream** expansion is called backward integration, pipe manufacturer makes its own steel.

Diversification Project: Financial synergy may obtained by combining two firms – lower tech and high financial.

Concentric diversification project: firm adds related products: cars??

Conglomerate diversification project: Unrelated areas (TATA, Birla, Ambani, Adaani, etc, IFFCO-TOKIO)

3.Divestment: Retrenchment of some or all of the activities in a given business of the firm or sell out some of the businesses as such.

Obsolescence-Mobiles

Competition

Failure

Concentration on new product

Better opportunity of investment.

4.Modernization/Replacement: New technology, etc.

Project Life Cycle (PLC)

The Project Life Cycle (PLC)

Project managers or the organization **can divide projects into phases** to provide **better management control** with appropriate links to the ongoing operations of the performing organization.

Collectively, **these phases are known as the project life cycle**. Many organizations identify a specific set of life cycles for use on all of their projects.

Project life cycles generally define:

- **What technical work** to do in each phase (for example, in which phase should the architect's work be performed?).

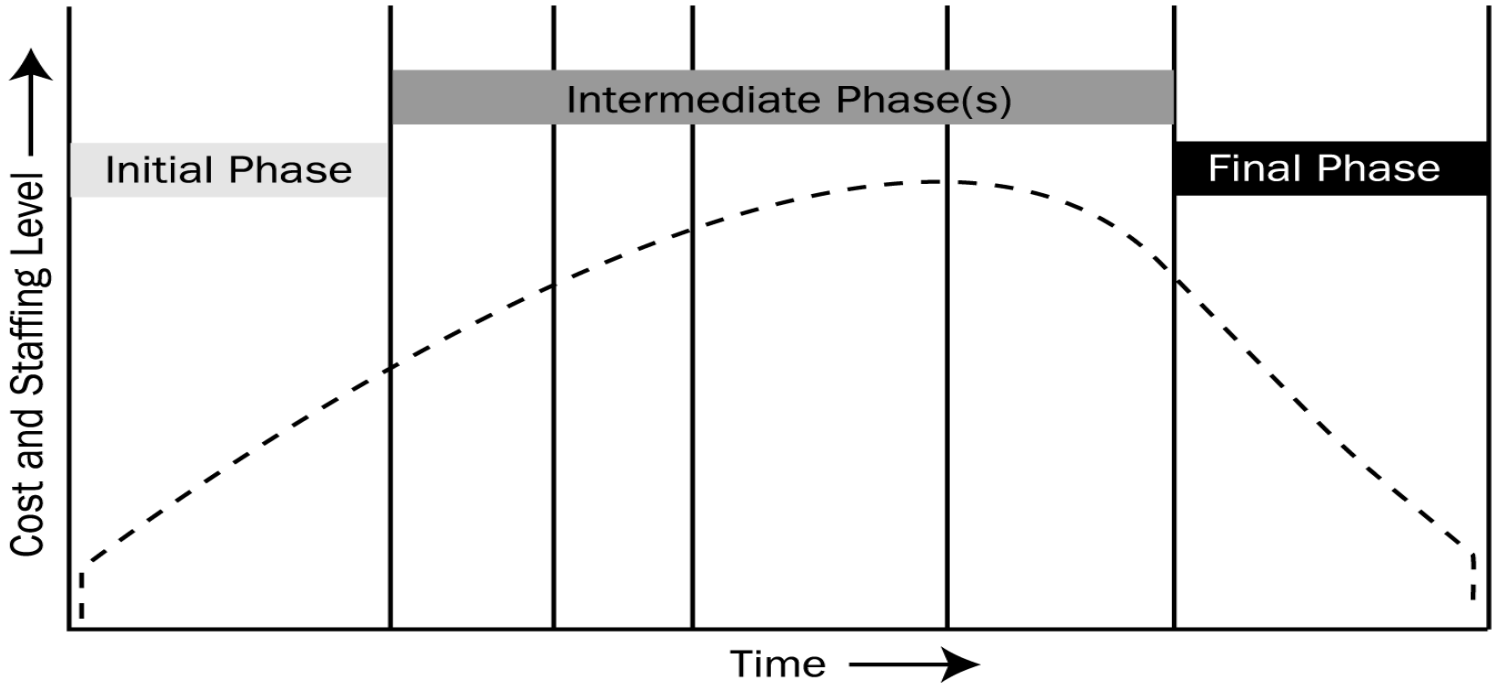
- **When** the **deliverables** are to be **generated** in each phase and how each deliverable is reviewed, verified, and validated.

- **Who is** involved in each phase (for example, **concurrent engineering** requires that the implementers be involved with requirements and design (D for D).

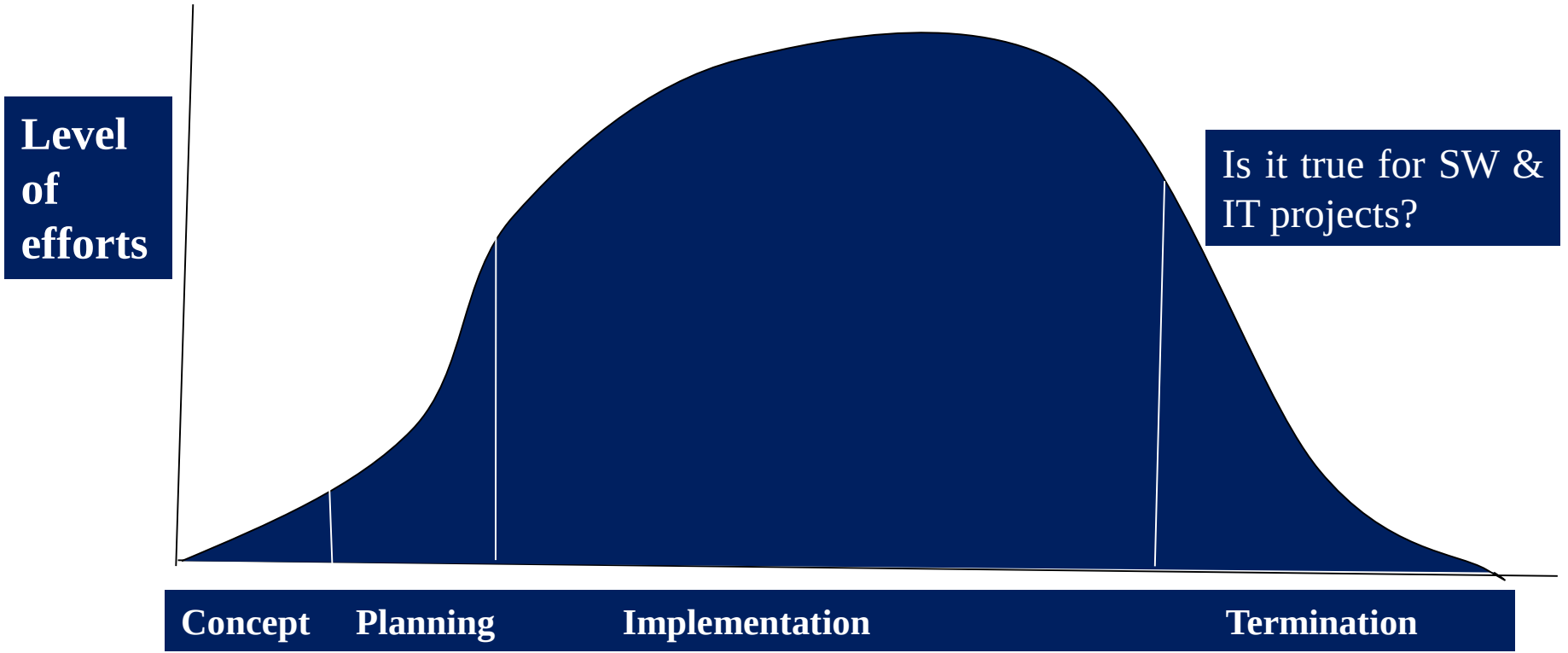
- How to **control and approve** each phase.

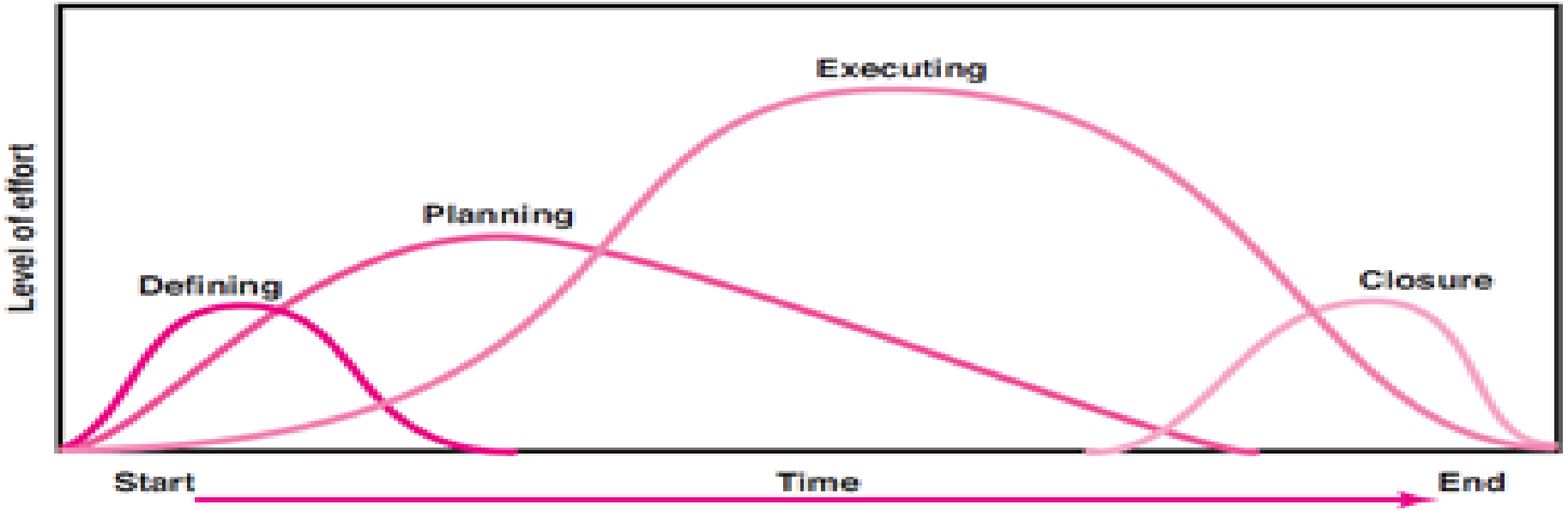
Most project life cycles **share a number of common** characteristics:

- Phases are generally **sequential (????)** and are usually defined by some form of technical information transfer or technical component handoff.
- Cost and staffing levels are low at the start, peak during the intermediate phases, and drop rapidly as the project draws to a conclusion (Depends on project).



Typical Project Cost and Staffing Level Across the Project Life Cycle


Level of efforts
Is it true for SW & IT projects?
Concept
Planning
Implementation
Termination

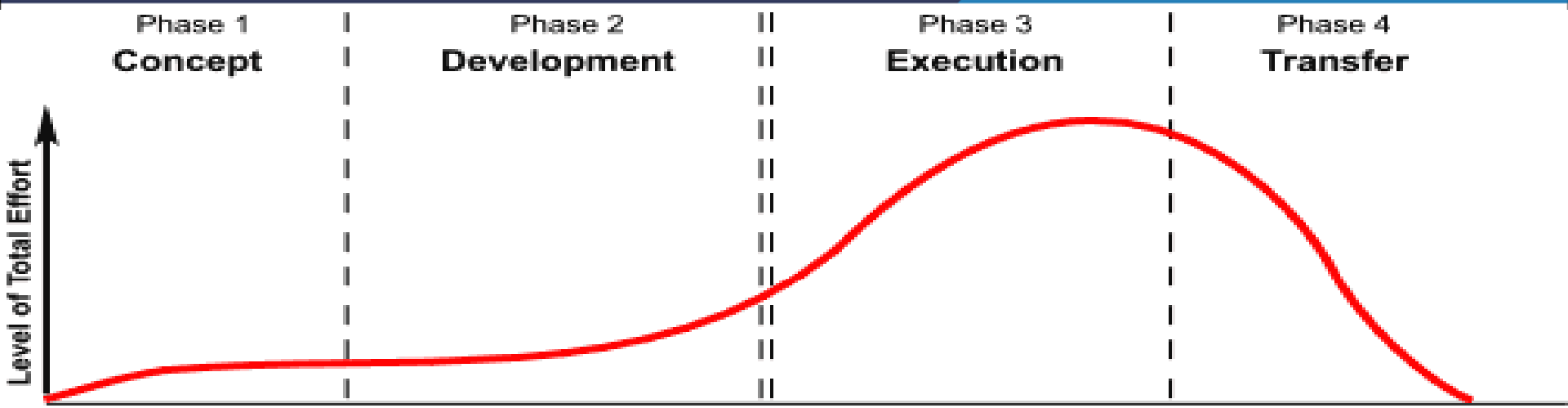


Defining
1. Goals
2. Specifications
3. Tasks
4. Responsibilities

Planning
1. Schedules
2. Budgets
3. Resources
4. Risks
5. Staffing

Executing
1. Status reports
2. Changes
3. Quality
4. Forecasts

Closure
1. Train customer
2. Transfer documents
3. Release resources
4. Evaluation
5. Lessons learned



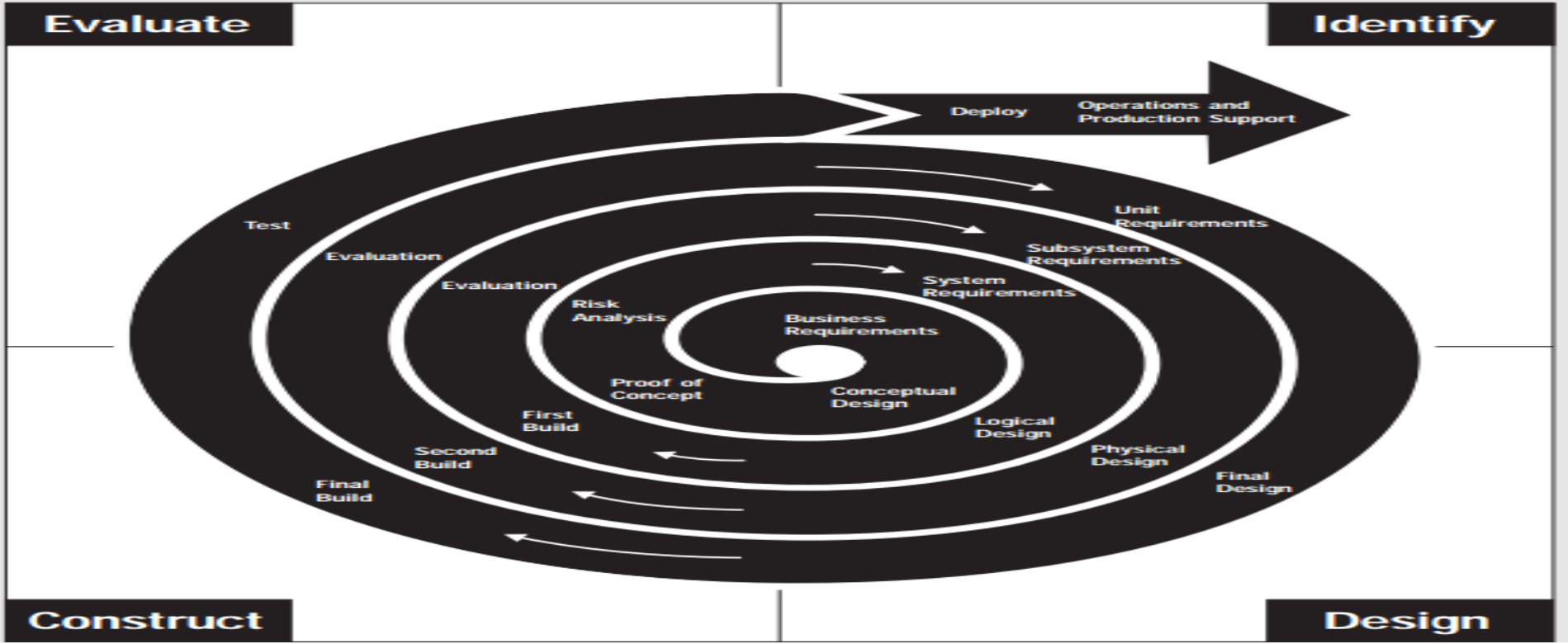
- Gather data
- Identify need
- Goals
- Practicality
- Economics
- Resources
- Strategies
- Risks
- Alternatives
- Sell concept
- **Approvals**

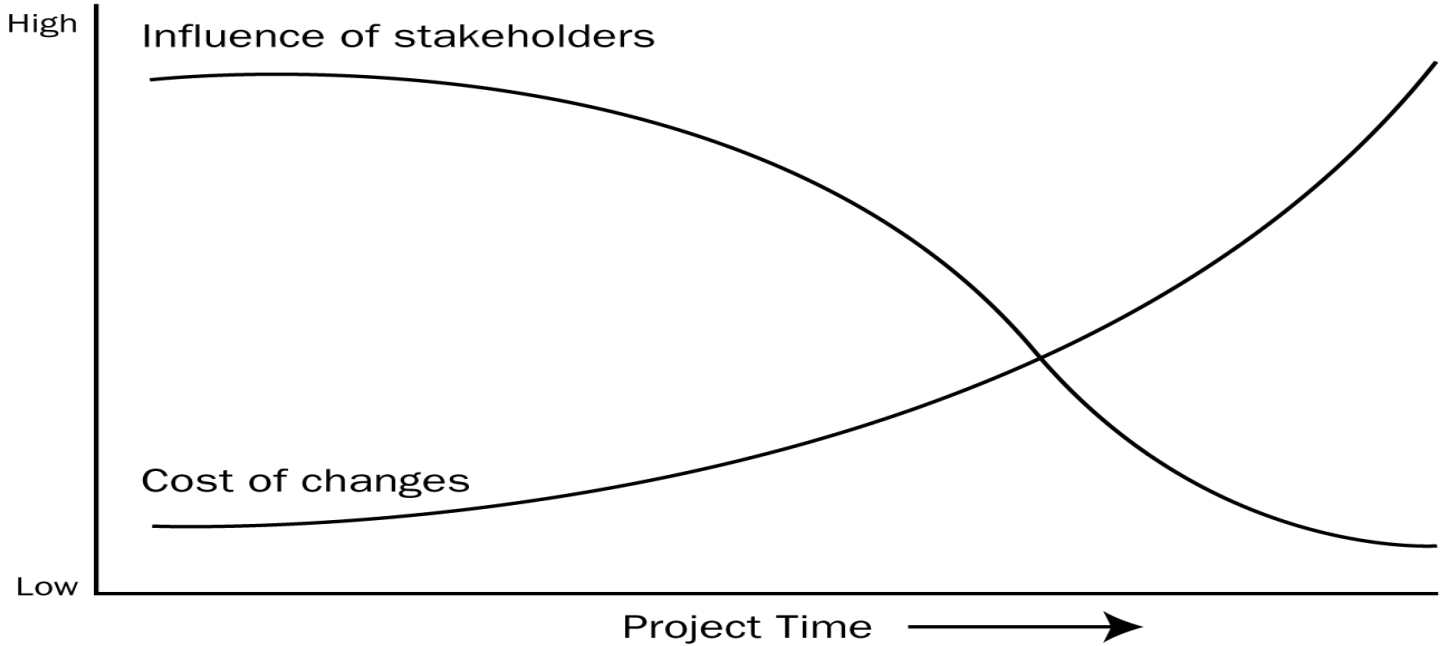
- Feasibility:
  - Objectives/rationale
  - Program, schematics
  - Sketches/outline drawings
  - WBS
  - Resources, team
  - Schedule
  - Budget
  - Cash flow
  - Financing
- Re-assess risks, alternatives
- Present Project Charter/Brief

- Mobilize team
- Planning & scheduling
- Technical requirements
- Work packages
- Detail design & specs
- Procurement
- Execute the work
- Testing
- Resolve issues
- Progress monitoring
- Forecasts
- Reports

- Assemble start-up team
- Training
- Finalize/test all systems
- Reviews & Acceptances
- **Transfer responsibility**
- Settle all accounts
- Project review
- Re-assign remaining team
- Archive lessons learned
- Close all records
- **Deliver Final Report**

Representative Software Development life Cycle





Stakeholders' Influence Over Time