

PM

Project Cost Management

PROJECTS

- RETENIR L'ESSENTIEL & PREPARER LA CERTIFICATION
 - ✓ QUEL EST LE CONTENU DU PROJECT COST MANAGEMENT ?
 - ✓ QU'EST-CE QUE LE SIPOC PROJECT COST MANAGEMENT ?
 - ✓ QU'EST-CE QUE LE DATA FLOW DIAGRAM PROJECT COST MANAGEMENT ?
 - ✓ QU'EST-CE QUE L'EVM EARNED VALUE MANAGEMENT ?
 - ✓ QUELLES SONT LES NOTIONS ESSENTIELLES PROJECT COST MANAGEMENT ?
 - ✓ QUELS SONT LES TYPES DE QUESTIONS PROJECT COST MANAGEMENT ?

• PROJECT COST MANAGEMENT ?

TRENDS & EMERGING PRACTICES

- EVM – Earned Value Management
- Value Based Management
- Design to Cost
- Design to Value
- Analytic & Digitalization
- Agile & Lean approaches

PROJECT COST MANAGEMENT INCLUDES

- Project Costing
- Product Costing
- Resources & Activities Costing
- Costing Model, Methods & Tools
- Cost Optimisation

PROJECT COST MANAGEMENT PROCESSES

- Plan Cost Management
- Estimate Costs
- Determine Budget
- Control Costs



• LE SIPOC PROJECT COST MANAGEMENT ?

S

- Business Model & Case
- Project Charter
- WBS – PBS - OBS
- Requirements
- Activity List & Schedule
- Risk Register
- Quality Plan

Requirement ID	Requirements tested	Use case 1.1	Use case 1.2	Use case 1.3	Use case 1.4	
Test cases						
TCL1.1.1						
TCL1.2.1						
TCL1.2.2						
TCL1.2.3						

INPUTS

P

- COSTING METHODS
- COSTING TOOLS
- EVM –Earned Value Management

PMT

O

C

- Cost Base Model
- Business Case – CAPEX & OPEX
- Budget
- EVM System



OUTPUTS

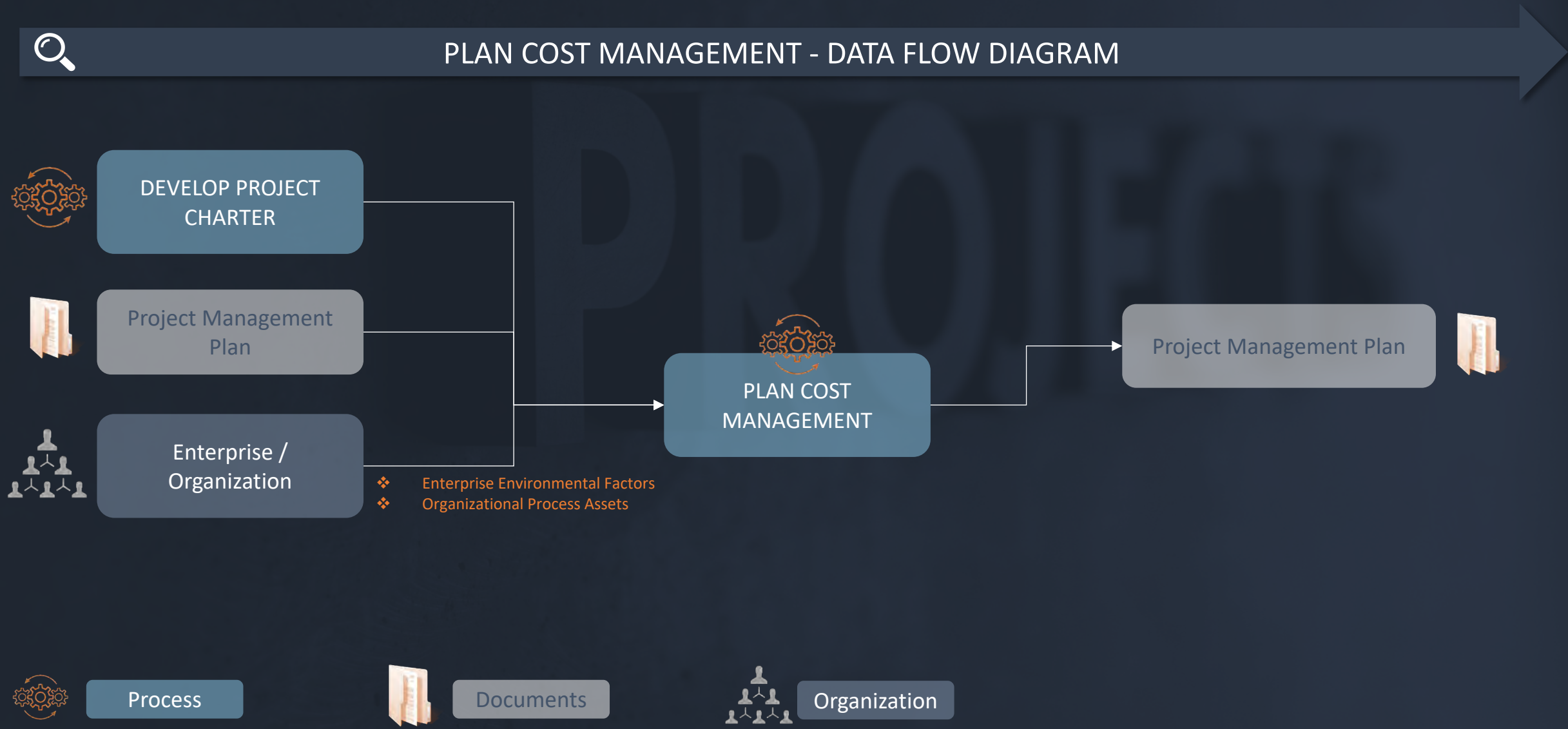
• LE DATA FLOW PROJECT COST MANAGEMENT

	Project Management Process Group				
	INITIATING	PLANNING	EXECUTING	MONITORING & CONTROLLING	CLOSING
Integration Management	Develop Project Charter	DEVELOP PROJECT MANAGEMENT PLAN	- Direct & Manage Project Work - Manage Project Knowledge	- Monitor & Control Project Work - Perform Integrated Change Control	Close Project or Phase
Scope Management		- Plan Scope Management - Collect Requirement - Define Scope - Create WBS		- Validate Scope - Control Scope	
Schedule Management		- Plan Schedule Management - Define Activities - Sequence Activities - Estimate Activities - Develop Schedule		Control Schedule	
Cost Management		- Plan Cost Management - Estimate Costs - Determine Budget		Control Costs	
Quality Management		Plan Quality Management	Manage Quality	Control Quality	
Resources Management		- Plan Resource Management - Estimate Activity Resources	- Acquire Resources - Develop Team - Manage Team	Control Resources	
Communication Management		Plan Communications Management	Manage Communications	Monitor Communications	
Risk Management		- Plan Risk Management - Identify Risks - Perform Qualitative Risk Analysis - Perform Quantitative Risk Analysis - Plan Risk Response	Implement Risk response	Monitor Risks	
Procurement Management		Plan Procurement Management	Conduct Procurement	Control Procurement	
Stakeholder Management	Identify Stakeholders	Plan Stakeholder Engagement	Manage Stakeholder Engagement	Monitor Stakeholder Engagement	

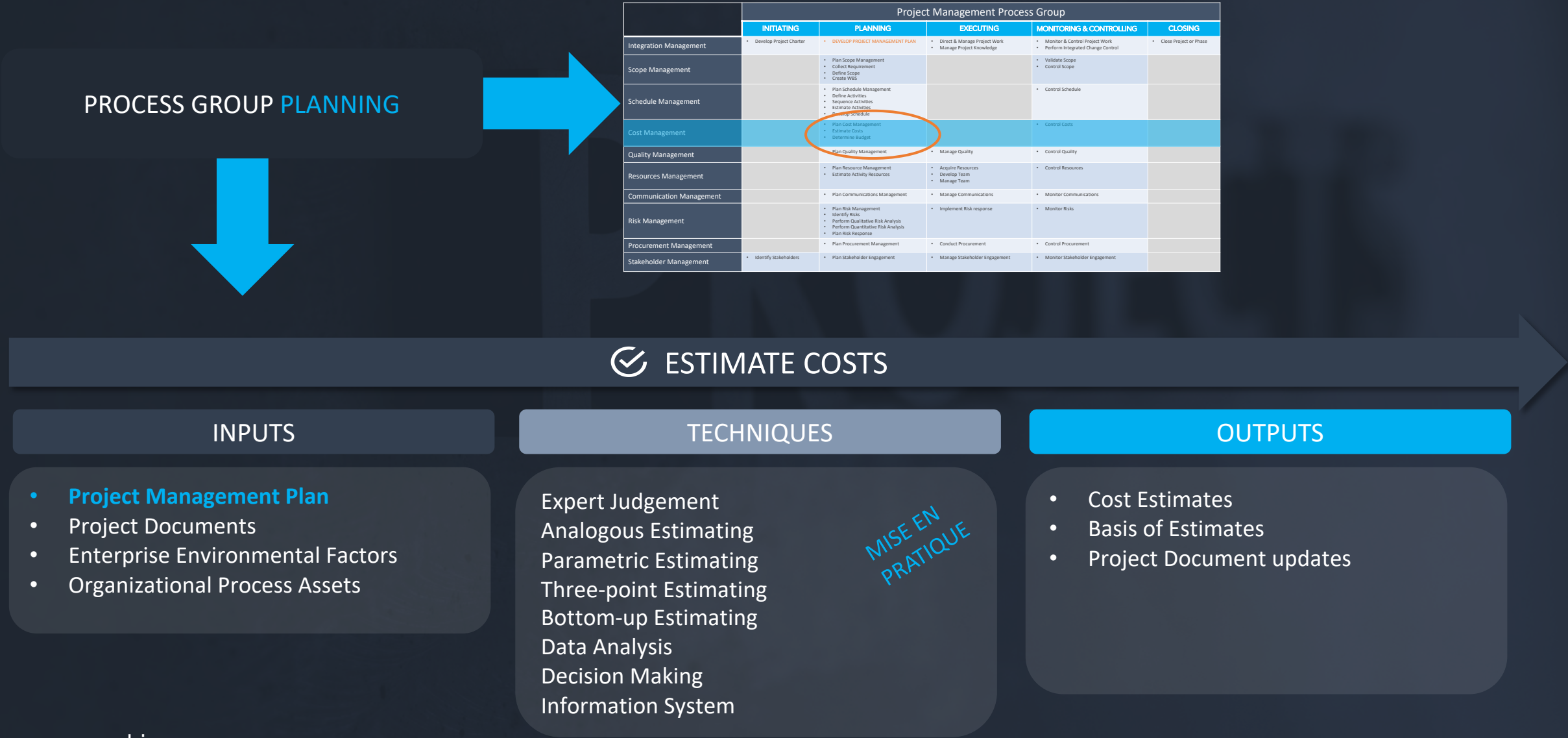
• LE DATA FLOW PROJECT COST MANAGEMENT



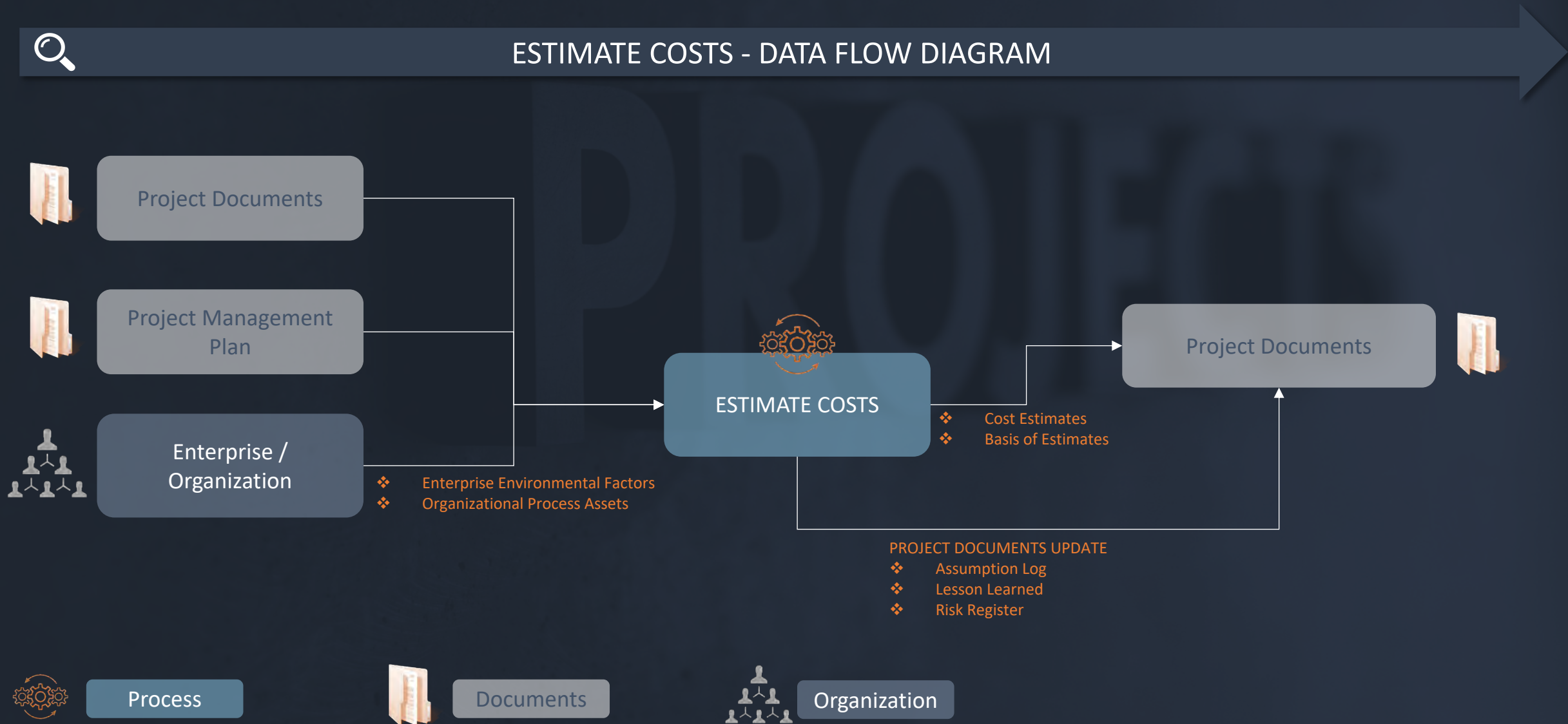
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Stakeholder Management	• Identify Stakeholders	• Plan Stakeholder Engagement	• Manage Stakeholder Engagement	• Monitor Stakeholder Engagement	

✓ DETERMINE BUDGET

INPUTS

- Project Management Plan
- Project Documents
- Business Documents
- Agreements
- Enterprise Environmental Factors
- Organizational Process Assets

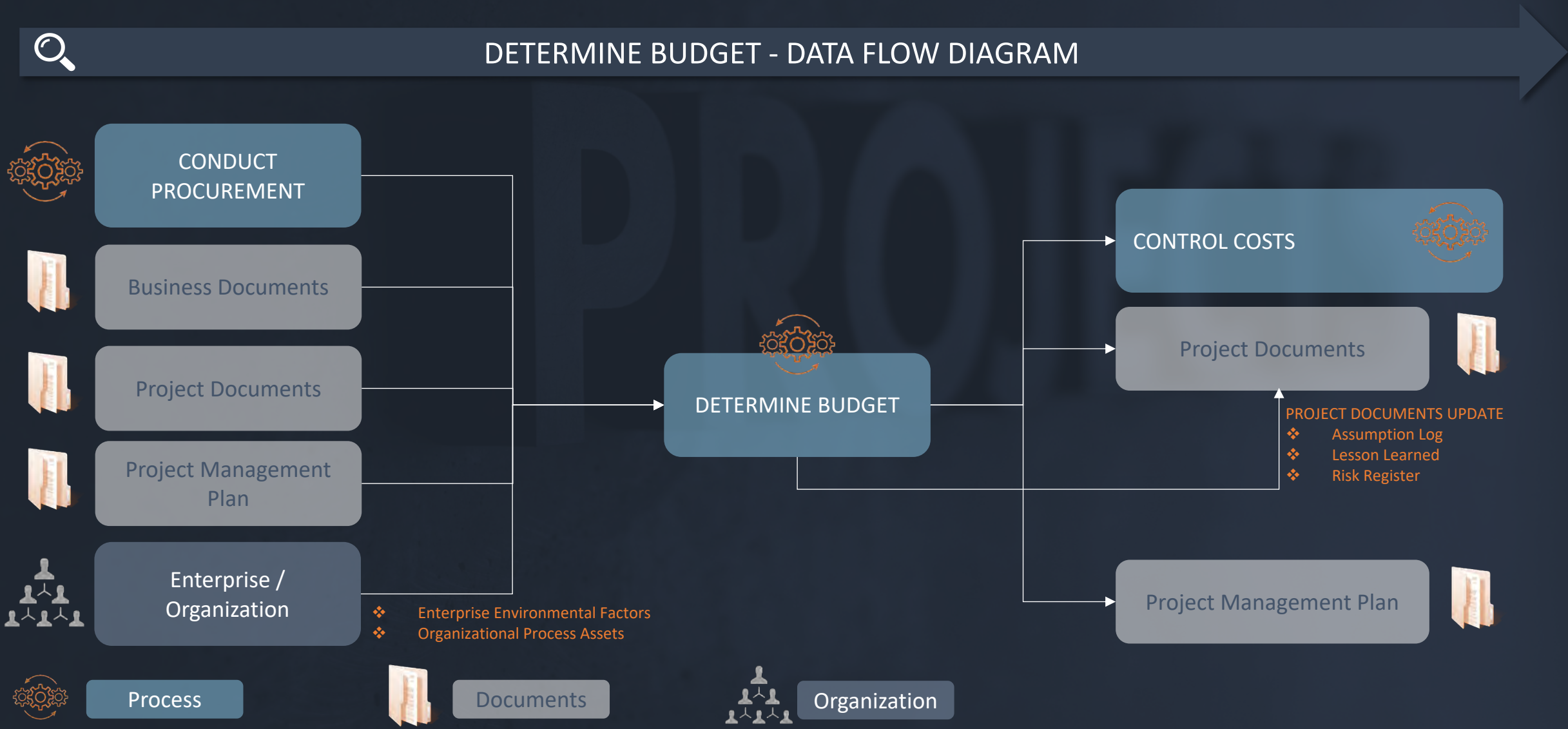
TECHNIQUES

- Expert Judgement
 - Cost aggregation
 - Data Analysis
 - Historical information review
 - Funding limit reconciliation
 - Financing
- MISE EN PRATIQUE

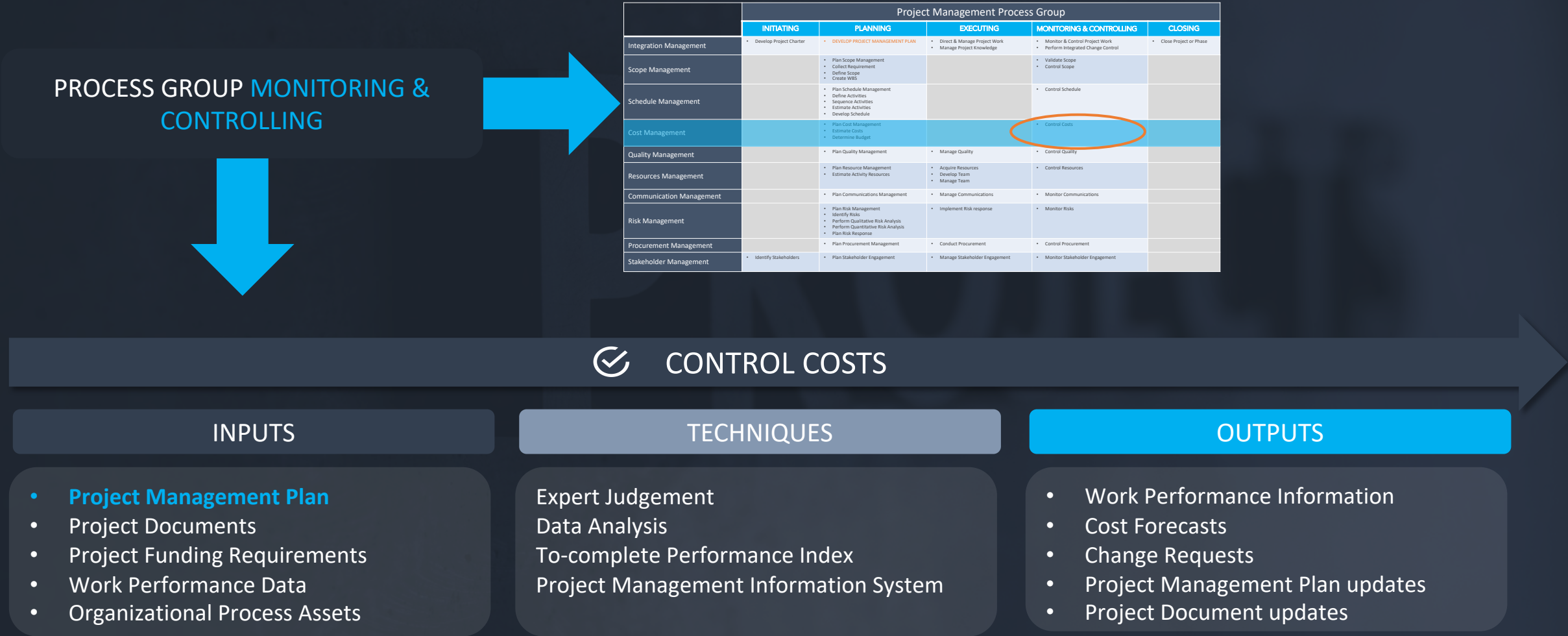
OUTPUTS

- Cost Baseline
- Project Funding Requirements
- Project Documents updates

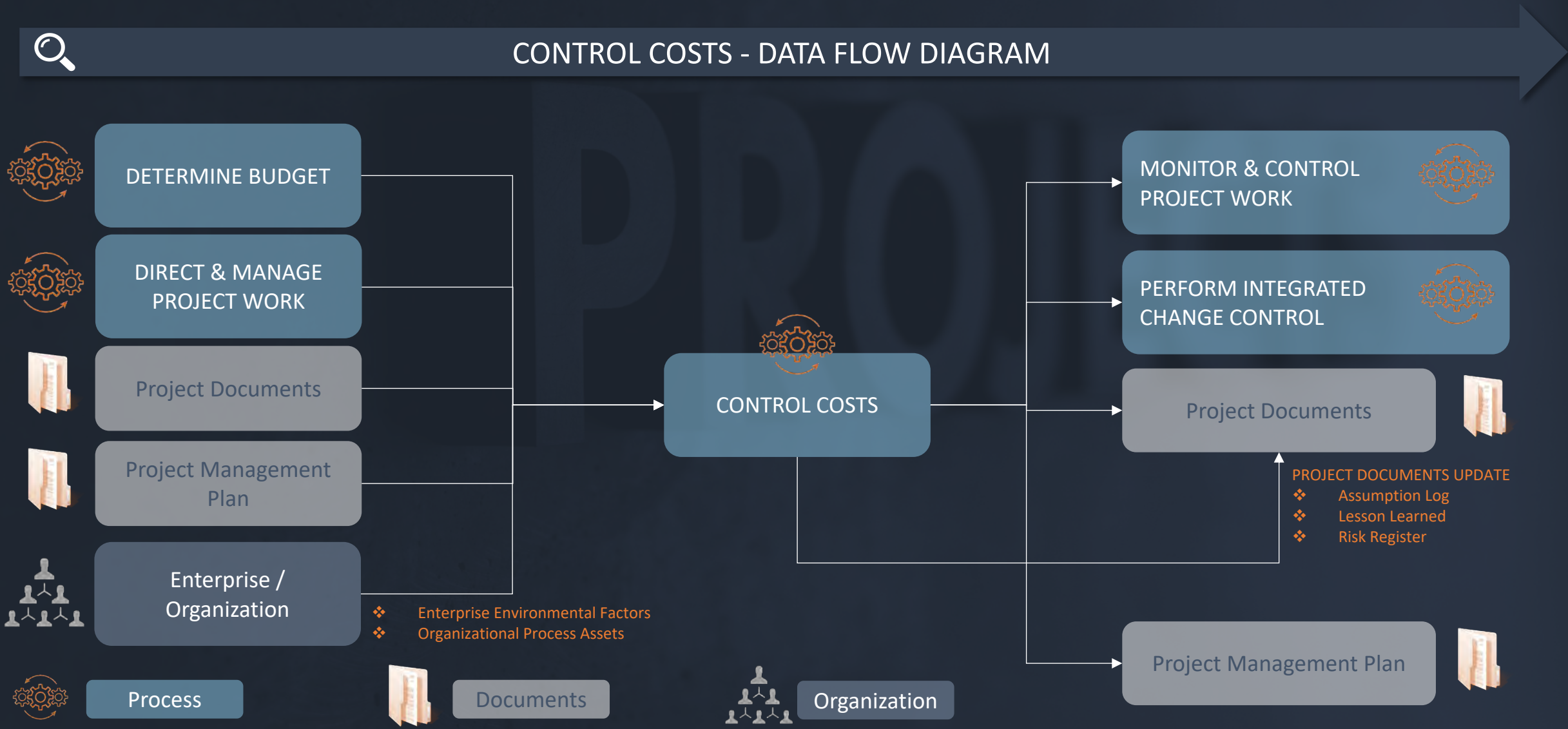
• LE DATA FLOW PROJECT COST MANAGEMENT



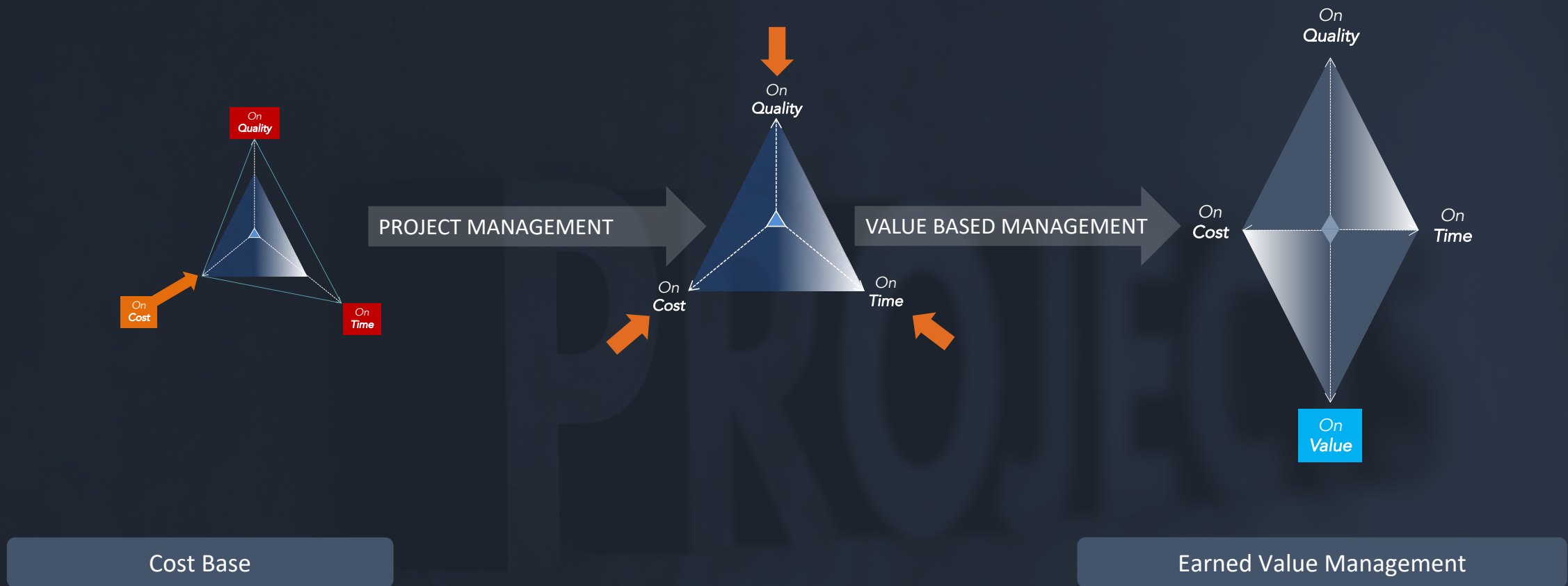
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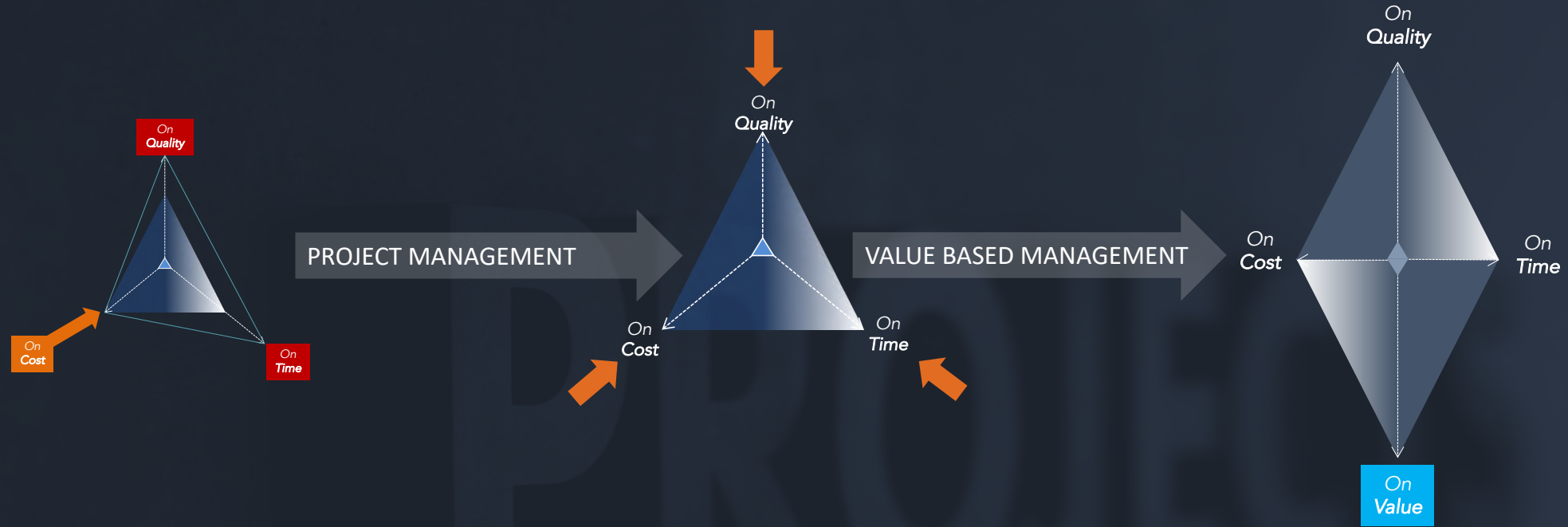
• EVM EARNED VALUE MANAGEMENT



Value Based Management



• EVM EARNED VALUE MANAGEMENT



Example of building 10 Electric Bicycles, each has a value of US\$1000 expected to be completed in 10 weeks :

Planned Value (PV) : The budgeted value of the work completed so far at a specific date

⚙ **example:** at end of week 4, 4 Electric Bicycles should be completed, the **PV** is US\$4000

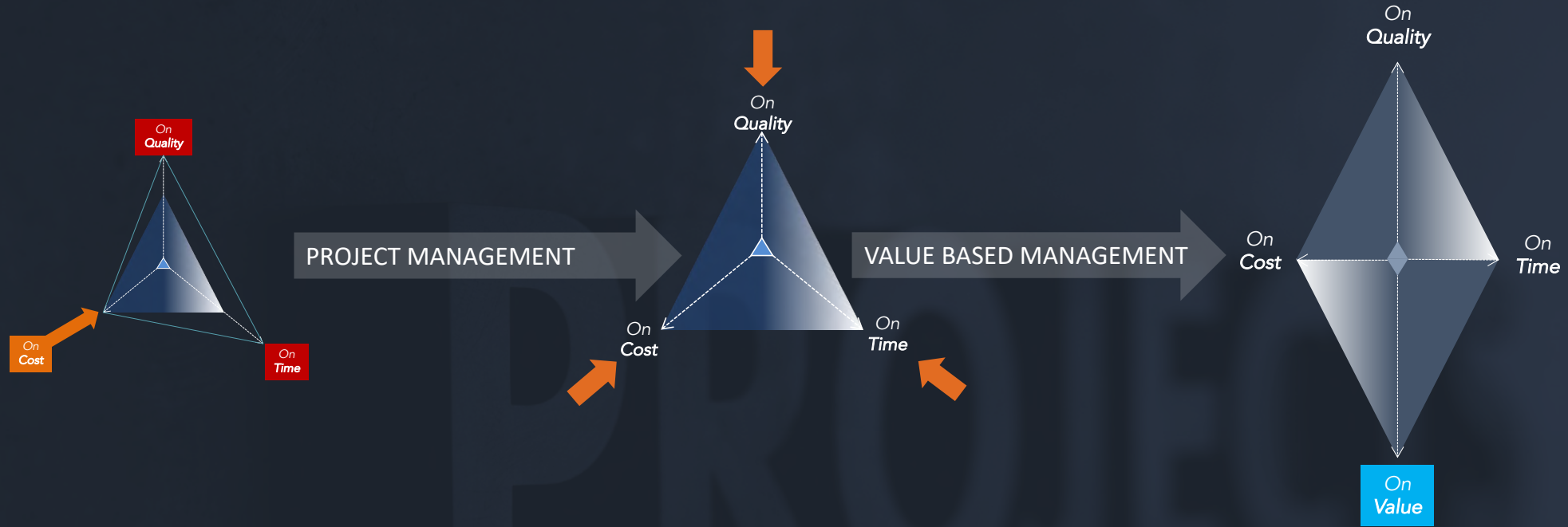
Earned Value (EV) : The actual value of the work completed so far at a specific date

⚙ **example:** by end of week 4, only 3 Electric Bicycles are completed, the **EV** is US\$3000

Actual Cost (AC) : The total expenditure for the work so far at a specific date

⚙ **example:** by end of week 4, US\$4000 was spend, the **AC** is US\$4000

• EVM EARNED VALUE MANAGEMENT



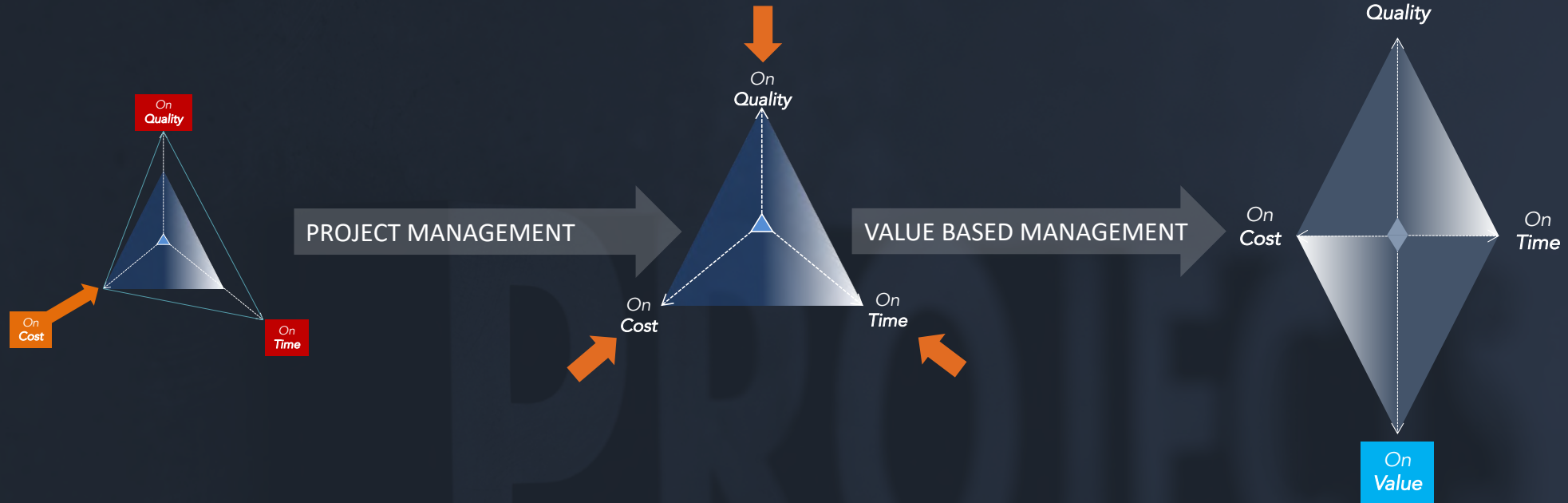
EVM is based on monitoring these three aspects along the project in order to reveal the health of the project with specific indices:

Schedule Variance (SV) : difference between PV and EV, to tell whether the project work is ahead of / on / behind schedule
 $SV = EV - PV$

- If the project is behind schedule the SV will be negative (achieved less than what planned)
- If the project is on schedule the $SV = 0$
- If the project is ahead of schedule the SV will be positive (achieved more than what planned)

Example: by end of week 4, the $SV = EV - PV = \text{US\$}3000 - \text{US\$}4000 = -\text{US\$}1000$ (behind schedule)

• LE SIPOC PROJECT COST MANAGEMENT



EVM is based on monitoring these three aspects along the project in order to reveal the health of the project with specific indices:

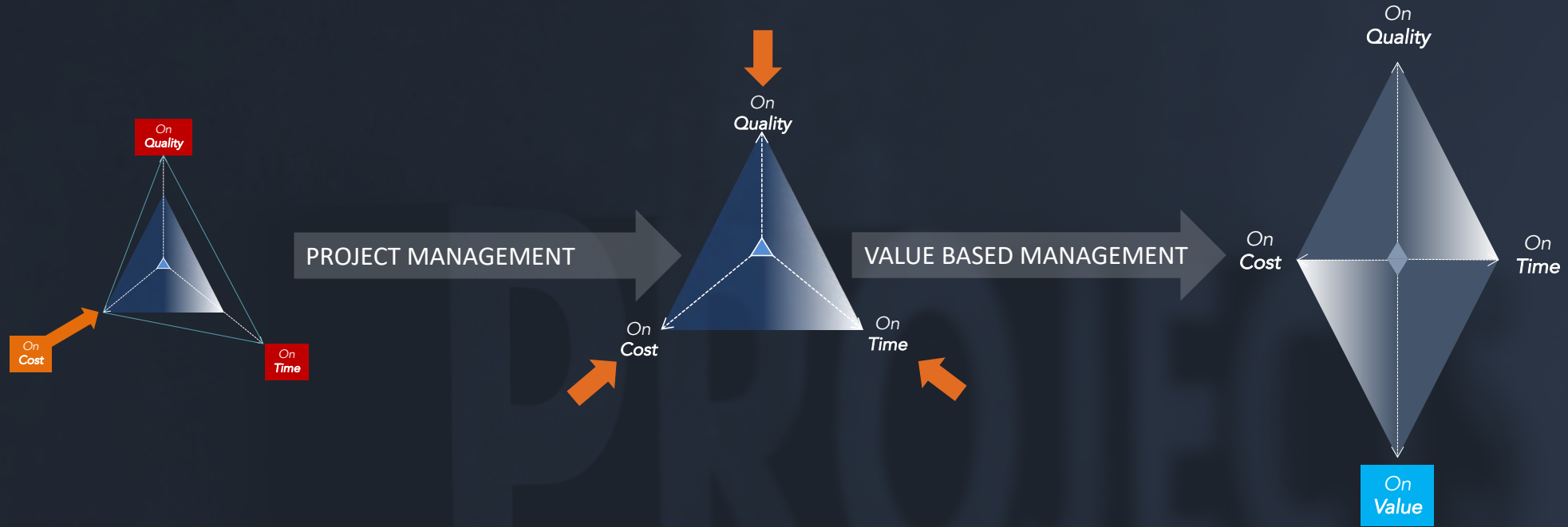
Schedule Performance Index (SPI) — ratio between EV and PV, to reflect whether the project work is ahead of / on / behind schedule in relative terms

$$SPI = EV/PV$$

- If the project is behind schedule the $SPI < 1$ (achieved less than what planned)
- If the project is on schedule the $SPI = 1$
- If the project is ahead of schedule the $SPI > 1$ (achieved more than what planned)

Example: by end of week 4, the $SPI = EV/PV = US\$3000/US\$4000 = 0.75$ (behind schedule)

• LE SIPOC PROJECT COST MANAGEMENT



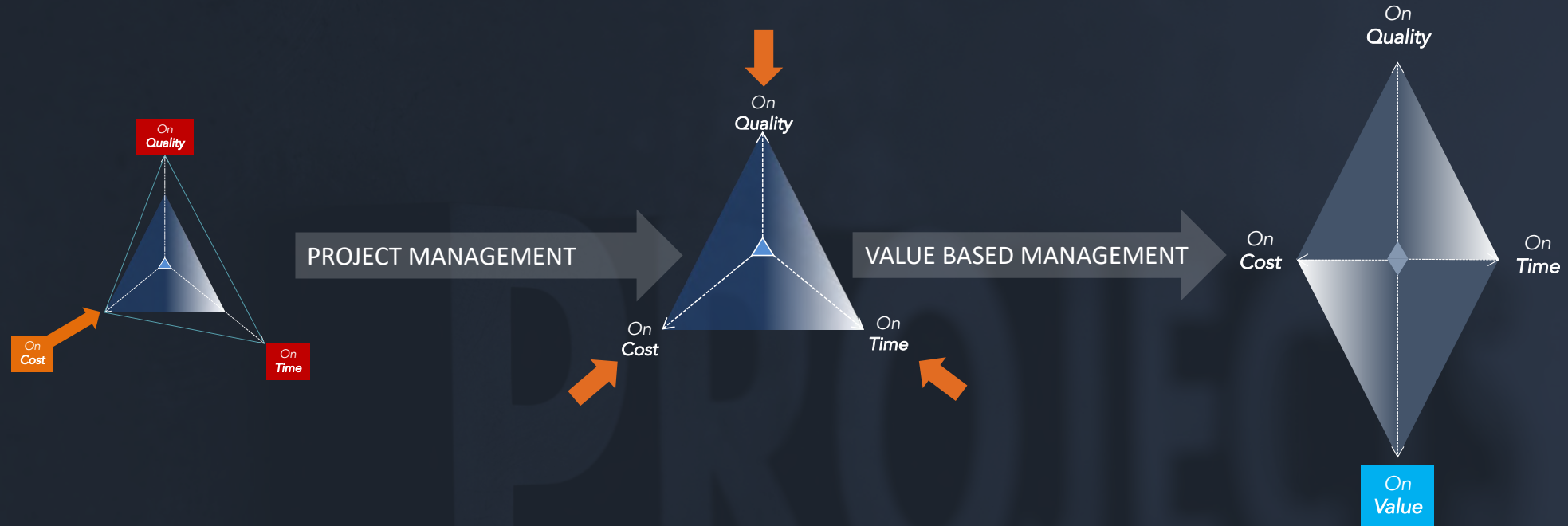
EVM is based on monitoring these three aspects along the project in order to reveal the health of the project with specific indices:

Cost Variance (CV) — difference between PV and AC, to tell whether the project work is under / on / over budget
 $CV = EV - AC$

- If the project is over budget the CV will be negative (achieved less than spent)
- If the project is on budget the $CV = 0$
- If the project is under budget the CV will be positive (achieved more than spent)

Example: by end of week 4, the $CV = EV - AC = \text{US\$}3000 - \text{US\$}4000 = -\text{US\$}1000$ (over budget)

• LE SIPOC PROJECT COST MANAGEMENT



EVM is based on monitoring these three aspects along the project in order to reveal the health of the project with specific indices:

Cost Performance Index (CPI) — ratio between EV and AC, to reflect whether the project work is under / on / over budget in relative terms

- If the project is over budget the $CPI < 1$ (achieved less than what spent)
- If the project is on budget the $CPI = 1$
- If the project is under budget the $CPI > 1$ (achieved more than what spent)

example: by end of week 4, the $CPI = EV/AC = US\$3000/US\$4000 = 0.75$ (over budget)

• LES NOTIONS ESSENTIELLES PROJECT COST MANAGEMENT

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- Type of Costs
- Cost Management
- Earned Value Analysis
 - $PV - EV - AC$
 - $CPI - SPI$
 - ...
- Cost Baseline
- Cost Budget
- Three Point Estimating
- Reserve & Contingency Analysis
- Analogous Estimating
- Parametric Estimating
- Bottom Up Estimating

- LES QUESTIONS PROJECT COST MANAGEMENT

Question

1/ If earned value (EV) = 350, actual cost (AC) = 400, planned value (PV) = 325, what is the cost of variance (CV) ? :

- A) 350
- B) -75
- C) 400
- D) -50

- LES QUESTIONS PROJECT COST MANAGEMENT

Answer

1/ If earned value (EV) = 350, actual cost (AC) = 400, planned value (PV) = 325, what is the cost of variance (CV) ? :

- A) 350
- B) -75
- C) 400
- D) -50

Réponse: D

La formule à connaitre est $CV = EV - AC$ (ici PV n'est pas utile pour le calcul !) donc $CV = 350 - 400 = - 50$

- LES QUESTIONS PROJECT COST MANAGEMENT

Question

2/ When is usually considered the ROM – Rough Order of Magnitude for estimating a project cost ? :

- A) Initiating
- B) Executing
- C) Monitoring
- D) Controlling

- LES QUESTIONS PROJECT COST MANAGEMENT

Answer

2/ When is usually considered the ROM – Rough Order of Magnitude for estimating a project cost ? :

- A) Initiating
- B) Executing
- C) Monitoring
- D) Controlling

Réponse: A

La méthode étant approximative elle ne peut rentrer en compte que durant la phase la plus amont et surtout pas en phase de structuration.

- LES QUESTIONS PROJECT COST MANAGEMENT

Question

3/ Which type of cost would be training provided by you as project team member ?

- A) Direct
- B) Indirect
- C) Fixed
- D) Variable

• LES QUESTIONS PROJECT COST MANAGEMENT

Answer

3/ Which type of cost would be training provided by you as project team member ?

- A) Direct
- B) Indirect
- C) Fixed
- D) Global

Réponse: A

La formation est dispensée en interne et donc est considérée comme un cout direct imputé au budget projet, les autres réponses n'ont ici pas de sens

Project Management



• FORMEZ-VOUS GRATUITEMENT A LA GESTION DE PROJET !

- #01 INTRODUCTION
- #02 LES PRINCIPES FONDAMENTAUX PM
- #03 LES CONNAISSANCES FONDAMENTALES PM
- #04 LA VALEUR & LES PERFORMANCES PM
- #05 LE REFERENTIEL STANDARD PM
- #06 LE PROCESSUS PROJECT INTEGRATION
- #07 LE PROCESSUS PROJECT SCOPE MANAGEMENT
- #08 LE PROCESSUS PROJECT SCHEDULE MANAGEMENT
- #09 LE PROCESSUS PROJECT COST MANAGEMENT
- #10 LE PROCESSUS PROJECT QUALITY MANAGEMENT
- #11 LE PROCESSUS PROJECT RISK MANAGEMENT
- #12 LE PROCESSUS PROJECT STAKEHOLDER MANAGEMENT
- #13 LE PROCESSUS PROJECT RESOURCE MANAGEMENT
- #14 LE PROCESSUS PROJECT COMMUNICATION MANAGEMENT
- #15 LE PROCESSUS PROJECT PROCUREMENT MANAGEMENT
- #16 LE DOMAINE DE LA PERFORMANCE PROJET
- #17 LE PROCESSUS D'ADAPTATION – PROJECT TAILORING
- #18 LES MODÈLES, METHODES & ARTEFACT PROJECT MANAGEMENT
- #19 PREPARATION A L'EXAMEN PMP®



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