

Organising for Construction Projects and Companies

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Introduction

Managing construction companies and projects is a complex and challenging assignment

Projects are one-of-a-kind endeavors, little in the way of experience, normal working relationships or established procedures to guide the participants

People from various organisations and disparate areas who have never worked together are brought together to perform thousands of interrelated tasks - financial organisations, government agencies, engineers, architects, lawyers, insurance and surety companies, contractors, material manufacturers and suppliers, and building tradesmen

Essentially, the contractor sets up its “factory” on the site and, to a large extent, custom builds each structure



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A variety of organisational structures are used in construction companies to deal with the work they do. Arrangements depend on:

- proportion of company's business that is project orientated
- scope and duration of tasks
- capabilities of available personnel

By and large, there are 3 main forms:

- Functional
- Project
- Matrix



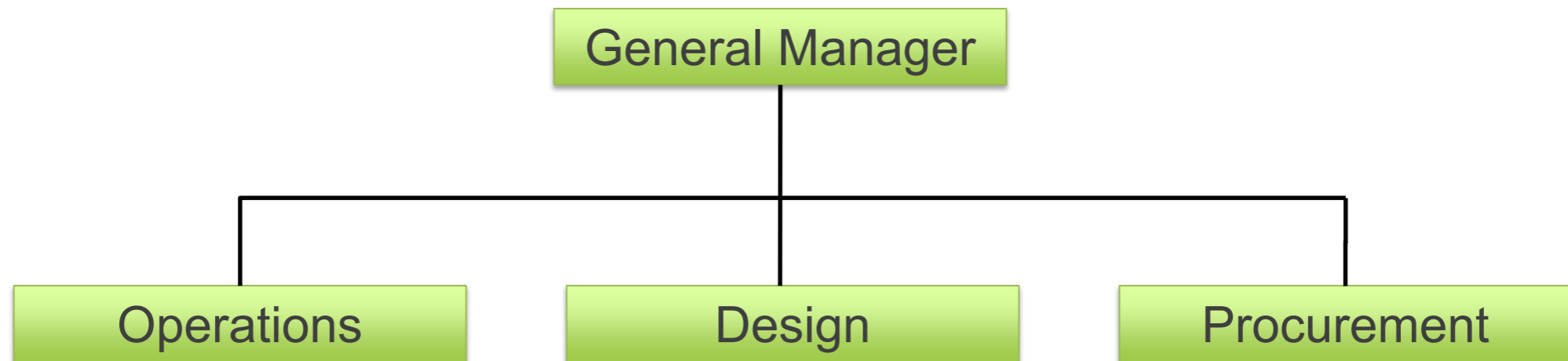
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Functional-Type Organization Features

Divides the organisation into units or groups

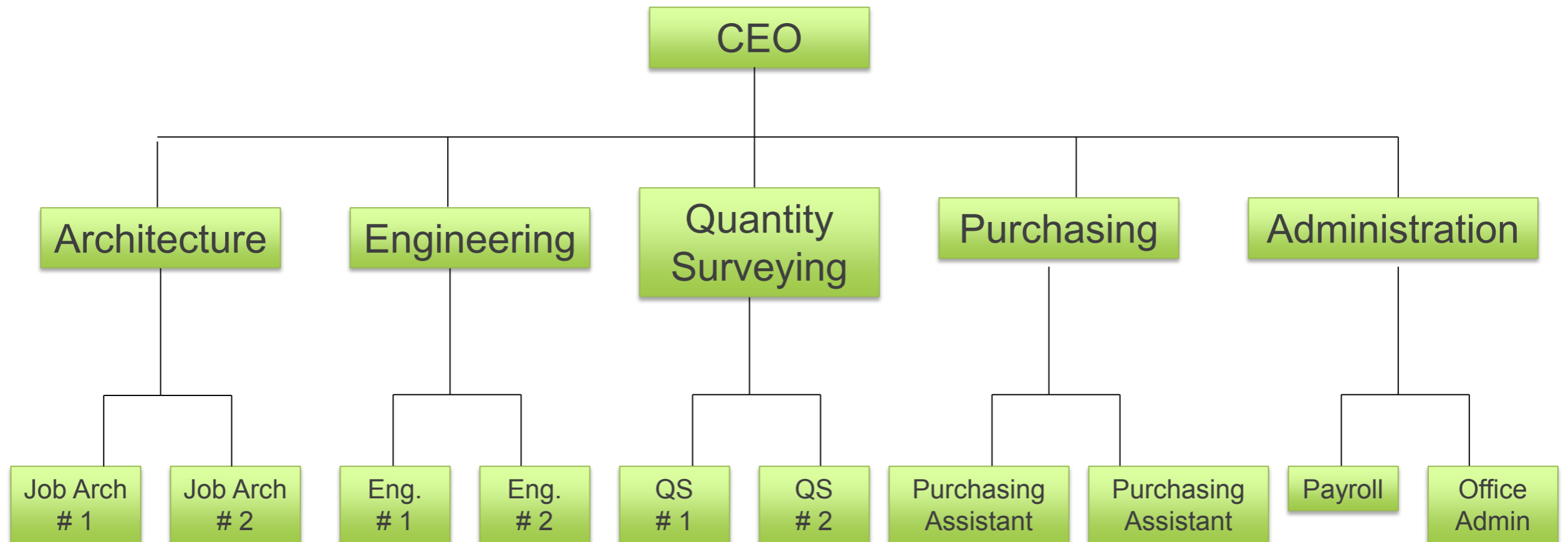
Each unit has a dissimilar set of duties and responsibilities

Concentrates skills and expertise



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Functional-Type Organization Features



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Functional Organisation Features

Most usual organisational type. Sometimes known as Hierarchical/Bureaucratic Organisation

Organised as a hierarchy with functional departments that specialises in a particular type of work, such as sales, design, construction, etc

Departments may be broken up into smaller units that focus on special areas within the function. Upper management may assign a project to an appropriate functional unit

It may be possible that a project or projects be broken up and assigned to appropriate functional units

Project Leader may come from any functional unit



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Functional-Type Organization Features

- Clear Lines of authority
- Promotes technical competence
- Used in businesses that sell and produce standard products
- Groups consist of individuals performing the same function
- Periodically undertake in-house projects
- Team members can be assigned to the project
- Team members continue regular functional jobs
- Project manager does not have complete authority over team



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Functional Organization: Advantages

Reduces duplication and overlap of activities

Suitable for concentrating expertise in a stable environment.

Provides specialization and functional excellence



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Functional Organization: Disadvantages

Can be insular leading to poor horizontal coordination

Teamwork is not emphasized

Decisions may be parochial

Structure can slow communication, problem solving and decision making

Lack of customer focus

Stronger allegiance to function than project

Inflexible



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Employing A Functional Coordinator

Organised as per functional organisation but with a special appointee to coordinate it

Functional managers still retain responsibility and authority for their portion of work

Coordinator provides direction and leadership and frequently reports directly to top management



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Project-Type Organization Features

Used in companies in the project business, not selling products

Work on multiple projects at a time

Project team is dedicated to one project – project staff separated from service departments

Project manager has clear and complete authority over team

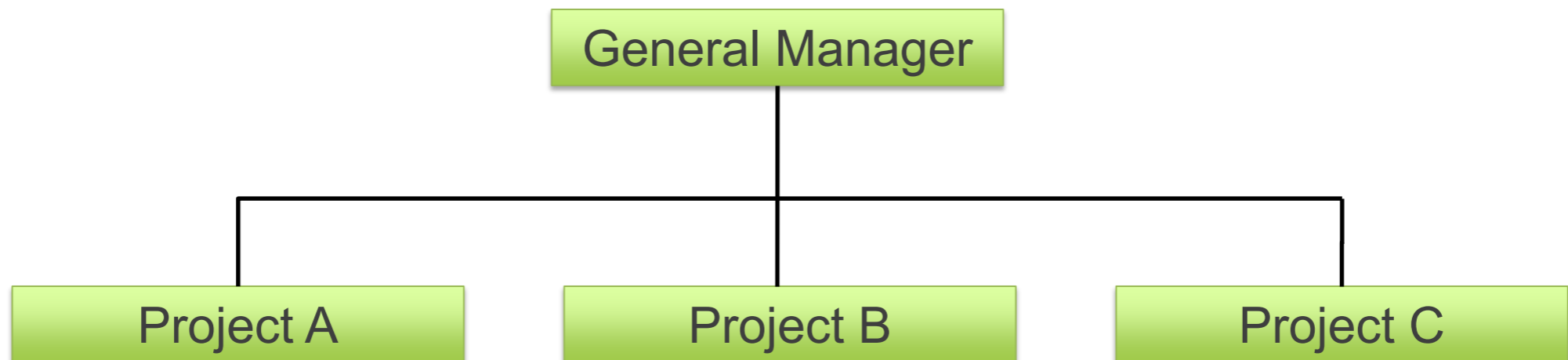
Each project team tends to be isolated



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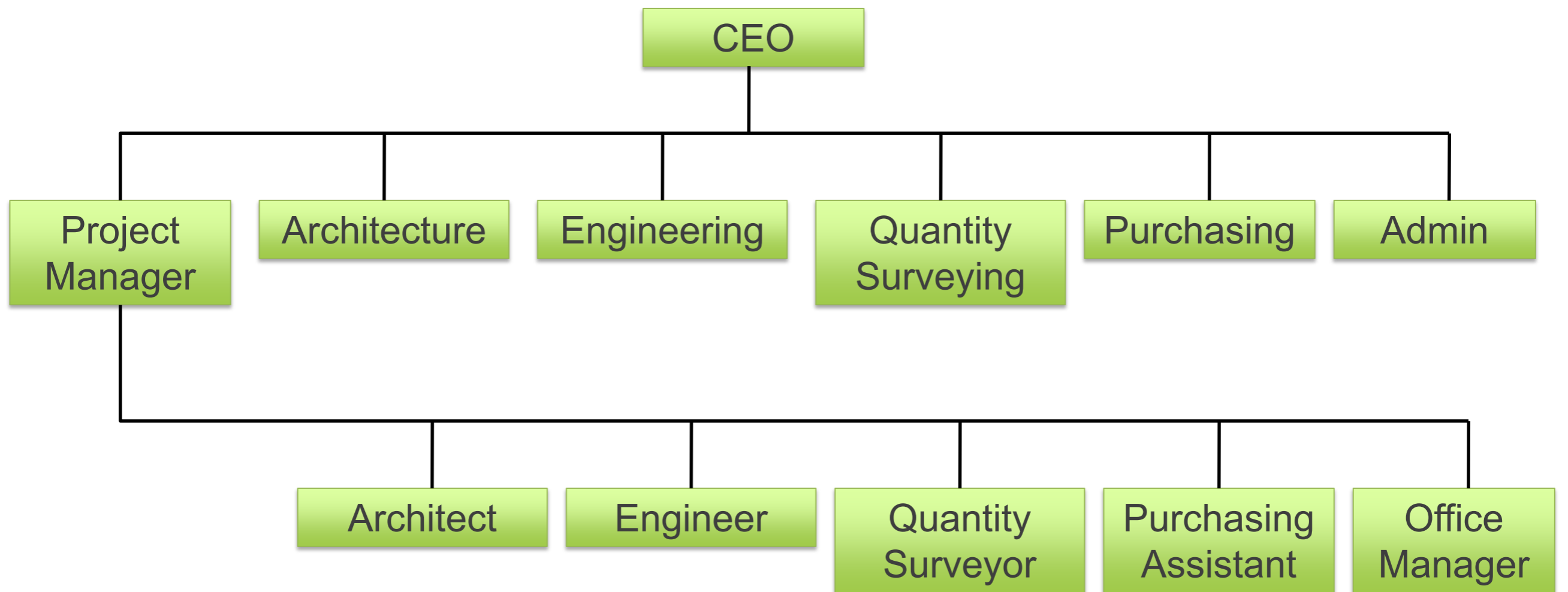
Project-Type Organization

Divides the organization on the basis of products, programs or projects



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Project-Type Organization



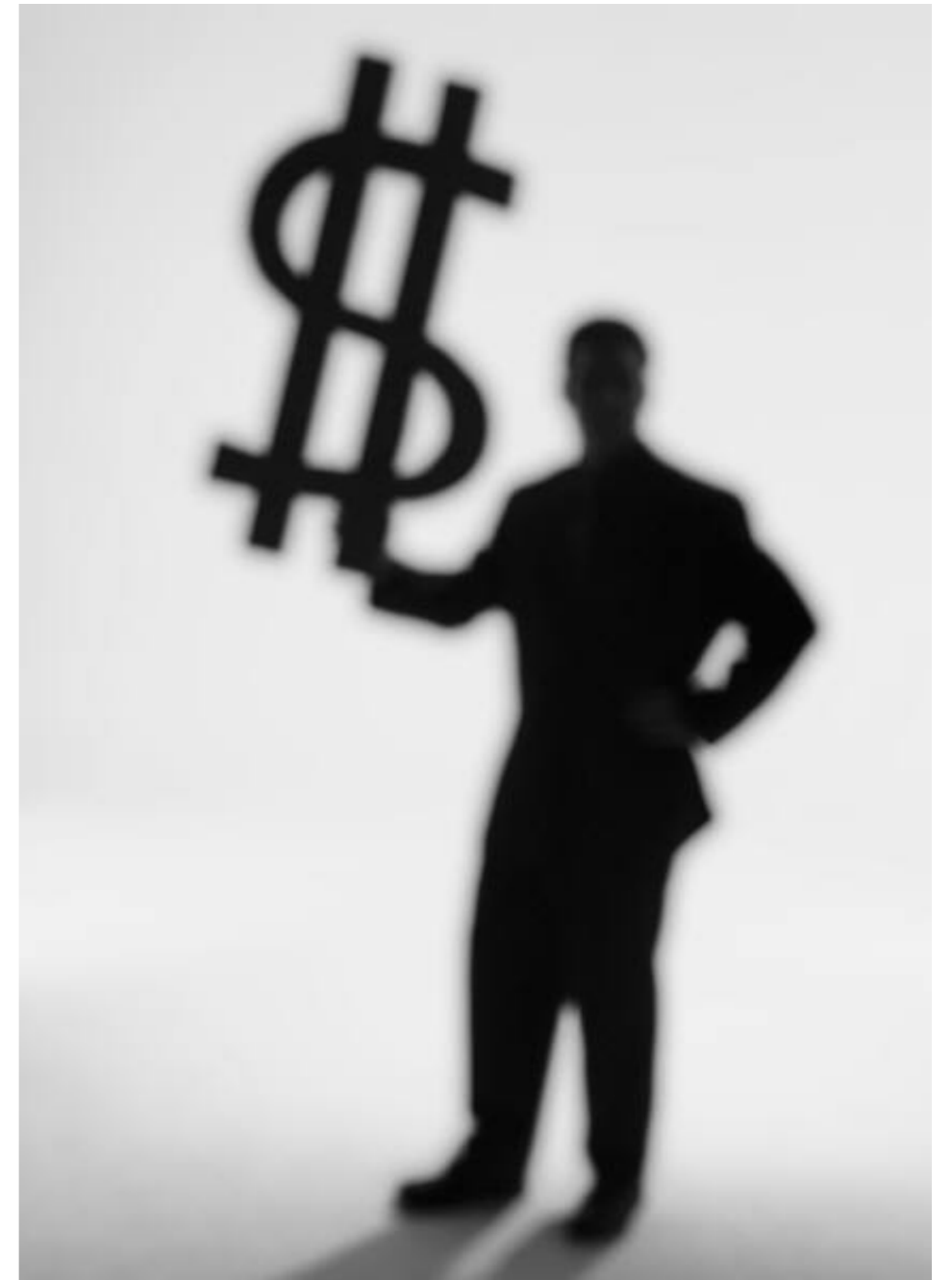
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Project Organization Advantages

Task and team orientated - highly responsive to customer

Better record of meeting schedules and costs

Facilitates innovations and ideas



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Project Organization Disadvantages

Can be cost inefficient

Tendency to stretch out work during slow periods

Potential for duplication on concurrent projects

Low level of knowledge transfer - possible decrease in technical expertise

Mobilization and Demobilization of Staff

- People may be laid off at the end of the project
- No functional “home”
- Fluctuations in labour requirements
- Some use of part time staff



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Matrix-Type Organization Features

Is an attempt to combine the advantages of the pure functional structure and the product organizational structure.

Is suited for companies, such as construction, that are “project-driven”.

Is an appropriate organisational form if there is:

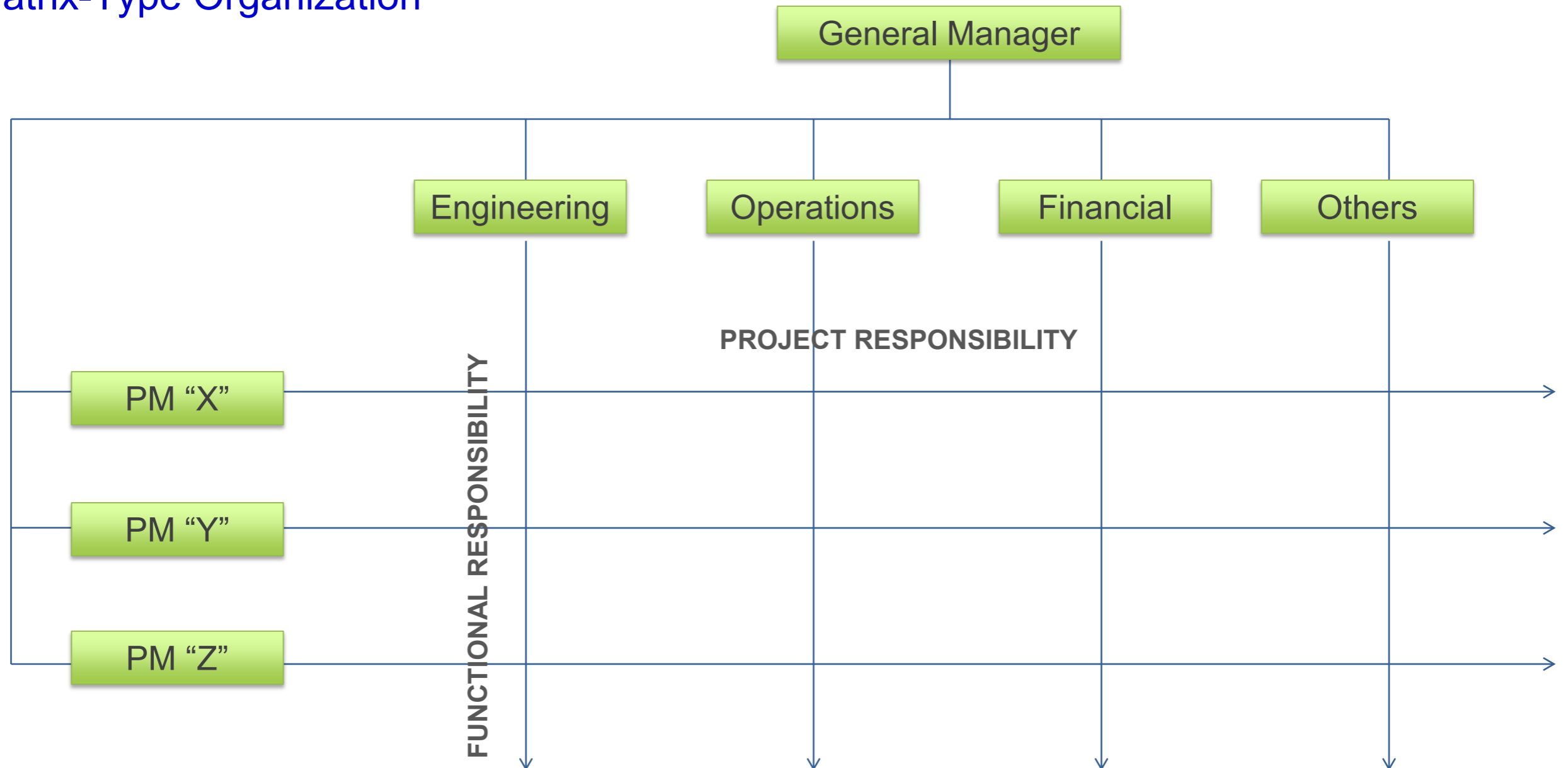
- Requirement for inter-disciplinary communication
- Requirement for shared resources
- Requirements for multiple projects at a time

Provides project and customer focus.



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Matrix-Type Organization



Starts with a functional structure. Project structure then superimposed. Is therefore a hybrid

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Matrix-Type Organization Features

Both Project Managers and Functional Managers have responsibilities

- Project Manager decides “what” and “when”
- Functional Managers decide “how” and “who”

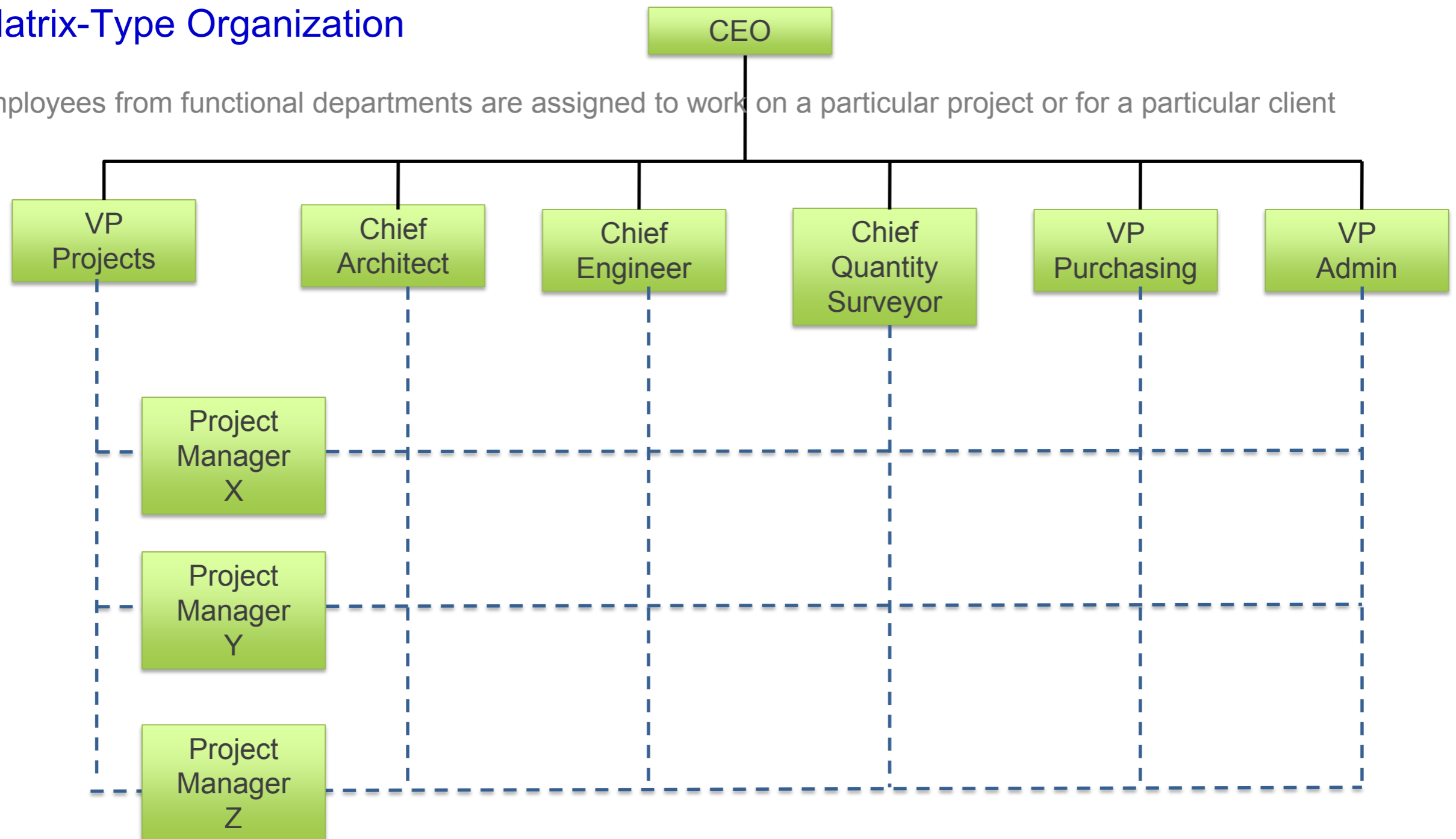
The Project Manager is responsible for the completion of entire work with cost, time and quality



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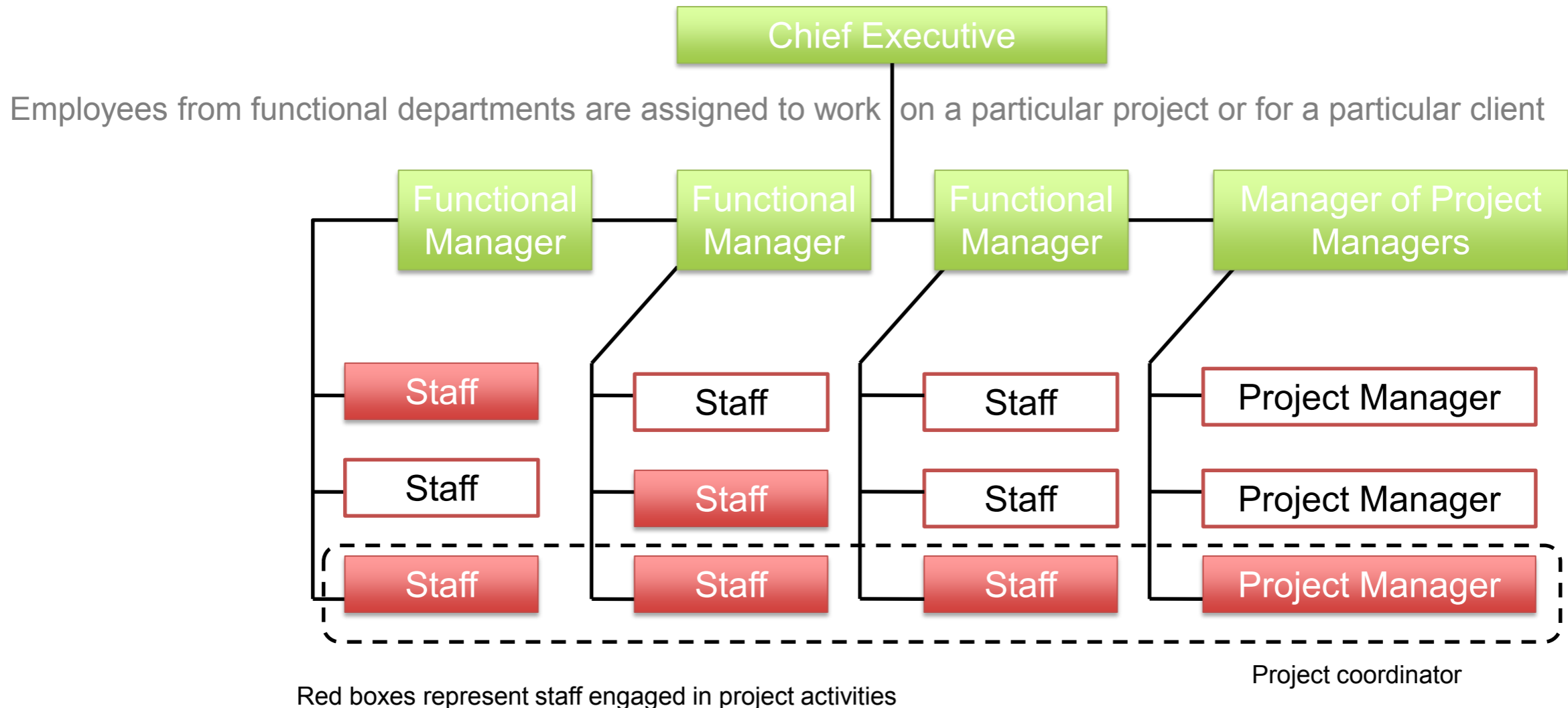
Matrix-Type Organization

Employees from functional departments are assigned to work on a particular project or for a particular client

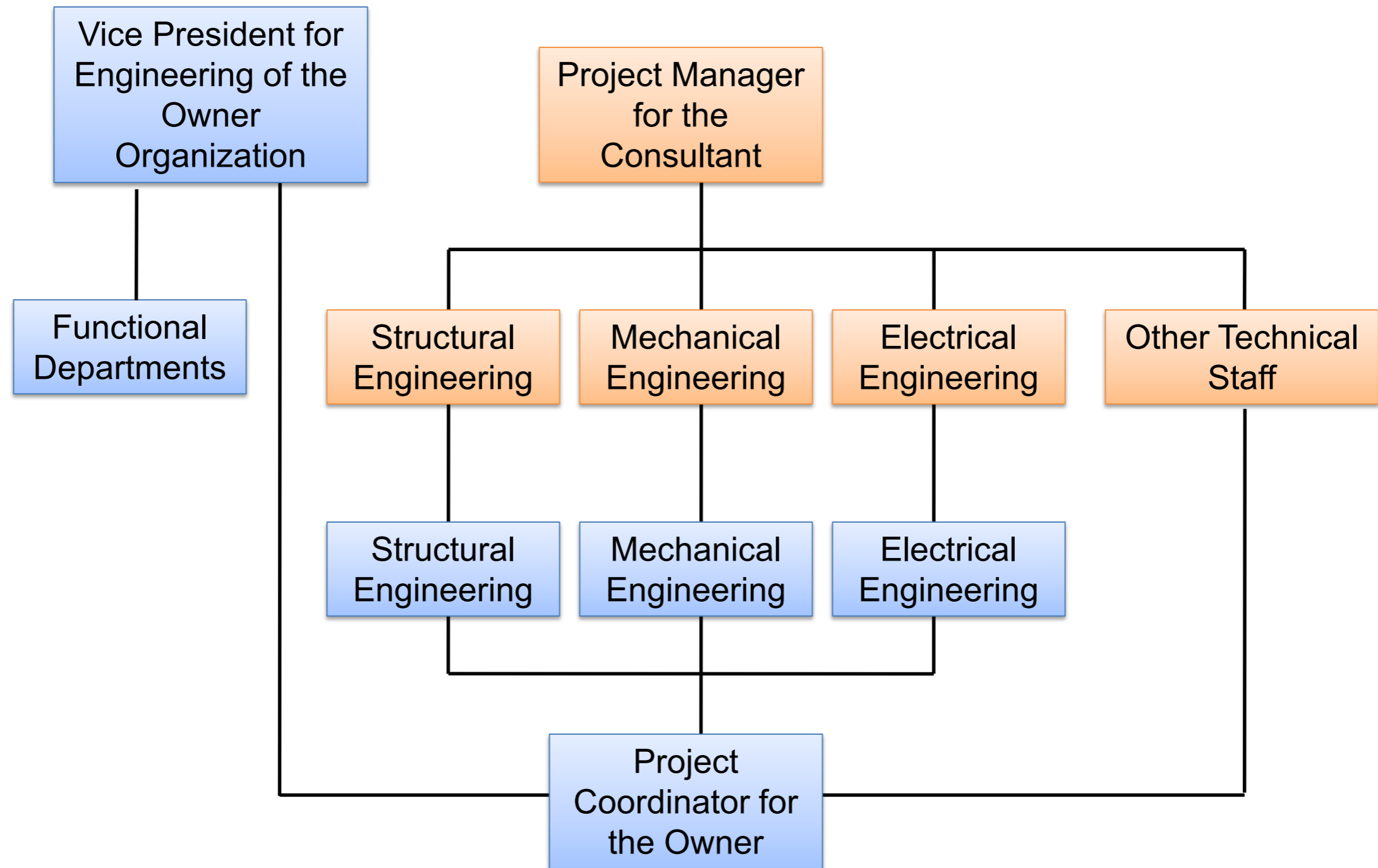


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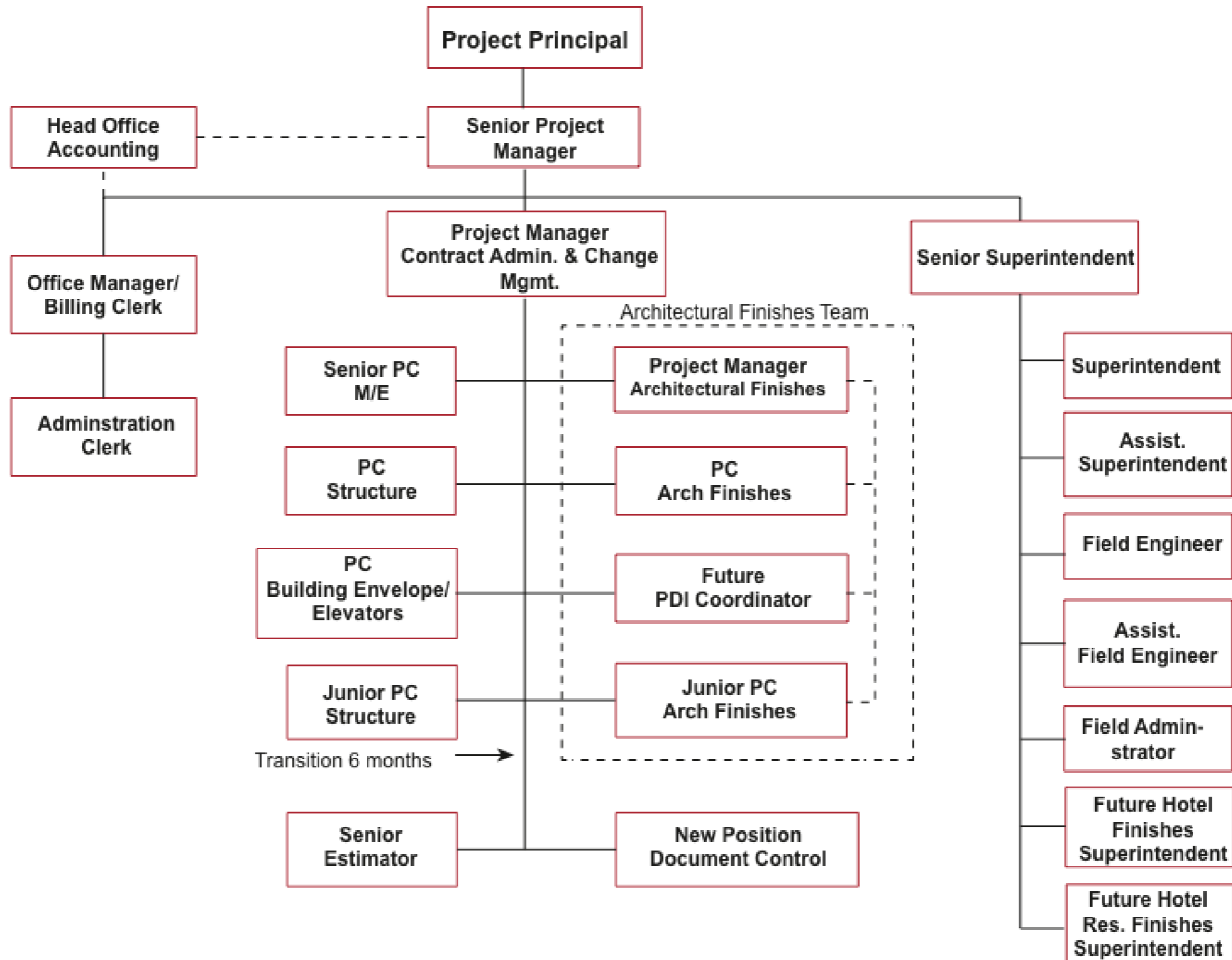
Matrix-Type Organization



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Matrix Organization Advantages

Is a balance of the other two organisational types

Allows efficient utilization of resources

Individuals can be moved among projects

Provides a core of functional expertise

Facilitates information flow – has good horizontal communication

Team members can communicate with project and functional managers. Project manager is spokesperson for the Team

Is project orientated - customer focused

Team members are able to see the “larger picture”



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Matrix Organization Disadvantages

Ambiguous authority and reporting structures. Team members have a dual reporting relationship

A proper balance of power must be established between project and functional managers, otherwise excessive power struggle

Conflicts regarding priorities can arise between managers

Is a complex structure which is often resistant to organisational changes

Groupitis and politics



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Matrix Organization – Key to Success

Participants must spend full-time on the project

Quick and effective method for conflict resolution

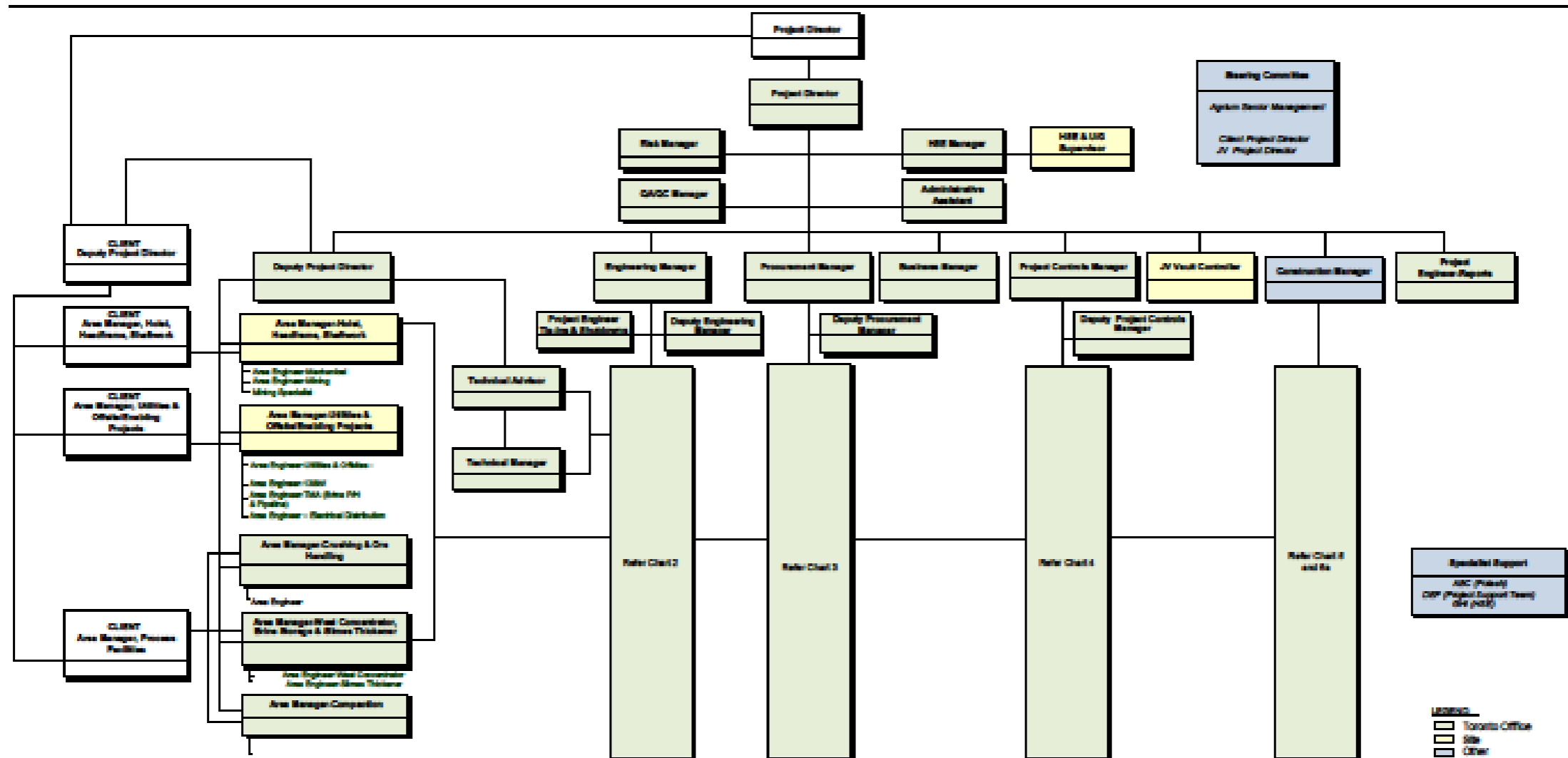
Good communication channels and free access between managers

All managers must have an input into the planning process



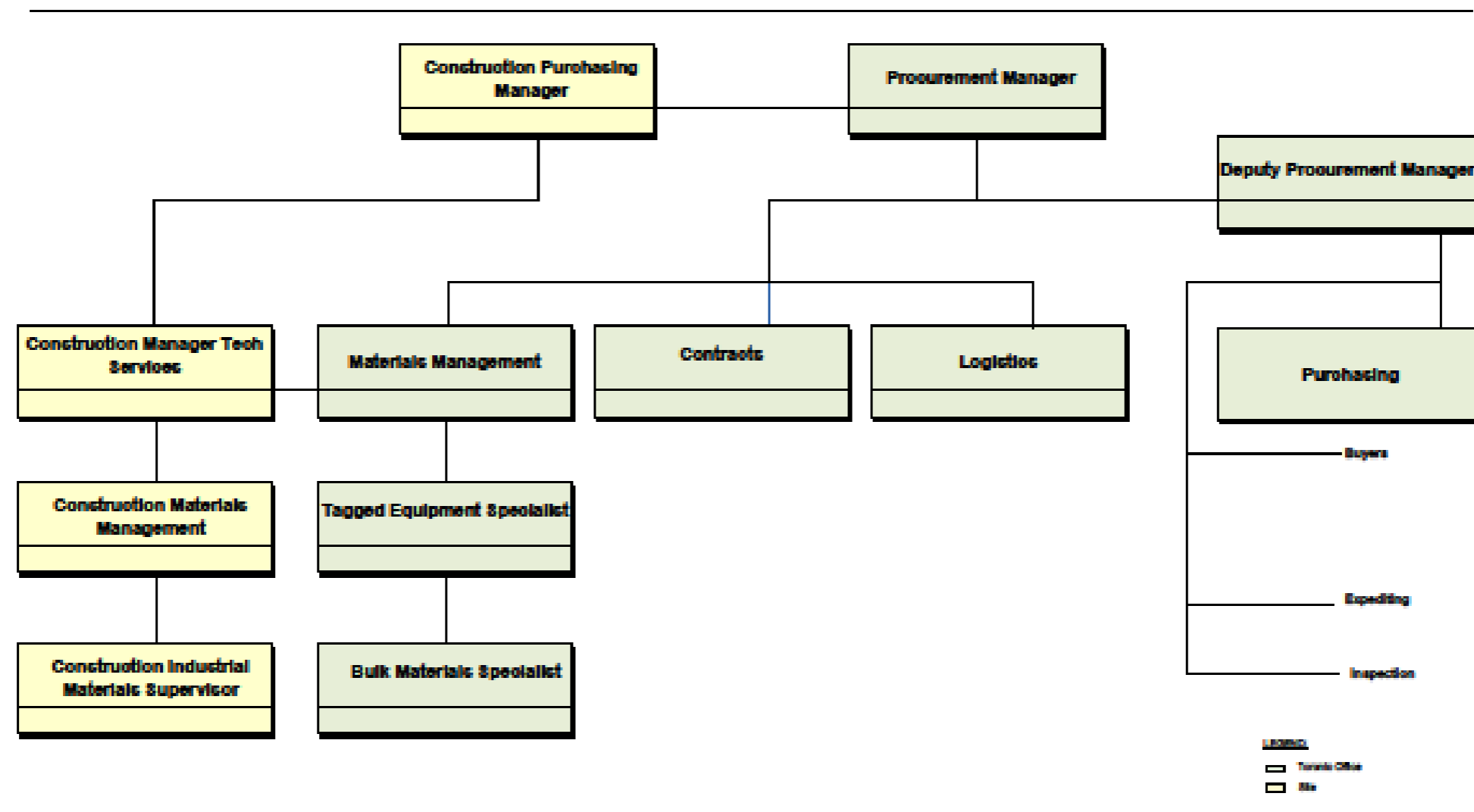
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Organization Chart



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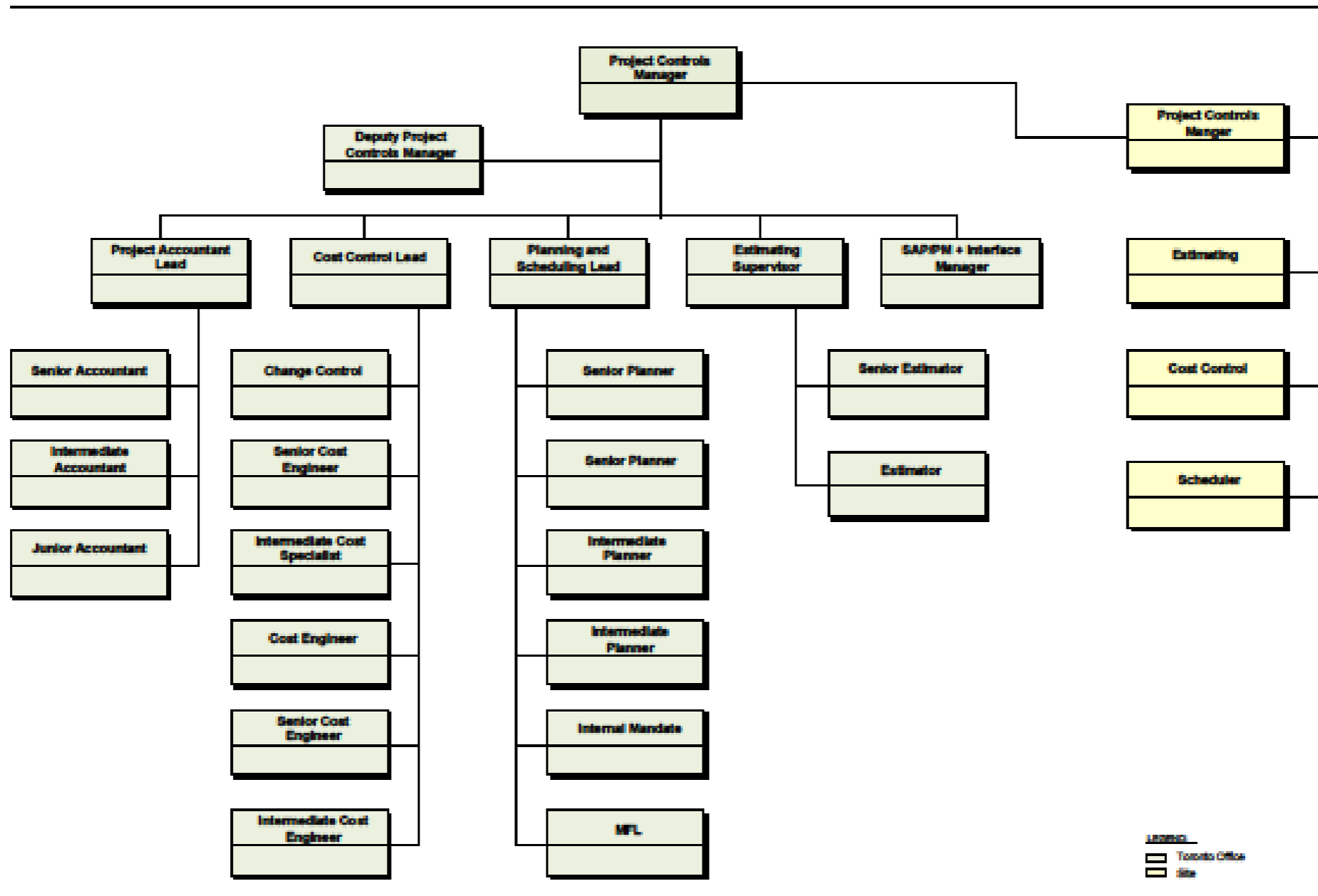
Organization Chart 3
JV Procurement Organization Chart



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Organization Chart 4

JV Project Controls Organization Chart

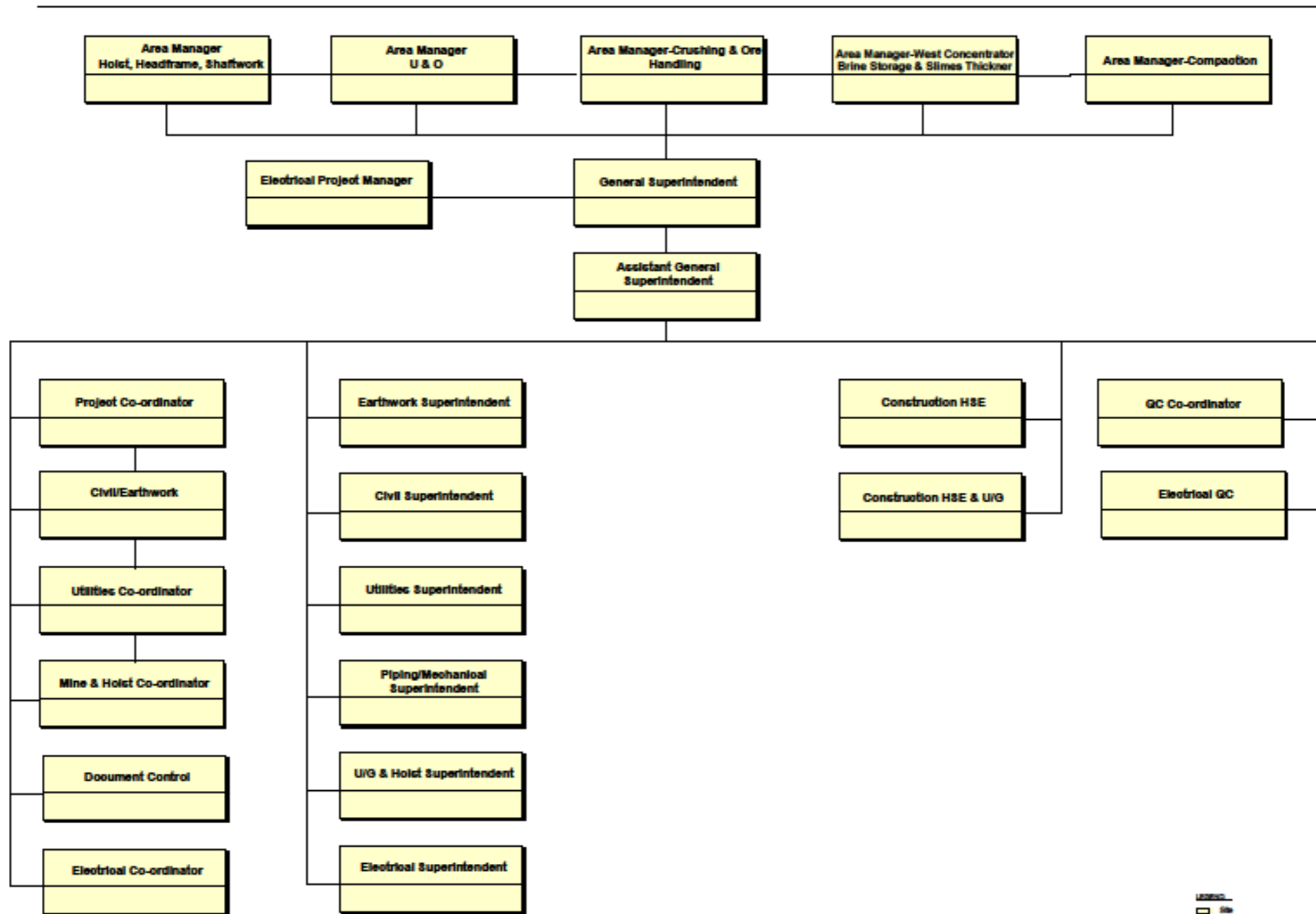


Legend
 [Green Box] Toronto Office
 [Yellow Box] Site

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Organization Chart 5

JV Site Office Organization Chart

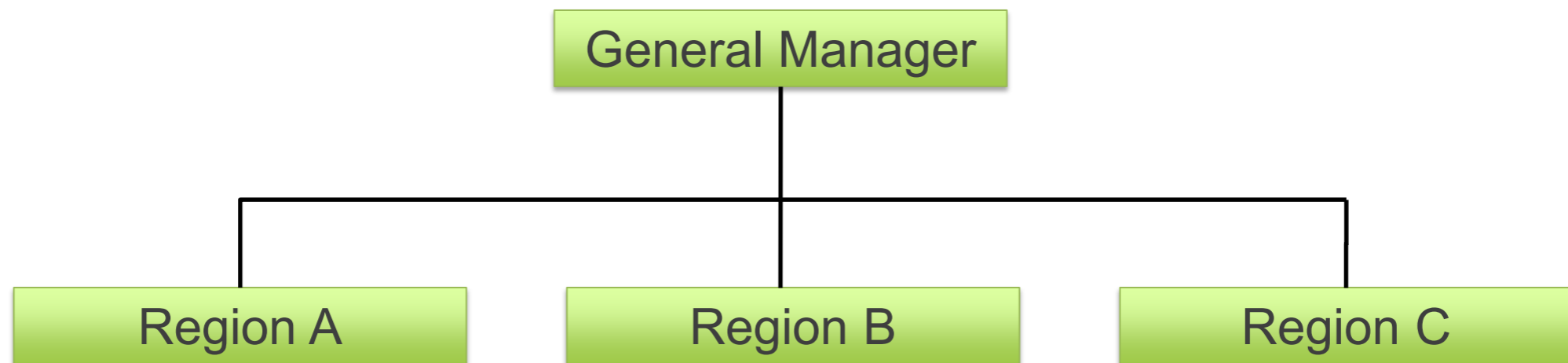


LEGEND
□ Site

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Territorial Organization

- Divides organization on the basis of territory.
- Not feasible for small organizations with local works only.



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Territorial Organization: Advantages and Disadvantages

Advantages

- Particularly advantageous if adjustments to local conditions required.
- Can encourage regional managers.

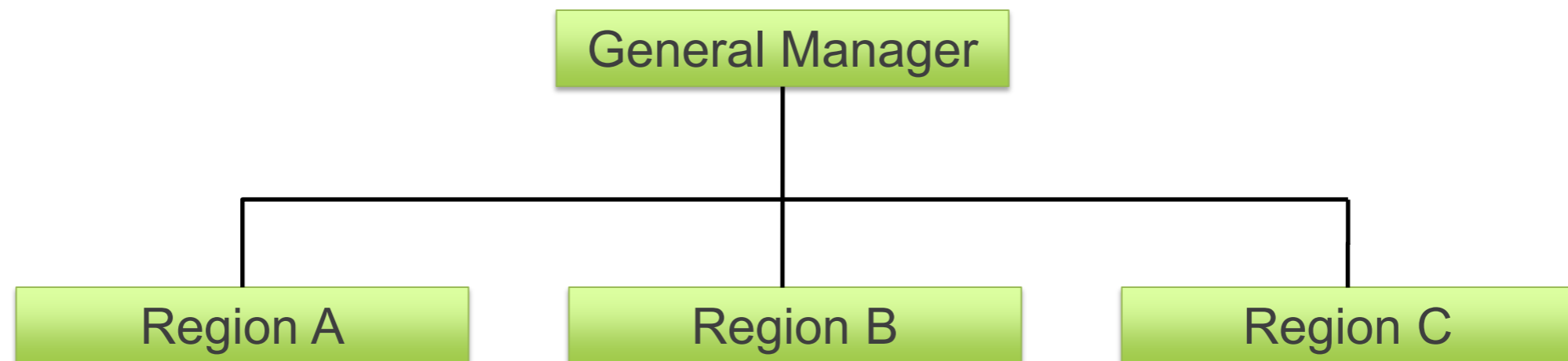
Disadvantages

- Can be expensive if volume of work is not large.

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Client Centered Organization

- Divides organization so that each unit serves a different client.
- Not feasible for organizations with no long term clients.



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Client Centered Organization: Advantages and Disadvantages

Advantages

- Particularly advantageous if each client requires different services and requirements.

Disadvantages

- Only feasible for long term clients with large volume of work.

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PERFORMANCE CRITERIA	PROJECT	MATRIX	FUNCTIONAL
Achievement of Due Dates	Very Good	Poor	Poor
Technical Qualities	Poor	Good	Very Good
Resource Utilization	Poor	Good	Very Good
Cost Control	Very Good	Good	Poor
Job Satisfaction: Specialists	Poor	Good	Very Good
Non-Specialists	Very Good	Good	Poor
Client Feedback and Control	Very Good	Good	Poor
Technical Development of Organization:			
Uni-disciplinary	Poor	Good	Very Good
Multi-disciplinary	Very Good	Good	Poor
Conflicts	Low	High	Low