

Project Scope Management

Outline

- ☐ Introduction
 - ☐ Scope Planning
 - ☐ Scope Definition
 - ☐ Create WBS
 - ☐ Scope Verification
 - ☐ Scope Control
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Introduction



Definition of Project Scope Management

- ❑ Project Scope Management include the processes required to ensure that the project include all the work required, and only the work required, to complete the project successfully
 - ❑ Project scope management is primarily concerned with defining and controlling what is and is not included in the project
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Definition of Project Scope Management

- ❑ In the project context, the term scope can refer to
 - Product scope : the features and functions that characterize a product, service, or result
 - Project scope : the work that needs to be accomplished to deliver a product, service, or result with the specified features and functions
 - ❑ The approved detailed project scope statement and its associated WBS and WBS dictionary are the scope baseline for the project
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Definition of Project Scope Management

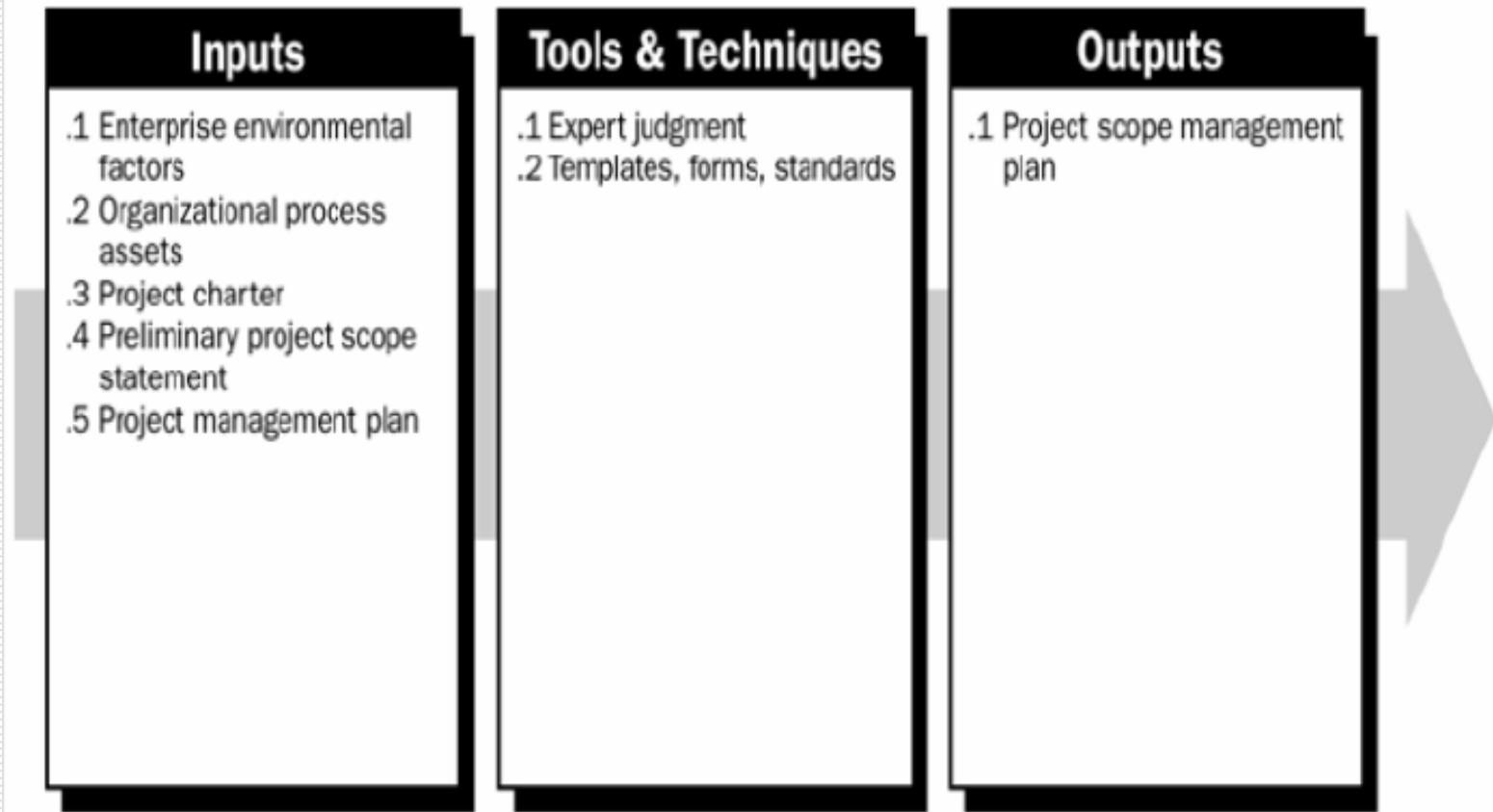
- ❑ Completion of the project scope is measured against the project management plan, the project scope statement, and its associated WBS and WBS dictionary, but completion of the product scope is measured against the product requirements
 - ❑ Project scope management needs to be well integrated with other Knowledge Area processes, so that the work of the project will result in delivery of the specified product scope
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Scope Planning

Scope Planning

- ❑ How will the scope be planned, executed, and controlled
 - ❑ Project scope includes the meetings, reports, analysis and all the other parts of project management that become part of the project scope management plan
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Scope Planning



Organizational Process Assets

- The formal and informal policies, procedures, and guidelines that could impact how the project's scope is managed
 - Organizational policies as they pertain to project scope planning and management
 - Organizational procedures related to project scope planning and management
 - Historical information about previous projects that may be located in the lessons learned knowledge base
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Template, Forms, Standards

- Templates could include WBS templates, scope management plan templates, and project scope change control forms

Project Scope Management Plan

- The project scope management plan is a planning tool describing how the team will define the project scope, develop the detailed project scope statement, define and develop the WBS, verify the project scope, and control the project scope
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Project Scope Management Plan

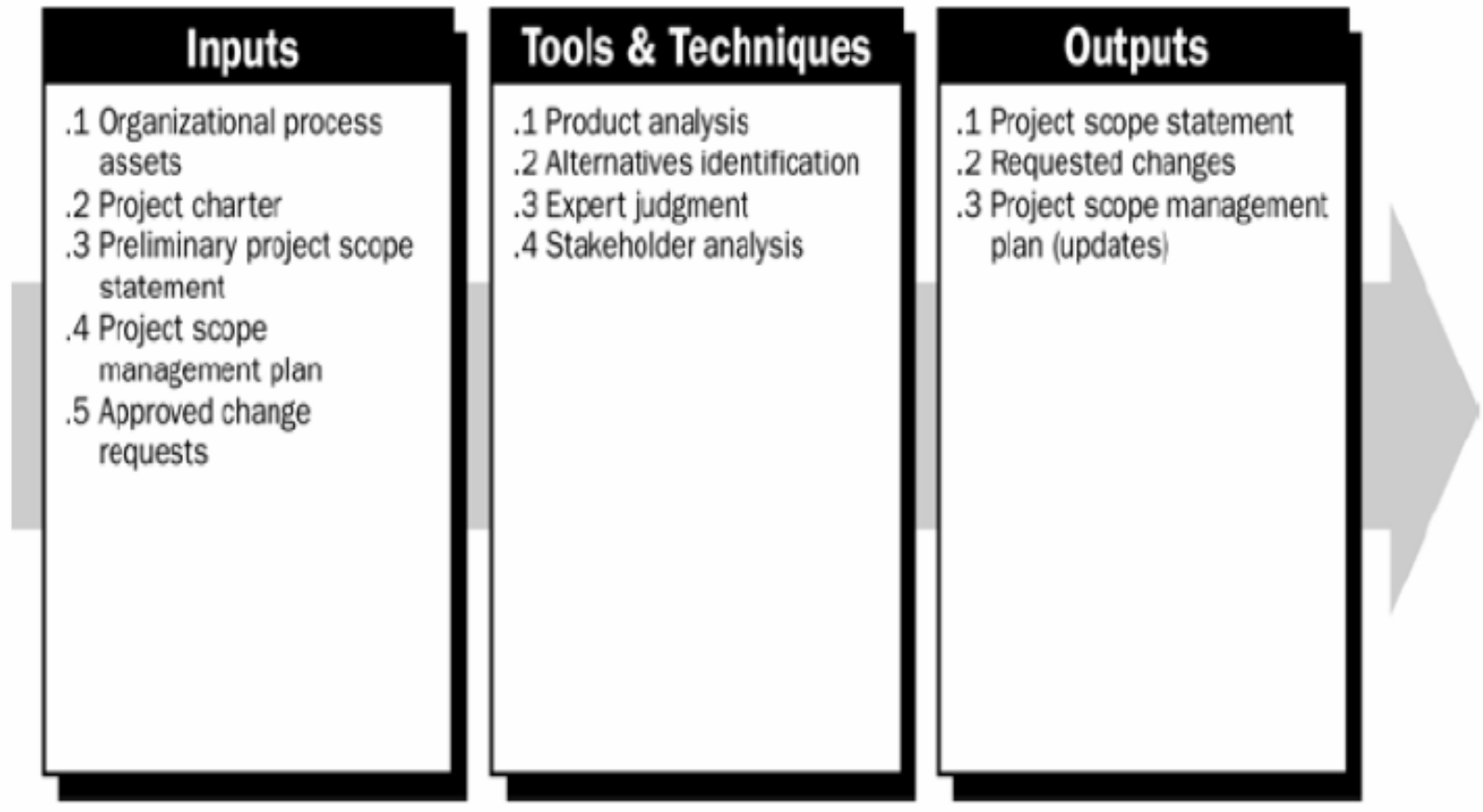
- A process to prepare a detailed project scope statement based upon the preliminary project scope statement
 - A process that enables the creation of the WBS from the detailed project scope statement, and establish how the WBS will be maintained and approved
 - A process that specifies how formal verification and acceptance of the completed project deliverables will be obtained
 - A process to control how requests for changes to the detailed project statement will be processed. This process is directly linked to the integrated change control system
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Scope Definition

Scope Definition

- ❑ The preparation of detailed project scope statement is critical to project success and builds upon the major deliverables, assumptions, and constraints that are documented during project initiation in the preliminary project scope statement
 - ❑ During planning, the project scope is defined because more information is known
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Scope Definition



Approved Change Requests

- ❑ Approved change requests can cause a change to project scope, project quality, estimated costs, or project schedule
 - ❑ Changes are often identified and approved while the work of the project is ongoing
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Product Analysis

- ❑ Each application area has one or more generally accepted methods for translating project objectives into tangible deliverables and requirements
 - ❑ Effort may need to be expanded to determine and define requirements as part of the project, rather than just receiving complete requirements from the customer
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Alternatives Identification

- ❑ Identifying alternative is a technique used to generate different approaches to execute and perform the work of the project
 - ❑ A variety of general management techniques is often used here, the most common of which are brainstorming and lateral thinking
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Stakeholder Analysis

- ❑ Identifies the influence and interests of the various stakeholders and documents their needs, wants, and expectations
 - ❑ The analysis then selects, prioritizes, and quantifies the needs, wants, and expectations to create requirements
 - ❑ Also include their responsibilities and authority
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Project Scope Statement

- ❑ Describes, in detail, the project's deliverables and the work required to create those deliverables
 - ❑ Also provides a common understanding of the project scope among all project stakeholders and describes the project's major objectives
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Project Scope Statement

- Project objectives
 - Project scope description
 - Project requirements
 - Project boundaries
 - Project deliverables
 - Project acceptance criteria
 - Project constraints
 - Project constraints
 - Initial project organization
 - Initial defined risks
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Project Scope Statement

- Schedule milestones
 - Fund limitation
 - Cost estimate
 - Project configuration management requirement
 - Project specifications
 - Approval requirement
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Create WBS

Create WBS

- ❑ The WBS (Work Breakdown Structure) is a deliverable-oriented hierarchical decomposition of the work to be executed by the project team, to accomplish the project objectives and create the required deliverables
 - ❑ The WBS organize and defines the total scope of the project
 - ❑ It breaks the project into smaller and more manageable piece
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Create WBS


Inputs

- .1 Organizational process assets
- .2 Project scope statement
- .3 Project scope management plan
- .4 Approved change requests

Tools & Techniques

- .1 Work breakdown structure templates
- .2 Decomposition

Outputs

- .1 Project scope statement (updates)
 - .2 Work breakdown structure
 - .3 WBS dictionary
 - .4 Scope baseline
 - .5 Project scope management plan (updates)
 - .6 Requested changes
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WBS templates

- Although each project is unique, a WBS from a previous project can often be used as a template for a new project, since some projects will resemble another prior project to some extent
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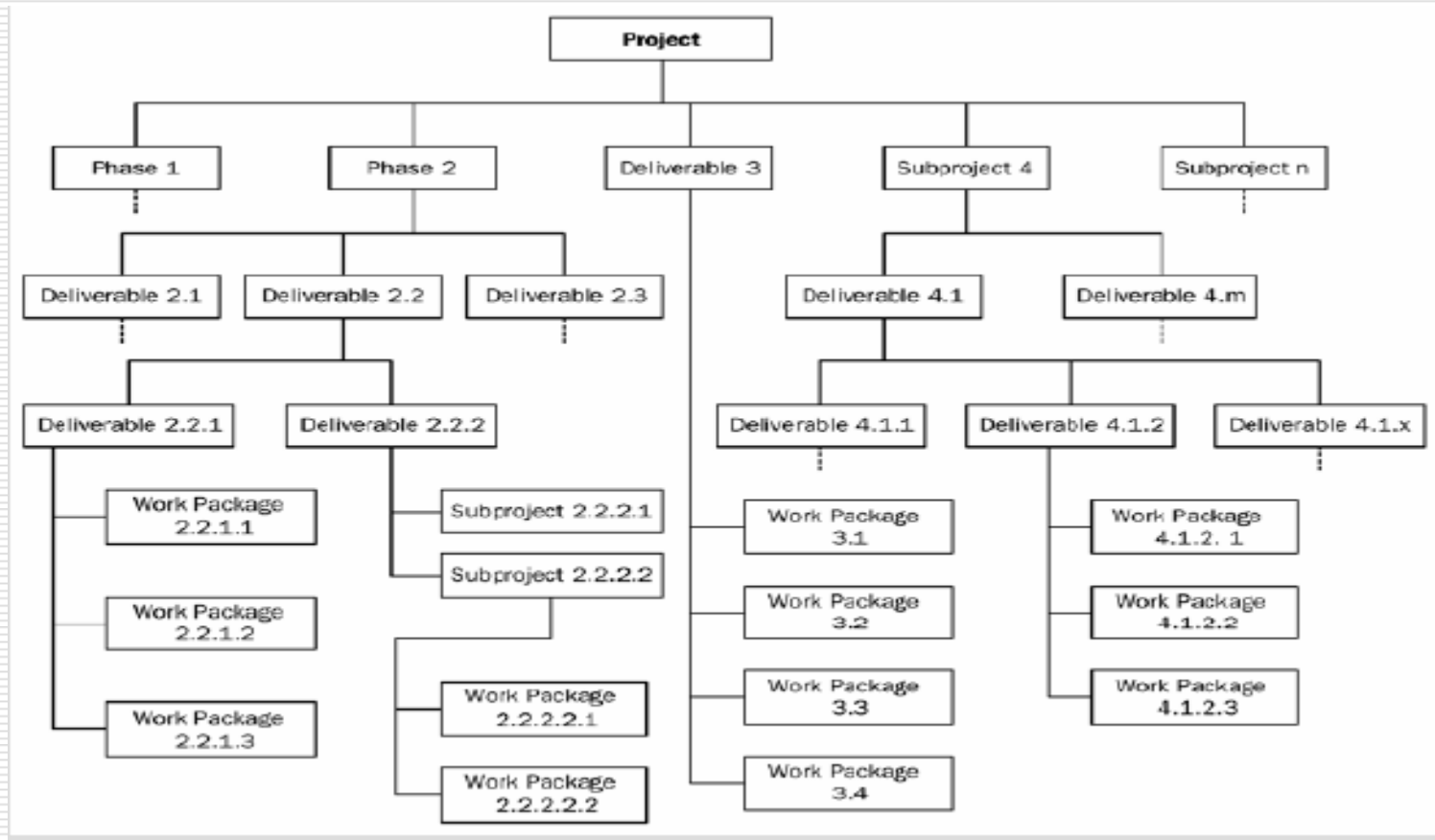
Decomposition

- ❑ Decomposition is the subdivision of project deliverables into smaller, more manageable components until the work and deliverables are defined to the work package level
 - ❑ Different deliverables can have different levels of decomposition
 - ❑ PM needs to seek a balance between too little and too much in the level of WBS planning detail
 - ❑ WBSs created by two people for the same project will look different
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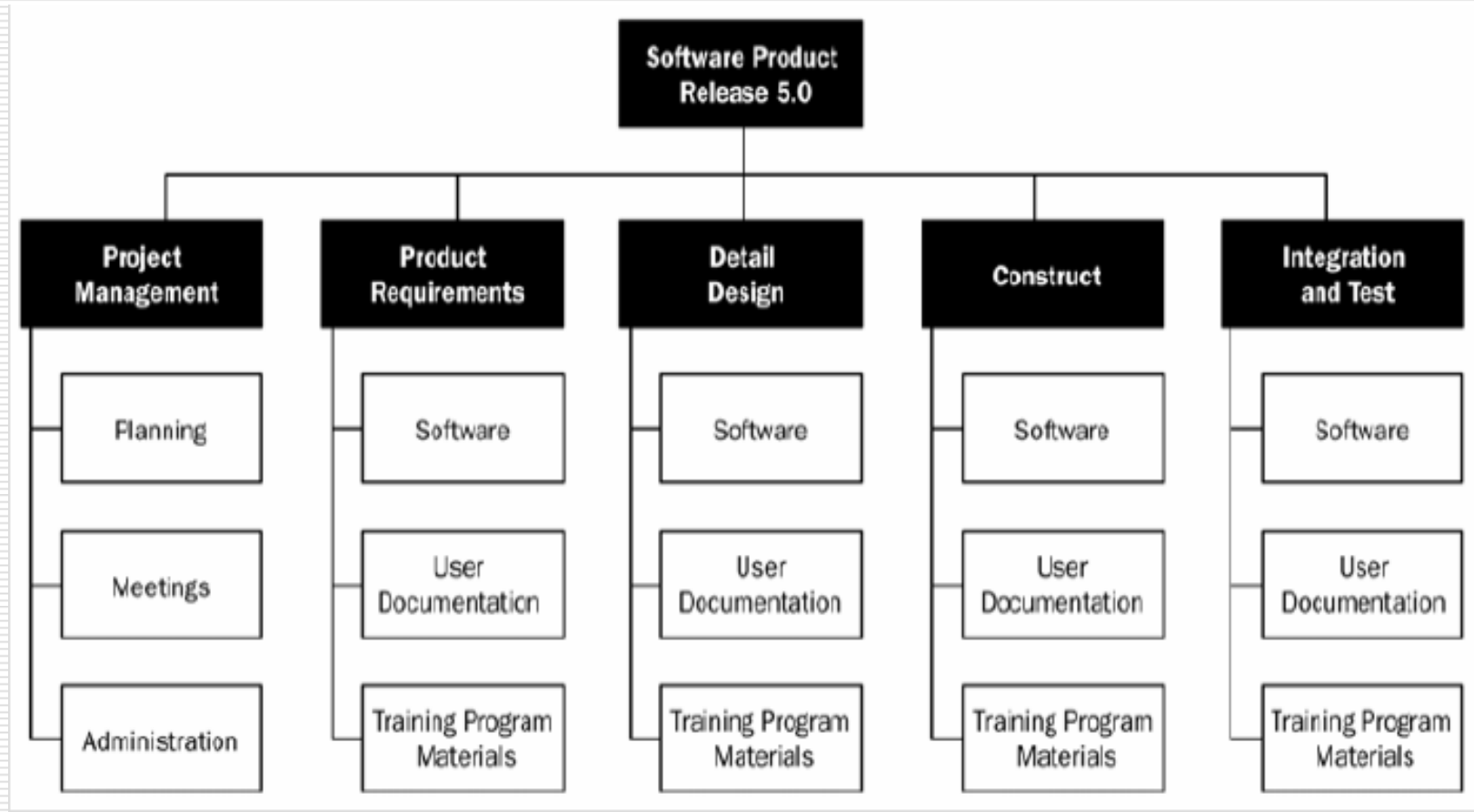
Decomposition

- Generally involving
 - Identifying the deliverables and related work
 - Structuring and organizing the WBS
 - Decomposing the upper WBS levels into lower level detailed components
 - Developing and assigning identification codes to the WBS components
 - Verifying that the degree of decomposition of the work is necessary and sufficient
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WBS



WBS



WBS

- ❑ The first level are usually the same as the project life cycle or project phase, deliverables, subprojects, and a mixture
 - ❑ The first level is completed before the project is broken down further
 - ❑ Each level of the WBS is smaller segment of the level above
 - ❑ The lowest level should be manageable element which duration, cost etc. can be estimated, called work package
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WBS

- ❑ Work toward the project deliverables
 - ❑ Work not in the WBS is not part of the project
 - ❑ Principle : divide into measurable, completely defined, actually execute, controlled, and assigned components
 - ❑ Need to be verified
 - Level
 - Mutually exclusive; collectively exhaustive
 - ❑ WBS dose NOT show dependencies
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Work Package

- ☐ Can be realistically and confidently estimated
 - ☐ Cannot be logically subdivided further
 - ☐ Can be complete quickly
 - ☐ Have a meaningful conclusion and deliverable
 - ☐ Can be complete without interruption
(without the need for more information)
 - ☐ Will be outsourced or contracted out
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Other Breakdown Structure

- ❑ Organizational Breakdown Structure (OBS)
 - ❑ Bill of Materials (BOM)
 - ❑ Risk Breakdown Structure (RBS)
 - ❑ Resource Breakdown Structure (RBS)
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WBS Dictionary

- ❑ Describe the work to be done for each WBS work package
 - ❑ A WBS Dictionary is designed to control what work is done and when, to prevent scope creep
 - ❑ It may contain information similar to :
Project name, Task No., Dates Issued, Person assigned, Task description, Quantified goals and objectives, Product description, Acceptance Criteria, Deliverables, Resource assigned, Duration, Due day, Approved by whom
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Scope Baseline

- The approved detailed project scope statement, and its associated WBS and WBS dictionary are the scope baseline
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Scope Verification

Scope Verification

- Scope verification is actually checking the work against the project management plan and the project scope management plan, WBS and WBS dictionary, and then meeting with the customer to gain formal acceptance of deliverables
 - Verifying the project scope includes reviewing deliverables to ensure that each is completed satisfactorily
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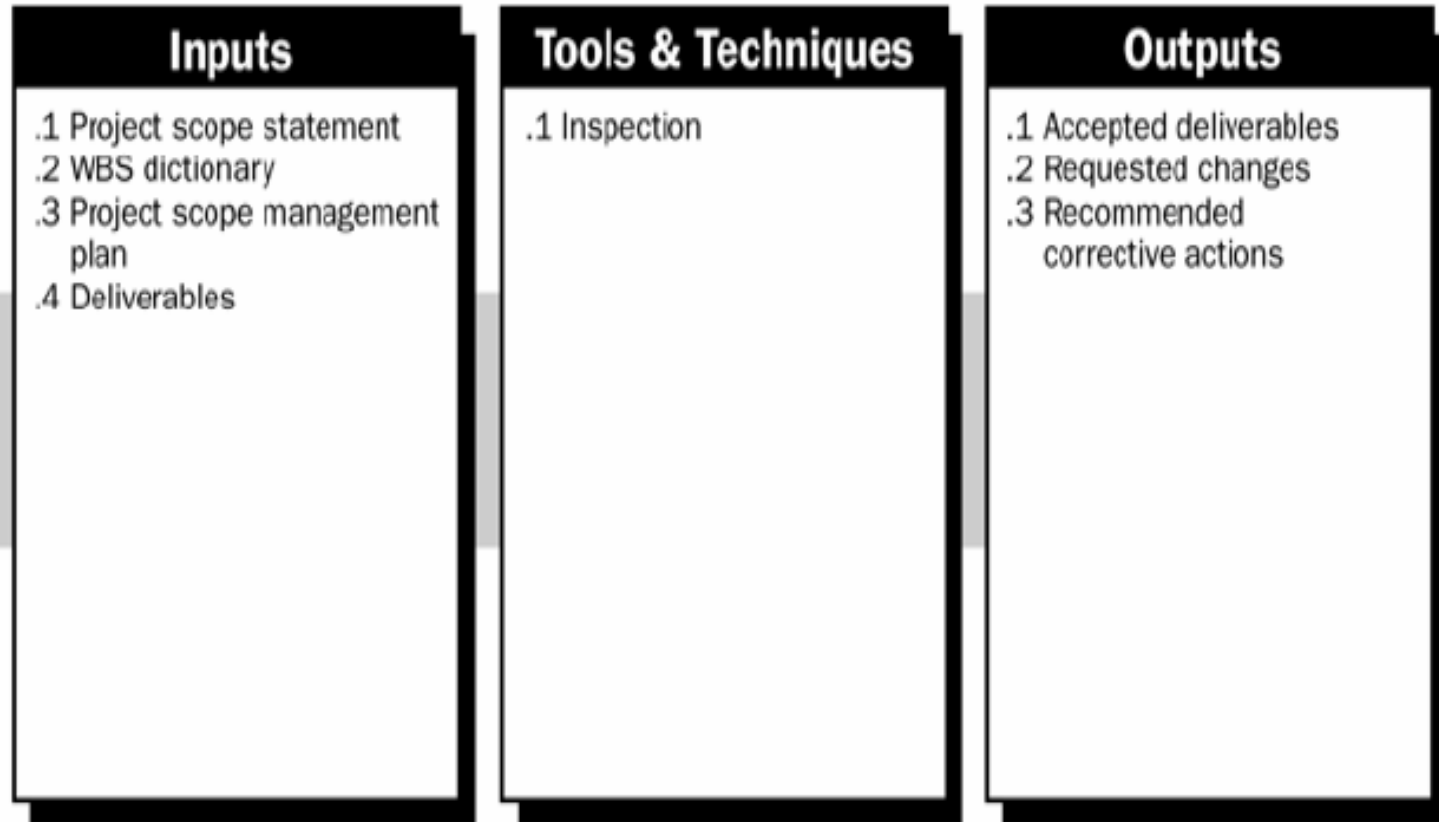
Scope Verification

- ❑ In case the project is terminated early, the project scope verification process should establish and document the level and extent of completion
 - ❑ Scope verification can be done at the end of each project phase in the project life cycle and during the monitoring and controlling process group in the project management process
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Scope Verification

- Scope verification differs from quality control in that scope verification is primarily concerned with acceptance of the deliverables, while quality control is primarily concerned with meeting the quality requirements specified for the deliverables
 - Quality control is generally performed before scope verification, but these two processes can be performed in parallel
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Scope Verification



Inspection

- ❑ Inspection includes activities such as measuring, examining, and verifying to determine whether work and deliverables meet requirements and product acceptance criteria
 - ❑ Inspections are variously called reviews, product reviews, audits, and walkthroughs. In some application areas, these different terms have narrow and specific meanings
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Scope Control

Scope Control

- ❑ Project scope control is concerned with influencing the factors that create project scope changes and controlling the impact of those changes
 - ❑ Scope control assures all requested changes and recommended corrective actions are processed through the Project Integrated Change Control process set up in the project scope management plan
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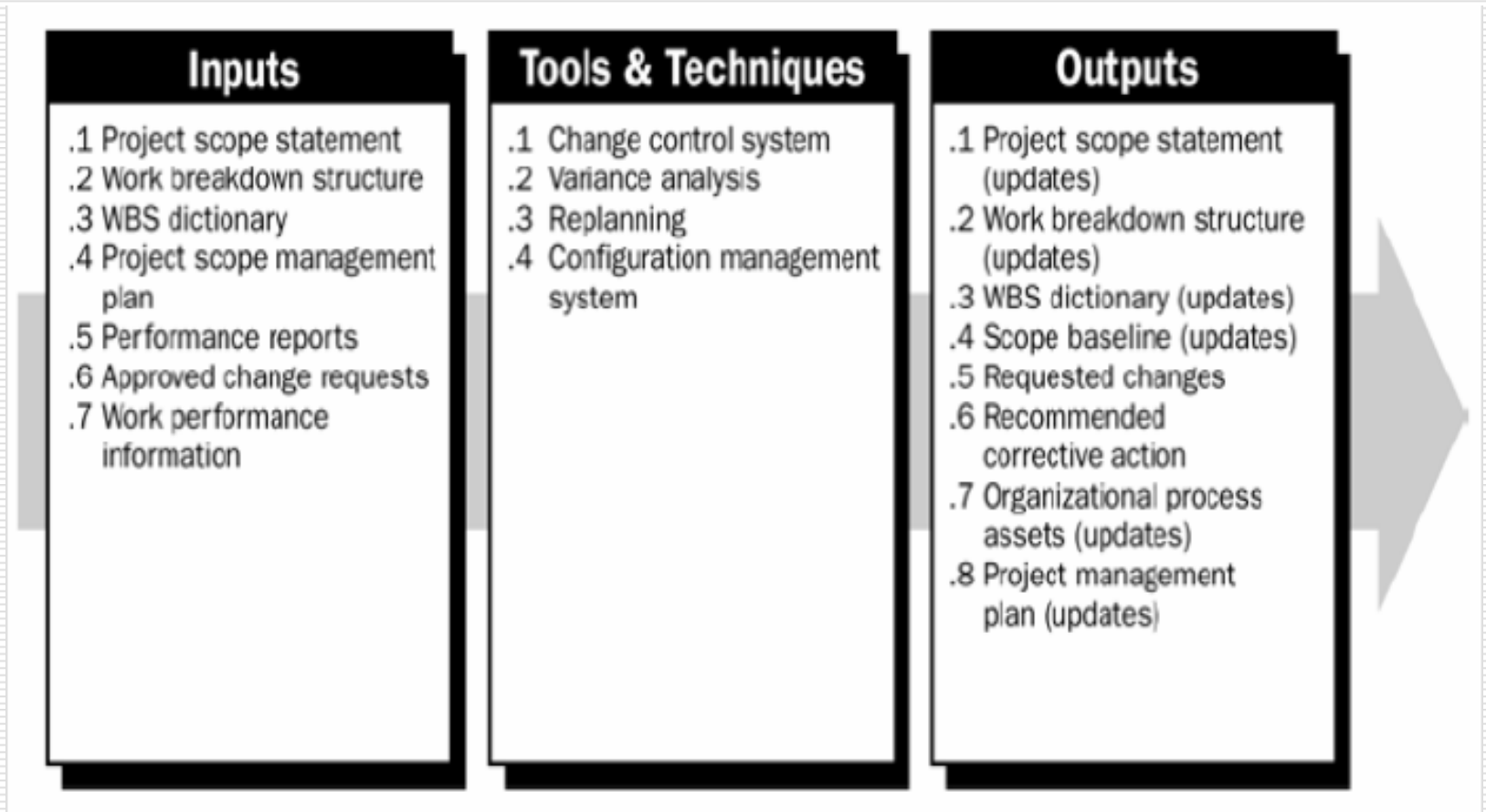
Scope Control

- ❑ Project scope control is also used to manage the actual changes when they occur and is integrated with other control process
 - ❑ Uncontrolled changes are often referred to as project scope creep
 - ❑ Scope control is extremely proactive
 - ❑ Scope control might involve thinking about
 - Where changes to scope are coming from on the project?
 - What you can do to limit the effects?
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Scope Control

- What is the scope of the project?
 - Project scope statement, WBS, and WBS dictionary
 - Measuring scope performance against the scope baseline
 - Do the right thing
 - Update project management plan, change the scope baseline, and corrective and preventive actions
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Scope Control



Variance Analysis

- ❑ Project performance measurements are used to assess the magnitude of variation
 - ❑ Important aspects of project scope control include determining the cause of variance relative to the scope baseline and deciding whether corrective action is required
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