Project Quality Management

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- Project Quality Management includes the processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements in order to meet stakeholders' objectives.

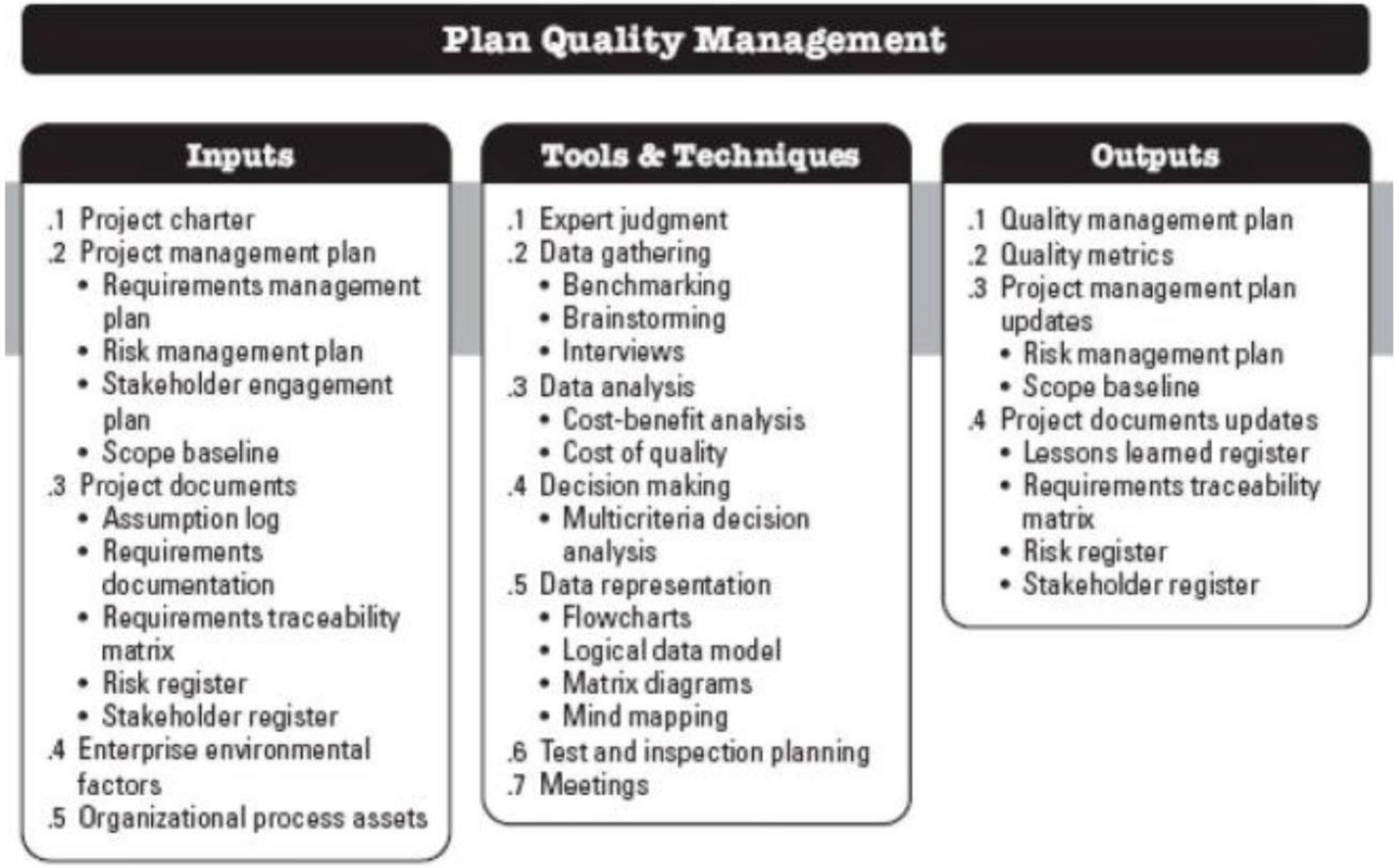
Processes of project quality management

1. Plan quality management

- Process of identifying quality requirements and/or standards for the project and its deliverables and documenting how the project will demonstrate compliance with quality requirements and/or standards.

- **Key benefit:** provides guidance and direction on how quality will be managed and verified throughout the project.

Plan quality management- Overview



Outputs

1.<u>Quality management plan</u> – It is a component of the project management plan that describes how applicable policies, procedures, and guidelines will be implemented to achieve the quality objectives.

It describes the activities and resources necessary for the project management team to achieve the quality objectives set for the project.

- i. Quality standards that will be used by the project
- ii. Quality objectives of the project
- iii. Quality roles and responsibilities
- iv. Project deliverables and processes subject to quality review
- v. Quality control and quality management activities planned for the project
- vi. Quality tools that will be used for the project
- vii. Major procedures relevant for the project, such as dealing with nonconformance, corrective actions procedures, and continuous improvement procedures.

Outputs

2.Quality metric - describes a project or product attribute and how the Control Quality process will verify compliance to it.

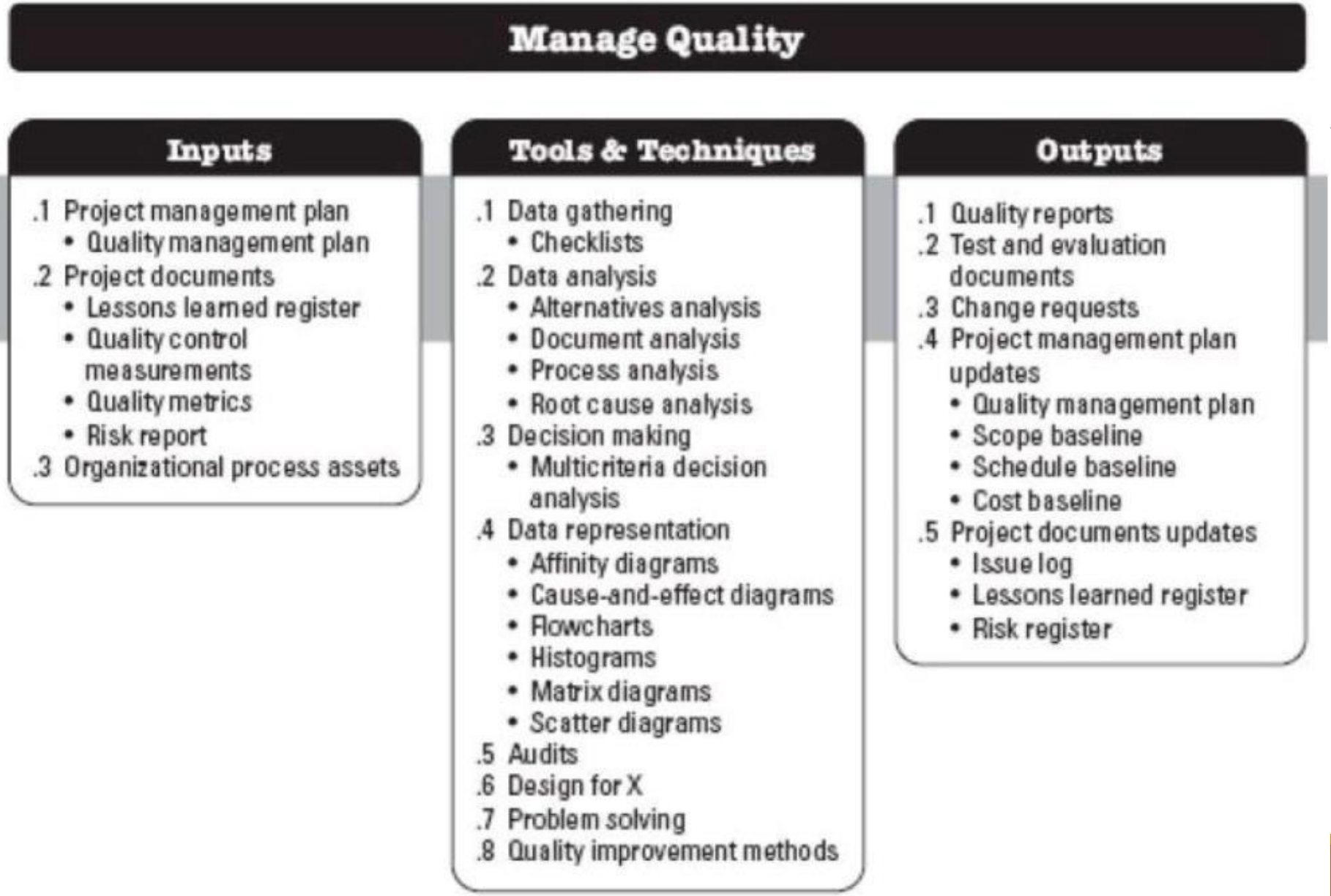
examples of quality metrics:

- percentage of tasks completed on time
- cost performance
- failure rate
- number of defects identified per day
- total downtime per month
- errors found per line of code
- customer satisfaction scores

2. Manage quality

- Process of translating the quality management plan into executable quality activities that incorporate the organization's quality policies into the project.
- **Key benefit:** it increases the probability of meeting the quality objectives as well as identifying ineffective processes and causes of poor quality.

Manage quality- Overview



Tools and Techniques

1. Audit

- An audit is a structured, independent process used to determine if project activities comply with organizational and project policies, processes, and procedures.
- A quality audit is usually conducted by a team external to the project, such as the organization's internal audit department, PMO, or by an auditor external to the organization.
- Quality audit objectives may include but are not limited to:
  - i. Identifying all good and best practices being implemented
  - ii. Identifying all nonconformity, gaps, and shortcomings

Tools and Techniques

2. Design for excellence

- Design for excellence (Design for X, DfX) is a set of technical guidelines that may be applied during the design of a product for the optimization of a specific aspect of the design.
- DfX can control or even improve the product's final characteristics.
- Ex: Design for Reliability (DfR), Design for Safety (DfS), Design for Cost (DfC)

Outputs

Quality report

- Quality reports can be graphical, numerical, or qualitative.
- The information provided can be used by other processes and departments to take corrective actions in order to achieve the project quality expectations.

3. Control quality

- Process of monitoring and recording results of executing the quality management activities in order to assess performance and ensure the project outputs are complete, correct, and meet customer expectations.
- **Key benefit**: verifying that project deliverables and work meet the requirements specified by key stakeholders for final acceptance