PROJECT MANAGEMENT PROCESSES

BASED ON PMBOK GUIDE 2000 ENGLISH VERSION

INITIATING PROCESSES

SCOPE 5.1 - Initiation

.1 Inputs
- .1 Product description
- .2 Strategic plan
- .3 Project selection criteria
- .4 Historical information

.2 Tools and Techniques
- .1 Project selection methods
- .2 Expert judgment

.3 Outputs
- .1 Project charter
- .2 Project manager identified/ assigned
- .3 Constraints
- .4 Assumptions

PLANNING PROCESSES

SCOPE 5.2. Scope Planning

.1 Inputs
- .1 Product description
- .2 Project charter
- .3 Constraints
- .4 Assumptions

.2 Tools and Techniques
- .1 Product analysis
- .2 Benefit/cost analysis
- .3 Alternatives identification
- .4 Expert judgment

.3 Outputs
- .1 Scope statement
- .2 Supporting detail
- .3 Scope management plan

SCOPE 5.3 - Scope Definition

.1 Inputs
- .1 Scope statement
- .2 Constraints
- .3 Assumptions
- .4 Other planning outputs
- .5 Historical information

.2 Tools and Techniques
- .1 Work breakdown structure templates
- .2 Decomposition

.3 Outputs
- .1 Work breakdown structure
- .2 Scope statement updates

TIME 6.1 - Activity Definition

.1 Inputs
- .1 Work breakdown structure
- .2 Scope statement
- .3 Historical information
- .4 Constraints
- .5 Assumptions
- .6 Expert judgment

.2 Tools and Techniques
- .1 Decomposition
- .2 Templates

.3 Outputs
- .1 Activity list
- .2 Supporting detail
- .1 Work breakdown structure updates

COST 7.1 - Resource Planning

.1 Inputs
- .1 Work breakdown structure
- .2 Historical information
- .3 Scope statement
- .4 Resource pool description
- .5 Organizational policies
- .6 Activity duration estimates

.2 Tools and Techniques
- .1 Expert judgment
- .2 Alternatives identification
- .3 Project management software

.3 Outputs
- .1 Resource requirements

TIME 6.2 - Activity Sequencing

.1 Inputs
- .1 Activity list
- .2 Product description
- .3 Mandatory dependencies
- .4 Discretionary dependencies
- .5 External dependencies
- .6 Milestones

.2 Tools and Techniques
- .1 Precedence diagramming method (PDM)
- .2 Arrow diagramming method (ADM)
- .3 Conditional diagramming methods
- .4 Network templates

.3 Outputs
- .1 Project network diagram
- .2 Activity list updates

TIME 6.3 - Activity Duration Estimating

.1 Inputs
- .1 Activity list
- .2 Constraints
- .3 Assumptions
- .4 Resource requirements
- .5 Resource capabilities
- .6 Historical information
- .7 Identified risks

.2 Tools and Techniques
- .1 Expert judgment
- .2 Analogous estimating
- .3 Quantitatively based durations
- .4 Reserve time (contingency)

.3 Outputs
- .1 Activity duration estimates
- .2 Basis of estimates
- .3 Activity list updates

TIME 6.4 - Schedule Development

.1 Inputs
- .1 Project network diagram
- .2 Activity duration estimates
- .3 Resource requirements
- .4 Resource pool description
- .5 Calendars
- .6 Constraints
- .7 Assumptions
- .8 Leads and Lags
- .9 Risk management plan
- .10 Activity attributes

.2 Tools and Techniques
- .1 Mathematical analysis
- .2 Duration compression
- .3 Simulation
- .4 Resource leveling heuristics
- .5 Project management software
- .6 Coding structure

.3 Outputs
- .1 Project schedule
- .2 Supporting detail
- .3 Schedule management plan
- .4 Resource requirement updates

RISK 11.1 - Risk Management Planning

.1 Inputs
- .1 Project charter
- .2 Organization's risk management policies
- .3 Defined roles and responsibilities
- .4 Stakeholders risk tolerances
- .5 Template for the organization's risk management plan
- .6 Work breakdown structure (WBS)

.2 Tools and Techniques
- .1 Planning meetings

.3 Outputs
- .1 Risk management plan

COST 7.2 - Cost Estimating

.1 Inputs
- .1 Work breakdown structure
- .2 Resource requirements
- .3 Resource rates
- .4 Activity duration estimates
- .5 Estimating publications
- .6 Historical information
- .7 Chart of accounts
- .8 Risks

.2 Tools and Techniques
- .1 Analogous estimating
- .2 Parametric modeling
- .3 Bottom-up estimating
- .4 Computerized tools
- .5 Other cost estimating methods

.3 Outputs
- .1 Cost estimates
- .2 Supporting detail
- .3 Cost management plan

COST 7.3 - Cost Budgeting

.1 Inputs
- .1 Cost estimates
- .2 Work breakdown structure
- .3 Project schedule
- .4 Risk management plan

.2 Tools and Techniques
- .1 Cost estimating tools and techniques

.3 Outputs
- .1 Cost baseline

INTEGRATION 4.1 - Project Plan Development

.1 Inputs
- .1 Other planning outputs
- .2 Historical information
- .3 Organizational policies
- .4 Constraints
- .5 Assumptions

.2 Tools and Techniques
- .1 Project planning methodology
- .2 Stakeholders skills and knowledge
- .3 Project management information systems (PMIS)
- .4 Earned value management (EVM)

.3 Outputs
- .1 Project plan
- .2 Supporting detail

FACILITATING PROCESSES

QUALITY 8.1 - Quality Planning

.1 Inputs
- .1 Quality policies
- .2 Scope statement
- .3 Product description
- .4 Standards and regulations
- .5 Other process outputs

.2 Tools and Techniques
- .1 Benefit/cost analysis
- .2 Benchmarking
- .3 Flow-charting
- .4 Design of experiments
- .5 Cost of quality

.3 Outputs
- .1 Quality management plan
- .2 Operational definitions
- .3 Checklists
- .4 Inputs to other processes

RISK 11.2 - Risk Identification

.1 Inputs
- .1 Risk management plan
- .2 Project planning outputs
- .3 Risk categories
- .4 Historical information

.2 Tools and Techniques
- .1 Documentation reviews
- .2 Information-gathering techniques
- .3 Checklist
- .4 Assumptions analysis
- .5 Diagramming techniques

.3 Outputs
- .1 Risks
- .2 Triggers
- .3 Inputs to other processes

RISK 11.3 - Qualitative Risk Analysis

.1 Inputs
- .1 Risk management plan
- .2 Identified risks
- .3 Project status
- .4 Project type
- .5 Data precision
- .6 Scales of probability and impact
- .7 Assumptions

.2 Tools and Techniques
- .1 Risk probability and impact
- .2 Probability/impact risk rating matrix
- .3 Project assumptions testing
- .4 Data precision ranking

.3 Outputs
- .1 Overall risk ranking for the project
- .2 List of prioritized risks
- .3 List of risks for additional analysis and management
- .4 Trends in qualitative risk analysis results

RISK 11.4 - Quantitative Risk Analysis

.1 Inputs
- .1 Risk management plan
- .2 Identified risks
- .3 List of prioritized risks
- .4 List of risks for additional analysis and management
- .5 Historical information
- .6 Expert judgment
- .7 Other planning outputs

.2 Tools and Techniques
- .1 Interviewing
- .2 Sensitivity analysis
- .3 Decision tree analysis
- .4 Simulation

.3 Outputs
- .1 Prioritized list of quantified risks
- .2 Probabilistic analysis of the project
- .3 Probability of achiev. cost / time objectives
- .4 Trends in quantitative risk analysis results

RISK 11.5 - Risk Response Planning

.1 Inputs
- .1 Risk management plan
- .2 List of prioritized risks
- .3 Risk ranking of the project
- .4 Prioritized list of quantified risks
- .5 Probabilistic analysis of the project
- .6 Probability of achiev. cost / time objectives
- .7 List of potential responses
- .8 Risk thresholds
- 9. Risk owners
- .10 Common risk causes
- .11 Trends in qualit. quantit. risk results

.2 Tools and Techniques
- .1 Avoidance
- .2 Transference
- .3 Mitigation
- .4 Acceptance

.3 Outputs
- .1 Risk response plan
- .2 Residual risks
- .3 Secondary risks
- .4 Contractual agreements
- .5 Contingency reserve amounts needed
- .6 Inputs to other processes
- .7 Inputs to a revised project plan

COMMUNICATIONS 10.1 - Communications Planning

.1 Inputs
- .1 Communications requirements
- .2 Communications technology
- .3 Constraints
- .4 Assumptions

.2 Tools and Techniques
- .1 Stakeholder analysis

.3 Outputs
- .1 Communications management plan

HUMAN RESOURCES 9.1 - Organizational Planning

.1 Inputs
- .1 Project Interfaces
- .2 Staffing requirements
- .3 Constraints

.2 Tools and Techniques
- .1 Templates
- .2 Human resource practices
- .3 Organizational theory
- .4 Stakeholders analysis

.3 Outputs
- .1 Role and responsibility assignments
- .2 Staff management plan
- .3 Organizational chart
- .4 Supporting detail

HUMAN RESOURCES 9.2 - Staff Acquisition

.1 Inputs
- .1 Staff management plan
- .2 Staff pool description
- .3 Recruitment practices

.2 Tools and Techniques
- .1 Negotiations
- .2 Preassignment
- .3 Procurement

.3 Outputs
- .1 Project staff assigned
- .2 Project team directory

PROCUREMENT 12.1 - Procurement Planning

.1 Inputs
- .1 Scope statement
- .2 Product description
- .3 Procurement resources
- .4 Market conditions
- .5 Other planning outputs
- .6 Constraints
- .7 Assumptions

.2 Tools and Techniques
- .1 Make-or-by analysis
- .2 Expert judgment
- .3 Contract type selection

.3 Outputs
- .1 Procurement management plan
- .2 Statement(s) of work

PROCUREMENT 12.2 - Solicitation Planning

.1 Inputs
- .1 Procurement management plan
- .2 Statement(s) of work
- .3 Other planning outputs

.2 Tools and Techniques
- .1 Standard forms
- .2 Expert judgment

.3 Outputs
- .1 Procurement documents
- .2 Evaluation criteria
- .3 Statement of work updates

CONTROLLING PROCESSES

COMMUNICATIONS 10.3 - Performance Reporting

.1 Inputs
- .1 Project plan
- .2 Work results
- .3 Other project records

.2 Tools and Techniques
- .1 Performance reviews
- .2 Variance analysis
- .3 Trend analysis
- .4 Earned value analysis
- .5 Information distribution tools and techniques

.3 Outputs
- .1 Performance reports
- .2 Change requests

INTEGRATION 4.3 - Integrated Change Control

.1 Inputs
- .1 Project plan
- .2 Performance reports
- .3 Change requests

.2 Tools and Techniques
- .1 Change control system
- .2 Configuration management
- .3 Performance measurement
- .4 Additional planning
- .5 Project management information systems (PMIS)

.3 Outputs
- .1 Project plan updates
- .2 Corrective action
- .3 Lessons learned

FACILITATING PROCESSES

SCOPE 5.4 - Scope Verification

.1 Inputs
- .1 Work results
- .2 Product documentation
- .3 Work breakdown structure
- .4 Scope statement
- .5 Project plan

.2 Tools and Techniques
- .1 Inspection

.3 Outputs
- .1 Formal acceptance

SCOPE 5.5 - Scope Change Control

.1 Inputs
- .1 Work breakdown structure
- .2 Performance reports
- .3 Change requests
- .4 Scope management plan

.2 Tools and Techniques
- .1 Scope change control system
- .2 Performance measurement
- .3 Additional planning

.3 Outputs
- .1 Scope changes
- .2 Corrective action
- .3 Lessons learned
- .4 Adjusted baseline

TIME 6.5 - Schedule Control

.1 Inputs
- .1 Project schedule
- .2 Performance reports
- .3 Change requests
- .4 Schedule management plan

.2 Tools and Techniques
- .1 Schedule change control system
- .2 Performance measurement
- .3 Additional planning
- .4 Project management software
- .5 Variance analysis

.3 Outputs
- .1 Schedule updates
- .2 Corrective action
- .3 Lessons learned

COST 7.4 - Cost Control

.1 Inputs
- .1 Cost baseline
- .2 Performance reports
- .3 Change requests
- .4 Cost management plan

.2 Tools and Techniques
- .1 Cost change control system
- .2 Performance measurement
- .3 Earned value management (EVM)
- .4 Additional planning
- .5 Computerized tools

.3 Outputs
- .1 Revised cost estimates
- .2 Budget updates
- .3 Corrective action
- .4 Estimate at completion
- .5 Project closeout
- .6 Lessons learned

QUALITY 8.3 - Quality Control

.1 Inputs
- .1 Work results
- .2 Quality management plan
- .3 Operational definitions
- .4 Checklists

.2 Tools and Techniques
- .1 Inspection
- .2 Control charts
- .3 Pareto diagram
- .4 Statistical sampling
- .5 Flow-charting
- .6 Trend analysis

.3 Outputs
- .1 Quality improvement
- .2 Acceptance decisions
- .3 Rework
- .4 Completed checklists
- .5 Process adjustments

RISK 11.6 - Risk Monitoring and Control

.1 Inputs
- .1 Risk management plan
- .2 Risk response plan
- .3 Project communication
- .4 Additional risk identification and analysis
- .5 Scope changes

.2 Tools and Techniques
- .1 Project risk response audits
- .2 Periodic project risk reviews
- .3 Earned value analysis
- .4 Technical performance measurement
- .5 Additional risk response planning

.3 Outputs
- .1 Workaround plans
- .2 Corrective action
- .3 Project changes requests
- .4 Updates to the risk response plan
- .5 Risk database
- .6 Updates to risk identification checklists

EXECUTING PROCESSES

INTEGRATION 4.2 - Project Plan Execution

.1 Inputs
- .1 Project plan
- .2 Supporting detail
- .3 Organizational policies
- .4 Preventive action
- .5 Corrective action

.2 Tools and Techniques
- .1 General management skills
- .2 Product skills and knowledge
- .3 Work authorization systems
- .4 Status review meetings
- .5 Project management information systems (PMIS)
- .6 Organizational procedures

.3 Outputs
- .1 Work results
- .2 Change requests

FACILITATING PROCESSES

COMMUNICATIONS 10.2 - Information Distribution

.1 Inputs
- .1 Work results
- .2 Communications management plan
- .3 Project plan

.2 Tools and Techniques
- .1 Communications skills
- .2 Information retrieval systems
- .3 Information distribution methods

.3 Outputs
- .1 Project records
- .2 Project reports
- .3 Project presentations

HUMAN RESOURCES 9.3 - Team Development

.1 Inputs
- .1 Project staff
- .2 Project plan
- .3 Staff management plan
- .4 Performance reports
- .5 External feedback

.2 Tools and Techniques
- .1 Team-building activities
- .2 General management skills
- .3 Reward and recognition systems
- .4 Collocation
- .5 Training

.3 Outputs
- .1 Performance improvements
- .2 Input to performance appraisals

QUALITY 8.2 - Quality Assurance

.1 Inputs
- .1 Quality management plan
- .2 Results of quality control measurements
- .3 Operational definitions

.2 Tools and Techniques
- .1 Quality planning tools and techniques
- .2 Quality audits

.3 Outputs
- .1 Quality improvement

PROCUREMENT 12.3 - Solicitation

.1 Inputs
- .1 Procurement documents
- .2 Qualified seller lists

.2 Tools and Techniques
- .1 Bidders conferences
- .2 Advertising

.3 Outputs
- .1 Proposals

PROCUREMENT 12.4 - Source Selection

.1 Inputs
- .1 Proposals
- .2 Evaluation criteria
- .3 Organizational policies

.2 Tools and Techniques
- .1 Contract negotiation
- .2 Weighting system
- .3 Screening system
- .4 Independent estimates

.3 Outputs
- .1 Contract

PROCUREMENT 12.5 - Contract Administration

.1 Inputs
- .1 Contract
- .2 Work results
- .3 Change requests
- .4 Seller invoices

.2 Tools and Techniques
- .1 Contract change control system
- .2 Performance reporting
- .3 Payment systems

.3 Outputs
- .1 Correspondence
- .2 Contract changes
- .3 Payment requests

CLOSING PROCESSES

PROCUREMENT 12.6 - Contract Close-Out

.1 Inputs
- .1 Contract documentation

.2 Tools and Techniques
- .1 Procurement audits

.3 Outputs
- .1 Contract file
- .2 Formal acceptance and closure

COMMUNICATION 10.4 - Administrative Closure

.1 Inputs
- .1 Performance measurement documentation
- .2 Documentation of the product of the project
- .3 Other project records

.2 Tools and Techniques
- .1 Performance reporting tools and techniques
- .2 Project reports
- .3 Project presentations

.3 Outputs
- .1 Project archives
- .2 Project closure
- .3 Lessons learned

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