**PMBOK® Guide Sixth Edition**

**Process Matrix incl. Construction Extension**

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|  | **Integration**  **Management** | **Scope Management** | **Schedule**  **Management** | **Cost**  **Management** | **Quality**  **Management** | **Resource Management** | **Communications Management** | **Risk**  **Management** | **Procurement Management** | **Stakeholder**  **Management** | **HSSE Management** | **Financial**  **Management** |  |
| **Initiation** | **Develop Project Charter** |  |  |  |  |  |  |  |  | **Identify Stakeholders** |  |  | **Initiation** |
| The process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. | The process of identifying project stakeholders regularly and analyzing and documenting relevant  information regarding their interests, involvement, interdependencies, influence, and potential impact on project success. |
| **Planning** | **Develop Project**  **Management Plan** | **Plan Scope Management** | **Plan Schedule Management** | **Plan Cost Management** | **Plan Quality Management** | **Plan Resource Management** | **Plan Communications Management** | **Plan Risk Management** | **Plan Procurement Management** | **Plan Stakeholder Engagement** | **Plan HSSE Management** | **Plan Financial Management** | **Planning** |
| The process of defining, preparing, and coordinating all plan components and consolidating them into an integrated project management plan. | The process of creating a scope management plan that documents how the project and product scope will be defined, validated, and controlled. | The process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule. | The process of defining how the project costs will be estimated, budgeted, managed, monitored, and controlled. | The process of identifying quality requirements and/or standards for the project deliverables, and documenting how the project will demonstrate compliance with quality requirements and/or standards. | The process of defining how to estimate, acquire, manage, and utilize physical and team resources. | The process of developing an appropriate approach and plan for project communication activities based on the information needs of each stakeholder group, available organizational assets, and the needs of the project. | The process of defining how to conduct risk management activities for a project. | The process of documenting project procurement decisions, specifying the approach, and identifying potential sellers. | The process of developing approaches to involve project stakeholders based on their needs, expectations, interests, and potential impact on the project. | The process of developing a framework with its aim at providing a healthy, safe, and secure work environment to prevent harm to the people or damage to the environment. | The process of identifying and providing all financial requirements for the project. |
|  | **Collect Requirements** | **Define Activities** | **Estimate Cost** |  | **Estimate Activity Resources** |  | **Identify Risks** |  |  |  |  |
|  | The process of determining, documenting, and managing stakeholder needs and requirements to meet project objectives. | The process of identifying and documenting the specific actions to be performed to produce the project deliverables. | The process of developing and approximation of the monetary resources needed to complete the project works. |  | The process of estimating team resources, and the type and quantities of material, equipment, and supplies necessary to perform project work. |  | The process of identifying individual project risks as well as overall sources of project risk, and documenting their characteristics. |  |  |  |  |
|  | **Define Scope** | **Sequence Activities** | **Determine Budget** |  |  |  | **Perform Qualitative Risk Analysis** |  |  |  |  |
|  | The process of developing a detailed description of the project and product. | The process of identifying and documenting relationships among the project activities. | The process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline. |  |  |  | The process of prioritizing individual project risks for further analysis or action by assessing their probability of occurence and impact as well as other characteristics. |  |  |  |  |
| **Create WBS** | **Estimate Activity Durations** |  | **Perform Quantitative Risk Analysis** |
| The process of subdividing project deliverables and project work into smaller, more manageable components. | The process of estimating the number of work periods needed to complete individual activities with the estimated resources. | The process of numerically analyzing the combined effect of identified individual project risks and other sources of uncertainty on overall project objectives. |
|  | **Develop Schedule** | **Plan Risk Responses** |
| The process of analyzing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model for project execution and monitoring & controlling. | The process of developing options, selecting strategies, and agreeing on actions to address overall project risk exposure, as well as to treat individual project risks. |
| **Executing** | **Direct & Manage Project Works** |  |  |  | **Manage Quality** | **Acquire Resources** | **Manage Communications** | **Implement Risk Responses** | **Conduct Procurement** | **Manage Stakeholder Engagement** | **HSSE Management Executing** |  | **Executing** |
| The process of leading and performing the work defined in the project management plan and implementing approved changes to achieve the project's objectives. | The process of translating the quality management plan into executable quality activities that incorporate the organization's quality policies into the project. | The process of acquiring team members, facilities, equipment, materials, supplies, and other resources necessary to complete project work. | The process of timely and appropriate collection, creation, distribution, storage, retrieval, management, monitoring, and the ultimate disposition of project information. | The process of applying agreed-upon risk response plans. | The process of obtaining seller responses, selecting sellers, and awarding contracts. | The process of communicating and working with stakeholders to meet their needs and expectations, address issues, and foster appropriate stakeholder engagement involvement. | The process of assuring the implementation of the various HSSE plans. |
| **Manage Project Knowledge** |  | **Develop Team** |  |  |  |  |  |
| The process of using existing knowledge and creating new knowledge to achieve the project's objectives and contribute to organizational learning. | The process of improving competencies, team member interaction, and the overall team environment to enhance project performance. |
|  | **Manage Team** |
| The process of tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance. |
| **Monitoring & Controlling** | **Monitor & Control Project**  **Work** | **Validate Scope** | **Control Schedule** | **Control Cost** | **Control Quality** | **Control Resources** | **Monitor Communications** | **Monitor Risks** | **Control Procurement** | **Monitor Stakeholder Engagement** | **Monitor HSSE Performance** | **Monitor Finance** | **Monitoring & Controlling** |
| The process of tracking, reviewing, and reporting overall progress to meet the performance objectives defined in the project management plan. | The process of formalizing acceptance of the completed project deliverables. | The process of controlling the status of the project to update the project schedule and manage changes to the schedule baseline. | The process of monitoring the status of the project, to update the project costs, and manage changes to the cost baseline. | The process of monitoring and recording the results of executing the quality management activities to assess performance and ensure the project outputs are complete, correct, and meet customer expectations. | The project of ensuring that the physical resources assigned and allocated to the project are available as planned, as well as monitoring the planned versus the actual use of resources, and performing corrective action as necessary. | The process of ensuring the information needs of the project and its stakeholders are met. | The process of monitoring the implementation of agreed-upon risk response plans, tracking identified risks, identifying and analyzing new risks, and evaluating risk process effectiveness throughout the project. | The process of managing procurement relationships, monitoring contract performance, making changes and corrections as appropriate, and closing out contracts. | The process of monitoring stakeholder relationships and tailoring strategies for engaging stakeholders through the modification of engagement strategies and plans. | The process of monitoring compliance with HSSE requirements. | The process of ensuring that bonds are reduced when necessary, calls for funds are made as planned and needed, and all bank  withdrawals/deposits are performed at the appropriate time. |
| **Perform Integrated Change Control** | **Control Scope** |  |  |  |  |  |  |  |  |  |  |
| The process of reviewing all change requests; approving changes and managing changes to deliverables, organizational process assets, project  documents, and the project management plan; and communicating the decisions. | The process of monitoring the status of the project and product scope and managing changes to the scope baseline. |  |  |  |  |  |  |  |  |  |  |
| **Closing** | **Close Project or Phase** |  |  |  |  |  |  |  |  |  |  |  | **Closing** |
| The process of finalizing all activities for the project, phase, or the contract. |

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