

MANAJEMEN PROYEK
(NF025103)

Planning Process Group of Project Management

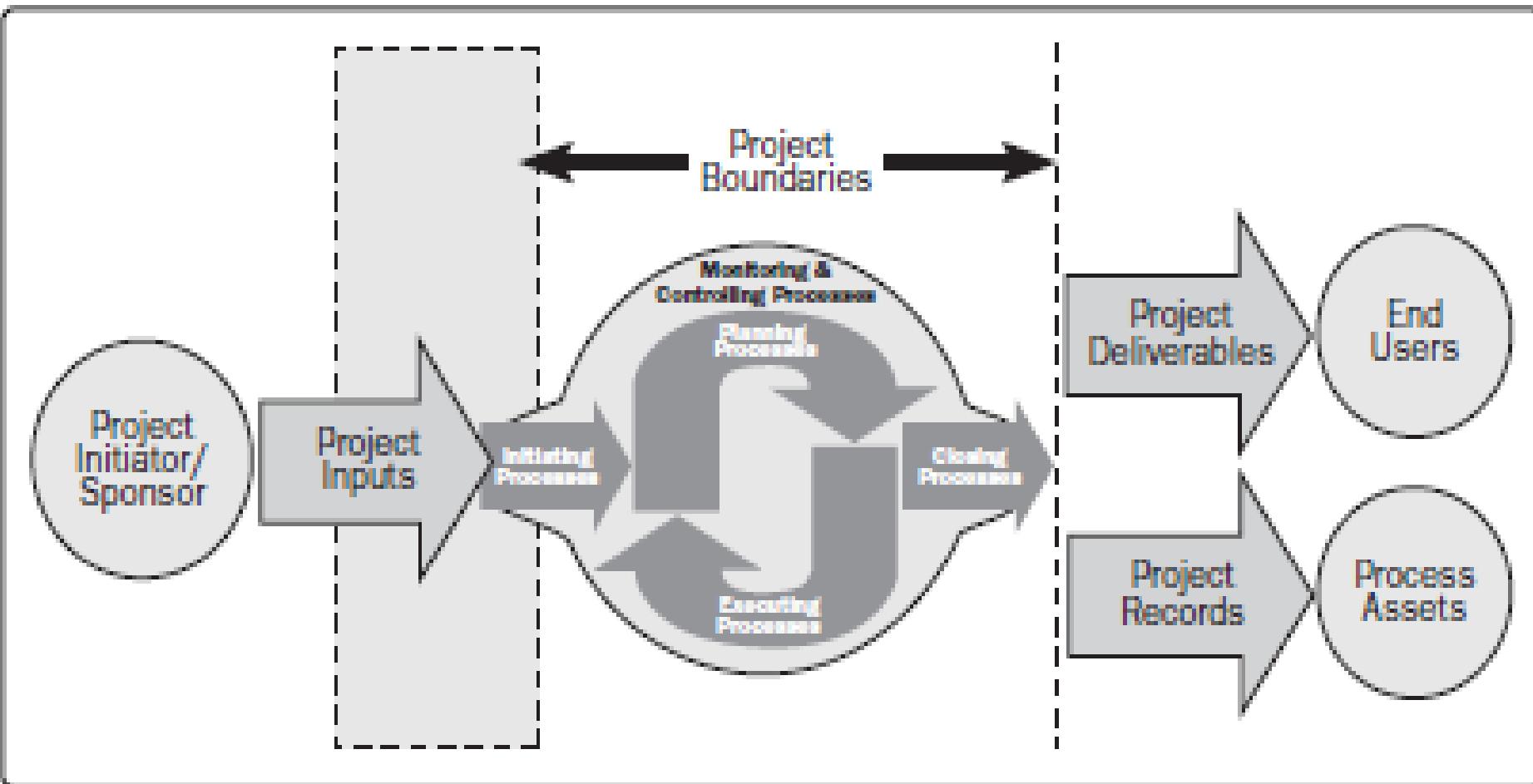
Week 05
TA 2017- 2018

Prepared by Reza Aldiansyah, ST, MTI, PMP

AGENDA PERKULIAHAN

- Overview Process Group Planning
- Overview Project Integration Management
- Overview Project Scope Management
- Overview Project Time Management
- Overview Project Cost Management
- Detail Proses – Proses Manajemen Proyek pada tahapan Inisiasi Proyek (Scope, Time, Cost)

Project Overview



PLANNING PROCESS GROUP

**Develop Project
Management Plan**

Integration Mgt

**Plan Schedule
Management**

Time Mgt

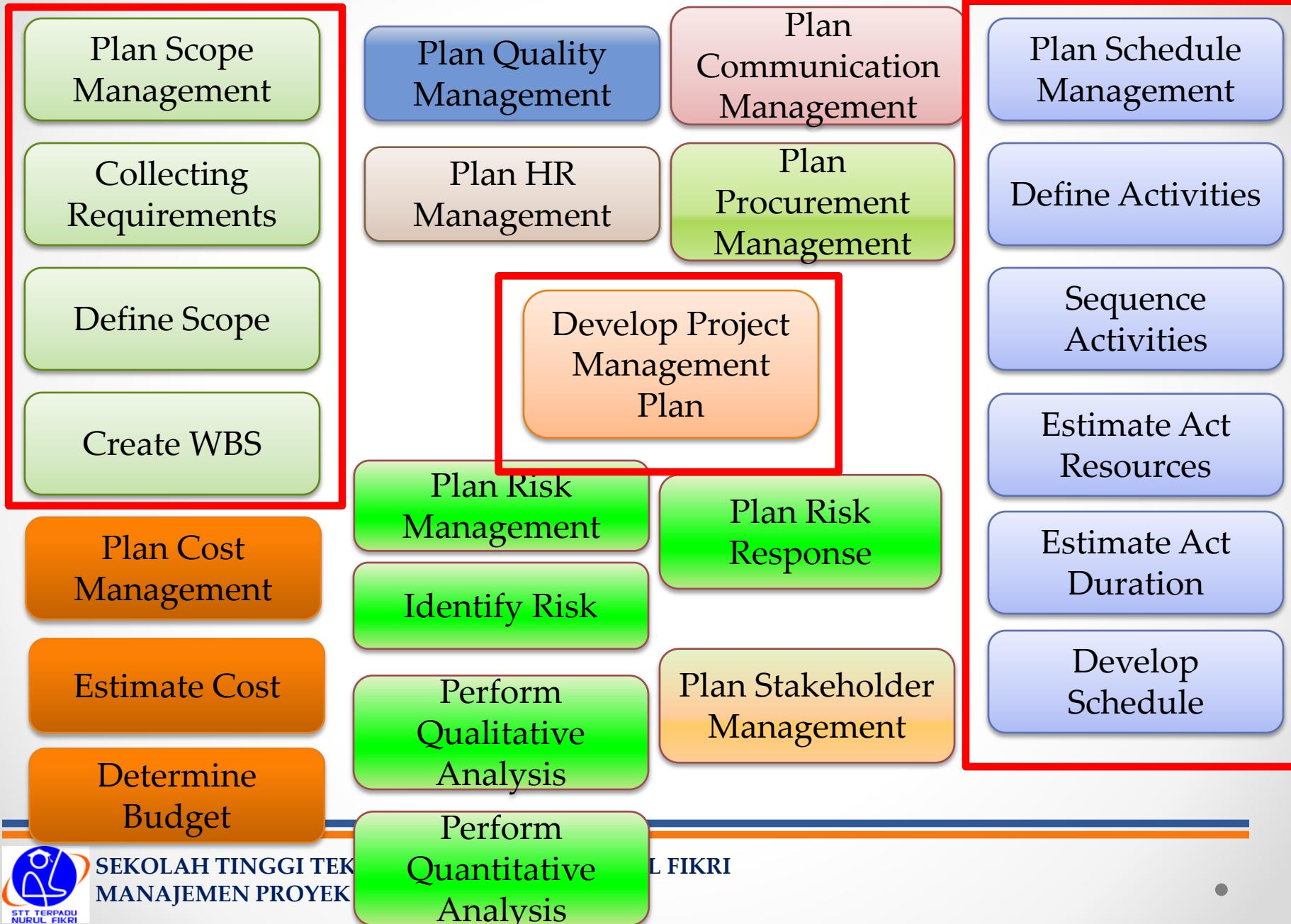
KEY OUTPUTS

**□ PROJECT
MANAGEMENT
PLAN**

**□ PROJECT
DOCUMENTS**



PLANNING PROCESS GROUP



Project Integration Management Overview

4.1 Develop Project Charter

- .1 Inputs
 - .1 Project statement of work
 - .2 Business case
 - .3 Agreements
 - .4 Enterprise environmental factors
 - .5 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Facilitation techniques
- .3 Outputs
 - .1 Project charter

INITIATING

4.2 Develop Project Management Plan

- .1 Inputs
 - .1 Project charter
 - .2 Outputs from other processes
 - .3 Enterprise environmental factors
 - .4 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Facilitation techniques
- .3 Outputs
 - .1 Project management plan

PLANNING

4.4 Monitor and Control Project Work

- .1 Inputs
 - .1 Project management plan
 - .2 Schedule forecasts
 - .3 Cost forecasts
 - .4 Validated changes
 - .5 Work performance information
 - .6 Enterprise environmental factors
 - .7 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Analytical techniques
 - .3 Project management information system
 - .4 Meetings
- .3 Outputs
 - .1 Change requests
 - .2 Work performance reports
 - .3 Project management plan updates
 - .4 Project documents updates

MONITOR &
CONTROLLING

4.5 Perform Integrated Change Control

- .1 Inputs
 - .1 Project management plan
 - .2 Work performance reports
 - .3 Change requests
 - .4 Enterprise environmental factors
 - .5 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Meetings
 - .3 Change control tools
- .3 Outputs
 - .1 Approved change requests
 - .2 Change log
 - .3 Project management plan updates
 - .4 Project documents updates

EXECUTING

4.6 Close Project or Phase

- .1 Inputs
 - .1 Project management plan
 - .2 Accepted deliverables
 - .3 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Analytical techniques
 - .3 Meetings
- .3 Outputs
 - .1 Final product, service, or result transition
 - .2 Organizational process assets updates

CLOSING



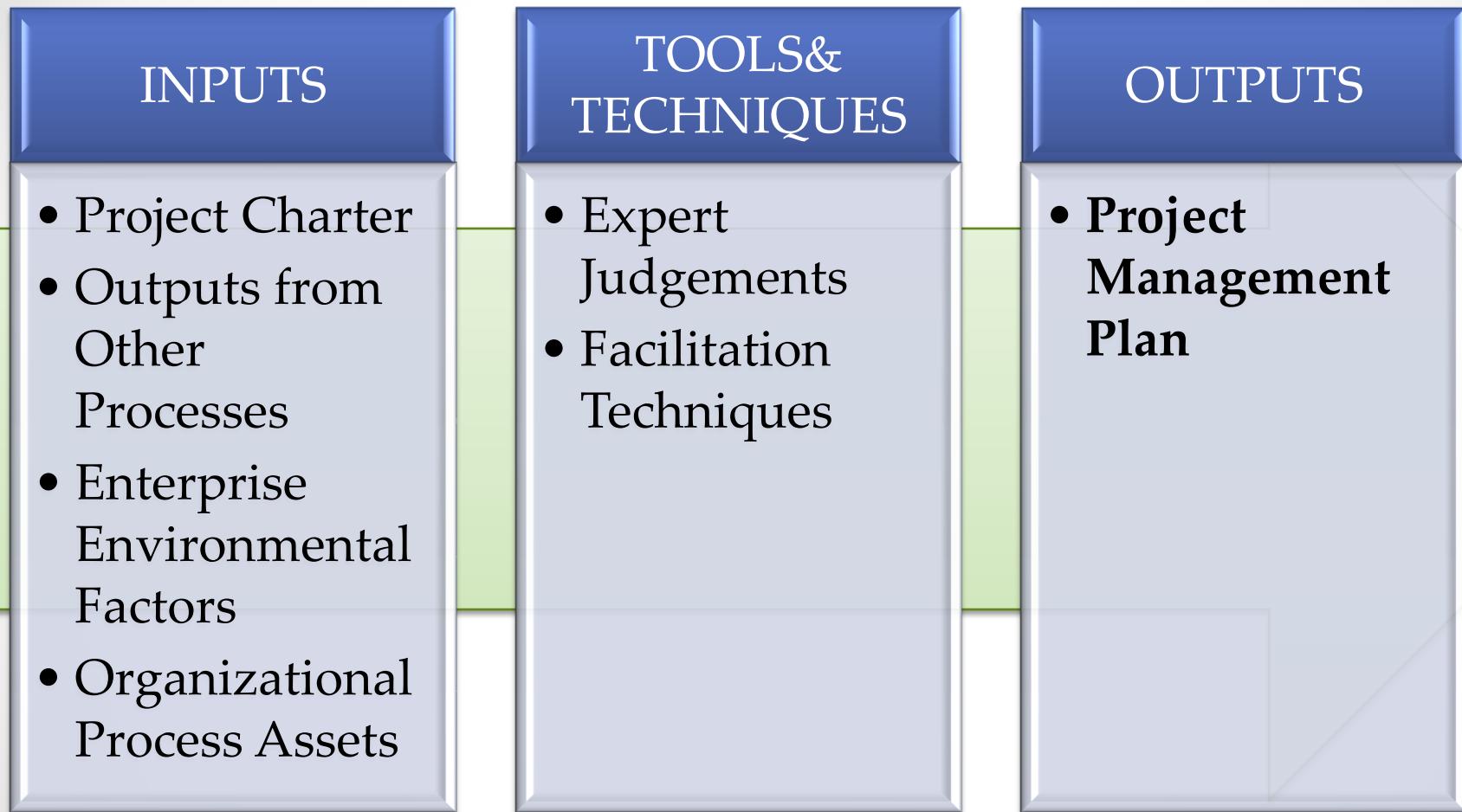
Develop Project Management Plan

KEY BENEFITS

A central document that Defines the basis of all project work.



DEVELOP PROJECT MGT PLAN



Develop PMP - Input

- **Project Charter**
 - At a minimum, the project charter should define the high-level boundaries of the project. The project manager uses the project charter as the starting point for initial planning throughout the Initiating Process Group.
- **Enterprise Environmental Factors**
 - Government / Industry Standard
 - Project Management Information System
 - Organizational structure, culture, etc
- **Organizational Process Assets**
 - Project management template
 - Change control procedures
 - Project files



Develop PMP - Input

- **Outputs from other processes:**
 - Any baselines and subsidiary plans that are an output from other planning processes are inputs to this process are integrated to create **Project Management Plan**.

Contoh Output dari proses yang lain:

- Communication Mgt plan
- Cost management plan
- Human resources mgt plan
- Quality Management plan
- Risk management plan
- Schedule management plan
- Stakeholder management plan
- Cost, schedule and scope baseline



Develop PMP – Tools & Techniques

- **Expert Judgments**
 - Digunakan untuk melakukan analisis atau pengujian untuk membuat Project management plan
 - Semua grup/individu yang memiliki spesialisasi tertentu.
 - Menentukan level resource dan skill yang dibutuhkan
- **Facilitation Techniques**
 - Penerapannya luas pada proses manajemen proyek
 - Contoh: Brainstorming, Conflict resolution, problem solving, management meeetings.

Develop PMP - Outputs

- **Project Management Plan**
 - The project management plan is the document that describes how the project will be executed, monitored, and controlled
- **Integrasi Project Baseline dan Subsidiary Plans.**
- **Project Baseline:**
 - Scope Baseline
 - Schedule Baseline
 - Cost Baseline
- **Subsidiary Plans:**
 - Scope management plan, Requirement management plan, schedule management plan, cost management plan, quality management plan, process improvement plan, Human resources plan, communication management plan, risk management plan, procurement management plan, stakeholder management plan



Project Management Plan and Project Documents

Project Management Plan	Project Documents
Change management plan	Activity attributes
Communications management plan	Activity cost estimates
Configuration management plan	Activity duration estimates
Cost baseline	Activity list
Cost management plan	Activity resource requirements
Human resource management plan	Agreements
Process improvement plan	Basis of estimates
Procurement management plan	Change log
Scope baseline • Project scope statement • WBS • WBS dictionary	Change requests
Quality management plan	Forecasts • Cost forecast • Schedule forecast
Requirements management plan	Issue log
Risk management plan	Milestone list
Schedule baseline	Procurement documents
Schedule management plan	Procurement statement of work
Scope management plan	Project calendars
Stakeholder management plan	Project charter Project funding requirements Project schedule Project schedule network diagrams
	Project staff assignments Project statement of work Quality checklists Quality control measurements Quality metrics Requirements documentation Requirements traceability matrix Resource breakdown structure Resource calendars Risk register Schedule data Seller proposals Source selection criteria Stakeholder register Team performance assessments Work performance data Work performance information Work performance reports

Project Scope Management Overview

5.1 Plan Scope Management

- .1 Inputs
 - .1 Project management plan
 - .2 Project charter
 - .3 Enterprise environmental factors
 - .4 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Meetings
- .3 Outputs
 - .1 Scope management plan
 - .2 Requirements management plan

5.2 Collect Requirements

- .1 Inputs
 - .1 Scope management plan
 - .2 Requirements management plan
 - .3 Stakeholder management plan
 - .4 Project charter
 - .5 Stakeholder register
- .2 Tools & Techniques
 - .1 Interviews
 - .2 Focus groups
 - .3 Facilitated workshops
 - .4 Group creativity techniques
 - .5 Group decision-making techniques
 - .6 Questionnaires and surveys
 - .7 Observations
 - .8 Prototypes
 - .9 Benchmarking
 - .10 Context diagrams
 - .11 Document analysis
- .3 Outputs
 - .1 Requirements documentation
 - .2 Requirements traceability matrix

5.4 Create WBS

- .1 Inputs
 - .1 Scope management plan
 - .2 Project scope statement
 - .3 Requirements documentation
 - .4 Enterprise environmental factors
 - .5 Organizational process assets
- .2 Tools & Techniques
 - .1 Decomposition
 - .2 Expert judgment
- .3 Outputs
 - .1 Scope baseline
 - .2 Project documents updates

5.3 Define Scope

- .1 Inputs
 - .1 Scope management plan
 - .2 Project charter
 - .3 Requirements documentation
 - .4 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Product analysis
 - .3 Alternatives generation
 - .4 Facilitated workshops
- .3 Outputs
 - .1 Project scope statement
 - .2 Project documents updates

5.5 Validate Scope

- .1 Inputs
 - .1 Project management plan
 - .2 Requirements documentation
 - .3 Requirements traceability matrix
 - .4 Verified deliverables
 - .5 Work performance data
- .2 Tools & Techniques
 - .1 Inspection
 - .2 Group decision-making techniques
- .3 Outputs
 - .1 Accepted deliverables
 - .2 Change requests
 - .3 Work performance information
 - .4 Project documents updates

PROJECT SCOPE MANAGEMENT

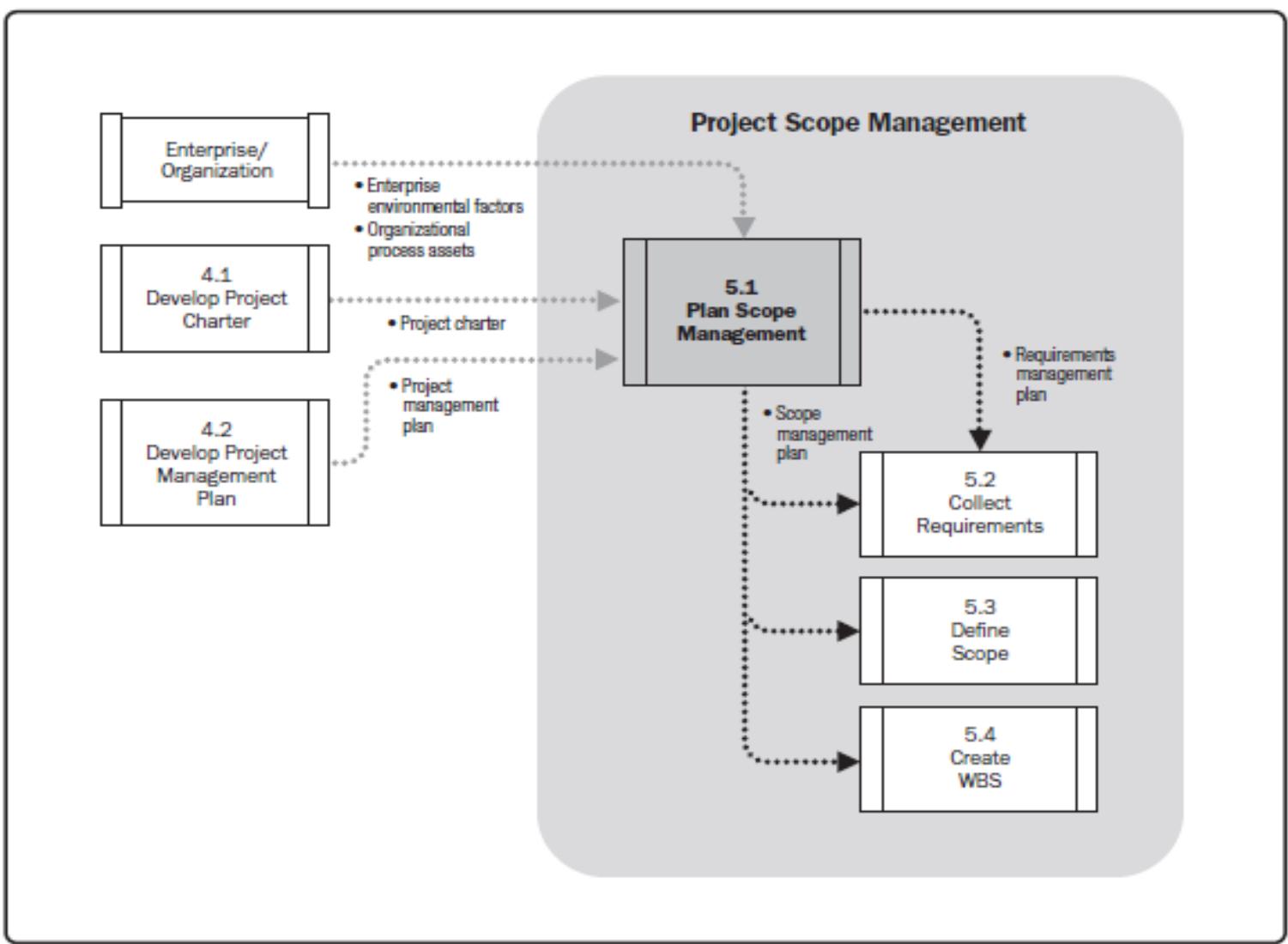


PLAN SCOPE MANAGEMENT

KEY BENEFITS

Provides guidance and direction on how scope will be managed throughout the project

PLAN SCOPE MANAGEMENT



PLAN SCOPE MANAGEMENT



Plan Scope Management - Inputs

- **Project Management Plan**
- **Project Charter**
- **Enterprise Environmental Factors**
 - Organization's culture,
 - Infrastructure,
 - Personnel administration, and
 - Marketplace conditions.
- **Organizational Process Assets**
 - Policies and procedures, and
 - Historical information and lessons learned knowledge base.

Plan Scope Management – Tools & Techniques

- **Expert Judgement**
 - Input received from knowledgeable and experienced parties
- **Meetings**
 - Project team menghadiri meetings untuk mengembangkan scope management plan
 - Attendance: the project manager, the project sponsor, selected project team members, selected stakeholders, anyone with responsibility for any of the scope management processes

Plan Scope Management - Outputs

1. Scope Management Plan

- Komponen dari project management plan
- Bagaimana cakupan proyek didefinisikan, di *develop*, di monitor, di kendalikan dan di verifikasi.
- Major Input pada proses **Develop PMP**

2. Requirement Management Plan

- Mendeskripsikan bagaimana requirements akan di analisa, didokumentasikan, dan di kelola.
- Komponen yang ada pada requirement management plan, diantaranya:
 - Proses memprioritaskan requirement
 - Bagaimana aktivitas terkait requirement di rencanakan, ditracking dan di laporan.
 - Bagaimana struktur requirement traceability matrix akan dibuat.

PROJECT SCOPE MANAGEMENT

PLAN SCOPE MANAGEMENT

COLLECTING REQUIREMENTS



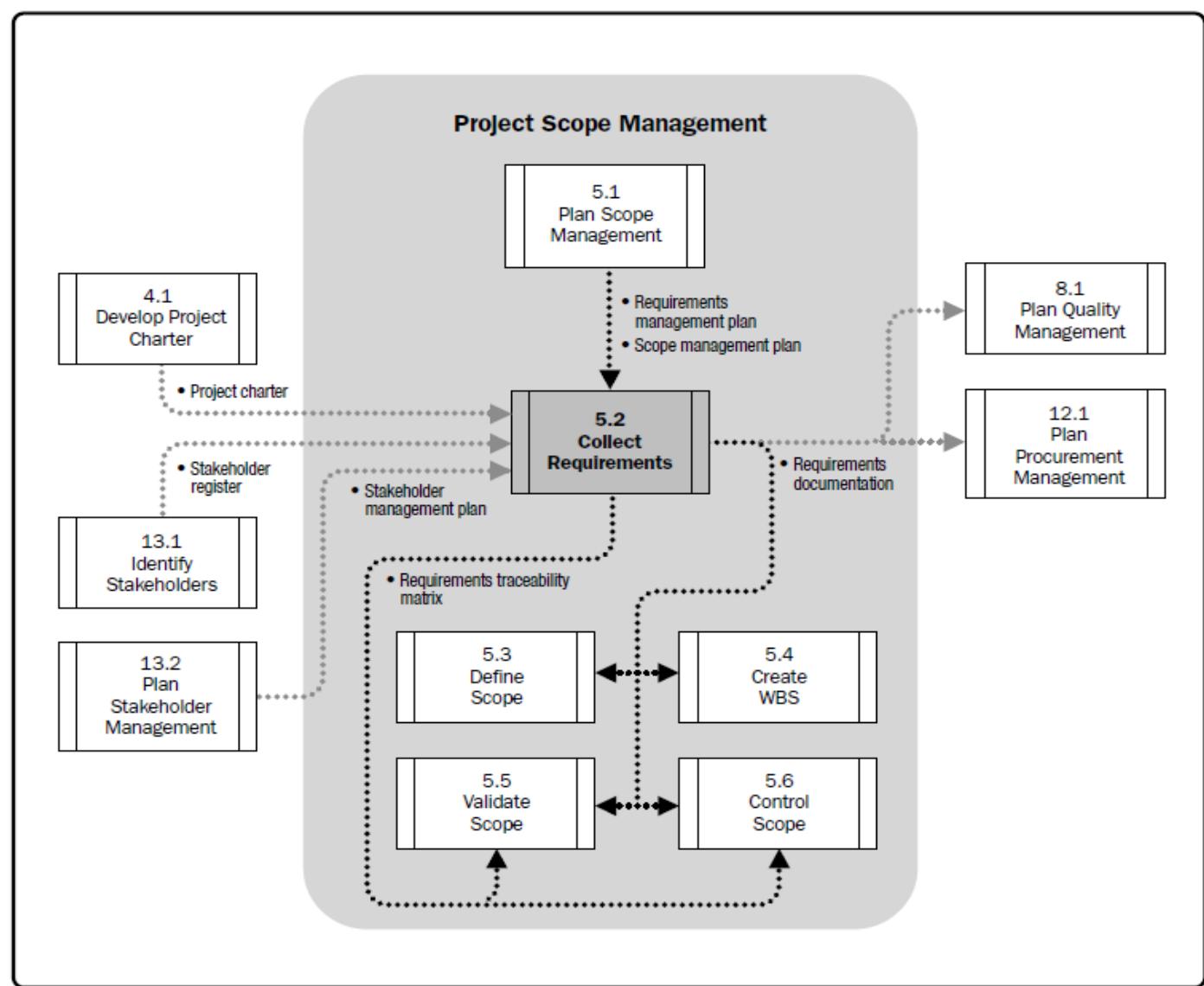
Collecting Requirements

**APA YANG DIMAKSUD DENGAN PROSES
INI?**

BENEFITNYA APA?

Provides the basis for defining and managing the project scope including product scope

Collecting Requirements - DFD



COLLECTING REQUIREMENTS

INPUTS	TOOLS & TECHNIQUES	OUTPUTS
<ul style="list-style-type: none">• Scope Management Plan• Requirement Management Plan• Stakeholder Management Plan• Project Charter• Stakeholder Register	<ul style="list-style-type: none">• Interviews• Focus Groups• Group Creativity Tech• Group decision-making tech• Questionnaires & surveys• Observations• Prototype• Benchmarking• Context diagram• Document analysis	<ul style="list-style-type: none">• Requirements documentation• Requirements traceability matrix

Collecting Requirements - Inputs

1. Scope Management Plan
2. Requirements Management Plan
3. Stakeholder Management Plan
 - Used to understand stakeholder communication requirements and the level of stakeholder engagement in order to assess and adapt to the level of stakeholder participation in requirements activities
4. Project Charter
5. Stakeholder Register

Collecting Requirements – Tools & Techniques

1. Interviews
2. Focus Group (Ada moderator yang terlatih)
3. Facilitated workshops (consider as primary technique for quickly defining cross-functional requirements and reconcile them). Contoh: JAD
4. Group Creativity Technique (Brainstorming, Nominal group technique, idea/mind mapping, Affinity diagram)
5. Group decision-making techniques (Unanimity, Majority, Plurality, Dictatorship)
6. Questionnaire and surveys

Collecting Requirements – Tools & Techniques

7. Observations / Job Shadowing
8. Prototypes – Storyboarding
9. Benchmarking (Melakukan perbandingan dengan organisasi sejenis yang lebih baik)
10. Context diagram
11. Document Analysis

Collecting Requirements – Outputs

1. Requirements Documentation
 - How individual requirements meet the business need for the project
 - Progressively elaborated
2. Requirements Traceability Matrix
 - Grid that links product requirements from their origin to the deliverables that satisfy them.
 - Ensure that each requirement adds business value by linking it to the business and project objectives

PROJECT SCOPE MANAGEMENT

PLAN SCOPE MANAGEMENT

COLLECTING REQUIREMENTS

DEFINE SCOPE



SEKOLAH TINGGI TEKNOLOGI TERPADU NURUL FIKRI
MANAJEMEN PROYEK

DEFINE SCOPE

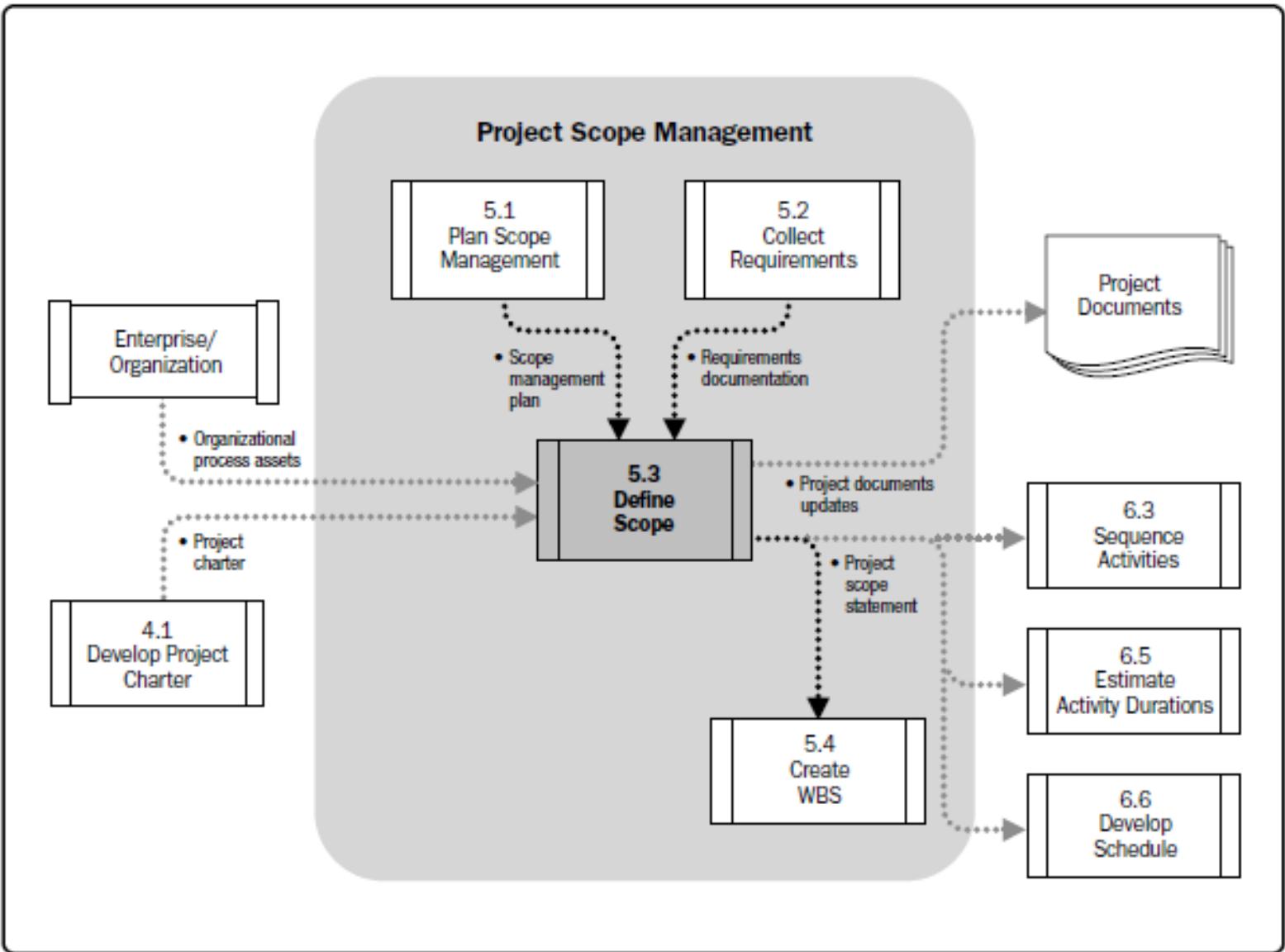
APA YANG DIMAKSUD DENGAN PROSES INI?

KEUNTUNGANNYA APA?

Describes the project, service, or result boundaries by defining which of the requirements collected will be included in and excluded from the project scope



Define Scope - DFD



DEFINE SCOPE



Define Scope - Inputs

Scope Management Plan

Project Charter

Requirements Documentation

Organizational Process Assets

Policies, procedures and template

Project files from previous project

Lesson learned



Define Scope – Tools & Techniques

Expert Judgement

Product breakdown

Product Analysis

System Analysis

System Engineering

Alternative Generation

Facilitated Workshops

Define Scope – Outputs

Project Scope Statement

Product scope description

Acceptance Criteria

Constraints

Deliverables

Assumptions

Project Exclusions

Project Documents Updates

Stakeholder register

Requirements documentation

Requirements traceability matrix

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
- Stakeholder list
- Project approval requirements (what constitutes success, who decides it, who signs off)
- Assigned project manager, 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



PROJECT SCOPE MANAGEMENT

PLAN SCOPE MANAGEMENT

COLLECTING REQUIREMENTS

DEFINE SCOPE

CREATE WBS



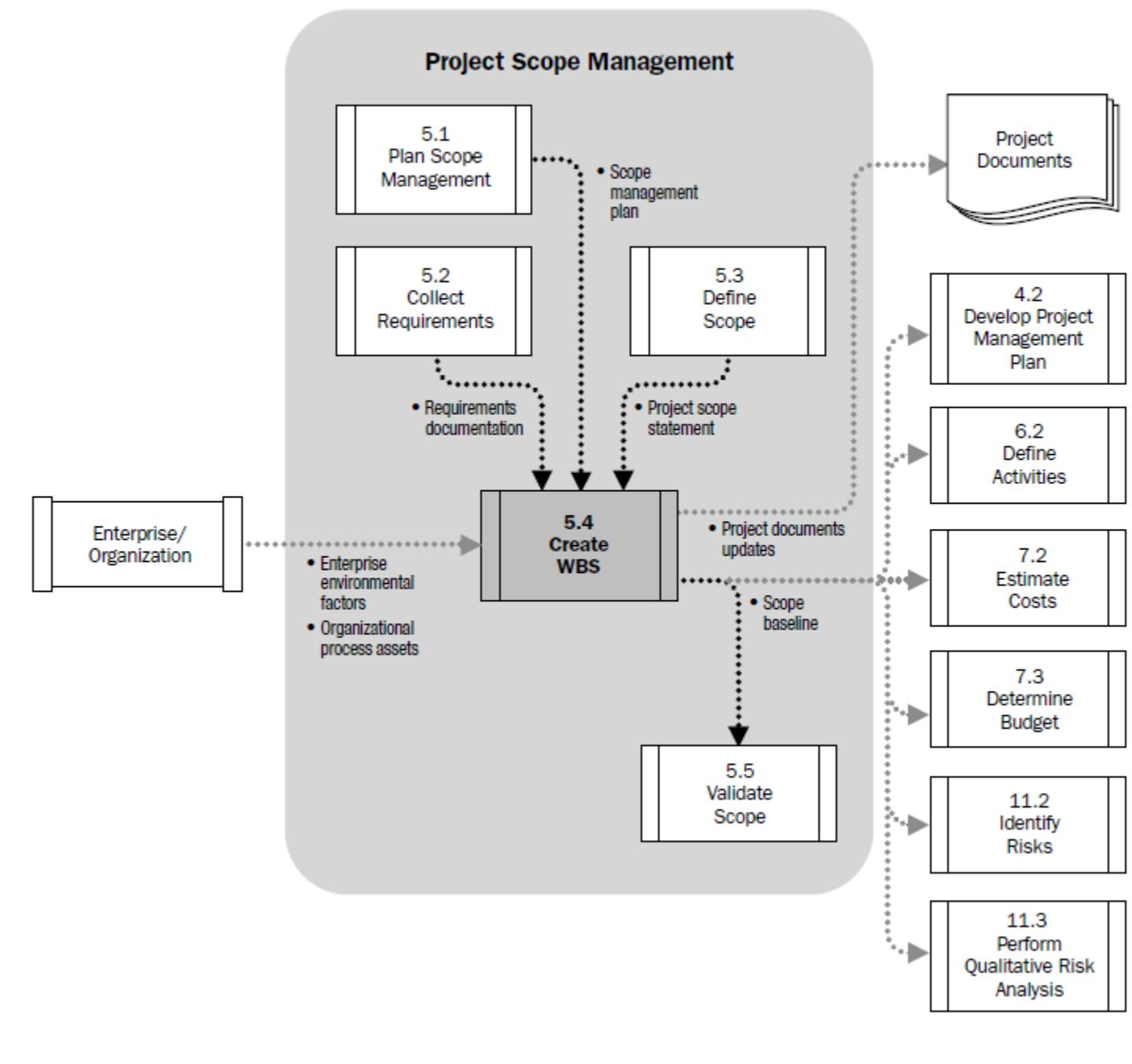
CREATE WBS

APAKAH WBS ITU?

KEUNTUNGANNYA APA?

Provides a structured vision of what has to be delivered

Create WBS - DFD



CREATE WBS

INPUTS

- Scope Management Plan
- Project Scope Statement
- Requirements documentation
- Enterprise environmental factors
- Organizational Process Assets

TOOLS & TECHNIQUES

- Decomposition
- Expert judgement

OUTPUTS

- Scope baseline
- Project document updates

Create WBS - Inputs

Scope Management Plan

Project Scope Statement

Requirements Documentation

Enterprise Environmental Factors

Organizational Process Assets

Policies, procedures and template

Project files from previous project

Lesson learned



Create WBS – Tools & Techniques

Decomposition

Identifying and analyzing the deliverables and related work;

Structuring and organizing the WBS

Decomposing the upper WBS levels into lower-level detailed components;

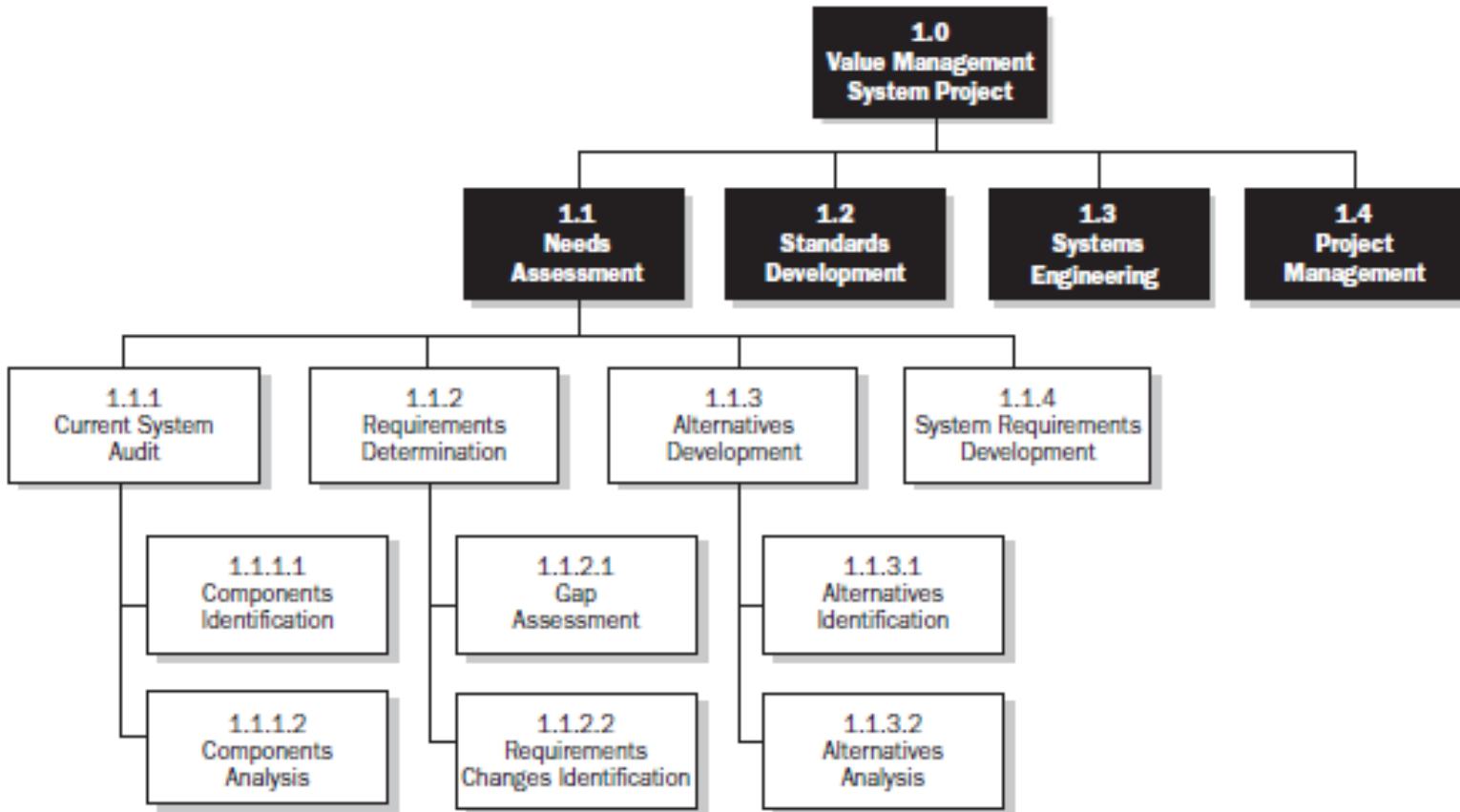
Developing and assigning identification codes to the WBS components;

Verifying that the degree of decomposition of the deliverables is appropriate

Expert Judgement

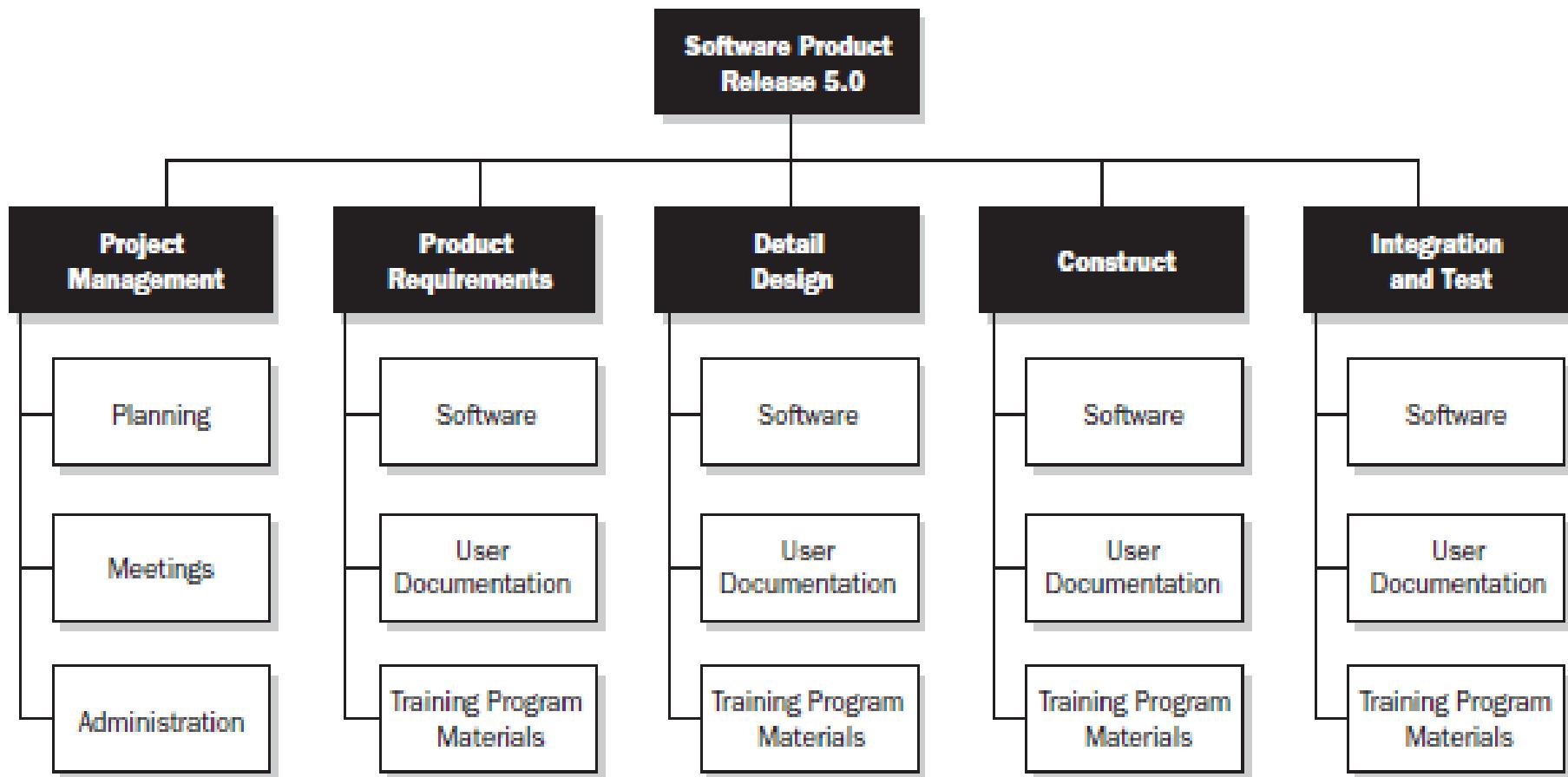


Contoh WBS



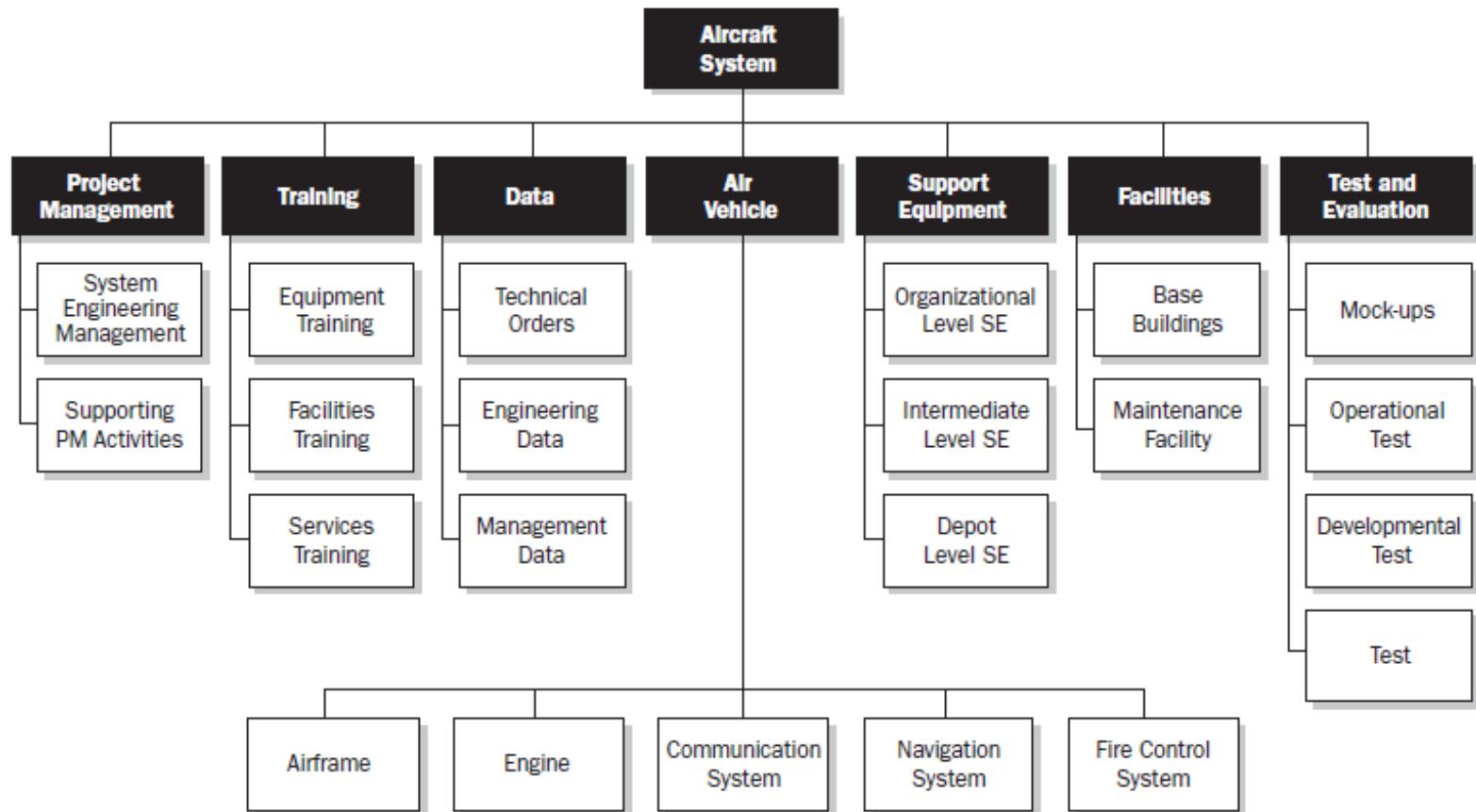
The WBS is illustrative only. It is not intended to represent the full project scope of any specific project, nor to imply that this is the only way to organize a WBS on this type of project.

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Contoh WBS



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Create WBS – Outputs

Scope Baseline

Project Scope Statement

WBS

WBS dictionary

Project Documents Updates

Requirements documentation



PROJECT TIME MANAGEMENT

PLAN SCHEDULE MANAGEMENT

DEFINE ACTIVITIES

SEQUENCE ACTIVITIES

ESTIMATE ACTIVITY RESOURCES

ESTIMATE ACTIVITY DURATIONS

DEVELOP SCHEDULE



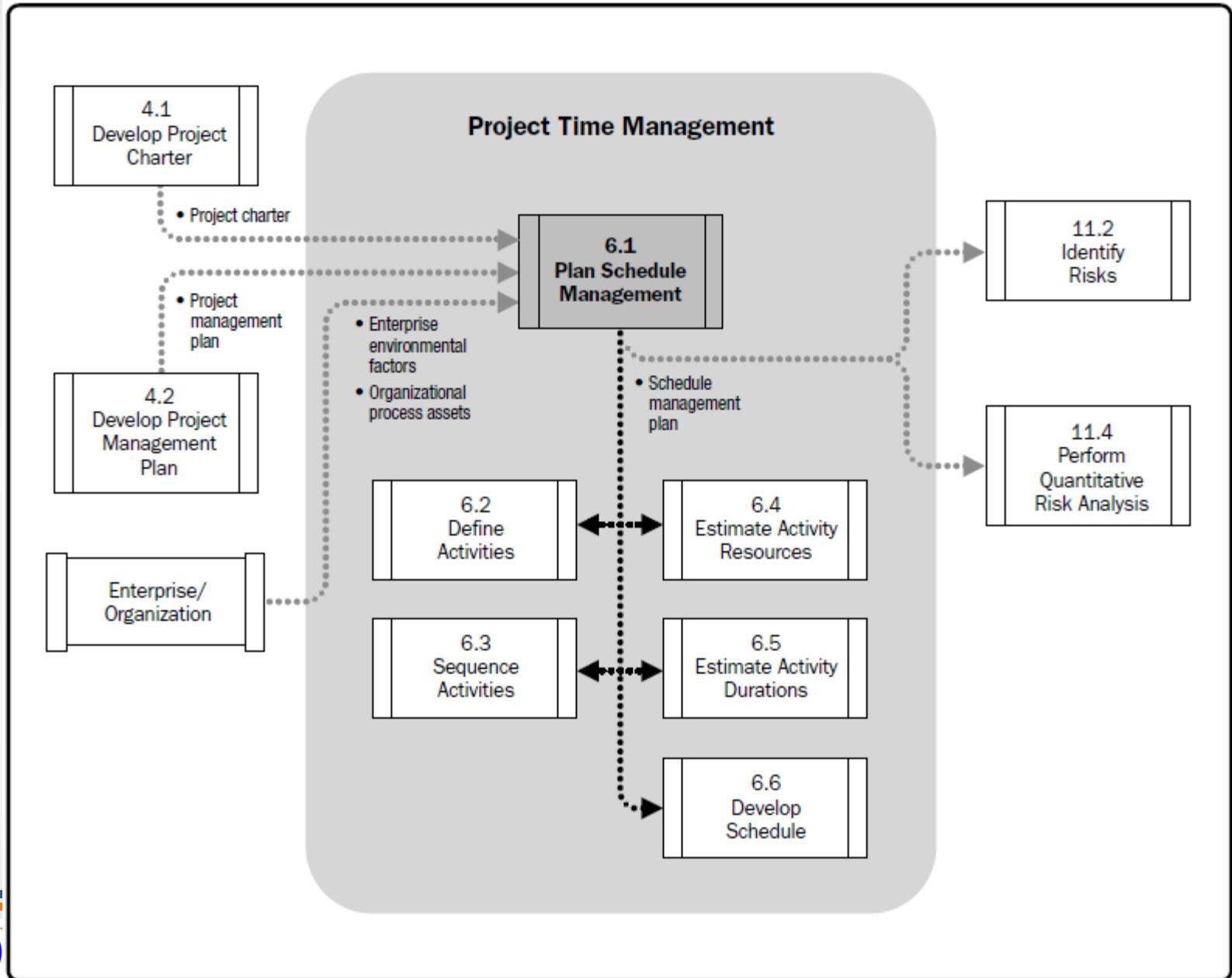
PLAN SCHEDULE MANAGEMENT

**Apa yang dimaksud dengan Proses ini?
KEUNTUNGANNYA APA?**

Provides guidance and direction on how the project schedule will be managed throughout the project



Plan Schedule Management- DFD



PLAN SCHEDULE MANAGEMENT

INPUTS

- Project Management Plan
- Project Charter
- Enterprise environmental factors
- Organizational Process Assets

TOOLS & TECHNIQUES

- Expert judgement
- Analytical techniques
- Meetings

OUTPUTS

- Schedule management plan

Plan Schedule Management - Inputs

Project Management Plan

Scope Baseline

Other Information

Project Charter

Enterprise Environmental Factors

Organizational Process Assets

Change control procedure

Monitoring and reporting tools

Policies, procedures, templates



Plan Schedule Mgt – Tools & Techniques

- **Expert Judgement**
- **Analytical Techniques**
 - Choosing strategic options to estimate and schedule the project such as: scheduling methodology, scheduling tools and techniques, estimating approaches, formats, and project management software
- **Meetings**

Plan Schedule Management - Output

Schedule Management Plan

Project Schedule model development

Level of accuracy

Units of measure

Control thresholds

Rules of performance measurements

Reporting formats



PROJECT TIME MANAGEMENT

PLAN SCHEDULE MANAGEMENT

DEFINE ACTIVITIES

SEQUENCE ACTIVITIES

ESTIMATE ACTIVITY RESOURCES

ESTIMATE ACTIVITY DURATIONS

DEVELOP SCHEDULE



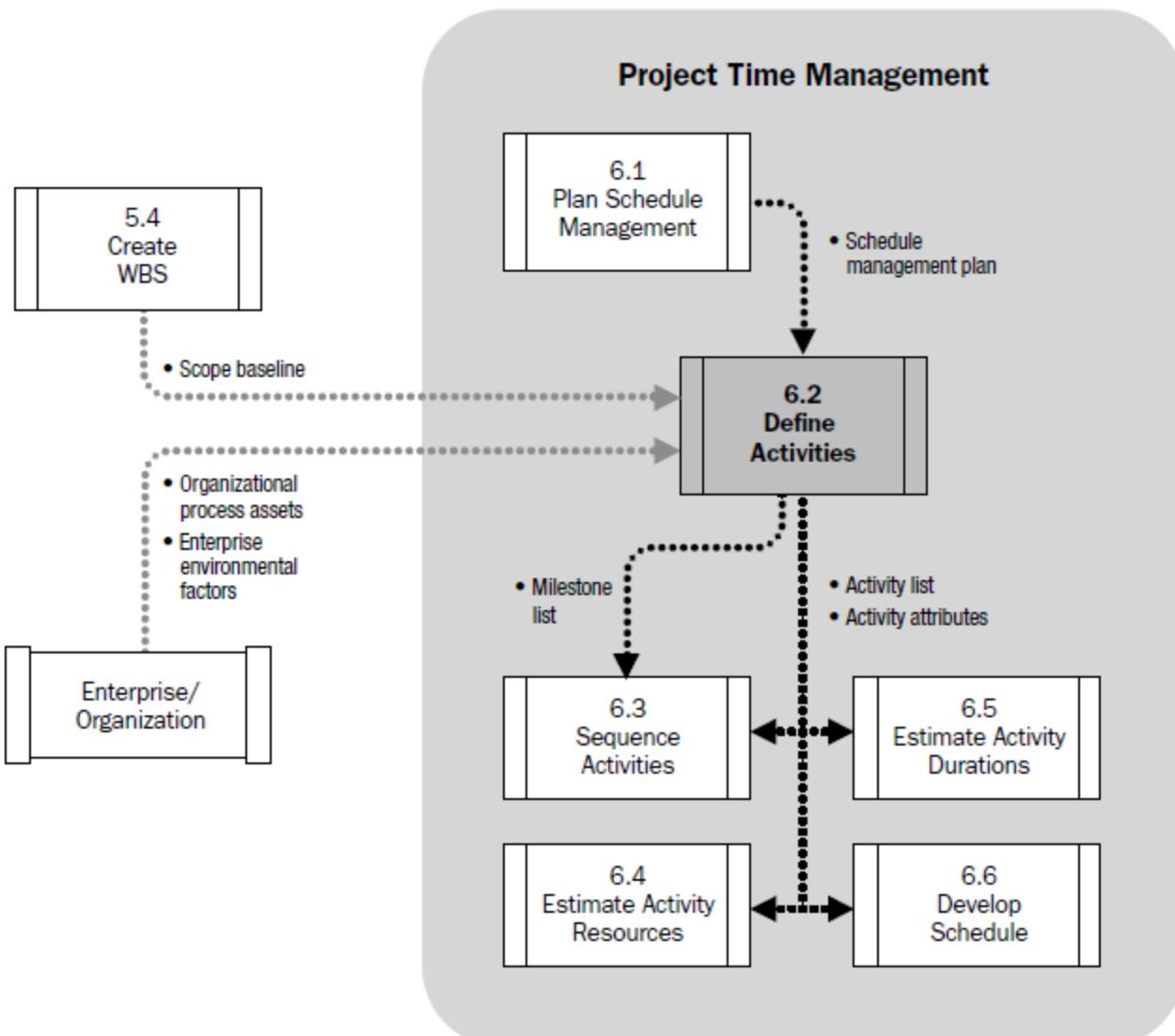
DEFINE ACTIVITIES

**Apa yang dimaksud dengan Proses ini?
KEUNTUNGANNYA APA?**

To break down work packages into activities that provide a basis for estimating, scheduling, executing, monitoring, and controlling the project work



DEFINE ACTIVITIES - DFD



DEFINE ACTIVITIES

INPUTS

- Schedule Management Plan
- Scope baseline
- Enterprise environmental factors
- Organizational Process Assets

TOOLS & TECHNIQUES

- Decomposition
- Rolling wave planning
- Expert judgement

OUTPUTS

- Activity list
- Activity attributes
- Milestone list

Define Activities - Inputs

Schedule Management Plan

Scope Baseline

WBS

Project constraints,
assumptions

Enterprise Environmental Factors

Organizational Process Assets

Lesson learned

Standardized process

Policies, procedures, templates



Define Activities – Tools & Techniques

Decomposition

Rolling wave planning

Iterative planning technique

Expert Judgement



**SEKOLAH TINGGI TEKNOLOGI TERPADU NURUL FIKRI
MANAJEMEN PROYEK**



Define Activities - Outputs

Activity List

Comprehensive list

Activity Attributes

Milestone list

Significant point or event in a project



DAFTAR PUSTAKA

- Project Management Institute. A Guide to the Project Management Body of Knowledge (PMBOK Guide) 5th Edition. 2013.

Next Week

- Membahas Process Group Planning – Project Management Plan (Cost, Quality, Human Resources, Communication)

TERIMA KASIH



**SEKOLAH TINGGI TEKNOLOGI
TERPADU NURUL FIKRI**

School of Open Source Technology