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Modul-Baku Project Management mengacu pada Standar Kompetensi Kerja Nasional Indonesia SKKNI dari LPJK

<table>
<thead>
<tr>
<th>NO</th>
<th>JUDUL UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ahli Manajemen Proyek</td>
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<td>2</td>
<td>Ahli Manajemen Proyek Muda</td>
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<tr>
<td>3</td>
<td>Menerapkan manajemen ruang lingkup proyek</td>
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<td>4</td>
<td>Menerapkan manajemen lingkungan proyek</td>
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<td>Menerapkan manajemen waktu proyek</td>
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<tr>
<td>6</td>
<td>Menerapkan manajemen mutu proyek</td>
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<tr>
<td>7</td>
<td>Menerapkan manajemen biaya proyek</td>
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<tr>
<td>8</td>
<td>Menerapkan manajemen SDM proyek</td>
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<td>Menerapkan manajemen komunikasi proyek</td>
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<td>Menerapkan manajemen resiko proyek</td>
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<tr>
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<td>Menerapkan manajemen integrasi proyek</td>
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<tr>
<td>13</td>
<td>Menerapkan manajemen keuangan proyek</td>
</tr>
</tbody>
</table>
“the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.

It is primarily concerned with defining and controlling what is and is not included in the project”.
Plan Scope Management

How project scope will be defined, validated and controlled by the project management team.
## 5.1 Plan Scope Management

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

<table>
<thead>
<tr>
<th>Input</th>
<th>Tools &amp; Techniques</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project management plan</td>
<td>1. Expert judgment</td>
<td>1. <strong>Scope</strong> management plan</td>
</tr>
<tr>
<td>2. Project charter</td>
<td>2. Meetings</td>
<td>2. <strong>Requirements</strong> management plan</td>
</tr>
<tr>
<td>3. Enterprise environmental factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Organizational process assets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Tools & Techniques
- **Expert judgment**
- **Meetings**
Plan Scope Management
Data Flow Diagram
5.1.1.3 Enterprise Environmental Factors (EEF) that can influence the Plan Scope Management process

1. Organization’s culture,
2. Infrastructure,
3. Personnel administration, and

5.1.1.4 Organizational Process Assets (OPA) that can influence the Plan Scope Management process

1. Policies and procedures, and
2. Historical information and lessons learned knowledge base.
5.1.2.1. **Expert Judgment**

that influence the **Plan Scope Management** process

Expertise may be provided by any group or person with specialized:

1. Education,
2. Knowledge,
3. Skill,
4. Experience,
5. Training

in Developing Scope Management Plans.
5.2 Collect Requirements

The process of determining, documenting and managing stakeholder needs and requirements to meet the project objectives.

**Input**
1. Scope management plan
2. Requirements management plan
3. Stakeholder management plan
4. Project charter
5. Stakeholder register

**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

**Output**
1. Requirements documentation
2. Requirements traceability matrix
Collect Requirements Data Flow Diagram
5.3 Define Scope

The process of developing a detailed description of the project and product

**Input**
1. Scope management plan
2. Project charter
3. Requirements documentation
4. Organizational process assets

**Tools & Techniques**
1. Expert judgment
2. Product analysis
3. Alternatives generation
4. Facilitated workshops

**Output**
1. Project scope statement
2. Project documents updates
Define Scope

Data Flow Diagram
5.3 Define Scope

Description

“What should be done?”

Key Deliverable of the project.

Function

As a documented basis in making project decisions

Project Scope Statement

1. Product scope description
2. Acceptance criteria
3. Deliverable
4. Project exclusion
5. Constraints
6. Assumptions

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5.3.1.4 Organizational Process Assets (OPA) that can influence the Define Scope process

1. Policies, procedures, and templates for a project scope statement;
2. Project files from previous projects; and
3. Lessons learned from previous phases or projects.
5.3.2.1. **Expert Judgment**

that influence the Define Scope process

Expertise with specialized knowledge or training from many sources:

1. Other units within the organization;
2. **Consultants**;
3. Stakeholders, including customers or sponsors;
4. Professional and technical associations;
5. Industry groups; and
6. Subject matter experts.
5.4 Create WBS (Work Breakdown Structure)

**Input**
1. Scope management plan
2. Project scope statement
3. Requirements documentation
4. Enterprise environmental factors
5. Organizational process assets

**Tools & Techniques**
1. Decomposition
2. Expert judgment

**Output**
1. **Scope baseline**
2. Project documents updates

- **Subdividing project deliverables and project work into smaller, more manageable components.**
- **WBS organizes and defines the total scope of the project**
Create WBS
Data Flow Diagram
5.4.1.4
Enterprise Environmental Factors (EEF)
that can influence in creating WBS process

Industry-specific WBS standards, relevant to the nature of the project, may serve as external reference sources for creation of the WBS. For example: engineering projects may reference ISO/IEC 15288 on Systems Engineering – System Life Cycle Processes to create a WBS for a new project.

5.4.1.5
Organizational Process Assets (OPA)
that can influence in creating WBS process

1. Policies, procedures, and templates for the WBS;
2. Project files from previous projects; and
3. Lessons learned from previous projects.
5.4.2.2. Expert Judgment that influence the creating WBS process

The WBS structure can be represented in a number of forms, such as:

1. Using **phases** of the project life cycle as the second level of decomposition, with the product and project deliverables inserted at the third level, as shown in Figure 5-12;

2. Using **major deliverables** as the second level of decomposition, as shown in Figure 5-13;

3. Incorporating subcomponents which may be developed by organizations outside the project team, such as contracted work. The seller then develops the supporting contract WBS as part of the contracted work.
Work Breakdown Structure (WBS)

“a hierarchical decomposition of the total of work to be carried out to accomplish the project objectives and create required deliverables”
**Work Breakdown Structure (WBS)**

- Each descending level represents an increasingly detailed definition of the project work.

- The WBS is decomposed into **Work Packages**, which are the lowest level of the WBS.

- **WBS defines the total scope** of the project.

- **Work that is not in the WBS is outside the scope** of the project.
Work Breakdown Structure (WBS)

**Decomposition**

Subdivision of project deliverables into smaller, more manageable components until the work and deliverables are defined to the work package level.

**WBS Level 1**
- **WBS Level 2**
  - **WBS Level 3**
  - **WBS Level 3**

**Work Package** is the lowest level in the WBS, and is the point at which the cost and schedule for the work can be reliably estimated.
Work Breakdown Structure (WBS)

Decomposition (by steps)

1. **Identifying** and **analyzing** the deliverables
2. **Structuring** and **organizing** the WBS
3. **Decomposing** the upper WBS levels into lower levels
4. **Assigning** identification **codes** to the WBS component
5. **Verifying** that the **decomposition** of the work is necessary

WBS Level 1

- WBS Level 2
  - WBS Level 3
    - Work Package
    - Work Package
    - Work Package

- WBS Level 2
  - WBS Level 3
    - Work Package
    - Work Package
    - Work Package

- WBS Level 2
  - WBS Level 3
    - Work Package
    - Work Package
    - Work Package
5.5 Validate Scope

Input:
1. Project management plan
2. Requirements documentation
3. Requirements traceability matrix
4. Verified deliverables
5. Work performance data

Tools & Techniques:
1. Inspection
2. Group decision-making techniques

Output:
1. Accepted deliverables
2. Change requests
3. Work performance information
4. Project documents updates

Formalizing acceptance of the completed project deliverables
Validate Scope

Data Flow Diagram
Validate Scope

Inspection

“activities such as measuring, examining, and verifying to determine whether work and deliverables meet requirements and product acceptance criteria”.

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### 5.6 Control Scope

**Input**
1. Project management plan
2. Requirements documentation
3. Requirements traceability matrix
4. Work performance data
5. Organizational process assets

**Tools & Techniques**
1. Variance analysis

**Output**
1. **Work performance Information**
2. Change requests
3. Project management plan *updates*
4. Project documents *updates*
5. Organizational process assets *updates*

**Monitoring the status of the project and product scope and managing changes to the scope baseline**
5.6.1.5
Organizational Process Assets (OPA)
that can influence the control scope process

1. **Existing** formal and informal scope, control-related **policies, procedures**, guidelines; and

2. Monitoring and reporting methods and templates to be used.
terimakasih