ADVANCED PROJECT MANAGEMENT CONCEPTS

Course Material

In today's environment, certainty of change is without precedent. In recent years, there has been a growing interest in the use of projects as building blocks in the strategic management of the enterprise. Project, Program, and Portfolio Management is the principal means by which operational and strategic changes are managed in today's organizations.

This course places organizational project management in the context of the design and execution of organizational strategies and will show how to use projects, programs, and portfolios for the management of product, service, and organizational process change to prepare the organization for its future.

The course will also discuss the importance of the project/program/portfolio office and its strategic and tactical role within the organization. Project governance will also be discussed.

The goal of this course is to learn concepts and techniques that will prepare individuals and the enterprise to use project/program/portfolio management as a strategic framework to achieve the mission of the organization.

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Course Agenda

Day 1	Day2
8:30 – 9:00 Personal Introductions	8:30 - 9:00 Review
9:00 - 10:15 Organizational Proj Management	9:00 - 10:15 Portf Mgt – Framework for Gov
10:15 - 10:30 BREAK	10:15 - 10:30 BREAK
10:30 - 12:00 Organizational Proj Management	10:30 - 12:00 Portf Mgt – Framework for Gov
12:00 - 1:00 LUNCH	12:00 - 1:00 LUNCH
1:00 - 2:15 Prog Mgt – Improving Busn Results	1:00 - 2:15 The PMO
2:15 - 2:30 BREAK	2:15 - 2:30 BREAK
2:30 - 4:00 Prog Mgt – Improving Busn Results	2:30 - 3:30 The PMO
	3:30 - 4:00 Exam and Evaluation

Lesson 1: Introduction – Organizational Project Management

Topic 1: What is Organizational Project Management?

Topic 2: Project Linkages to Strategic Management

Topic 3: Relationships between Portfolio, Program, and Project Management

Topic 4: Organizational Issues and Project Management

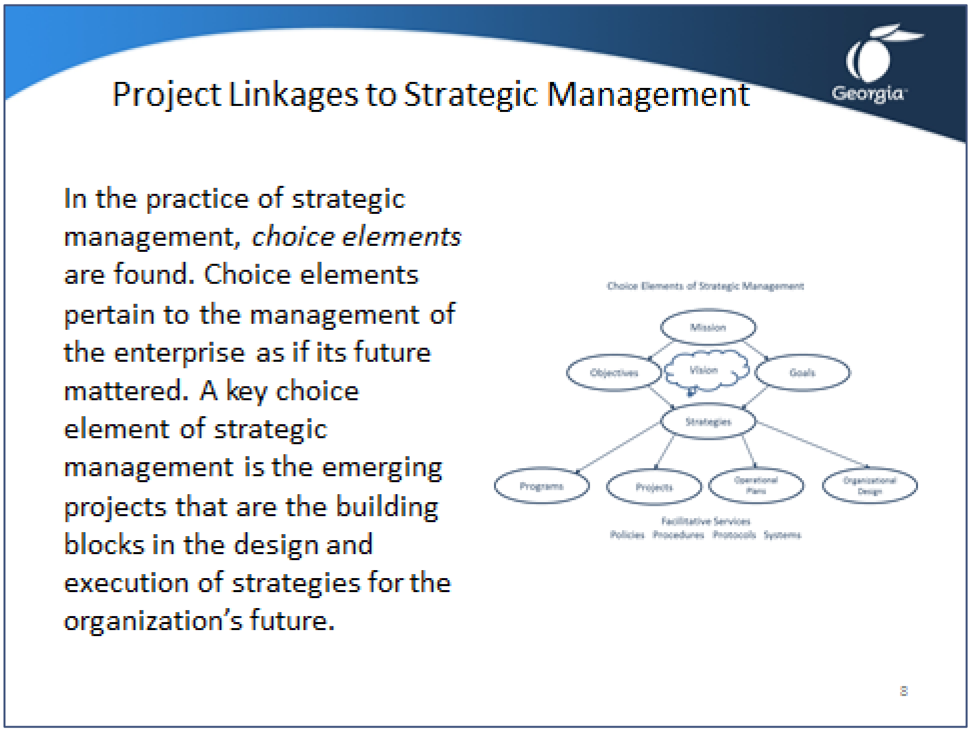
Student Learning Objectives

After completing this lesson you should be able to

- Understand the framework for Organizational Project Management (OPM)
- Understand the relationships between projects, programs, and portfolios
- Understand the implications of strategic plans to organizational project management
- Understand the organizational issues to implementing successful project management

Approximate Presentation time: 2 hours 45 minutes

Topic 1: Project Linkages to Strategic Management



One of the areas of management this course will address is the strategic context in which projects are found in the organization. In the practice of strategic management, *choice elements* are found. Choice elements pertain to the management of the enterprise as if its future mattered. A key choice element of strategic management is the emerging projects that are the building blocks in the design and execution of strategies for the organization's future. In the management of an enterprise as if its future mattered, nine key choice elements are involved and discussed below.

Vision: a mental image of what could be anticipated for the enterprise's future.

> AT&T – "*AT&T is successfully transforming itself from a domestic long distance company to an any-distance, any-service global company.*"

Mission: The mission answers the basic question, what business are we in?

> Boeing: "to be the number one aerospace company in the world, and among the premier industrial firms, as measured by quality, profitability, and growth."

Objective: a statement of the ongoing purpose in the enterprise that must be carried out to support the mission. Objectives directly support the mission. Thus a failure to maintain an organizational objective can put the mission in jeopardy.

> "*Achieve a compounded earnings growth rate of 1 percent and a 20 percent return on capital*."

Goal: a specific achievement in the satisfaction of enterprise objectives. A goal has a specific time element.

> "*We intend, by the end of 2010, to complete the construction of a new manufacturing facility…*"

Further distinction between an objective and a goal; an objective is an aspiration to be working toward on a continuous basis; a goal is an achievement to be realized in future times.

- *Time frame*: An objective is timeless and unending; a goal is time-based and intended to be overrun by subsequent goals.
- *Specificity*: Objectives are generally stated in general terms, whereas goals are much more specific and stated in terms of a particular result at a specific time point. Goals are milestones.
- *Focus*: Objectives are usually stated in terms of some ongoing achievement in a relevant external environment, whereas goals are internally focused, whose achievement can be measured by a selected date.
- *Measurement*: Both objectives and goals can be stated and measured in quantitative or qualitative terms.
- *Organizational goals and projects are linked*: The successful completion of a project means that an organizational goal has been achieved, which in turn means that progress has been made toward the realization of the enterprise's objectives and mission.

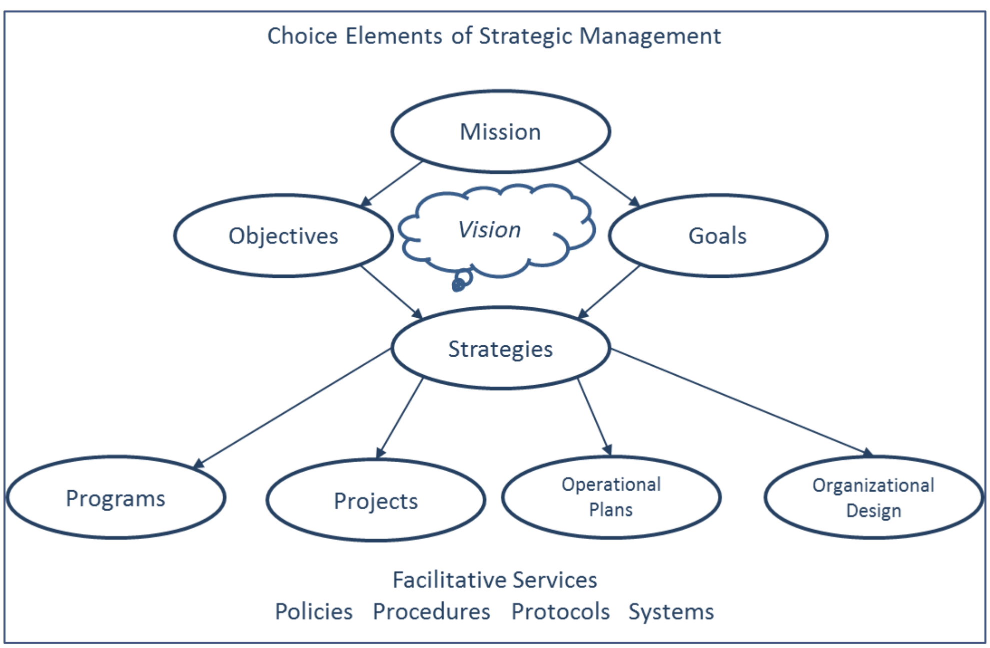
Strategy: the design of the means, through the use of resources, to accomplish end purposes. Strategies also include action plans for the acquisition and use of those resources.

Programs: resource-consuming combinations of organizational resources, which have a common purpose in supporting the enterprise's purposes.

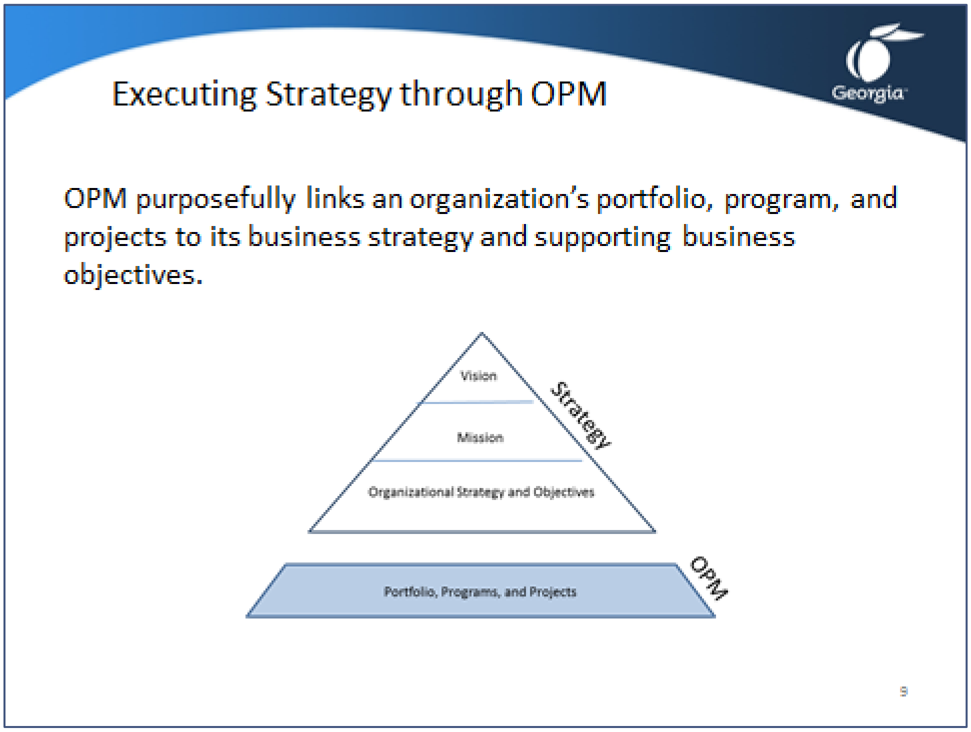
Projects: ad hoc, resource-consuming activities used to implement organizational strategies, achieve enterprise goals and objectives, and contribute to the realization of the enterprises mission.

Operational Plans: documents developed to guide the organization in a consistent fashion toward meeting its mission, objectives, and goals through designated strategies. These plans form the overarching policies, procedures, and practices for when and how program and project work will be accomplished.

Organizational Design: the organizational structure that facilitates performing the work.



Topic 1: Project Linkages to Strategic Management



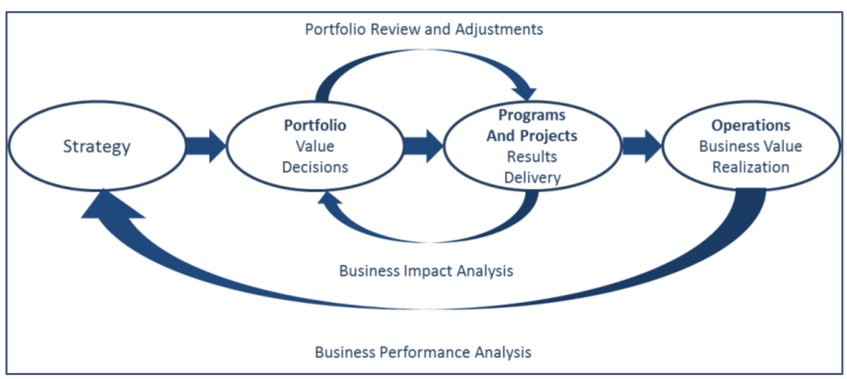
Organizational strategy is the result of the strategic planning cycle, where the vision and mission are translated into a strategic plan. The strategic plan is then subdivided into a set of initiatives. These initiatives establish strategic and operational portfolios for execution in the planned period.

The diagram depicts the concept of organizational project management as it correlates an organization's capabilities in portfolio management and its effectiveness in implementing strategy, vision, and mission. OPM purposefully links an organization's portfolio, program, and projects to its business strategy and supporting business objectives.

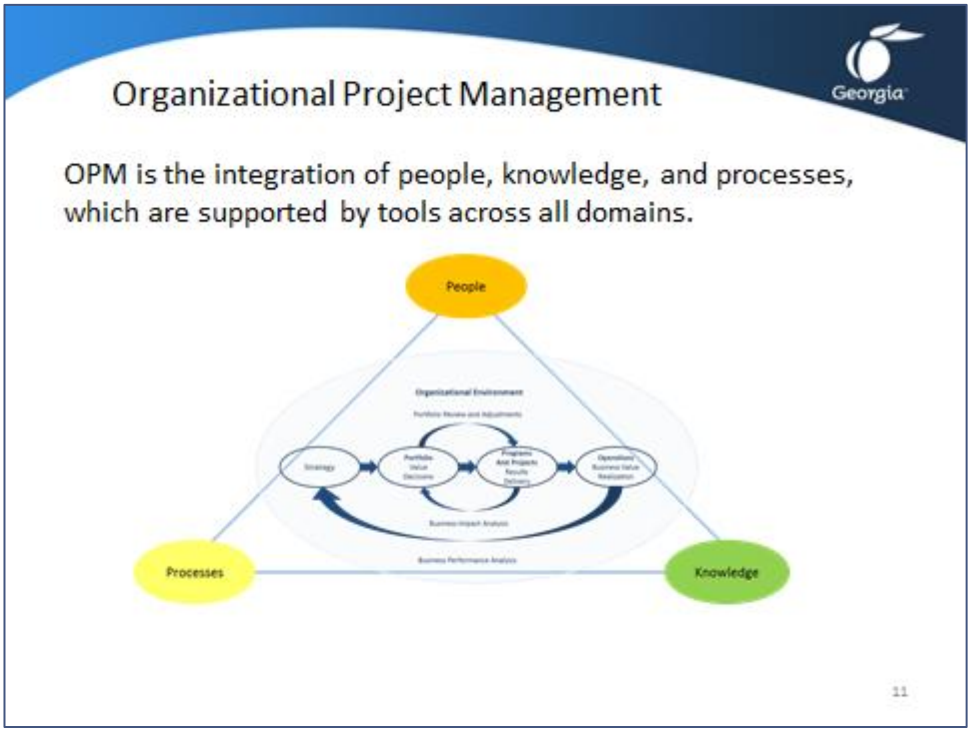
Topic 2: What is Organizational Project Management?

Organizational project management (OPM) is a strategy execution framework that utilizes portfolio, program, and project management as well as organizational-enabling practices to consistently deliver organizational strategy to produce better performance and better results.

Driven from strategy, OPM ensures that the portfolio aligns the set of programs and/or projects that yield the appropriate value decisions and benefits for the organization. Portfolio reviews occur on a regular basis, adjusted as conditions or strategy change. An analysis of the business impacts on the portfolio guides the portfolio review and is adjusted as needed to deliver results or when other work makes it necessary to revise. These results directly link to business value realization. Feedback from value performance analysis influences the strategy of the organization.

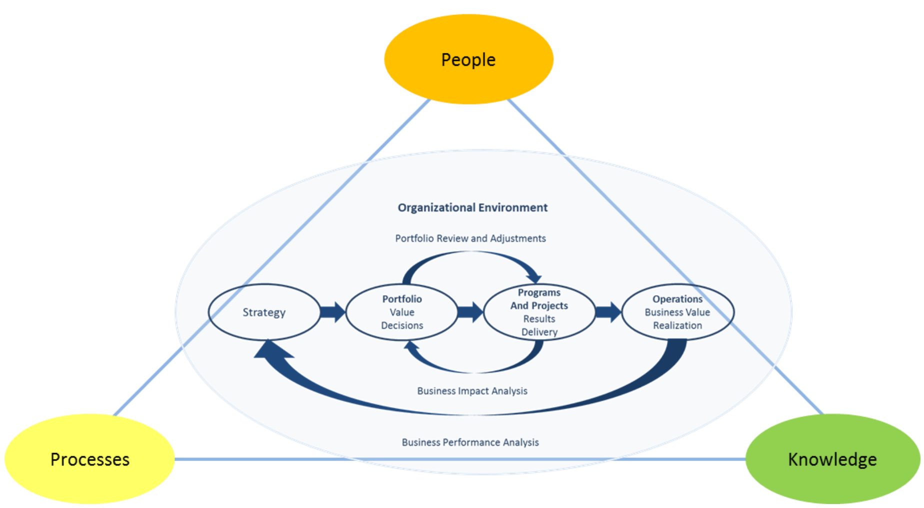


Topic 2: What is Organizational Project Management?

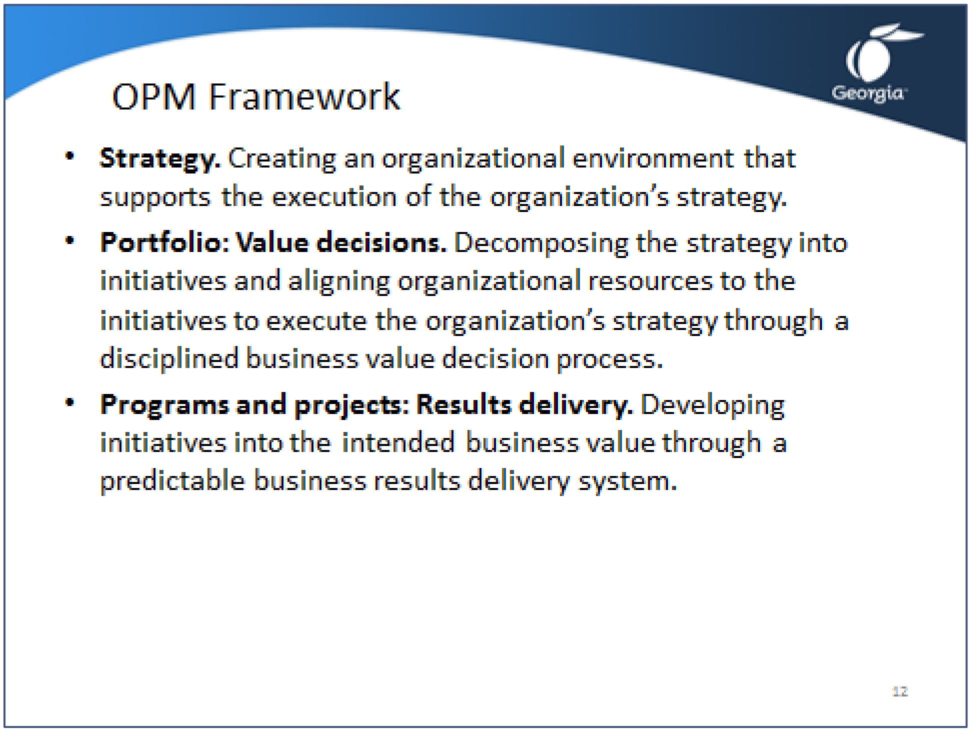


Organizational project management (OPM) is the integration of people, knowledge, and processes, which are supported by tools across all domains. Looking at the description more closely, the word “integration” is used because PM is the appropriate balance of knowledge, processes, people, and supporting tools.

The following diagram depicts a systematic approach across all domains of organizational project management encompasses items discussed on the following pages.



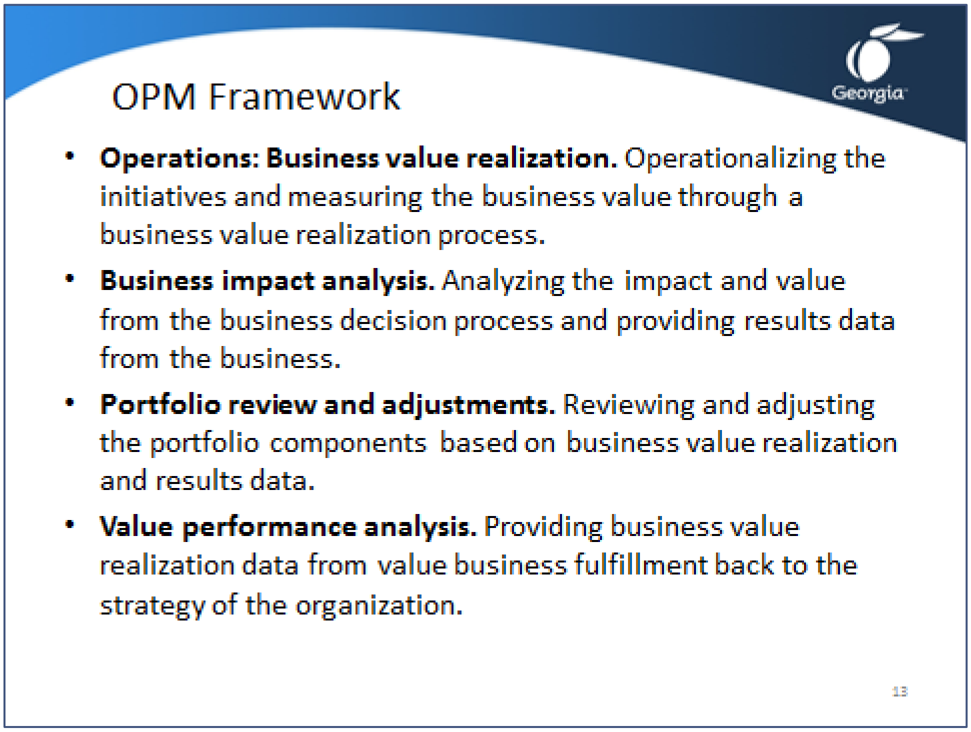
Topic 2: What is Organizational Project Management?



OPM Framework

- **Strategy.** Creating an organizational environment that supports the execution of the organization's strategy.
- **Portfolio: Value decisions.** Decomposing the strategy into initiatives and aligning organizational resources to the initiatives to execute the organization's strategy through a disciplined business value decision process.
- **Programs and projects: Results delivery.** Developing initiatives into the intended business value through a predictable business results delivery system.

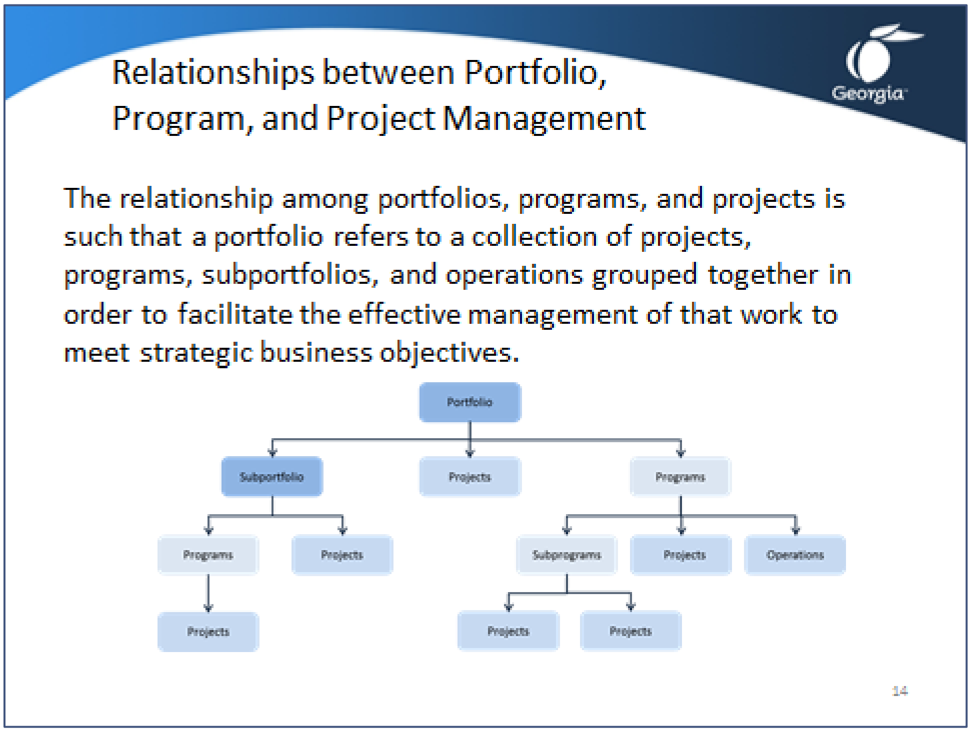
Topic 2: What is Organizational Project Management?



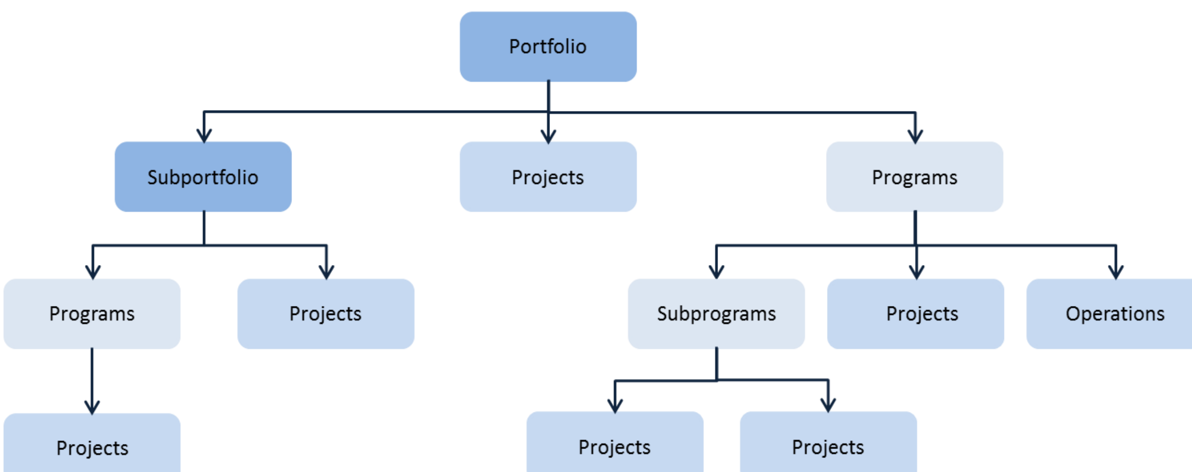
OPM Framework…continued

- **Operations: Business value realization.** Operationalizing the initiatives and measuring the business value through a business value realization process.
- **Business impact analysis.** Analyzing the impact and value from the business decision process and providing results data from the business.
- **Portfolio review and adjustments.** Reviewing and adjusting the portfolio components based on business value realization and results data.
- **Value performance analysis.** Providing business value realization data from value business fulfillment back to the strategy of the organization.

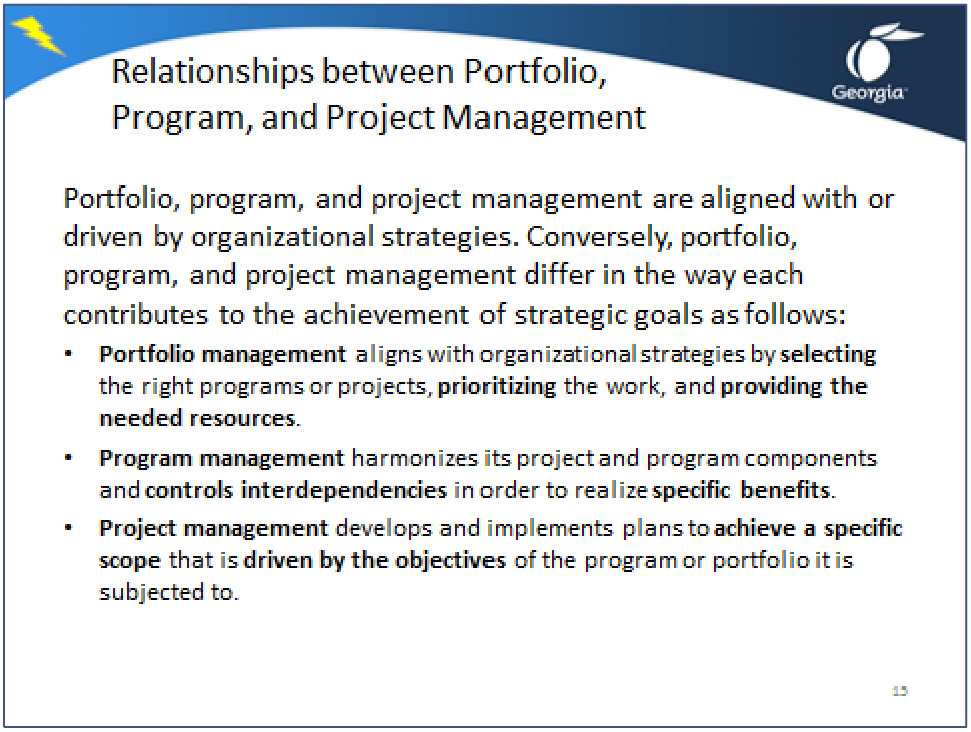
Topic 3: Relationships between Portfolio, Program, and Project Management



The relationship among portfolios, programs, and projects is such that a portfolio refers to a collection of projects, programs, subportfolios, and operations grouped together in order to facilitate the effective management of that work to meet strategic business objectives.



Topic 3: Relationships between Portfolio, Program, and Project Management



In order to understand portfolio, program, and project management, it is important to recognize the similarities and differences among these disciplines.

Portfolio, program, and project management are aligned with or driven by organizational strategies. Conversely, portfolio, program, and project management differ in the way each contributes to the achievement of strategic goals as follows:

- **Portfolio management** aligns with organizational strategies by **selecting** the right programs or projects, **prioritizing** the work, and **providing the needed resources**.
- **Program management** harmonizes its project and program components and **controls interdependencies** in order to realize **specific benefits**.
- **Project management** develops and implements plans to **achieve a specific scope** that is **driven by the objectives** of the program or portfolio it is subjected to.

The table on the following page shows a comparison of portfolio, program, and project views across several dimensions within the organization.

Organizational Project Management			
	Projects	**Programs**	**Portfolios**
Scope	Projects have defined objectives. Scope is progressively elaborated throughout the project life cycle.	Programs have a larger scope and provide more significant benefits.	Portfolios have an organizational scope that changes with the strategic objectives of the organization.
Change	Project managers expect change and implement processes to keep change managed and controlled.	Program managers expect change from both inside and outside the program and are prepared to manage it.	Portfolio managers continuously monitor changes in the broader internal and external environment.
Planning	Project managers progressively elaborate high-level information into detailed plans throughout the project life cycle.	Program managers develop the overall program plan and create high-level plans to guide detailed planning at the component level.	Portfolio managers create and maintain necessary processes and communication relative to the aggregate portfolio.
Management	Project managers manage the project team to meet the project objectives.	Program managers manage the program staff and the project managers; they provide vision and overall leadership.	Portfolio managers may manage or coordinate portfolio management staff, or program and project staff that may have reporting responsibilities into the aggregate portfolio.
Success	Success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction.	Success is measured by the degree to which the program satisfies the needs and benefits for which it was undertaken.	Success is measured in terms of the aggregate investment performance and benefit realization of the portfolio.
Monitoring	Project managers monitor and control the work of producing the products, services, or results that the project was undertaken to produce.	Program managers monitor the progress of program components to ensure the overall goals, schedules, budget, and benefits of the program wil be met.	Portfolio managers monitor strategic changes and aggregate resource allocation, performance results and risk of the portfolio.

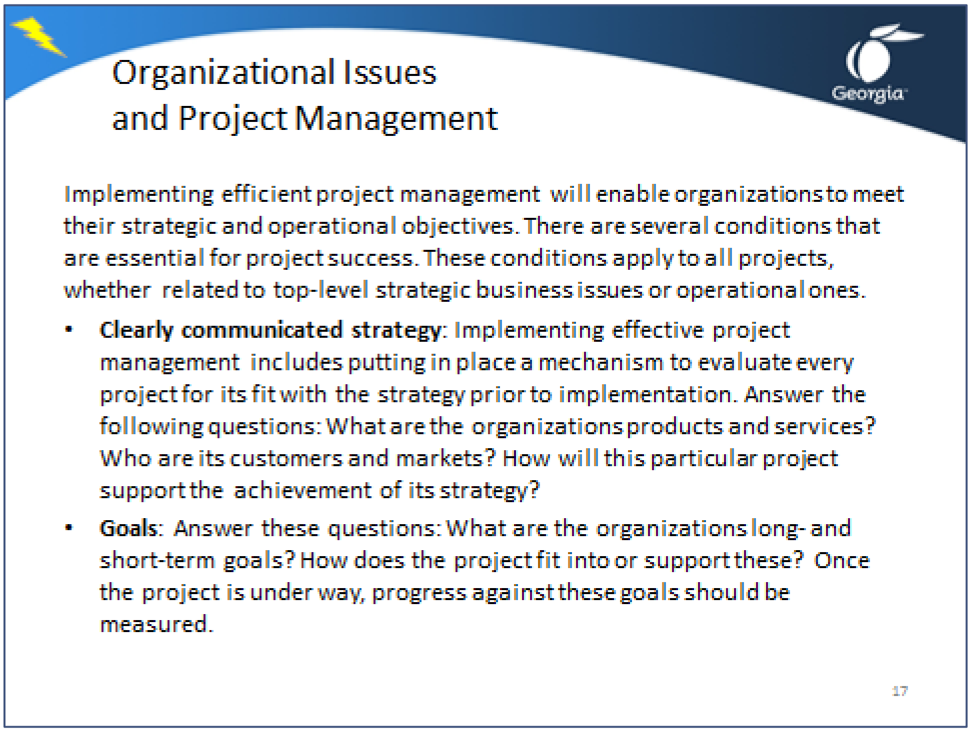
Exercise 1.1: Organizational Project Management

Instructions:
Break into your teams and answer the following questions.

1. Discuss your organization's strategies and the relationship that exists between them and projects, programs, and portfolios?

2. Discuss how your organization could benefit from using organizational project management, or not.

Topic 4: Organizational Issues and Project Management

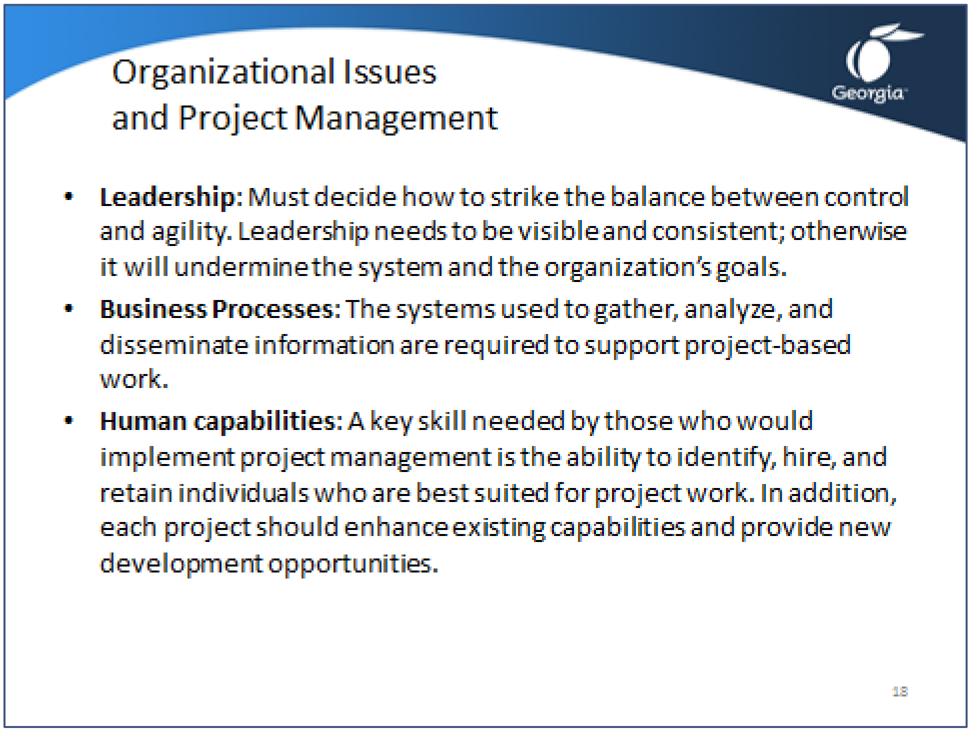


In traditional organizations, responsibility for determining and achieving the organization's goals is assigned to the operations function. Executives, with titles such as chief operations officer (COO), chief technology officer (CTO), chief information officer (CIO), chief financial officer (CFO), etc., establish objectives and goals and develop strategies to achieve them. Executives expect to select from proposed and pending projects to create the mix of projects most likely to support achievement of the organization's goals within the preferred strategies, organizational risk tolerance, and organizational resource (people and funding) constraints.

Implementing efficient project management will enable organizations to meet their strategic and operational objectives. There are several conditions that are essential for project success. These conditions apply to all projects, whether related to top-level strategic business issues or operational ones.

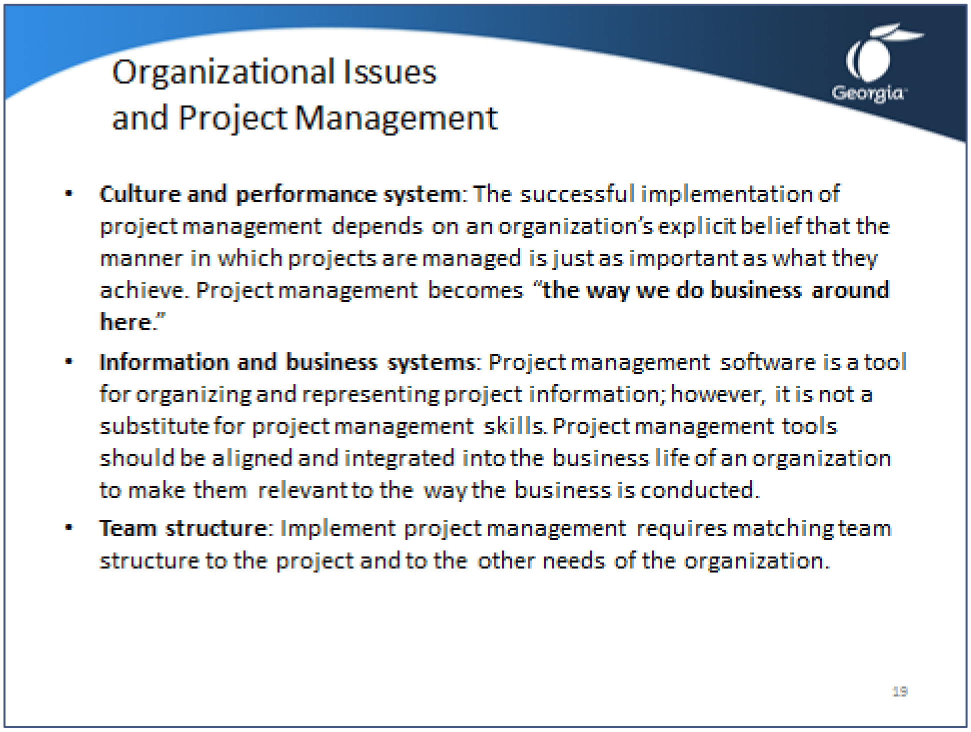
- **Clearly communicated strategy**: Implementing effective project management includes putting in place a mechanism to evaluate every project for its fit with the strategy prior to implementation. Answer the following questions: What are the organizations products and services? Who are its customers and markets? How will this particular project support the achievement of its strategy?
- **Goals**: Answer these questions: What are the organizations long- and short-term goals? How does the project fit into or support these? Once the project is under way, progress against these goals should be measured.

Topic 4: Organizational Issues and Project Management



- **Leadership**: Must decide how to strike the balance between control and agility. Leadership needs to be visible and consistent; otherwise it will undermine the system and the organization's goals.
- **Business Processes**: The systems used to gather, analyze, and disseminate information are required to support project-based work.
- **Human capabilities**: A key skill needed by those who would implement project management is the ability to identify, hire, and retain individuals who are best suited for project work. In addition, each project should enhance existing capabilities and provide new development opportunities.

Topic 4: Organizational Issues and Project Management



- **Culture and performance system**: The successful implementation of project management depends on an organization's explicit belief that the manner in which projects are managed is just as important as what they achieve. Project management becomes "**the way we do business around here**."
- **Information and business systems**: Project management software is a tool for organizing and representing project information; however, it is not a substitute for project management skills. Project management tools should be aligned and integrated into the business life of an organization to make them relevant to the way the business is conducted.
- **Team structure**: Implement project management requires matching team structure to the project and to the other needs of the organization.

Exercise 1.2: Organizational Issues and Project Management

Instructions:
Break into your teams and answer the following questions.

1. What organizational issue is most pressing in your organization, and why?

2. What actions do you think could be taken to resolve the issue in question 1?

Lesson 1 Summary: Learning Objectives Recap

- **Understand the framework for Organizational Project Management (OPM)**
  1. **Strategy.** Creating an organizational environment that supports the execution of the organization's strategy.
  2. **Portfolio: Value decisions.** Decomposing the strategy into initiatives and aligning organizational resources to the initiatives to execute the organization's strategy through a disciplined business value decision process.
  3. **Programs and projects: Results delivery.** Developing initiatives into the intended business value through a predictable business results delivery system.
  4. **Operations: Business value realization.** Operationalizing the initiatives and measuring the business value through a business value realization process.
  5. **Business impact analysis.** Analyzing the impact and value from the business decision process and providing results data from the business.
  6. **Portfolio review and adjustments.** Reviewing and adjusting the portfolio components based on business value realization and results data.
  7. **Value performance analysis.** Providing business value realization data from value business fulfillment back to the strategy of the organization.

- **Understand the relationships between projects, programs, and portfolios**
  Portfolio, program, and project management are aligned with or driven by organizational strategies. Conversely, portfolio, program, and project management differ in the way each contributes to the achievement of strategic goals as follows:
  1. **Portfolio management** aligns with organizational strategies by **selecting** the right programs or projects, **prioritizing** the work, and **providing the needed resources**.
  2. **Program management** harmonizes its project and program components and **controls interdependencies** in order to realize **specific benefits**.
  3. **Project management** develops and implements plans to **achieve a specific scope** that is **driven by the objectives** of the program or portfolio it is subjected to.

- **Understand the implications of strategic plans to organizational project management**
  Organizational strategy is the result of the strategic planning cycle, where the vision and mission are translated into a strategic plan. The strategic plan is then subdivided into a set of initiatives. These initiatives establish strategic and operational portfolios for execution in the planned period.

- **Understand the organizational issues to implementing successful project management**
    - Clearly communicated strategy
    - Goals
    - Leadership
    - Business Processes
    - Human capabilities
    - Culture and performance system
    - Information and business systems
    - Team structure

Notes

Lesson 2: Program Management – Improving Business Results

Topic 1: Defining Program Management

Topic 2: Program Characteristics

Topic 3: Differences between Programs and Projects

Topic 4: Differences between Programs and Portfolios

Topic 5: Project or Program?

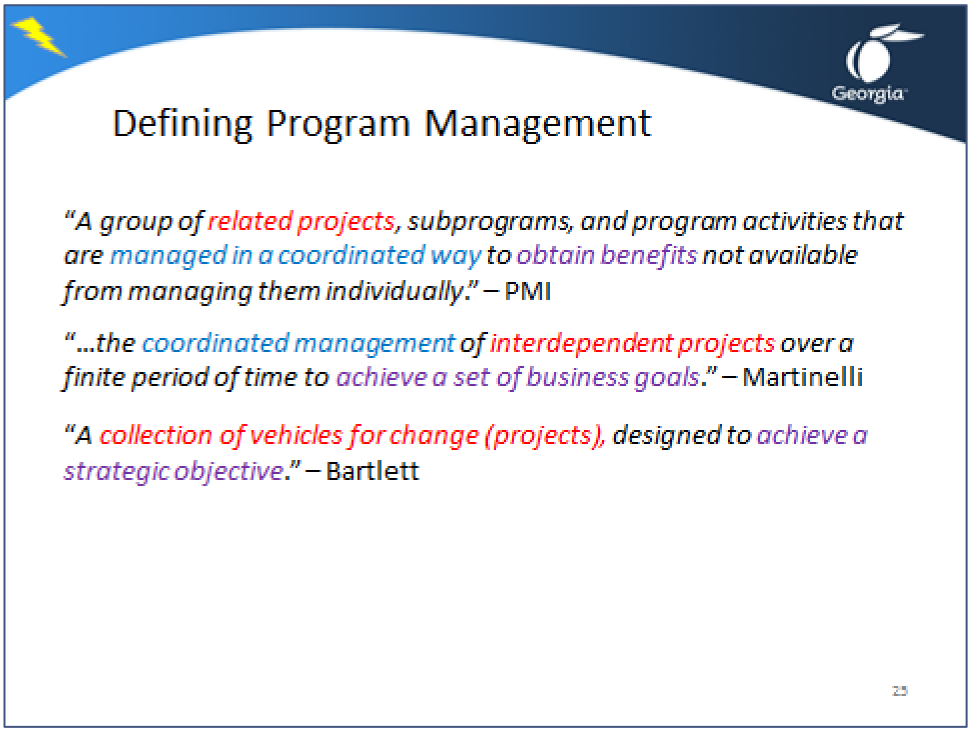
Student Learning Objectives

After completing this lesson you should be able to

- Understand the characteristics of a program
- Understand the differences between projects and programs

Approximate Presentation time: 2 hours 45 minutes

Topic 1: Defining Program Management



There are multiple definitions today for a program and program management. The most common ones are cited below:

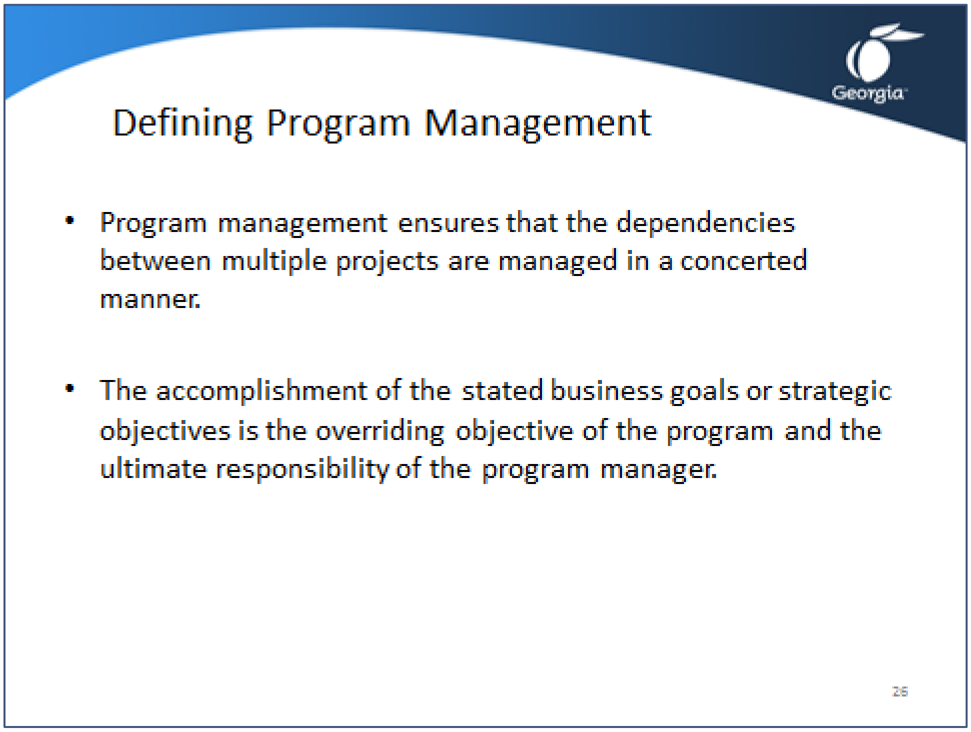
"A group of related projects, subprograms, and program activities that are managed in a coordinated way to obtain benefits not available from managing them individually." – PMI

"…the coordinated management of interdependent projects over a finite period of time to achieve a set of business goals." – Martinelli

"A collection of vehicles for change (projects), designed to achieve a strategic objective." - Bartlett

From the definitions above you can find some key words that help us gain a better understanding of what a program is. These key words are **coordinated management**, **related/interdependent**, **collection/group**, **benefits/goals/strategic objective**.

Topic 1: Defining Program Management

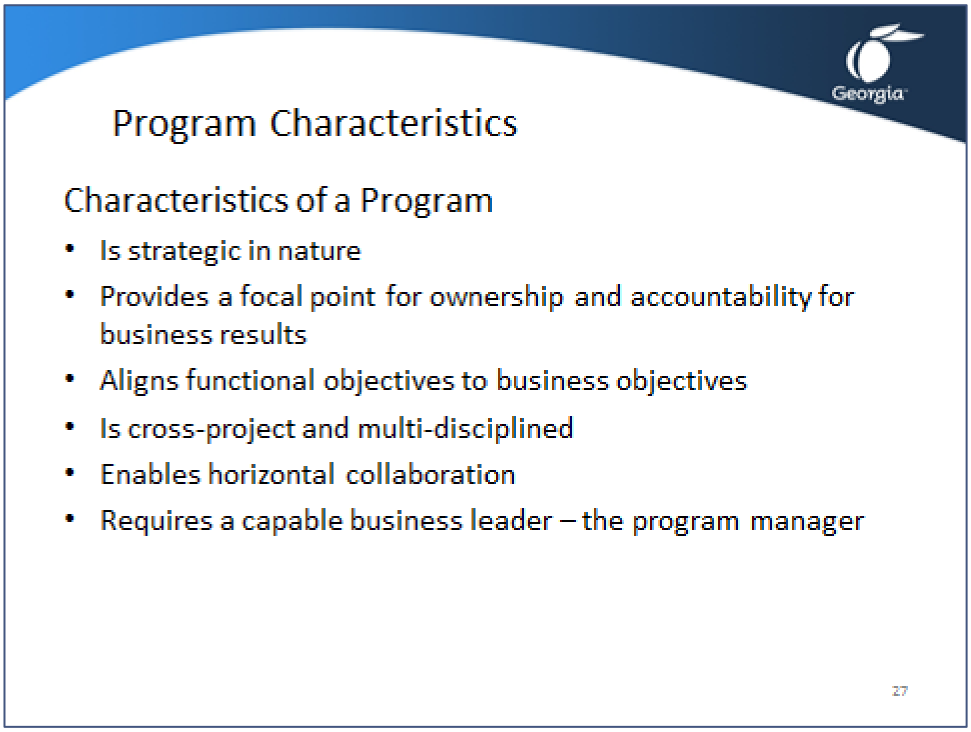


As the term implies, interdependent/related projects are those that have a mutual dependence on the output of other projects to achieve success. This interdependency comes in the form of deliverables that are tangible outputs from one project team that become the input to another project team or teams.

Program management ensures that the dependencies between multiple projects are managed in a concerted manner.

The accomplishment of the stated business goals or strategic objectives is the overriding objective of the program and the ultimate responsibility of the program manager.

Topic 2: Program Characteristics

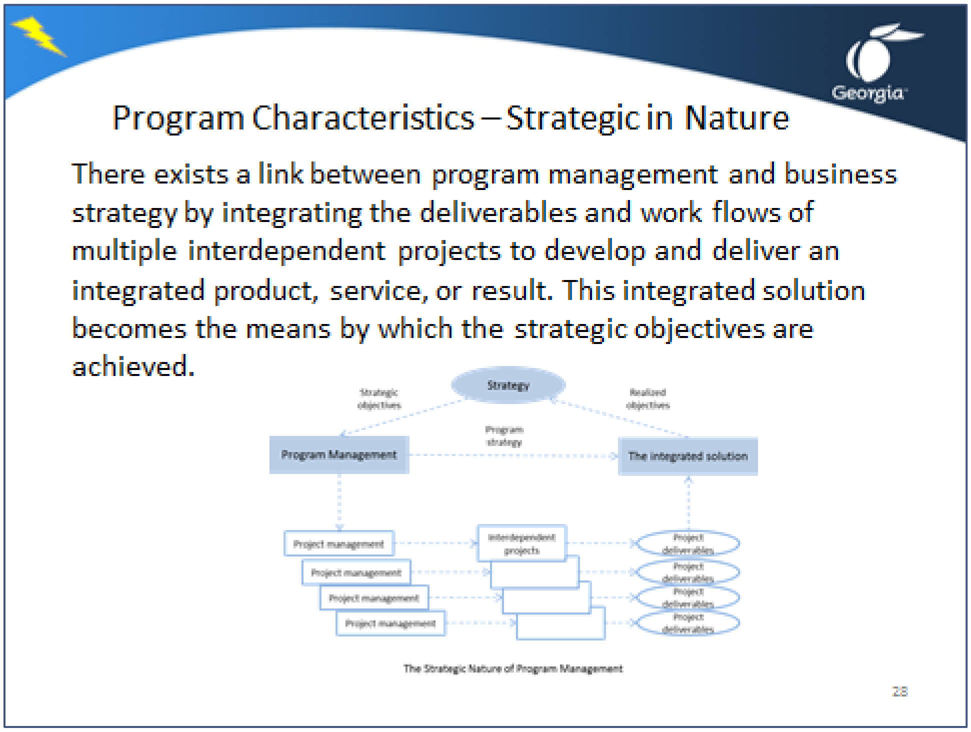


This topic will discuss the six characteristics, or pillars, of program management that help describe the true nature of program management as a unique business function.

Program management:

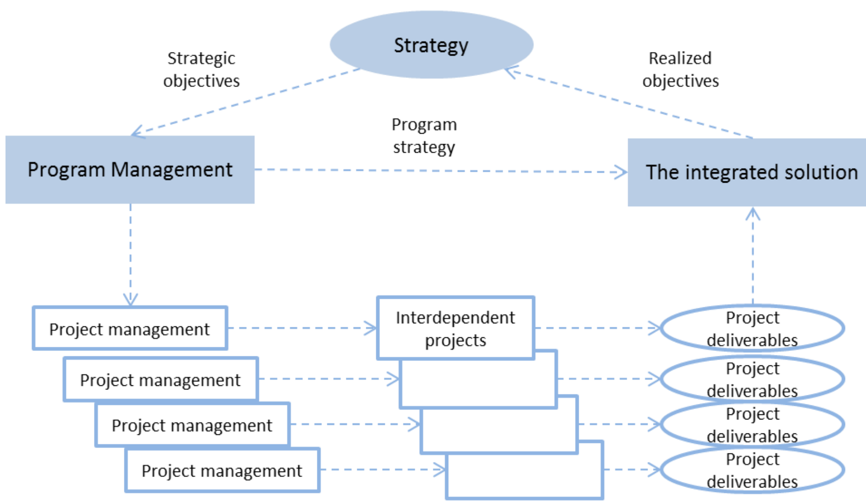
1. Is strategic in nature
2. Provides a focal point for ownership and accountability for business results
3. Aligns functional objectives to business objectives
4. Is cross-project and multi-disciplined
5. Enables horizontal collaboration
6. Requires a capable business leader – the program manager

Topic 2: Program Characteristics



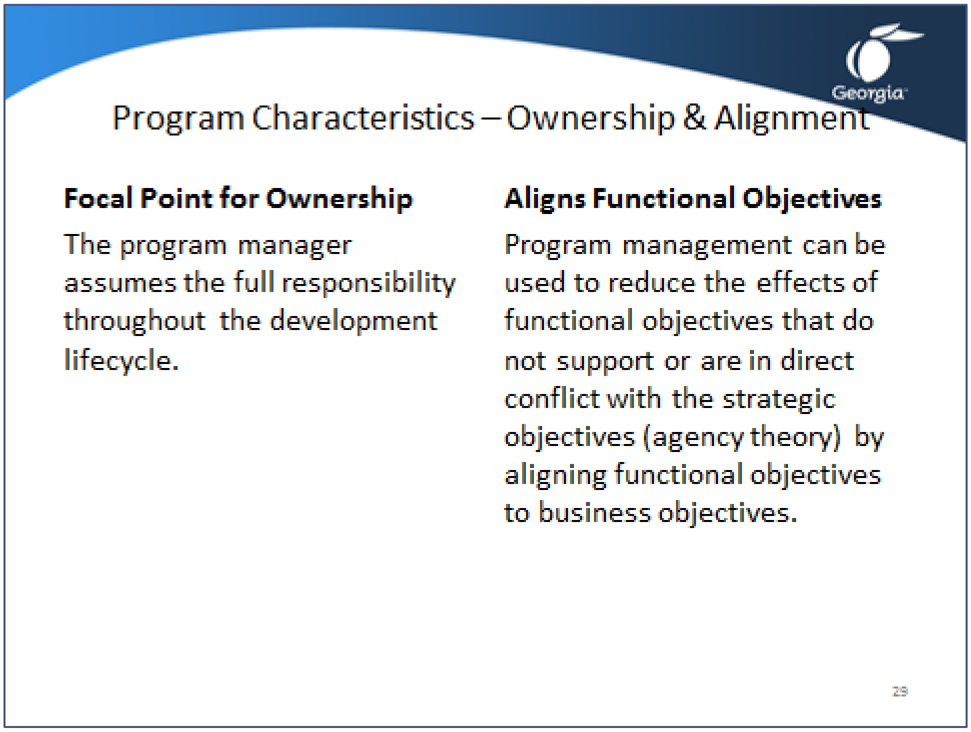
Program Management is Strategic in Nature

The program management discipline helps to ensure that a program is closely aligned to, and directly supports, the achievement of a business's strategic objectives. In effect, it is used to direct the activities involved in the implementation of strategy. The accompanying figure illustrates the link between program management and business strategy by integrating the deliverables and work flows of multiple interdependent projects to develop and deliver an integrated product, service, or result. This integrated solution becomes the means by which the strategic objectives are achieved.



The Strategic Nature of Program Management

Topic 2: Program Characteristics



Program Management Provides a Focal Point for Ownership and Accountability

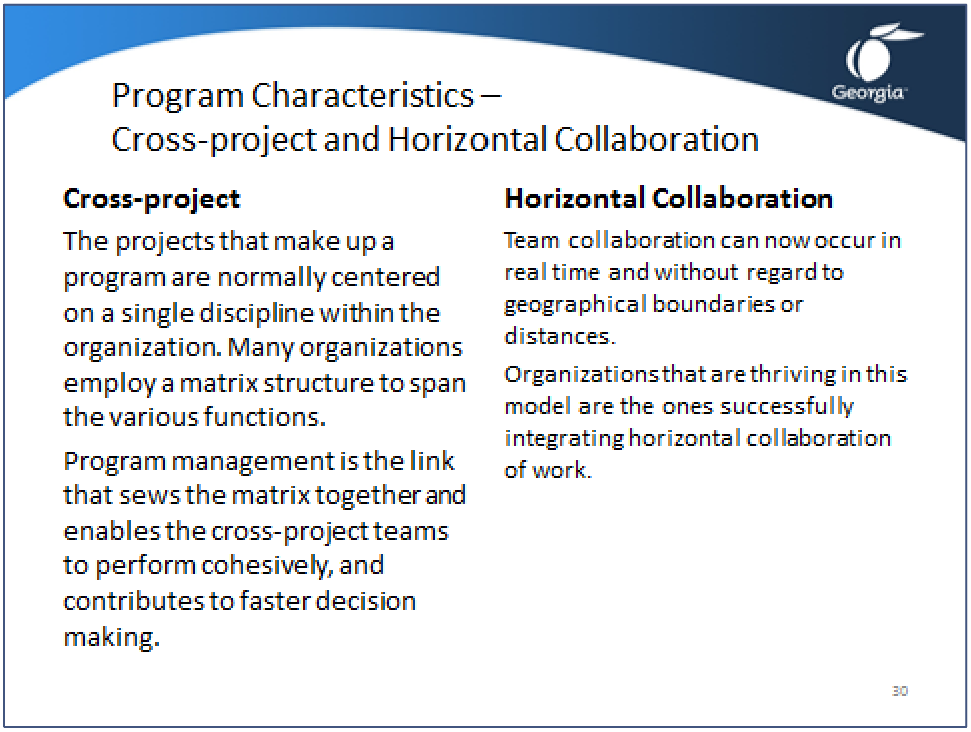
With a program management model, there is no debate or subjectivity about who owns and is accountable for the business success or failure of the program; the program manager assumes the full responsibility throughout the development lifecycle.

Program Management Aligns Functional Objectives to Business Objectives

Each functional unit within an organization normally has a set of objectives as an organization. But what happens if these functional objectives do not support or are in direct conflict with the strategic objectives of the business? This dilemma is known as **agency theory**. Agency theory occurs when functional managers design objectives that provide the greatest benefit for their organization but consider the strategic objectives of the business secondary.

Program management can be used to reduce the effects of agency theory by aligning functional objectives to business objectives – remembering that products, services, or results are the *means* to achieve business objectives.

Topic 2: Program Characteristics



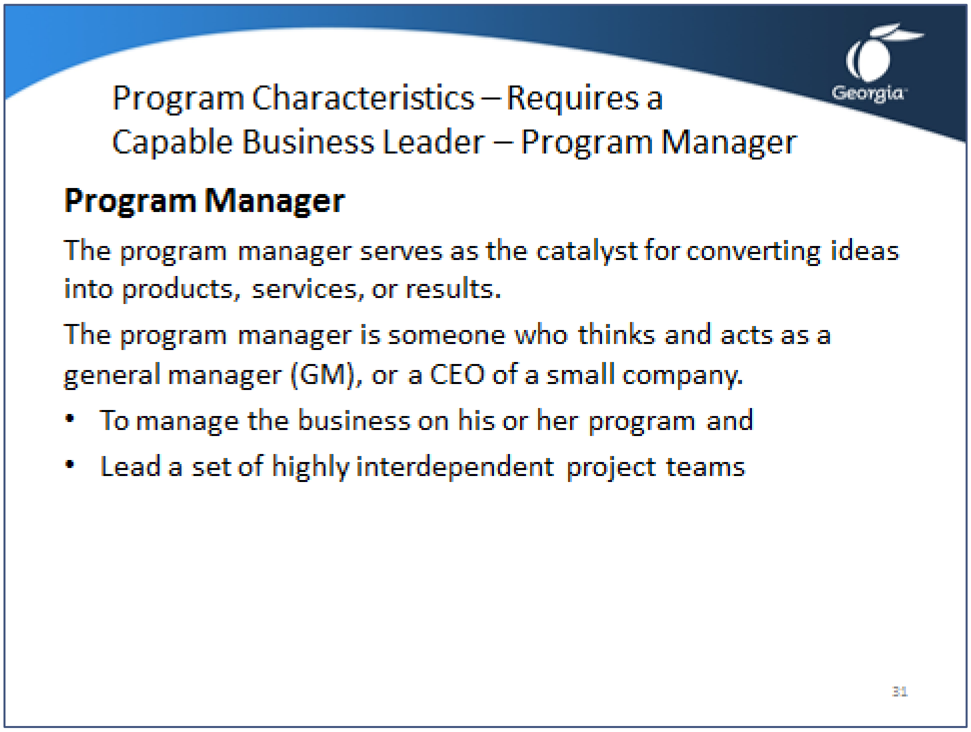
Program Management is Cross-project and Multi-disciplined

The projects that make up a program are normally centered on a single discipline within the organization, such as software development, customer support, and process development. To reconcile the cross-project, multi-discipline nature of programs, many organizations employ a matrix structure to span the various functions needed to effectively develop a product, service, or result. Program management is the link that sews the matrix together and enables the cross-project teams to perform cohesively. Program management will contribute to faster decision making and improved productivity.

Program Management Enables Horizontal Collaboration

Team collaboration can now occur in real time and without regard to geographical boundaries or distances. Organizations that are thriving in this model are the ones successfully integrating horizontal collaboration of work. A key learning is that program management is an effective business model for managing the horizontal collaboration, and for integrating the output of specialized knowledge workers into total solutions.

Topic 2: Program Characteristics



Program Management Requires a Capable Business Leader – The Program Manager

The program manager serves as the catalyst for converting ideas into products, services, or results that, when delivered or implemented, become the means to achieve a set of business objectives.

The program manager is someone who thinks and acts as a general manager (GM), or a CEO of a small company. In doing so, the program manager has two roles, as follows:

- To manage the business on his or her program and
- Lead a set of highly interdependent project teams throughout all phases of the program life cycle.

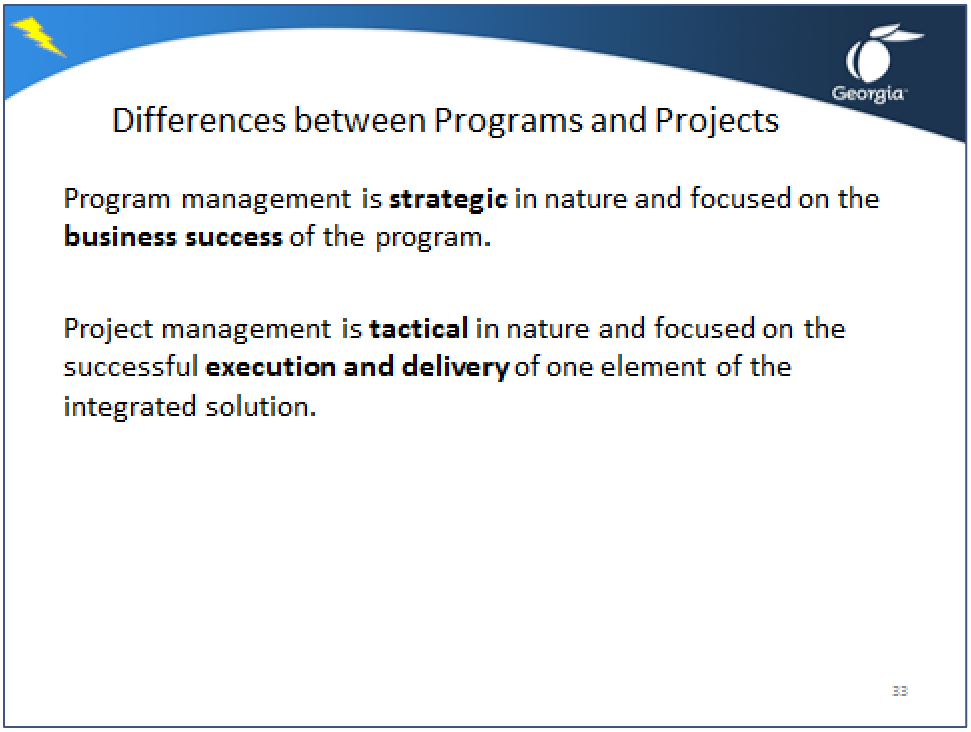
This role requires a unique set of core competencies, skills, and personality traits in the areas of business and financial, customer, leadership, and process and project management acumen.

Exercise 2.1: Understanding Program Characteristics

Instructions:
Review the terms in the table below and match each term to its definition.

	?	Term	Definition
1.		Program Management	A. Program management is the link that sews the matrix together and enables the cross-project teams to perform cohesively.
2.		Cross-project and Multi-disciplined	B. Aligns Functional Objectives to Business Objectives
3.		Specialized knowledge workers collaborate in real time and without regard to geographical boundaries or distances to deliver total solutions.	C. This role requires a unique set of core competencies, skills, and personality traits in the areas of business and financial, customer, leadership, and process and project management acumen.
4.		The characteristic that reduces the effect of agency theory.	D. Focal Point for Ownership and Accountability
5.		Capable Business Leader – The Program Manager	E. Program Management
6.		The program manager assumes the full responsibility throughout the development lifecycle.	F. Program Management Enables Horizontal Collaboration
7.		Is Strategic in Nature	G. A group of related projects, subprograms, and program activities that are managed in a coordinated way to obtain benefits not available from managing them individually.

Topic 3: Differences between Programs and Projects



Two distinct trends have played a key role in the emerging need to succinctly distinguish between program and project management. First, there is a recognized need within business management to improve the link between business strategy and operational execution. Second, there is an increasing trend toward larger and more complex product, service, and result development efforts. The program management model fully comprehends these trends which gives rise to its increased usage as a critical business function.

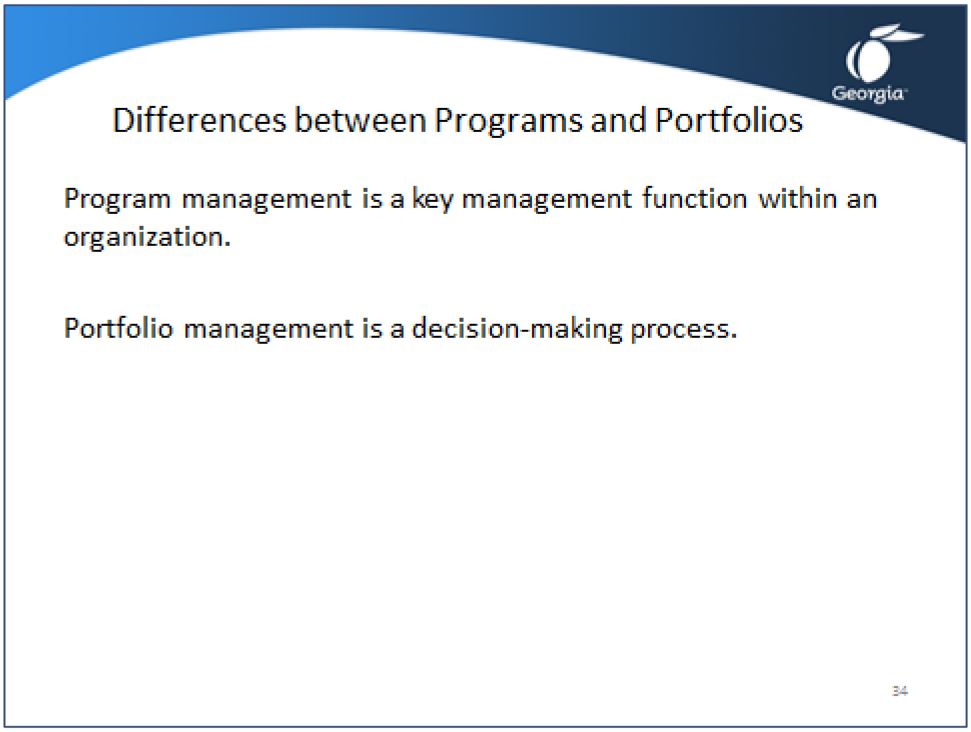
The primary differentiator is the core area of focus. Program management is strategic in nature and focused on the business success of the program, while project management is tactical in nature and focused on the successful execution and delivery of one element of the integrated solution.

The table on the following page provides a high-level summary of the important differences between program and project management.

Topic 3: Differences between Programs and Projects

Differentiating Factor	Program Management	Project Management
Strategic vs. Tactical	Strategic in nature, focused on business success	Tactical in nature, focused on execution success
Alignment of Objectives	Alignment of execution to business strategy	Alignment of deliverables to triple constraints (time, cost, scope)
Scope of Responsibility	Successful delivery of the right product, service, or result at the right time	Successful delivery of project deliverables per triple constraint
Vertical vs. Horizontal Responsibility	Manages horizontally across the functional projects involved in the program	Manages vertically within a single project
Work Effort	Assures the cross-project work effort remains feasible from a business standpoint	Assures work effort generates desired deliverables on time, on budget, and at the required performance levels
Management of Risk	Concerned with cross-project risk affecting the probability of program and business success	Concerned with single-project risk affecting the probability of project and technical success
Life Cycle Involvement	Involved in all phases of the development life cycle, from definition to end of life	Primarily involved in the planning and implementation phases of the development life cycle
Process Orientation	Ensures consistent use of common processes by all project teams	Ensures effective and efficient implementation of processes on a single project team
Skills and Capabilities	Breadth of business, leadership, customer, and project management skills	In-depth project management and functional specific technical skills

Topic 4: Differences between Programs and Portfolios



The objective of the portfolio is to ensure that the company is working on the opportunities that offer the highest probability for attractive strategic value at the lowest possible risk. Opportunities are ranked and prioritize based upon a set of criteria that represents value to the organization. Resources are then allocated to the highest value and most strategically significant products, services, or results.

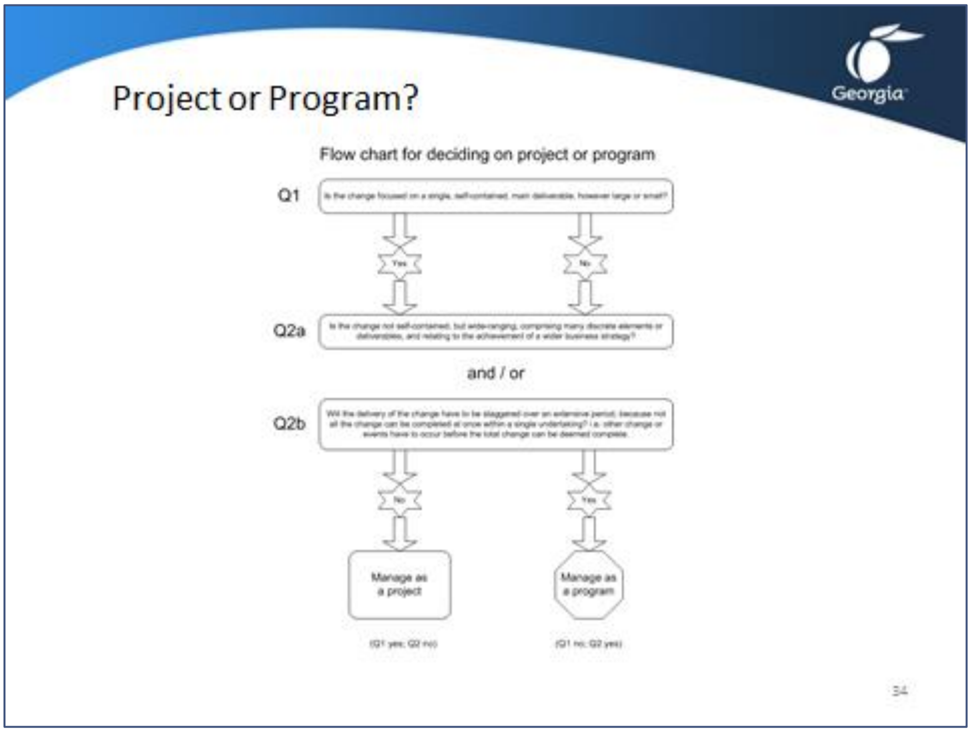
The primary differentiator is that portfolio management is a decision-making process, while program management is a key management function within an organization.

The table on the following page provides a high-level summary of the important differences between program and portfolio management.

Topic 4: Differences between Programs and Portfolios

Differentiating Factor	Program Management	Portfolio Management
Process vs. Function	A management function utilized to determine the business and execution feasibility of a selected idea. The idea then turns into an actionable plan that is successfully executed and delivered to the customer	A process utilized to evaluate, prioritize, select, and resource new ideas that best contribute to the attainment of the strategic objectives of an organization
Determining and Obtaining Value	Focused on ensuring that the business value is attained for a single opportunity throughout the development and introduction process	Focused on determination of the business value of all existing opportunities of the organization
Risk Management	Management of risk across all disciplines involved in the development of a single product, service, or result	Determination of the business and technical risk of each opportunity concept, balancing risk and value for the aggregate portfolio of opportunities
Resource Management	Staffing the program, ensuring the project teams are adequately staffed throughout the development life cycle	Aligning resources to opportunities that provide the greatest strategic value to a business

Topic 5: Project or Program?

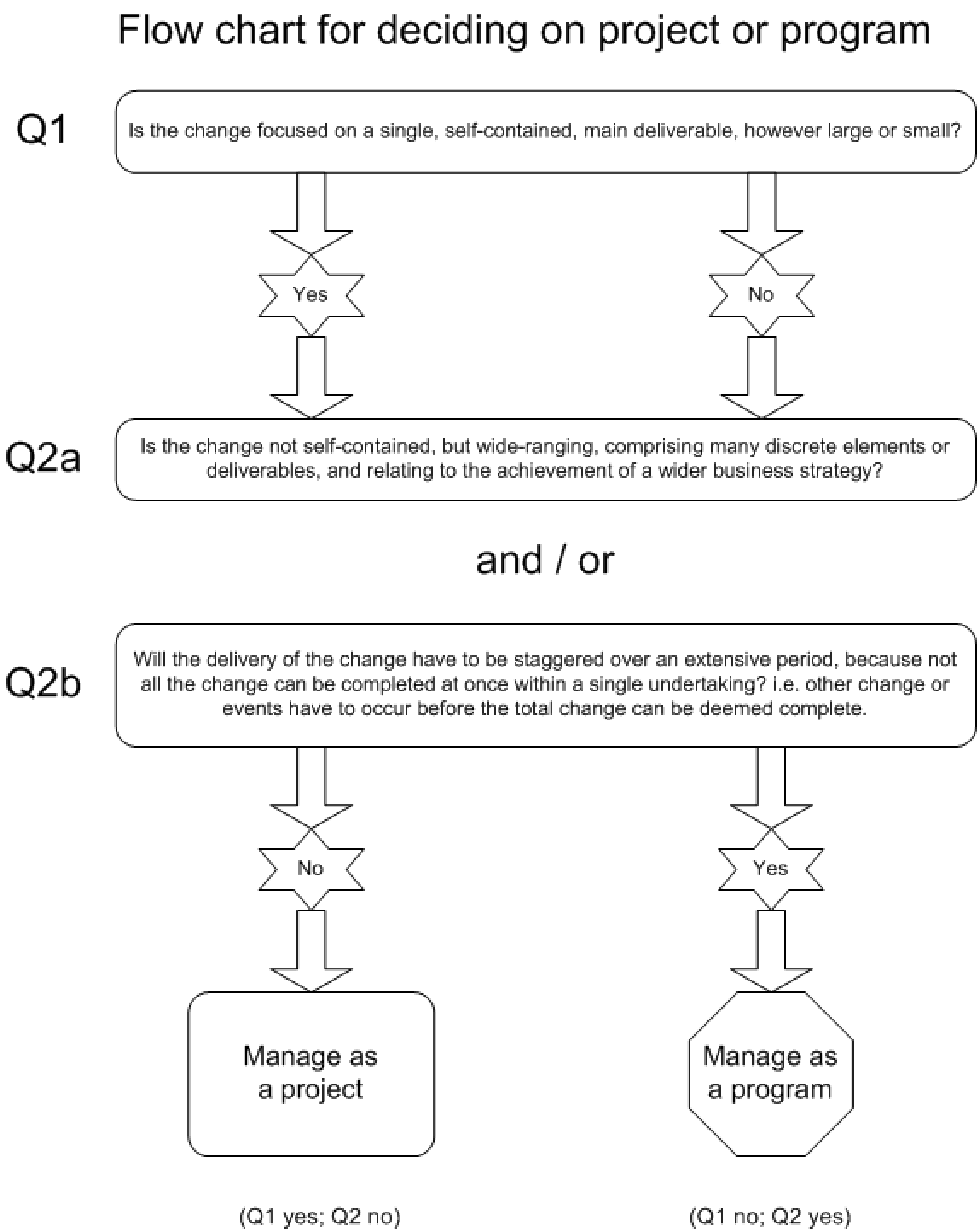


Identifying whether a particular idea for change is a project or program is an important undertaking, since the right management approach needs to be adopted to ensure the change has a good chance of success. The basic reason for a program is that the proposed change is wide-ranging and strategic. Also, the timescale for the change may be imprecise. A program can adjust its timescale to suit the outcome of work, changing requirements or changing strategy. A good test for identifying whether the desired change is a project or program is by questioning its scope. The chart on the next page shows a simple flow to help you decide on scope criteria.

Less Complex ---------------- More Complex   Less Complex ---------------- More Complex

PROJECT			PROGRAM		
Meeting Event	Snack Bar Refurbish	Product Development	Company Re-org	Process Re-engineer	Switch from USD to Euros
Help Desk Set up	Sales Conference	Business Acquisition	Business Acquisition	Joint Venture	E-commerce
Catalog Launch	New Acctg System	Office Relocation	Company Relocation	Business Globalization	Change of Busn Direction

Topic 5: Project or Program?



Exercise 2.2: Programs vs. Projects

Instructions:

Review the terms in the table below and match each term to its definition.

	?	Term	Definition
1.		Program vs. Portfolio differentiating factor – Process/Function	A. Tactical in nature, focused on execution success
2.		The basic reason for a program is that the proposed change is ______ and ______. Also, the _______ for the change may be imprecise.	B. Program
3.		Project Management	C. Program Management
4.		Strategic in nature, focused on business success	D. A management function utilized to determine the business and execution feasibility of a selected idea.
5.		If I want to re-engineer a process I should run this as a __________.	E. wide-ranging, strategic, timescale
6.		________ should be run as a project	F. Improve the link between business strategy and operational execution
7.		This trend plays a key role in the need to distinguish between program and project management.	G. Catalog launch

Lesson 2 Summary: Learning Objectives Recap

- **Understand the characteristics of a program**

  Program Management is Strategic in Nature

  Program Management Provides a Focal Point for Ownership and Accountability

  Program Management Aligns Functional Objectives to Business Objectives

  Program Management is Cross-project and Multi-disciplined

  Program Management Enables Horizontal Collaboration

  Program Management Requires a Capable Business Leader – The Program Manager

- **Understand the differences between projects and programs**

Differentiating Factor	Program Management	Project Management
Strategic vs. Tactical	Strategic in nature, focused on business success	Tactical in nature, focused on execution success
Alignment of Objectives	Alignment of execution to business strategy	Alignment of deliverables to triple constraints (time, cost, scope)
Scope of Responsibility	Successful delivery of the right product, service, or result at the right time	Successful delivery of project deliverables per triple constraint
Vertical vs. Horizontal Responsibility	Manages horizontally across the functional projects involved in the program	Manages vertically within a single project
Work Effort	Assures the cross-project work effort remains feasible from a business standpoint	Assures work effort generates desired deliverables on time, on budget, and at the required performance levels
Management of Risk	Concerned with cross-project risk affecting the probability of program and business success	Concerned with single-project risk affecting the probability of project and technical success
Life Cycle Involvement	Involved in all phases of the development life cycle, from definition to end of life	Primarily involved in the planning and implementation phases of the development life cycle
Process Orientation	Ensures consistent use of common processes by all project teams	Ensures effective and efficient implementation of processes on a single project team
Skills and Capabilities	Breadth of business, leadership, customer, and project management skills	In-depth project management and functional specific technical skills

Notes

Lesson 3: Portfolio Management – A Framework for Governance

Topic 1: Portfolio Management Defined

Topic 2: Success Model for Portfolio Management

Topic 3: Portfolio Selection Tools and Techniques

Topic 4: Portfolio Governance

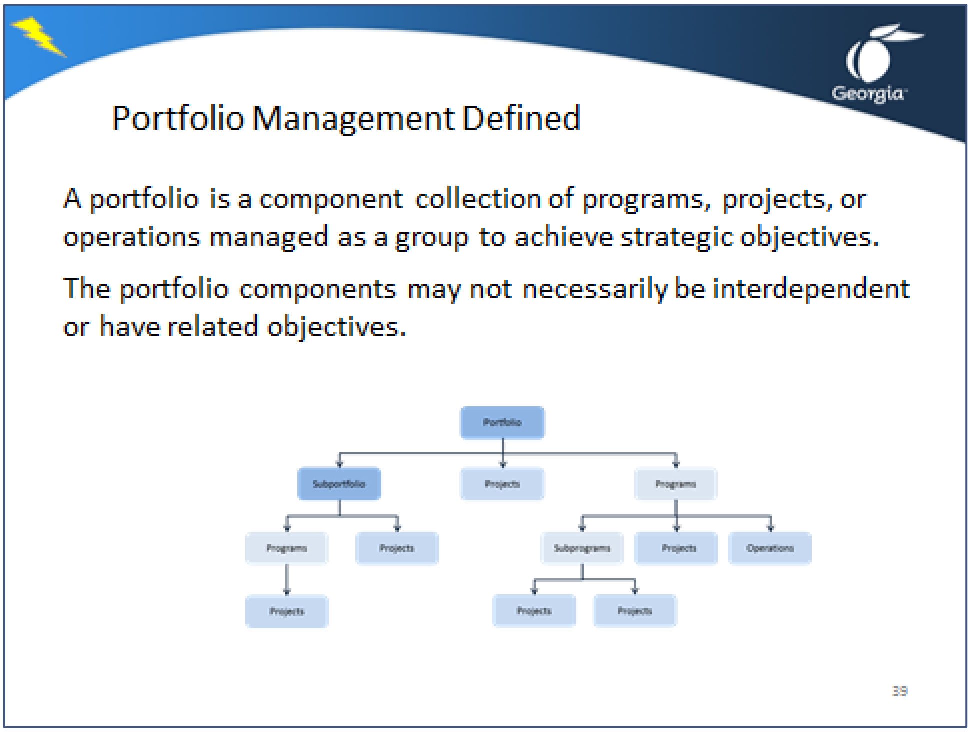
Student Learning Objectives

After completing this lesson you should be able to

- Understand a success model for portfolio management
- Understand a governance framework using portfolio management

Approximate Presentation time: 2 hours 45 minutes

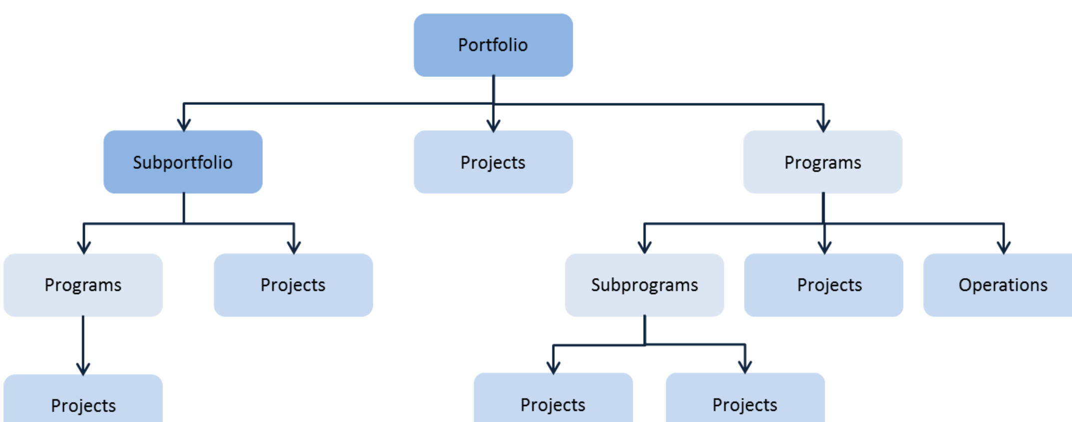
Topic 1: Portfolio Management Defined



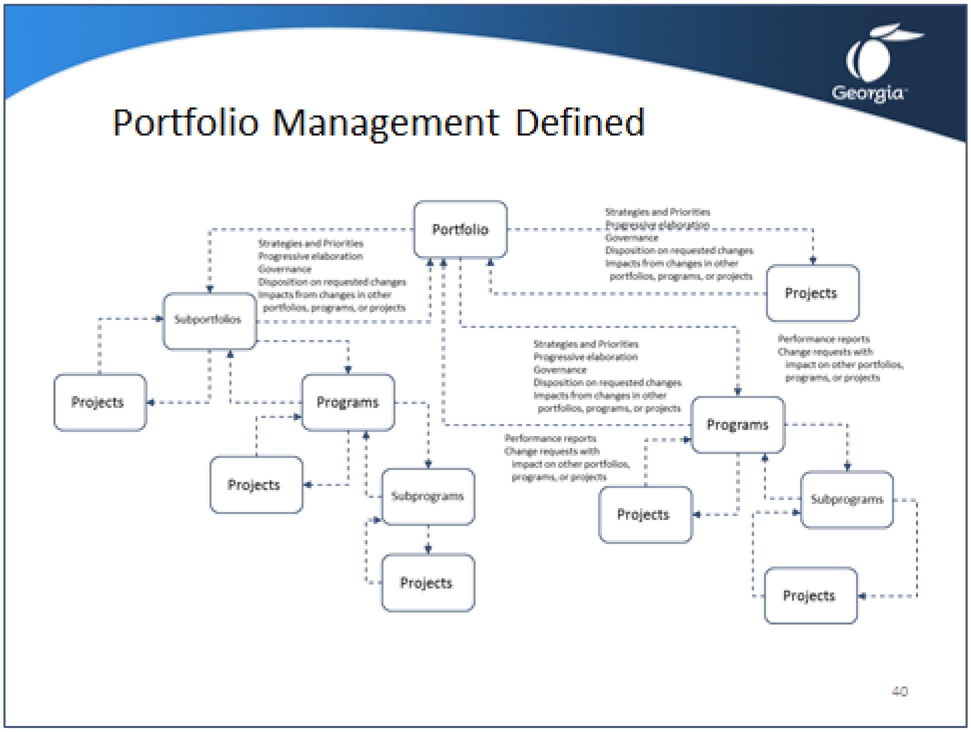
What is a Portfolio?

A portfolio is a component collection of programs, projects, or operations managed as a group to achieve strategic objectives. The portfolio components may not necessarily be interdependent or have related objectives. The portfolio components are measured, ranked, and prioritized.

A portfolio exists to achieve one or more organizational strategies and objectives and may consist of a set of past, current, and future components. An organization may have more than one portfolio, each addressing unique organizational strategies and objectives. If a portfolio is not aligned to its organizational strategy, the organization should question why the work is being undertaken.



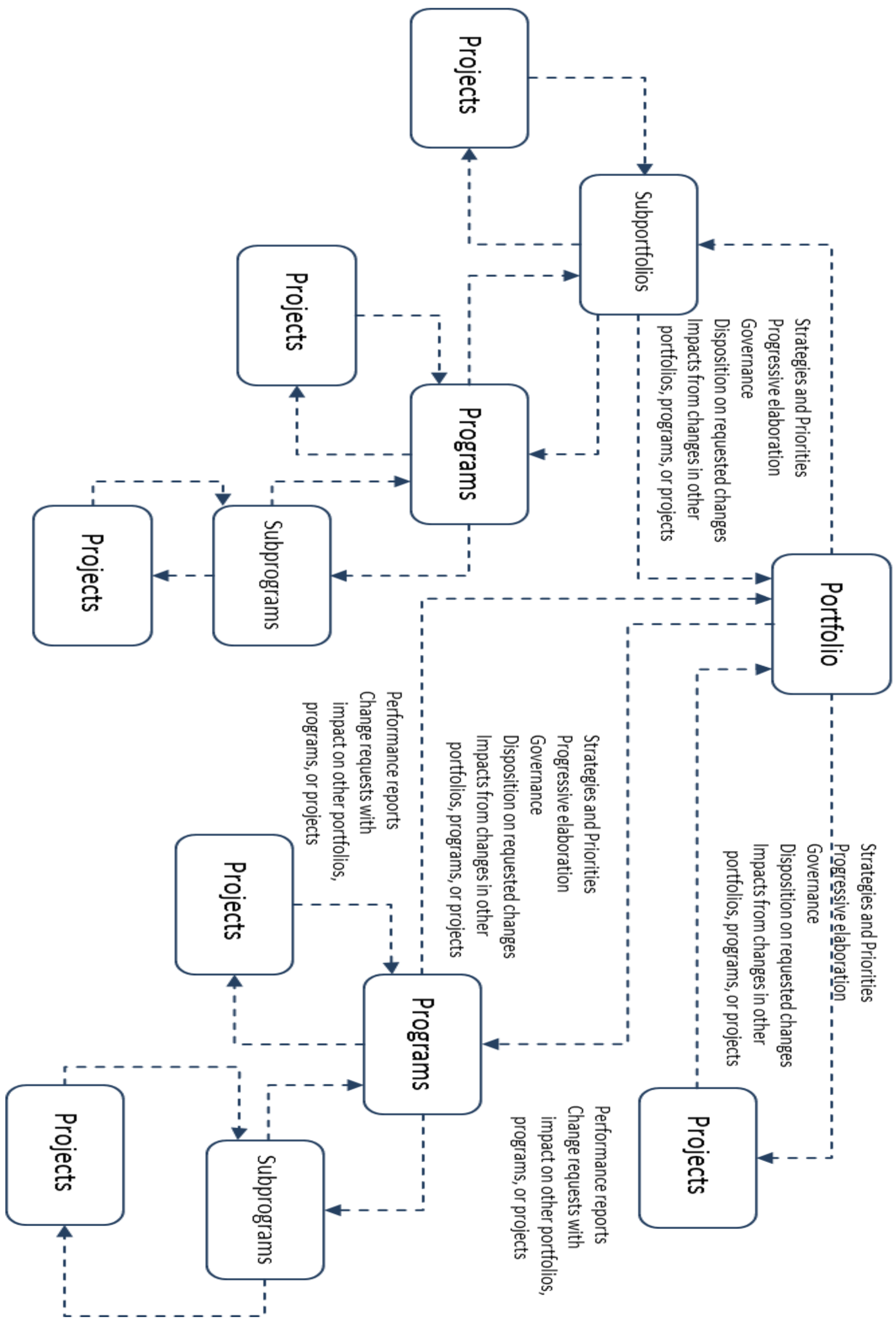
Topic 1: Portfolio Management Defined

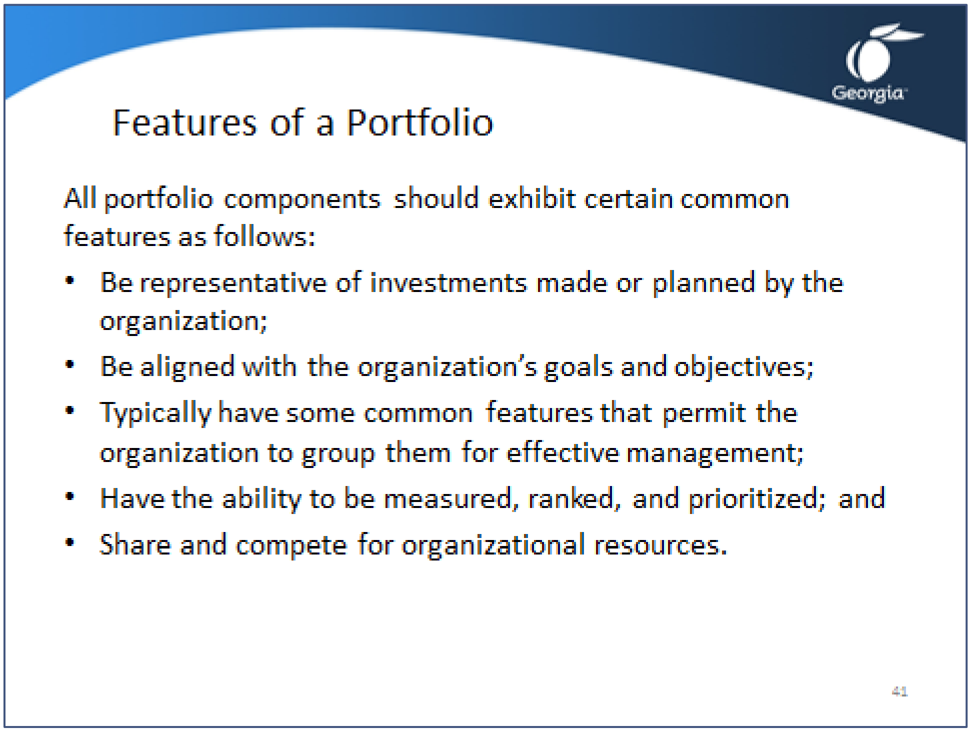


Relationships among Portfolios, Programs, and Projects

The relationship among portfolios, programs, and projects is such that a portfolio refers to a collection of projects, programs, sub-portfolios, and operations grouped together in order to facilitate the effective management of that work to meet strategic business objectives.

The figure on the next page illustrates, organizational strategies and priorities are linked and have relationships between portfolios and programs, and between programs and individual projects.


Portfolio
Subportfolios
Programs
Subprograms
Projects
Strategies and Priorities
Progressive elaboration
Governance
Disposition on requested changes
Impacts from changes in other portfolios, programs, or projects
Performance reports
Change requests with impact on other portfolios, programs, or projects

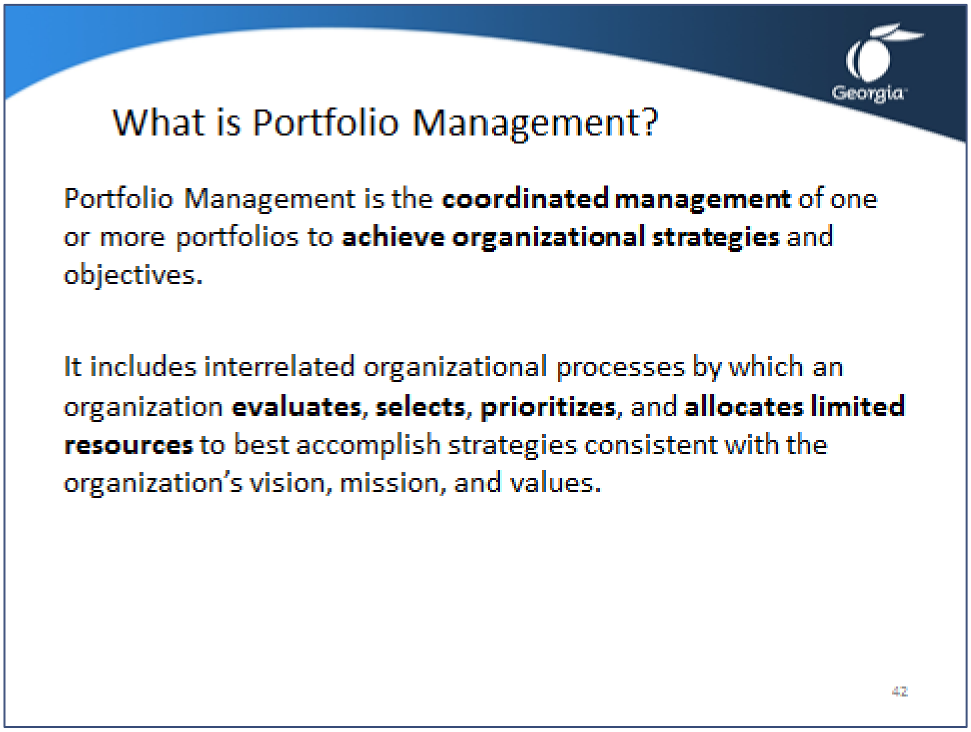


Features of a Portfolio

All portfolio components should exhibit certain common features as follows:

- Be representative of investments made or planned by the organization;
- Be aligned with the organization’s goals and objectives;
- Typically have some common features that permit the organization to group them for effective management;
- Have the ability to be measured, ranked, and prioritized; and
- Share and compete for organizational resources.

Topic 1: Portfolio Management Defined



What is Portfolio Management?

Portfolio Management is the coordinated management of one or more portfolios to achieve organizational strategies and objectives. It includes interrelated organizational processes by which an organization evaluates, selects, prioritizes, and allocates limited resources to best accomplish strategies consistent with the organization's vision, mission, and values. Portfolio management produces valuable information to support or alter organizational strategies and investment decisions.

Portfolio management provides an opportunity for a governing body to make decisions that control or influence the direction of a group of portfolio components as the work to achieve specific outcomes.

Portfolio management balances conflicting demands between programs and projects, allocates resources based on organizational priorities and capacity, and manages so as to achieve the benefits identified.

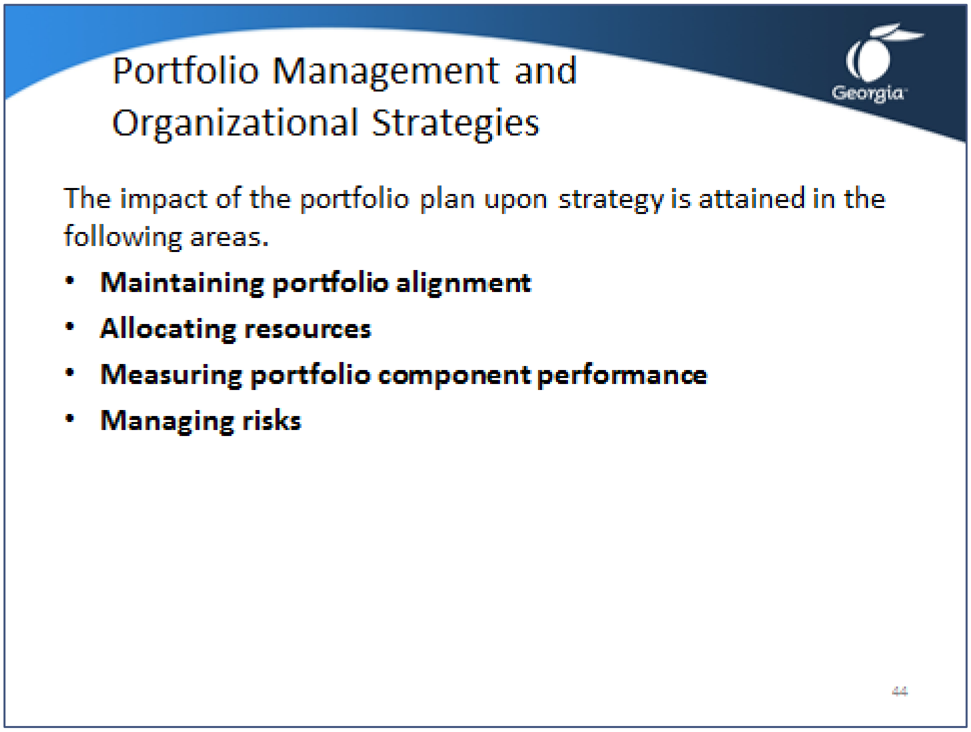
Topic 1: Portfolio Management Defined

Portfolio Management and Organizational Strategy

Organizations are concerned that they possess and effective structure for management that will lead to the longevity and success of the organization. An organizational strategy is in part a plan of goals, policies, and actions that provide the overall direction and focus of the organization.

Portfolio management is an integral part of the organization's overall strategic plan. Portfolio management is a bridge between organizational strategy, program, and project management and operations. As such, all governance levels are linked together to ensure that each organizational action is ultimately aligned with the organizational strategy. The accompanying figure illustrates a general relationship between the programs, projects, and operational processes in an organization.

Topic 1: Portfolio Management Defined

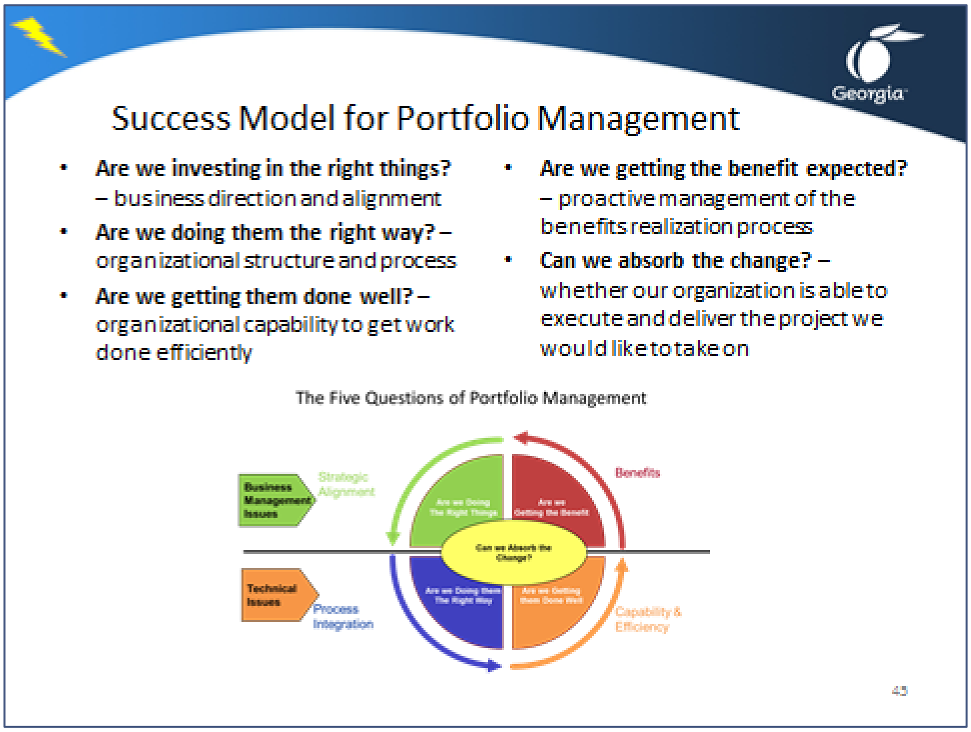


Portfolio Management and Organizational Strategy

The ultimate goal of linking portfolio management with organizational strategy is to establish a balanced, executable plan that will help the organization achieve its goals. The impact of the portfolio plan upon strategy is attained in the following areas.

- **Maintaining portfolio alignment**. Each component should be aligned to one or more objectives.
- **Allocating resources**. The priority of each component guides financial, human, and material resource allocation decisions.
- **Measuring portfolio component performance**. The performance of the portfolio component must be measured to assess its contribution to overall strategic goals.
- **Managing risks**. Each component must be evaluated for risks at the organizational level and how those risks may impact the achievement of the strategic plan and objectives.

Topic 2: Success Model for Portfolio Management



Portfolio management invariably changes the culture of the business because it demands we ask the hard questions. Five such questions rise to the top of the list and will be explored in this topic. Your ability to answer these questions accurately will determine how well you have implemented portfolio management in your organization. They also serve as a high-level guide to assist you in the development of your own portfolio management processes.

The Five Questions in Brief

1. **Are we investing in the right things?** – This question addresses the definition of business, of business direction and the alignment of portfolio components with that direction.
2. **Are we doing them the right way?** – This question addresses organizational structure and process, and the integration of portfolio components within the structure and process.
3. **Are we getting them done well?** – This question address organizational capability, the resources available and supporting infrastructure required to get work done efficiently.
4. **Are we getting the benefit expected?** – This question addresses the proactive management of the benefits realization process as a whole.
5. **Can we absorb the change?** – This question addresses whether our organization is able to execute and deliver the project we would like to take on.

Are we absorbing the change?

1. What kind of change will this bring?
2. What impact does the change have on the agency?
3. What impact does this have on other projects
4. How will we measure the change and manage it?

Are we doing the right things?

1. How does this project help us reach our mission?
2. What is the benefit to our constituents?
3. How will we measure those benefits?
4. What is the risk to our agency?
5. What will it cost?
6. How long will it take?
7. Should we build, borrow, or buy?

Are we doing things the right way?

1. What processes are in place to assure success?
2. What performance measures are we using?
3. What success criteria have been defined?

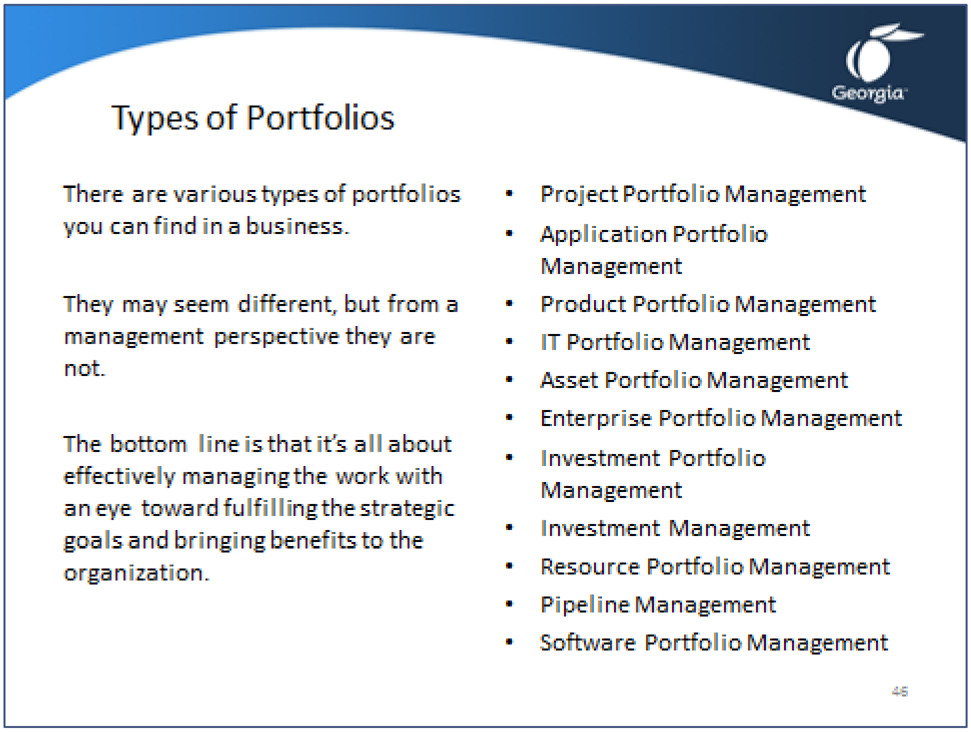
Are we doing things well?

1. What is the satisfaction of our stakeholders?
2. What is the readiness status of the organization?
3. How well are deliverables meeting expectation?
4. How well are we delivering benefit to our customer?

Are we getting the benefit?

1. How is the final product performing?
2. What is the level of satisfaction of the customer?
3. What are the current costs to operate?
4. What other alternatives may exist?
5. Do we need to replace the product?
6. What is the public perception?
7. Does it still meet our mission?

Topic 2: Success Model for Portfolio Management

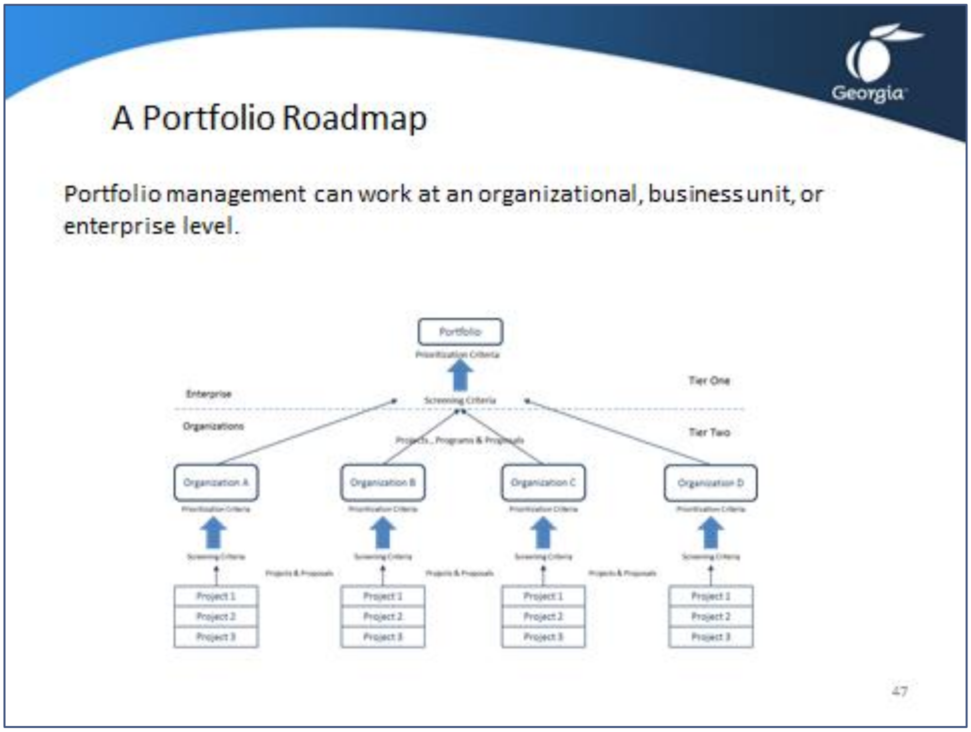


Types of Portfolios

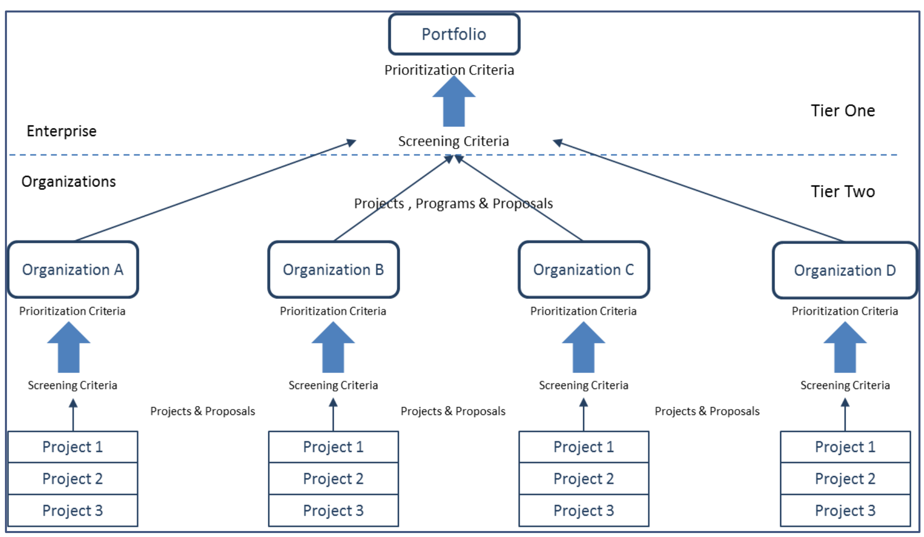
We have defined a portfolio as a "component collection of programs, projects, or operations managed as a group to achieve strategic objectives". And, portfolio management ensures the alignment of these components with strategies. What we now want to discuss are the various types of portfolios you can find in a business. They may seem different, but from a management perspective they are not. The bottom line is that it's all about effectively managing the work a business is doing with an eye toward fulfilling the strategic goals and bringing financial and nonfinancial benefits to the organization.

- Project Portfolio Management
- Application Portfolio Management
- Product Portfolio Management
- IT Portfolio Management
- Asset Portfolio Management
- Enterprise Portfolio Management
- Investment Portfolio Management
- Investment Management
- Resource Portfolio Management
- Pipeline Management
- Software Portfolio Management
- Governance Process

Topic 2: Success Model for Portfolio Management

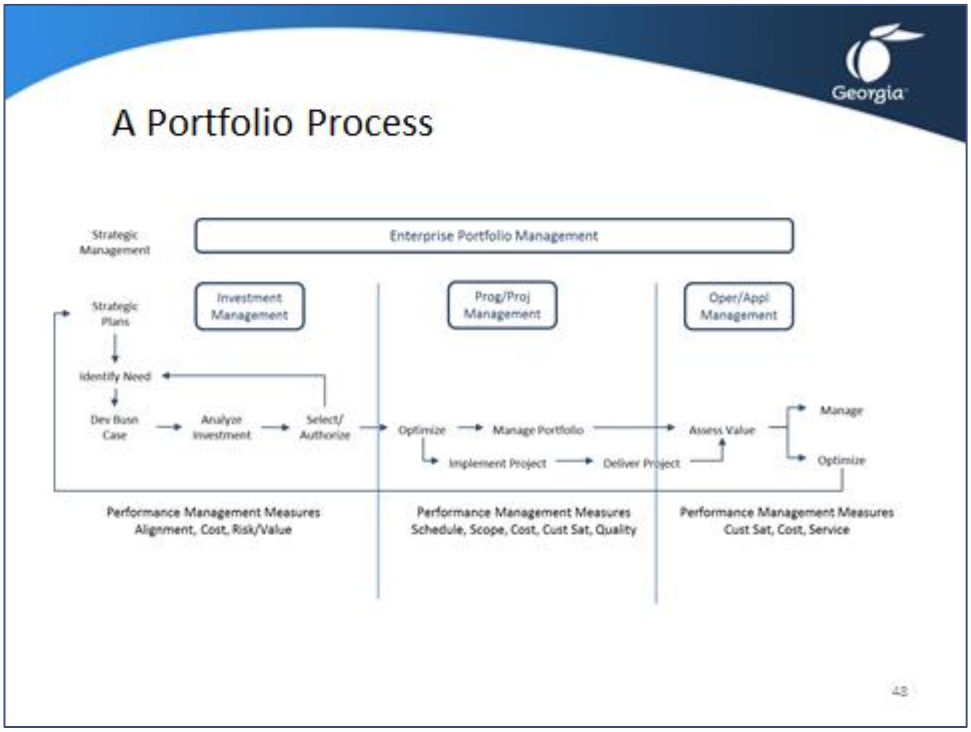


A Portfolio Roadmap



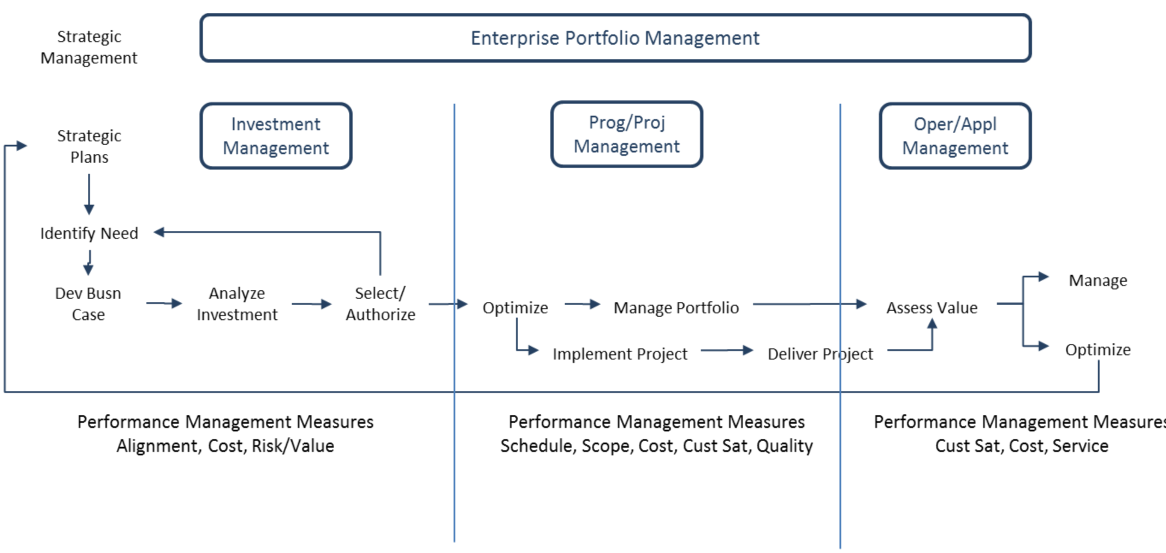
Portfolio management can work at an organizational, business unit, or enterprise level. From the perspective of the enterprise, all projects are in one enterprise portfolio. However, each business unit and organization has a piece of that portfolio that they manage using the portfolio management process. It turns out that portfolio management is actually a set of tiered portfolios. The critical factor here is that you don’t need to implement portfolio management at the enterprise level to see its benefits.

Topic 2: Success Model for Portfolio Management



A Portfolio Process

What you see illustrated below is a high-level portfolio management process without specifying roles and responsibilities. This is a fairly iterative process which lends itself particularly to gating processes.



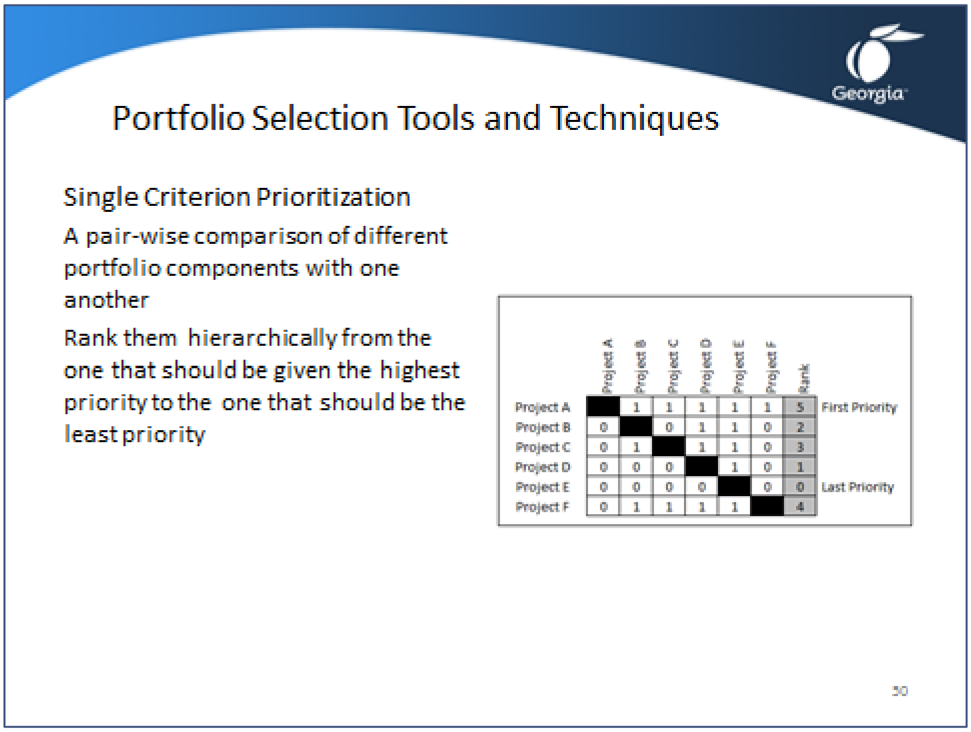
Exercise 3.1: Topics in Portfolio Management

Instructions:

Review the terms in the table below and match each term to its definition.

	?	Term	Definition
1.		Maintaining portfolio alignment	A. Addresses whether organizational structure and processes are in place to be successful.
2.		Portfolio Management	B. A component collection of programs, projects, or operations managed as a group to achieve strategic objectives.
3.		Application Portfolio	C. Portfolio Components
4.		A portfolio	D. An impact of portfolio management on strategy
5.		Are we doing them the right way?	E. The coordinated management of one or more portfolios to achieve organizational strategies and objectives.
6.		Portfolio management can work at an organizational, _____________, or enterprise level.	F. A type of portfolio
7.		Portfolios, Programs, Projects, Operations	G. business unit

Topic 3: Portfolio Selection Tools and Techniques

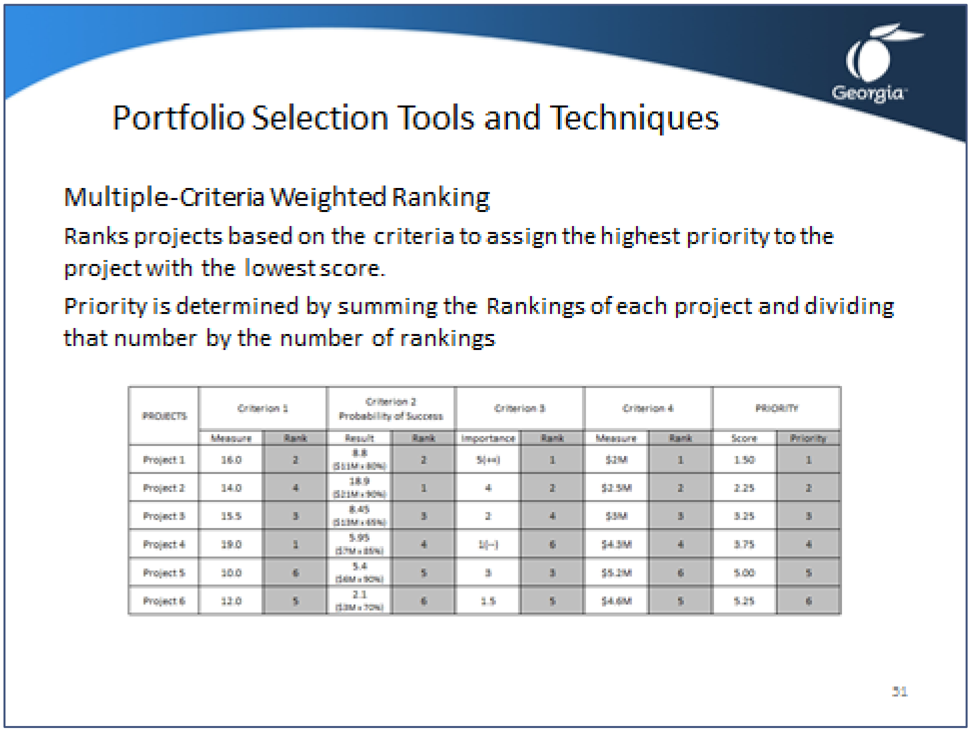


When defining a portfolio it is important to develop tools and techniques to compare the various portfolio components against agreed upon criteria. Weighted ranking and scoring techniques are used for ranking and scoring portfolio components. Some of these will be discussed and illustrated on the following pages.

Single-Criterion Prioritization Model

The single-criterion approach is a pair-wise comparison of different portfolio components with one another, to rank them hierarchically from the one that should be given the highest priority to the one that should be the least priority within a given portfolio. Using a single criterion like priority of each project to all of the other projects and assigning a value of 1 if judged superior, the highest score becomes the highest ranking.

	Project A	Project B	Project C	Project D	Project E	Project F	Rank	
Project A		1	1	1	1	1	5	First Priority
Project B	0		0	1	1	0	2	
Project C	0	1		1	1	0	3	
Project D	0	0	0		1	0	1	
Project E	0	0	0	0		0	0	Last Priority
Project F	0	1	1	1	1		4	

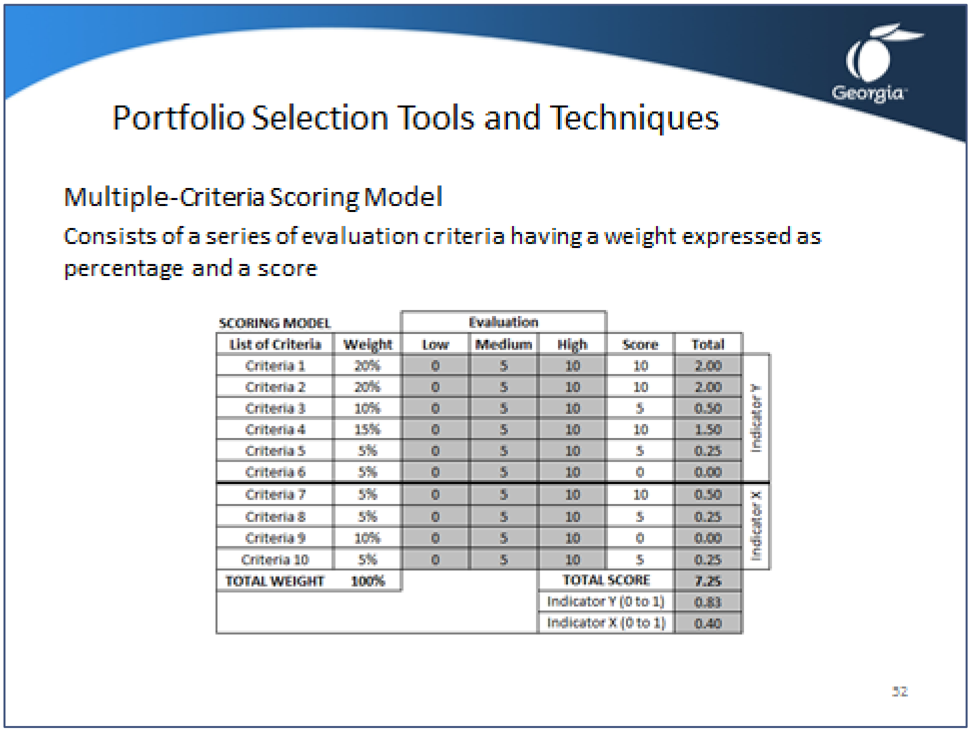


Multiple-Criteria Weighted Ranking Model

The multiple-criteria weighted ranking approach ranks projects based on the criteria to assign the highest priority to the project with the lowest score.

PROJECTS	Criterion 1		Criterion 2 Probability of Success		Criterion 3		Criterion 4		PRIORITY	
	Measure	Rank	Result	Rank	Importance	Rank	Measure	Rank	Score	Priority
Project 1	16.0	2	8.8 ($11M x 80%)	2	5(++)	1	$2M	1	1.50	1
Project 2	14.0	4	18.9 ($21M x 90%)	1	4	2	$2.5M	2	2.25	2
Project 3	15.5	3	8.45 ($13M x 65%)	3	2	4	$3M	3	3.25	3
Project 4	19.0	1	5.95 ($7M x 85%)	4	1(--)	6	$4.3M	4	3.75	4
Project 5	10.0	6	5.4 ($6M x 90%)	5	3	3	$5.2M	6	5.00	5
Project 6	12.0	5	2.1 ($3M x 70%)	6	1.5	5	$4.6M	5	5.25	6

Priority is determined by summing the Rankings of each project and dividing that number by the number of rankings, i.e., Project 1: Sum of the Ranks = 6, divided by 4 rankings equals a priority score of 1.5. This happens to be the lowest score of all the projects making it the highest priority.



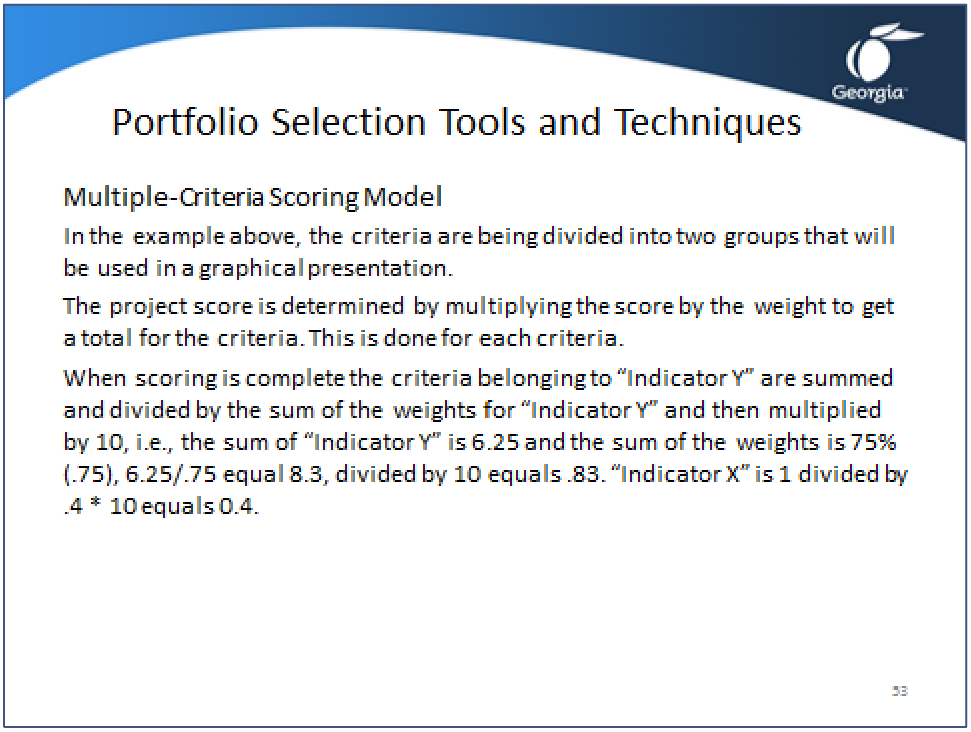
Multiple-Criteria Scoring Model

Scoring models provide another method to evaluate portfolio components and make them comparable. A scoring model consists of a series of evaluation criteria having a weight expressed as percentage and a score. The weight for each criterion is expressed in percentages (the total needs to add up to 100%) and determines the relative importance of each criterion in the portfolio component evaluation. The score applies to each criterion and should be discriminating (such as 0, 5, and 10). The score measures whether or not each criterion is met. Each scoring level needs to be clearly defined to ensure consistent evaluation from one component to another. The score

SCORING MODEL		Evaluation					
List of Criteria	Weight	Low	Medium	High	Score	Total	
Criteria 1	20%	0	5	10	10	2.00	Indicator Y
Criteria 2	20%	0	5	10	10	2.00	Indicator Y
Criteria 3	10%	0	5	10	5	0.50	Indicator Y
Criteria 4	15%	0	5	10	10	1.50	Indicator Y
Criteria 5	5%	0	5	10	5	0.25	Indicator Y
Criteria 6	5%	0	5	10	0	0.00	Indicator Y
Criteria 7	5%	0	5	10	10	0.50	Indicator X
Criteria 8	5%	0	5	10	5	0.25	Indicator X
Criteria 9	10%	0	5	10	0	0.00	Indicator X
Criteria 10	5%	0	5	10	5	0.25	Indicator X
TOTAL WEIGHT	100%			TOTAL SCORE		7.25	
				Indicator Y (0 to 1)		0.83	
				Indicator X (0 to 1)		0.40	

multiplied by the weight provides a value for each criterion and the total f all of these is the total value of the component.

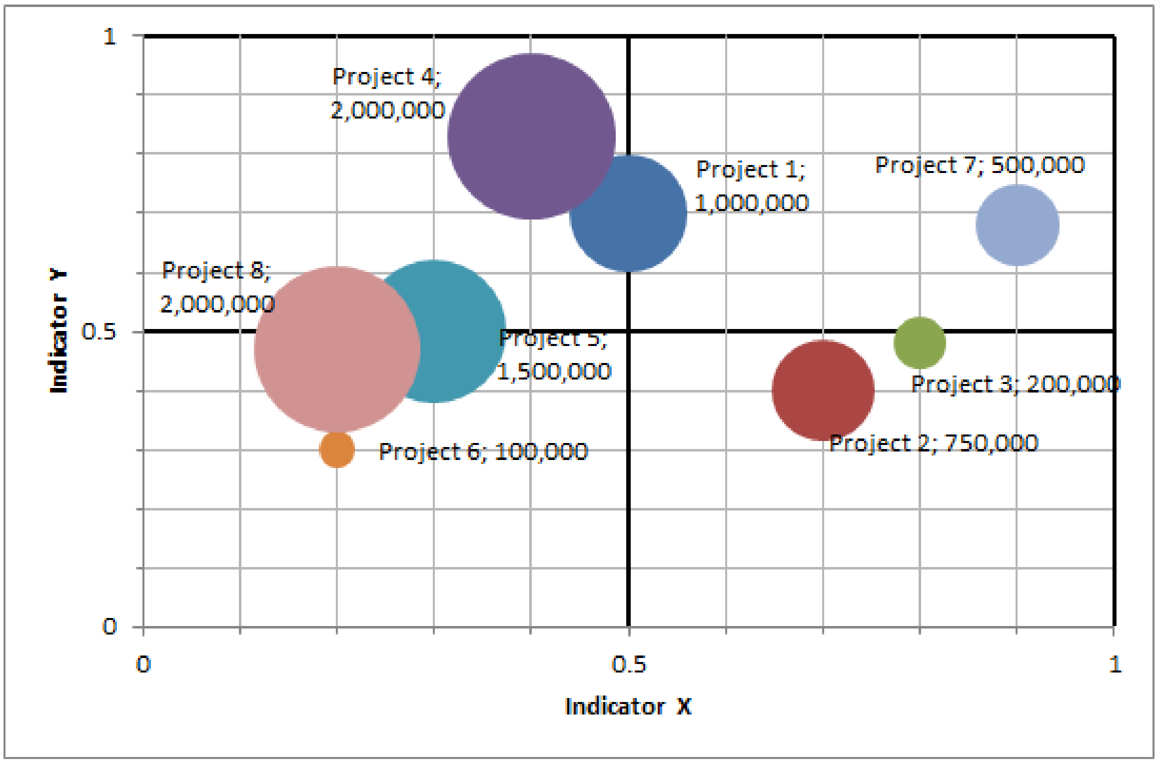
Topic 3: Portfolio Selection Tools and Techniques



Multiple-Criteria Scoring Model

In the example above, the criteria are being divided into two groups that will be used in a graphical presentation. The project score is determined by multiplying the score by the weight to get a total for the criteria. This is done for each criteria. When scoring is complete the criteria belonging to “Indicator Y” are summed and divided by the sum of the weights for “Indicator Y” and then multiplied by 10, i.e., the sum of “Indicator Y” is 6.25 and the sum of the weights is 75% (.75), 6.25/.75 equal 8.3, divided by 10 equals .83. “Indicator X” is 1 divided by .4 * 10 equals 0.4. An illustration of how this is used is seen below.

Project	Cost	Ind X	Ind Y
Project 1	1,000,000	0.5	0.7
Project 2	750,000	0.7	0.4
Project 3	200,000	0.8	0.48
Project 4	2,000,000	0.4	0.83
Project 5	1,500,000	0.3	0.5
Project 6	100,000	0.2	0.3
Project 7	500,000	0.9	0.68
Project 8	2,000,000	0.2	0.47

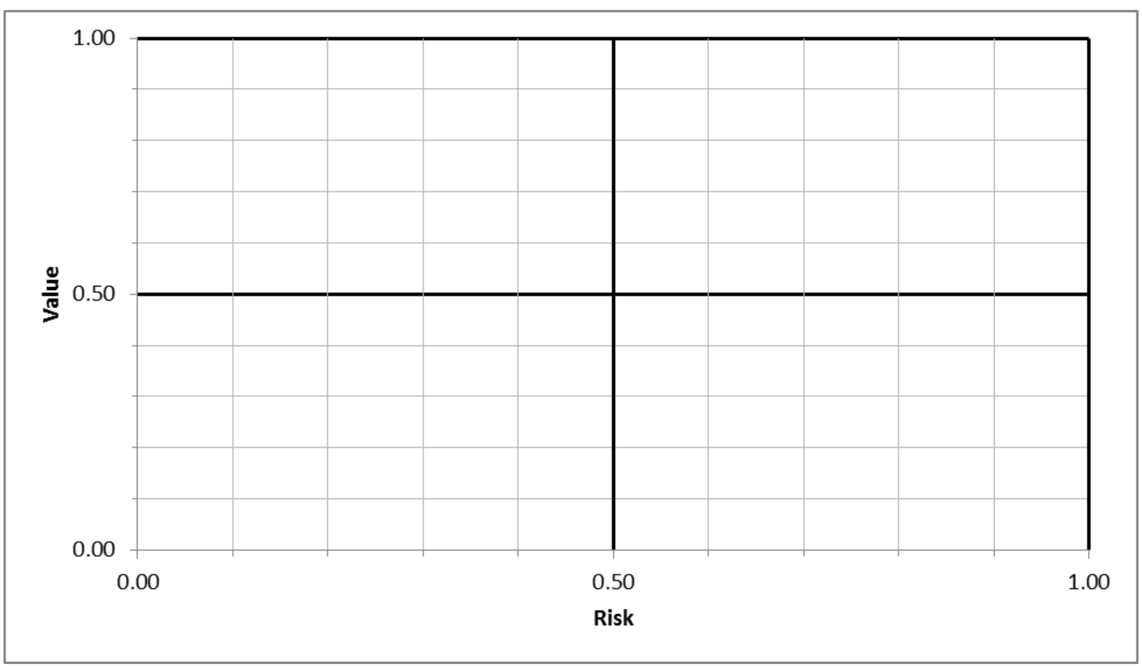


Exercise 3.2: Risk vs. Value Selection Exercise

Instructions:
Based on the information provided complete the scoring of the three projects in your portfolio. Determine a score, the “Indicator Y” value, the “Indicator X” value, and plot the projects on the graph provided.

Evaluation		
Low	**Medium**	**High**
0	5	10

Value v Risk Assessment			Project 1	$2,000,000	Project 2	$4,000,000	Project 3	$1,500,000	
List of Criteria	**Weight**		**Rating**	**Score**	**Rating**	**Score**	**Rating**	**Score**	
Strategic Fit	20%		10		5		10		Indicator Y Value
Customer Satisfaction	15%		5		5		10		
Management Information	10%		5		0		5		
Quality of Worklife	5%		5		5		10		
Public Perception	5%		10		10		10		
Organizational Risk	15%		5		5		5		Indicator X Risk
Definitional Risk	10%		10		10		0		
Infrastructure Risk	5%		10		5		5		
Security Risk	10%		5		10		5		
External Risk	5%		0		10		0		
TOTAL WEIGHT	**100%**	**TOTAL SCORE**							
		Indicator Y (0 to 1)							
		Indicator X (0 to 1)							



- Identify the priority of the projects based on their Risk versus Value comparison.

Topic 4: Portfolio Governance

What is Governance?

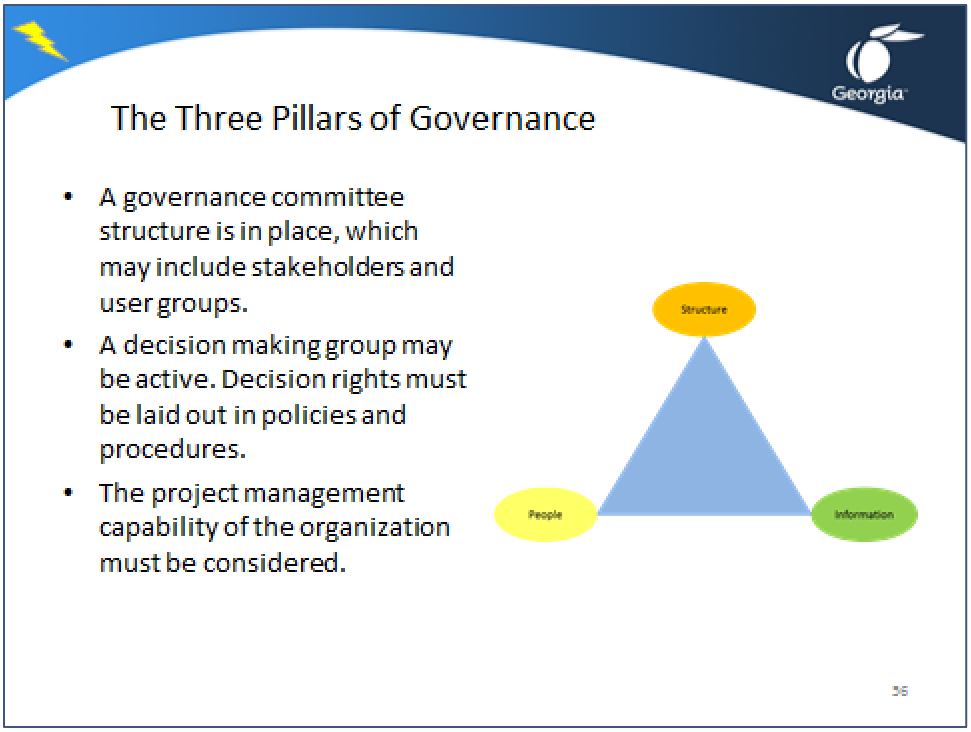
What is meant by the term "Governance"?

According to the Association for Project Management (UK): *'Governance refers to the set of policies, regulations, functions, processes, procedures and responsibilities that define establishment, management and control of projects, programmes and portfolios.'* *APM Body of Knowledge 6th Edition*

So, what it boils down to is, governance is a framework within which project/program/portfolio decisions are made. A well-structured governance model provides:

- Clear roles, responsibilities and accountabilities.
- Clear reporting.
- Clear information flows.
- Clarity of stakeholders.
- Clear scope.
- Clear procurement processes.
- Clear financial authorities.
- Ethics.
- Dispute and conflict resolution escalation channels.
- Obvious delivery model overlays.
- Apparent meeting schedules.

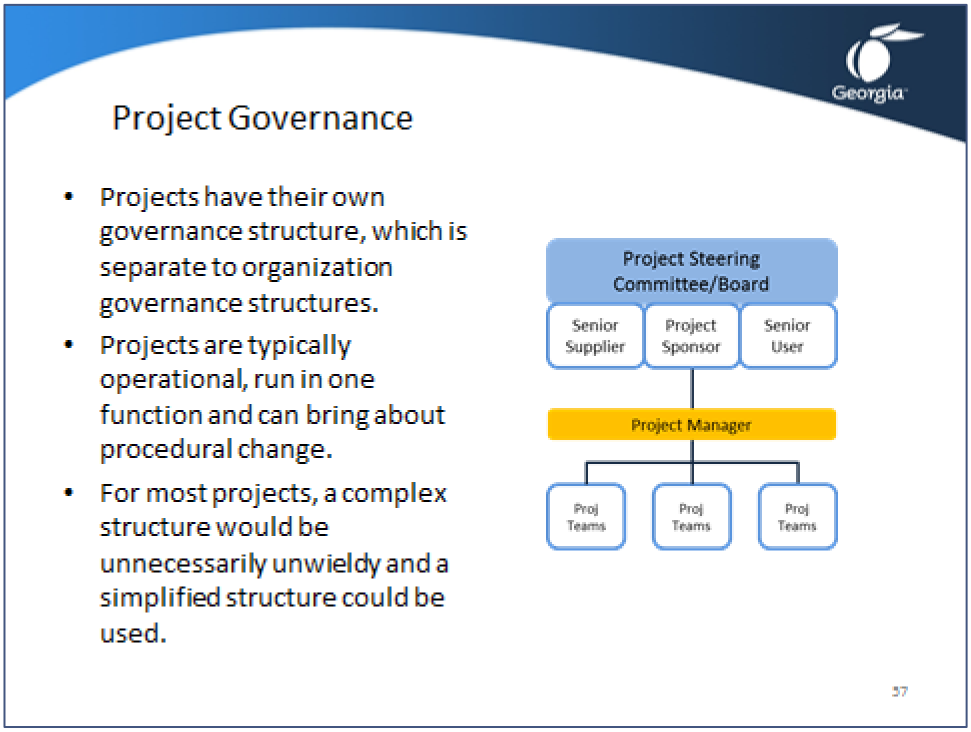
Topic 4: Portfolio Governance



The Three Pillars of Governance (Structure, People, Information)
Structure

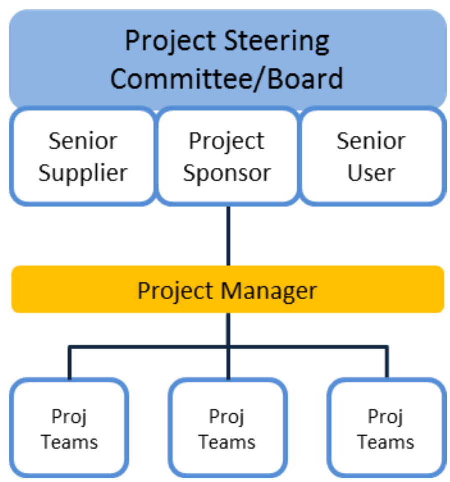
- This refers to the governance committee structure. As well as there being a board or project steering committee, the broader governance environment may include various stakeholder groups and perhaps user groups.
- Additionally, there may be some form of portfolio decision making group. The decision rights of all these committees and how they relate must be laid down in policy and procedural documentation. In this way, the project's governance can be integrated within the wider governance arena.
- All of the above must take into account the project management capability that exists in the organization.

Topic 4: Portfolio Governance

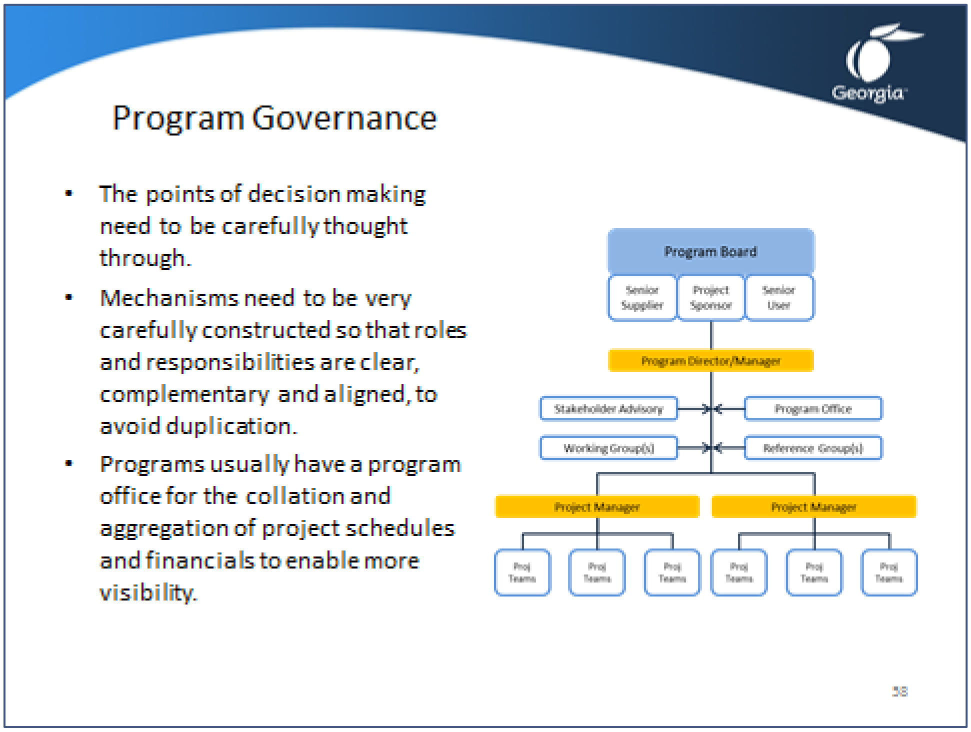


Project Governance

Projects are groups of related activities, are task oriented and are typically managed using traditional approaches. Project management frameworks can be used to bring about consistency in the management and delivery of projects across an organization. Maturity in project practices has been found to be strongly correlated to better and more predictable project performance and lower direct project management costs. Projects have their own governance structure, which is separate to organization governance structures. Projects are typically operational, run in one function and can bring about procedural change. For most projects, a complex structure would be unnecessarily unwieldy and a simplified structure could be used as shown below:



Topic 4: Portfolio Governance



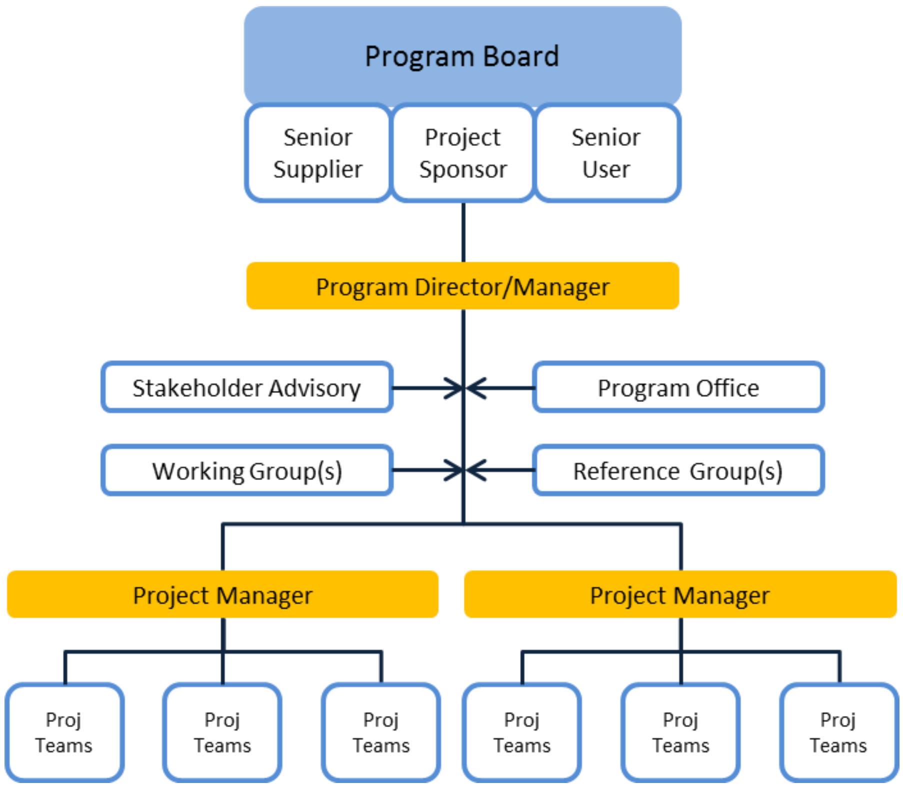
Program Governance

Programs are groups of related or interdependent projects that need to be coordinated to achieve a strategic objective and to obtain benefits and value which would not be available from managing them individually. The sum of the program outcome(s) is greater than the sum of the individual project outcome(s).

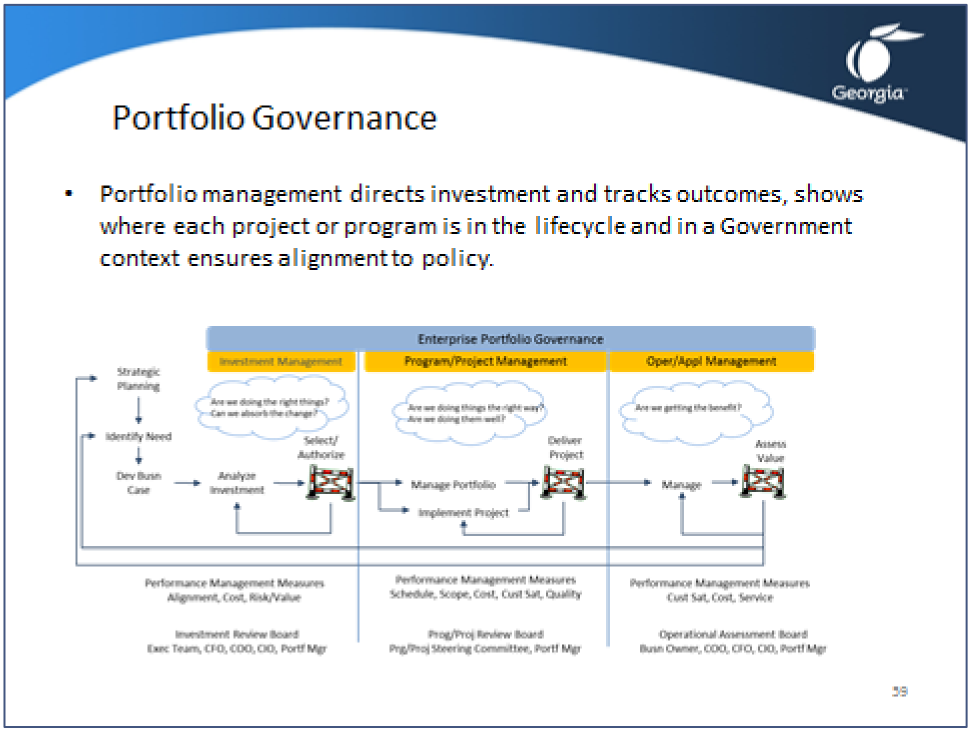
Programs are multidimensional, span multiple functions and have multiple types of stakeholders. They also have financial accountability and authority of the projects, and can commit organizational resources. As there are multiple interdependent and dependent projects, the priorities of each of the projects and organizational priority of the program itself becomes critical for management and portfolio balancing.

Program Governance and the points of decision making need to be carefully thought through. In cases of rescuing a failing program, the governance of the program has to be totally restructured, as each project was set up having its own governance structure. Each project governance structure was making decisions relevant to their own project, without realizing that their decision was impacting other dependent and interdependent projects of the program. Project and program governance mechanisms need to be very carefully constructed so that roles and responsibilities are clear, complementary and aligned, to avoid duplication while enabling the program to deliver.

Programs usually have a program office, or program office support, for the collation and aggregation of project schedules and financials to enable the dependencies and interdependencies to become more visible. Other key functions that require coordinated management for a program include collation and aggregation of risks and issues, coordination and administration of facilities, resources, procurement, training, standards and methods, contract management and communications. The program office needs to have a tactical focus for it to be effective. The following program governance structure leverages from project governance and can be used for the management of independent projects that aggregate to deliver the outcomes necessary.

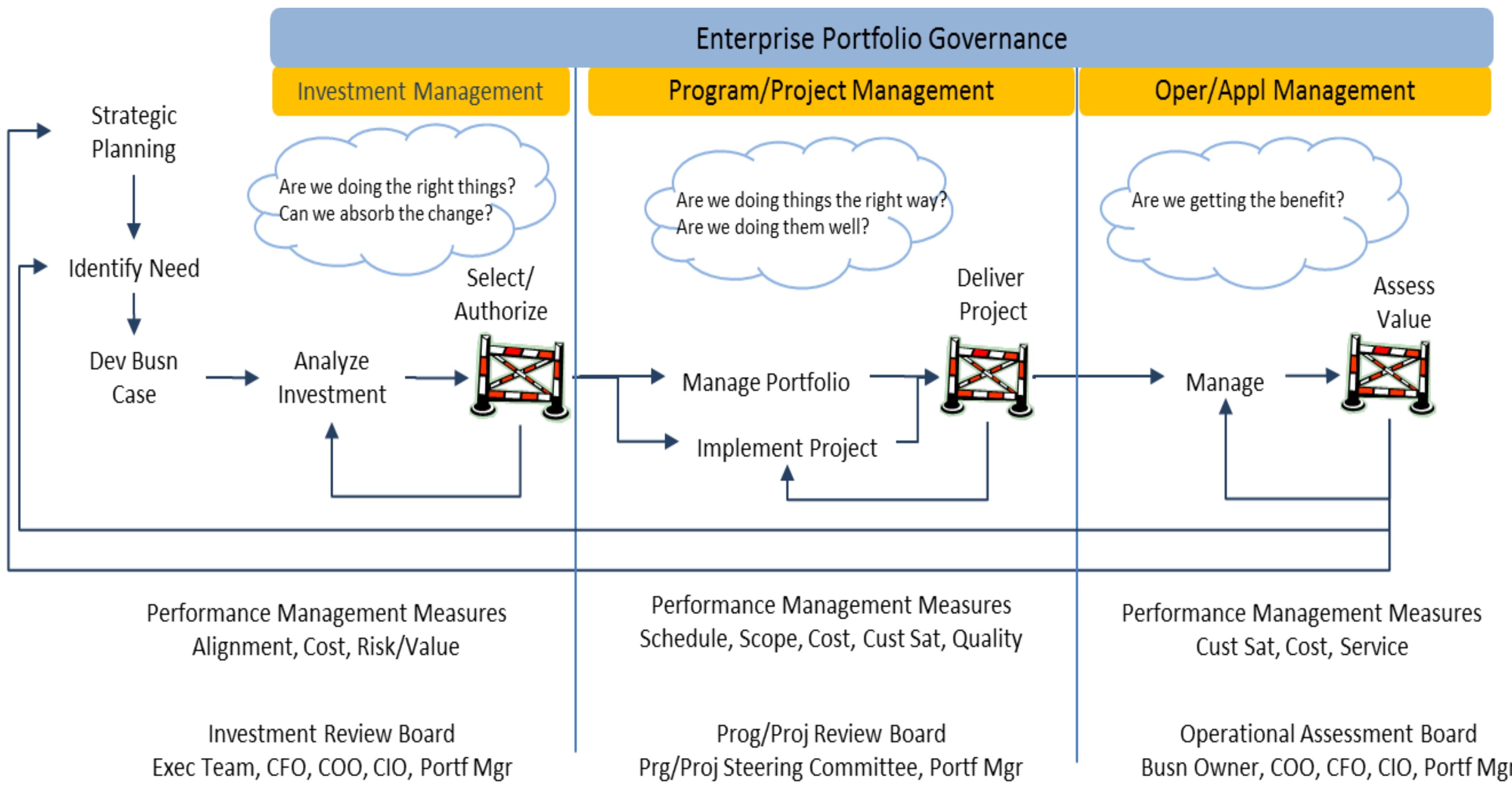


Topic 4: Portfolio Governance



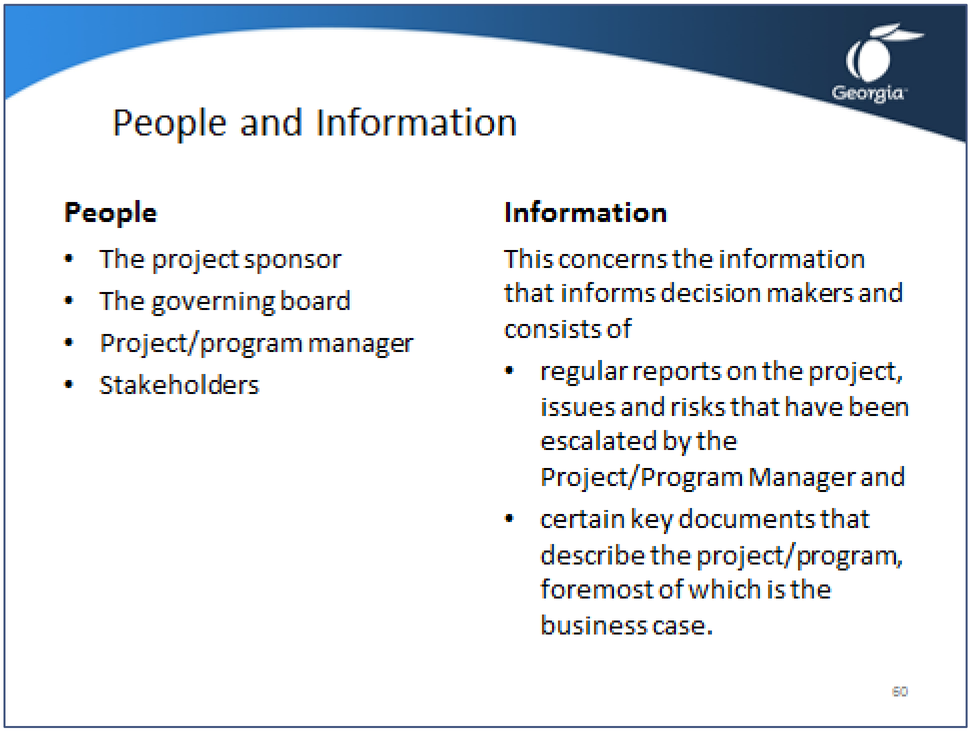
Portfolio Governance

The portfolio provides the organization with a complete view of the programs and projects within an organization, and this represents the organization's commitment of resources and investment to delivering its strategic objectives. Portfolio management directs investment and tracks outcomes, shows where each project or program is in the lifecycle and in a Government context ensures alignment to policy. There is considerable portfolio balancing and optimization that is done on a regular basis which is determined by resource availability, cash flows of the organization, organizational and environmental changes. The model below illustrates a full life-cycle governance of an enterprise portfolio.



Enterprise Portfolio Governance
Investment Management
Program/Project Management
Oper/Appl Management
Strategic Planning
Identify Need
Dev Busn Case
Are we doing the right things?
Can we absorb the change?
Analyze Investment
Select/ Authorize
Are we doing things the right way?
Are we doing them well?
Manage Portfolio
Implement Project
Deliver Project
Are we getting the benefit?
Manage
Assess Value
Performance Management Measures
Alignment, Cost, Risk/Value
Performance Management Measures
Schedule, Scope, Cost, Cust Sat, Quality
Performance Management Measures
Cust Sat, Cost, Service
Investment Review Board
Exec Team, CFO, COO, CIO, Portf Mgr
Prog/Proj Review Board
Prg/Proj Steering Committee, Portf Mgr
Operational Assessment Board
Busn Owner, COO, CFO, CIO, Portf Mgr

Topic 4: Portfolio Governance



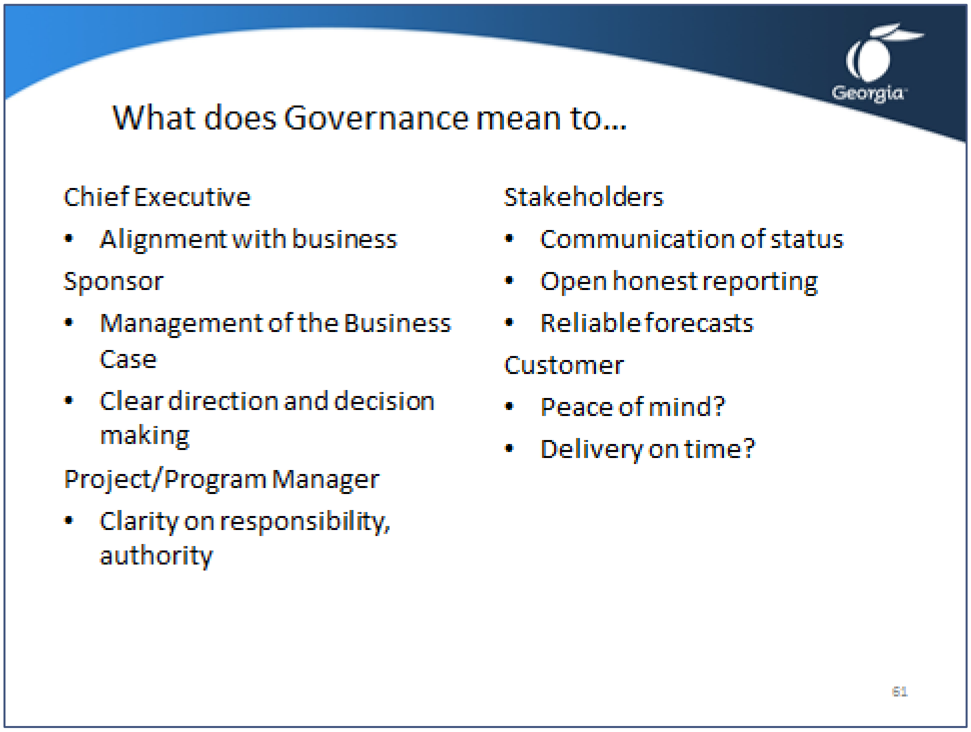
People

- A key role is that of a project sponsor
- The project sponsor; has three main areas of responsibility which are to the board, the project/program manager and the project stakeholders.
- *For the board*, the sponsor provides leadership on culture and values, owns the business case, keeps the project/program aligned with the organization's strategy and portfolio direction, governs project risk, works with other sponsors, focuses on realization of benefits, recommends opportunities to optimize cost/benefits, ensures continuity of sponsorship, provides assurance and provides feedback and lessons learnt.
- For the project/program manager, the sponsor provides timely decisions, clarifies decision making framework, clarifies business priorities and strategy, communicates business issues, provides resources, engenders trust, manages relationships, supports the project/program manager's role and promotes ethical working.
- For stakeholders, the project sponsor engages stakeholders, governs stakeholder communications, directs client relationship, directs governance of users, directs governance of suppliers and arbitrates between stakeholders

Information

- This concerns the information that informs decision makers and consists of regular reports on the project/program, issues and risks that have been escalated by the Project/Program Manager and certain key documents that describe the project/program, foremost of which is the business case.

Topic 4: Portfolio Governance



What does Governance mean to...

Chief Executive

- Alignment with key business objectives
- Controls are in place
- Peace of mind

Project Sponsor

- Management of the Business Case
- Alignment of key stakeholders
- Represent the project
- Clear direction and decision making
- Learning from experience

Project Manager

- Clear framework of responsibility, accountability, delegated authority
- Management of issues, change, risks and opportunities
- Reporting, review, audit, (more!) work

Stakeholders

- Communication of status
- Open and honest reporting
- Timely and reliable project forecasts

Customer

- Peace of mind?
- Delivery on time?

Topic 4: Portfolio Governance

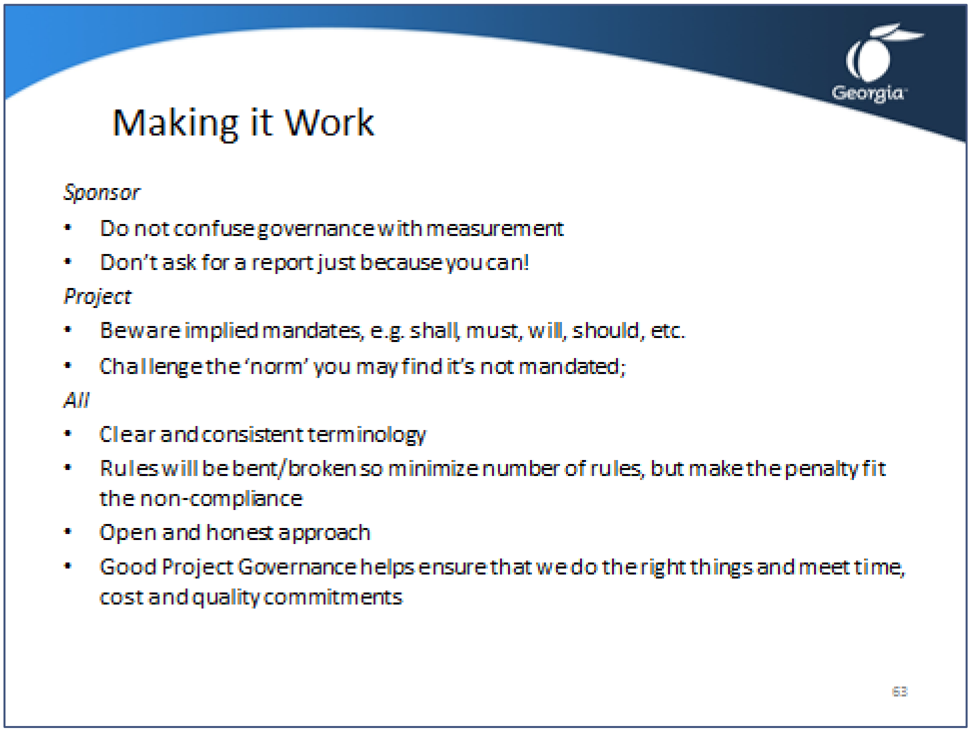
Governance Principles

1. Ensure a single point of accountability for the success of the project
2. Project ownership independent of Asset ownership, Service ownership or other stakeholder group
3. Ensure separation of stakeholder management and project decision making activities
4. Ensure separation of project governance and organizational governance structures

Elements of Good Governance

1. A compelling business case
2. Mechanism to assess compliance
3. All stakeholders identified
4. A defined method of communication
5. Agreed business level requirements
6. Agreed specification
7. Appointment of a project manager
8. Clear roles and responsibilities assigned
9. Up to date project plan
10. Systems in place to report progress
11. Process for management and resolution of issues
12. Process for recording and communicating risks

Topic 4: Portfolio Governance



Making it Work

Sponsor

- Do not confuse governance with measurement
- Don't ask for a report just because you can!

Project

- Beware implied mandates, e.g. shall, must, will, should, etc.
- Challenge the 'norm' you may find it's not mandated;

All

- Clear and consistent terminology
- Rules will be bent/broken so minimize number of rules, but make the penalty fit the non-compliance
- Open and honest approach
- Good Project Governance helps ensure that we do the right things and meet time, cost and quality commitments

Exercise 3.3: Portfolio Governance Exercise

Instructions:
In your teams, discuss how your agency manages the portfolio of projects, programs, and operations and describe that below.

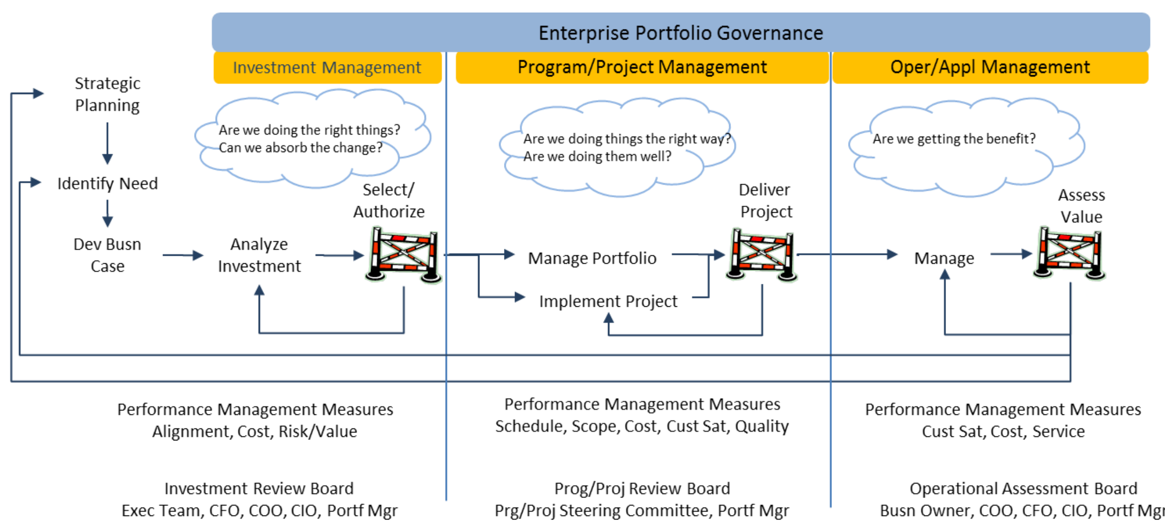
Now, discuss how your agency could use portfolio management and governance to manage the projects, programs, and operations of the agency.

Lesson 3 Summary: Learning Objectives Recap

- **Understand a success model for portfolio management**

1. **Are we investing in the right things?** – This question addresses the definition of business, of business direction and the alignment of portfolio components with that direction.
2. **Are we doing them the right way?** – This question addresses organizational structure and process, and the integration of portfolio components within the structure and process.
3. **Are we getting them done well?** – This question address organizational capability, the resources available and supporting infrastructure required to get work done efficiently.
4. **Are we getting the benefit expected?** – This question addresses the proactive management of the benefits realization process as a whole.
5. **Can we absorb the change?** – Can you live without the credit? The greater your desire to receive credit and recognition, the more frustrated you are likely to become working in the middle of an organization.

- **Understand a governance framework using portfolio management**



Notes

LESSON 4: THE PORTFOLIO/PROGRAM/PROJECT OFFICE

Topic 1: Benefits of the PMO

Topic 2: Structuring the PMO

Topic 3: Functions of a PMO

Topic 4: PMO Staffing

Topic 5: Planning and Implementing the PMO

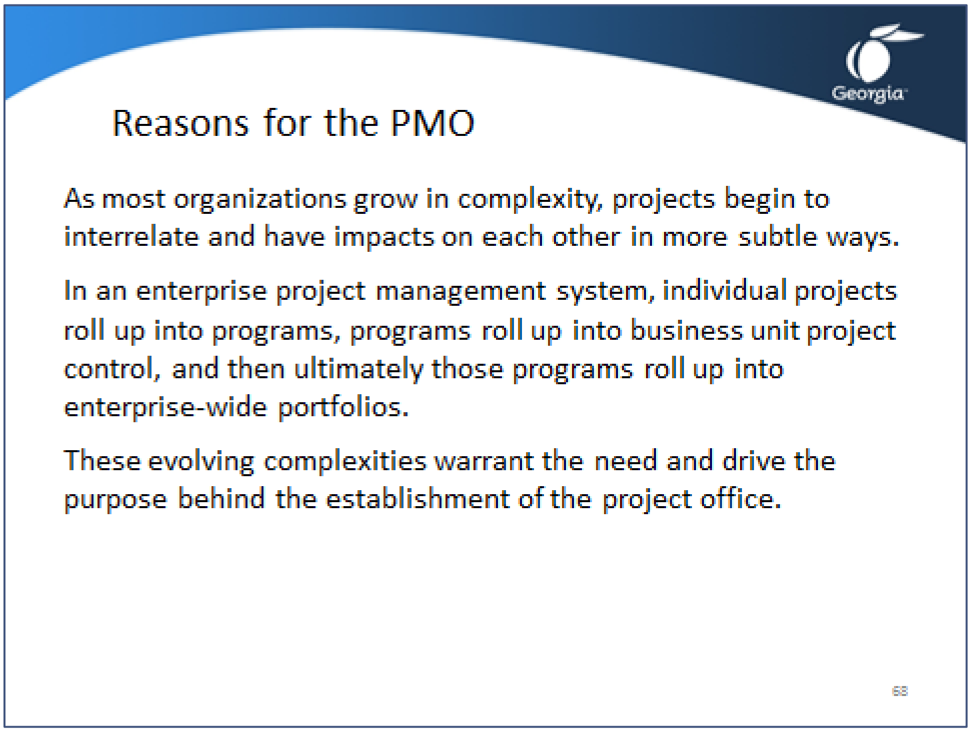
Student Learning Objectives

After completing this lesson you should be able to

- Understand the various structures of the PMO
- Understand the functions of a PMO
- Understand the basics for starting and implementing a PMO

Approximate Presentation time: 2.5 hours

Topic 1: Benefits of the PMO

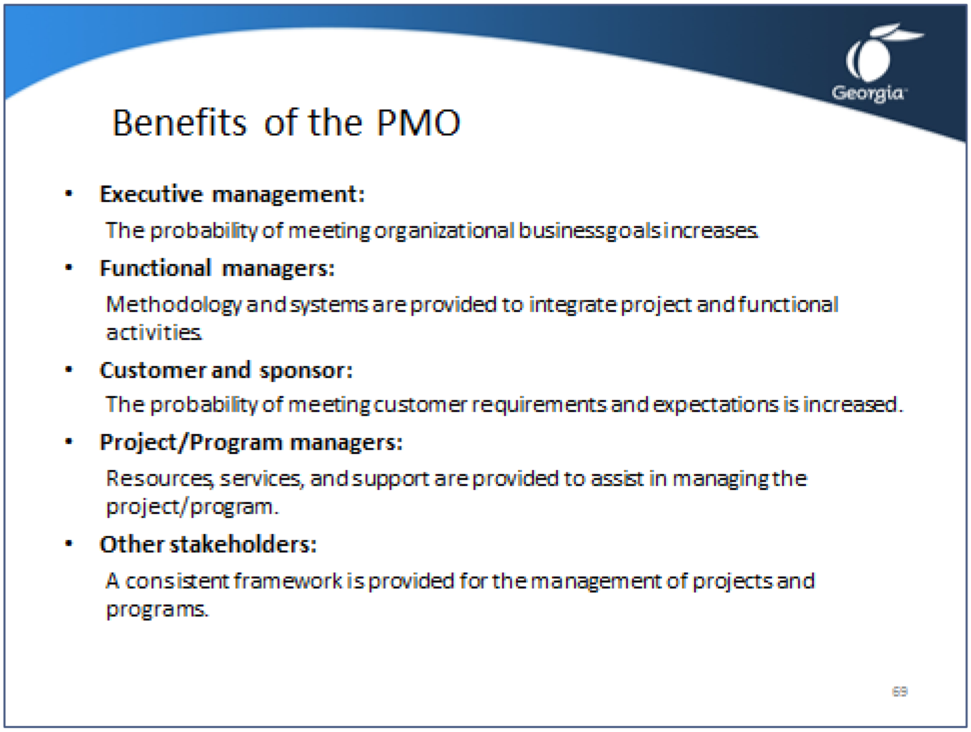


As most organizations grow in complexity, projects begin to interrelate and have impacts on each other in more subtle ways; ways that might not be understood until each project is well underway and suddenly a conflict or dependency emerges – usually an unpleasant surprise.

As levels of sophistication increase in a business, there is then a call for increasing levels of integration in project processes – much the same way that more complex businesses require better financial tracking. Just as a financial system rolls up expenditures and revenues across many departments into a single budget, in an enterprise project management system, individual projects roll up into programs, programs roll up into business unit project control, and then ultimately those programs roll up into enterprise-wide portfolios.

These evolving complexities warrant the need and drive the purpose behind the establishment of the project office. We will need a structure that establishes project oversight and control, will reduce project disarray and waste. A project office can integrate processes and practices of the project into the enterprise organization, and provide centralized project management expertise.

Topic 1: Benefits of the PMO



Benefits of a project management office to various people in the organization include:

Executive management:
The probability of meeting organizational business goals increases.

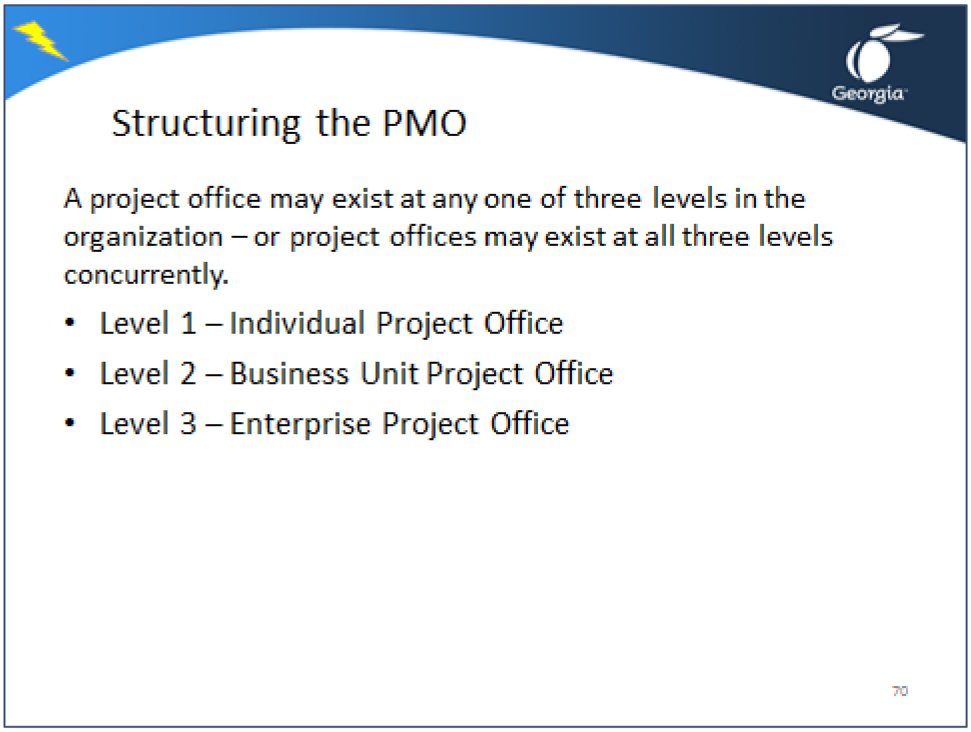
Functional managers:
Methodology and systems are provided to integrate project and functional activities.

Customer and sponsor:
The probability of meeting customer requirements and expectations is increased.

Project/Program managers:
Resources, services, and support are provided to assist in managing the project/program.

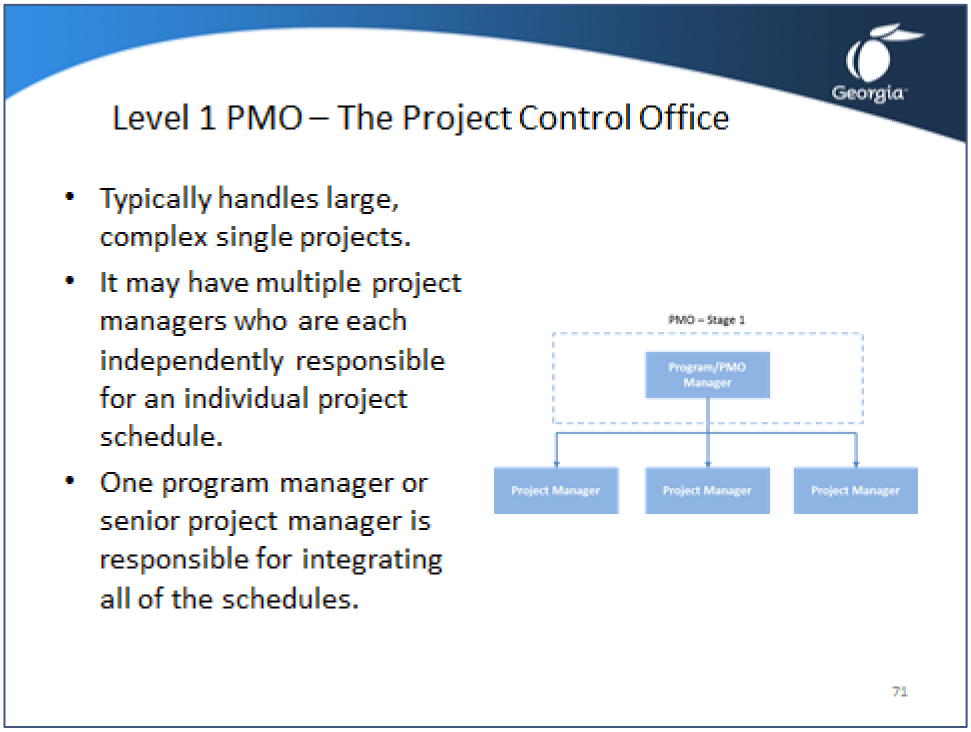
Other stakeholders:
A consistent framework is provided for the management of projects and programs.

Topic 2: Structuring the PMO



Not all PMO's are created equal, although almost any form of project office will jumpstart incremental process improvements in organizations that have nothing at all in place. Basically, a project office is staffed by project management professionals who serve their organization's project management needs. It also serves as an organizational center for project management excellence. A project office may exist at any one of three levels in the organization – or project offices may exist at all three levels concurrently.

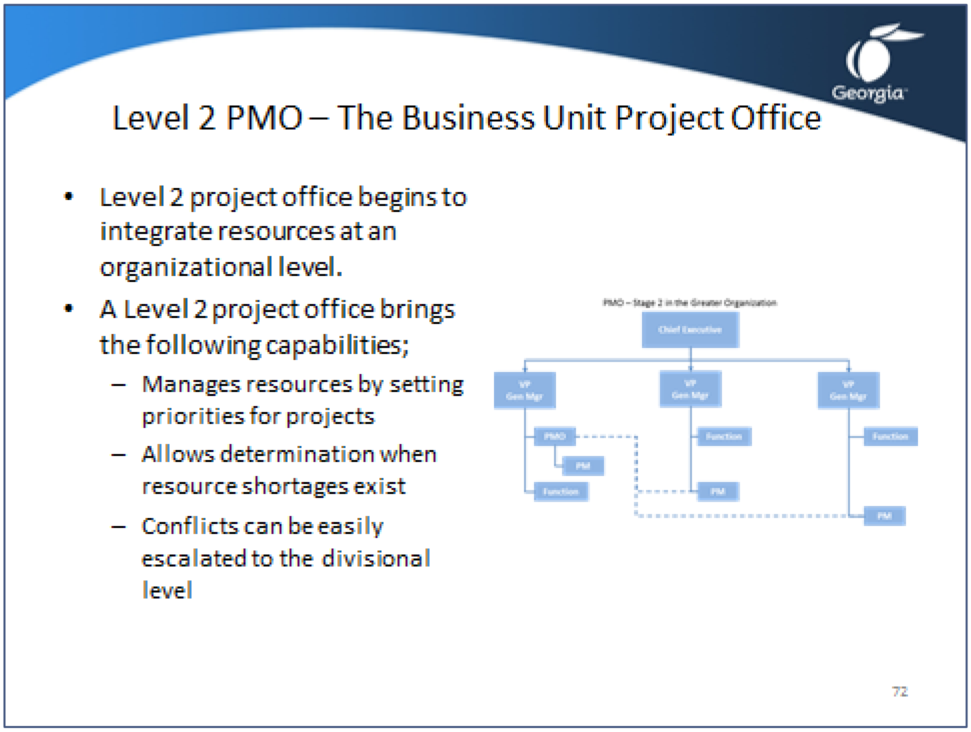
Topic 2: Structuring the PMO



Level 1 PMO – The Project (Process) Control Office

This is an office that typically handles large, complex single projects. It is specifically focused on one project, but that one project is so large and so complex that it requires multiple schedules, which need to integrate into an overall program schedule. It may have multiple project managers who are each independently responsible for an individual project schedule and, as those schedules, their associated resource requirements, and their associated costs are all integrated into an overall program schedule, one program manager or senior project manager is responsible for integrating all of the schedules, the resource requirements, and the costs to ensure that the program as a whole meets its deadlines, milestones, and deliverables.

Topic 2: Structuring the PMO



Level 2 PMO – The Business Unit Project Office

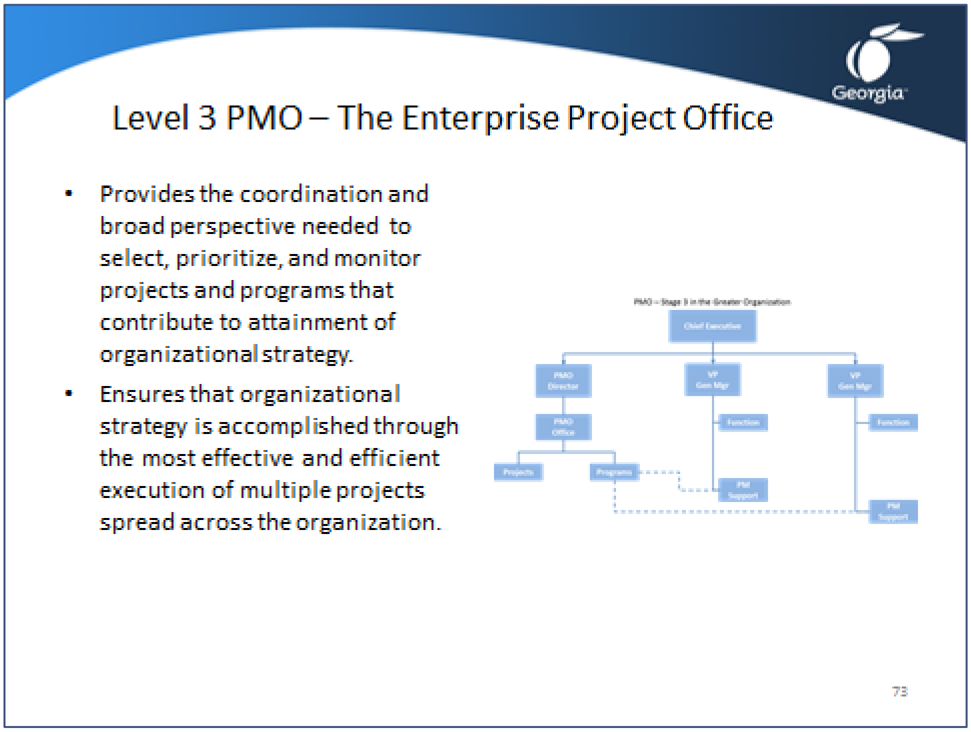
At the divisional or business unit level, a project office may still be required to provide support for individual projects but its challenge is to integrate a large number of multiple projects of varying sizes, from small short-term initiatives that requires few resources to multi-month or multi-year initiatives that require dozens of resources, large dollar amounts, and complex integration of technologies.

The value of the Level 2 project office is that it begins to integrate resources at an organizational level. And it's at the organizational level that resource control begins to play a much higher value role in the payback of a project management system.

A Level 2 project office brings the following capabilities;

- Efficiency in managing resources to by setting priorities for projects
- Allows the organization to determine when resource shortages exist
- Conflicts between projects can be easily escalated to the divisional level

Topic 2: Structuring the PMO



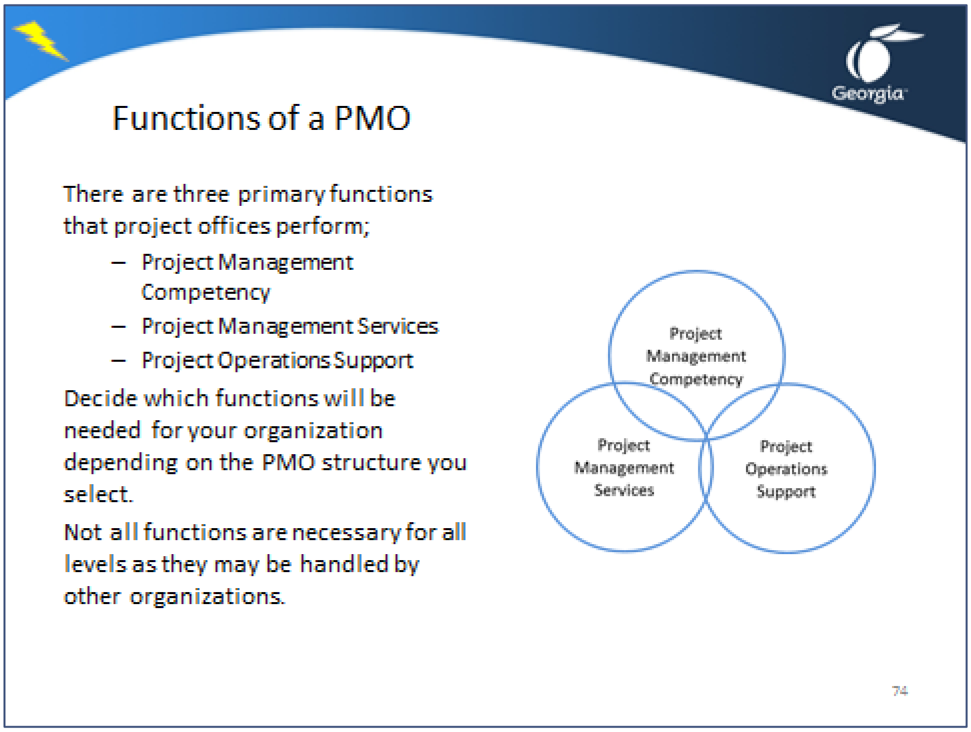
Level 3 PMO – The Enterprise Project Office

Consider an organization with multiple business units, multiple support departments at both the business unit and organizational level, and ongoing projects within each unit. A Level 2 project office would have no authority to prioritize projects from the organizational perspective, yet executive level management must select projects that will support strategic organizational objectives. Only an enterprise level organization can provide the coordination and broad perspective needed to select, prioritize, and monitor projects and programs that contribute to attainment of organizational strategy.

Which level of project office is right for your organization depends on the size and complexity of the organization, the interdependency of the projects and programs among business units, the availability of resources, and the competence of your project managers.

Level 1: large complex projects needing a core team to manage them.
Level 2: Several large complex projects. Capture and institutionalize best practices of the project teams.
Level 3: ensure that organizational strategy is accomplished through the most effective and efficient execution of multiple projects spread across the organization.

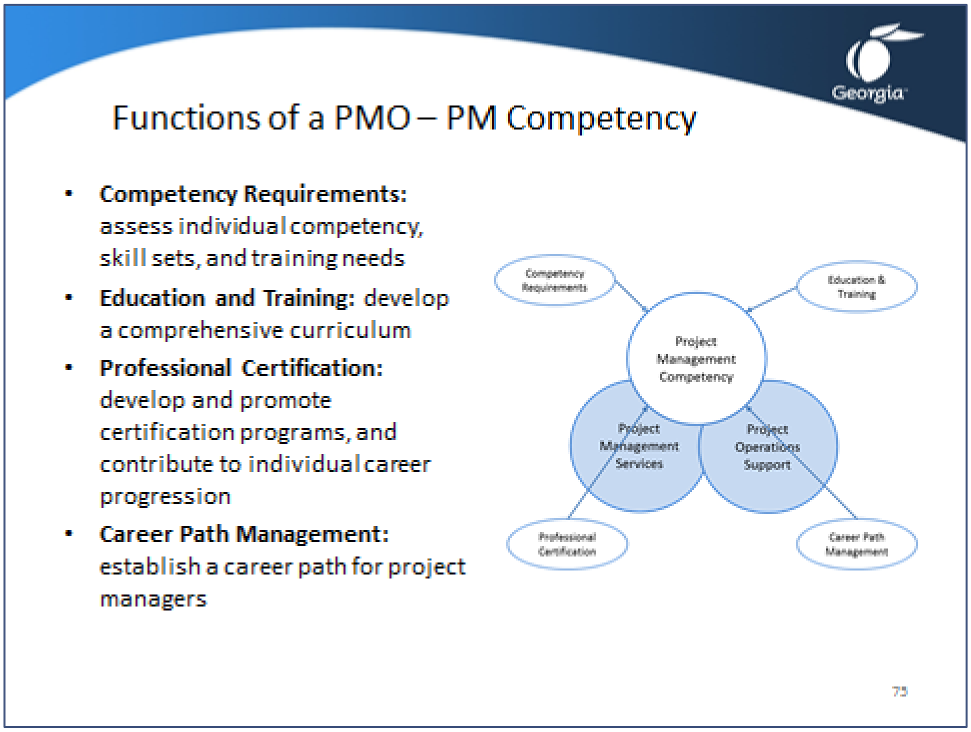
Topic 3: Functions of a PMO



There are three primary functions that project offices perform. Each function has its own components and will be discussed individually. You will want to decide which functions will be needed for your organization depending on the PMO structure you select. Not all functions are necessary for all levels as they may be handled by other organizations.

We will discuss the functions of Project Management Competency, Project Management Services, and Project Operations Support.

Topic 3: Functions of a PMO



Project Management Competency

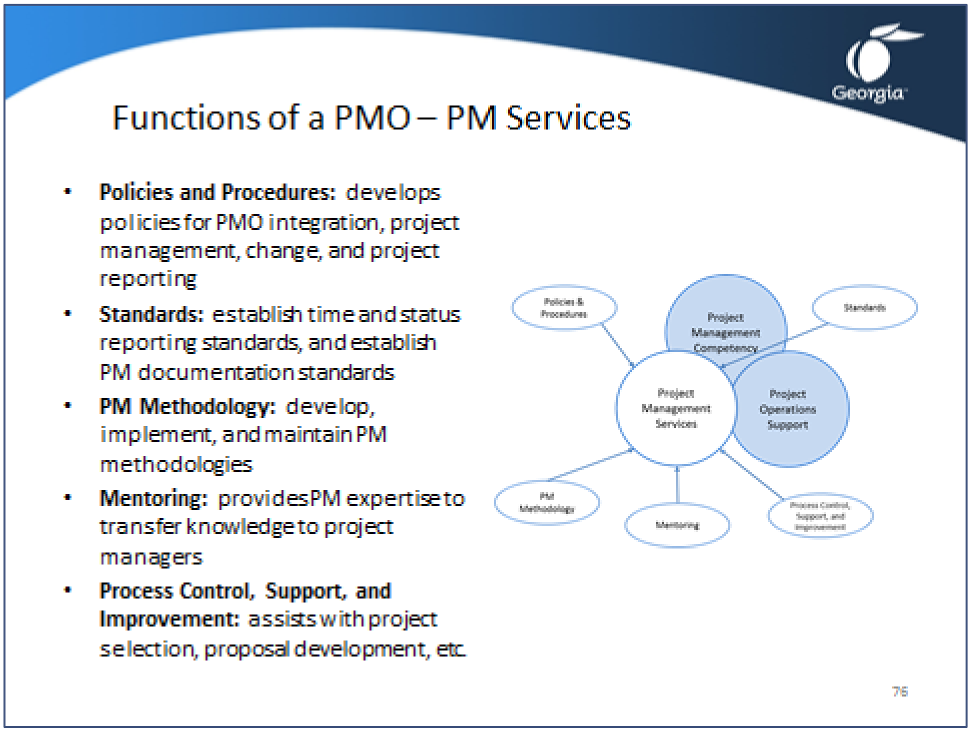
Competency Requirements: The PMO establishes the project management requirements at all levels, assess individual competency, skill sets, and training needs. A determination is made if external resources will be needed based upon the findings of the competency assessment and a training plan is developed to fill any competency gaps.

Education and Training: The PMO will develop a comprehensive curriculum including topics such as; PM Fundamentals, Advanced and specialized tools, Methodology training, Processes and procedures, and Certification preparation. The audience includes project managers, team members, sponsors/executives, others.

Professional Certification: The PMO will recognize professional certification preparation, demonstrate consistency of PM competency, develop and promote certification programs, and contribute to individual career progression.

Career Path Management: The PMO will establish a career path for project managers. It will also provide and document professional advancement, and will incorporate coaching.

Topic 3: Functions of a PMO



Project Management Services

Policies and Procedures: The PMO develops the project management methodology, develops policies for PMO integration, project management, change, and project reporting.

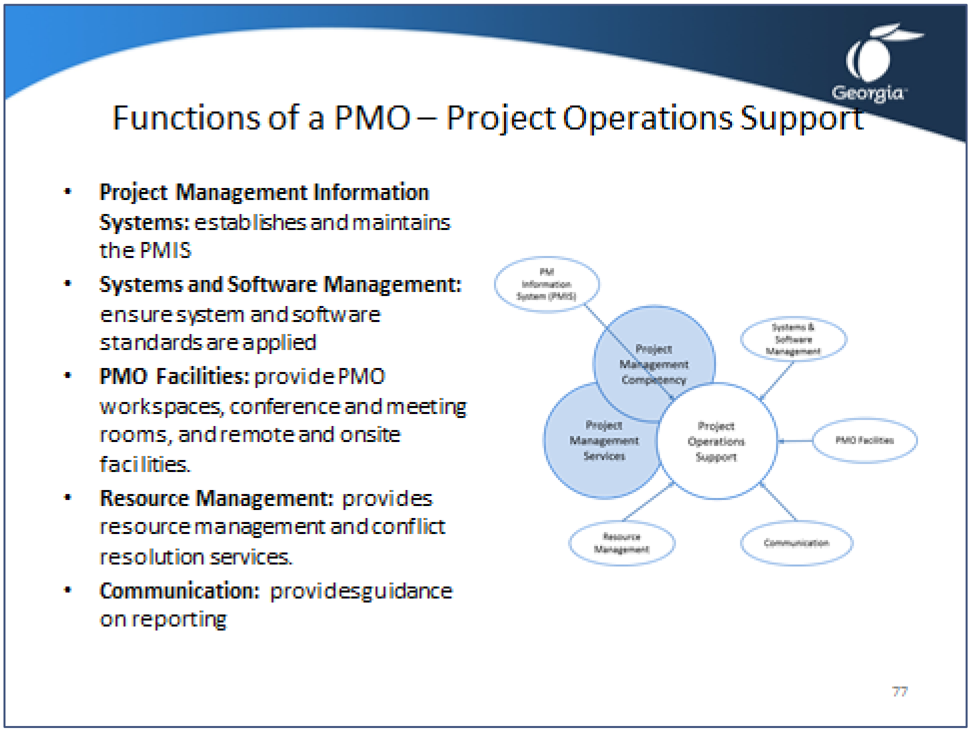
Standards: The PMO will incorporate best practices and business standards, establish time and status reporting standards, and establish PM documentation standards.

PM Methodology: The PMO will develop, implement, and maintain PM methodologies, and evaluate methodology use and performance.

Mentoring: The PMO provides PM expertise, facilitates project team activities, facilitates evaluation of project managers, provides the transfer of knowledge to project managers, and provides PM mentoring to executives.

Process Control, Support, and Improvement: The PMO assists with project selection, proposal development, planning consolidation, integrated scheduling and cost control, estimating, program reporting, document control, risk management, methodology management, change management, project auditing, project recovery, and process improvement.

Topic 3: Functions of a PMO



Project Operations Support

Project Management Information Systems: The PMO establishes and maintains the PMIS, manages PMIS connectivity with other systems, specifies PM reporting requirements, establishes a PM database, and provides PMIS support.

Systems and Software Management: The PMO will ensure system and software standards are applied, acquires and provides software access, and manages internal PM software development.

PMO Facilities: The PMO will provide PMO workspaces, conference and meeting rooms, and remote and onsite facilities.

Resource Management: The PMO provides resource management, allocation and conflict resolution services.

Communication: The PMO provides guidance on reporting, access to information, meeting guidelines, distribution processes, metrics for performance reporting, and the process for administrative closure of a project.

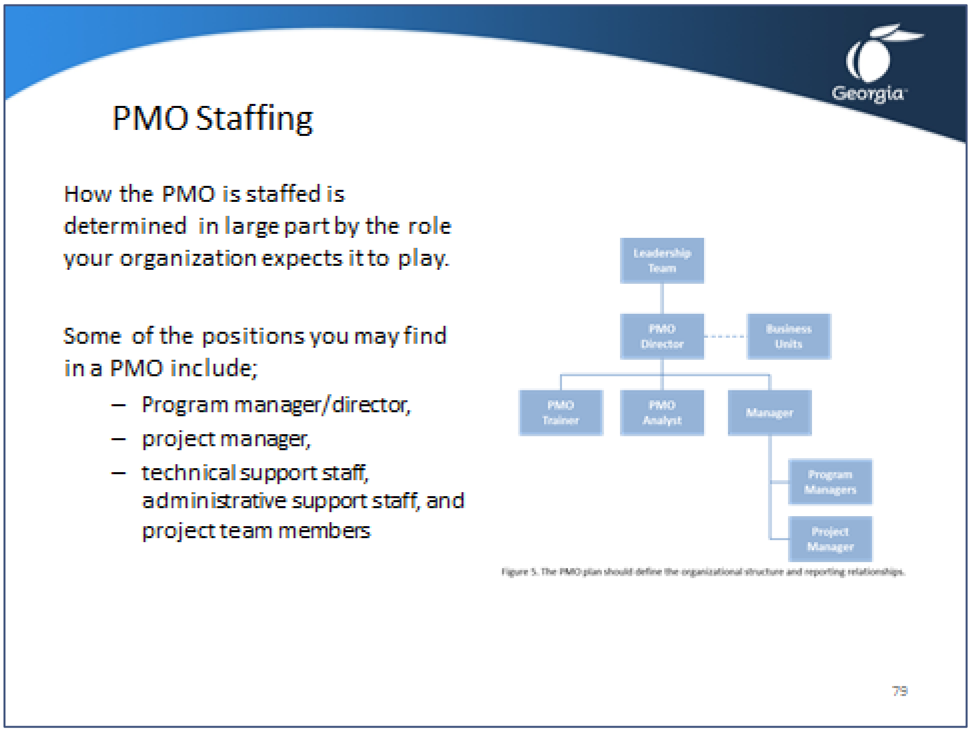
Exercise 4.1: PMO Structure and Functions Exercise

Instructions:

Work in your teams for this exercise.

Consider the structure of your agency and discuss with the team a PMO structure you feel would work best in your agency. Also, discuss the functions this PMO should incorporate based on the structure the team comes up with.

Topic 4: PMO Staffing



How the PMO is staffed is determined in large part by the role your organization expects it to play. If the project office is to play the central role in guiding project management in the organization, staffing will be complex. The project office director position within the organization should be equivalent to that of a high-level functional manager – even a director, in some cases. Some of the positions you may find in a PMO include Program manager/director, project manager, technical support staff, administrative support staff, and project team members.

Topic 4: PMO Staffing

Project Office Director

- Stage 1: Develop processes, provide fundamental support
- Stage 2: Support the processes, provide selected capabilities
- Stage 3: Provide executive management of enterprise projects and programs

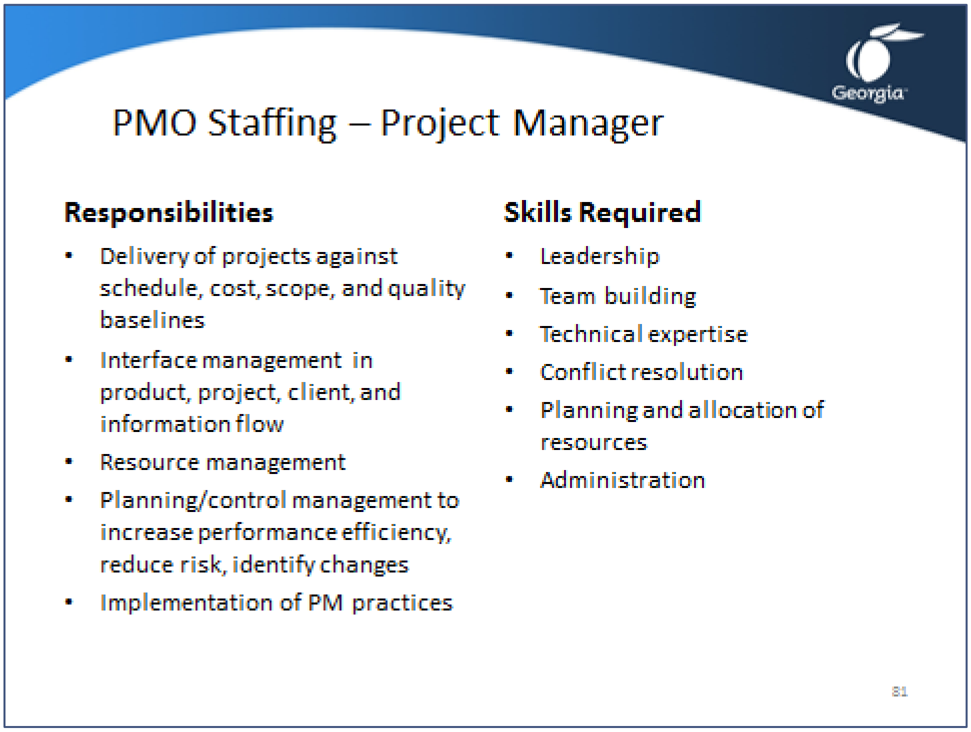
Responsibilities

- Resource prioritization
- Project review and analysis
- Business interface
- Liaison to executive and functional management
- Develop standards, policies, guidelines, and procedures
- PM skills development
- Project oversight
- Budget

Skill Requirements

- Leadership
- Directing and managing programs
- Building organizations
- Identifying and developing new business
- Selecting and developing key personnel
- Strategic planning and Multi-tiered management

Topic 4: PMO Staffing



Project Manager

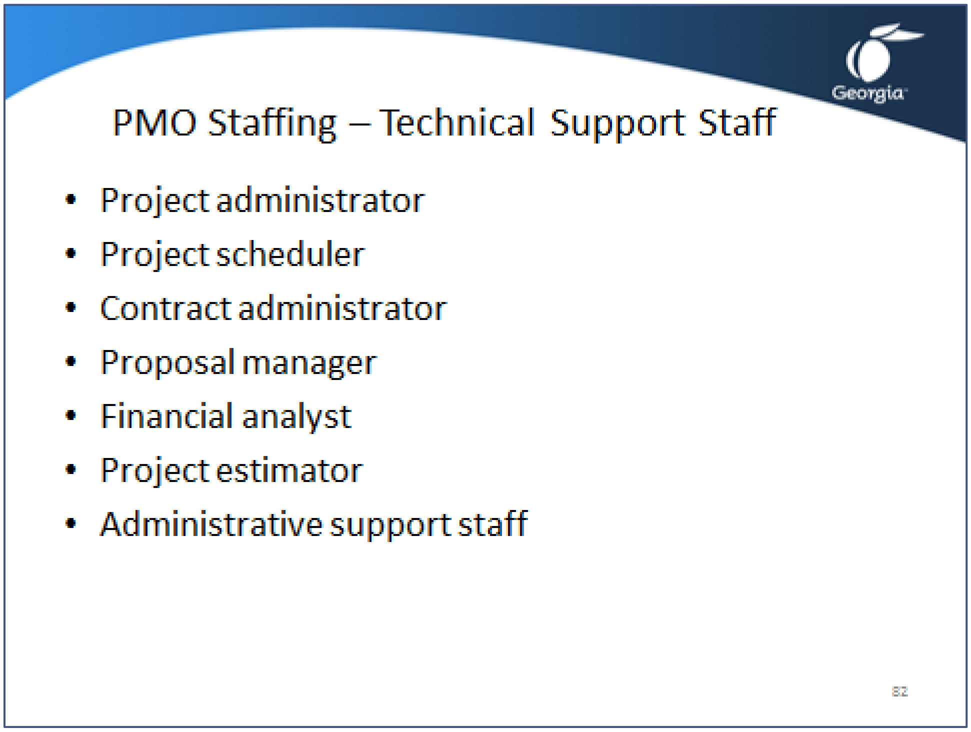
Responsibilities

- Delivery of projects against schedule, cost, scope, and quality baselines
- Interface management in product, project, client, and information flow
- Resource management in schedule, staffing, budget, equipment, and facilities
- Planning/control management to increase performance efficiency, reduce risk, identify changes
- Implementation of PM practices

Skill Requirements

- Leadership
- Team building
- Technical expertise
- Conflict resolution
- Planning and allocation of resources
- Administration

Topic 4: PMO Staffing



Types of Technical Support Staff

- Project administrator
- Project scheduler
- Contract administrator
- Proposal manager
- Financial analyst
- Project estimator
- Administrative support staff

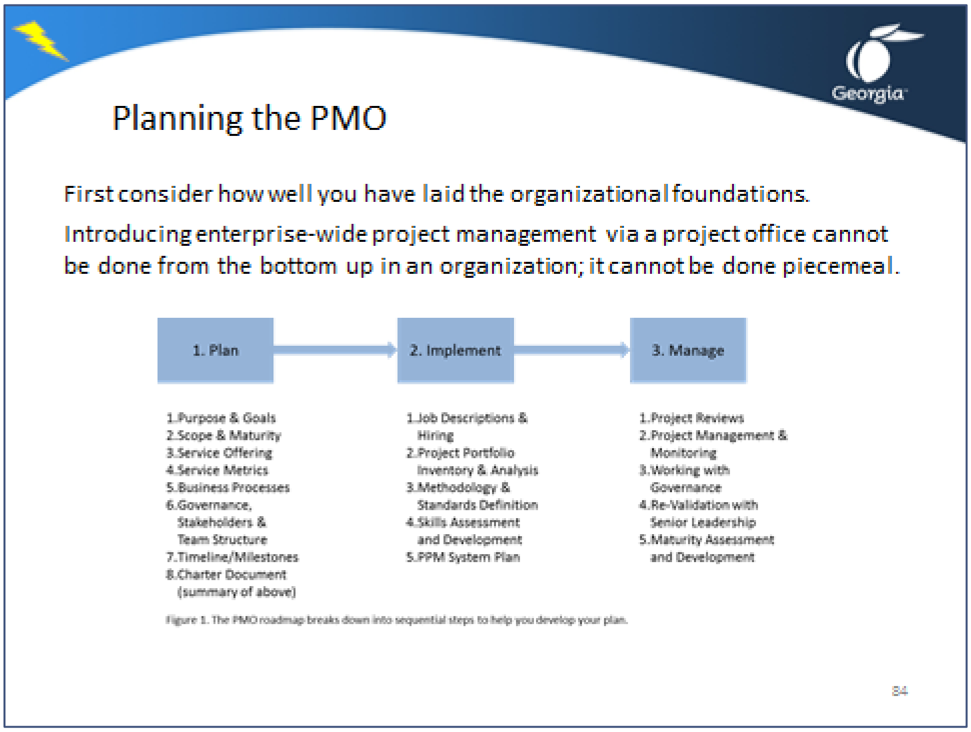
Exercise 4.2: Staffing the PMO

Instructions:

Work in your teams for this exercise.

Consider the structure and functions you chose in the previous exercise. Decide how you should staff this PMO. Use an organizational chart for support.

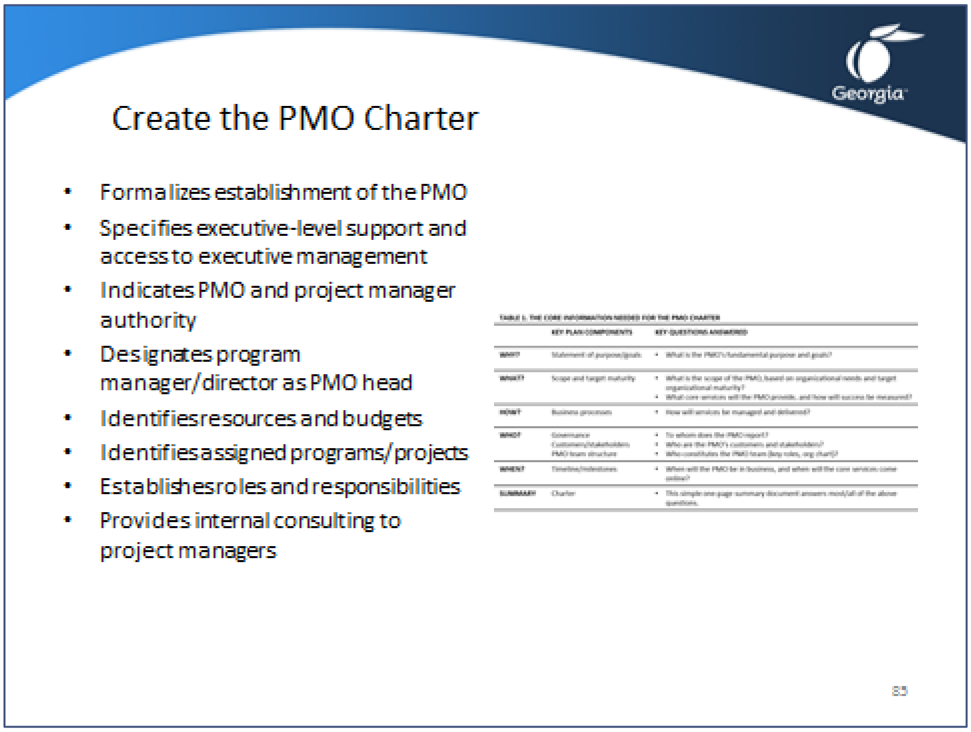
Topic 5: Planning and Implementing the PMO



Before embarking on this step of the journey, you must first consider how well you have laid the organizational foundations. Introducing enterprise-wide project management via a project office cannot be done from the bottom up in an organization; it cannot be done piecemeal; and it is unfair to the discipline of project management to set your project office up for failure from the outset by not properly preparing the ground.

With that said, let‘s move into the steps of the project to create your project office. As with any project, we’ll begin by creating a project charter.

Topic 5: Planning and Implementing the PMO



Create the PMO Charter

- Formalizes establishment of the PMO
- Specifies executive-level support and access to executive management
- Indicates PMO and project manager authority
- Designates program manager/director as PMO head
- Identifies resources and budgets
- Identifies assigned programs/projects
- Establishes roles and responsibilities
- Provides internal consulting to project managers

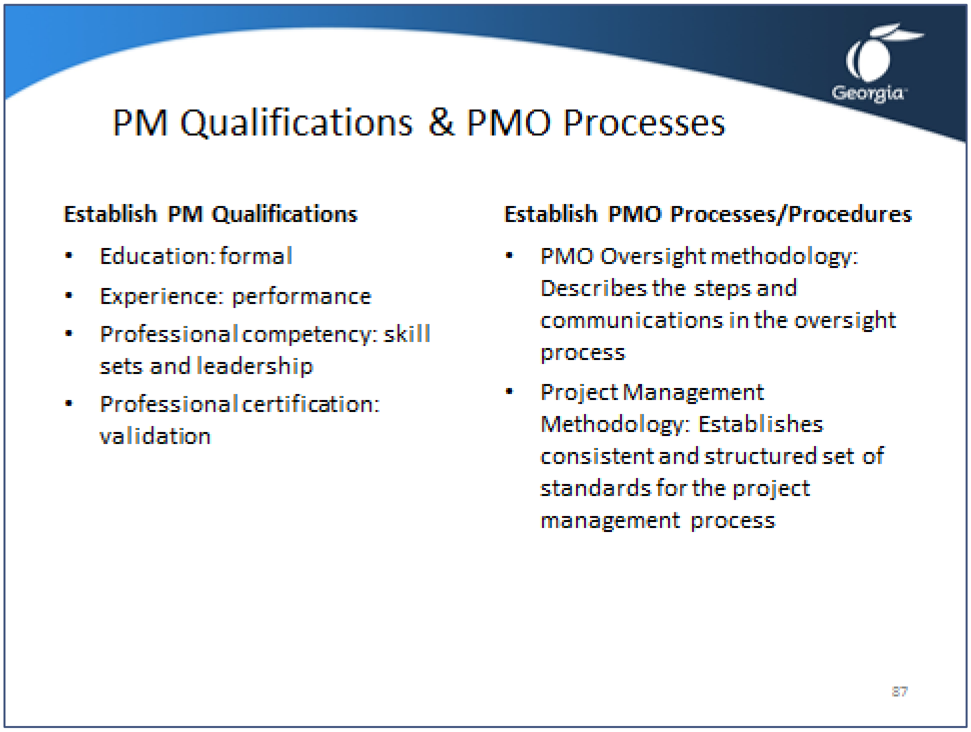
Assign the PMO Manager

- Interfaces with upper management
- Manages diverse staff as well as business function roles and responsibilities
- Reviews and negotiates contracts
- Manages customer relationships
- Understands funding activities
- Oversees multiple projects
- Exhibits expertise in project management

Integrate Applicable Organizational Policies

- General policy: Creates project management environment
- Best practices policy: Provides enterprise standards
- Project complexity policy: Specifies preferred approach to risk, strategic importance, organizational unit involvement, and technology factors
- Project change policy: Includes decisions regarding resources, costs, schedule, performance, technology, customer indecisiveness, etc.

Topic 5: Planning and Implementing the PMO

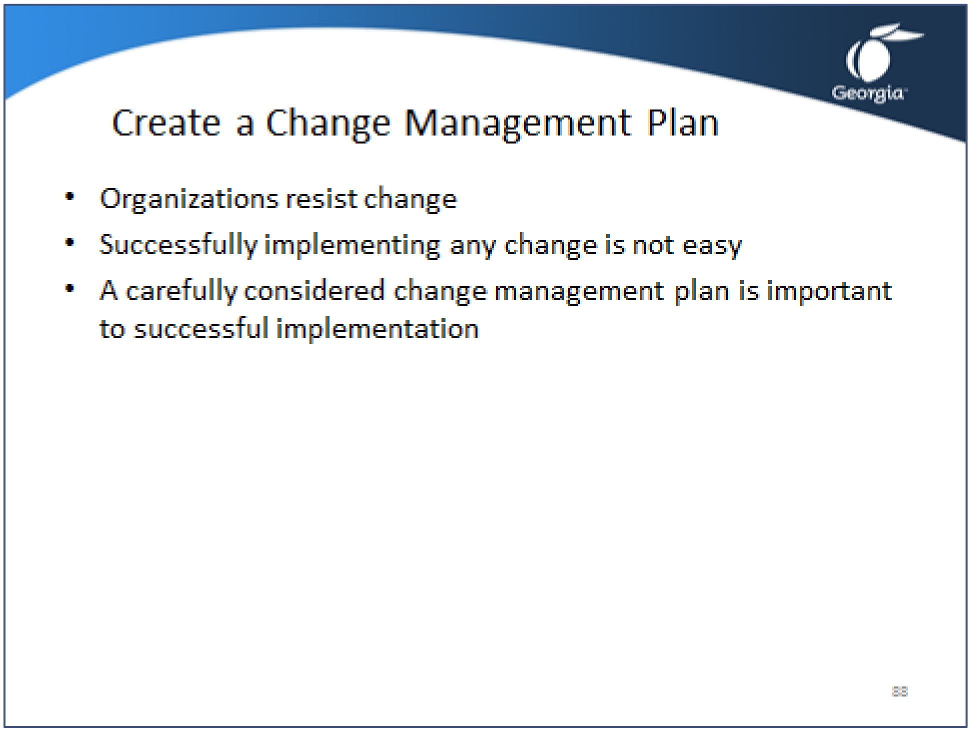


Establish Project Manager Qualifications

- Education: formal
- Experience: performance
- Professional competency: skill sets and leadership
- Professional certification: validation

Establish PMO Processes and Procedures

- PMO Oversight methodology: Describes the steps and communications in the oversight process
- Project Management Methodology: Establishes consistent and structured set of standards for the project management process



Create a Change Management Plan

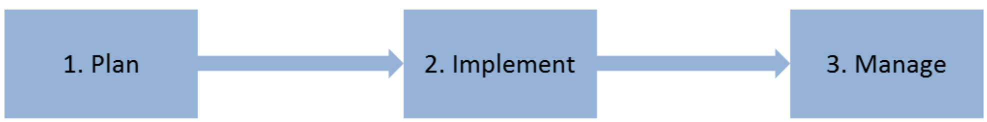
- Organizations resist change
- Successfully implementing any change is not easy
- A carefully considered change management plan is important to successful implementation

Lesson 4 Summary: Learning Objectives Recap

- **Understand the various structures of the PMO**
  A project office may exist at any one of three levels in the organization – or project offices may exist at all three levels concurrently.
  - Level 1 – Individual Project Office
  - Level 2 – Business Unit Project Office
  - Level 3 – Enterprise Project Office

- **Understand the functions of a PMO**
  There are three primary functions that project offices perform;
  - Project Management Competency
  - Project Management Services
  - Project Operations Support

- **Understand the basics for starting and implementing a PMO**



1. Plan	2. Implement	3. Manage
1. Purpose & Goals	1. Job Descriptions & Hiring	1. Project Reviews
2. Scope & Maturity	2. Project Portfolio Inventory & Analysis	2. Project Management & Monitoring
3. Service Offering	3. Methodology & Standards Definition	3. Working with Governance
4. Service Metrics	4. Skills Assessment and Development	4. Re-Validation with Senior Leadership
5. Business Processes	5. PPM System Plan	5. Maturity Assessment and Development
6. Governance, Stakeholders & Team Structure		
7. Timeline/Milestones		
8. Charter Document (summary of above)		

Figure 1. The PMO roadmap breaks down into sequential steps to help you develop your plan.

Notes

APPENDIX I - EXERCISE ANSWERS

Exercise 2.1: Understanding Program Characteristics

Instructions:
Review the terms in the table below and match each term to its definition.

	?	Term	Definition
1.	G	Program Management	A. Program management is the link that sews the matrix together and enables the cross-project teams to perform cohesively.
2.	A	Cross-project and Multi-disciplined	B. Aligns Functional Objectives to Business Objectives
3.	F	Specialized knowledge workers collaborate in real time and without regard to geographical boundaries or distances to deliver total solutions.	C. This role requires a unique set of core competencies, skills, and personality traits in the areas of business and financial, customer, leadership, and process and project management acumen.
4.	B	The characteristic that reduces the effect of agency theory.	D. Focal Point for Ownership and Accountability
5.	C	Capable Business Leader – The Program Manager	E. Program Management
6.	D	The program manager assumes the full responsibility throughout the development lifecycle.	F. Program Management Enables Horizontal Collaboration
7.	E	Is Strategic in Nature	G. A group of related projects, subprograms, and program activities that are managed in a coordinated way to obtain benefits not available from managing them individually.

Exercise 2.2: Programs vs. Projects

Instructions:

Review the terms in the table below and match each term to its definition.

	?	Term	Definition
1.	D	Program vs. Portfolio differentiating factor – Process/Function	A. Tactical in nature, focused on execution success
2.	E	The basic reason for a program is that the proposed change is _______ and _______. Also, the ________ for the change may be imprecise.	B. Program
3.	A	Project Management	C. Program Management
4.	C	Strategic in nature, focused on business success	D. A management function utilized to determine the business and execution feasibility of a selected idea.
5.	B	If I want to re-engineer a process I should run this as a ___________.	E. wide-ranging, strategic, timescale
6.	G	_________ should be run as a project	F. Improve the link between business strategy and operational execution
7.	F	This trend plays a key role in the need to distinguish between program and project management.	G. Catalog launch

Exercise 3.1: Topics in Portfolio Management

Instructions:
Review the terms in the table below and match each term to its definition.

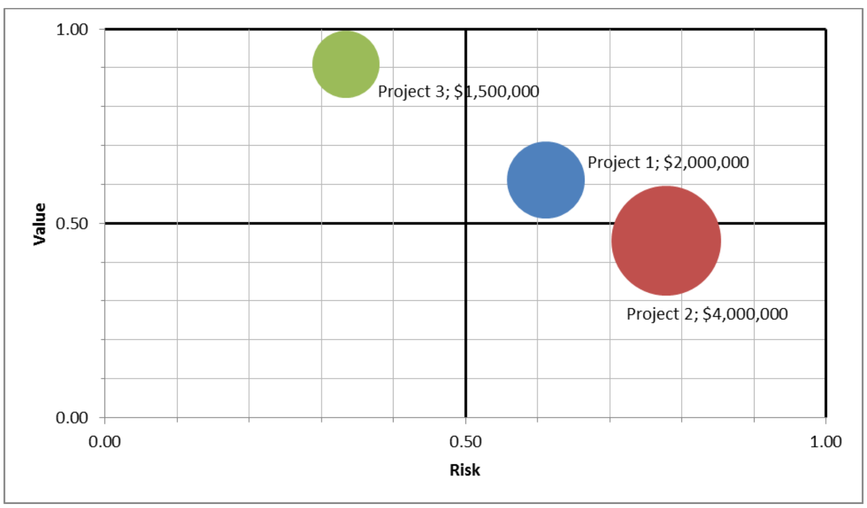
	?	Term	Definition
1.	D	Maintaining portfolio alignment	A. Addresses whether organizational structure and processes are in place to be successful.
2.	E	Portfolio Management	B. A component collection of programs, projects, or operations managed as a group to achieve strategic objectives.
3.	F	Application Portfolio	C. Portfolio Components
4.	B	A portfolio	D. An impact of portfolio management on strategy
5.	A	Are we doing them the right way?	E. The coordinated management of one or more portfolios to achieve organizational strategies and objectives.
6.	G	Portfolio management can work at an organizational, _____________, or enterprise level.	F. A type of portfolio
7.	C	Portfolios, Programs, Projects, Operations	G. business unit

Exercise 3.2: Risk vs. Value Selection Exercise

Instructions:

Based on the information provided complete the scoring of the three projects in your portfolio. Determine a score, the "Indicator Y" value, the "Indicator X" value, and plot the projects on the graph provided.

Value v Risk Assessment			**Evaluation**		Project 1	$2,000,000	Project 2	$4,000,000	Project 3	$1,500,000	
List of Criteria	**Weight**	**Low**	**Medium**	**High**	**Rating**	**Score**	**Rating**	**Score**	**Rating**	**Score**	
Strategic Fit	20%	0	5	10	10	2.00	5	1.00	10	2.00	Indicator Y Value
Customer Satisfaction	15%	0	5	10	5	0.75	5	0.75	10	1.50	
Management Information	10%	0	5	10	5	0.50	0	0.00	5	0.50	
Quality of Worklife	5%	0	5	10	5	0.25	5	0.25	10	0.50	
Public Perception	5%	0	5	10	10	0.50	10	0.50	10	0.50	
Organizational Risk	15%	0	5	10	5	0.75	5	0.75	5	0.75	Indicator X Risk
Definitional Risk	10%	0	5	10	10	1.00	10	1.00	0	0.00	
Infrastructure Risk	5%	0	5	10	10	0.50	5	0.25	5	0.25	
Security Risk	10%	0	5	10	5	0.50	10	1.00	5	0.50	
External Risk	5%	0	5	10	0	0.00	10	0.50	0	0.00	
TOTAL WEIGHT	**100%**				**TOTAL SCORE**	**6.75**		**6.00**		**6.50**	
					Indicator Y (0 to 1)	0.73		0.45		0.91	
					Indicator X (0 to 1)	0.61		0.78		0.33	



- Identify the priority of the projects based on their Risk versus Value comparison.

  Highest Value – Lowest Risk: Project 3 (Value=.91, Risk=.33)
  Medium Value – Medium Risk: Project 1 (Value=.73, Risk=.61)
  Medium Value – Highest Risk: Project 2 (Value=.45, Risk=.78)