

## PMI Materijali

### PMBoK Outline Pregled

U dokumentu ćete pronaći *outline* pregled svih elemenata Project Management Book of Knowledge (PMBoK) metodologije: ulazni elementi, aktivnosti i alati te izlazni elementi pojedinog područja. Trenutni prikaz temelji se na PMBoK verziji 2000.

# 1. Project Integration Management

## 1.1. Project Plan Development

### 1.1.1. Inputs

- 1.1.1.1. Other planning outputs
- 1.1.1.2. Historical information
- 1.1.1.3. Organizational policies
- 1.1.1.4. Constraints
- 1.1.1.5. Assumptions

### 1.1.2. Tools and Techniques

- 1.1.2.1. Project Planning methodology
- 1.1.2.2. Stakeholder skills and knowledge
- 1.1.2.3. Project management information system (PMIS)
- 1.1.2.4. Earned value management (EVM)

### 1.1.3. Outputs

- 1.1.3.1. Project plan
- 1.1.3.2. Supporting detail

## 1.2. Project Plan Execution

### 1.2.1. Inputs

- 1.2.1.1. Project plan
- 1.2.1.2. Supporting detail
- 1.2.1.3. Organizational policies
- 1.2.1.4. Preventive action
- 1.2.1.5. Corrective action

### 1.2.2. Tools and Techniques

- 1.2.2.1. General management skills
- 1.2.2.2. Product skills and knowledge
- 1.2.2.3. Work authorization system
- 1.2.2.4. Status review meetings
- 1.2.2.5. Project management information system
- 1.2.2.6. Organizations procedures

### 1.2.3. Outputs

- 1.2.3.1. Work results
- 1.2.3.2. Change requests

## 1.3. Integration Change Control

### 1.3.1. Inputs

- 1.3.1.1. Project plan
- 1.3.1.2. Performance reports
- 1.3.1.3. Change requests

### 1.3.2. Tools and Techniques

- 1.3.2.1. Change control system
- 1.3.2.2. Configuration management
- 1.3.2.3. Performance measurement
- 1.3.2.4. Additional planning
- 1.3.2.5. Project management information system

### 1.3.3. Outputs

- 1.3.3.1. Project plan updates
- 1.3.3.2. Corrective action
- 1.3.3.3. Lessons learned

## 2. Project Scope Management

### 2.1. Initiation

#### 2.1.1. Inputs

- 2.1.1.1. Product description
- 2.1.1.2. Strategic plan
- 2.1.1.3. Project selection criteria
- 2.1.1.4. Historical information

#### 2.1.2. Tools and Techniques

- 2.1.2.1. Project selection methods
- 2.1.2.2. Expert judgment

#### 2.1.3. Outputs

- 2.1.3.1. Project charter
- 2.1.3.2. Project manager identified / assigned
- 2.1.3.3. Constraints
- 2.1.3.4. Assumptions

### 2.2. Scope Planning

#### 2.2.1. Inputs

- 2.2.1.1. Product description
- 2.2.1.2. Project charter
- 2.2.1.3. Constraints
- 2.2.1.4. Assumptions

#### 2.2.2. Tools and Techniques

- 2.2.2.1. Product analysis
- 2.2.2.2. Benefit / cost analysis
- 2.2.2.3. Alternatives identification
- 2.2.2.4. Expert judgment

#### 2.2.3. Outputs

- 2.2.3.1. Scope statement
- 2.2.3.2. Supporting detail
- 2.2.3.3. Scope management plan

### 2.3. Scope Definition

#### 2.3.1. Inputs

- 2.3.1.1. Scope statement

- 2.3.1.2. Constraints
- 2.3.1.3. Assumptions
- 2.3.1.4. Other planning outputs
- 2.3.1.5. Historical information

## **2.3.2. Tools and Techniques**

- 2.3.2.1. Work breakdown structure templates
- 2.3.2.2. Decomposition

## **2.3.3. Outputs**

- 2.3.3.1. Work breakdown structure (WBS)
- 2.3.3.2. Scope statement updates

## **2.4. Scope Verification**

### **2.4.1. Inputs**

- 2.4.1.1. Work results
- 2.4.1.2. Product documentation
- 2.4.1.3. Work breakdown structure
- 2.4.1.4. Scope statement
- 2.4.1.5. Project plan

### **2.4.2. Tools and Techniques**

- 2.4.2.1. Inspection

### **2.4.3. Outputs**

- 2.4.3.1. Formal acceptance

## **2.5. Scope Change Control**

### **2.5.1. Inputs**

- 2.5.1.1. Work breakdown structure (WBS)
- 2.5.1.2. Performance reports
- 2.5.1.3. Change requests
- 2.5.1.4. Scope management plan

### **2.5.2. Tools and Techniques**

- 2.5.2.1. Scope change control system
- 2.5.2.2. Performance measurement
- 2.5.2.3. Additional planning

### **2.5.3. Outputs**

- 2.5.3.1. Scope changes
- 2.5.3.2. Corrective action

2.5.3.3. Lessons learned

2.5.3.4. Adjusted baseline

## 3. Project Time Management

### 3.1. Activity Definition

#### 3.1.1. Inputs

- 3.1.1.1. Work breakdown structure
- 3.1.1.2. Scope statement
- 3.1.1.3. Historical information
- 3.1.1.4. Constraints
- 3.1.1.5. Assumptions
- 3.1.1.6. Expert Judgment

#### 3.1.2. Tools and Techniques

- 3.1.2.1. Decomposition
- 3.1.2.2. Templates

#### 3.1.3. Outputs

- 3.1.3.1. Activity list
- 3.1.3.2. Supporting detail
- 3.1.3.3. Work breakdown updates

### 3.2. Activity Sequencing

#### 3.2.1. Inputs

- 3.2.1.1. Activity list
- 3.2.1.2. Product description
- 3.2.1.3. Mandatory dependencies
- 3.2.1.4. Discretionary dependencies
- 3.2.1.5. External dependencies
- 3.2.1.6. Milestones

#### 3.2.2. Tools and Techniques

- 3.2.2.1. Precedence diagramming method (PDM)
- 3.2.2.2. Arrow diagramming method (ADM)
- 3.2.2.3. Conditional diagramming methods
- 3.2.2.4. Network templates

#### 3.2.3. Outputs

- 3.2.3.1. Project network diagram
- 3.2.3.2. Activity list updates

## 3.3. Activity Duration Estimating

### 3.3.1. Inputs

- 3.3.1.1. Activity list
- 3.3.1.2. Constraints
- 3.3.1.3. Assumptions
- 3.3.1.4. Resource requirements
- 3.3.1.5. Resource capabilities
- 3.3.1.6. Historical information
- 3.3.1.7. Identified risks

### 3.3.2. Tools and Techniques

- 3.3.2.1. Expert judgment
- 3.3.2.2. Analogous estimating
- 3.3.2.3. Quantitatively based durations
- 3.3.2.4. Reserve time (contingency)

### 3.3.3. Outputs

- 3.3.3.1. Activity duration estimates
- 3.3.3.2. Basis of estimates
- 3.3.3.3. Activity list updates

## 3.4. Schedule Development

### 3.4.1. Inputs

- 3.4.1.1. Project network diagram
- 3.4.1.2. Activity duration estimates
- 3.4.1.3. Resource requirements
- 3.4.1.4. Resource pool description
- 3.4.1.5. Calendars
- 3.4.1.6. Constraints
- 3.4.1.7. Assumptions
- 3.4.1.8. Leads and Lags
- 3.4.1.9. Risk Management plan
- 3.4.1.10. Activity attributes

### 3.4.2. Tools and Techniques

- 3.4.2.1. Mathematical Analysis
- 3.4.2.2. Duration compression
- 3.4.2.3. Simulation
- 3.4.2.4. Resource leveling heuristics

3.4.2.5. Project management software

3.4.2.6. Coding structure

### **3.4.3. Outputs**

3.4.3.1. Project schedule

3.4.3.2. Supporting detail

3.4.3.3. Schedule management plan

3.4.3.4. Resource requirement updates

## **3.5. Schedule Control**

### **3.5.1. Inputs**

3.5.1.1. Project schedule

3.5.1.2. Performance reports

3.5.1.3. Change requests

3.5.1.4. Schedule management plan

### **3.5.2. Tools and Techniques**

3.5.2.1. Schedule change control system

3.5.2.2. Performance measurement

3.5.2.3. Additional planning

3.5.2.4. Project management software

3.5.2.5. Variance analysis

### **3.5.3. Outputs**

3.5.3.1. Schedule updates

3.5.3.2. Corrective action

3.5.3.3. Lessons learned

## 4. Project Cost Management

### 4.1. Resource Planning

#### 4.1.1. Inputs

- 4.1.1.1. Work breakdown structure
- 4.1.1.2. Historical information
- 4.1.1.3. Scope statement
- 4.1.1.4. Resource pool description
- 4.1.1.5. Organization policies
- 4.1.1.6. Activity duration estimates

#### 4.1.2. Tools and Techniques

- 4.1.2.1. Expert judgment
- 4.1.2.2. Alternatives identification
- 4.1.2.3. Project management software

#### 4.1.3. Outputs

- 4.1.3.1. Resource requirements

### 4.2. Cost Estimating

#### 4.2.1. Inputs

- 4.2.1.1. Work breakdown structure
- 4.2.1.2. Resource requirements
- 4.2.1.3. Resource rates
- 4.2.1.4. Activity duration estimates
- 4.2.1.5. Estimating publications
- 4.2.1.6. Historical information
- 4.2.1.7. Chart of accounts

#### 4.2.2. Tools and Techniques

- 4.2.2.1. Analogous estimating
- 4.2.2.2. Parametric modeling
- 4.2.2.3. Bottom-up estimating
- 4.2.2.4. Computerized tools
- 4.2.2.5. Other cost estimating methods

#### 4.2.3. Outputs

- 4.2.3.1. Cost estimates
- 4.2.3.2. Supporting detail
- 4.2.3.3. Cost management plan

## 4.3. Cost Budgeting

### 4.3.1. Inputs

- 4.3.1.1. Cost estimates
- 4.3.1.2. Work breakdown structure
- 4.3.1.3. Project schedule
- 4.3.1.4. Risk management plan

### 4.3.2. Tools and Techniques

- 4.3.2.1. Cost estimating tools and techniques

### 4.3.3. Outputs

- 4.3.3.1. Cost baseline

## 4.4. Cost Control

### 4.4.1. Inputs

- 4.4.1.1. Cost baseline
- 4.4.1.2. Performance reports
- 4.4.1.3. Change requests
- 4.4.1.4. Cost management plan

### 4.4.2. Tools and Techniques

- 4.4.2.1. Cost change control system
- 4.4.2.2. Performance measurement
- 4.4.2.3. Earned value management (EVM)
- 4.4.2.4. Additional planning
- 4.4.2.5. Computerized tools

### 4.4.3. Outputs

- 4.4.3.1. Revised cost estimates
- 4.4.3.2. Budget updates
- 4.4.3.3. Corrective action
- 4.4.3.4. Estimate at completion
- 4.4.3.5. Project closeout
- 4.4.3.6. Lessons learned

## 5. Project Quality Management

### 5.1. Quality Planning

#### 5.1.1. Inputs

- 5.1.1.1. Quality policy
- 5.1.1.2. Scope statement
- 5.1.1.3. Product description
- 5.1.1.4. Standards and regulations
- 5.1.1.5. Other process outputs

#### 5.1.2. Tools and Techniques

- 5.1.2.1. Benefit/cost analysis
- 5.1.2.2. Benchmarking
- 5.1.2.3. Flowcharting
- 5.1.2.4. Design of experiments
- 5.1.2.5. Cost of quality

#### 5.1.3. Outputs

- 5.1.3.1. Quality management plan
- 5.1.3.2. Operational definitions
- 5.1.3.3. Checklists
- 5.1.3.4. Inputs to other processes

### 5.2. Quality Assurance

#### 5.2.1. Inputs

- 5.2.1.1. Quality management plan
- 5.2.1.2. Results of quality control measurements
- 5.2.1.3. Operational definitions

#### 5.2.2. Tools and Techniques

- 5.2.2.1. Quality planning tools and techniques
- 5.2.2.2. Quality audits

#### 5.2.3. Outputs

- 5.2.3.1. Quality improvement

### 5.3. Quality Control

#### 5.3.1. Inputs

- 5.3.1.1. Work results

5.3.1.2. Quality management plan

5.3.1.3. Operational definitions

5.3.1.4. Checklists

## **5.3.2. Tools and Techniques**

5.3.2.1. Inspections

5.3.2.2. Control charts

5.3.2.3. Pareto diagrams

5.3.2.4. Statistical sampling

5.3.2.5. Flowcharting

5.3.2.6. Trend analysis

## **5.3.3. Outputs**

5.3.3.1. Quality improvement

5.3.3.2. Acceptance decisions

5.3.3.3. Rework

5.3.3.4. Completed checklists

5.3.3.5. Process adjustments

## 6. Project Human Resources Management

### 6.1. Organization Planning

#### 6.1.1. Inputs

- 6.1.1.1. Project interfaces
- 6.1.1.2. Staffing requirements
- 6.1.1.3. Constraints

#### 6.1.2. Tools and Techniques

- 6.1.2.1. Templates
- 6.1.2.2. Human resource practices
- 6.1.2.3. Organization theory
- 6.1.2.4. Stakeholder analysis

#### 6.1.3. Outputs

- 6.1.3.1. Role and responsibility assignments
- 6.1.3.2. Staffing management plan
- 6.1.3.3. Organization chart
- 6.1.3.4. Supporting detail

### 6.2. Staff Acquisition

#### 6.2.1. Inputs

- 6.2.1.1. Staffing management plan
- 6.2.1.2. Staffing pool description
- 6.2.1.3. Recruitment practices

#### 6.2.2. Tools and Techniques

- 6.2.2.1. Negotiations
- 6.2.2.2. Pre-assignment
- 6.2.2.3. Procurement

#### 6.2.3. Outputs

- 6.2.3.1. Project staff assigned
- 6.2.3.2. Project team directory

### 6.3. Team Development

#### 6.3.1. Inputs

- 6.3.1.1. Project staff
- 6.3.1.2. Project plan
- 6.3.1.3. Staffing management plan

6.3.1.4. Performance reports

6.3.1.5. External feedback

## **6.3.2. Tools and Techniques**

6.3.2.1. Team-building activities

6.3.2.2. General management skills

6.3.2.3. Reward and recognition systems

6.3.2.4. Collocation

6.3.2.5. Training

## **6.3.3. Outputs**

6.3.3.1. Performance improvements

6.3.3.2. Input to performance appraisals

## 7. Project Communications Management

### 7.1. Communications Planning

#### 7.1.1. Inputs

- 7.1.1.1. Communications requirements
- 7.1.1.2. Communications technology
- 7.1.1.3. Constraints
- 7.1.1.4. Assumptions

#### 7.1.2. Tools and Techniques

- 7.1.2.1. Stakeholder analysis

#### 7.1.3. Outputs

- 7.1.3.1. Communications management plan

### 7.2. Information Distribution

#### 7.2.1. Inputs

- 7.2.1.1. Work results
- 7.2.1.2. Communications management plan
- 7.2.1.3. Project plan

#### 7.2.2. Tools and Techniques

- 7.2.2.1. Communications skills
- 7.2.2.2. Information retrieval systems
- 7.2.2.3. Information distribution systems

#### 7.2.3. Outputs

- 7.2.3.1. Project records
- 7.2.3.2. Project reports
- 7.2.3.3. Project presentation

### 7.3. Performance Reporting

#### 7.3.1. Inputs

- 7.3.1.1. Project plan
- 7.3.1.2. Work results
- 7.3.1.3. Other project records

#### 7.3.2. Tools and Techniques

- 7.3.2.1. Performance reviews
- 7.3.2.2. Variance analysis
- 7.3.2.3. Trend analysis

- 7.3.2.4. Earned value analysis
- 7.3.2.5. Information distribution tools and techniques

### **7.3.3. Outputs**

- 7.3.3.1. Performance reports
- 7.3.3.2. Change requests

## **7.4. Administrative Closure**

### **7.4.1. Inputs**

- 7.4.1.1. Performance measurement documentation
- 7.4.1.2. Documentation of the product of the project
- 7.4.1.3. Other project records

### **7.4.2. Tools and Techniques**

- 7.4.2.1. Performance reporting tools and techniques
- 7.4.2.2. Project reports
- 7.4.2.3. Project presentations

### **7.4.3. Outputs**

- 7.4.3.1. Project archives
- 7.4.3.2. Formal acceptance
- 7.4.3.3. Lessons learned

## 8. Project Risk Management

### 8.1. Risk Management Planning

#### 8.1.1. Inputs

- 8.1.1.1. Project charter
- 8.1.1.2. Organization's risk management policies
- 8.1.1.3. Defined roles and responsibilities
- 8.1.1.4. Stakeholder risk tolerances
- 8.1.1.5. Template for the organization's risk management plan
- 8.1.1.6. Work breakdown structure (WBS)

#### 8.1.2. Tools and Techniques

- 8.1.2.1. Planning meetings

#### 8.1.3. Outputs

- 8.1.3.1. Risk management plan

### 8.2. Risk Identification

#### 8.2.1. Inputs

- 8.2.1.1. Risk management plan
- 8.2.1.2. Project planning outputs
- 8.2.1.3. Risk categories
- 8.2.1.4. Historical information

#### 8.2.2. Tools and Techniques

- 8.2.2.1. Documentation reviews
- 8.2.2.2. Information-gathering techniques
- 8.2.2.3. Checklists
- 8.2.2.4. Assumptions analysis
- 8.2.2.5. Diagramming techniques

#### 8.2.3. Outputs

- 8.2.3.1. Risks
- 8.2.3.2. Triggers
- 8.2.3.3. Inputs to other processes

### 8.3. Qualitative Risk Analysis

#### 8.3.1. Inputs

- 8.3.1.1. Risk management plan

- 8.3.1.2. Identified risks
- 8.3.1.3. Project status
- 8.3.1.4. Project type
- 8.3.1.5. Data precision
- 8.3.1.6. Scales of probability and impact
- 8.3.1.7. Assumptions

### **8.3.2. Tools and Techniques**

- 8.3.2.1. Risk probability and impact
- 8.3.2.2. Probability/impact risk rating matrix
- 8.3.2.3. Project assumptions testing
- 8.3.2.4. Data precision ranking

### **8.3.3. Outputs**

- 8.3.3.1. Overall risk rating for the project
- 8.3.3.2. List of prioritized risks
- 8.3.3.3. List of risks for additional analysis and management
- 8.3.3.4. Trends in qualitative risk analysis results

## **8.4. Quantitative Risk Analysis**

### **8.4.1. Inputs**

- 8.4.1.1. Risk management plan
- 8.4.1.2. Identified risks
- 8.4.1.3. List of prioritized risks
- 8.4.1.4. List of risks for additional analysis and management
- 8.4.1.5. Historical information
- 8.4.1.6. Expert judgment
- 8.4.1.7. Other planning outputs

### **8.4.2. Tools and Techniques**

- 8.4.2.1. Interviewing
- 8.4.2.2. Sensitivity analysis
- 8.4.2.3. Decision tree analysis
- 8.4.2.4. Simulation

### **8.4.3. Outputs**

- 8.4.3.1. Prioritized list of quantified risks
- 8.4.3.2. Probabilistic analysis of the project
- 8.4.3.3. Probability of achieving the cost and time objectives
- 8.4.3.4. Trend in quantitative risk analysis results

## 8.5. Risk Response Planning

### 8.5.1. Inputs

- 8.5.1.1. Risk management plan
- 8.5.1.2. List of prioritized risks
- 8.5.1.3. Risk ranking of the project
- 8.5.1.4. Prioritized list of quantified risks
- 8.5.1.5. Probabilistic analysis of the project
- 8.5.1.6. Probability of achieving the cost and time objectives
- 8.5.1.7. List of potential responses
- 8.5.1.8. Risk thresholds
- 8.5.1.9. Risk owners
- 8.5.1.10. Common risk causes
- 8.5.1.11. Trends in qualitative and quantitative risk analysis results

### 8.5.2. Tools and Techniques

- 8.5.2.1. Avoidance
- 8.5.2.2. Transference
- 8.5.2.3. Mitigation
- 8.5.2.4. Acceptance

### 8.5.3. Outputs

- 8.5.3.1. Risk response plan
- 8.5.3.2. Residual risks
- 8.5.3.3. Secondary risks
- 8.5.3.4. Contractual agreements
- 8.5.3.5. Contingency reserve amounts needed
- 8.5.3.6. Inputs to other processes
- 8.5.3.7. Inputs to a revised project plan

## 8.6. Risk Monitoring and Control

### 8.6.1. Inputs

- 8.6.1.1. Risk management plan
- 8.6.1.2. Risk response plan
- 8.6.1.3. Project communication
- 8.6.1.4. Additional risk identification and analysis
- 8.6.1.5. Scope changes

### 8.6.2. Tools and Techniques

- 8.6.2.1. Project risk response audits

- 8.6.2.2. Periodic project risk reviews
- 8.6.2.3. Earned value analysis
- 8.6.2.4. Technical performance measurement
- 8.6.2.5. Additional risk response planning

### **8.6.3. Outputs**

- 8.6.3.1. Workaround plans
- 8.6.3.2. Corrective action
- 8.6.3.3. Project change request
- 8.6.3.4. Updates to the risk response plan
- 8.6.3.5. Risk database
- 8.6.3.6. Updates to risk identification checklists

## 9. Project Procurement Management

### 9.1. Procurement Planning

#### 9.1.1. Inputs

- 9.1.1.1. Scope statement
- 9.1.1.2. Product description
- 9.1.1.3. Procurement resources
- 9.1.1.4. Market conditions
- 9.1.1.5. Other planning outputs
- 9.1.1.6. Constraints
- 9.1.1.7. Assumptions

#### 9.1.2. Tools and Techniques

- 9.1.2.1. Make-or-buy analysis
- 9.1.2.2. Expert judgment
- 9.1.2.3. Contract type selection

#### 9.1.3. Outputs

- 9.1.3.1. Procurement management plan
- 9.1.3.2. Statement(s) of work

### 9.2. Solicitation Planning

#### 9.2.1. Inputs

- 9.2.1.1. Procurement management plan
- 9.2.1.2. Statement(s) of work
- 9.2.1.3. Other planning outputs

#### 9.2.2. Tools and Techniques

- 9.2.2.1. Standard forms
- 9.2.2.2. Expert judgment

#### 9.2.3. Outputs

- 9.2.3.1. Procurement documents
- 9.2.3.2. Evaluation criteria
- 9.2.3.3. Statement of work updates

### 9.3. Solicitation

#### 9.3.1. Inputs

- 9.3.1.1. Procurement documents

9.3.1.2. Qualified seller lists

### **9.3.2. Tools and Techniques**

9.3.2.1. Bidders conferences

9.3.2.2. Advertising

### **9.3.3. Outputs**

9.3.3.1. Proposals

## **9.4. Source Selection**

### **9.4.1. Inputs**

9.4.1.1. Proposals

9.4.1.2. Evaluation criteria

9.4.1.3. Organizational policies

### **9.4.2. Tools and Techniques**

9.4.2.1. Contract negotiation

9.4.2.2. Weighting system

9.4.2.3. Screening system

9.4.2.4. Independent estimates

### **9.4.3. Outputs**

9.4.3.1. Contract

## **9.5. Contract Administration**

### **9.5.1. Inputs**

9.5.1.1. Contract

9.5.1.2. Work results

9.5.1.3. Change requests

9.5.1.4. Seller invoices

### **9.5.2. Tools and Techniques**

9.5.2.1. Contract change control system

9.5.2.2. Performance reporting

9.5.2.3. Payment system

### **9.5.3. Outputs**

9.5.3.1. Correspondence

9.5.3.2. Contract changes

9.5.3.3. Payment requests

## 9.6. Contract Close-out

### 9.6.1. Inputs

- 9.6.1.1. Contract documentation

### 9.6.2. Tools and Techniques

- 9.6.2.1. Procurement audits

### 9.6.3. Outputs

- 9.6.3.1. Contract file
- 9.6.3.2. Formal acceptance and closure