



#5 Project scope

PMBOK 5 Ed. – DEI-

Scope = binocular



Focus and clear sight



**More manageable
And focus!**

**what work is or is not included
in a project**



Unclear scope leads to conflict
Unsatisfaction and fail



the same
understanding of
what products
what processes

How??

Plan scope

Collect requirement

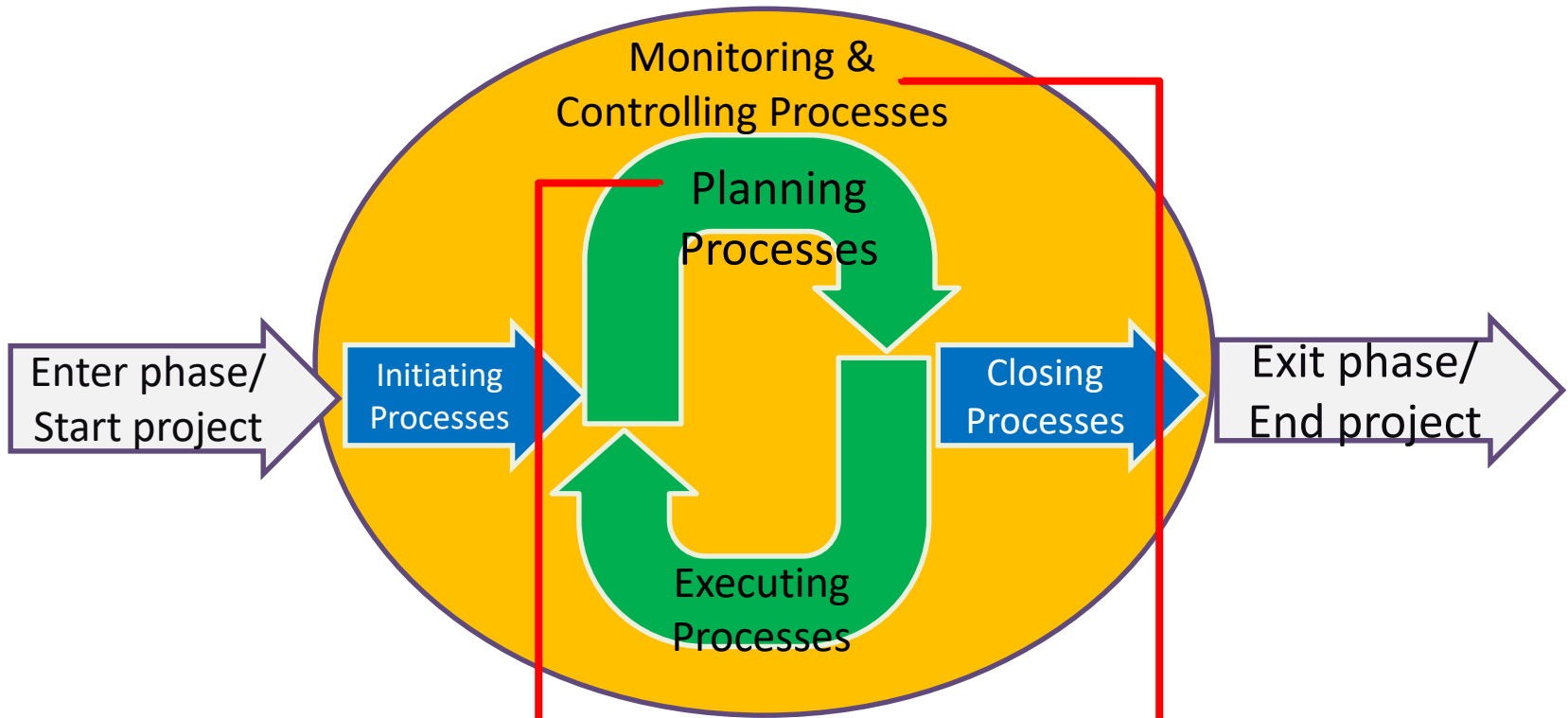
Define scope

Create WBS

Validate scope

Control scope



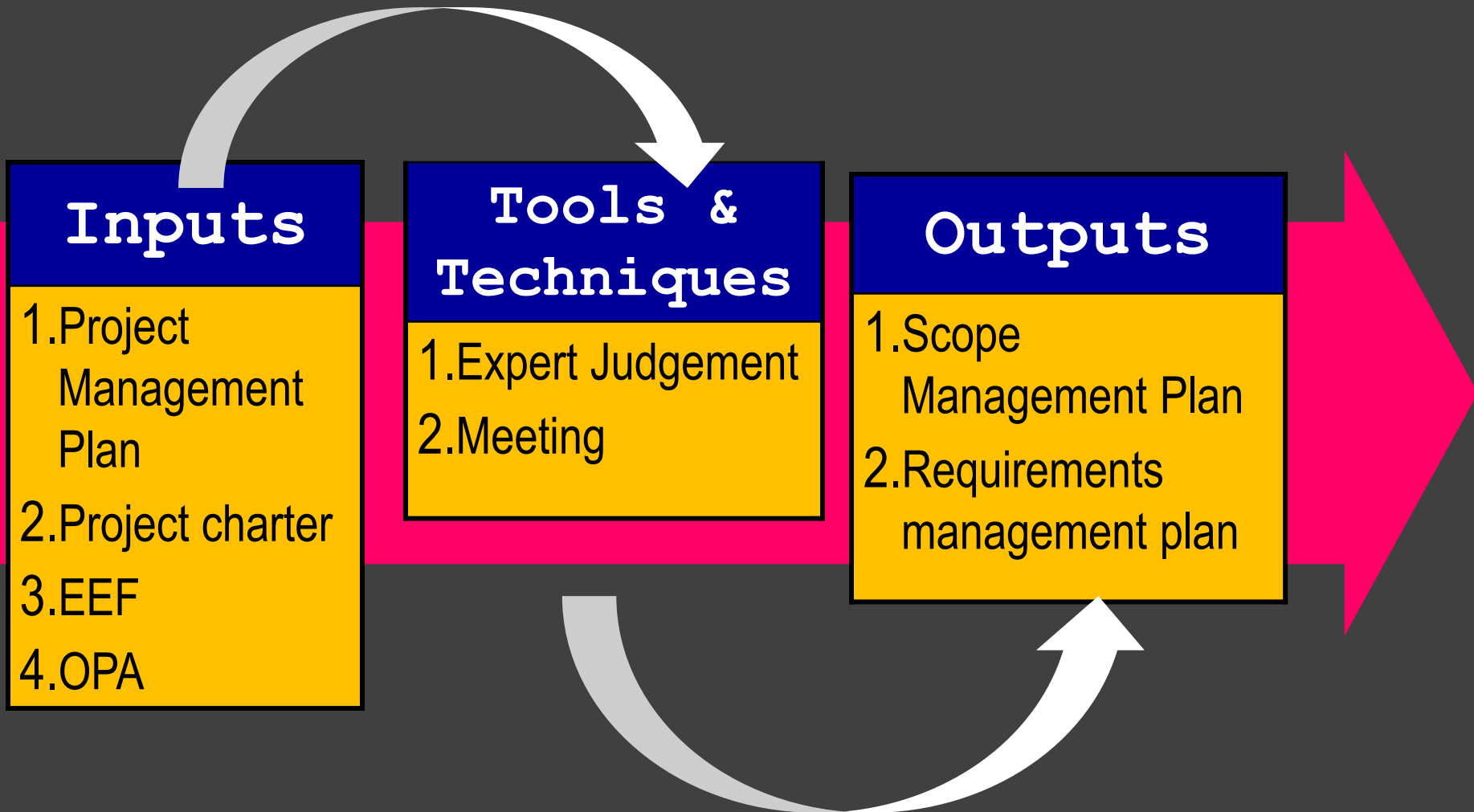


Knowledge Area	Process				
	Initiating	Planning	Executing	Monitoring & Control	Closing
Scope		Plan Scope Collect Requirements Define Scope Create WBS		Verify Scope Control Scope	



PLAN SCOPE MANAGEMENT

“Define the proces how scope and requirement will be elaborated”



Scope Management Plan



Product scope (Feature)
Process making product

Scope Management Plan

A grayscale background image showing a close-up of a person's hand holding a silver pen, poised to write on a document. The hand is in the lower-left quadrant, and the pen is angled towards the center. The background is slightly blurred, showing what appears to be a person's torso in a light-colored shirt.

Process making SOW, WBS

Process making WBS approval
and project deliverable

Process controlling change
request

A grayscale photograph of a meeting table. In the center, a laptop is open, displaying a bar chart. To the left, a person's hand is visible, holding a pen over a document. Another document with a bar chart is on the left. In the foreground, there are two glasses of water. The background shows a wooden table and a person's arm in a white shirt. A yellow banner is overlaid across the middle of the image.

Requirement Management Plan

Process how the requirement will be elaborated, ranked and measured



**COLLECT
REQUIREMENT**

**“Defining and documenting the features
and functions of the products**

Tools & Techniques

1. Interviews
2. Focus groups
3. Facilitated workshops
4. Group creativity techniques
5. Group decision making techniques
6. Questionnaires and surveys
7. Observations
8. Prototypes
9. Bench marking
10. Context Diagram
11. Document Analysis

Inputs

1. Scope Management Plan
2. Requirements management plan
3. Project charter
4. Stakeholder management plan
5. Stakeholder register

Outputs

1. Requirements document
2. Requirements management plan
3. Requirements traceability matrix

INTERVIEW



Directly talk with major stakeholder

FOCUS GROUP DISCUSSION



**Interactive discussion with
qualified Stakeholders & Subject
matter experts**

FACILITATED WORKSHOP



Focused **cross functional stakeholders** e.g : QFD, JAD

Group creativity technique

brainstorming

Voting / ranking

Delphi technique

Mind mapping

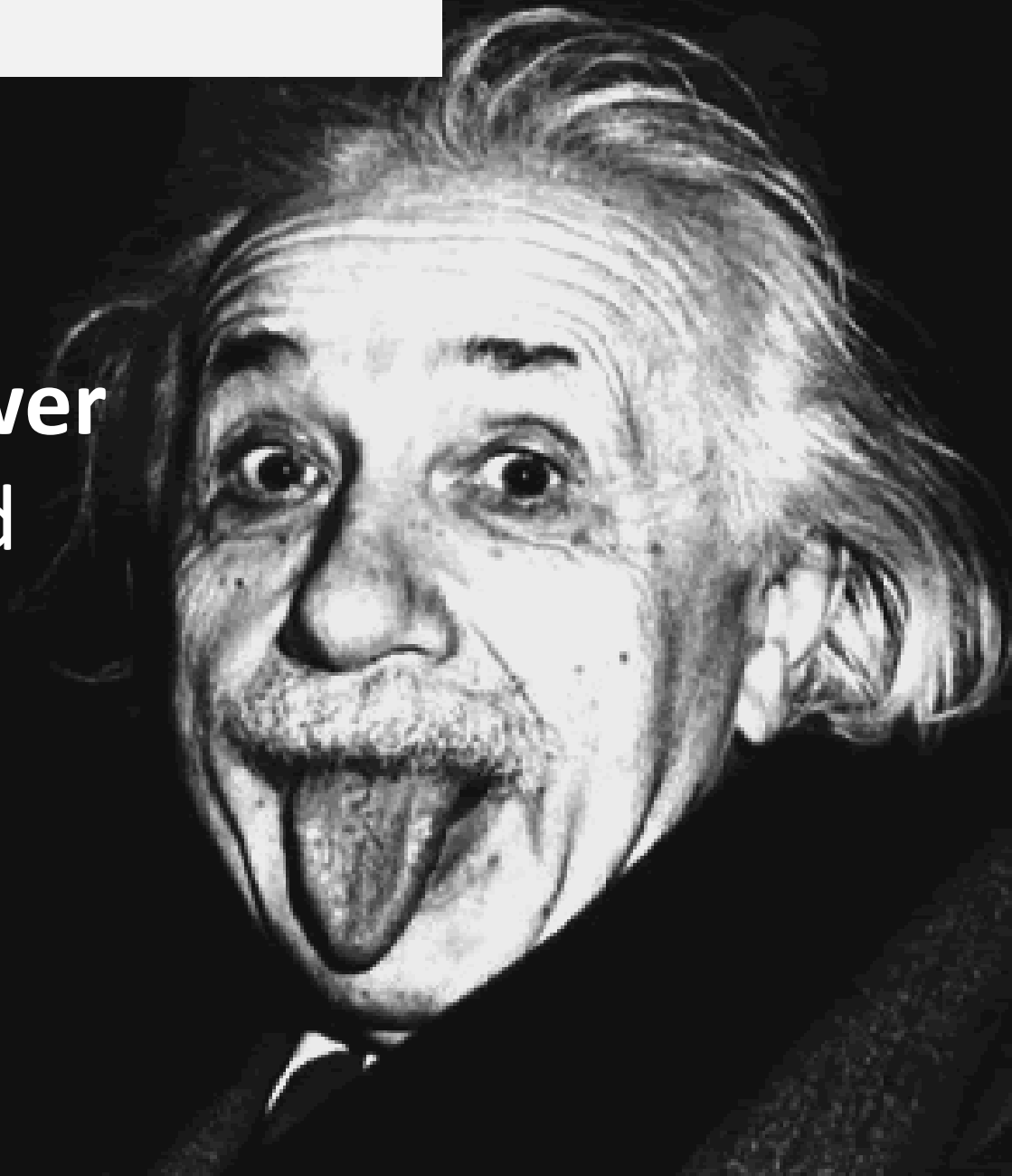
Afinity diagram

Multicriteria Decision



Delphi Technique

Some expert answer
questionnaire and
give **anonymity**
feedback





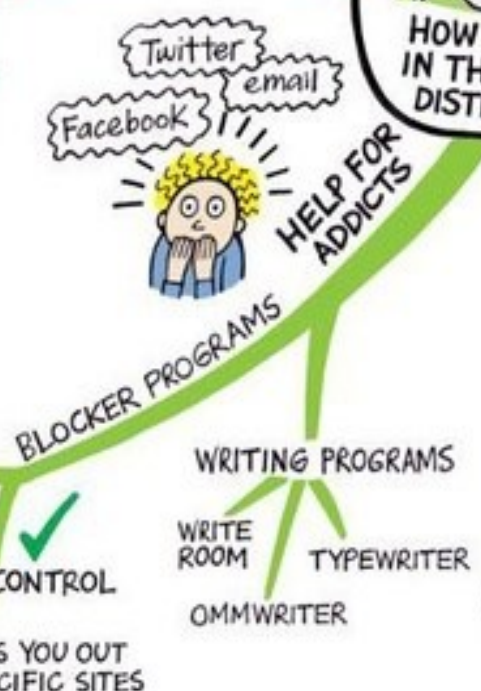
Afinity diagram

Sort idea into group





HOW TO FOCUS IN THE AGE OF DISTRACTION



Multicriteria analysis

Criteria	Weight	A		B		C	
W	40%	7	2,8	8	3,2	9	3,6
Y	20%	10	2	10	2	10	2
X	10%	8	0,8	7	0,7	4	0,4
C	10%	5	0,5	9	0,9	6	0,6
D	10%	8	0,8	7	0,7	5	0,5
D	10%	10	1	10	1	10	1
total	100%		7,9		8,5		8,1

GROUP DECISION TECHNIQUE

- **Unanimity** DELPHI TECHNIQUE
- **Majority (>50%),**
- **Plurality,** the largest block
- **Dictatorship**



**“something that is
not related to the
reason of project
created should be
rejected!”**



REQUIREMENT DOCUMENTATION

The requirements clear and unambiguous.

- Specific (Unambiguous)**
- Measurable (How will we know we have finished?)**
- Achievable (Can we do it?)**
- Relevant (Is it the right thing to do?)**
- Timed (When will we do it?)**





**-Stakeholder
requirement
Solution
requirement
Project
requirement**

REQUIREMENT DOCUMENTATION

Requirement no	Name	category	source	status
R.2	Information system for monitoring	software	Projet scope	Incomplete. Application should meet android req

REQUIREMENT TRACEABILITY MATRIX

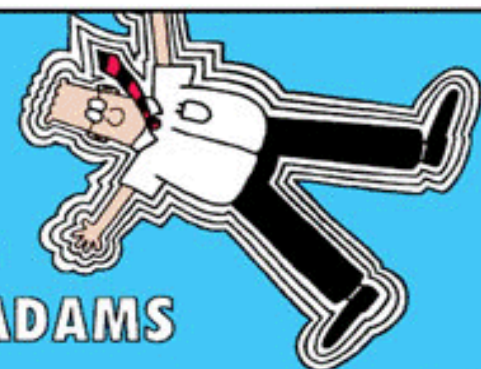
A black and white photograph of Charlie Chaplin in his iconic 'The Tramp' persona. He is wearing a bowler hat, a mustache, and a dark coat, and is playing a violin. The image is partially obscured by a red oval and a black text box.

DEFINE
SCOPE

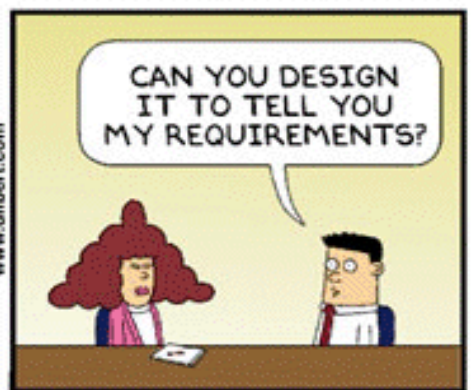
“Finalizing what we do
& create a **scope statement**”



DILBERT[®]



BY
SCOTT ADAMS



Inputs

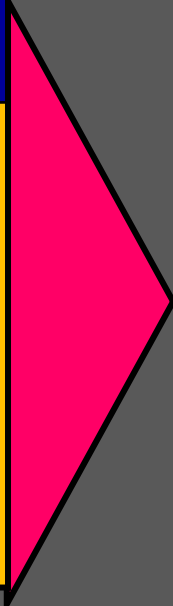
- 1.Scope Management Plan
- 2.Project charter
- 3.Requirements documentation
- 4.OPA

Tools & Techniques

- 1.Expert judgment
- 2.Product analysis
- 3.Alternatives Generation
- 4.Facilitated workshops

Outputs

- 1.Project scope statement
- 2.Project document updates



PRODUCT ANALYSIS

- **Description of the product** stated by the customer/sponsor and **turn them into tangible deliverables.**





HOW TO MAKE SCOPE STATEMENT??

DESCRIBE THE PRODUCT AND THE PROCESS



Feature

material

**Pull system or
push system**

...

...

etc

Measure the acceptance criteria



Functionality test, safety test etc

WHAT IS NOT PART OF THE PROJECT?



Customization, upgradable?

malfunction



Additional risk??

A close-up photograph of a person's hands, wearing a bright blue jacket, holding a red fuel nozzle. The nozzle is inserted into the fuel tank of a white car. The background is blurred, showing other cars and a gas station environment. The image is overlaid with two pink text boxes.

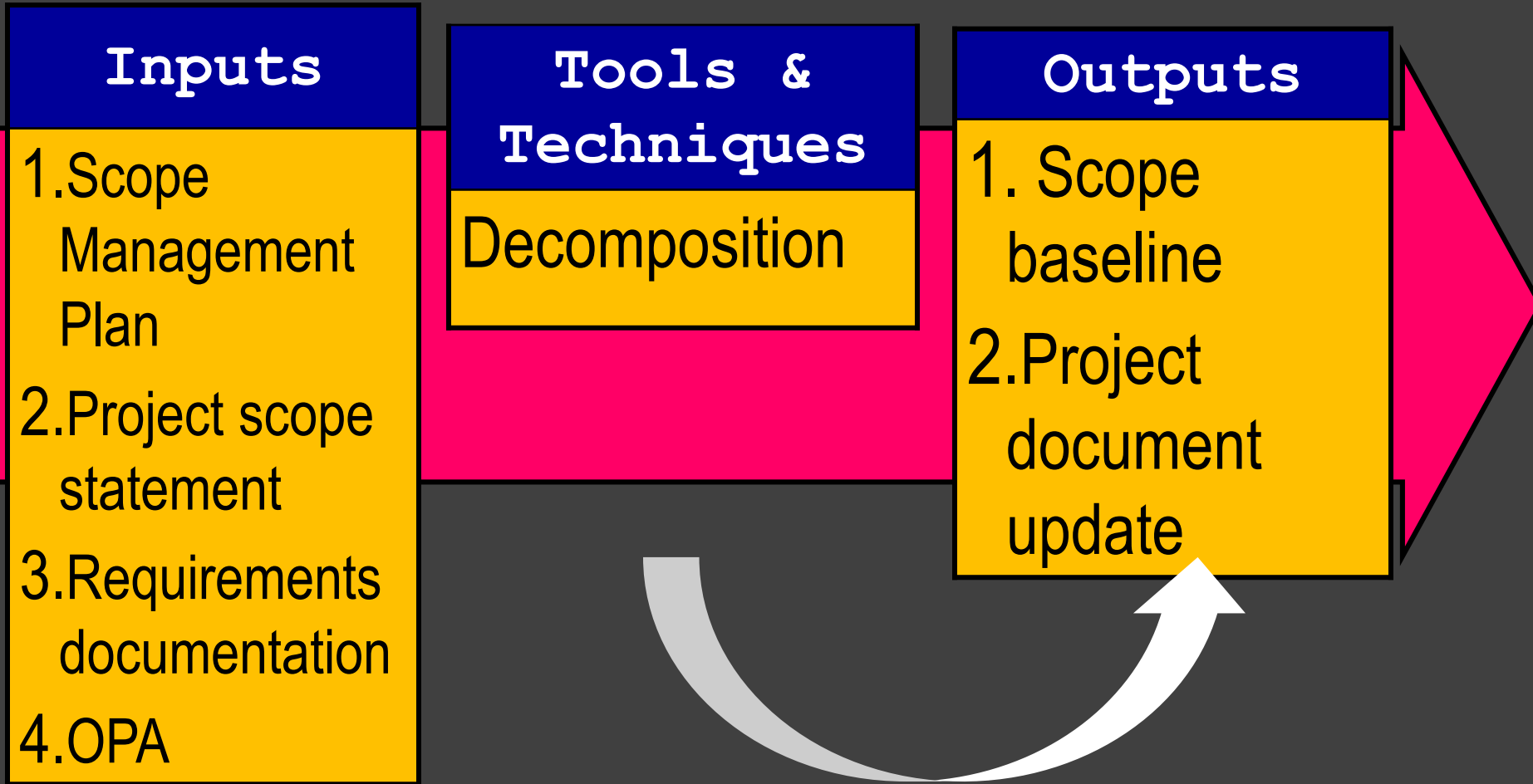
CONSTRAINTS AND ASSUMPTIONS

Pertamax? Premium?



CREATE WBS

“Subdividing the major project deliverables into smaller, more manageable”





- WBS does **not show dependencies**
- Work package: lowest level WBS

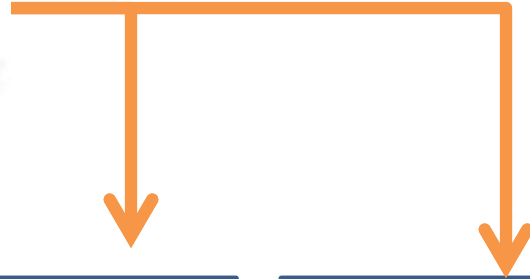
WBS Structure can be organized by

Phases

Major deliverables

**Subprojects e.g. contracted
work**





initiating

planning

executing

testing

feasibility

design

.....

safety

prototype

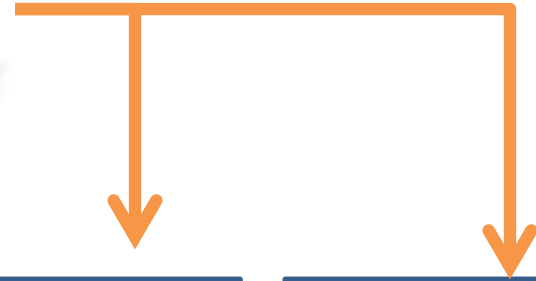
.....

.....

functionality

WBS grouped by phases

.....



Electrical

machine

chasis

mechanical

accu

Engine
type

design

transmision

.....

.....

.....

Gear ratio

.....

WBS grouped by deliverable



Comp. A

Comp B

Comp. C

Comp. D

design

electrical

chasis

mechanical

.....

.....

.....

.....

WBS grouped by sub. contractor

WBS dictionary

activity	description	responsible	cost
1. Electrical			
1.1...			
1.2			
2. Chasis			
2.1.			
2.2. ...			
3. machine			

more detailed components, e.g. description of work, responsible organization, acceptance criteria

**Beware of
excessive
decomposition!**
It can lead to
non-productive,
inefficient use of
resources



A black and white photograph of a construction worker wearing a hard hat, a denim jacket, and jeans, kneeling on a light-colored surface. He is holding a long metal tape measure horizontally across the floor. The background is plain white. Three semi-transparent colored boxes (red, blue, blue) are overlaid on the image, containing text.

Scope Baseline

Scope statement

WBS

WBS dictionary



VALIDATE SCOPE

“Formalizing acceptance of the project deliverables.”

Inputs

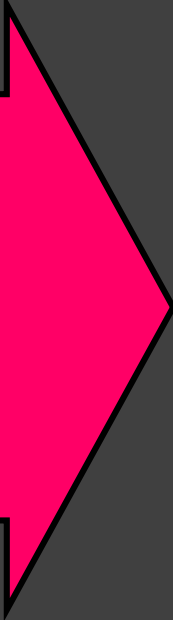
1. Project management plan
2. Requirements documentation
3. Requirement traceability matrix
4. Verified deliverables
5. Work performance data

Tools & Techniques

1. Inspection
2. Group decision-making techniques

Outputs

1. Accepted deliverables
2. Change requests
3. Work performance information
4. Project document updates



inspection



Measuring, examining, verifying to determine work and deliverables are **meet requirement** & product acceptance criteria with **OWNER**



CONTROL SCOPE

**“controlling changes to project scope
concerned with correctness of deliverables”**

Inputs

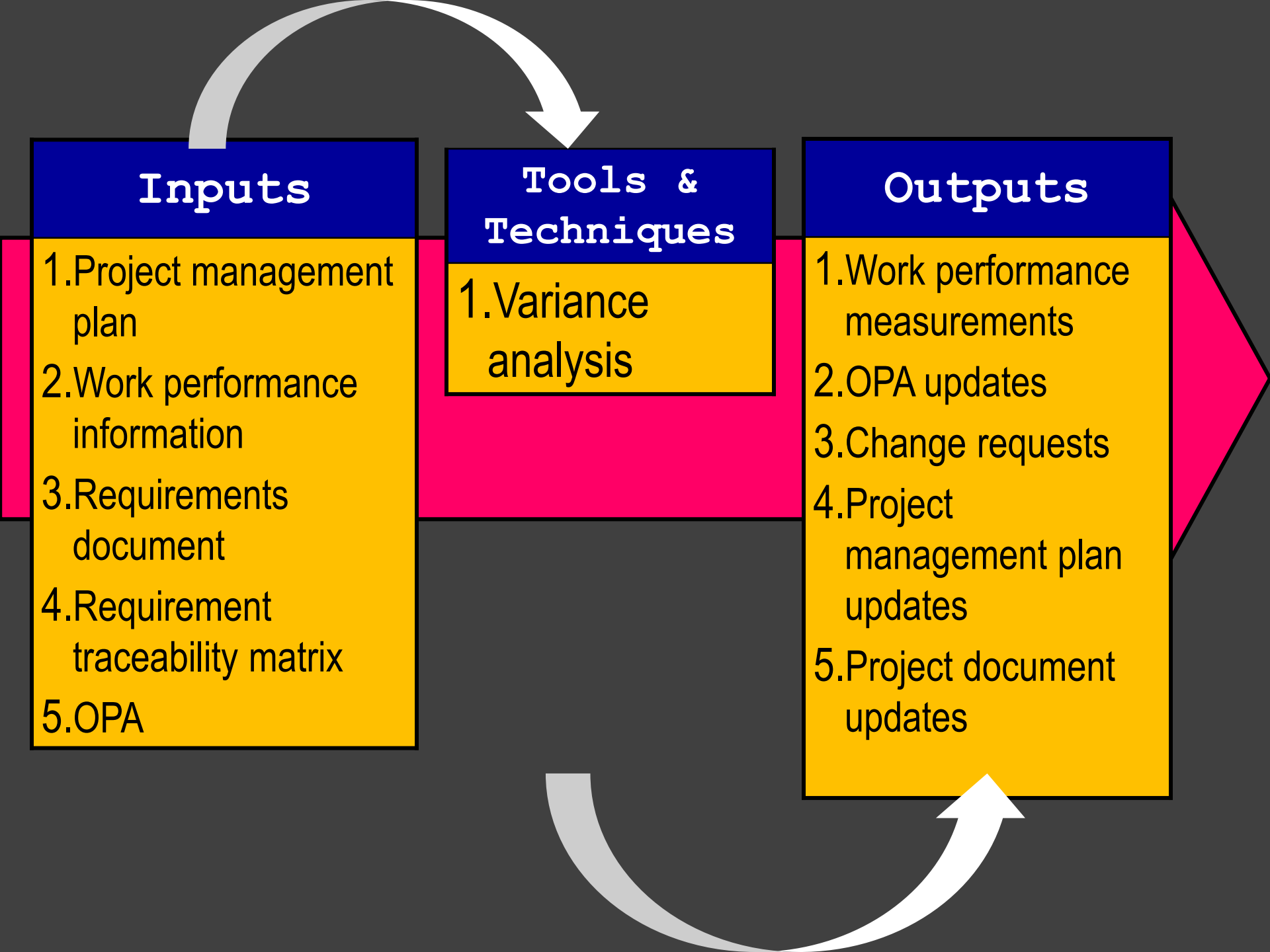
1. Project management plan
2. Work performance information
3. Requirements document
4. Requirement traceability matrix
5. OPA

Tools & Techniques

1. Variance analysis

Outputs

1. Work performance measurements
2. OPA updates
3. Change requests
4. Project management plan updates
5. Project document updates



Beware of
SCOPE CREEP!
AND GRANDIOSE
SCOPE

It can lead to
PROJECT FAIL



In 2001, McDonald initiated intranet project connect its headquarters

\$170 million on consultants and initial implementation planning,

McDonald's realized that the project was too much to handle and terminated it





**BEST
PRACTICE
MAKING
GOOD
SCOPE**



KEEP
THE SCOPE
REALISTIC
DONT TOO
LARGE

ASSIGNED
KEY USER
IN SCOPE
PLAN





PRIORITIZE
BUSINESS
NEED THAN
IT NEED

FOLLOW
GOOD
PROJECT
PRACTICE

