

Project Scope Management

Project Scope Management

Module Overview

- Lesson 1: Key Concepts & Terms
- Lesson 2: Plan Scope Management
- Lesson 3: Collect Requirements
- Lesson 4: Define Scope
- Lesson 5: Create WBS
- Lesson 6: Validate Scope
- Lesson 7: Control Scope

Lesson 1: Key Concepts & Terms

- Definition of Scope
- Project Scope Management
- Key Terms
- Trends & Emerging Practices
- Tailoring Considerations
- Considerations for Adaptive Environment

Definition of Scope

- The term **scope** can refer to:
 - **Product** scope: the features & functions that characterize a product, service, or result.
 - **Project** scope: the work performed to deliver a product, service, or result with the specified features & functions.
- Project scope usually includes product scope.
- **Requirement:** a condition or capability that is required to be present in a product, service, or result.

Project Scope Management

Project scope management is the processes of defining what work is required and then making sure all of that work -and only that work- is completed. [RITA9]

Key Terms

- **Requirements traceability matrix:** a grid that links product requirements from their origin to the deliverables that satisfy them.
- **Work breakdown structure (WBS):** a hierarchical decomposition of the total scope of work.
- **WBS dictionary:** a document that provides detailed deliverable, activity, & scheduling information about each component in the WBS.
- **Scope baseline:** the approved version of scope statement, WBS, and its associated WBS dictionary.
- **Scope creep:** the uncontrolled expansion to product or project scope without adjustment to time, cost, and resources.

Key Terms (continued)

- **Decomposition:** a technique used for dividing & subdividing the project scope & deliverables into smaller, more manageable parts.
- **100% rule:** the total of the work at the lowest levels should roll up to the higher level so that nothing is left out and no extra work is performed.
- **Control account:** management control point where scope, budget, & schedule are integrated and compared to earned value for performance comparison.
- **Work package:** the lowest level of WBS structure component.
- **Planning package:** a WBS component below the control account and above the work package.

Trends & Emerging Practices

Collaborating with **a Business Analyst** to:

- Determine problems and identify business needs;
- Identify and recommend viable solutions for meeting those needs;
- Elicit, document, and manage stakeholder requirements in order to meet objectives;
- Facilitate the successful implementation of the product, service, or result.

Tailoring Considerations

- Knowledge & requirements management
- Validation & control
- Development approach
- Stability of requirements
- Governance

Considerations for Adaptive Environments

- Agile methods spend less time defining scope in the early stage.
- Agile methods spend more time establishing the process for its ongoing discovery & refinement.
- Agile methods purposefully build & review prototypes and release versions to refine the requirements.
- Scope is defined and redefined throughout the project.
- Requirements constitute the **backlog** (prioritized feature list).

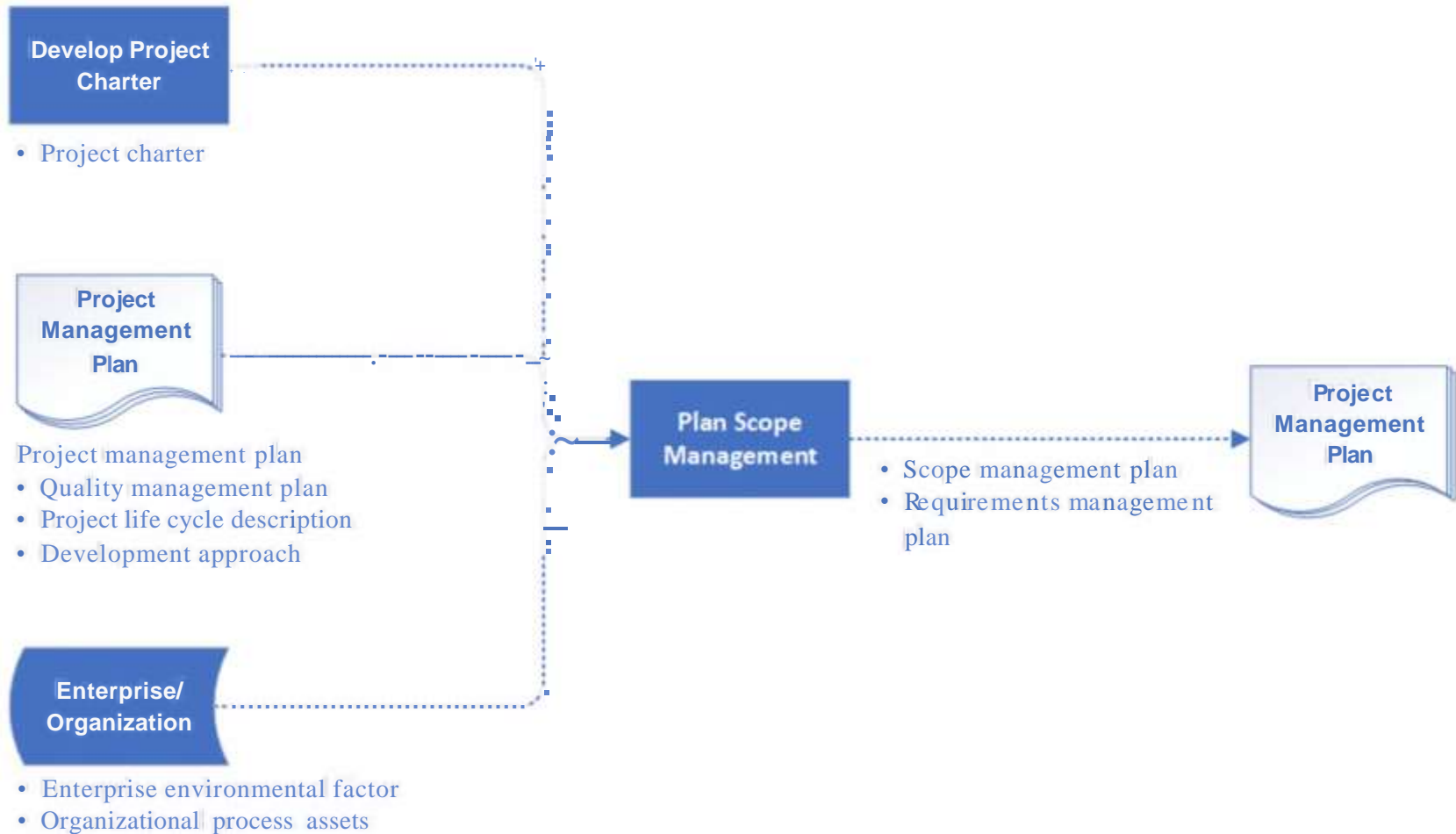
Lesson 2: Plan Scope Management

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

Plan Scope Management Overview

Plan scope management is the process of creating a scope management plan that documents how the project and product scope will be defined, validated, and controlled.

Plan Scope Management Data Flow



Plan Scope Management Input

- Project charter
- Project management plan
 - Quality management plan
 - Project life cycle description
 - Development approach
 - Predictive
 - Adaptive
- Enterprise environmental factors
- Organizational process assets

Plan Scope Management Tools & Techniques

- Expert judgment
- Data analysis
 - Alternative analysis
- Meetings

Plan Scope Management Output

- Scope management plan
- Requirements management plan

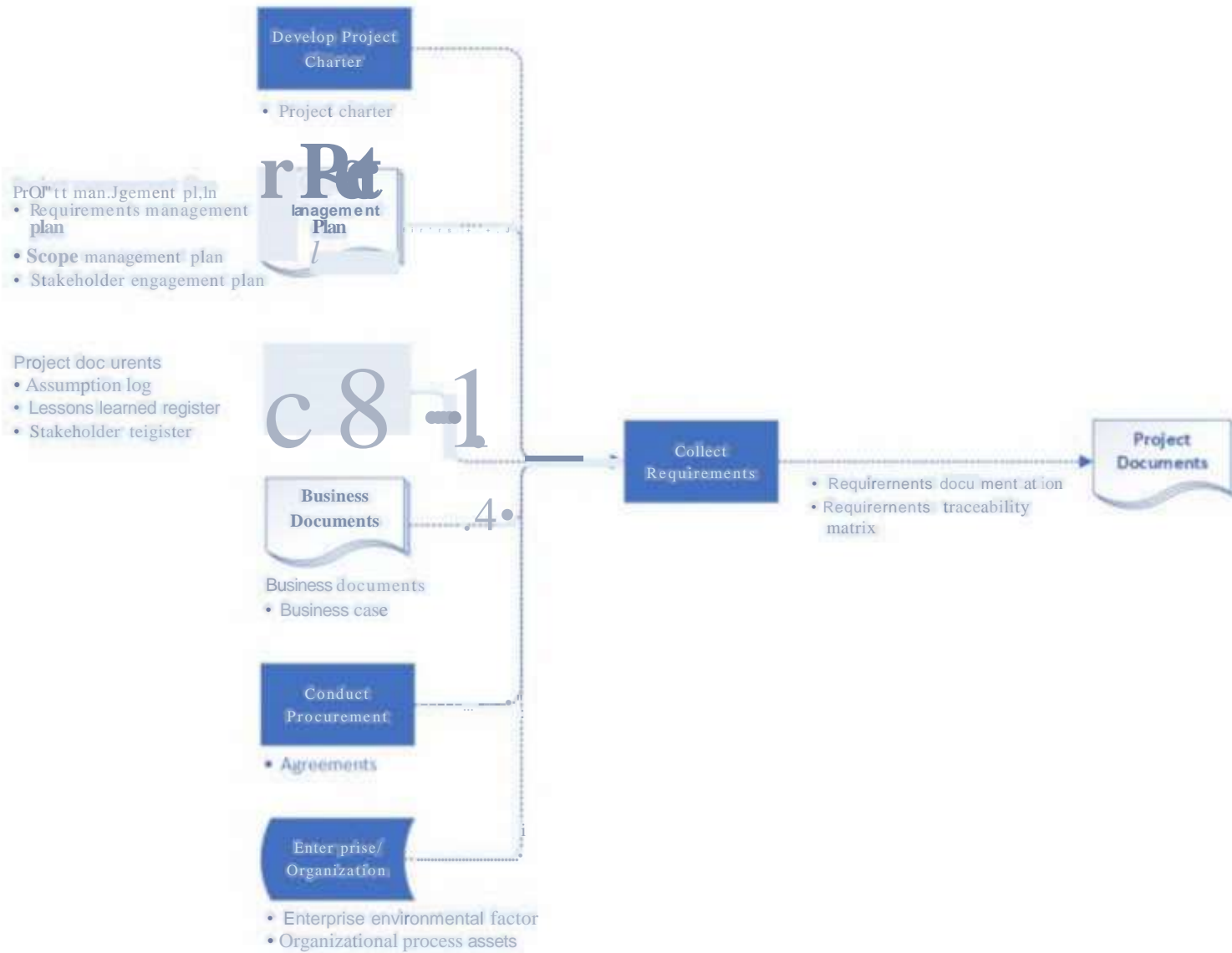
Lesson 3: Collect Requirements

- Collect Requirements Overview
- Collect Requirements Data Flow
- Collect Requirements Input
- Collect Requirements Tools & Techniques
- Collect Requirements Output

Collect Requirements Overview

Collect requirements is the process of determining, documenting, and managing stakeholder needs and requirements to meet objectives.

Collect Requirements Data Flow



Collect Requirements Input

- Project charter
- Project management plan
 - Scope management plan
 - Requirements management plan
 - Stakeholder engagement plan
- Project documents
 - Assumption log
 - Lessons learned register
 - Stakeholder register
- Business documents
 - Business case
- Agreements
- Enterprise environmental factors
- Organizational process assets

Collect Requirements Tools & Techniques

- Expert judgment
- Data gathering
 - Brainstorming
 - Interviews Focus
 - groups
 - Questionnaires & surveys
 - Benchmarking
- Data analysis
 - Document analysis
- Decision making
 - Voting: unanimity, majority, plurality
 - Autocratic decision making
 - Multicriteria decision analysis
- Data representation
 - Affinity diagram
 - Mind mapping
- Interpersonal & team skills
 - Nominal group technique
 - Observation/conversation (job shadowing)
 - Facilitation
 - Join application development
 - Quality function deployment
 - User stories
- Context diagram
- Prototypes

Collect Requirements Output

- Requirements documentation
 - Business requirements
 - Stakeholder requirements
 - Solution requirements
 - Functional requirements
 - Nonfunctional requirements
 - Transition & readiness requirements
 - Project requirements
 - Quality requirements
- Requirements traceability matrix

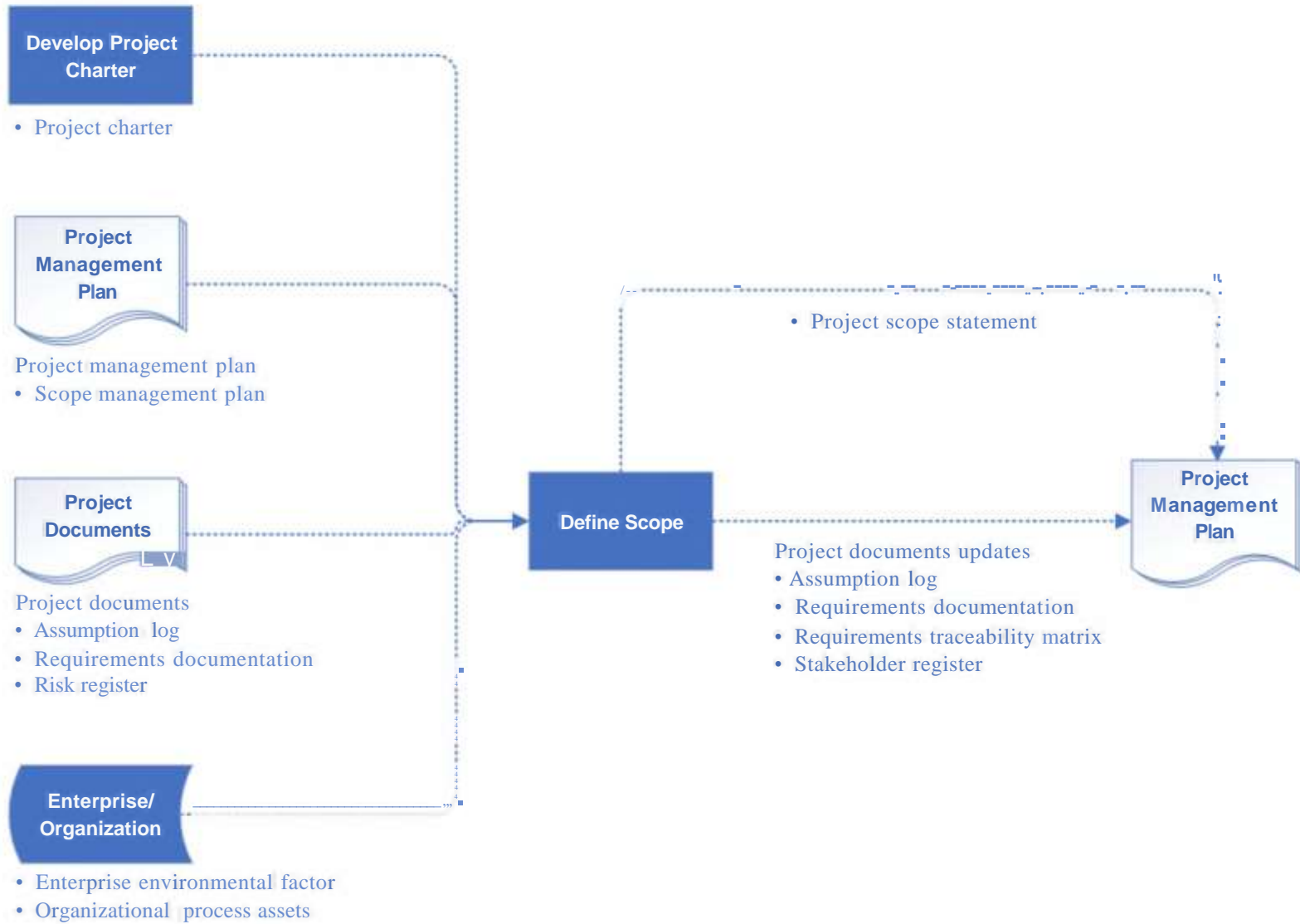
Lesson 4: Define Scope

- Define Scope Overview
- Define Scope Data Flow
- Define Scope Input
- Define Scope Tools & Techniques
- Define Scope Output

Define Scope Overview

Define scope is the process of developing a detailed description of the project and product.

Define Scope Data Flow



Define Scope Input

- Project charter
- Project management plan
 - Scope management plan
- Project documents
 - Assumption log
 - Requirements documentation
 - Risk register
- Enterprise environmental factors
- Organizational process assets

Define Scope Tools & Techniques

- Expert judgment
- Data analysis
 - Alternative analysis
- Decision making
 - Multicriteria decision analysis
- Interpersonal & team skills
 - Facilitation
- Product analysis

Define Scope Output

- Project scope statement
 - Product scope description
 - Deliverables
 - Acceptance criteria
 - Project exclusions - can reduce scope creep
- Project documents updates
 - Assumption log
 - Requirements documentation
 - Requirements traceability matrix
 - Stakeholder register

Project Charter vs Project Scope Statement

Project Charter

- Project purpose
- Measurable project objectives and related success criteria
- High-level requirements
- High-level project description, boundaries, and key deliverables
- Overall project risk
- Summary milestone schedule
- Preapproved financial resources
- Key stakeholder list
- Project approval requirements
- Project exit criteria
- Assigned project manager, responsibility, and authority level
- Name and authority of the sponsor or other person authoring the project charter

Project Scope Statement

- Project scope description
- Project deliverables
- Acceptance criteria
- Project exclusions
- Assumptions
- Constraints

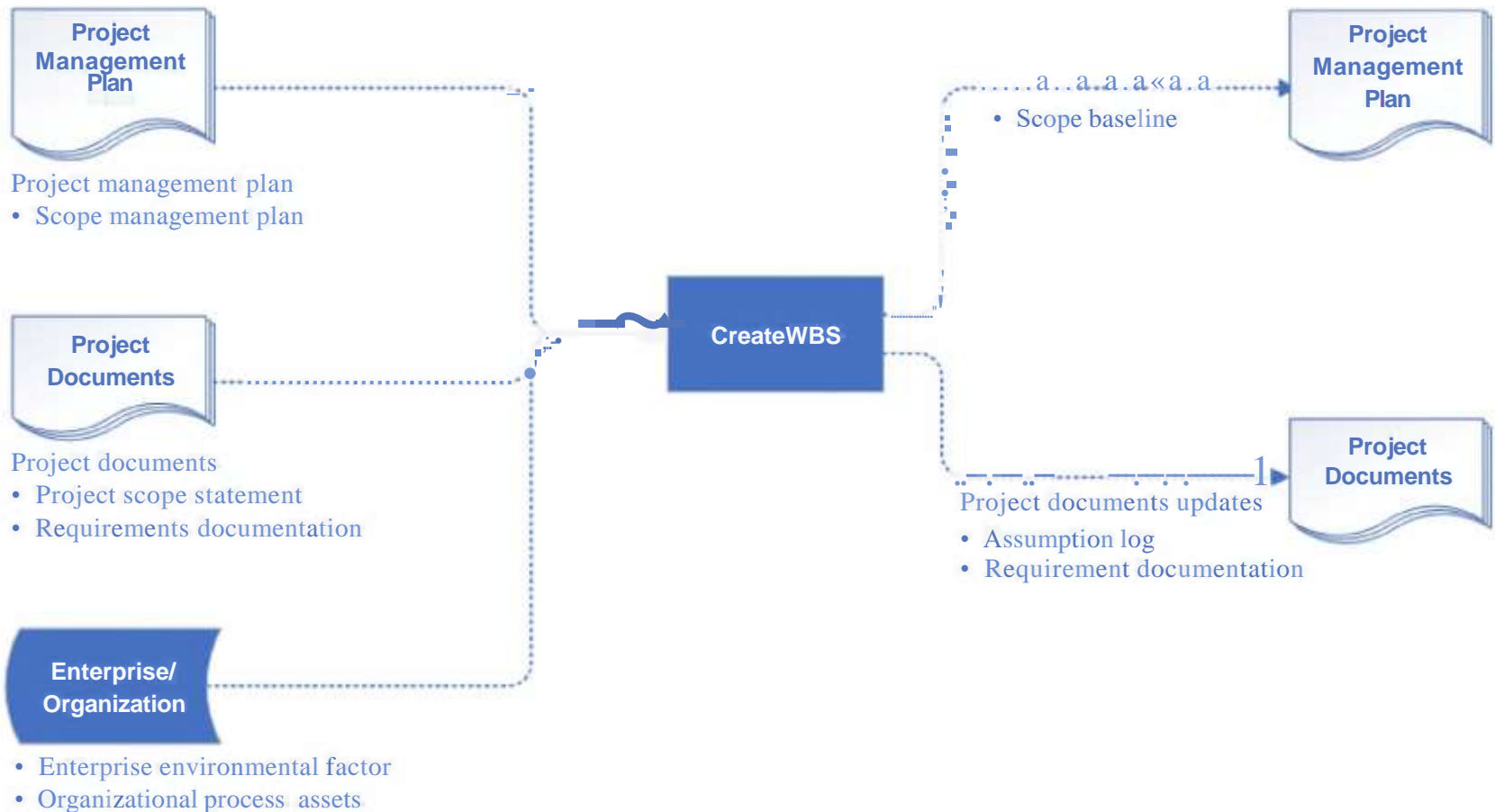
Lesson 5: Create WBS

- Create WBS Overview
- Create WBS Data Flow
- Create WBS Input
- Create WBS Tools & Techniques
- Create WBS Output

Create WBS Overview

Create WBS is the process of subdividing project deliverables and project work into smaller, more manageable components.

Create WBS Data Flow



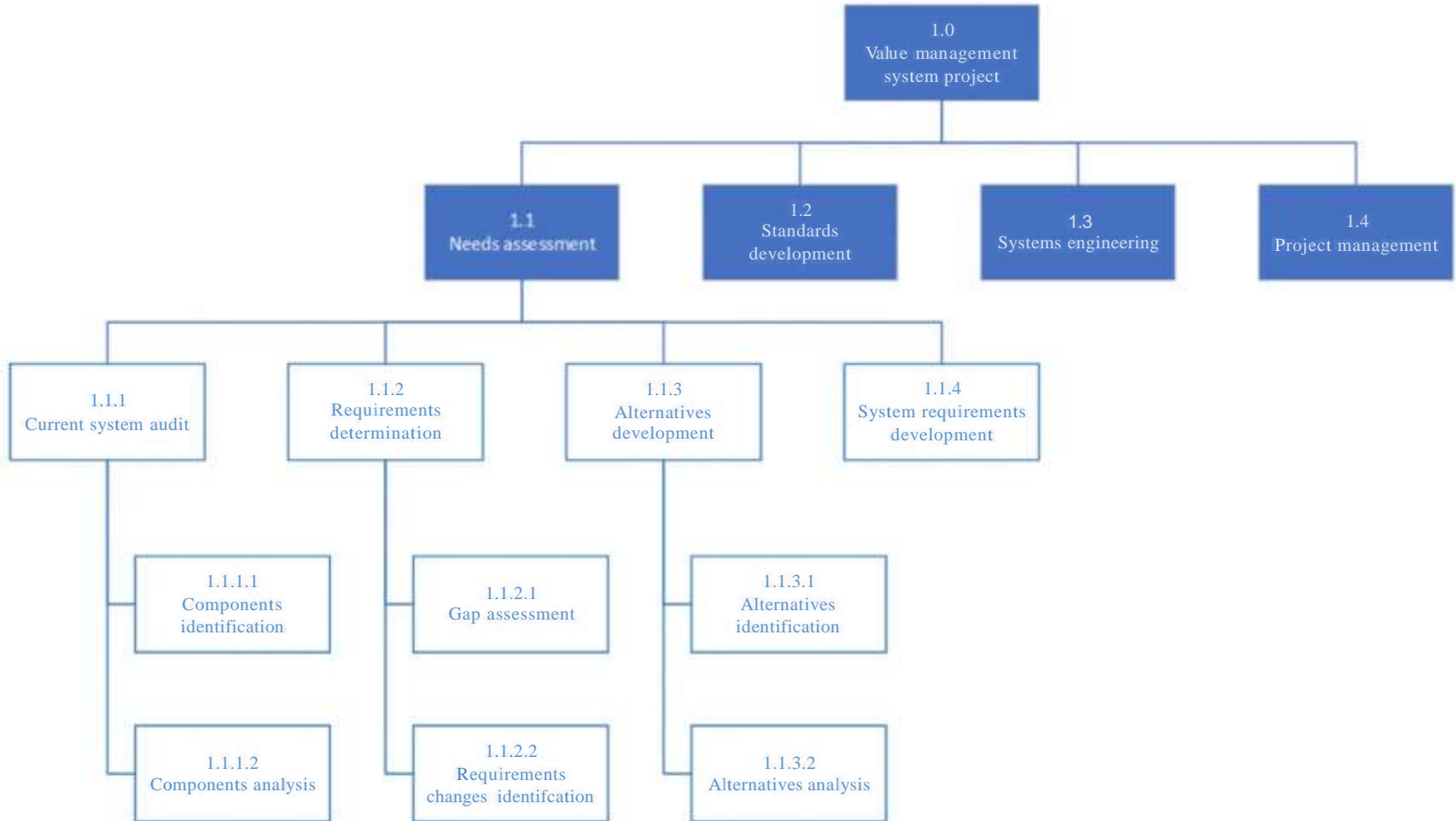
Create WBS Input

- Project management plan
 - Scope management plan
- Project documents
 - Project scope statement
 - Requirements documentation
- Enterprise environmental factors
- Organizational process assets

Create WBS Tools & Techniques

- Expert judgment
- Decomposition

WBS Example



Create WBS Output

- Scope baseline
 - Project scope statement
 - WBS
 - Work package
 - Planning package
- WBS dictionary
- Project documents updates
 - Assumption log
 - Requirements documentation

WBS Component \pm Activity

- WBS is deliverables-oriented
- Each work package should consist of nouns (deliverables), not actions (activities).
- Further breakdown of work package into activities is done as part of **Define Activities** process in **Project Schedule Management**.

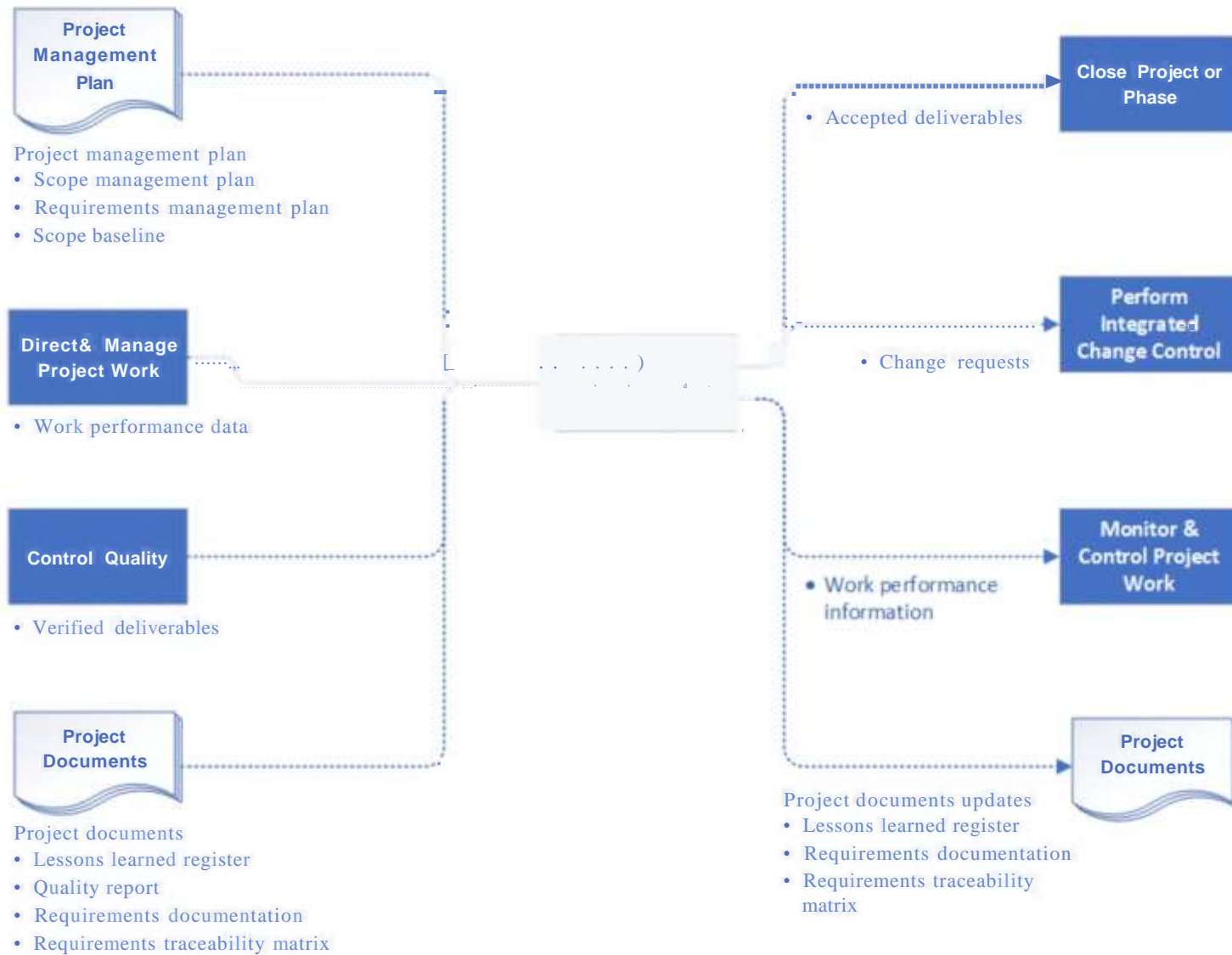
Lesson 6: Validate Scope

- Validate Scope Overview
- Validate Scope Data Flow
- Validate Scope Input
- Validate Scope Tools & Techniques
- Validate Scope Output

Validate Scope Overview

Validate scope is the process of formalizing acceptance of the completed project deliverables.

Validate Scope Data Flow



Validate Scope Input

- Project management plan
 - Scope management plan
 - Requirements management plan
 - Scope baseline
- Project documents
 - Lessons learned register
 - Quality reports
 - Requirements documentation
 - Requirements traceability matrix
- Verified deliverables
- Work performance data

Validate Scope Tools & Techniques

- Inspection (reviews, product reviews, walkthroughs)
- Decision making
 - Voting

Validate Scope Output

- Accepted deliverables -> formally signed off
- Work performance information
- Change requests
- Project documents updates
 - Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix

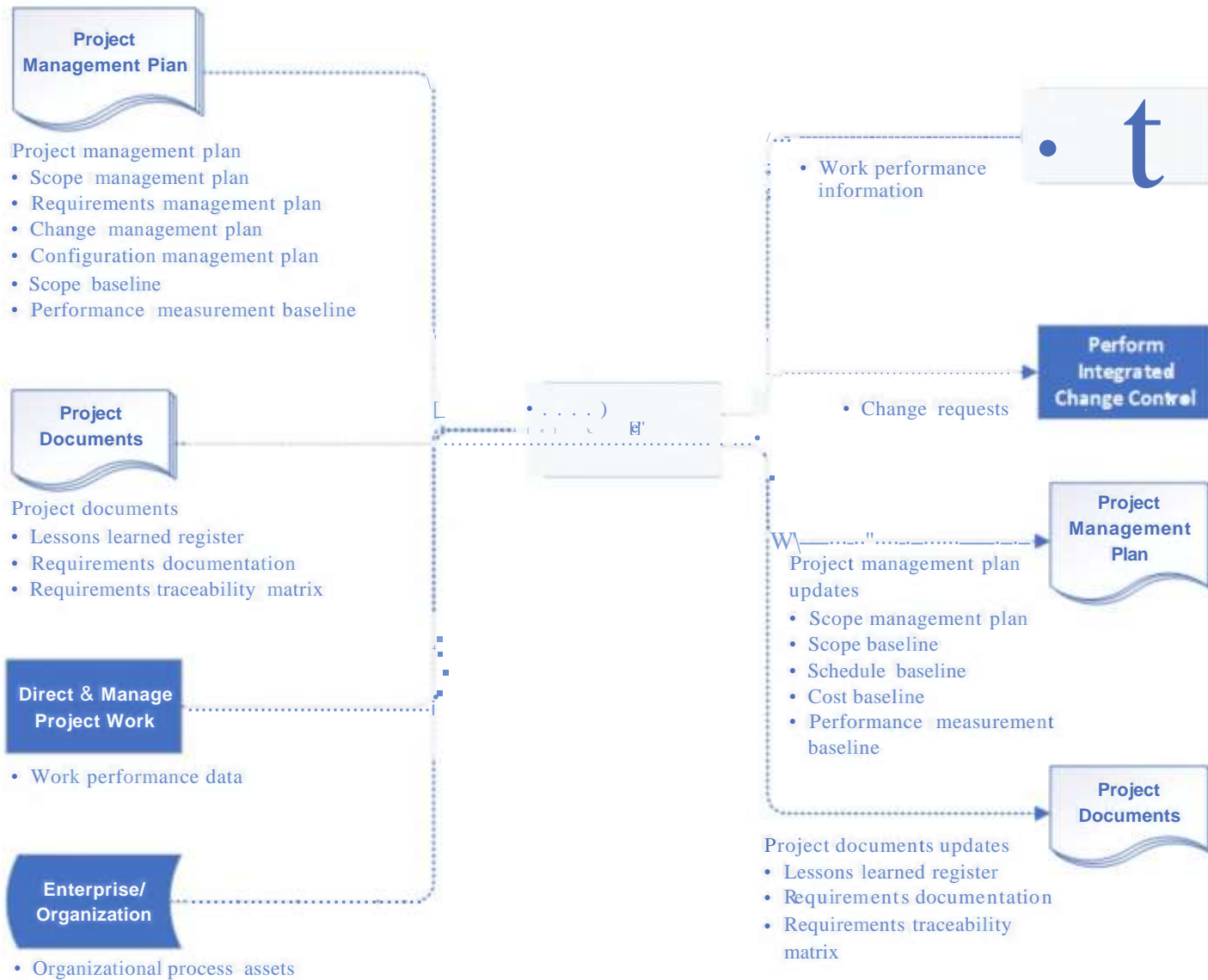
Lesson 7: Control Scope

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

Control Scope Overview

Control scope is the process of monitoring the status of the project and product scope and managing changes to the scope baseline.

Control Scope Data Flow



Control Scope Input

- Project management plan
 - Scope management plan
 - Requirements management plan
 - Change management plan
 - Configuration management plan
 - Scope baseline
 - Performance measurement baseline
- Project documents
 - Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix
- Work performance data
- Organizational process assets

Control Scope Tools & Techniques

- Data analysis
 - Variance analysis
 - Trend analysis

Control Scope Output

- Work performance information Change
- requests Project
- management plan updates
 - Scope management plan
 - Scope baseline
 - Schedule baseline
 - Cost baseline
 - Performance measurement baseline
- Project documents updates
 - Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix

References

- [PMBOK6] The PMBOK 6 edition from pmi.org
- [RITA9] -- Rita Mulcahy's PMP Exam Prep 9t edition from RMC Publications™