MCLschool

Introduction to Project Management

This course provides good understanding of the fundamentals of project management

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Module 2

Lesson 2 Project Selection & Initiation

MCLschool

Course Overview

- Describe Process Group interactions
- Identify the inputs and actions of Project Management Process Groups
- Project Selection
    - Financial Components
    - Decision Tree and Expected Monetary Value
    - Balanced Scorecard and Weighted Scoring Models
- Initiating Process Group
    - Identify Stakeholders
    - Develop a Project Charter

Project Management Process Groups

Project management processes are divided into five groups:

- Initiating Process Group
- Planning Process Group
- Executing Process Group
- Monitoring and Controlling Process Group
- Closing Process Group

The iteration of processes within phases is dependent on the complexity of the project and project approach. Simple projects may have only one iteration, while complex projects may have multiple iterations before they enter a new phase.

Process Group Interactions

Process Groups have overlapping activities that occur throughout the project life cycle.

The output of one process acts as an input to another process or a deliverable of the project.

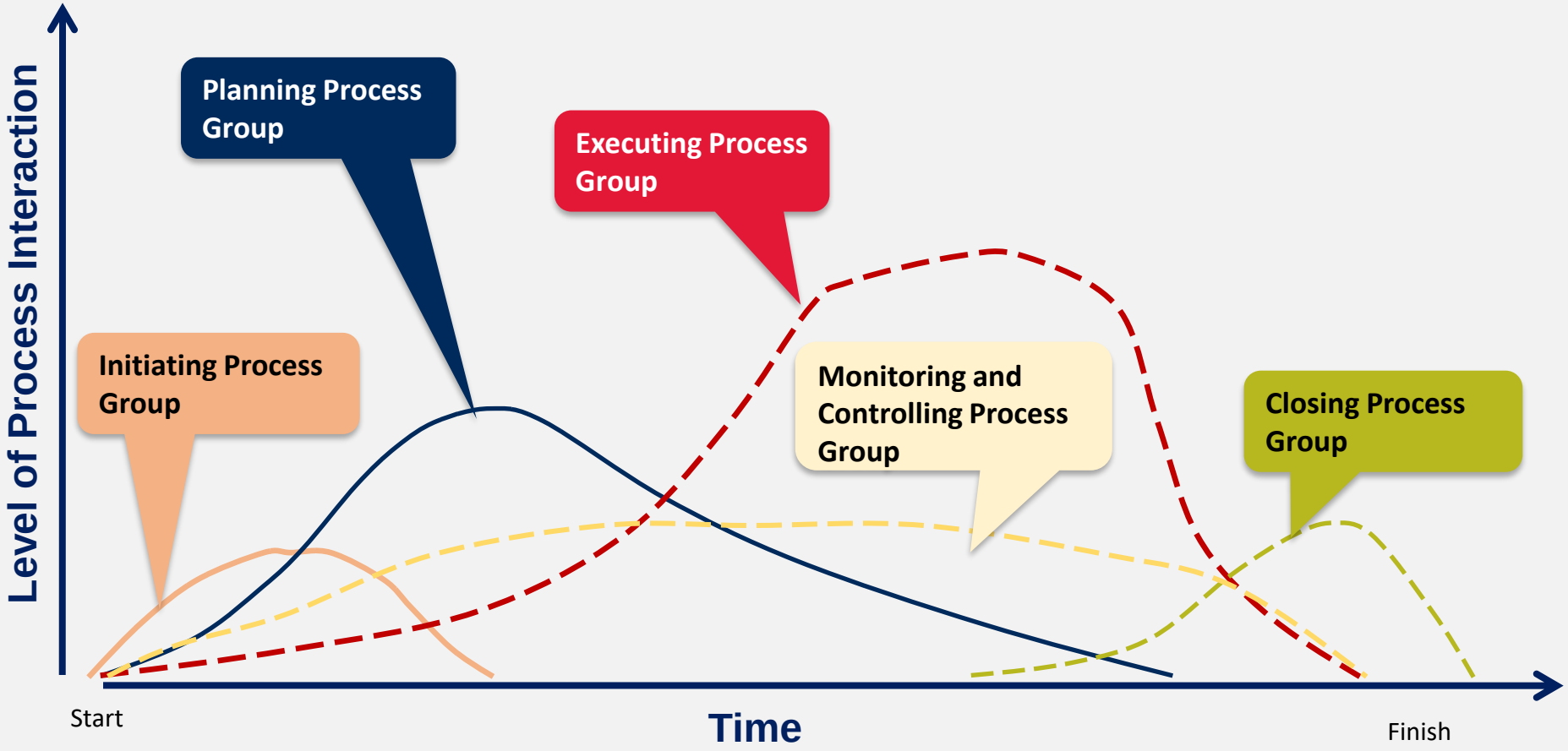

Figure 1-5. Process Groups Interact in a Phase or Project

Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute, Inc., 2017 Page 555

Initiating Process Group

Initiating Process Group defines a new project or phase by establishing its vision and outcomes.
The project is officially authorized when the project charter is approved by the sponsor.

Inputs: High Level

- Business documents
- Agreements
- Project management plan
- Project documents
- Enterprise environmental factors
- Organizational process assets

Actions taken

- Perform project assessment with key stakeholders using available and historical data to see the feasibility of new products or services, considering assumptions and constraints
- Identify key deliverables to achieve the project goals
- Perform stakeholder analysis to align expectations and gain support for the project
- Identify high-level risks using current and past data to propose implementation strategy
- Participate in project charter development to ensure stakeholders' agreement
- Obtain project charter approval to gain authority and commitment
- Perform benefit analysis to align organizational strategy and business value
- Facilitate stakeholder communication about the elements of project charter

The inputs and activities of Initiating Process Group are important from the exam perspective.

Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute, Inc., 2017 Page 23
PMP examination content outline

Planning Process Group

Planning Process Group establishes the total scope of effort, objectives, and course of action required to attain the objectives.

Inputs: High Level

- Project charter
- Outputs from different processes
- Project documents
- Agreements
- Business documents
- Procurement documentation
- Organizational process assets
- Enterprise environmental factors

Actions taken

- Refine requirements and convert them into a scope statement and work breakdown structure
- Get stakeholder approval and buy-in
- Develop the scope, cost, and schedule baselines
- Select the project team and determine its roles and responsibilities
- Determine project's quality standards and plan
- Prepare a framework for risk management, identification, analysis, and response planning
- Determine what needs to be purchased
- Determine how to execute and control the project
- Document the project management plan
- Handle updates on the plan that arise from change requests

Executing Process Group

Executing Process Group completes the work defined in the project management plan to satisfy the project specifications.

Inputs: High Level

- Project management plan
- Project documents
- Approved change requests
- Team performance assessments
- Work performance reports
- Procurement documentation
- Seller proposals
- Enterprise environmental factors
- Organizational process assets

Actions taken

- Acquire and manage project resources
- Manage task execution per project management plan by leading and developing project team
- Implement quality management plan to ensure work is performed in line with quality standards
- Implement approved changes, corrective actions, preventive actions, and defect repair
- Implement the risk responses per the plan
- Manage flow of information per communication plan in order to keep stakeholders engaged
- Select sellers and award contract
- Maintain stakeholder relationship to receive support and manage expectations

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Monitoring and Controlling Process Group

Monitoring and Controlling Process Group tracks, reviews, and regulates the progress and performance of the project. It identifies and initiates the changes to the plan when required.

Inputs: High Level

- Project management plan
- Project documents
- Procurement documentation
- Work performance data
- Work performance reports
- Agreements
- Deliverables
- Change requests
- Project funding requirements
- Approved change requests
- Enterprise environmental factors
- Organizational process assets

Actions taken

- Measure project performance against the baseline to identify and quantify any variances and corrective actions
- Manage changes per change management plan to ensure project goals remain aligned with business needs
- Verify the project deliverables to meet project requirements and business needs
- Monitor and assess risk to evaluate the exposure and risk strategies
- Review issue log and determine corrective action to minimize project impact
- Capture, analyze, and manage lessons learned to enable continuous improvement
- Monitor procurement activities to verify compliance with project objectives

Closing Process Group

Closing Process Group finalizes the activities across all Project Management Process Groups to formally complete the project, phase, or contractual obligations.

Inputs: High Level

- Project charter
- Project management plan
- Project documents
- Accepted deliverables
- Business documents
- Agreements
- Procurement documentation
- Organizational process assets

Actions taken

- Obtain final acceptance of the project deliverables in order to confirm that project scope and deliverables are achieved
- Transfer ownership of deliverables per the plan
- Obtain financial, legal, and administrative closure in order to communicate formal project closure
- Prepare and share final project report
- Collate lessons learned that are documented throughout the project so that it can be updated in organization's knowledge base
- Archive project documents that can be used for future projects and audits
- Obtain feedback from relevant stakeholders in order evaluate their satisfaction

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Project Selection

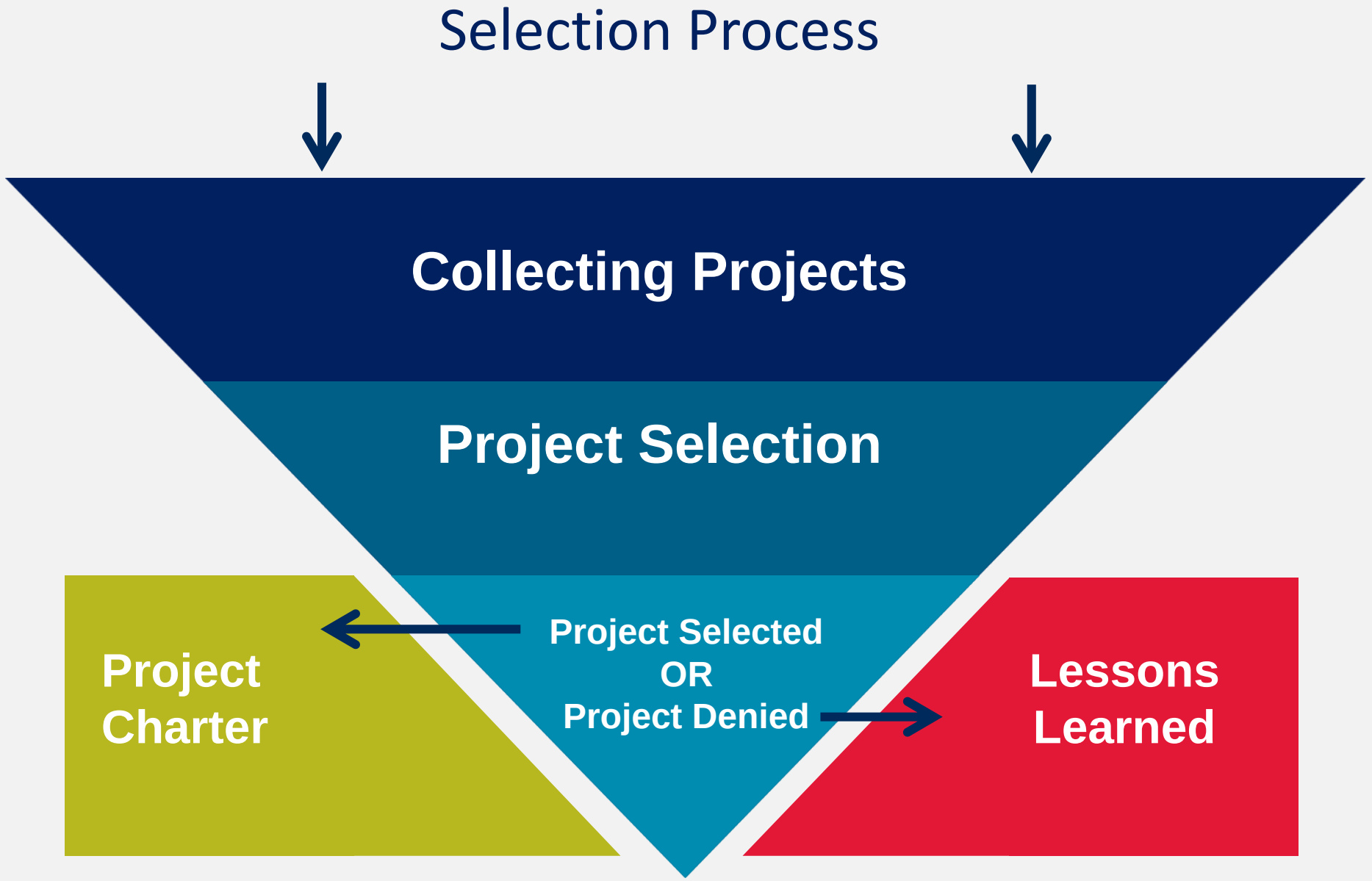
How and Why Do Projects Start?

- **Strategic initiative**
- **Business case**
- **Statement of work**
- **Contract**
- **An idea**

Project Selection

- **Projects and Strategy**
  - Organizations review projects to determine which ones will provide the most value
  - They may use structured processes to evaluate a project’s value and its alignment to their strategic plans
  - An organization's strategic plans have larger and longer-term objectives
  - They focus on the organization’s mission, vision and goals for the next 3-5 years

Project Selection (cont'd)



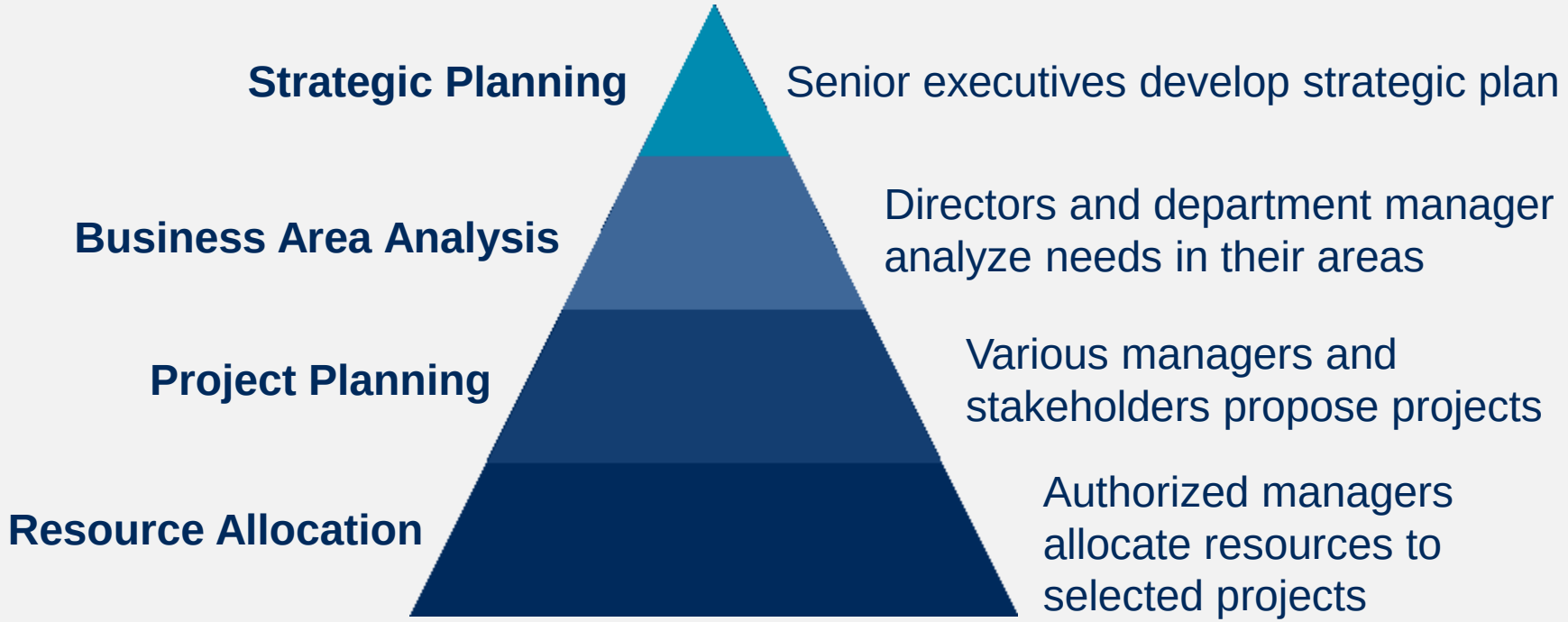
Project Selection (cont'd)

- SWOT Analysis
  - A technique to evaluate projects
    - Strengths
    - Weaknesses
    - Opportunities
    - Threats
  - Information should tie back to organization's strategic plan
  - Can also be broken into categories
    - People
    - Process
    - Customer
    - Financial stewardship

Strengths	Weaknesses
Opportunities	Threats

Project Selection (cont'd)

- **Four stage planning process**
  - **Projects should support an organization's business plan**
  - **Focus is on selecting the right project at the right time**



Project Selection (cont'd)

- **Organizational Needs**
  - **New technology**
  - **Competitive forces**
  - **Material issues**
  - **Political changes**
  - **Market demand**
  - **Economic changes**

Project Selection (cont'd)

- Organizational Needs
  - Customer requests
  - Legal requirements
  - Business process improvements
  - Strategic opportunity or business need
  - Social need
  - Environmental considerations

Project Selection – Questions

1. Which of the following is a difference between strategic and tactical goals?
   a. Strategic goals are more specific than tactical goals
   b. Tactical goals encompass broader dimensions than strategic goals
   c. Tactical goals are more important for a project than strategic goals
   d. Strategic goals are long-term, whereas tactical goals are short-term
2. Which of the following is part of a SWOT analysis?
   a. Suppliers
   b. Weaknesses
   c. Organizations
   d. Tactics
3. Each organization has different criteria for selecting projects. Some may be tied to revenue; others to enhance efficiency within the organization. Of the options listed below, which one is the most critical?
   a. Business development
   b. Resource optimization
   c. Financial gain
   d. The right timing

1. D
2. B.
3. D

Project Selection – Financial Components

- **Financial Methods for Selecting Projects**
  - **Generation of alternative ideas for project**
  - **Estimation of investment costs and benefits**
  - **Analysis of the cost/benefits of each alternative**
  - **Selection and implementation of appropriate strategy**
  - **Evaluation of outcome of implemented investment**

Project Selection – Financial Components (cont'd)

- **Performing Financial Projections**
  - **Three primary methods**
    - **Payback Period**
    - **Net Present Value**
    - **Return on Investment**
  - **All involve estimation of investment costs and benefits**
  - **Also all evaluate the outcome of this investment**
- **Other selection methods**
  - **Decision Tree and Expected Monetary Value**
  - **Balanced Scorecard and Weighted Scoring Models**

Project Selection – Financial Components (cont'd)

- **Payback Analysis**
  - An important financial consideration is payback analysis
  - The payback period is the amount of time it will take to recoup, in the form of net cash inflows, the total dollars invested in a project
  - Payback occurs when the cumulative benefits equals or exceeds the cumulative costs
  - Many organizations want IT projects to have a fairly short payback period

Project Selection – Financial Components (cont'd)

- **Net Present Value Analysis**
  - Net present value (NPV) analysis is a method of calculating the expected net monetary gain or loss from a project by discounting all expected future cash inflows and outflows to the present point in time
  - It looks at the opportunity cost of capital; investing in the project versus elsewhere
  - Projects with a positive NPV should be considered for selection if financial value is a key criteria in selection
  - The higher the NPV, the better

Project Selection – Financial Components (cont'd)

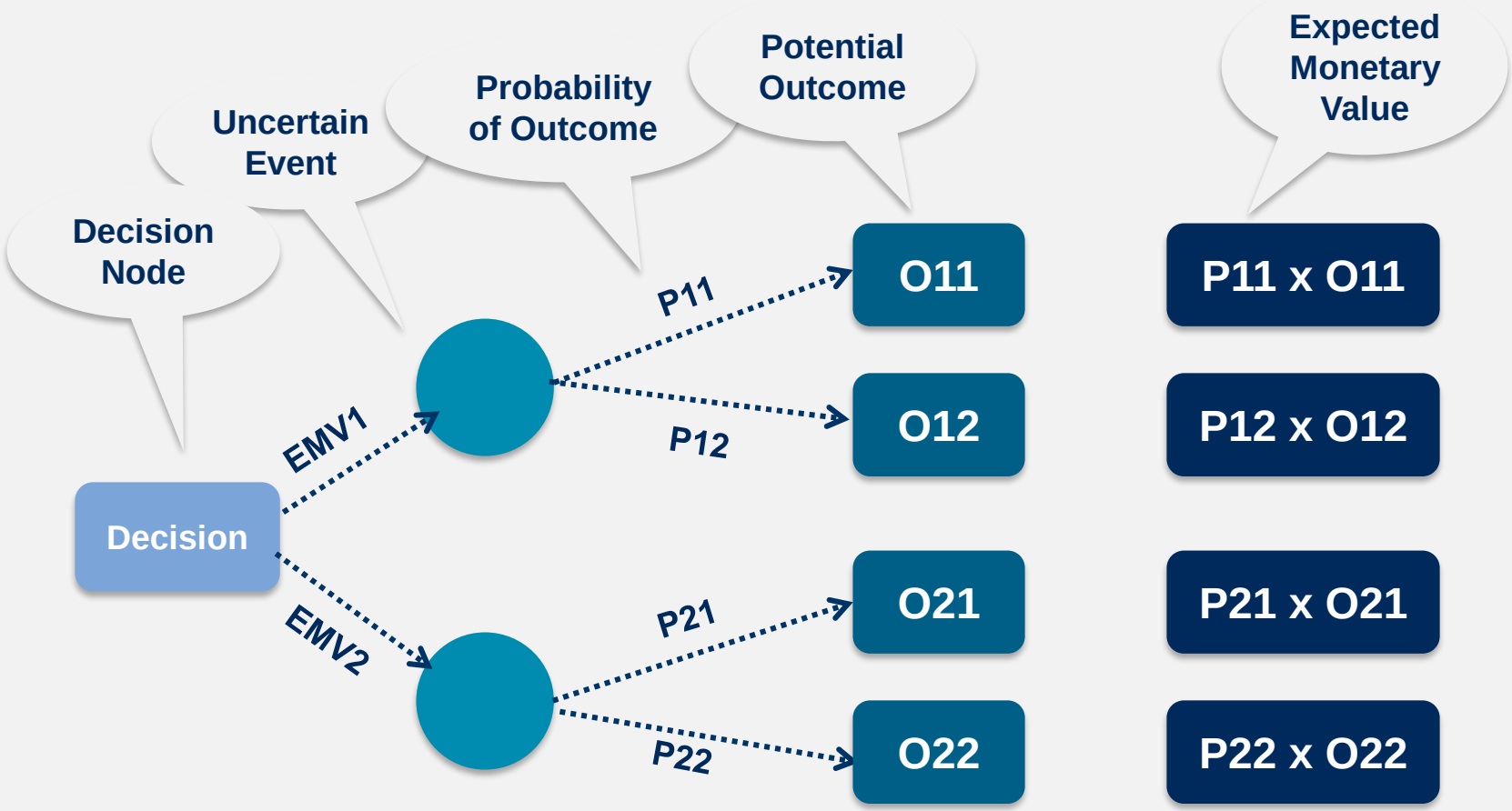
- **Return on Investment**
  - **Return on investment (ROI) is calculated by subtracting the project costs from the benefits and then dividing by the costs**
  - **ROI=**

    $$\frac{\text{(total discounted benefits - total discounted costs)}}{\text{total discounted costs}}$$

  - **The higher the ROI, the better**
  - **Many organizations have a required rate of return or minimum acceptable rate of return on investment for projects**

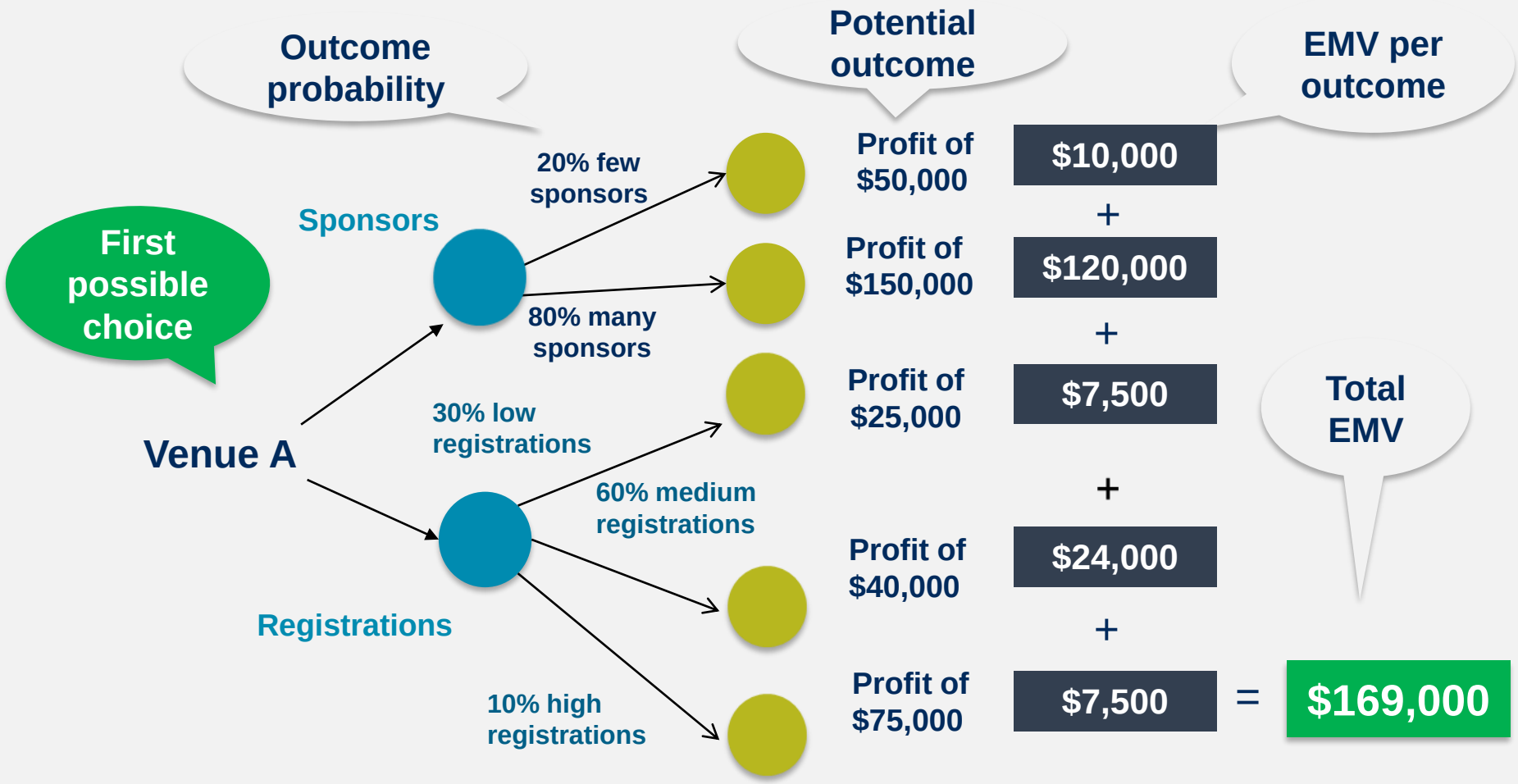
Project Selection – Financial Components (cont'd)

- **Expected Monetary Value (EMV) & Decision Trees**
- **Calculates the average outcome in future scenarios that may or may not happen**



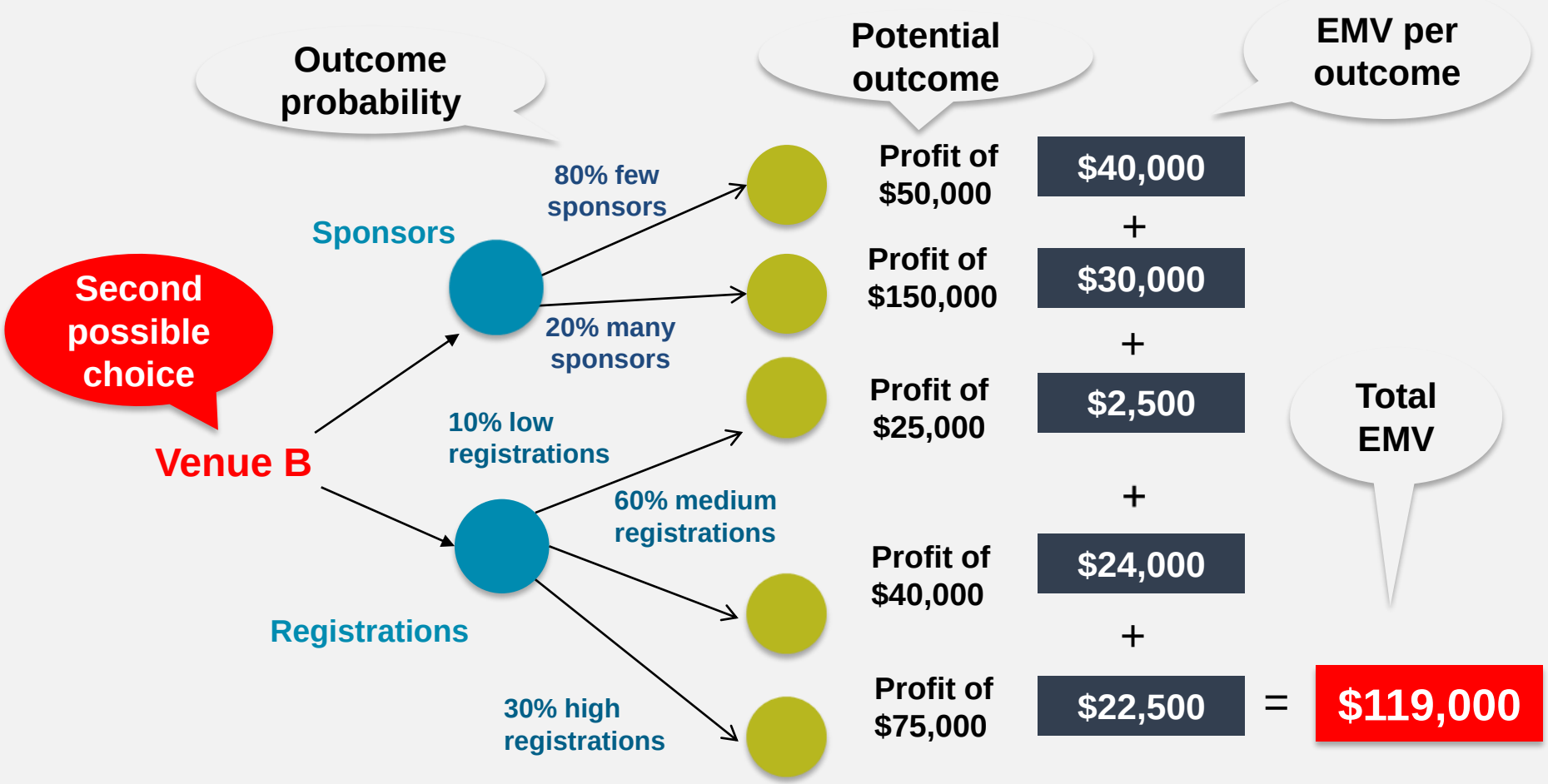
Project Selection – Financial Components (cont'd)

- **Decision tree - Choosing between 2 Venues**



Project Selection – Financial Components (cont'd)

- **Decision tree - Choosing between 2 Venues**

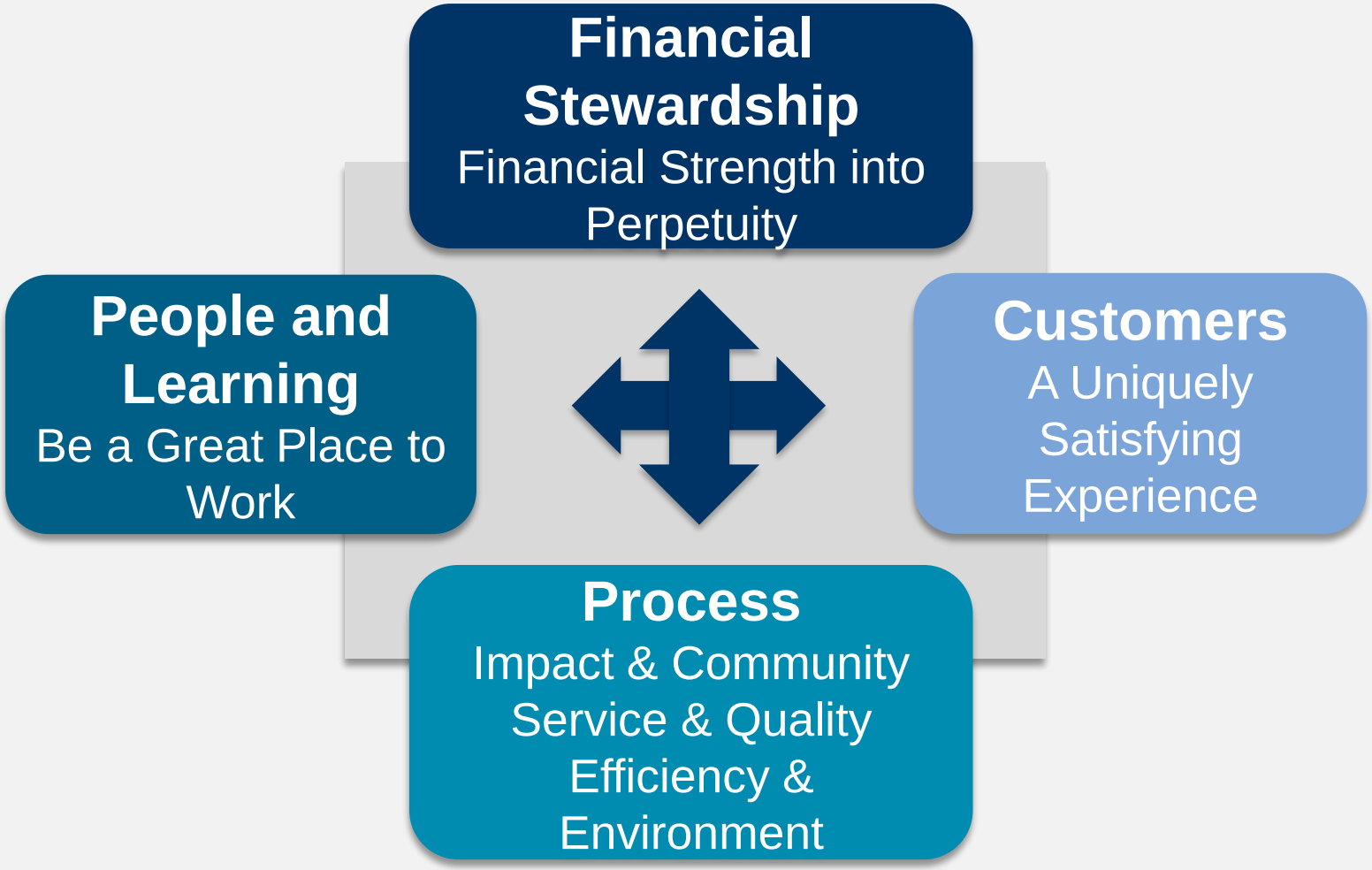


Project Selection – Financial Components (cont'd)

- **Balanced Scorecard Approach**
  - **Another approach to help select and manage projects that align to business strategy**
  - **This methodology was developed by Kaplan and Norton and it converts an organization's value drivers into a series of metrics**
  - **Retains financial measures for selecting projects, but also balances these with customers, employees, processes, technology and innovation**

Project Selection – Financial Components (cont'd)

- **Balanced Scorecard Approach**



Project Selection – Financial Components (cont'd)

- **Weighted Scoring Models**
  - **Provides a systematic process for selecting projects based on certain criteria**
  - **Teams identify criteria based on Balanced Scorecard, then assigns a weight**
  - **Total criteria weight must equal 100%**

Balanced Scorecard Perspective	Criteria	Weight	Venue A		Venue B	
			Score	Total	Score	Total
Financial	Overall Venue Cost	40%	5	2.00	6	2.40
People and Learning	Networking opportunities	30%	8	2.40	3	0.90
Customer	Cost for Attendees	15%	4	0.60	5	0.75
Internal Process	Association Experience	5%	7	0.35	5	0.25
Customer	Transportation	5%	7	0.35	5	0.25
Customer	WiFi	5%	7	0.35	1	0.05
Total		100%		6.05		4.60

Project Selection – Financial Components (cont'd)

- **Summary**
  - **The Project Management Expo project has two potential choices for hotel venues**
  - **Using various selection methods, which venue would be the best choice?**

Selection Method	Venue A	Venue B
Payback Period	Year 2	Year 4
NPV	$26,147	$19,027
ROI	35%	25%
Decision Tree	$169,000	$119,000
Weight Scoring	6.05	4.60

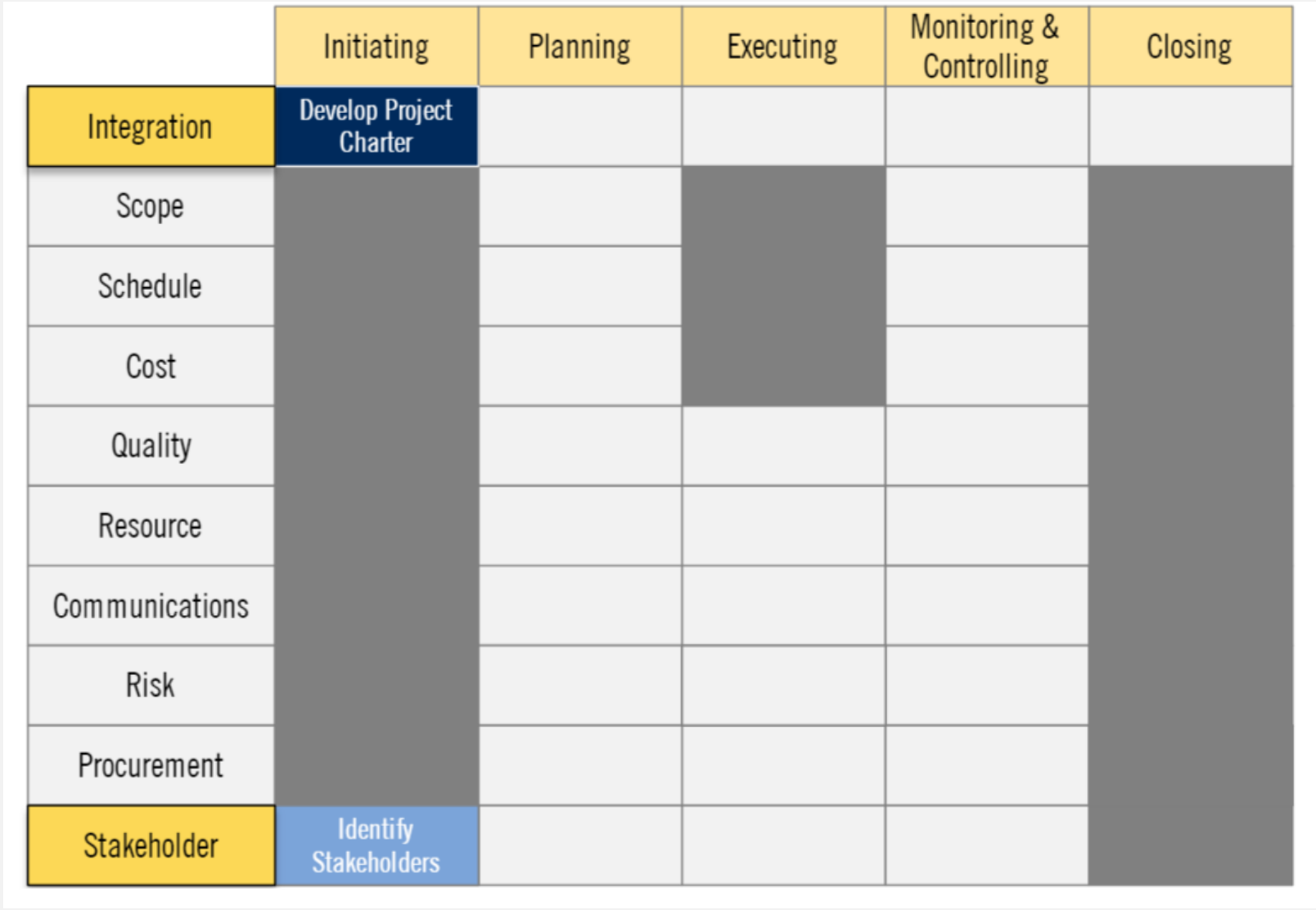
Financial Selection – Questions

1. **If a project cost is only $100 up front and its annual benefits are $20/year, what is its payback period?**
   - **a. 3 years**
   - **b. 4 years**
   - **c. 5 years**
   - **d. 6 years**
2. **The value of money today is typically worth more than the same amount of money in the future is the basic concept of _____ analysis.**
   - **a. critical path**
   - **b. cash flow**
   - **c. investment**
   - **d. net present value**
3. **If a weighted score for a project is based on three criteria, the first weighted 50% and the other two weighted 25% each, what would be the weighted score for a project with scores of 100 on the first criteria, 80 on the second, and 60 on the third?**
   - **a. 75**
   - **b. 80**
   - **c. 85**
   - **d. 90**

1. C, $20 per year in benefits, divided by original investment of $500 = 5, hence 5 years before the original investment is paid off.
2. D
3. C, 50% of 100=50, 25% of 80=20 (80x.25), 25% of 60=15(60x.25) Added together 50+20+15=85

Initiating Process Group

Initiating Process Group



	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Integration	Develop Project Charter				
Scope					
Schedule					
Cost					
Quality					
Resource					
Communications					
Risk					
Procurement					
Stakeholder	Identify Stakeholders				

Initiating Process Group

- Initiating a project includes recognizing and starting a new project or project phase
- Some organizations use a pre-initiation phase, while others include items like developing a business case as part of initiation
- The main goal of initiation is to formally select, approve and kick-off projects

Initiating Process Group (cont'd)

- Key outputs include:
  - Assigning the project manager
  - Identifying key stakeholders
  - Developing a business case (if required)
  - Determining high level scope, schedule, and budget
  - Completing a project charter

Initiating Process Group (cont'd)

- Business Case
  - Key document often produced during pre-initiation
  - May also be referred to as Business Needs
  - Elements include:
    - Introduction/background
    - Business objective
    - Current situation, problem and/or opportunity
    - Assumptions and/or constraints
    - Options and recommendations

Initiating Process Group (cont'd)

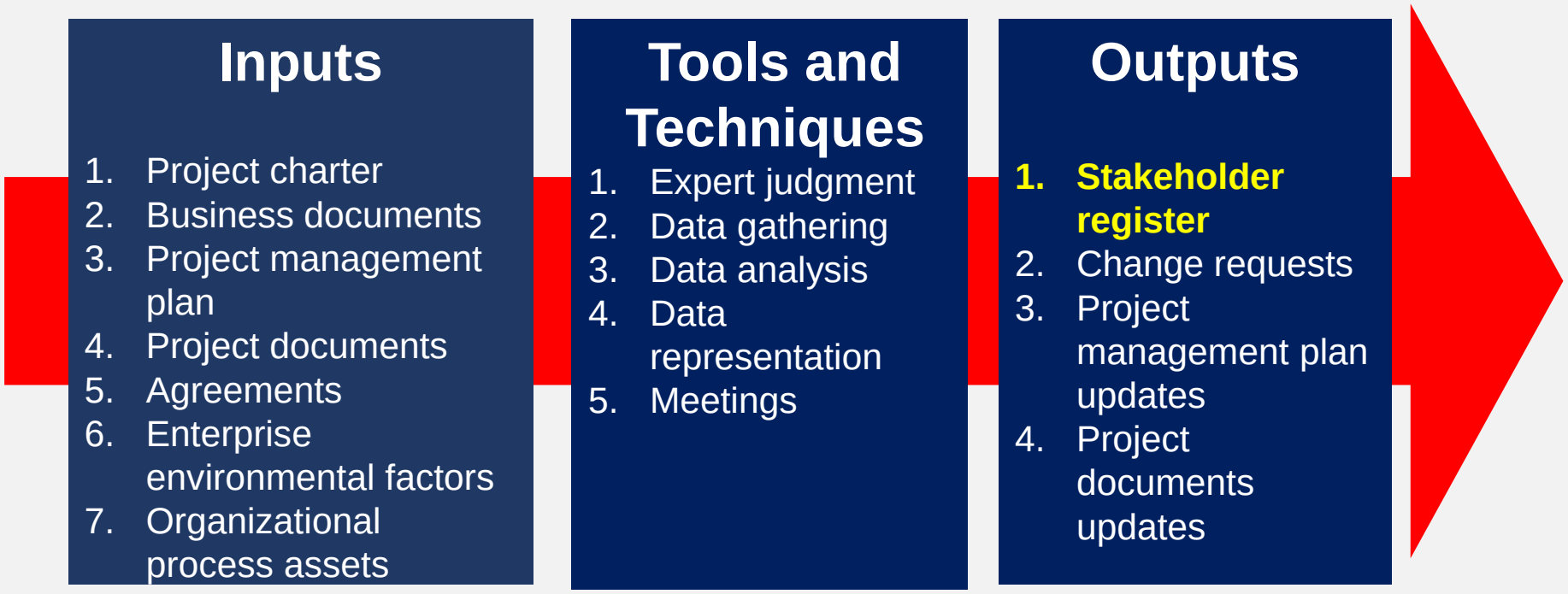
- **Benefits Management Plan**
  - **Identifies how and when the benefits will be delivered**
  - **Describes mechanisms that should be in place to measure**
  - **Elements include:**
    - **Target benefits**
    - **Strategic alignment**
    - **Timeframe for realizing benefits**
    - **Benefit owner**
    - **Metrics**
    - **Assumptions**
    - **Risks**

Initiating Process Group (cont'd)

- The Initiating Process Group contains two processes
  - Identifying Stakeholders
  - Develop Project Charter

Identify Stakeholders

Process of identifying project stakeholders regularly and analyzing and documenting relevant information regarding their interests, involvement, interdependencies, influence and potential impact on project success



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This process is part of the Stakeholder Management Knowledge Area

Identify Stakeholders (cont'd)

- Anyone that may influence and/ or be impacted by the project
- Internal project stakeholders
  - Project sponsor
  - Project team and support staff
  - Other internal stakeholders including top management, functional managers and other project managers
- External project stakeholders
  - The project's customers (if they are external to the organization)
  - Competitors, suppliers and other external groups, such as government officials and concerned citizens

Identify Stakeholders (cont'd)

Identify Stakeholders (cont'd)

- **Stakeholder Register**
  - **Includes identification, assessment information plus stakeholder classification**

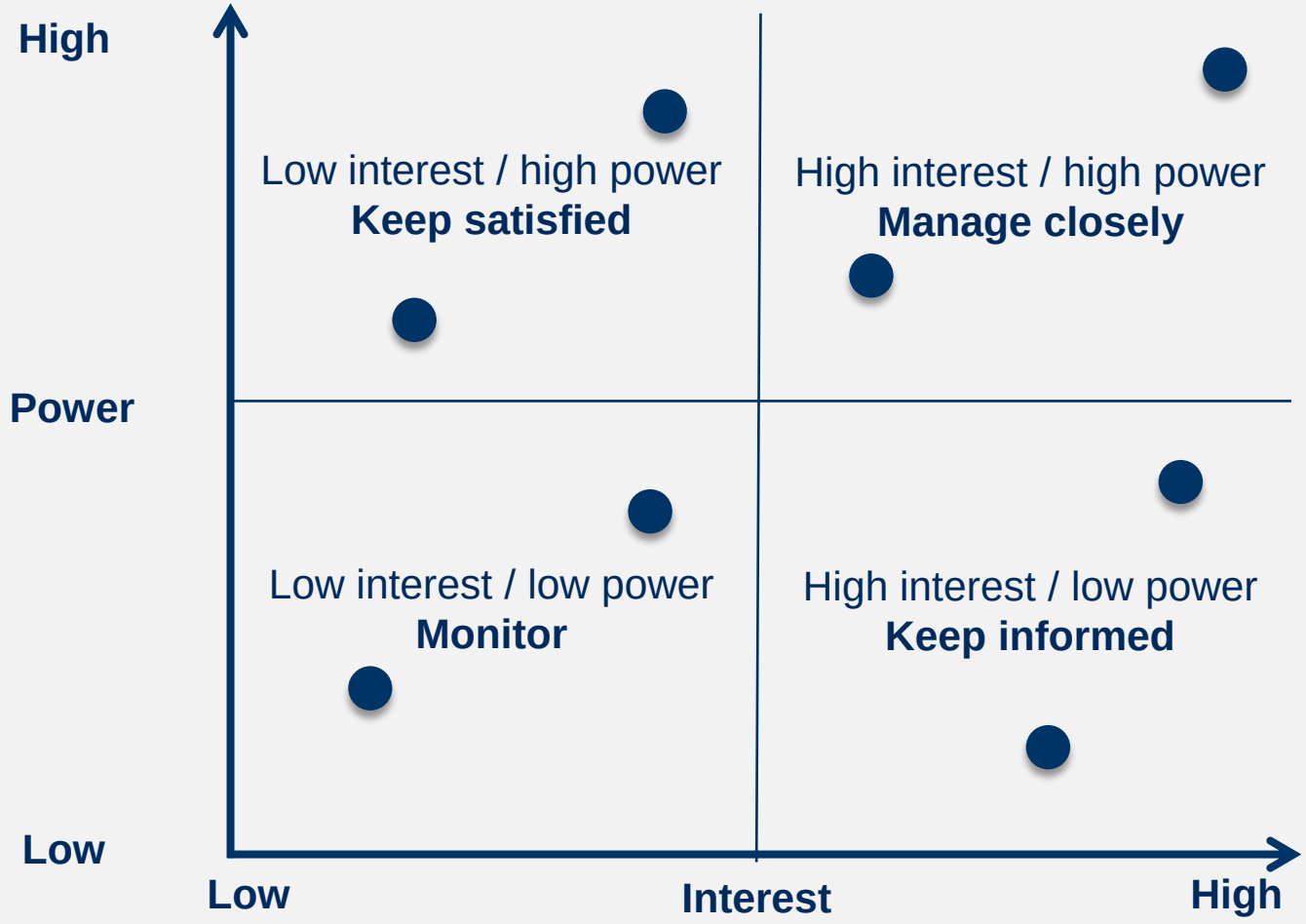
Name	Title/Position	Project Role	Responsibility	Power	Interest	Organization
Steven James	VP Professional Development	Project Sponsor	Provides approval, authority & guidance			Internal
Janet Smythe	Director, Professional Development	Project Manager	Defines, plans, implements and controls project			Internal
Various	Various	Project Team	Provides the knowledge and skills and performs the work to implement & control project			Internal
Conference Attendees	Various	Customer	Defines product requirements and funds the project			External
Raji Saal, Lori Robino Stanley Wong	VP, HR AVP, PMO AVP, Business Development	Functional Manager	Provide the organization's policies and sector-specific knowledge and experience			Internal
Hotel staff	Various	Vendor	Supplies services, procured by project team			External

Identify Stakeholders (cont'd)

- **Stakeholder Analysis**
  - **After identifying key project stakeholders, use classification models to determine an approach for managing stakeholder relationships**
  - **A power/interest grid can be used to group stakeholders based on their:**
    - **Level of authority (power)**
    - **Level of concern (interest)**

Identify Stakeholders (cont'd)

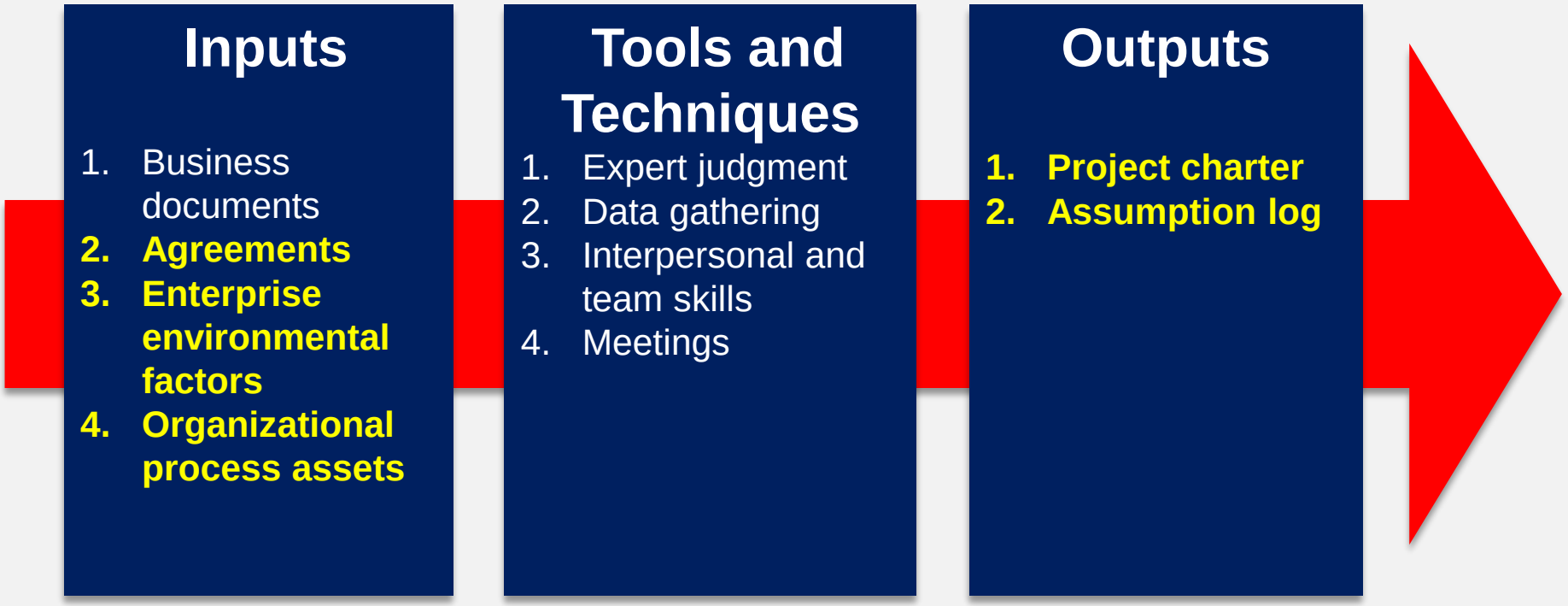
- **Stakeholder Power/Interest Grid**



Adapted from Figure 3-12, Kathy Schwalbe, Information to Project Management, 6th Edition, 2017. Page 97.

Develop Project Charter

Process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities



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Develop Project Charter – Inputs

- Business documents
  - Business case
  - Benefits management plan
- Agreements
  - Any contract, letter, note, e-mail or other communication describing intent
  - Contracts most common for external customers
- Enterprise environmental factors
  - Government/industry standards, organization infrastructure
  - Marketplace conditions
- Organizational process assets
  - Standard processes, policies, standardized process definitions
  - Templates, Lessons learned register

Develop Project Charter – Outputs

- **Project charter**
  - Formally authorizes the existence of a project and provides direction on the project's objectives and management
  - Like a contract, key internal project stakeholders should sign the charter to acknowledge agreement on the need and intent of the project
  - Project manager should play a major role in developing
  - May be a couple of pages, or a multiple page document
  - Examples are available in the book, website for book, and www.projectmanagement.com
  - Can be called Product Data sheet for Agile projects
- **Assumption log**
  - Higher level strategic, operations assumptions and constraints
  - Plus, lower-level activity and task assumption; technical specifications, estimates, the schedule, risks
  - Maintained throughout project

Project Charter Questions

- What strategic goal is this project undertaken to address?
- What is the purpose or result expected from this project?
- What are the projects' key deliverables and milestones?
- What project requirements will meet customers, sponsor or other stakeholder needs, wants and expectations?
- What are the project's priorities, key drivers and in what order? Schedule, cost, quality and/or scope?
- What factors, criteria or tools are you using for your justification?
- What is the project team's risk tolerance to changes in the projects schedule, cost and scope?

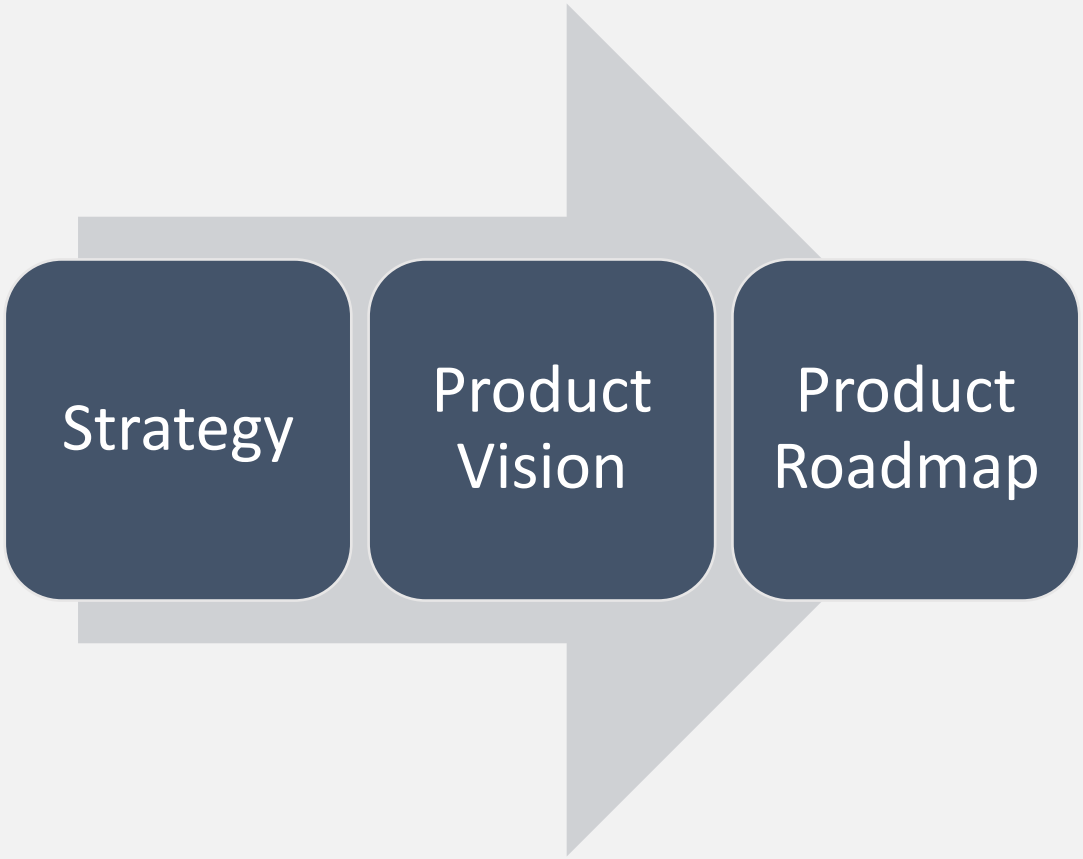
Project Charter Example – Key Sections

Tombstone	**Project Title**	*Project Management Expo - Professional Development Conference*	
	Version	1.0	
	Document Date	January 15	
	Start Date	January 30	
	End Date	December 31, year 4	
	Project Sponsor	*Steven James, VP, Professional Development*	
	Project Manager	*Janet Smythe, Director, Professional Development* *Responsible for project deliverables, project management, hiring, contracting, financial expenditures up to $500,000.*	
Business Need	**Business Goal**	*To promote professional learning and networking opportunities for membership*	
	Project Purpose	*To hold a yearly successful professional development conference for members*	
	Measurable Project Objectives	• *Within 10% of the approved budget* • *60% of attendees answer they would recommend and return*	
	Measurable Success Criteria	• *200+ attendees* • *Over $150,000 in revenue*	
High Level Requirements	**High-level project description, boundaries, key deliverables**		
	In Scope	• *Researching, booking venue* • *Confirming conference meeting rooms*	
	Out of Scope	• *Hotel and travel arrangements for attendees* • *Paying for breakout speakers hotel and travel arrangements*	
Preapproved Financial Resources	**Preapproved financial resources**	• *Sponsor revenue - $100,000* • *Registration revenue - $50,000* • *Costs - $400,000*	
Assumptions, Constraints, Risks	**Assumptions**	• *Members will see the value in attending this professional development conference.*	
	Constraints	• *Registration, travel and hotel for attendees under $1000.*	
	Overall Project Risks	• *PMA-PM is a risk adverse organization therefore the Project Team must work to minimize and mitigate risks*	
Milestones	**Summary Milestone Schedule**	• *Acquire core project team – March: Year 1* • *Confirm location – January: Year 2* • *Hold event - September: Year 4*	
Closure	**Project Completion Sign off**	*Steven James, VP, Professional Development*	
	Project Exit Criteria	• *Project Closed: Event held and lessons learned completed* • *Project Cancelled: Six months before event only 50% of targeted audience has registered and only 50% of sponsorship target have been attained*	
Stakeholders	**Key Stakeholders**	• *Executive Project Sponsor: Dean Black, President*	
Approvals	**Project Charter Approval**	Steven James, VP, Professional Development	Date

Project Kickoff

- The purpose of the kickoff meeting is to formally notify all team members, clients and stakeholders that the project has begun
- A kick-off meeting has some basic objectives:
  - Introduce the people at the meeting
  - Recap the information in the Project Charter, including the purpose of the project, the scope, the major deliverables, the risks, the assumptions, the estimated effort and budget, and the deadline
  - Discuss the major roles and responsibilities of the project team, clients and stakeholders
  - Discuss the project management procedures
  - Discuss and answer any outstanding questions
  - Confirm that the project is now underway

Agile Project Charter – Project Data Sheet



Project Data Sheet

- Vision
- Mission
- Project Sponsor and Manager
- Success criteria
- Trade-off matrix

Team Charter

- **The Team Charter should include the following:**
  - **Team members and roles**
  - **How your group will communicate (i.e., technology to be used, frequency)**
  - **Meeting guidelines (schedule, roles, and responsibilities)**
  - **Conflict resolution process**
  - **Document management (where documents are stored)**

Team Canvas

People and Roles *What are our names and the roles we have in the team?*	**Common Goals** *What you as a group really want to achieve?* *What is our key goal that is feasible, measurable and time-bound?*	**Purpose** *Why we are doing what we are doing in the first place?*	**Value** *What do we stand for?* *What are guiding principles?* *What are our common values that we want to be at the core of our team?*	**Rules and Activities** *What are the rules we want to introduce after doing this session?* *How do we communicate and keep everyone up to date?* *How do we make decisions?* *How do we execute and evaluate what we do?*
	Personal Goals *What are our individual personal goals?* *Are there personal agendas that we want to open up?*		**Needs and Expectations** *What each one of us needs to be successful?* *What are our personal needs towards the team to be at our best?*	


Quiz

Initiation Process Group – Questions

1. **What document provides justification for investing in a project?**
   - a. Project charter
   - b. Business case
   - c. Net present value analysis
   - d. Stakeholder register
2. **What document formally recognizes the existence of a project and provides direction on the project's objectives and management?**
   - a. Project charter
   - b. Business case
   - c. Stakeholder register
   - d. Stakeholder management strategy
3. **The _____ is an output of initiating that includes detailed information related to the identified people involved in or affected by a project.**
   - a. team contract
   - b. stakeholder register
   - c. resource plan
   - d. project charter

1. B. Business case clarifies the reason for why a project is needed.
2. A. A signed project charter officially recognizes the project.
3. B. Stakeholders are not only team members, but others who may influence or be impacted by the project.

Quiz

1. A project manager is validating the scope. Which Process Group is the project manager working in?

A. Planning

B. Monitoring and Controlling

C. Initiating

D. Closing

The correct answer is: B

The project manager is in Monitoring and Controlling Process Group. Validate scope is part of Monitoring and Controlling Process Group under the knowledge area project scope management.

Quiz

2. Which of the following is an output of the Initiating Process Group?

A. Project charter

B. Organizational process assets

C. Enterprise environmental factors

D. Business case

The correct answer is: **A**

Project charter is an output of the Initiating Process Group. All other options are inputs to the Initiating Process Group.

Quiz

3. Who is in control of the project during the planning processes?

A. Project manager

B. Functional manager

C. Team members

D. Stakeholders

The correct answer is: **A**

The project manager is in control of the project throughout the project life cycle.

Quiz

4. The high-level project schedule constraints have been determined. Which Process Group is the project in?

A. Planning

B. Closing

C. Monitoring and Controlling

D. Initiating

The correct answer is: **D**

The high-level constraints of schedule and budget are determined during the initiating Process Group. The detailed planning is done during the planning Process Group.

Quiz

5. Which of the following Process Groups should be included in all the projects?

A. Initiating, Planning, Executing, Monitoring and Controlling, and Closing

B. Planning, Executing, and Monitoring and Controlling

C. Monitoring and Controlling

D. Initiating, Planning, and Executing

The correct answer is: **A**

In every project, all five Process Groups must be included, but the level of attention given to each Process Group will be governed by the project manager depending on the project size and complexity.

Key Takeaways

- Initiating Process Group defines a new project or phase. When the project charter is approved, the project is officially authorized.
- Planning Process Group establishes the total scope of effort, objectives, and course of action required to attain the objectives.
- Executing Process Group completes the work defined in the project management plan to satisfy the project specifications.
- Monitoring and Controlling Process Group tracks, reviews, and regulates the progress and performance of the project. It identifies and initiates the changes to the plan when required.
- Closing Process Group finalizes the activities across all Process Groups to formally complete the project, phase, or contractual obligations.

- Compare different methods for selecting projects
- Differentiate between ROI, Payback, and other project selection methods
- Explain the steps necessary when initiating projects

Questions