Chapter 05

Project Scope Management

erga

Project Management

Prepared by **Quality Management Dept.**

Presented by **Fouad Abou Rjeily**

Erga Academy

PM17 – PMP6 Certification

EPDM & ESM tracks

20 credits

Plan


1. Introduction
2. Environment in which projects operate
3. The role of the Project Manager
4. Project Integration Management
5. Project Scope Management
6. Project Schedule Management
7. Project Cost Management
8. Project Quality Management
9. Project Resource Management
10. Project Communications Management
11. Project Risk Management
12. Project Procurement Management
13. Project Stakeholder Management
14. Professional Responsibility

Plan

- Chapter 05- Project Scope Management

It includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.

- **Scope** refers to ***all the work & only the work*** involved in creating the products of the project and the processes used to create them.
- A **deliverable** is a product produced as part of a project, such as hardware or software, documents etc.

Plan

- Chapter 05- Project Scope Management

Scope Management means:

- Constantly check to make sure you are completing all the work.
- Not letting people randomly add to the scope of the project without a structured change control system.
- Making sure all changes fit within the project charter.
- Defining and controlling what is and is not included in the project.
- Preventing extra work or **gold plating**: You should give the customer what they asked for, no more and no less. Giving any extras is a waste of time and adds no benefit to the project!

Plan

- Chapter 05- Project Scope Management

  5.1 Plan Scope Management

  5.2 Collect Requirements

  5.3 Define Scope

  5.4 Create WBS

  5.5 Validate Scope

  5.6 Control Scope

	Project Management Process Groups				
Knowledge Areas	Initiating	Planning	Executing	Monitoring & Controlling	Closing
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirement 5.3 Define Scope 5.4 Create WBS		5.5 Valide Scope 5.6 Control Scope	

Plan

Chapter 05- Project Scope Management

- **5.1 Plan Scope Management** (planning): The process of creating a scope management plan that documents how the project scope will be defined, validated and controlled.
- **5.2 Collect Requirements** (planning): the process of determining, documenting and managing stakeholder's needs to meet the project objectives.
- **5.3 Define Scope** (planning): the process of developing a detailed description of the project and the product.
- **5.4 Create WBS** (planning): the process of subdividing the project deliverables and the project work into smaller, more manageable components.
- **5.5 Validate Scope** (M&C): the process of formalizing acceptance of the completed project deliverables.
- **5.6 Control Scope** (M&C): the process of monitoring the status of the project and product scope and managing changes to the scope baseline.

Chapter 05- 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 performed to deliver a product, service, or result with the specified features and functions. The term "project scope" is sometimes viewed as including product scope.

Completion of the project scope is measured against the PMP, while completion of the *product scope* is measured against the *product requirements*.

The term "**requirement**" is defined as a condition or capability that is required to be present in a product, service, or result to satisfy an agreement or other formally imposed specification.

Chapter 05- Project Scope Management

Eliciting (extracting), documenting, and managing stakeholder requirements takes place within the Project Scope Management processes. Trends and emerging practices for Project Scope Management include a focus on collaborating with business analysis professionals 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 business and project objectives;
- Facilitate the successful implementation of the product, service, or end result of the program or project.

Chapter 05- Project Scope Management

Considerations for tailoring include but are not limited to:

- **Knowledge and requirements management**. Does the organization have formal or informal knowledge and requirements management systems? What guidelines should the PM establish for requirements to be reused in the future?
- **Validation and control**. Does the organization have existing formal or informal validation and control-related policies, procedures, and guidelines?
- **Development approach**. Does the organization use agile approaches in managing projects? Is the development approach iterative or incremental? Is a predictive approach used? Will a hybrid approach be productive?
- **Stability of requirements**. Are there areas of the project with unstable requirements? Do unstable requirements necessitate the use of lean, agile, or other adaptive techniques until they are stable and well defined?
- **Governance**. Does the organization have formal or informal audit and governance policies, procedures, and guidelines?

Chapter 05- Project Scope Management

In projects with evolving requirements, high risk, or significant uncertainty, the scope is often not understood at the beginning of the project or it evolves during the project.

- Agile methods deliberately spend less time trying to define and agree on scope in the early stage of the project and spend more time establishing the process for its ongoing discovery and refinement.
- Many environments with emerging requirements find that there is often a gap between the real business requirements and the business requirements that were originally stated. Therefore, agile methods purposefully build and review prototypes and release versions in order to refine the requirements. As a result, scope is defined and redefined throughout the project. In agile approaches, the requirements constitute ***the backlog.***

5.1 Plan Scope Management

Creating a scope management plan that documents how the project scope will be defined, validated and controlled.

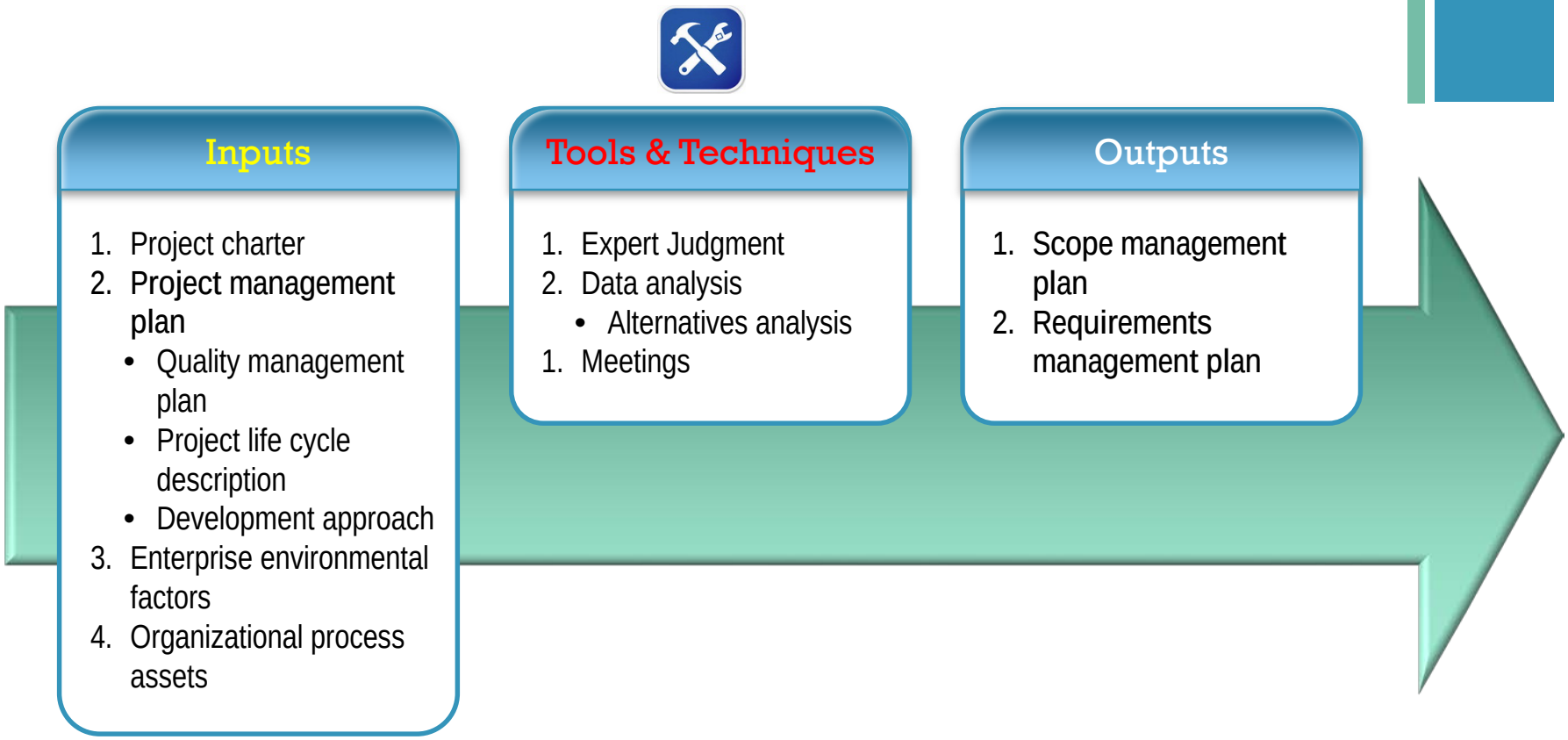
It starts with the Project charter and the approved subsidiary plans

5.1 Plan Scope Management

Exam Focus

- You must plan in advance, how you will determine the scope. This is part of your scope management plan.
- Scope must be defined, clear, and formally approved before work starts.
- Requirements are gathered from all the stakeholders.
- Requirements gathering can take a substantial amount of time, especially on large projects that may require you to obtain requirements from hundreds of stakeholders.
- A work breakdown structure (WBS) is used on all projects. A side benefit of this tool is that you may find additional scope and be able to clarify identified scope when you create WBS.
- While the project is being completed, you must check to make sure you are doing all the work but only the work included in the PMP.
- Any change to scope must be evaluated for its effect on time, cost, risk, quality, resources and customers satisfaction
- "Gold plating" in project is not allowed
- No changes to scope are allowed without an approved change request.
- Scope changes should not be approved if they relate to work that does not fit within the project charter
- You need to clearly understand what is and is not included in the project.

5.1 Plan Scope Management



5.1 Plan Scope Management

2. Project Management Plan

Project management plan components include:

- **Quality management plan**. The way the project and product scope will be managed can be influenced by how the organization's quality policy, methodologies, and standards are implemented on the project.
- **Project life cycle description**. The project life cycle determines the series of phases that a project passes through from its inception to the end of the project.
- **Development approach**. The development approach defines whether waterfall, iterative, adaptive, agile, or a hybrid development approach will be used.

5.1 Plan Scope Management

1. Scope Management Plan

The Scope Management Plan describes the processes needed to be implemented to manage the scope:

- Process for preparing a project scope statement;
- Process that enables the creation of the WBS from the detailed project scope statement;
- Process that establishes how the scope baseline will be approved and maintained;
- Process that specifies how formal acceptance of the completed project deliverables will be obtained.

- The scope management plan can be formal or informal, broadly framed or highly detailed, based on the needs of the project.
- It becomes an important part of the PMP and important input to the other scope management processes.

5.1 Plan Scope Management

2. Requirements Management Plan

Describes how the requirements will be analyzed, documented and managed. The components of the requirements management plan include:

- How requirements activities will be planned, tracked, and reported;
- Configuration management activities such as: how changes will be initiated; how impacts will be analyzed; how they will be traced, tracked, and reported; as well as the authorization levels required to approve these changes;
- Requirements prioritization process;
- Metrics that will be used and the rationale for using them;
- Traceability structure that reflects the requirement attributes captured on the traceability matrix.

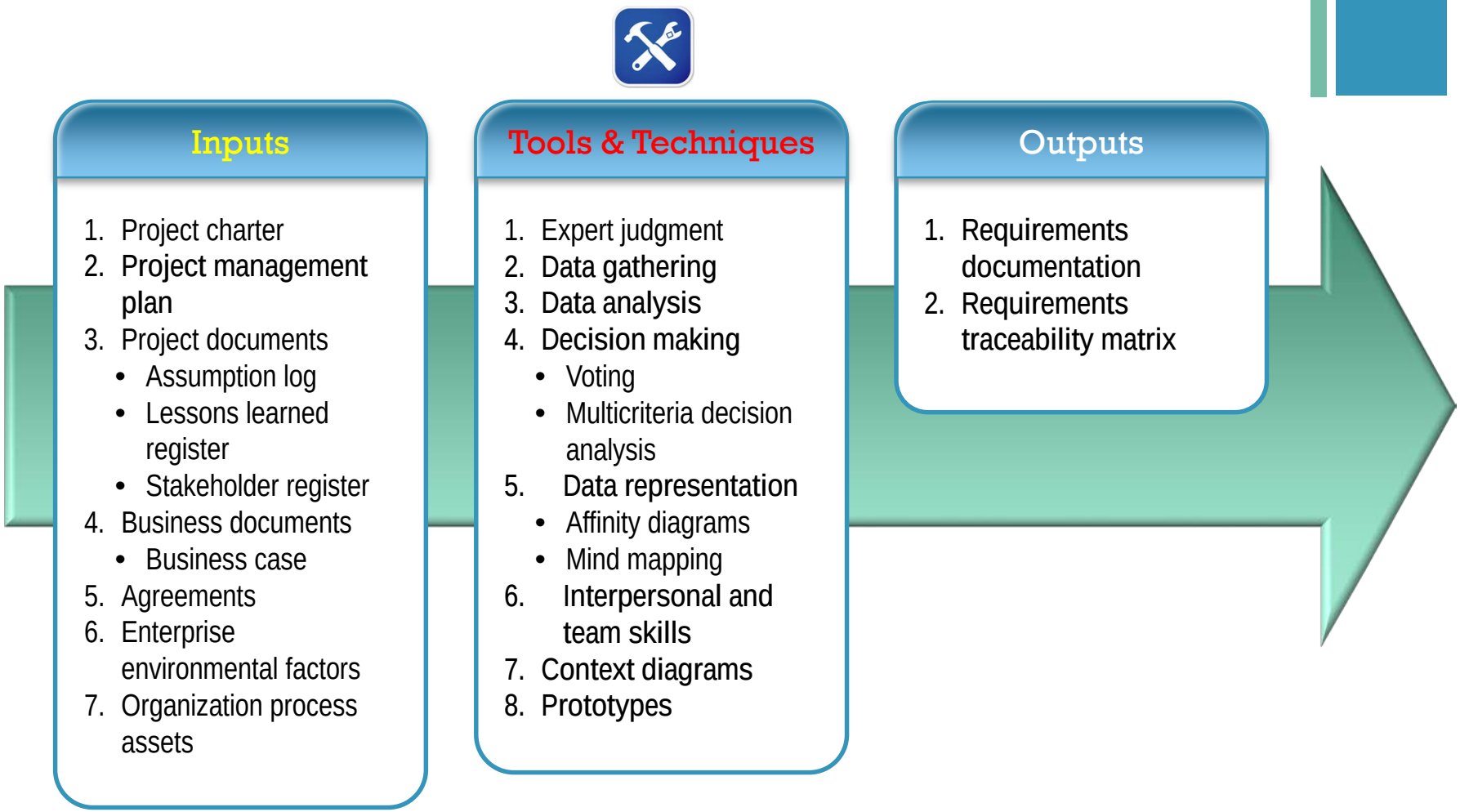
5.2 Collect Requirements

Defining and documenting and managing stakeholder's needs to meet the project objectives.

- Requirements include the quantified and documented needs and expectations of the sponsor, customer, and other stakeholders.
- Requirements need to be analyzed, and recorded in enough detail.

A REQUIREMENT is a "**capability present in the product**" or a "**condition met by the project**" to satisfy the stated objectives

5.2 Collect Requirements



5.2 Collect Requirements

2. **Project management plan** include but not limited to:
   - **Scope management plan**: Provides information about the overall scope management and requirements types & classification.
   - **Requirements management plan**: Provides information about how to define, collect and document the requirements.
   - **Stakeholder engagement plan**: Provides information about stakeholder communications requirements and engagement to evaluate the level of participation in the requirements collection process.

5.2 Collect Requirements

Input → **Tools & Techniques** → Output

2. Data gathering

Interviews

It is typically performed by asking prepared and spontaneous questions and recording the responses.

- Interviews are often conducted one–on–one, but may involve multiple interviewers and/or interviewees.

5.2 Collect Requirements

Input → **Tools & Techniques** → Output

2. Data gathering

Focus Groups

Focus groups bring together prequalified stakeholders to learn about their expectations and attitudes.

- A trained moderator guides the group through an interactive discussion, designed to be more co: interview.

5.2 Collect Requirements

Input → **Tools & Techniques** → Output

2. Data gathering

Facilitated Workshops

It brings key cross – functional stakeholders together to define the product requirements and reconcile stakeholders differences on the same topic.

- Because of their interactive group nature, well facilitated sessions can build trust, foster relationships, and improve communication among the participants which can lead to increased stakeholder consensus.
- Issues can be discovered and resolved more quickly than in individual sessions.

5.2 Collect Requirements

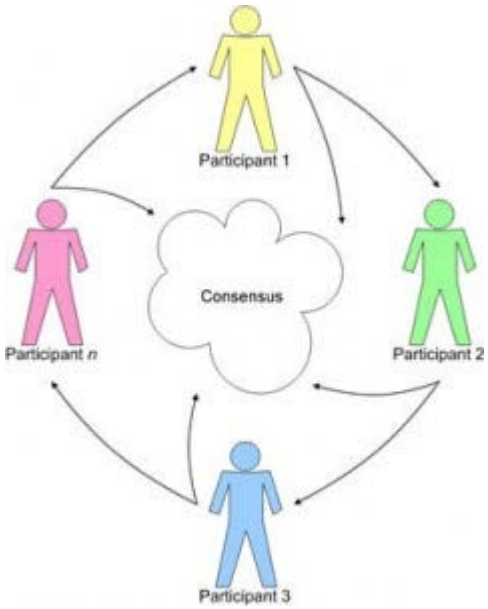
Input → **Tools & Techniques** → Output

2. Data gathering

❑ Delphi technique

An information gathering technique used as a way to reach a consensus of experts on a subject.

- Experts on the subject participate in this technique anonymously.
- A facilitator uses a questionnaire to solicit ideas about the important project points related to the subject.
- The responses are summarized and are then recirculated to the experts for further comment.
- Consensus may be reached in a few rounds of this process.
- The Delphi technique helps reduce bias in the data and keeps any one person from having an undue influence on the outcome.



5.2 Collect Requirements

Input → **Tools & Techniques** → Output

2. Data gathering

Questionnaires and Surveys

Questionnaires and surveys are written sets of questions designed to quickly accumulate information from a wide number of respondents.

- Questionnaires/surveys are most appropriate with broad audiences, when quick turn around is needed, and where statistical analysis is appropriate.

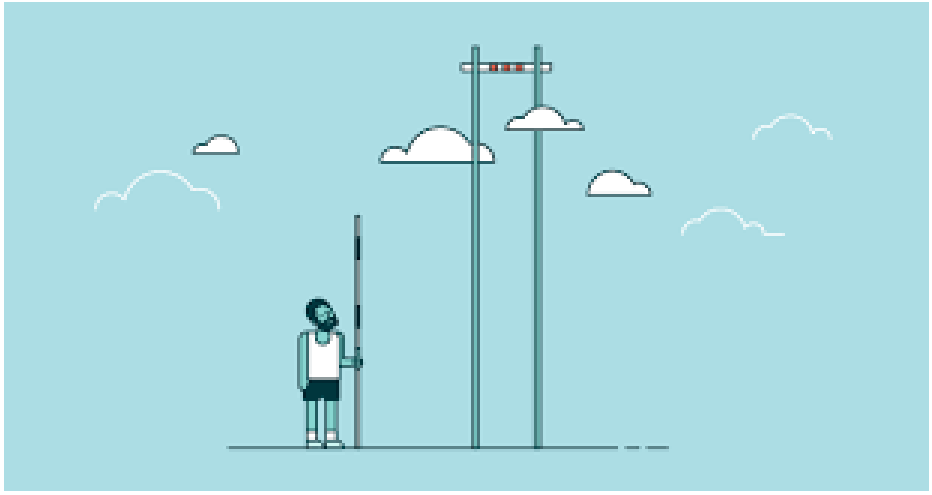
5.2 Collect Requirements

Input → **Tools & Techniques** → Output

2. Data gathering

Benchmarking

Benchmarking involves comparing actual or planned products, processes, and practices to those of comparable organizations to identify best practices, generate ideas for improvement, and provide a basis for measuring performance. The organizations compared during benchmarking can be internal or external.



5.2 Collect Requirements

3. Data Analysis

Analyze existing documentation and identify information relevant to requirements. Examples of documents that may be analyzed include:

- Agreements;
- Business plans;
- Business process or interface documentation;
- Business rules repositories;
- Current process flows;
- Marketing literature;
- Problem/issue logs;
- Policies and procedures;
- Regulatory documentation such as laws, codes, ordinances;
- Requests for proposal;
- Use cases…

5.2 Collect Requirements

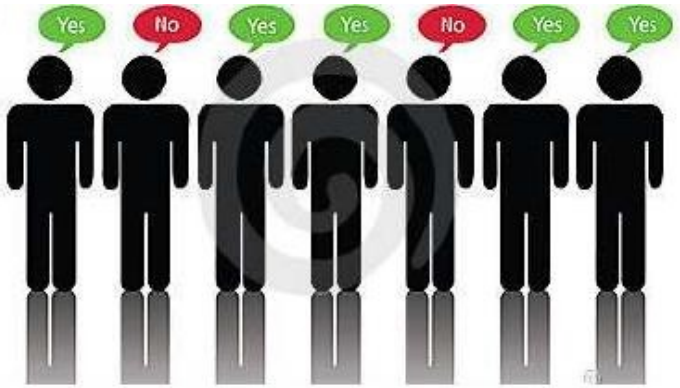
Input → **Tools & Techniques** → Output

4. Decision Making

- **Voting**

There are multiple methods of voting techniques:

- **Unanimity**: Everyone agrees on a single course of action.
- **Majority**: support from more than 50% of the members of the group.
- **Plurality**: If there is no majority opinion, the group may go with the decision that has the largest number of supporters.



5.2 Collect Requirements

4. Decision Making (cont'd)

- **Autocratic decision making**: In this method, one individual takes responsibility for making the decision for the group.
- **Multi-Criteria Decision Analysis**: ranks ideas based on factors such as expected risk levels, time estimates, cost, and benefit estimates.

5.2 Collect Requirements

Input → **Tools & Techniques** → Output

5. Data representation

Mind Mapping

Mind mapping consolidates ideas created through individual brainstorming sessions into a single map to reflect commonality and differences in understanding and to generate new ideas.

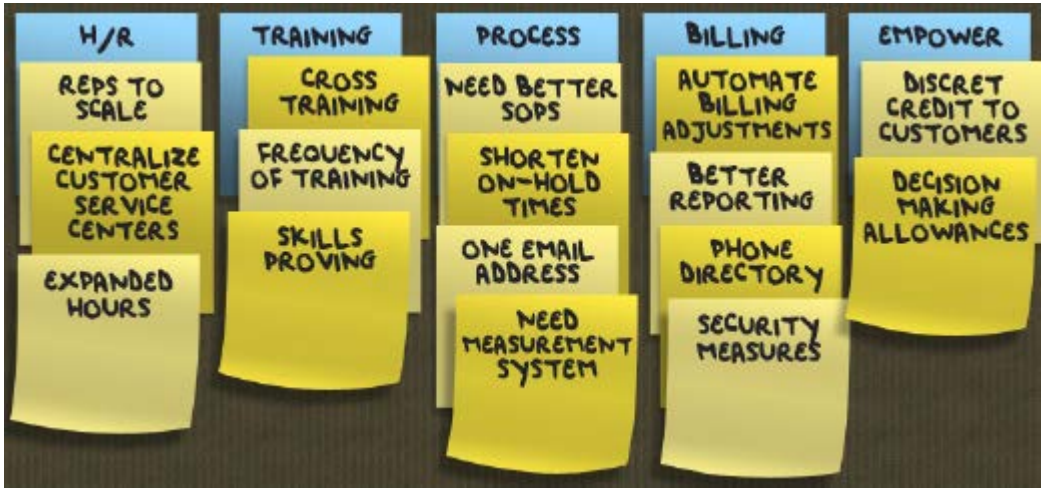
5.2 Collect Requirements

Input → **Tools & Techniques** → Output

5. Data representation (cont'd)

Affinity Diagrams

An Affinity Diagram is a tool that gathers large amounts of language data (ideas, opinions, issues) and organizes them into groups based on their natural relationships. The Affinity process is often used to group ideas generated by Brainstorming.



5.2 Collect Requirements

6. Interpersonal and team skills

- **Facilitation:** Facilitation is used with focused sessions that bring key stakeholders together to define product requirements.
- **Nominal Group Technique**: Enhances brainstorming with a voting process used to rank the most useful ideas for further brainstorming or prioritization.
- **Observation/conversation**: Observation and conversation provide a direct way of viewing individuals in their environment and how they perform their jobs or tasks and carry out processes.

5.2 Collect Requirements

6. Interpersonal and team skills (cont'd)

Nominal Group Technique

Enhances brainstorming with a voting process used to rank the most useful ideas for further brainstorming or for prioritization. The nominal group technique is a structured form of brainstorming consisting of four steps:

1. A question or problem is posed to the group. Each person silently generates and writes down their ideas.
2. The moderator writes down the ideas on a flip chart until all ideas are recorded.
3. Each recorded idea is discussed until all group members have a clear understanding.
4. Individuals vote privately to prioritize the ideas, usually using a scale of 1 – 5, with 1 being the lowest and 5 being the highest. Voting may take place in many rounds to reduce and focus in on ideas. After each round, the votes are tallied and the highest scoring ideas are selected.

5.2 Collect Requirements

Input → **Tools & Techniques** → Output

6. Interpersonal and team skills (cont'd)

Observations

Observations provide a direct way of viewing individuals in their environment and how they perform their jobs or tasks and carry out processes.

- It is particularly helpful for detailed processes when the people who use the product have difficulty or are reluctant to articulate their requirements.
- Observation (also called "job shadowing") is usually done externally by the observer viewing the user performing his or her job.
- It can also be done by a "participant observer" who actually performs a process to experience how it is done to uncover hidden requirements.

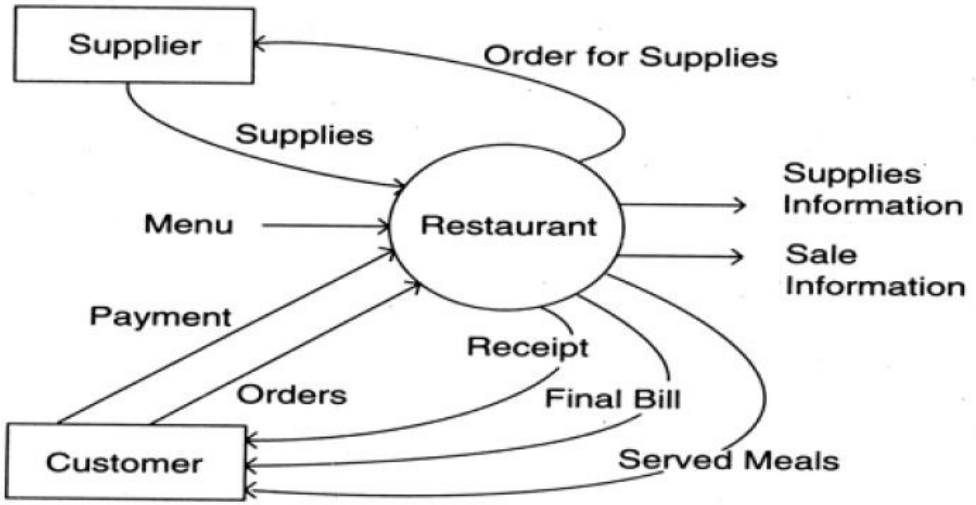
5.2 Collect Requirements

Input → **Tools & Techniques** → Output

7. Context Diagrams

Context diagram is an example of a scope model.

- Context diagrams visually depict the scope by showing a business system (process, equipment, computer system etc.) and how people and other systems interact with each other.
- They show inputs to the business systems & variables that provide inputs & outputs from the business system and the variables which receive the outputs.



5.2 Collect Requirements

Input → **Tools & Techniques** → Output

8. Prototypes

It is a method of obtaining early feedback on requirements by providing a working model of the expected product before actually building it.

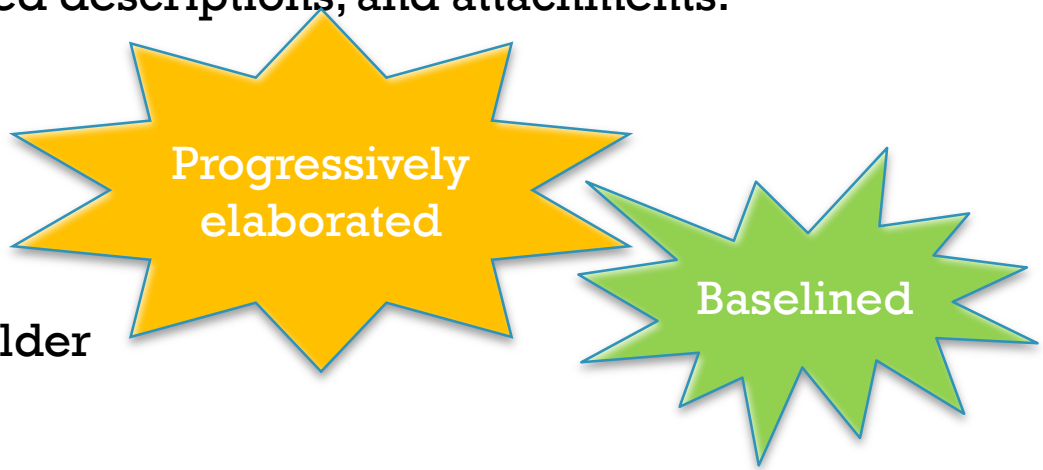
- Since prototypes are tangible, it allows the stakeholders to experiment with a model of their final product rather than only discussing abstract representations of their requirements.
- When enough feedback cycles have been performed, the requirements obtained from the prototype are sufficiently complete to move to a design or a build phase.

5.2 Collect Requirements

1. Requirements Documentation

Describes how individual requirement meet the business need for the project.

- The format of the requirements documentation may range from a simple document listing all the requirements categorized by stakeholder and priority, to more elaborate forms containing execution summary, detailed descriptions, and attachments.
- Requirements should be:
  - Unambiguous
  - Traceable
  - Complete
  - Consistent
  - Acceptable to stakeholder



5.2 Collect Requirements

1. Requirements Documentation (cont'd)

Requirements can be grouped into classifications allowing for further refinement and detail as the requirements are elaborated:

- **Business requirements**: Link to the strategy needs;
- **Stakeholder requirements**: Describe the needs of a stakeholder or group of stakeholders;
- **Solution requirements**: describe the features, functions and characteristics of the product that will meet the Business & stakeholders requirements:
  - Functional requirements.
  - Non-functional requirements.
- **Transition requirements**: such as data conversion or training;
- **Project requirements**: conditions that the project needs to meet;
- **Quality requirements**: any specific criteria or condition for the product/project.

5.2 Collect Requirements

1. Requirements Documentation (example):

Stakeholder	Requirement	Category	Priority	Acceptance Criteria
Identify the name or organization of the stakeholder	*Identify the requirement*	*Assign a category*	*Prioritize in total or buy category*	*Define the criteria for acceptance*

5.2 Collect Requirements

2. Requirements Traceability Matrix

It is a table that links requirements to their origin and traces them throughout the project life cycle.

A mean to track requirement during the project life cycle

Each requirement is linked to a project objective

Ensures each approved requirement is delivered

Provides a structure for managing changes to the product scope

Requirement attributes:
-unique identifier;
-textual description;
-owner/source;
-priority;
-version;
-status (active, cancelled, approved,…)
-date completion
-acceptance criteria

5.2 Collect Requirements

2. Requirements Traceability Matrix (Sample1)

Requirement Information					Relationship Traceability			
ID	*Requirement*	*Priority*	*Category*	*Source*	*Relates to Objective*	*Manifests in WBS deliverable*	*Verification*	*Validation*

5.2 Collect Requirements

2. Requirements Traceability Matrix (Sample2)

Requirements Traceability Matrix								
Project Name:								
Cost Center:								
Project Description:								
ID	**Associate ID**	**Requirements Description**	**Business Needs, Opportunities, Goals, Objectives**	**Project Objectives**	**WBS Deliverables**	**Product Design**	**Product Development**	**Test Cases**
001	1.0							
	1.1							
	1.2							
	1.2.1							
002	2.0							
	2.1							
	2.1.1							
003	3.0							
	3.1							
	3.2							
004	4.0							
005	5.0							

5.3 Define Scope

Developing a detailed description of the project and product.

Select the final project requirements: which collected requirement will be included and which is not? …

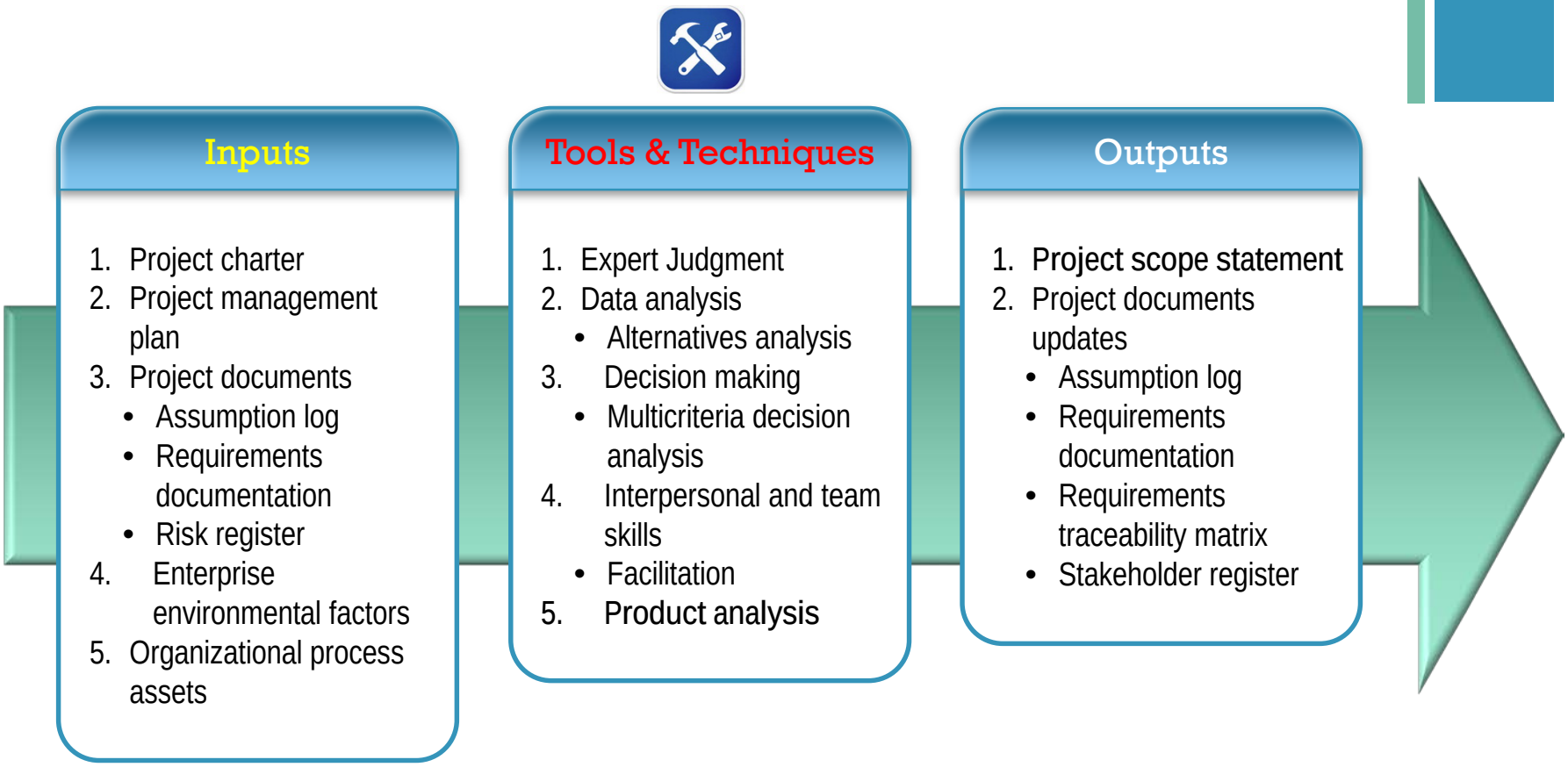
Build on the major deliverables, assumptions and constraints identified in the initiating stage

The result or output is the **project scope statement** used to measure the project performance against

Exam Spotlight

You will want to pay particular attention to the accuracy and completeness of this process. Defining project scope is critical to the success of the project since it spells out exactly what the product or service looks like. Conversely, poor scope definition may lead to cost increase, rework, schedule delays and poor morale.

5.3 Define Scope



5.3 Define Scope

5. Product Analysis

Product analysis can be used to define products and services. It includes asking questions about a product or service and forming answers to describe the use, characteristics, and other relevant aspects of what is going to be delivered.

- Examples of product analysis techniques include:
  - Product breakdown,
  - Requirements analysis,
  - Systems analysis,
  - Systems engineering,
  - Value analysis,
  - Value engineering.

5.3 Define Scope

1. Project Scope Statement

Describes, in details, the project scope including the product scope, deliverables, assumptions, constraints and exclusions.

1. Project Objectives ("**SMART**" Rule)
2. Product Scope Description
3. Project Requirements
4. Project Boundaries
5. Project Deliverables
6. Product Acceptance Criteria
7. Project Assumptions & Constraints
8. Project Exclusions
9. Initial Defined Risks
10. Schedule Milestones
11. Fund Limitations
12. Approval Requirements
13. Project Configuration Management Requirements
14. Product Specifications

5.3 Define Scope

Elements of Project Charter versus Project Scope Statement

Project Charter

- Project purpose or justification
- Measurable project objectives and related success criteria
- High-level requirements
- High-level project description
- High-level risks
- Summary milestone schedule
- Summary budget
- Key Stakeholder list
- Project approval requirements (what constitutes success, who decides it, who signs off)
- Assigned PM, responsibility, and authority level
- Name and authority of the sponsor or other person(s) authorizing the project charter

Project Scope Statement

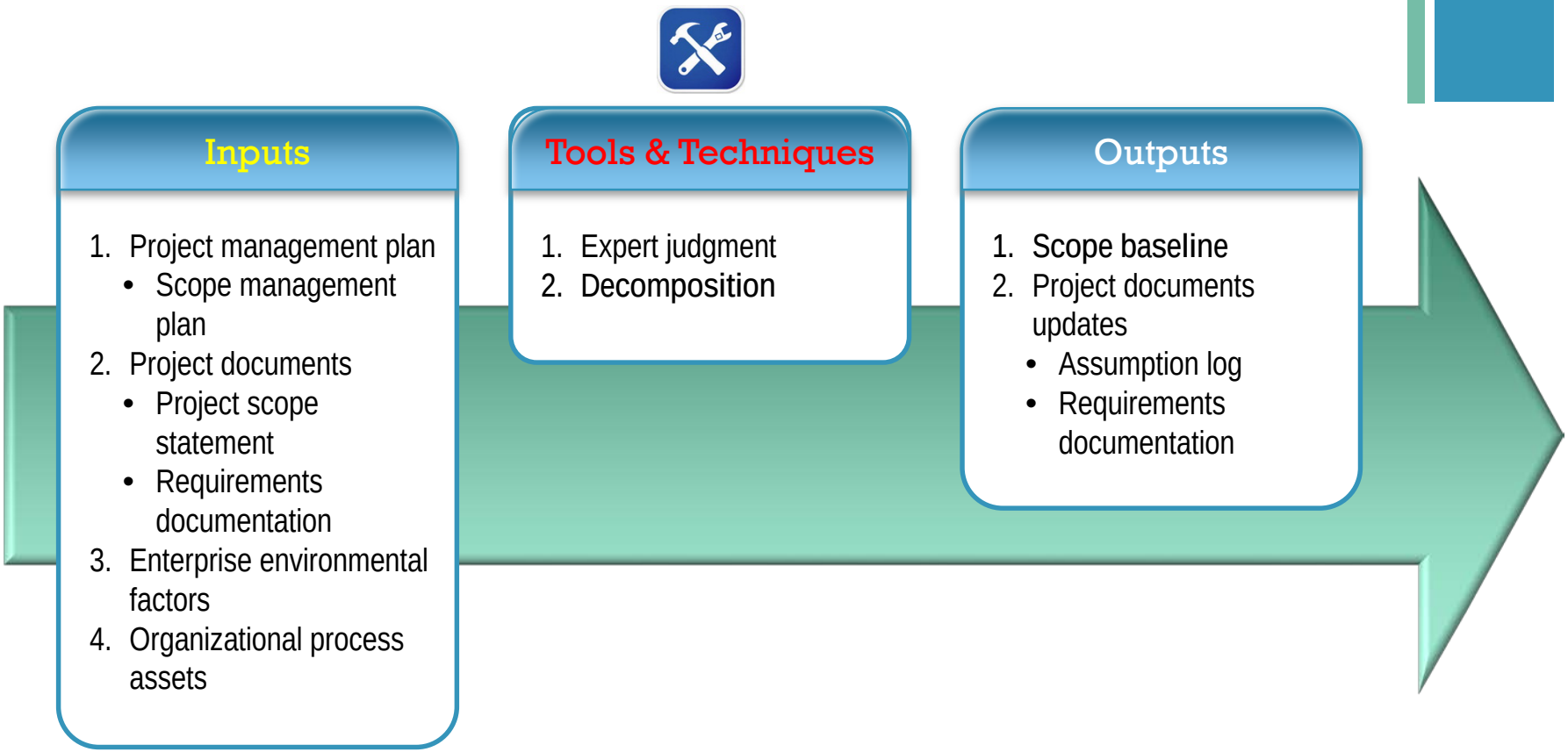
- Project Scope description (progressively elaborated)
- Acceptance criteria
- Project deliverables
- Project exclusions
- Project constraints
- Project assumptions

5.4 Create WBS

Subdividing project deliverables and project work into smaller, more manageable components

- The **Work Breakdown structure** (WBS) will smooth the way for estimating project cost and time, schedule resources and determine quality control later in the planning process.
- A WBS shows a complete hierarchy of the project, making it easier to see how one deliverable relates to another.
- Accuracy and completeness are required when composing your WBS.
- The WBS subdivides the project into smaller, more manageable pieces of work.
- Deliverables not in the WBS are not part of the project.
- The smallest element in the WBS is called the "Work Package".
- The components in the WBS should be included in a "WBS dictionary".

5.4 Create WBS



5.4 Create WBS

2. Decomposition

- This technique involves breaking down the deliverables into smaller, more manageable components of work.
- The idea here is to break down the deliverables to a point, where you can easily plan, execute, monitor and control, and close out the project deliverables.
- Each WBS level is a more detailed definition of the level above it.
- Excessive decomposition can become non-productive, and inefficient to manage.

Different deliverables can have different levels of decomposition

The 100% rule nothing is left & nothing is extra

Decomposition can be structured by:
-Phases
- Major deliverables

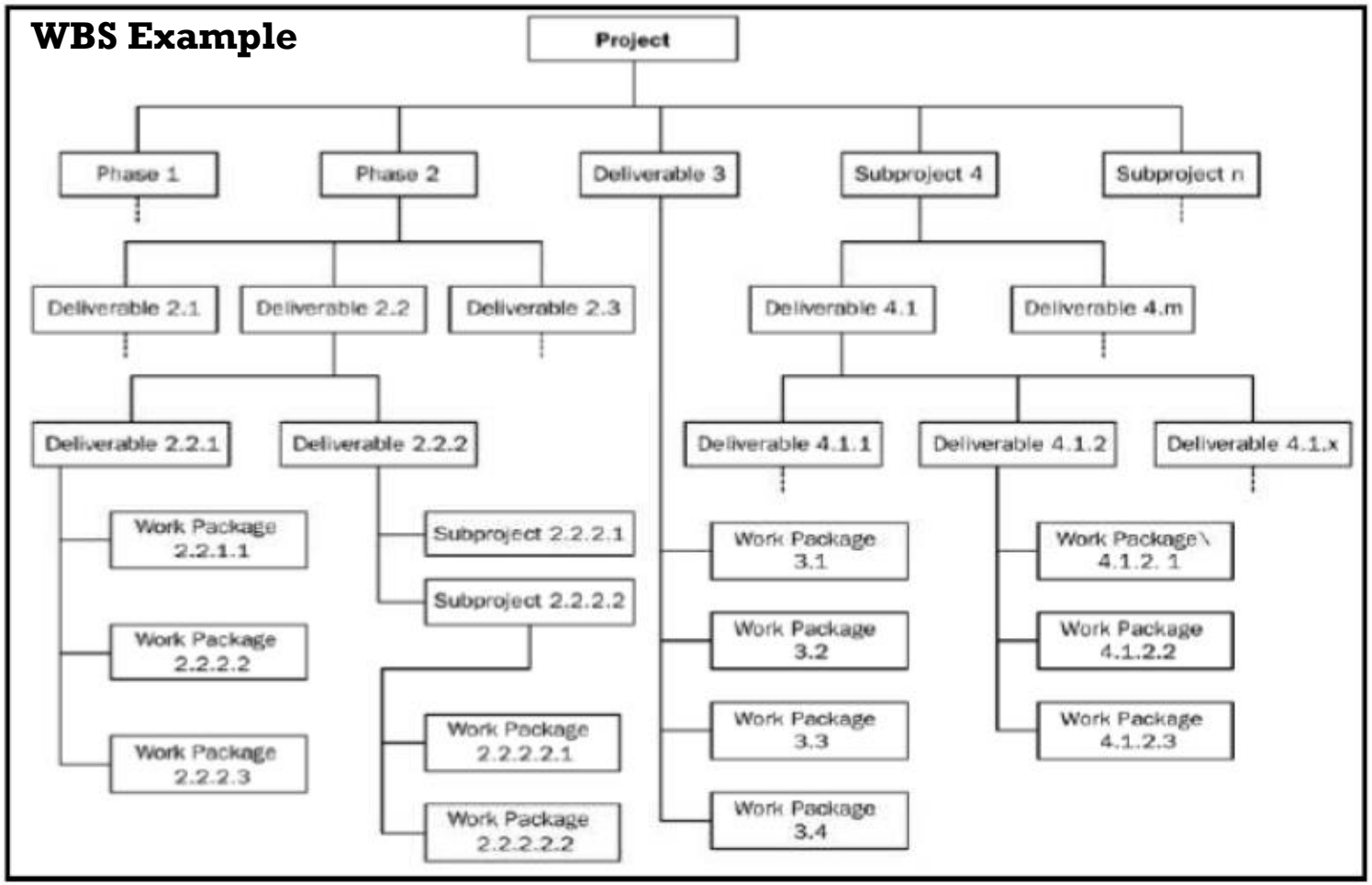
5.4 Create WBS

WBS Creation-10 Golden Rules

1. Create WBS with your team-not alone.
2. WBS should have at least 3 levels-highest level is the project itself.
3. Don't confuse WBS to task list. WBS is a work component that will be decomposed into tasks.
4. Naming Convention: Name a WBS item as a noun (and not a verb-used for tasks).
5. The WBS lists your work breakdown, the task list is the breakdown of the WBS into actions.
6. **The 100% Rule**: Each lower level of decomposition must represent all of the work of the higher-level element; conversely, all higher-level scope must be reflected in one of the lower-level elements.
7. WBS is almost never complete or right in the first iteration. The more you learn about your project, the more you will alter your WBS. This is absolutely great and you should be prepared for this.
8. Tasks have to be small enough to be assigned to individual resources, NOT the WBS.
9. The lowest level of the WBS (the work package) will be represented by a summary task on your Project plan.
10. **The 8/80 Rule**: The 8/80 rule says that "All work packages should be greater than 8 hours and lesser than 80 hours". This should give you a fair indication of when you can stop working on the WBS.

5.4 Create WBS

Input → **Tools & Techniques** → Output



5.4 Create WBS

2. Decomposition
Approaches to developing WBS

Using guidelines: some organizations provide guidelines for preparing WBS:

The **analogy approach**: review WBSs of similar projects and tailor to your project

The **top-down approach**: start with the largest items of the project and break them down

The **bottom-up approach**: start with the specific tasks and roll them up

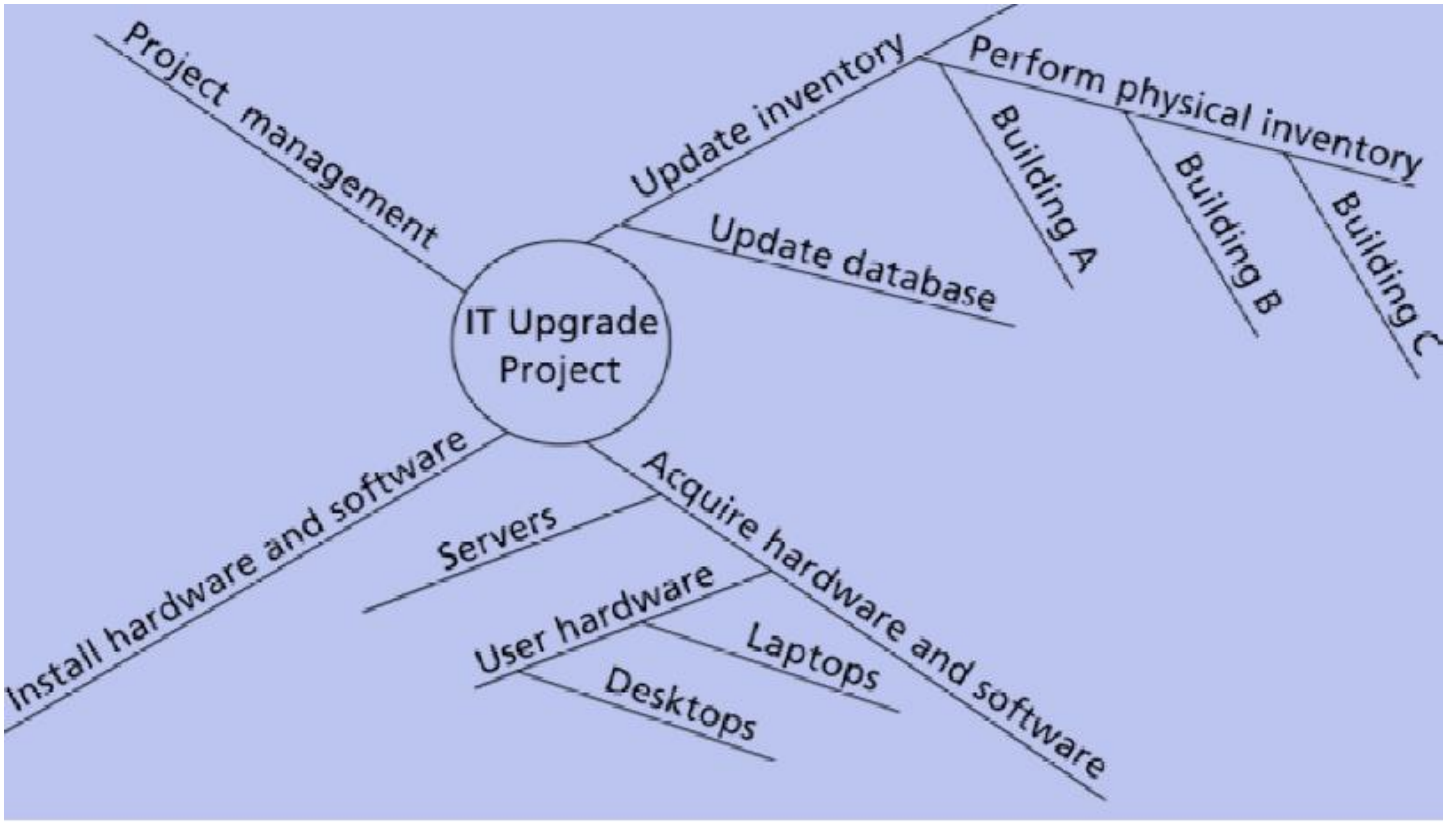
Mind-mapping approach: **mind mapping** is a technique that uses branches radiating out from a core idea to structure thoughts and ideas

5.4 Create WBS

Input → **Tools & Techniques** → Output

2. Decomposition

Sample Mind-mapping approach for creating a WBS

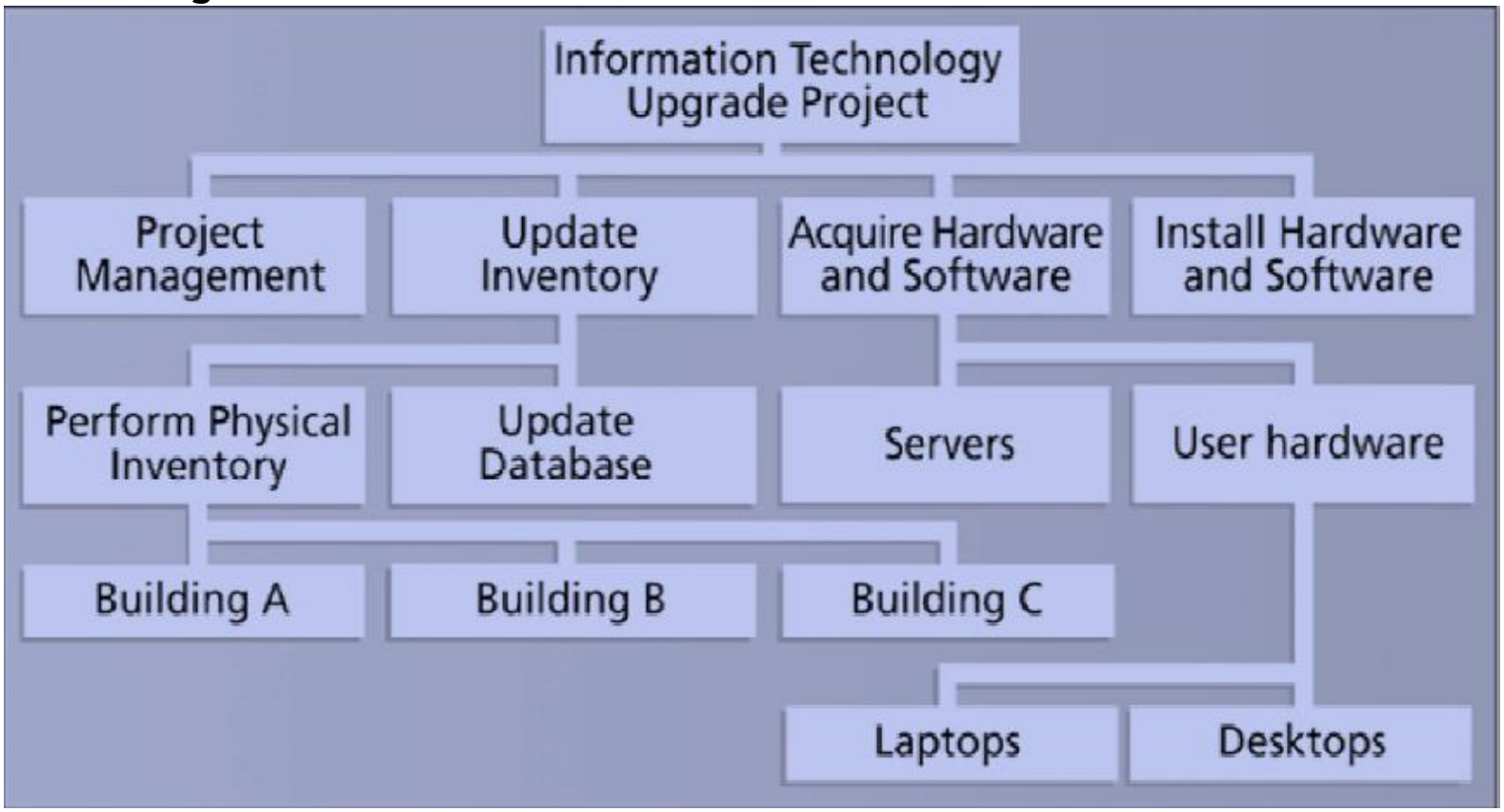


5.4 Create WBS

Input → **Tools & Techniques** → Output

2. Decomposition

Resulting WBS in Chart form



5.4 Create WBS

1. Scope Baseline

The scope baseline is the approved version of a scope statement, WBS, and its associated WBS dictionary.

It contains the 3 documents:

1. The **Project scope statement**, which includes the product scope description and the project deliverables and defines the product user acceptance criteria.
2. The **WBS**, which defines the deliverables and their decomposition into work packages.
3. The **WBS dictionary**, which contains detailed description of work and technical documentation for each WBS element.

5.4 Create WBS

WBS Dictionary

The WBS dictionary is where work component descriptions are documented. WBS dictionary should include the following elements for each component of the WBS:

- ✓ Code of account identifier,
- ✓ Description of work,
- ✓ Assumptions and constraints,
- ✓ Responsible organization,
- ✓ Schedule milestones,
- ✓ Associated schedule activities,
- ✓ Resources required,
- ✓ Cost estimates,
- ✓ Quality requirements,
- ✓ Acceptance criteria,
- ✓ Technical references,
- ✓ Agreement information.

5.5 Validate Scope

Formalizing acceptance of the completed project deliverables

- Scope Validation is the process of the project customer accepting the project deliverables.
- It happens at the end of each project phase, or as major deliverables are created.
- Scope validation ensures the deliverables meet the acceptance criteria.

Scope Validation is concerned with the *acceptance of the work*.
Quality Control is concerned with the *correctness of the work*.
"**Control Quality**" is generally performed before "**Validate scope**" although the two processes may be performed in parallel.

5.5 Validate Scope

Key Concepts

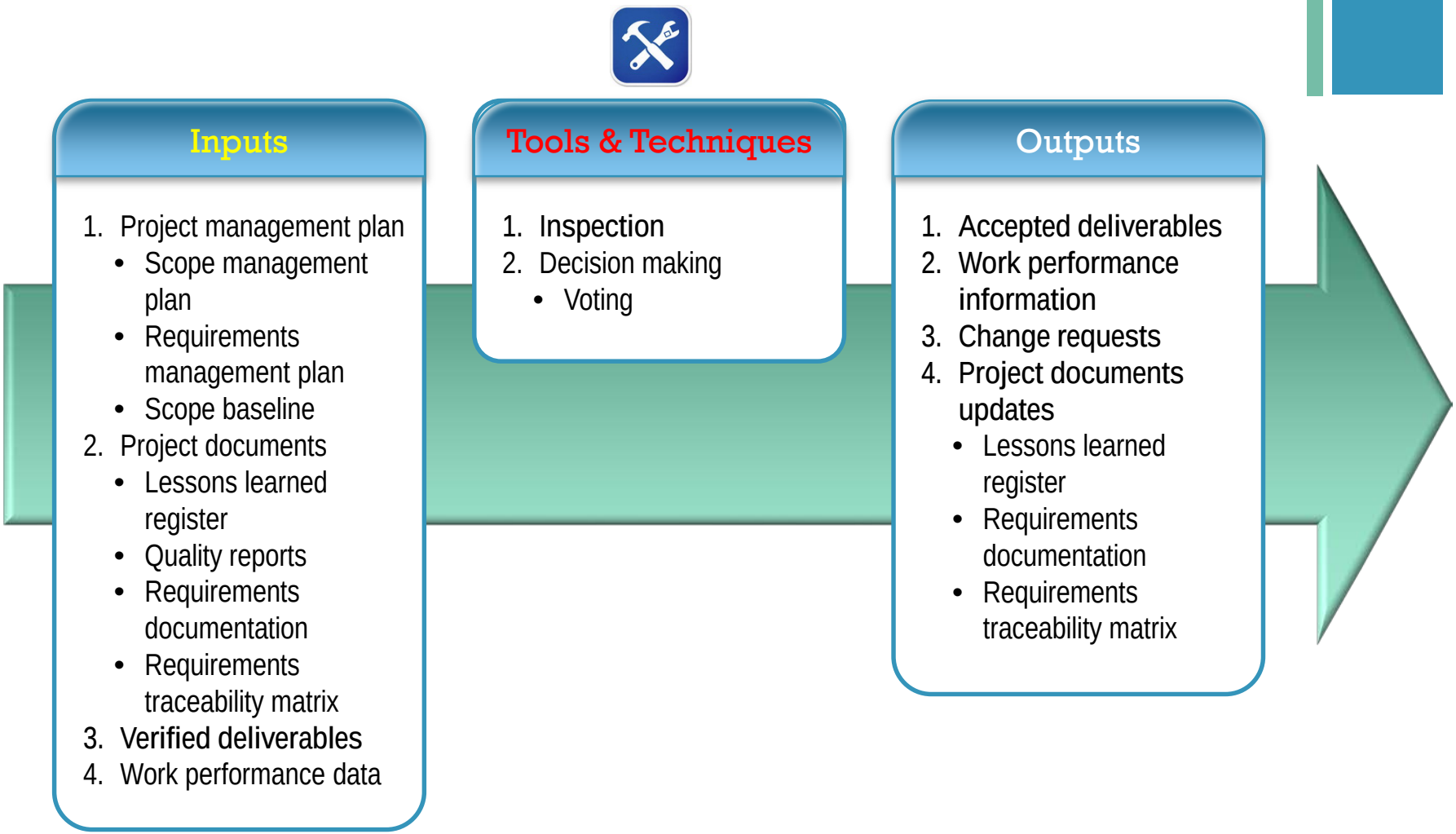
A description of Validate Scope might include any of the following phrases:

- Reviewing work products and results to ensure that all are completed correctly and satisfactorily.
- Conducting inspections, reviews and audits.
- Determining whether results conform to requirements and are work products completed correctly?
- Documenting completion of deliverables.

When the scope is not verified, the project may undergo one of several actions:

1. It may be cancelled and deemed as failure,
2. sent through corrective actions,
3. or put on hold while decision is made based on the project or phase results.

5.5 Validate Scope



5.5 Validate Scope

3. Verified deliverables: Verified deliverables are project deliverables that are completed and checked for correctness through the *Control Quality* process.

5.5 Validate Scope

Input → **Tools & Techniques** → Output

1. Inspection

Inspection includes activities such as measuring, examining and validating to determine whether work and deliverables meet requirements and product acceptance criteria.

- Inspections are also called as reviews, audits and walkthroughs.

5.5 Validate Scope

1. **Accepted Deliverables**: This is a formal process that requires signed documentation of the acceptance by the sponsor or customer. Formal documentation received from the customer or sponsor acknowledging formal stakeholder acceptance of the project's deliverables is forwarded to the *Close Project or Phase* process.
2. **Work Performance Information**: Information about the project progress, such as which deliverables have started, their progress and which deliverables have been finished or have been accepted.
3. **Change Requests**: those completed deliverables that have not been accepted are documented, along with the reasons for non acceptance. Those deliverables may require a change request for defect repair.
4. **Project Document Updates**: It include any documents that define the product or report status on product completion

5.6 Control Scope

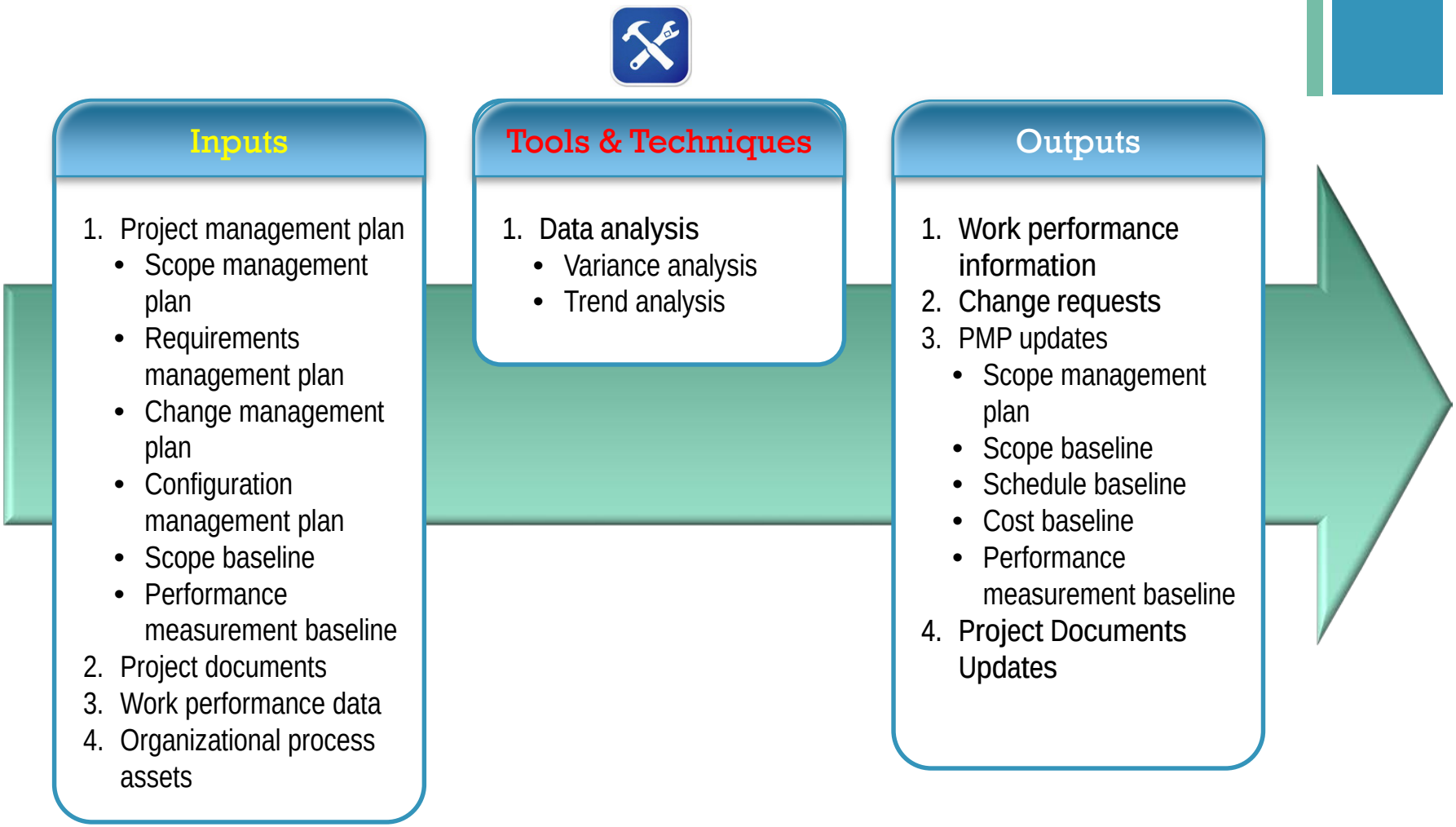
Monitoring the status of the project and product scope and managing changes to the scope baseline.

A process for controlling changes to project scope by:

- Influencing the factors that create scope changes.
- Assuring that all requested changes are processed according to the '*project integrated change control*'.
- Managing the actual changes when they occur.

Uncontrolled changes are referred as Project "Scope Creep".

5.6 Control Scope



5.6 Control Scope

1. Data analysis

Data analysis techniques that can be used in the *Control Scope* process include:

- **Variance analysis**. Variance analysis is used to compare the baseline to the actual results and determine if the variance is within the threshold amount or if corrective or preventive action is appropriate.
- **Trend analysis**. Trend analysis examines project performance over time to determine if performance is improving or deteriorating.

Important aspects of project scope control include determining the cause and degree of variance relative to the scope baseline and deciding whether corrective or preventive action is required.

5.6 Control Scope

1. Work performance information

- Planned vs. actual technical performance measurements.
- Scope performance measurements.
- Measurements documented and communicated to stakeholders.

2. Change Requests

Change requests to the scope baseline or other components of the project management plan. They can include preventive or corrective actions or defect repairs.

4. Project Document Updates (not limited to)

- Requirements documentation,
- Requirements traceability matrix
- Lessons learned register etc.

Thank you

Knowledge area

- You can find the whole Project Management Professional course on Z:\eLibraries\eBooks\Management\PMP 6 Course
- You can also visit www.pmi.org for more information

Please call us for any support