PROJECT BASICS

Course title: International Project Management

Lecturer: Nodirjon Makhkamov

What is a project?

- A definitive deliverable (objective and goal)
- Takes time
- Consumes resources
- Definite starting and stopping dates
- Is broken up into tasks (activities, steps)
- Consists of processes
- Proceeds through milestones
- Utilizes teams
- Based on personal integrity and trust

Horizontal vs. Vertical Energy

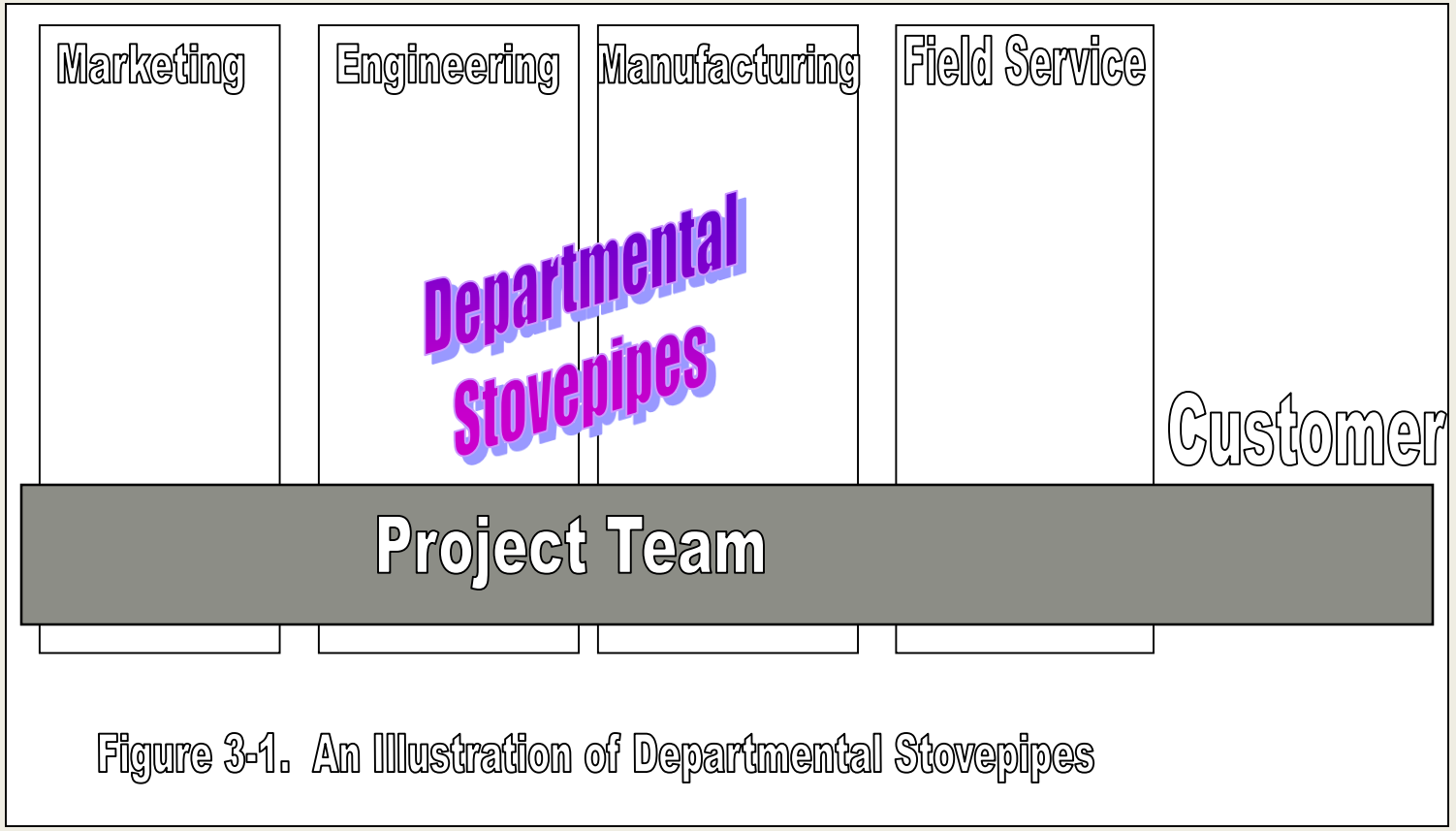


Figure 3-1. An Illustration of Departmental Stovepipes

Some terminology

- **Step (task, activity**)—an initiative that takes time to complete, has a definite starting and stopping point
- **Milestone—**an event, an instant in time at which something significant happens in the life of the project, like the completion of a deliverable
- **Lifecycle—**The stages a project goes through during its lifetime
- Scope—**The content of the project, the nature and functionality of the ultimate product**

Why Project Management?

- Because companies are organized around projects (and processes)
- Because project management is recognized as a core competence
- Because project management is a discipline in disarray—we just don't know how to manage projects well
- Because project management differs in significant ways from ordinary management

Why Project Management

- 1/4th of our country's GDP is generated from projects (4 trillion)
- 1/4th of world GDP (10 trillion of 40 trillion) is generated from projects
- Even Donald Trump is getting into the act
  - *What are Donald's criteria for success as a project manager?*

Advantages of Project Management

- Better control of human resources
- Improved customer relations
- Shorter development times, lead times
- Lower costs
- Higher quality
- Higher profit margins
- Improved productivity

About PMI

- The Project Management Institute
- www.pmi.org
- Has an established Body of Knowledge
  - *PMBOK (1996, 2000, 2002, 2008)*
- Will certify you as a PMP if…..
  - *You can pass its exam, and*
  - *You have at least 2000 hours of successful PM EXPERIENCE*

Some things we do poorly in projects

- Establishing requirements for the project deliverable
- Planning the proposed project
- Estimating step (TASK, ACTIVITY))durations
- Budgeting the proposed project
- Executing
  - *Don't understand change management*
  - *Not communicating*
- Managing subcontractors
- Monitoring project progress

What is project management?

- The initiation, planning, execution, control and termination of projects in a formal, directed and intelligent fashion
  - *According to PMI's PMBOK*

What are the criteria for success in Project management?

- Completion on time
- Completion within budget
- Completion with full functionality

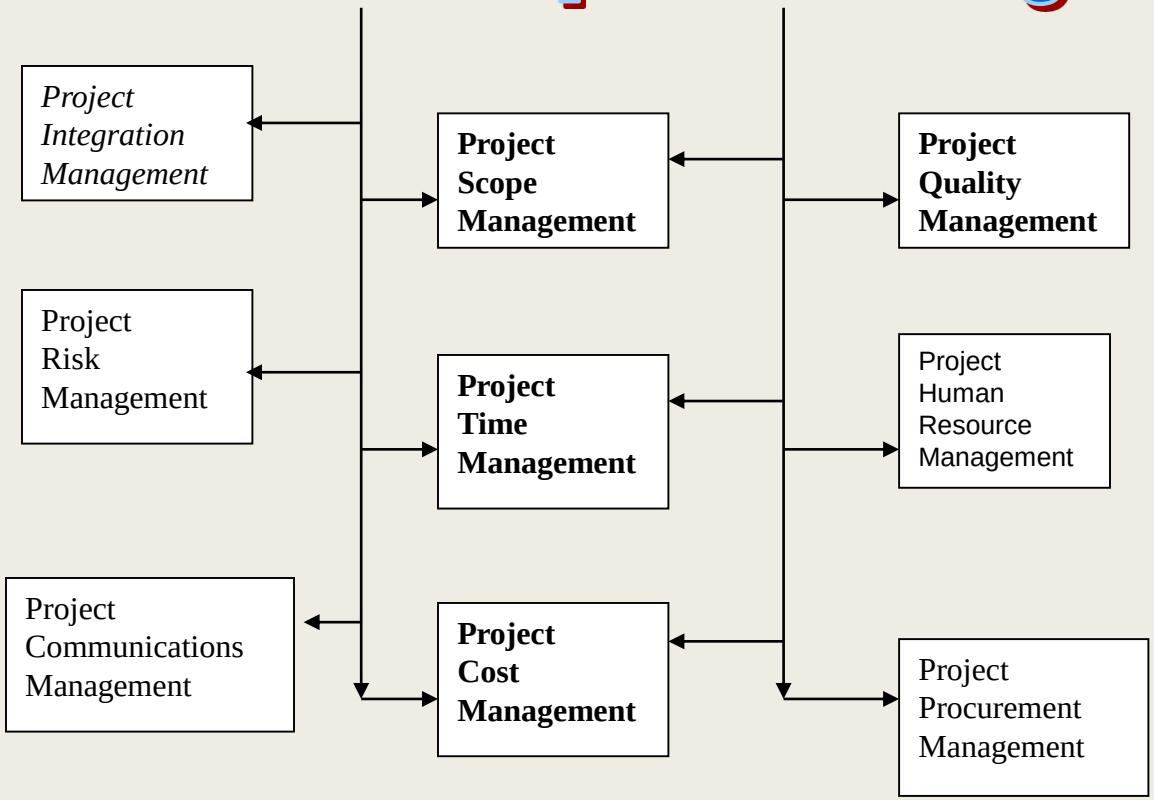
What is the record in IT project management?

- Until 1996, less than 25% of IT projects were “successful”
- After 1998 roughly 30% of IT projects were successful
- More than 80 billion a year wasted on terminated projects in the 90’s
- For projects that were not completed on time, they were 225% over their intended completion date
- According to the CHAOS 1995 Report

Where is expertise in project management found?

- Project Management Institute
- In project managers who have been there and done that
- In hundreds of books that have been written in the past five years
- In dozens of websites (use google or go to burns.ba.ttu.edu

Project Management Knowledge Areas



Nine Project Areas/42 project processes

- Project Integration Management
- Core Knowledge Areas
  - *Scope Management*
  - *Time Management*
  - *Cost Management*
  - *Quality Management*

Facilitating Knowledge Areas

- Procurement Management
- Risk Management
- Communications Management
- Human Resources Management

The triple Constraint/Quadruple Constraint

- Time \\\\\\
- Cost----
- Scope //////
- Quality

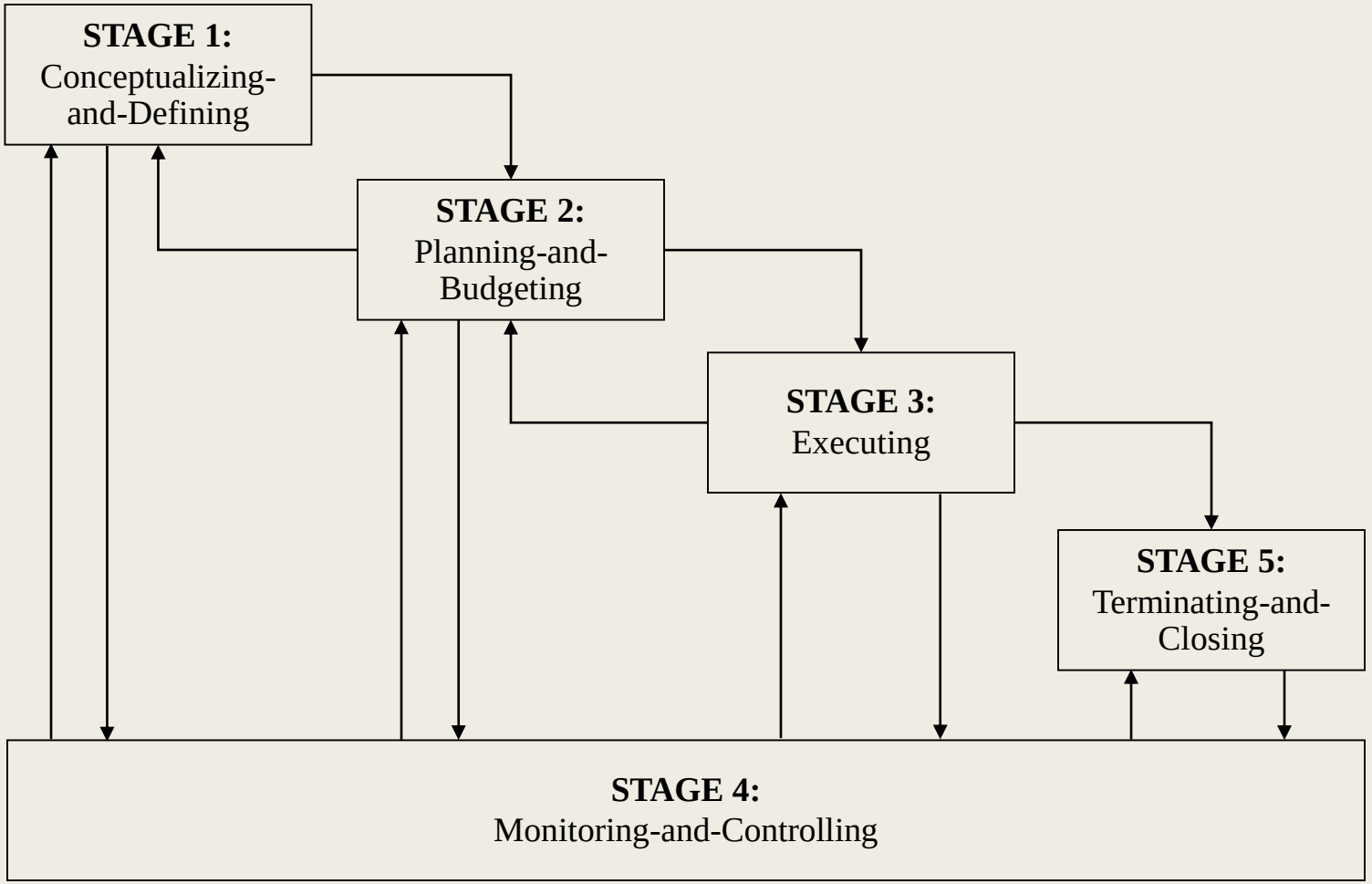
Tradeoffs between these

This is also known as the Tradeoff Triangle

Answer to Question 10

A Generic IT Project Lifecycle

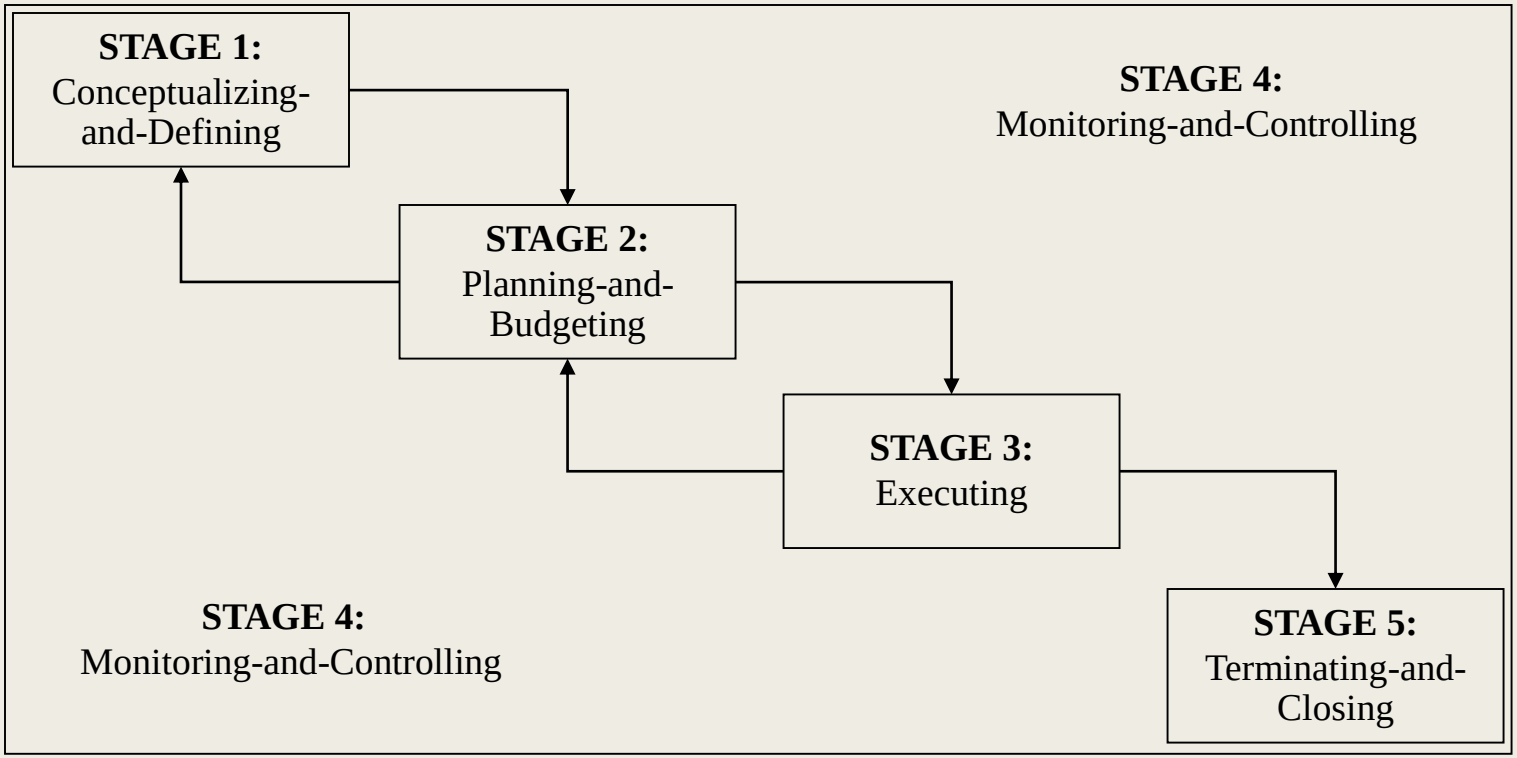
1. Conceptualization and **Definition** stage
    1. *Project Manager selected here*
    2. *Determine goals, scope, Impediments, product(s)—[deliverable(s)]*
2. Planning and Budgeting stage
    1. *Project leader selected here, as well as project team members*
    2. *Who will do the project, when will it get done, how much will it cost*
3. Execution stage
    1. *Ramp up phase, intense activity phase, close out (termination) phase*


STAGE 1:
Conceptualizing-and-Defining
STAGE 2:
Planning-and-Budgeting
STAGE 3:
Executing
STAGE 5:
Terminating-and-Closing
STAGE 4:
Monitoring-and-Controlling

And, the fourth and fifth stages……..

4. Controlling and Monitoring Stage
   - *We do this throughout*
5. Closeout and termination Stage
   - *Deliverables delivered?*
   - *Signoffs complete?*
   - *Checklist complete?*
   - *Lessons learned?*
   - *History Data base updated?*
   - *Post-project customer satisfaction survey complete?*

The Stages in the Project Management Lifecycle



Initiating New Projects

- Use a Statement of Work (SOW)
  - *Gets submitted to upper management and the PM department*
  - *Gets graded and eventually accepted or rejected*
- In a project management culture, a SOW…
  - *Can be created by anyone in the organization*
- How to launch yourself into PM
  - *Identify a need that fits with your values, write a SOW and become the project's PM.*

Project and Process Definition: Specification of the Project Boundary

- Elimination and Containment of Scope and Feature Creep
  - *Through change management*
- Goals of Project Management
- Conceptualization of the deliverable
- Definition: consideration of goals, scope and impediments

Boundary Definition

- Define Stakeholders
- ORGANIZE a JPDS--Joint Project Definition Session
  - *Who should be invited? (THE STAKEHOLDERS)*
- Scope boundary
  - *Features & functionality*
- Organizational Boundary
- Methodology (or process) Boundary
- Culture (governance) Boundary

Who are the STAKEHOLDERS??

- Customers
- Project Sponsor—the guy w/ deep pockets
- Users
- Project team
- Support staff
- Suppliers
- Opponents
- People involved-in or affected by project activities

Out of the Project Conceptualization and Definition Stage should come…..

- A Selected **Project Manager [PM]**
- The **Requirements Document** (defining project product(s) and their content)
  - *Signature signoffs required for PM'S protection*
- The **Project Charter**
  - *Announces the project, its deliverable, its PM, and the rules of governance*
- These are known as deliverables

Scope Management/Change Management—a ‘best practice’

- Form a change/scope committee
- Consists of customer and contractor representatives
- All requested changes must get reviewed by this committee
- Acceptances will depend on the type of contract, the amount of work involved, customer’s willingness to pay for it

Project Performance Measures: Cost, Duration, Functionality

- Most expensive component--human resources
- Funds are consumed over time
- Question is, are funds being consumed as fast as anticipated
- Is functionality being created as fast as anticipated
- OUR CONTROL SYSTEM WILL TELL US

Project Management Hierarchy

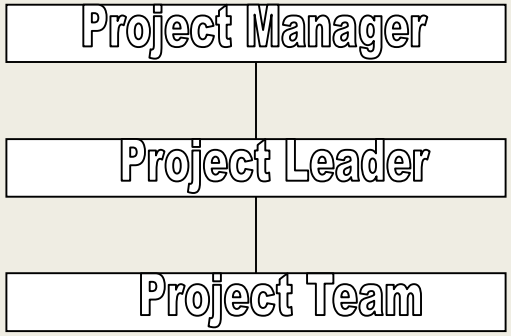


Figure 3.2. The Project Management Hierarchy

Another Proj. Management Hierarchy

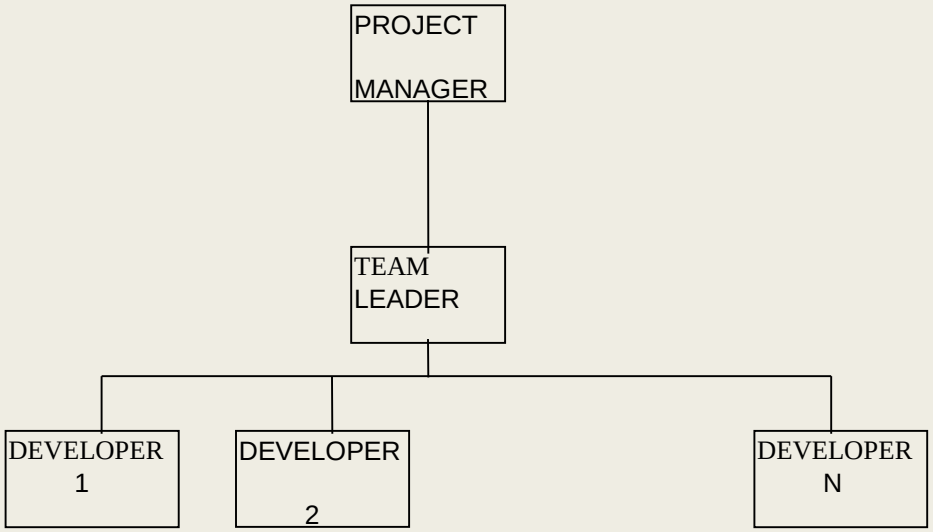


Figure 3.4. Project Organization Chart

Still Another

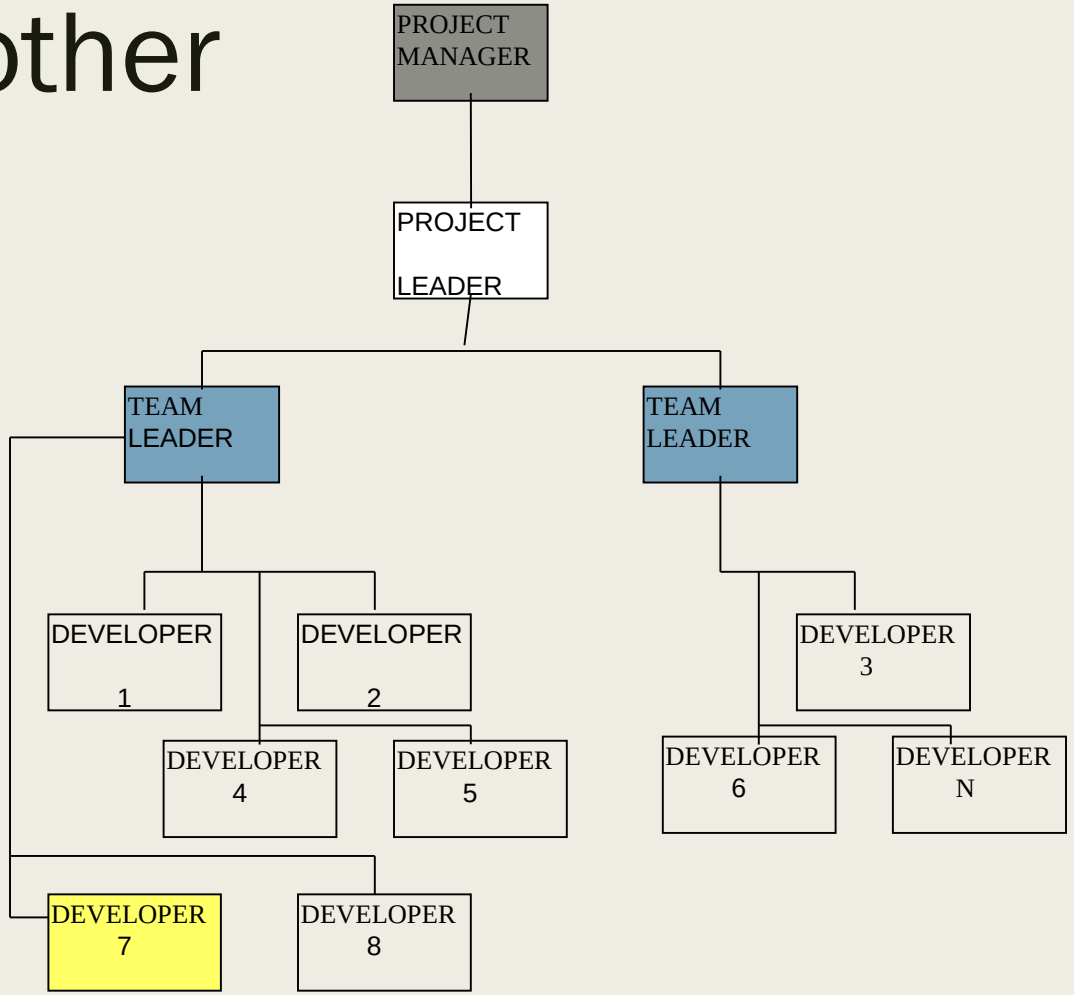


Figure 3.5. Large Project Organization Chart

Relationship of PM to Customer & Upper Management

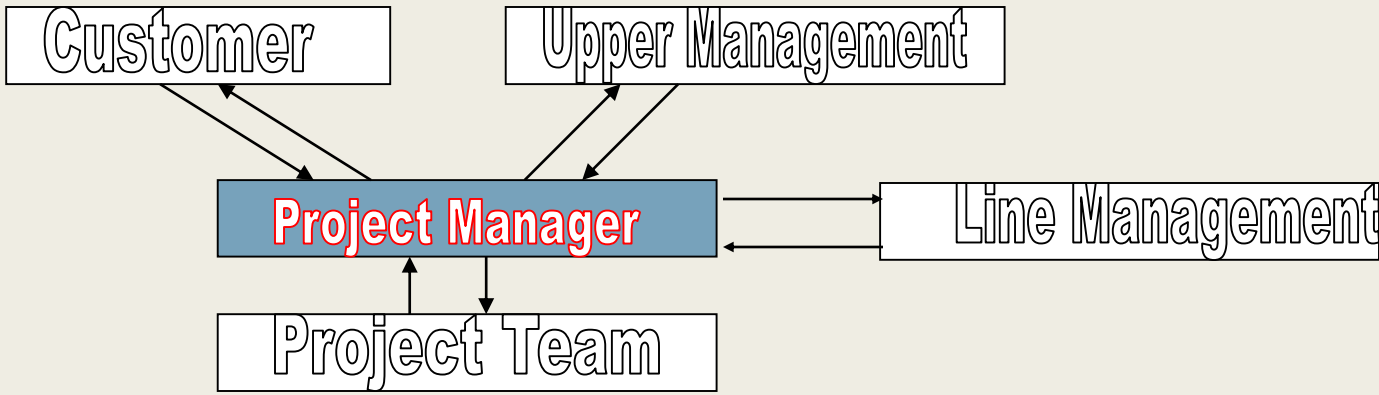


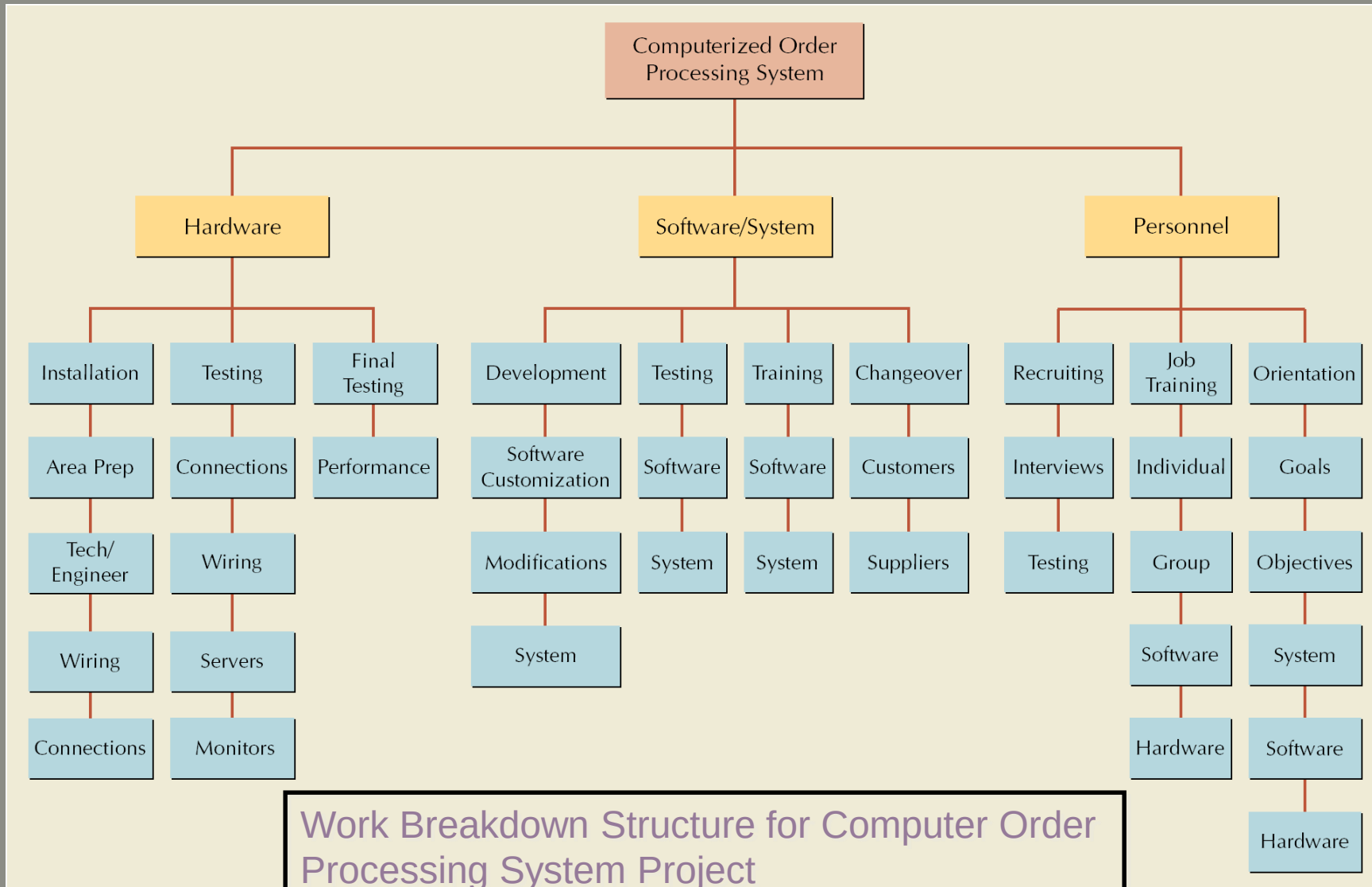
Figure 3-3. The Project Manager's Communications Hierarchy

STAGE 2: Project Planning and Budgeting

- Performed first by the Project Manager
- Revised by the Project Team and the JPDS personnel
- Looks at:
  - *Duration*
  - *Cost*
  - *Functionality*

Out of the Project Planning and Budgeting Stage Should Derive

- The project plan
  - *Personnel involved*
  - *Project WBS (Work Break Down Structure)*
  - *Project budget*
  - *Project schedule in a Gantt format*
  - *Project NETWORK chart*


Computerized Order Processing System
Hardware
Software/System
Personnel
Installation
Testing
Final Testing
Development
Testing
Training
Changeover
Recruiting
Job Training
Orientation
Area Prep
Connections
Performance
Software Customization
Software
Software
Customers
Interviews
Individual
Goals
Tech/ Engineer
Wiring
Modifications
System
System
Suppliers
Testing
Group
Objectives
Wiring
Servers
System
Software
System
Connections
Monitors
Hardware
Software
Hardware
Work Breakdown Structure for Computer Order Processing System Project

What specifically must be planned for???

- A scope MANAGEMENT plan
- A schedule or Time MANAGEMENT plan
- A Budget or Cost MANAGEMENT plan
- A quality MANAGEMENT plan
- A risk contingency plan
- A communications plan
- A procurement plan
- A human resources plan
- ALL COMPRISE A PART OF THE PLANNNING DOC

Project Execution —the THIRD Stage

- Startup (also called rampup)
- progression
- close-down

Projects and their Indigenous Processes

- 1. Collect Requirements
- 2. Define Scope
- 3. Create WBS
- 4. Verify Scope
- 5. Control Scope
- 1. Define Activities
- 2. Sequence Activities
- 3. Estimate Activity Durations
- 4. Develop Schedule
- 5. Control Schedule
- 1. Estimate Costs
- 2. Determine Budget
- 3. Control Costs
- 1. Plan Quality
- 2. Perform Quality Assurance
- 3. Perform Quality Control

More Project processes [PMBOK]

- 1. Organizational Planning
- 2. Staff Acquisition
- 3. Communications Planning
- 4. Information Distribution
- 5. Performance Reporting
- 6. Administrative Closure
- 1. Risk Identification
- 2. Risk Quantification
- 3. Risk Response Development
- 4. Risk Response Control
- 1. Procurement Planning
- 2. Solicitation Planning
- 3. Solicitation
- 4. Source Selection
- 5. Contract Administration
- 6. Contract Closeout

Strategy for Project Execution

- Hold weekly meetings--every Fri. afternoon
- Compare execution with plan--this is called controlling
- Make adjustments as necessary
- Produce weekly status reports every Mon morning

Functions, Tasks, Expectations of the Project Manager (coach, mentor, leader, negotiator, assessor, informer, motivator)

- Selects team leader, subordinates
- Works hardest during the definition and planning phases
- Assesses progress during execution and reports on that
- Negotiates with line managers for required human resources

Expectations of the Project Manager

- Interfaces with customer, upper management on behalf of team
- Negotiates with upper management and customer
- Keeps everybody informed

More Expectations of the Project Manager

- Is a positive leader, motivator, coach
- Knows how to use PM software
- Knows the technologies employed well
- Must re-plan the remainder of the project after the completion of each deliverable, each phase

Skills, Competencies of the PM

- Leadership--articulate the vision and hold everyone accountable to it
- An ability to develop people
- Communication competencies
- Interpersonal competencies
- Able to handle stress
- Problem solving skills
- Time management skills
- Negotiation skills

Functions, Tasks, Expectations of the Project Leader

- Large projects will have such a person if there are several teams involved
- In charge of all technical aspects of the project
- Assists the PM with project planning and control
  - *particularly, the bottom levels of the WBS*
- Focused on the toughest technical problems

Recall the Large Project Hierarchy

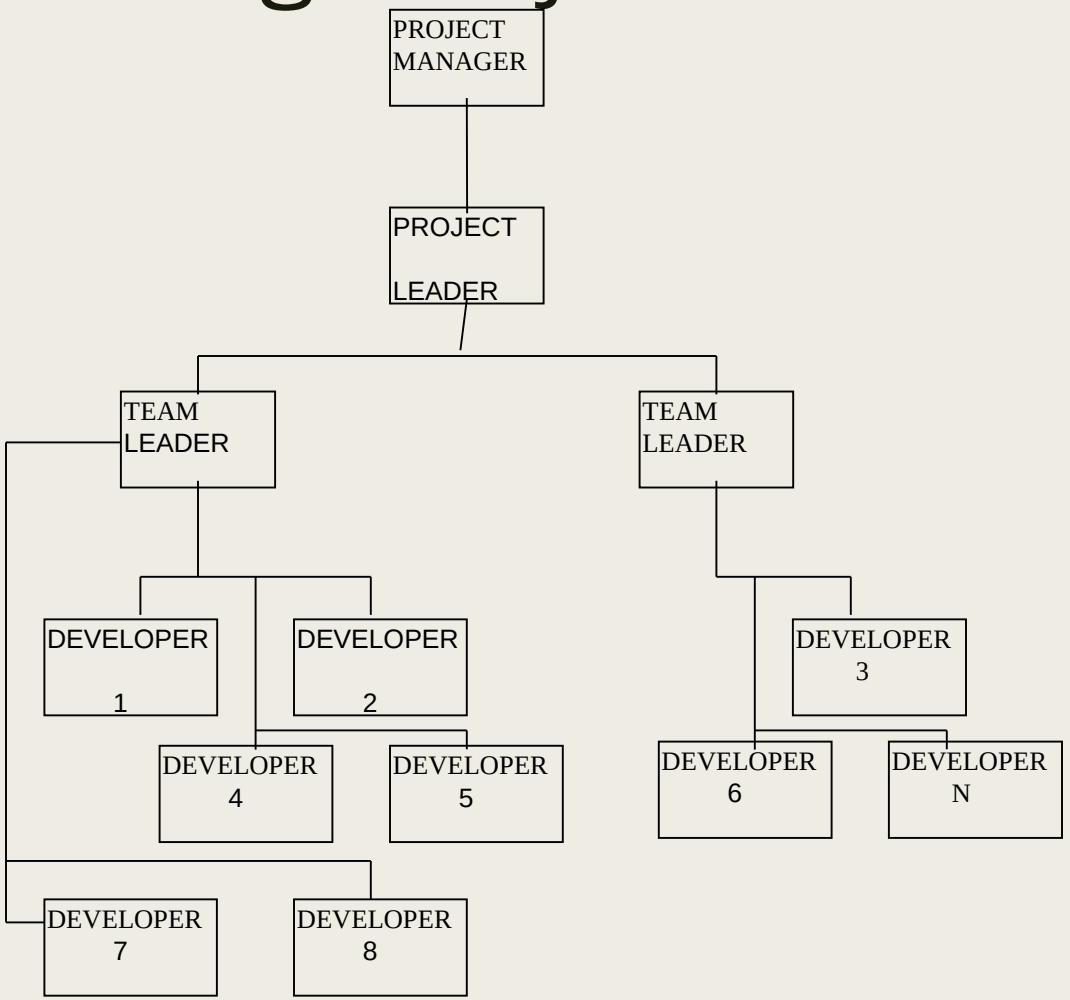


Figure 3.5. Large Project Organization Chart

Functions, Tasks, Expectations of the Team Leader

- Reports to the Project Leader
- Oversees day-to-day execution
- More technically competent, mature and experienced than team members
- Should possess good communications competencies
- Should develop a good rapport with each team member

Functions, Tasks, Expectations of the Professional Team Member

- Energetic, communicative, a good listener
- Not a perfectionist
- Possesses the requisite technical expertise
- Doesn’t make any promises to the customer
- Star performance

The Phases of Team Development--

- *According to B. W. Tuckman*
- Forming
- Storming
- Norming
- Performing
- Adjourning

Forming

- involves the transition from individual to team member
- Team members get acquainted
- Begin to understand who has responsibility for what
- No actual work accomplished in this phase
- Excited, anticipation, suspicion, anxiety and hesitancy

Storming

- Like the teenage years, you have to go through it
- Characterized by feelings of hostility, frustration and anger
- Dissatisfaction with PM is common during this phase
- PM has to provide direction and diffuse possible conflicts
- There has to be a sense of devotion to equity and fairness

Norming

- Relationships have stabilized
- Level of conflict is lower
- There is alignment with project goals
- Acceptance grows
- Team begins to Synergize

Performing

- Team is now over the interpersonal conflicts
- Team is now executing the tasks of the project
- There is a sense of unity and peace
- Team is empowered by PM to achieve its goals

Team Types/culture/governance

- Democratic teams--good for experienced, mature teams
- Chief developer teams--good for new, immature teams
- Expert teams--good for a certain specific area of need, like
  - *design validation*
  - *system integration and testing*
  - *data communications*

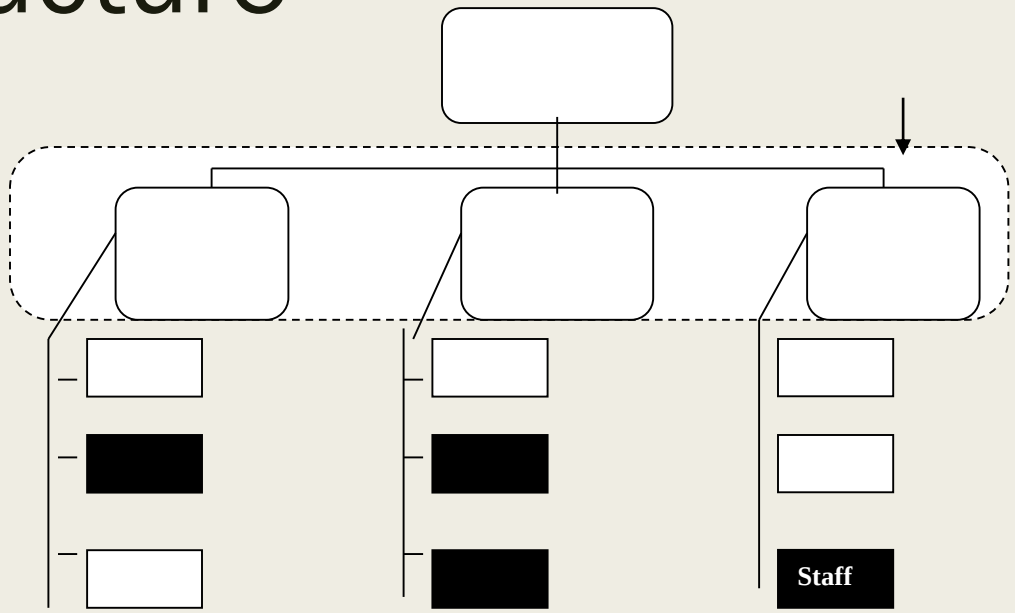
Psychological Motivators for Developers

- Learning new skills, concepts, tools, or aspects of a language
- IMPLICATION: Assign tasks that have an element of newness

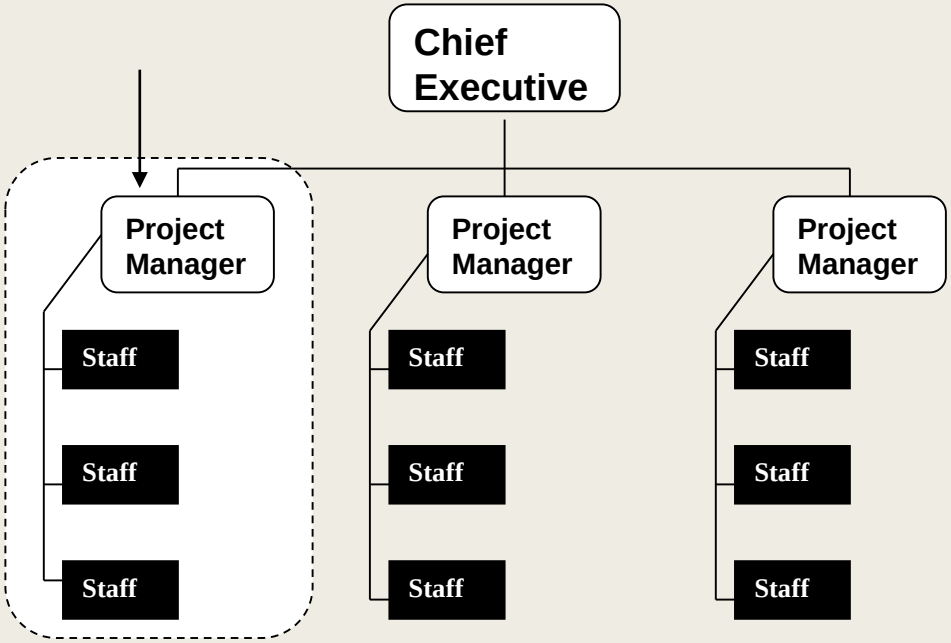
Task assignment

- Tasks should be challenging but not too challenging
- There should be some newness
- Related tasks should be assigned to the same developer

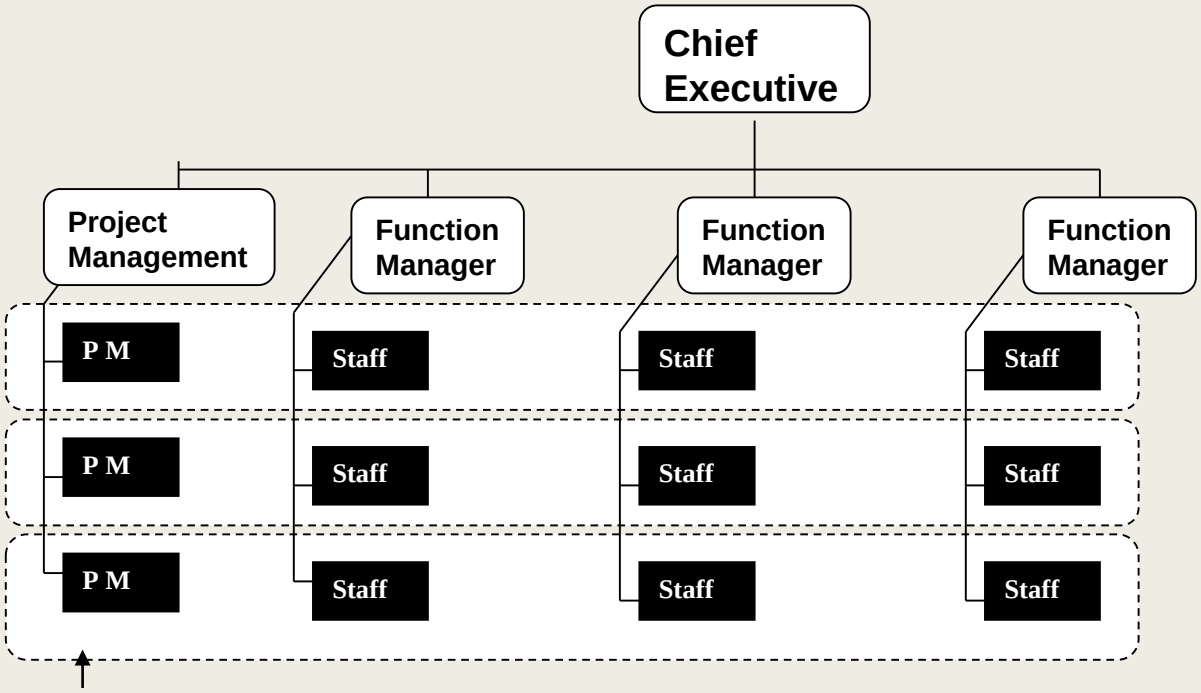
Functional Organizational Structure



Project Organizational Structure



Matrix Organizational Structure



Project Staffing Considerations: (matrix management, human factors, team formation, reporting)

- Matrix management involves borrowing resources from other functional units
- Matrix management involves resource sharing and is more efficient

Some of Tom Peters' concepts

- Those little insignificant projects may not be so
- What became *In Search of Excellence*-- was based on a project at his employer that nobody cared about
- Look for little projects that you can become passionate about, based on your values
- Punctuate your projects with passion
  - *Life is not a useless passion as the German and French existentialist philosophers would suggest*

Summary

- Five stages of projects
- Four primary knowledge areas
- Four facilitating knowledge areas
- Four types of project personnel
- Five phases of team development
- Three types of organizational structures

Reference and source

International Project Management by Kathrin Koster | Mar 17, 2014

The Complete Project Management Office Handbook (ESI International Project Management Series) Part of: ESI International Project Management (19 Books) | by Gerard M. Hill | Sep 5, 2013

Project Management for Healthcare (ESI International Project Management Series) Part of: ESI International Project Management (19 Books) | by David Shirley | Feb 11, 2020

Project Management for Healthcare (ESI International Project Management Series) by David Shirley | Apr 25, 2011

International Management Behavior: Global and Sustainable Leadership by Henry W. Lane and Martha L. Maznevski | Feb 7, 2019

The Law and Business of International Project Finance: A Resource for Governments, Sponsors, Lawyers, and Project Participants by Scott L. Hoffman | Oct 22, 2007


The end!

SOW should consist of:

- *Discussion of problem or opportunity*
- *Purpose or goal of project*
- *Objectives*
- *Success criteria*
- *Assumptions/Risks/Obstacles*

- ALL ON A SINGLE PAGE

Project Management Authority

ıracteristics	FUNCTIONAL	WEAK MATRIX	BALANCED MATRIX	STRONG MATRIX	PROJECT
s Authority	Little or none	Limited	Low to moderate	Moderate to high	High to almost total
ent of orming nization's ole assigned ime to project	Virtually none	0-25%	15-60%	50-95%	85-100%
ject nager's role	Part-time	Part-time	Full-time	Full-time	Full-time
ect agement inistrative staff	Part-time	Part-time	Part-time	Full-time	Full-time

Source: PMBOK Guide, page 18.