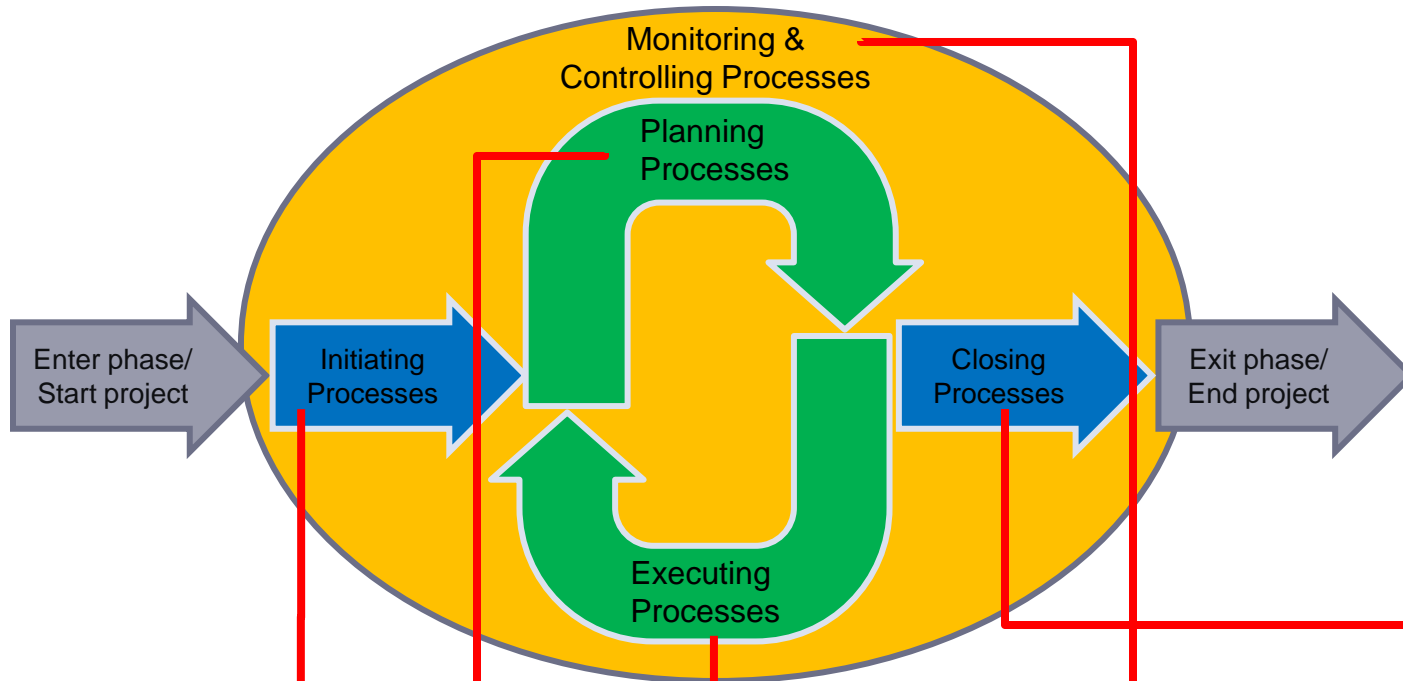BY: AHMED ABBAS

PROJECT MANAGEMENT

# PROJECT INTEGRATION MANAGEMENT

# PROJECT INTEGRATION MANAGEMENT



| Knowledge Area | Process | | | | |
|---|---|---|---|---|---|
| | **Initiating** | **Planning** | **Executing** | **Monitoring & Contol** | **Closing** |
| Integration | • Develop Project Charter | • Develop Project Management Plan | • Direct and Manage Project Execution | • Monitor and Control Project Work<br>• Perform Integrated Change Control | • Close Project |

Labels within diagram:
- Monitoring & Controlling Processes
- Planning Processes
- Enter phase/ Start project
- Initiating Processes
- Closing Processes
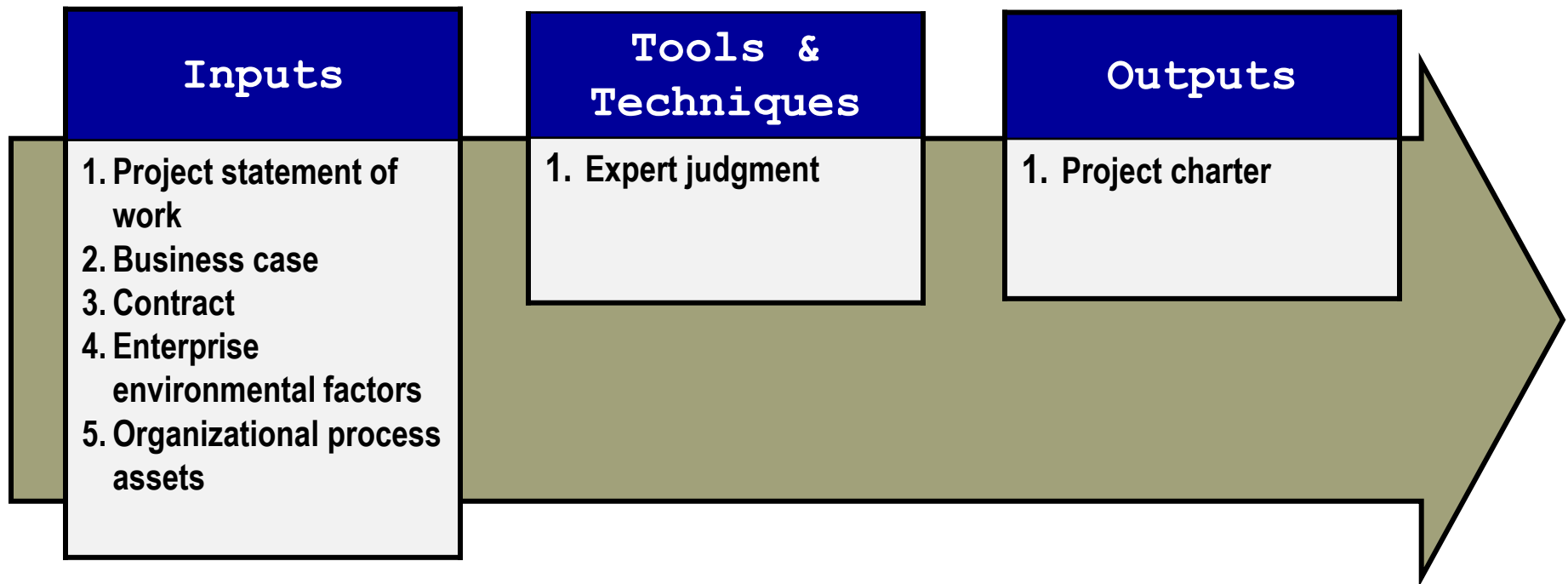- Exit phase/ End project
- Executing Processes

# PROJECT INTEGRATION MANAGEMENT

**Process and activities needed to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups.**

# 4.1 DEVELOP PROJECT CHARTER

**The process of developing a document that formally authorizes a project or a phase and documenting initial requirements that satisfy the stakeholder's needs and expectations**

| Inputs | Tools & Techniques | Outputs |
|---|---|---|
| 1. Project statement of work<br>2. Business case<br>3. Contract<br>4. Enterprise environmental factors<br>5. Organizational process assets | 1. Expert judgment | 1. Project charter |

# DEVELOP PROJECT CHARTER (INPUT)

**Project are authorized by someone external to the project such as sponsor, PMO, portfolio steering committee.**

**Project charter can be created by them or delegated to Project Manager.**

**Statement of Work (SOW)**

- A narrative description of products or services to be delivered by the project.
- The SOW references:
    - Business need
    - Product scope description
    - Strategic plan

**Business case**

» Provide the necessary information from business standpoint to determine whether or not the project is worth the required investment.

# PROJECT SELECTION

**Refer to Project Selection Slides >>>>>**

# PROJECT SELECTION – ECONOMIC MODELS

You just need to understand the following **concepts**

**Present value (PV):** **The value today of future cash flows**

$$PV = \frac{FV}{(1+r)^n}$$

*FP = future value*
*r = interest rate*
*n = number of time period*

**Net present value (NPV):** **Project with positive & greater NPV value is better**

**Internal rate of return (IRR):** **Project with greater IRR value is better**

**Payback period:**

- The number of time periods it takes to recover your investment in the project before you start accumulating profit.

**Benefit-cost ratio:**

- compares the benefits to the costs of different options
- relates to costing projects and to determining what work should be done
- Project with greater benefit-cost ratio value is better

# PROJECT SELECTION – IMPORTANT TERMS

**Economic Value Added (EVA):**

- concerned with whether the project returns to the company more value than it costs.

**Opportunity Cost:**

- the opportunity given up by selecting one project over another

**Sunk Costs:**

- Are expended costs
- Should not be considered when deciding whether to continue with a troubled project.

**Lay of Diminishing Returns:**

- after a certain point, adding more input/resource will not produce a proportional increase in productivity

# PROJECT SELECTION – IMPORTANT TERMS

**Working Capital**

- current assets minus current liabilities for an organization or
- amount of money the company has available to invest

**Depreciation**

- **Straight line depreciation**
  - The same amount of depreciation is taken each year.

- **Accelerated depreciation**
  - Depreciates faster than straight line
  - Two forms: (1) Double Declining Balance, (2) Sum of the Years Digits

# DEVELOP PROJECT CHARTER (TOOLS & TECHNIQUES, OUTPUT)
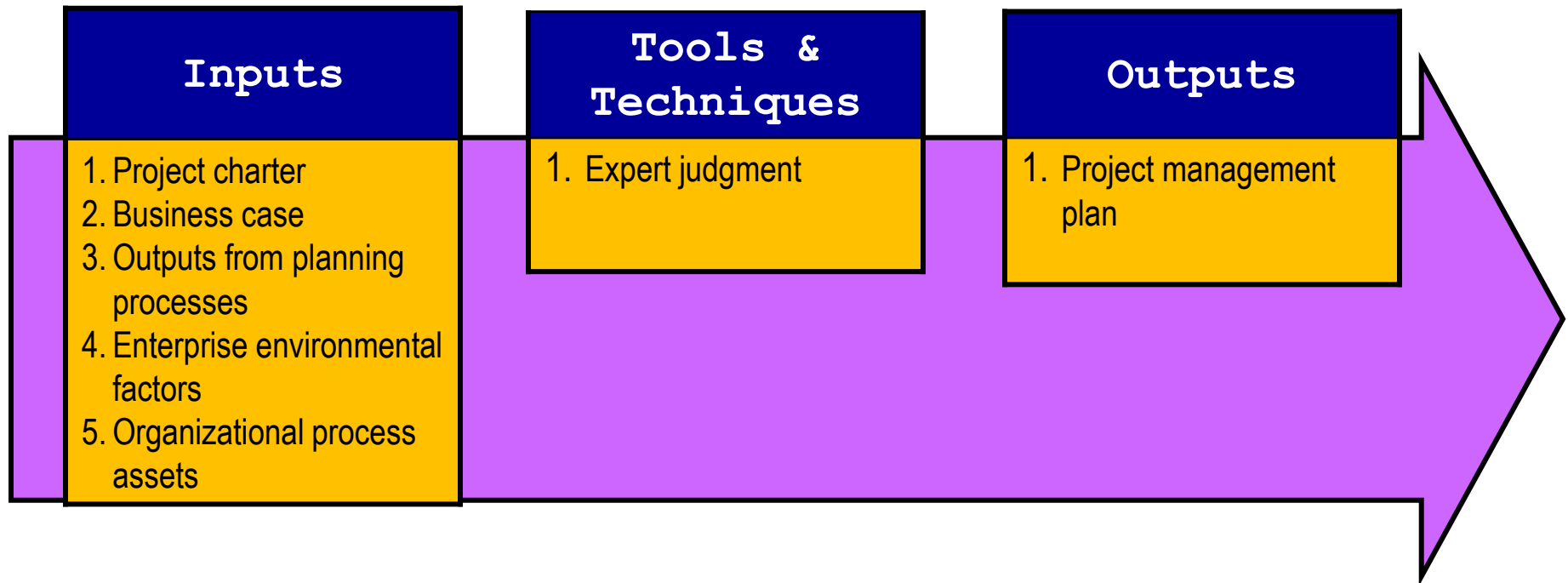
## Expert Judgment, includes:

– Other unit within organization

– Consultants

– Stakeholders including customer or sponsor

– Subject matter experts

– PMO

– Industry groups

– Professional & technical association

## Project Charter, includes:

- Project purpose or justification,
- Measurable project objectives and related success criteria,
- High-level requirements,
- High-level project description,
- High-level risks,
- Summary milestone schedule,
- Summary budget,
- Project approval requirements
- Assigned project manager, responsibility, and authority level
- Name and authority of the sponsor or other person(s) authorizing the project charter.

# 4.2 DEVELOP PROJECT MANAGEMENT PLAN

**The process of documenting the actions necessary to define, prepare, integrate and coordinate all subsidiary plans.**

| Inputs | Tools & Techniques | Outputs |
|---|---|---|
| 1. Project charter<br>2. Business case<br>3. Outputs from planning processes<br>4. Enterprise environmental factors<br>5. Organizational process assets | 1. Expert judgment | 1. Project management plan |

# PROJECT MANAGEMENT PLAN (OUTPUT)

The strategy for managing the project and the processes in each knowledge area

Covers how you will define, plan, manage, and control  the project.

Also includes:

- Change management plan
- Configuration management plan
- Requirements management plan
- Process  improvement plan

How to handle a problem on a project?

» look at your management plan to see how you planned to handle such a problem.

# BASELINE (PERFORMANCE MEASUREMENT BASELINE)

**The project management plan contains scope, schedule, and cost baselines, against which the project manager will need to report project performance.**

**Baseline created during planning.**

- **Scope baseline**

  The project scope statement, work breakdown structure (WBS), and WBS dictionary

- **Schedule  baseline**

  The agreed-upon schedule, including  the start and stop  times

- **Cost baseline**

  The time-phased  cost budget

**Deviations from baselines are often due to incomplete risk identification and risk management.**

# CHANGE MANAGEMENT PLAN

**Describes how changes will be managed and controlled.**

**Covers for the project as whole**

**May includes:**

- Change control **procedures** (how and who)
- The **approval** levels for authorizing changes
- The creation of a **change control board** to approve changes
- A plan outlining **how changes will be managed and controlled**
- Who should **attend meetings** regarding changes
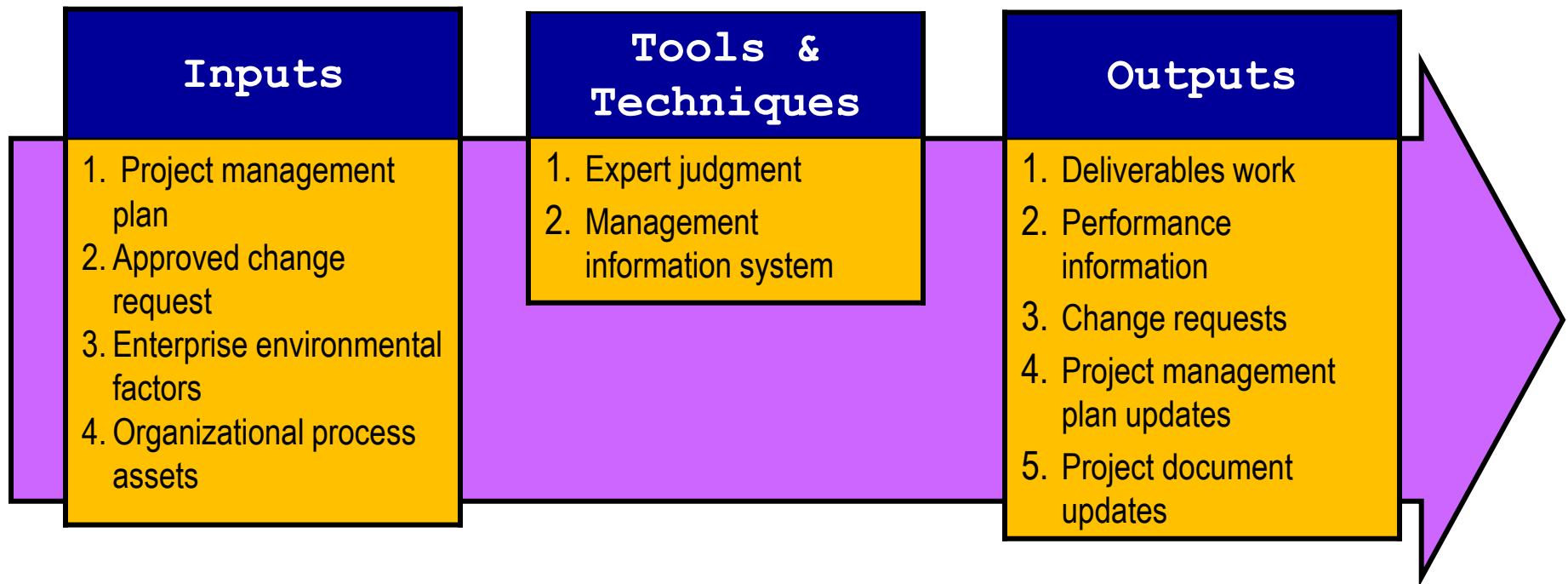- **Tools** to use to track and control changes

**Each knowledge area are described in the individual management plans**

# CONFIGURATION MANAGEMENT PLAN

**Defines how you will manage changes to the deliverables and the resulting documentation, including which organizational tools you will use**

# 4.3 DIRECT & MANAGE PROJECT EXECUTION

**The process of performing the work defined in the project management plan to achieve the project's objectives.**

## Inputs

1. Project management plan
2. Approved change request
3. Enterprise environmental factors
4. Organizational process assets

## Tools & Techniques

1. Expert judgment
2. Management information system

## Outputs

1. Deliverables work
2. Performance information
3. Change requests
4. Project management plan updates
5. Project document updates

# 4.4 MONITOR & CONTROL PROJECT WORK

**The process of tracking, reviewing, and regulating the progress to meet the performance objectives defined in the project management plan.**
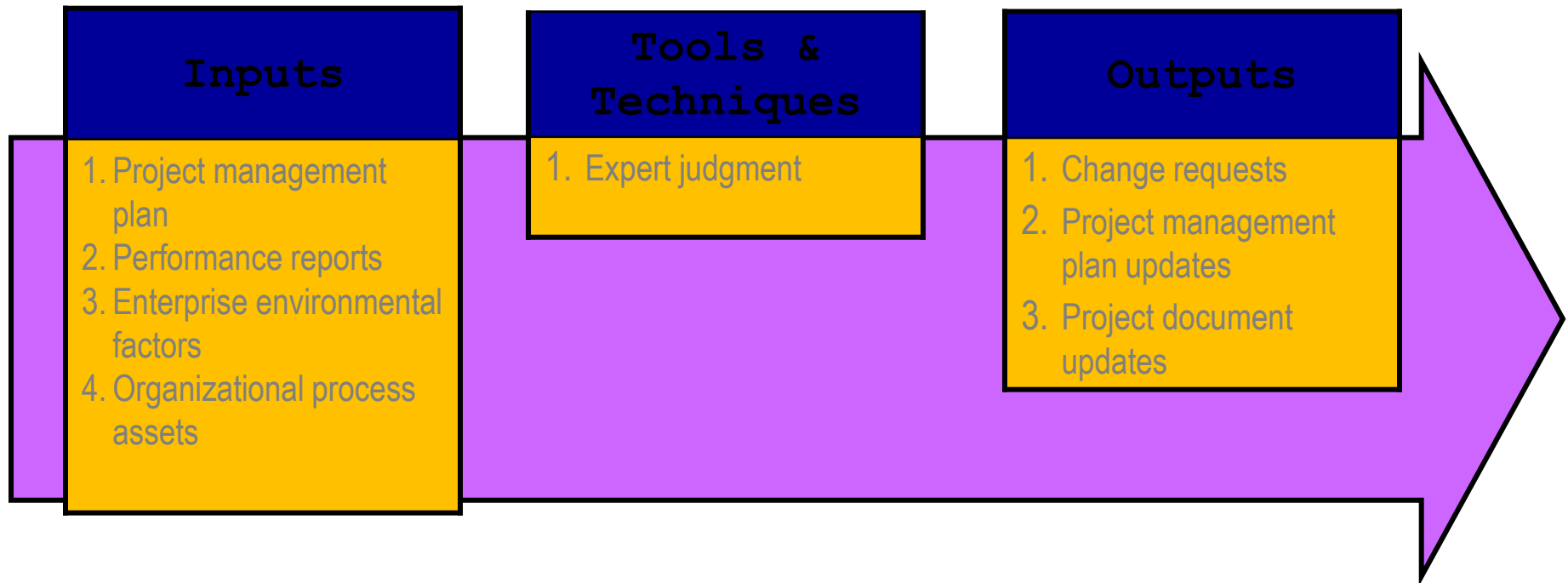
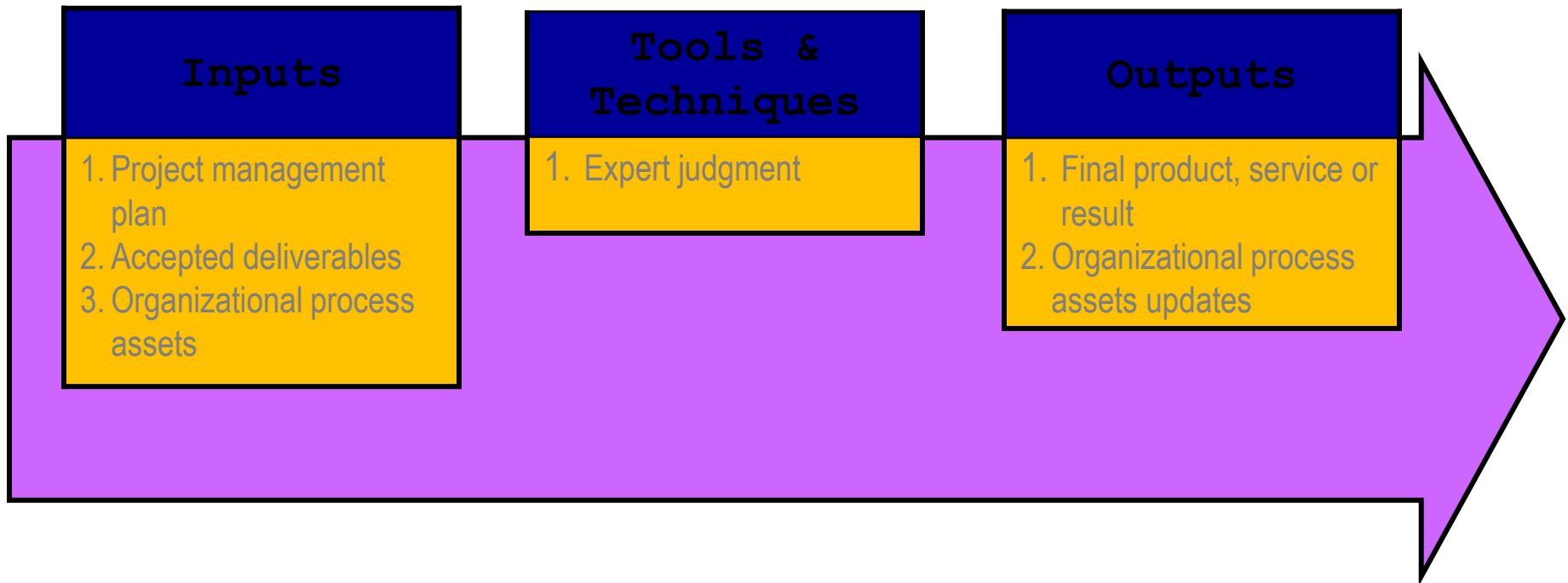| Inputs | Tools & Techniques | Outputs |
|--------|--------------------|---------|
| 1. Project management plan<br>2. Performance reports<br>3. Enterprise environmental factors<br>4. Organizational process assets | 1. Expert judgment | 1. Change requests<br>2. Project management plan updates<br>3. Project document updates |
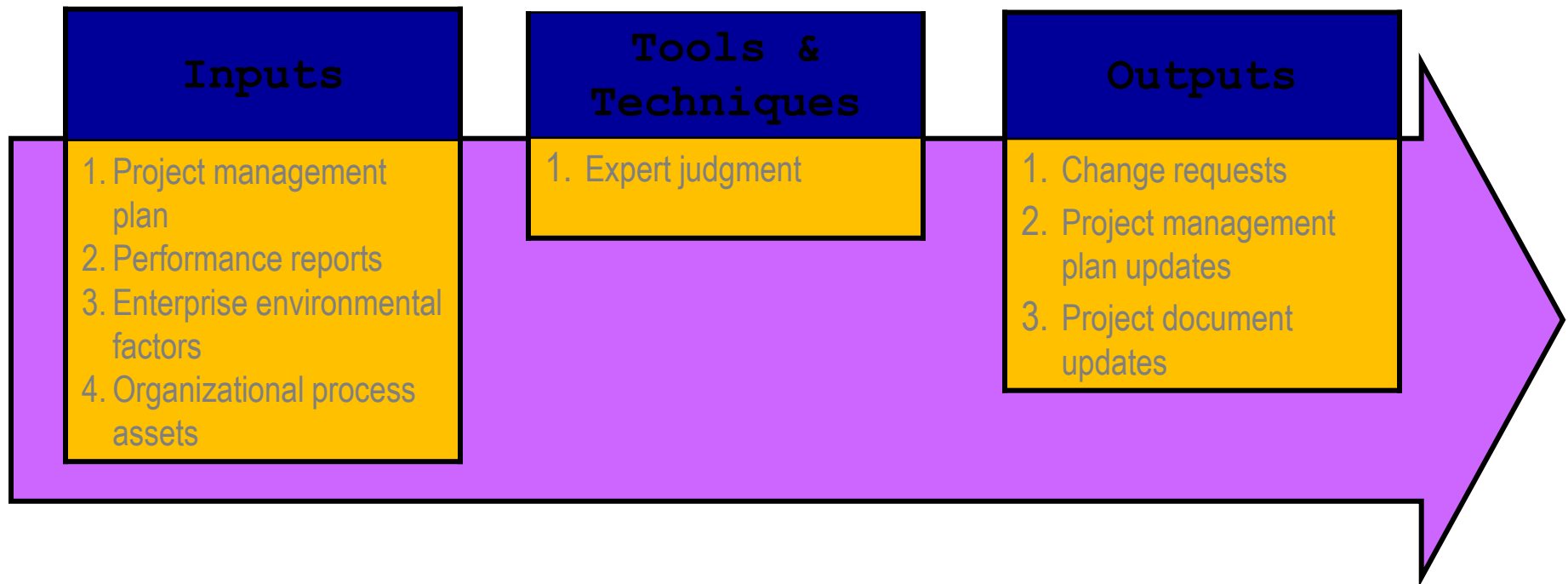
# 4.5 PERFORM INTEGRATED CHANGE CONTROL

**The process of reviewing all change requests, approving changes and managing changes to deliverables, organizational process assets, project documents and the project management plan.**

| Inputs | Tools & Techniques | Outputs |
|---|---|---|
| 1. Project management plan<br>2. Performance reports<br>3. Enterprise environmental factors<br>4. Organizational process assets | 1. Expert judgment | 1. Change requests<br>2. Project management plan updates<br>3. Project document updates |

# 4.6 CLOSING PROJECT OR PHASE

**The process of of finalizing all activities across all of the Project Management Process Groups to formally complete the project or phase.**

## Inputs

1. Project management plan
2. Accepted deliverables
3. Organizational process assets

## Tools & Techniques

1. Expert judgment

## Outputs

1. Final product, service or result
2. Organizational process assets updates

# NEXT TOPIC:
# PROJECT SCOPE MANAGEMENT

# Thank You