

Project Resource Management

Project Resource Management

Module Overview

- Lesson 1: Key Concepts & Terms
- Lesson 2: Plan Resource Management
- Lesson 3: Estimate Activity Resources
- Lesson 4: Acquire Resources
- Lesson 5: Develop Team
- Lesson 6: Manage Team
- Lesson 7: Control Resource

Lesson 1: Key Concepts & Terms

- Project Resource Management
- Project Resource Management Processes
- Key Terms
- Trends & Emerging Practices
- Tailoring Considerations
- Considerations for Adaptive Environment

Project Resource Management

Project resource management is the processes to identify, acquire, and manage the resources needed for the successful completion of the project.

Project Resource Management Processes

- Plan Resource Management
- Estimate Activity Resources
- Acquire Team
- Develop Team
- Manage Team
- Control Resources

Key Terms

- **Lean** (manufacturing): to remove waste (of time, effort, and resources) from a process.
- **Kaizen**: continuous improvement.
- Halo effect:
- **Tuckman** ladder:
 - **Forming**: meet and learn, still independent
 - **Storming**: addressing the work, adjust habits
 - **Norming**: begin to work together, trust each other
 - **Performing**: function as well-organized unit, interdependent
 - **Adjourning**: complete the work

Key Terms (continued)

- **McGregor's Theory of X and Y:** McGregor believed that all workers fit into two groups:
 - Theory X: employees are incapable, avoid responsibility and work.
 - Theory Y: employees are willing to work without supervision, and want to achieve.
- **Maslow's Hierarchy of Needs:**
 - Physiological
 - Safety
 - Social
 - Esteem
 - Self-actualization

Key Terms (continued)

- **McClelland's Theory of Needs (Acquired Needs Theory):** people are most motivated by one of three needs
 - Achievement
 - Affiliation
 - Power
- **Herzberg's Two-Factor Theory of Motivation:** hygiene factors and motivating agents
 - Hygiene factors: not sufficient to motivate people, but poor hygiene factors may destroy motivation
 - Motivating agents: factors which motivate people

Key Terms (continued)

- **Expectancy theory:** employees who expect to be rewarded for their accomplishments will remain productive as rewards meet their expectations.
- **Arbitration:** neutral party hears and resolves a dispute.
- **Perquisites** (perks): special rewards for some employees, example: corner office.
- **Fringe benefits:** standard benefits for employees.

Trends & Emerging Practices

- Resource management methods: lean, JIT, Kaizen, TPM, TOC.
- Emotional intelligence
- Self-organizing team
- Virtual teams/distributed teams

Tailoring Considerations

- Diversity
- Physical location
- Industry-specific resources
- Acquisition of team members
- Management of team
- Life cycle approaches

Considerations for Adaptive Environments

- Self organizing team with generalizing specialists.
- Collaboration is critical to the success of projects.
- Project manager role provides team with the environment and support needed and trusts the team to get the job done.

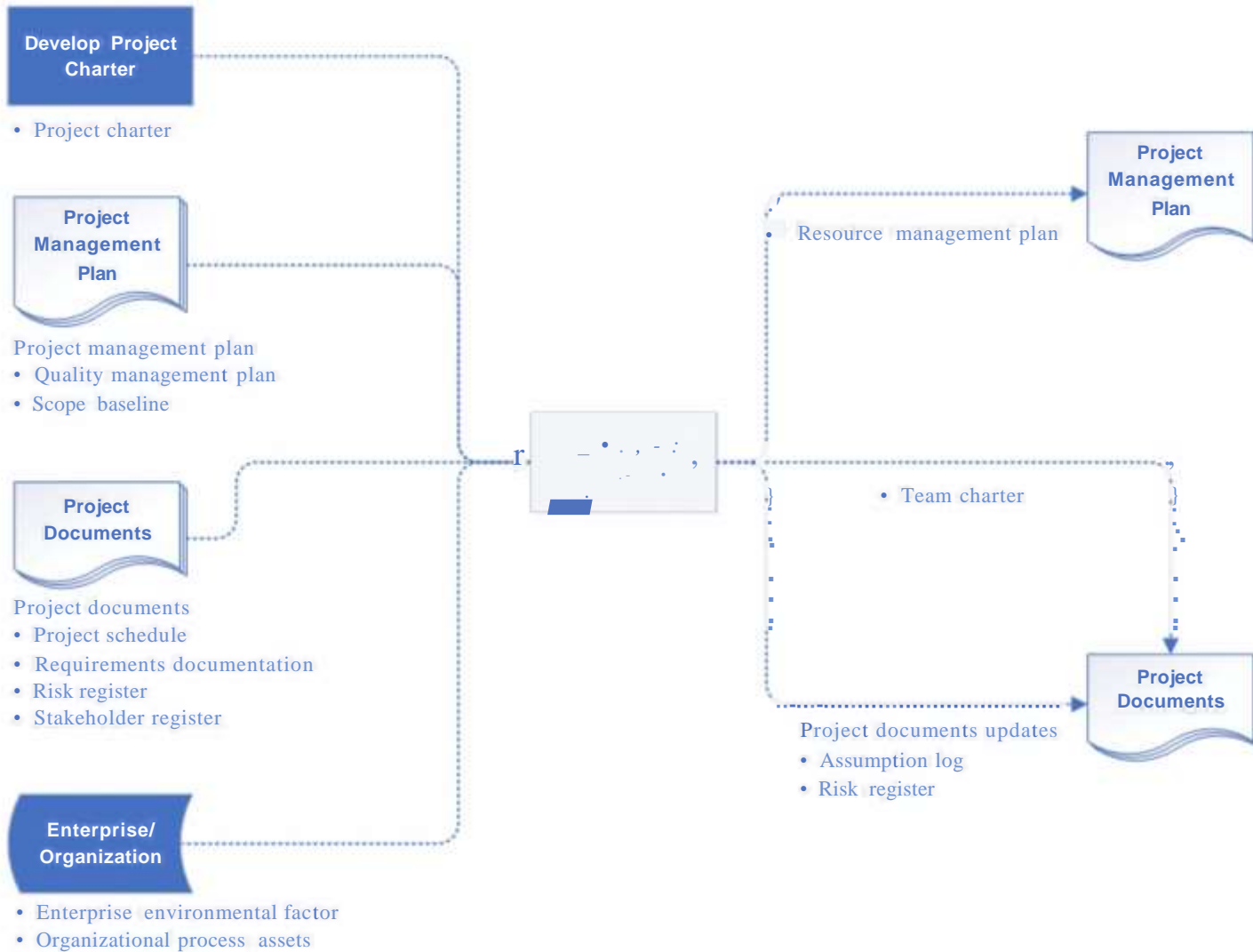
Lesson 2: Plan Resource Management

- Plan Resource Management Overview
- Plan Resource Management Data Flow
- Plan Resource Management Input
- Plan Resource Management Tools & Technique
- Plan Resource Management Output

Plan Resource Management Overview

- **Plan resource management** is the process of defining how to estimate, acquire, manage, and use team and physical resources.
- Key benefit: it establishes the approach and level of management effort needed for managing project resources.

Plan Resource Management Data Flow



Plan Resource Management Input

- Project charter
- Project management plan
 - Quality management plan
 - Scope baseline
- Project documents
 - Project schedule
 - Requirements documentation
 - Risk register
 - Stakeholder register
- Enterprise environmental factors
- Organizational process assets

Plan Resource Management Tools & Techniques

- Expert judgment
- Data representation
 - Work breakdown structure (WBS)
 - Organizational breakdown structure (OBS)
 - Resource breakdown structure (RBS)
- Resource assignment matrix (**RAM**)
 - RACI (responsible, accountable, consult, inform) chart
- Text-oriented formats (role-responsibility• authority)
- Organizational theory
- Meetings

Plan Resource Management Output

- Project management plan
 - Resource management plan
- Project documents
 - Team charter
- Project documents updates
 - Assumption log
 - Risk register

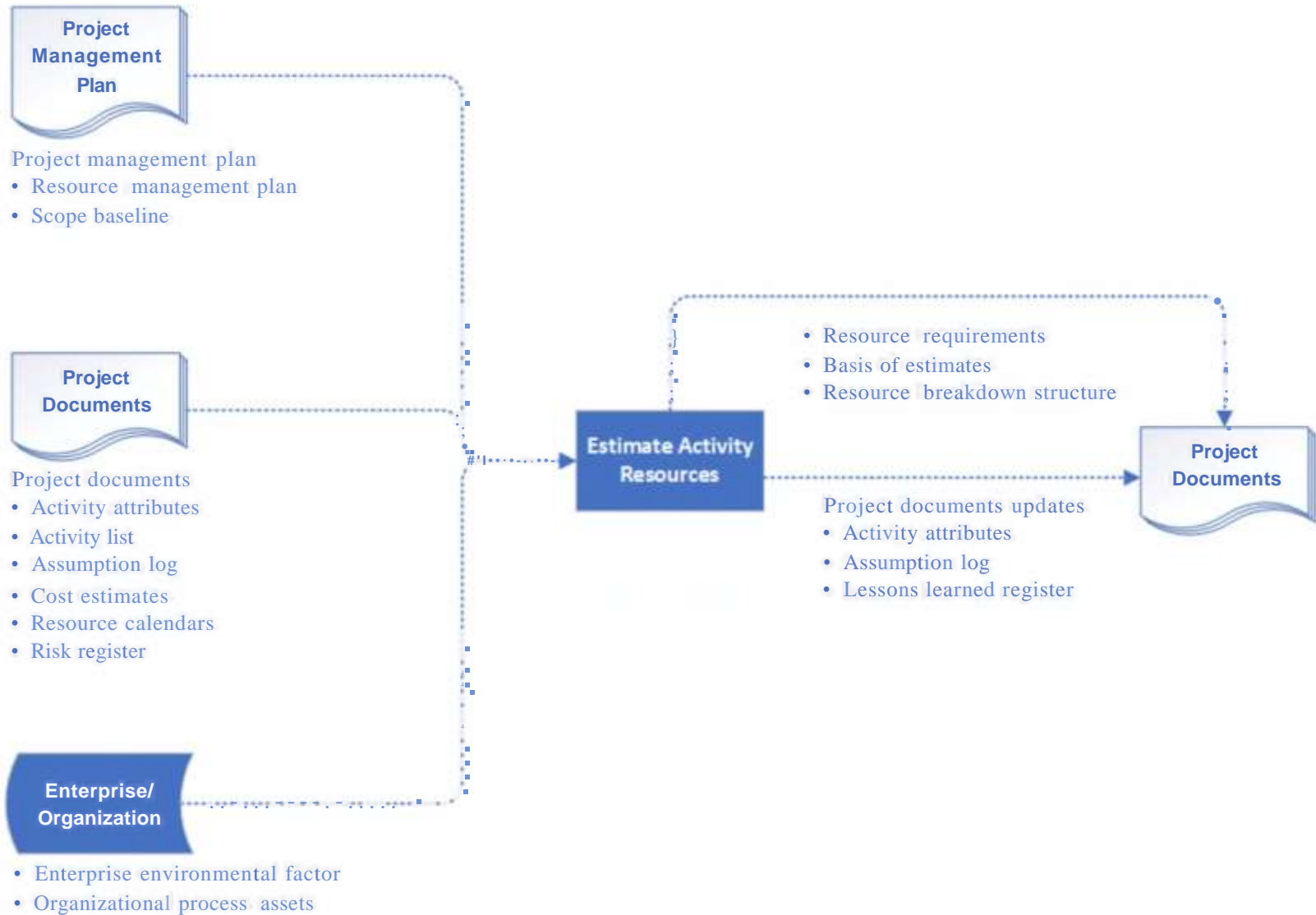
Lesson 3: Estimate Activity Resources

- Estimate Activity Resources Overview
- Estimate Activity Resources Data Flow
- Estimate Activity Resources Input
- Estimate Activity Resources Tools & Techniques
- Estimate Activity Resources Output

Estimate Activity Resources Overview

- **Estimate activity resources** is the process of estimating team resources and the type and quantities of materials, equipment, and supplies necessary to perform project work.
- Key benefit: it determines the type, quantity, and characteristics of resources required to complete the project.

Estimate Activity Resources Data Flow



Estimate Activity Resources Input

- Project management plan
 - Resource management plan
 - Scope baseline
- Project documents
 - Activity attributes
 - Activity list
 - Assumption log
 - Cost estimates
 - Resource calendars
 - Risk register
- Enterprise environmental factors
- Organizational process assets

Estimate Activity Resources Tools & Techniques

- Expert judgment
- Bottom-up estimating
- Analogous estimating
- Parametric estimating
- Data analysis
 - Alternative analysis
- Project management information system
- Meetings

Estimate Activity Resources Output

- Project documents
 - Resource requirements
 - Basis of estimates
 - Resource breakdown structure (RBS)
- Project documents updates
 - Activity attributes
 - Assumption log

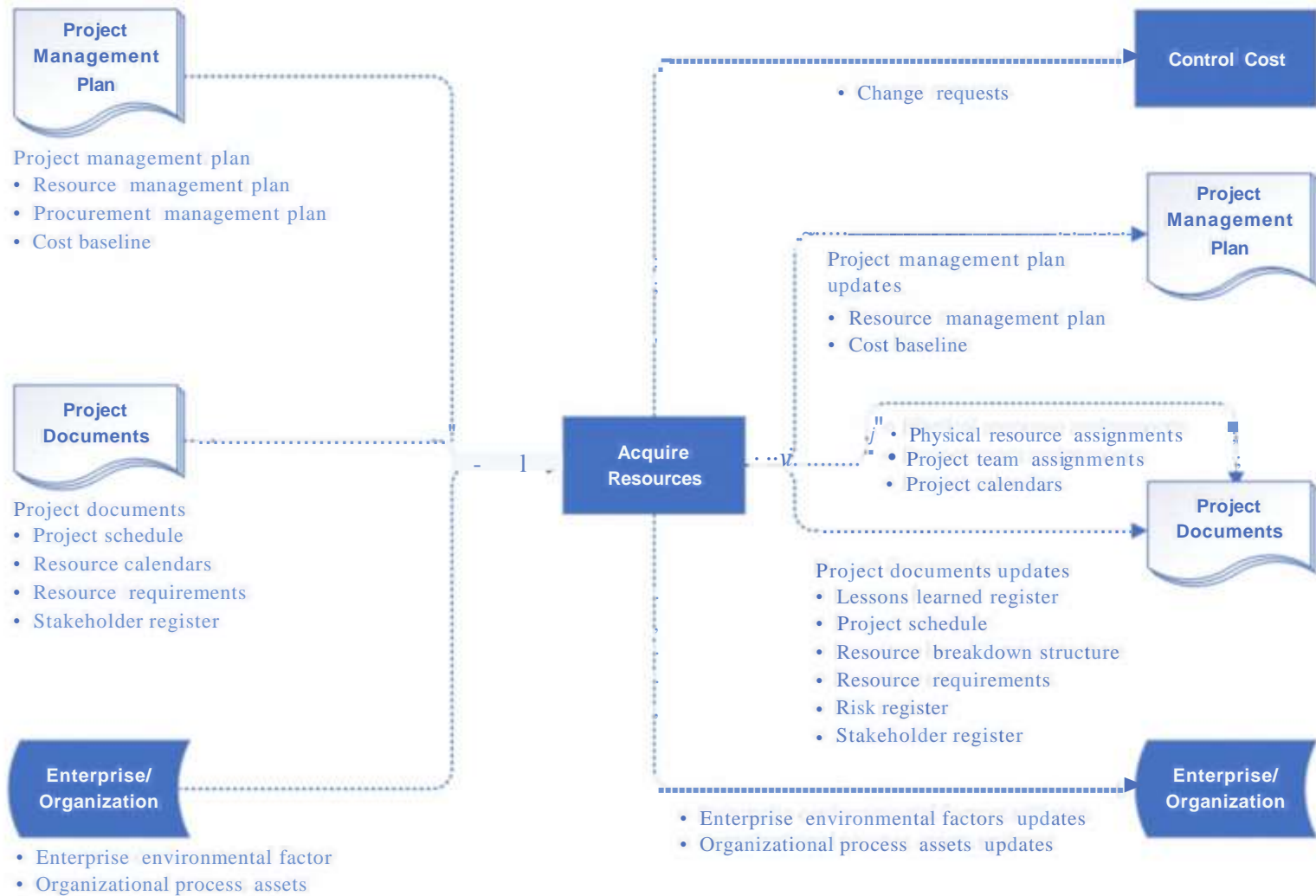
Lesson 4: Acquire Resources

- Acquire Resources Overview
- Acquire Resources Data Flow
- Acquire Resources Input
- Acquire Resources Tools & Techniques
- Acquire Resources Output

Acquire Resources Overview

- **Acquire resources** is the process of obtaining team member, facilities, equipment, materials, supplies, and other resources to complete project work.
- Key benefit: it outlines and guides the selection of resources and assigns them to their respective activities.

Acquire Resources Data Flow



Acquire Resources Input

- Project management plan
 - Resource management plan
 - Procurement management plan
 - Cost baseline
- Project documents
 - Project schedule
 - Resource calendars
 - Resource requirements
 - Stakeholder register
- Enterprise environmental factors
- Organizational process assets

Acquire Resources Tools & Techniques

- Decision making
 - Multicriteria decision analysis
- Interpersonal and team skills
 - Negotiation
- Pre-assignment
- Virtual teams

Acquire Resources Output

- Project documents
 - Physical resource assignments
 - Project team assignments
 - Resource calendars
- Change requests
- Project management plan updates
 - Resource management plan
 - Cost baseline
- Project documents updates
 - Lessons learned register
 - Project schedule
 - Resource breakdown structure
- Resource requirements
- Risk register
- Enterprise environmental factors updates
- Organizational process assets updates

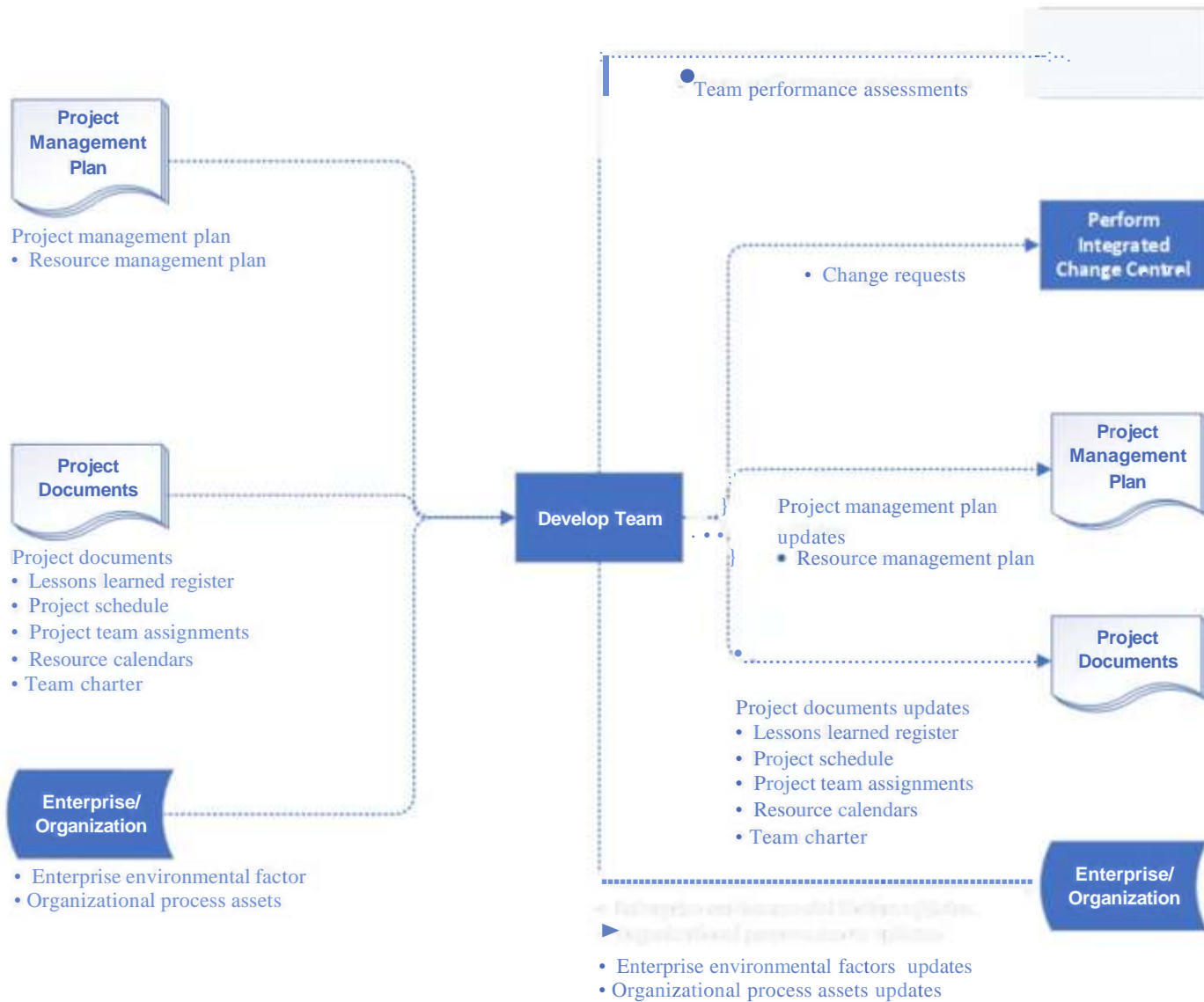
Lesson 5: Develop Team

- Develop Team Overview
- Develop Team Data Flow
- Develop Team Input
- Develop Team Tools & Techniques
- Develop Team Output

Develop Team Overview

- **Develop team** is the process of improving competencies, team member interaction, and the overall team environment to enhance project performance.
- Key benefit: it results in improved team work, enhanced interpersonal skills and competencies, motivated employees, reduced attrition, and improved overall project performance.

Develop Team Data Flow



Develop Team Input

- Project management plan
 - Resource management plan
- Project documents
 - Lessons learned register
 - Project schedule
 - Project team assignments
 - Resource calendars
 - Team charter
- Enterprise environmental factors
- Organizational process assets

Develop Team Tools & Techniques

- Colocation
- Virtual teams
- Communication technology
 - Shared portal
 - Video conferencing
 - Audio conferencing
 - Email/chat
- Interpersonal and team skills
 - Conflict management
 - Influencing
 - Motivation
 - Negotiation
 - Team building
- Recognition and rewards
- Training
- Individual and team assessments
- Meetings

Develop Team Output

- Team performance assessments
- Change requests
- Project management plan updates
 - Resource management plan
- Project documents updates
 - Lessons learned register
 - Project schedule
 - Project team assignments
 - Resource calendars
 - Team charter
- Enterprise environmental factors update
- Organizational process assets updates

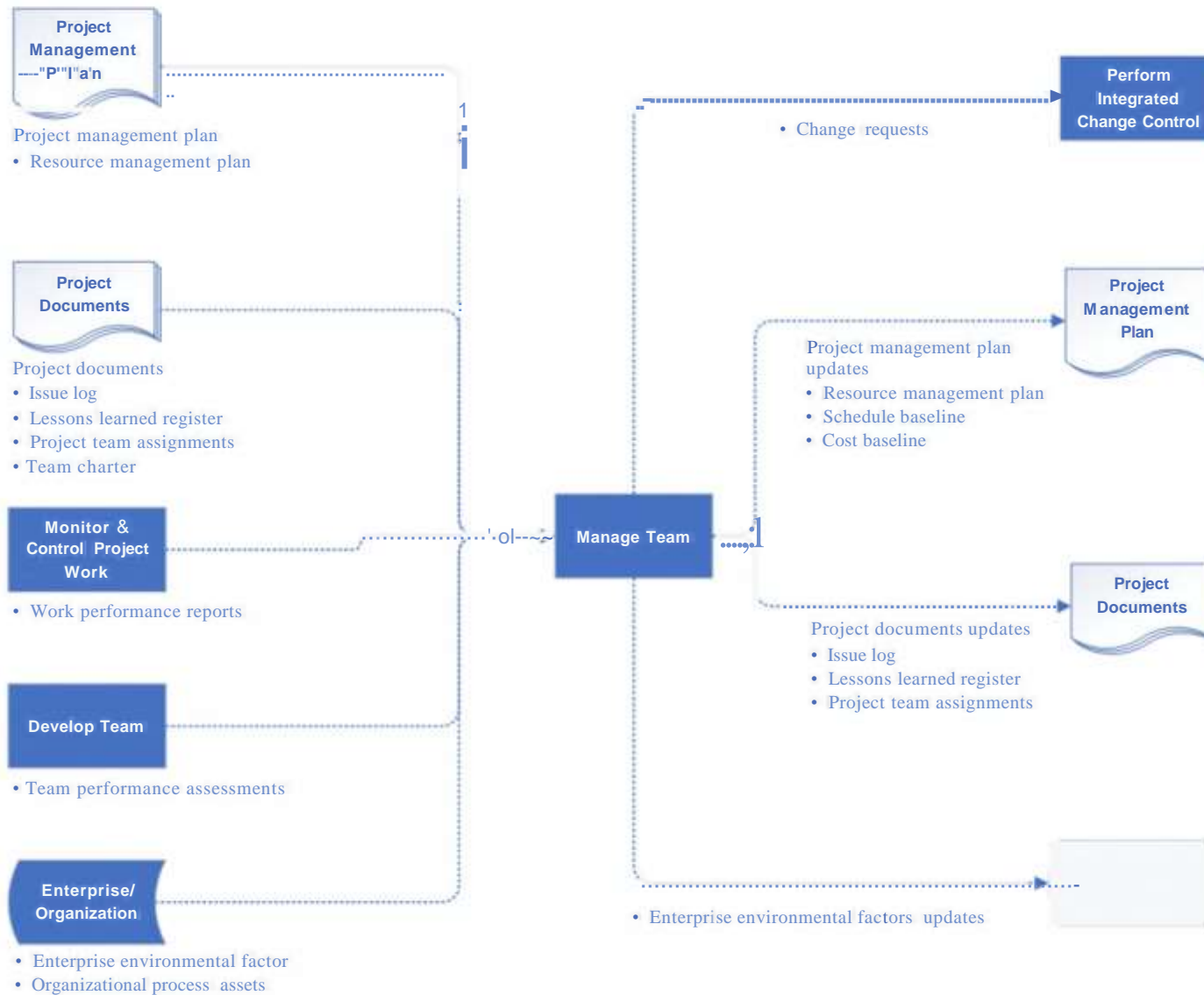
Lesson 6: Manage Team

- Manage Team Overview
- Manage Team Data Flow
- Manage Team Input
- Manage Team Tools & Techniques
- Manage Team Output

Manage Team Overview

- **Manage team** is the process of tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance.
- Key benefit: it influences team behavior, manages conflict, and resolve issues.

Manage Team Data Flow



Manage Team Input

- Project management plan
 - Resource management plan
- Project documents
 - Issue log
 - Lessons learned register
 - Project team assignments
 - Team charter
- Work performance reports
- Team performance assessments
- Enterprise environmental factors
- Organizational process assets

Manage Team Tools & Techniques

- Interpersonal and team skills
 - Conflict management
 - Decision making
 - Emotional intelligence
 - Influencing
 - Leadership
- Project management information system

Management and Leadership Styles

- Primary styles
 - Directing
 - Facilitating
 - Coaching
 - Supporting
 - Influencing
 - Delegating
- Dealing with issues
 - Consultative
 - Consensus
 - Democratic/ participative
- Bureaucratic
- Analytical
- Other styles
 - Charismatic
 - Autocratic
 - Consultative-autocratic
 - Laissez-faire
 - Driver

Powers of The Project Manager

- Formal (legitimate)
- Reward
- Penalty (coercive)
- Expert
- Referent

Conflict Management Techniques

- Withdraw/avoid
- Smooth/accommodate
- Compromise/reconcile
- Force/direct
- Collaborate/problem-solve

Manage Team Output

- Change requests
- Project management plan updates
 - Resource management plan
 - Schedule baseline
 - Cost baseline
- Project documents updates
 - Issue log
 - Lessons learned register
 - Project team assignments
- Enterprise environmental factors updates

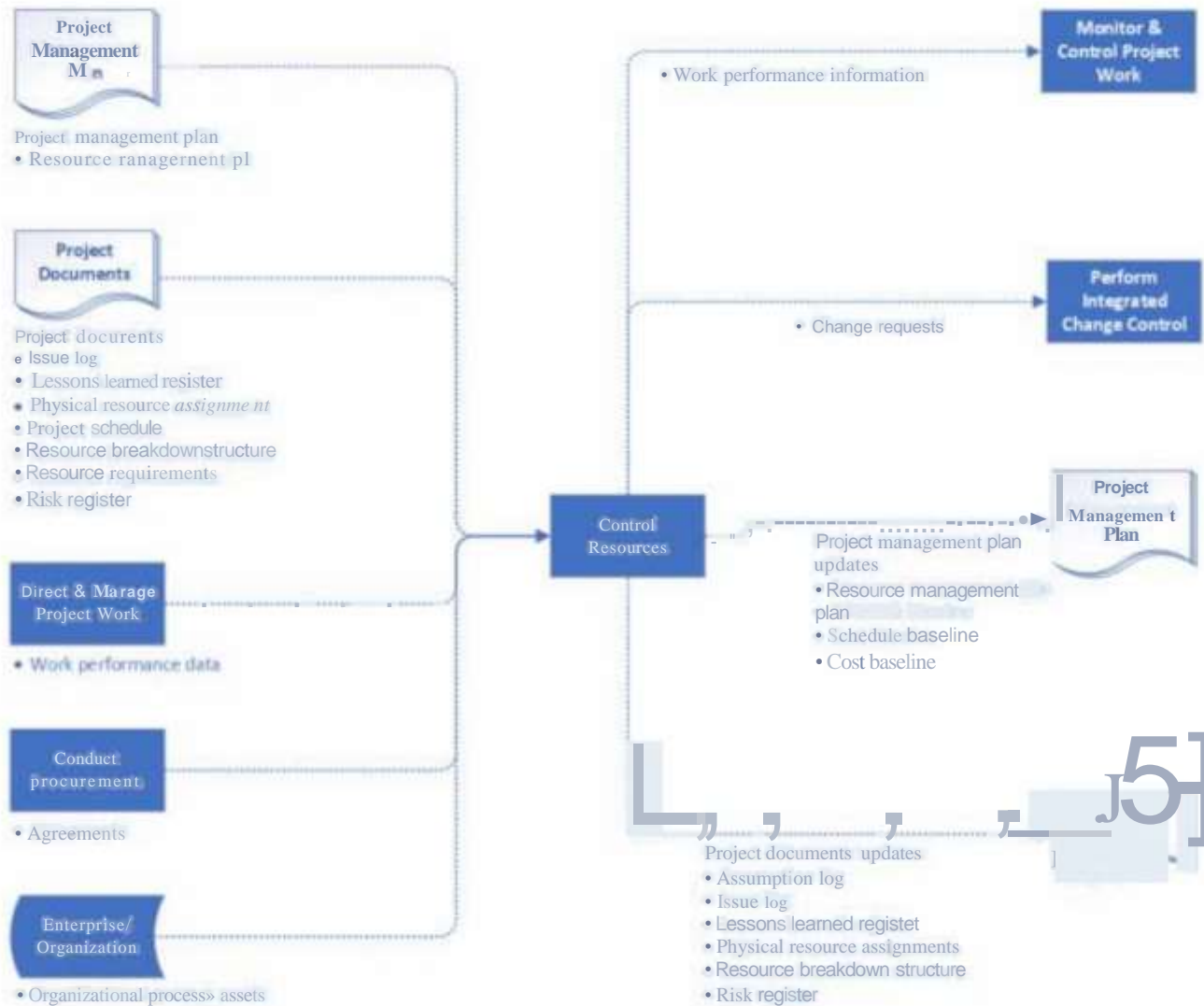
Lesson 7: Control Resource

- Control Resource Overview
- Control Resource Data Flow
- Control Resource Input
- Control Resource Tools & Techniques
- Control Resource Output

Control Resource Overview

- **Control resource** is the process of ensuring that the physical resources assigned and allocated to the project are available as planned, as well as monitoring the planned versus actual utilization of resources and taking corrective action as necessary.
- Key benefit: ensuring that the assigned resources are available to the project at the right time and in the right place and are released when no longer needed.

Control Resource Data Flow



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Control Resource Input

- Project management plan
 - Resource management plan
- Project documents
 - Issue log
 - Lessons learned register
 - Physical resource assignments
 - Project schedule
 - Resource breakdown structure
 - Resource requirements
 - Risk register
- Work performance data
- Agreements
- Organizational process assets

Control Resource Tools & Techniques

- Data analysis
 - Alternative analysis
 - Cost-benefit analysis
 - Performance reviews
 - Trend analysis
- Problem solving
- Interpersonal and team skills
 - Negotiation
 - Influencing
- Project management information system

Control Resource Output

- Work performance information
- Change requests
- Project management plan updates
 - Resource management plan
 - Schedule baseline
 - Cost baseline
- Project documents updates
 - Assumption log
 - Issue log
 - Lessons learned register
 - Physical resource assignments
- Resource breakdown structure
- Risk register

References

- [PMBOK6] The PMBOK 6 edition from pmi.org
- [RITA9] -- Rita Mulcahy's PMP Exam Prep 9th edition from RMC Publications™