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Predictive Project Management Terms

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PROCESS GROUPS & KNOWLEDGE AREAS TABLE

Project Management Process Groups				
Initiating	**Planning**	**Executing**	**Monitoring & Controlling**	**Closing**
Develop Project Charter	Develop Project Management Plan	Direct and Manage Project Work	Monitor and Control Project Work	Close Project or Phase
Identify Stakeholders	Plan Scope Management	Manage Project Knowledge	Perform Integrated Change Control	
	Collect Requirements	Manage Quality	Validate Scope	
	Define Scope	Acquire Resources	Control Scope	
	Create WBS	Develop Team	Control Schedule	
	Plan Schedule Management	Manage Team	Control Costs	
	Define Activities	Manage Communications	Control Quality	
	Sequence Activities	Implement Risk Responses	Control Resources	
	Estimate Activity Durations	Conduct Procurements	Monitor Communications	
	Develop Schedule	Manage Stakeholder Engagement	Monitor Risks	
	Plan Cost Management		Control Procurements	
	Estimate Costs		Monitor Stakeholder Engagement	
	Determine Budget			
	Plan Quality Management			
	Plan Resource Management			
	Estimate Activity Resources			
	Plan Communications Management			
	Plan Risk Management			
	Identify Risks			
	Perform Qualitative Risk Analysis			
	Perform Quantitative Risk Analysis			
	Plan Risk Responses			
	Plan Procurement Management			
	Plan Stakeholder Engagement			

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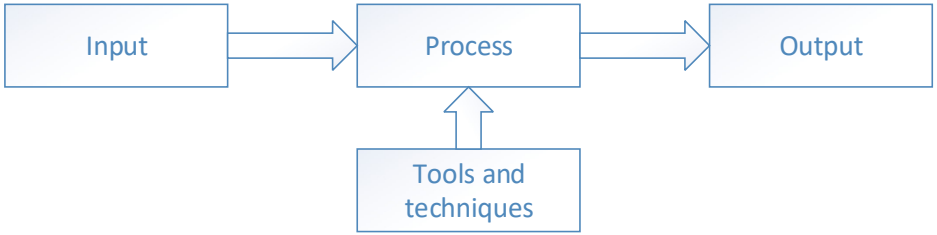
Process

- Inputs, Outputs and Tools/Techniques combined to execute a specific purpose on the project
  - **Input**
    - Starting point for the process, the raw materials to begin the execution
      - Could be the output of a previous process
  - **Tools and Techniques**
    - The actions or methods that are used to transform the raw materials into the output
  - **Output**
    - The end result of our efforts. The raw materials into a polished stone
      - Maybe the input into another process



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Process Groups

- **Initiating:** Used to define a project or phase of an existing project. Done to authorized the start of the project and assign the project manager.
- **Planning:** Done to establish the scope of the project, define the course of action required to attain the objectives
- **Executing:** Done to complete the work defined in the project management plan
- **Monitoring and Controlling:** Done to track, review, and regulate the progress and performance of the project. Looks for any areas in which changes to the plan are required and initiate the corresponding changes
- **Closing:** Done to formally complete or close the project, phase, or contract.

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Process Groups

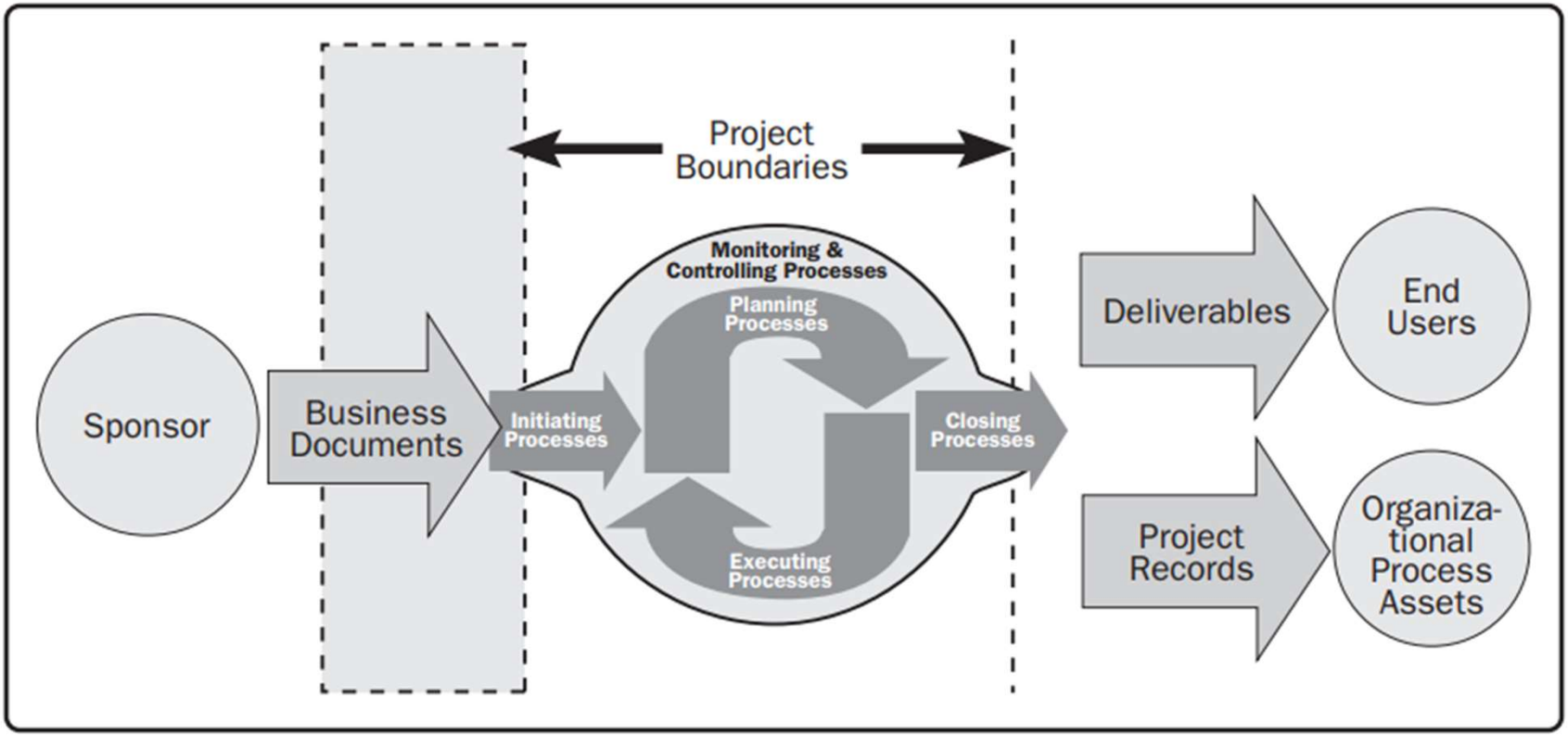

Figure 4-1. Project Boundaries

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Process

- Inputs, Outputs and Tools/Techniques combined to execute a specific purpose on the project
  - **Input**
    - Starting point for the process, the raw materials to begin the execution
      - Could be the output of a previous process
  - **Tools and Techniques**
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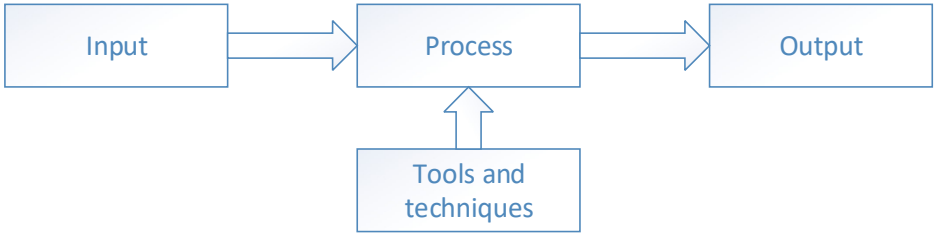

Common ITTO's

Don't Memorize Them

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Inputs, Tools, Techniques, and Outputs (ITTO)

- 660+ Inputs, Tools, Techniques, and Outputs across the 49 process
- Many process has the same ITTO's
- Don't memorize ITTO's
- Understand them and why there are their

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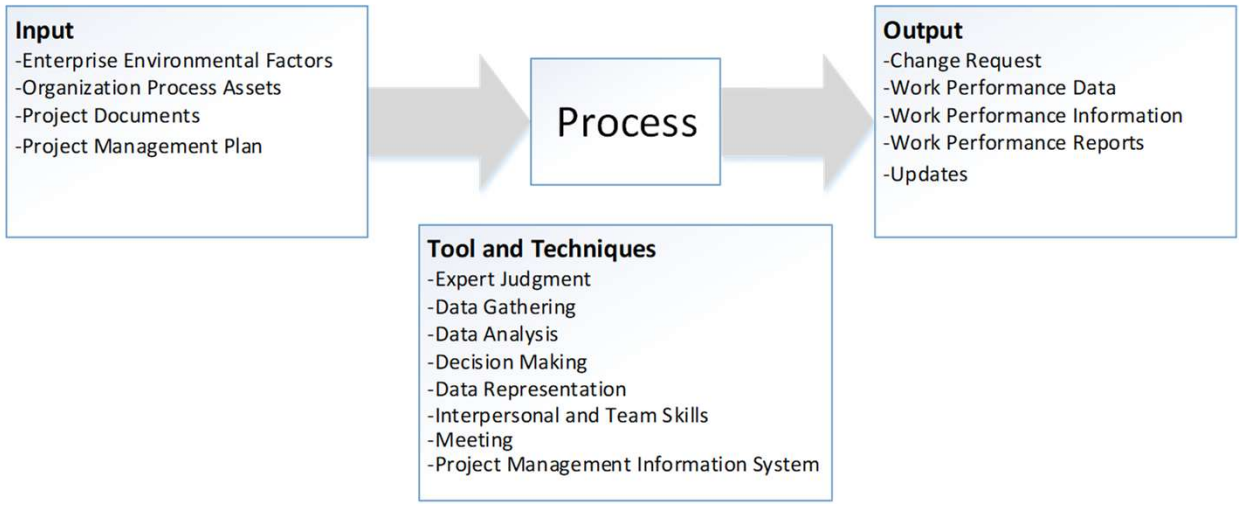
Common Inputs, Tools and Techniques, and Outputs



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Common Inputs

- **Common Inputs**
  - **Project Management Plan**
  - **Enterprise Environmental Factors, (EEF)**
  - **Organization Process Assets, (OPA)**
  - **Project Documents**

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Enterprise Environmental Factors (EEF)

- Things that impact the project but are not part of the project itself
- Influence the organization, the project, and its outcome
- It is essential to consider these internal and external factors while planning the project to determine their influence
- Can enhance or constrain project management options and may have negative or positive influences on the outcomes

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Enterprise Environmental Factors (EEF)

Internal	Company's Organizational Structure and Governance Organizational Culture Organization's and Stakeholders' Appetite for Risk Organization's Established Communication Channels Information Technology Software Geographic Distribution of Facility and Resources Infrastructure Resource Availability Employee Capability
External	Political Climate Government or Industry Standards Commercial Databases Legal Restrictions Financial Considerations

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Organization Process Assets (OPA)

- Organizations have assets such as information, policies, procedures, documents, or knowledge bases which are called Organizational Process Assets (OPA) to help them in achieving their objectives
- Kept in some central repository so that they can be used whenever required
- These elements affect several aspects of the project
- Project team members update and add to the Organizational Process Assets throughout the project
- Examples:
  - Project templates
  - Software tool
  - Historical information
  - Project closure guidelines
  - Risk control procedures
  - Change control procedures
  - Issue and defect management procedures

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Project Documents

- Any documents that are related to the project
- Project documents are additional documents that are created and used throughout the 49 processes **that are not part of the project management plan**
- "include but are not limited to."

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Table 1-6. Project Management Plan and Project Documents

Project Management Plan	Project Documents	
1. Scope management plan	1. Activity attributes	19. Quality control measurements
2. Requirements management plan	2. Activity list	20. Quality metrics
3. Schedule management plan	3. Assumption log	21. Quality report
4. Cost management plan	4. Basis of estimates	22. Requirements documentation
5. Quality management plan	5. Change log	23. Requirements traceability matrix
6. Resource management plan	6. Cost estimates	24. Resource breakdown structure
7. Communications management plan	7. Cost forecasts	25. Resource calendars
8. Risk management plan	8. Duration estimates	26. Resource requirements
9. Procurement management plan	9. Issue log	27. Risk register
10. Stakeholder engagement plan	10. Lessons learned register	28. Risk report
11. Change management plan	11. Milestone list	29. Schedule data
12. Configuration management plan	12. Physical resource assignments	30. Schedule forecasts
13. Scope baseline	13. Project calendars	31. Stakeholder register
14. Schedule baseline	14. Project communications	32. Team charter
15. Cost baseline	15. Project schedule	33. Test and evaluation documents
16. Performance measurement baseline	16. Project schedule network diagram	
17. Project life cycle description	17. Project scope statement	
18. Development approach	18. Project team assignments	

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Project Documents

Project Document	Knowledge Area Where Created
1. Activity attributes	Schedule Management
2. Activity list	Schedule Management
3. Assumption log	Integration Management
4. Basis of estimates	Cost Management
5. Change log	Integration Management
6. Cost estimates	Cost Management
7. Cost forecasts	Cost Management
8. Duration estimates	Schedule Management
9. Issue log	Integration Management
10. Lessons learned register	Integration Management
11. Milestone list	Schedule Management
12. Physical resource assignments	Resource Management
13. Project calendars	Schedule Management
14. Project communications	Communications Management
15. Project schedule	Schedule Management
16. Project schedule network diagram	Schedule Management
17. Project scope statement	Scope Management
18. Project team assignments	Resource Management
19. Quality control measurements	Quality Management
20. Quality metrics	Quality Management
21. Quality report	Quality Management
22. Requirements documentation	Scope Management
23. Requirements traceability matrix	Scope Management
24. Resource breakdown structure	Resource Management
25. Resource calendars	Resource Management
26. Resource requirements	Resource Management
27. Risk register	Risk Management
28. Risk report	Risk Management
29. Schedule data	Schedule Management
30. Schedule forecasts	Schedule Management
31. Stakeholder register	Stakeholder Management
32. Team charter	Resource Management
33. Test and evaluation documents	Quality Management

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Project Management Plan

- Defines how the project is executed, monitored and controlled, and closed
- 18 components, 14 plans and 4 baselines
- “include but are not limited to.”

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Project Management Plan

Project Plan	Process Where Made
Scope Management Plan	Plan Scope Management
Requirement Management Plan	Plan Scope Management
Schedule Management Plan	Plan Schedule Management
Cost Management Plan	Plan Cost Management
Quality Management Plan	Plan Quality Management
Resource Management Plan	Plan Resource Management
Communication Management Plan	Plan Communications Management
Risk Management Plan	Plan Risk Management
Procurement Management Plan	Plan Procurement Management
Stakeholder Management Plan	Plan Stakeholder Management
Change Management Plan	Develop Project Management Plan
Configuration Management Plan	Develop Project Management Plan
Scope Baseline	Create WBS
Schedule Baseline	Develop Schedule
Cost Baseline	Determine Budget
Performance Measurement Baseline	Develop Project Management Plan
Project Life Cycle Description	Develop Project Management Plan
Development Approach	Develop Project Management Plan

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Expert Judgement

- One of the most common tools in the planning process
- Includes hiring an expert or subject matter expert (SME) to help you to plan a process or conduct a process
- People with specialized knowledge or training in a particular process, industry, or technology

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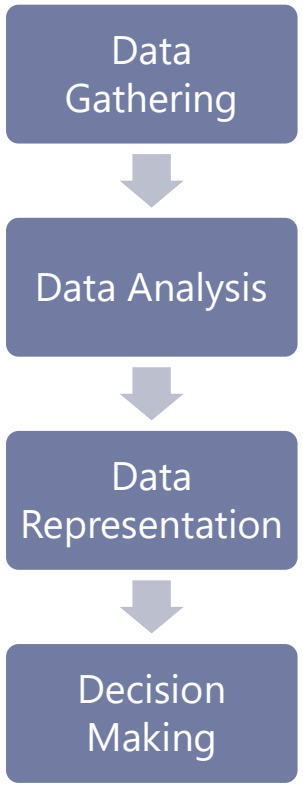
Data Gathering, Data Analysis, Data Representation, Decision Making



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Data Gathering

- Gather data about a particular process that you're working on
- On certain processes, you will need to gather additional data before coming up with an output for that process
- Methods:
  - **Brainstorming:** Brainstorming is when you bring together a group of stakeholders to get ideas and analyze them. Brainstorming sessions are generally facilitated by the project manager.
  - **Interviews:** Any time you want to gather data from a particular stakeholders, one of the best methods is to just interview them. Ask them a series of questions and talk with them about their thoughts and views.
  - **Focus groups:** A focus group is when you bring together subject matter experts to understand their perspectives and how they would go about solving problems.
  - **Checklist:** A checklist is generally created by the organization and then given to potential stakeholders on a project for them to identify items they may want on a project, things they may not want on the project, and some success criteria they may have for the project.
  - **Questionnaires and surveys:** Questionnaires and surveys can be given to stakeholders to better understand what they may be looking for on a project and to better understand their needs.

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Data Analysis

- To analyze the data that has been gathered
- Methods:
  - **Alternative analysis:** Alternative analysis involves looking at different options or ways to accomplish something.
  - **Root cause analysis (RCA):** A root cause analysis is used to identify the main underlining reason for particular event.
  - **Variance analysis:** Variance analysis is used quite often to find the exact differences between different things.
  - **Trend analysis:** Trend analysis involves looking at data over a period of time to see if a particular trend is forming.

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Data Representation

- Illustrate different ways that a data could be shown to stakeholders
- Methods generally include the use of charts, matrixes, and different types of diagrams
- Examples:
  - Flowcharts
  - Fishbone diagrams
  - Histograms

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Decision Making

- Have to make a decision on what to do with that data
- Methods:
  - **Voting:** Voting is used by a group to determine whether to proceed, change, or reject something. Voting can be: majority wins, unanimity, where everyone agrees; or plurality, where a majority is not obtained but that decision is chosen.
  - **Multicriteria decision analysis:** This is when you make a table (matrix) that lists different types of criteria, and then evaluate an idea based on those criteria.
  - **Autocratic decision making:** This is when one person makes a decision for the entire team.

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Interpersonal and Team Skills

- All project managers need to have good interpersonal and team skills in order to manage the different stakeholders that will be on the project
- most important tool in real-life project management
- Methods:
  - **Active listening:** Active listening is understanding, acknowledging, and clarifying what others are saying to you.
  - **Conflict management:** Anytime you bring a team together, bound to have conflicts on that team.
  - **Facilitation:** Facilitation is the art of managing a group. This can include bringing the group together, generating ideas, solving problems, and dissipating the team.
  - **Meeting management:** Meeting management generally includes having an agenda, inviting the right stakeholders, setting a time limit, and following up with meeting minutes and action items.

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Meetings

- Meetings can be done face-to-face or virtually.
- Have an agenda and distribute it to all attendees before the meeting.
- Meetings must be timed, including having set start and finish times for topics and the entire meeting.
- Make sure that the meeting always stays on topic and does not go off topic.
- Ensure that all attendees have input to the topics.
- Distribute detailed meeting minutes once the meeting is complete.

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Project Management Information System (PMIS)

- Automated system that is used to help the project manager optimize the schedule or keep track of all the documents and the deliverables
- Usually the computer system that a given organization uses to manage its projects
- It should include all the software and hardware tools that we need to manage the project from start to finish
- Includes the work authorization system and the configuration management system

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Change Request

- Proposal to change a document, deliverable, or baseline
- Can include a request to add or remove work from the scope, finish the project faster, or complete the project more cheaply
- Implements
  - Corrective action: is something that's taken to ensure that the project gets back on track.
  - Preventive action: is something you put in place to ensure the project stays on track.
  - Defect repair is done to fix a broken component on a project, such as if network switch memory fails on a network upgrade project.

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Work Performance Data, Information, Report

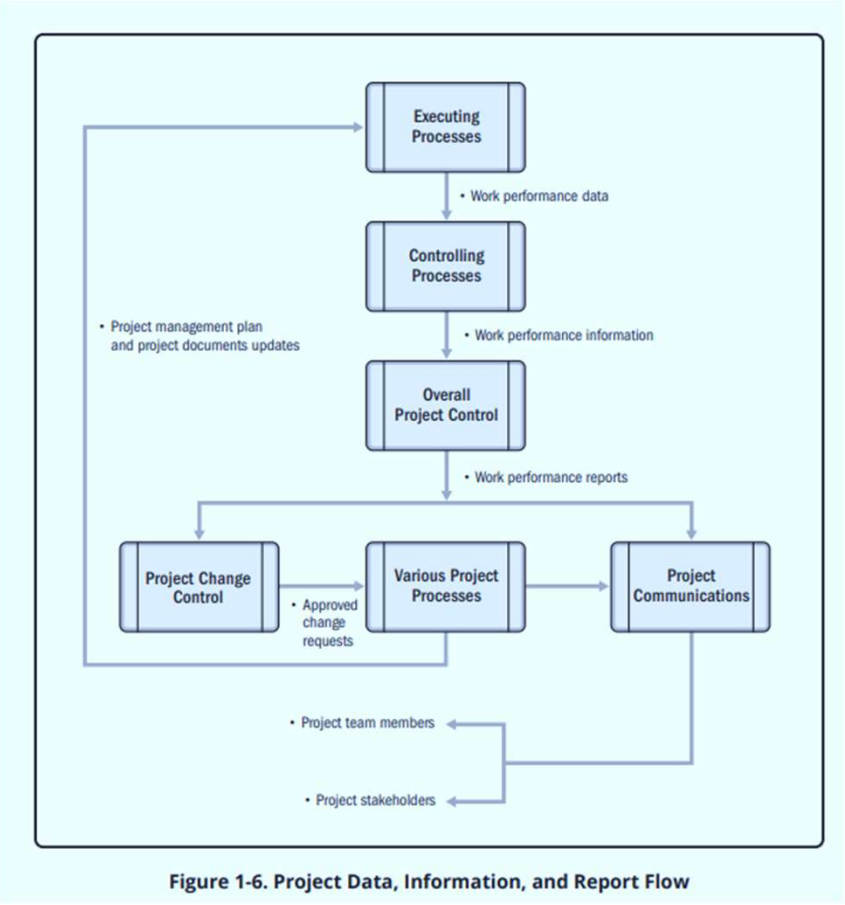

Figure 1-6. Project Data, Information, and Report Flow

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Work Performance Data

- Work performance data is simply raw data
- It is the status of the work that was done but does not have any analysis applied to it.
- It is not useful by itself.
- Usually outputs of executing processes

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Work Performance Information

- Information of the work that was performed compared to the plan
- It gives you actual status about the deliverables
- Work performance information is usually the output of most monitoring and controlling processes

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Work Performance Report

- overall status report of the actual project
- It takes all the work performance information and puts it together into one comprehensive document
- *You take the work performance data and compare it against the plan to come up with the work performance information. Then you take all the work performance information and create the work performance reports. In short, data feeds info and all the info creates reports.*

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Updates (Project Management Plan, Project documents, EEF, OPA)

- Updates is a catchall term
- Updates can include project documents, the project management plan, OPA and EEF updates
- Expect to see this output many times throughout the book