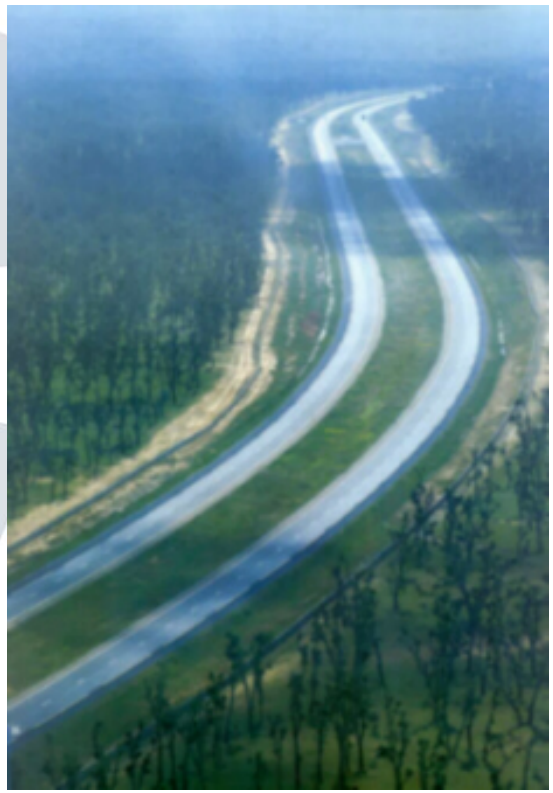
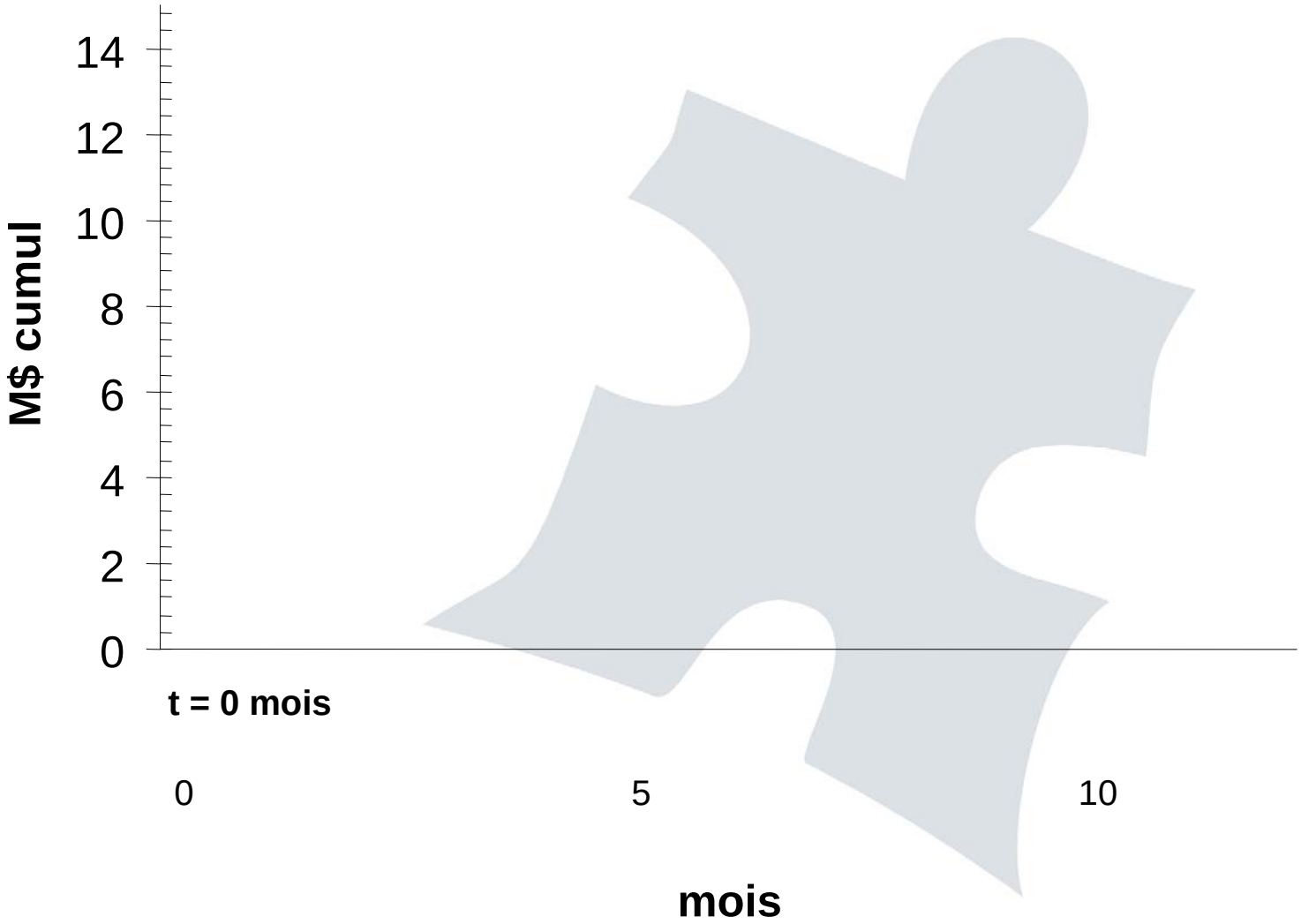
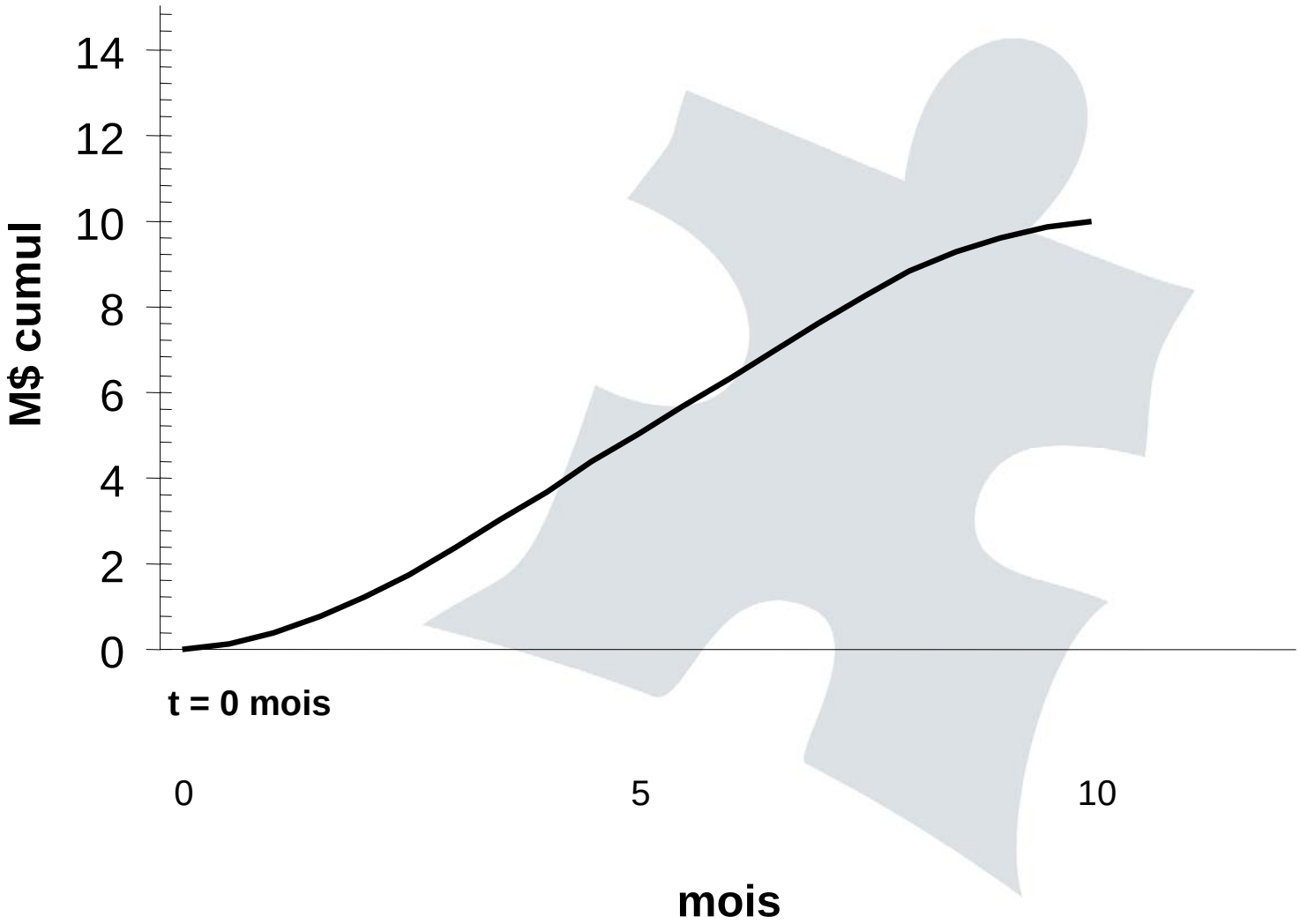
Présentation du projet

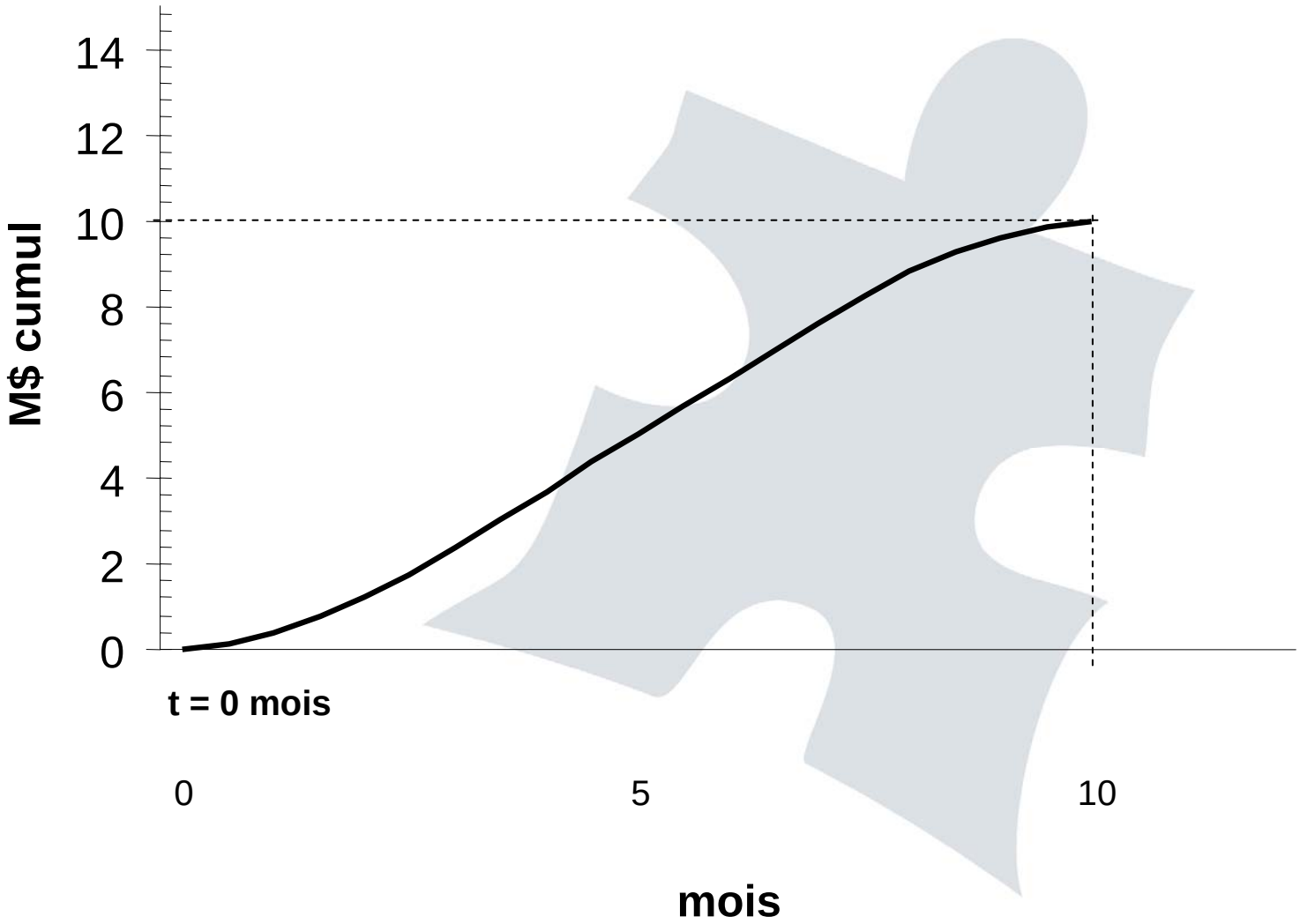
Projet:

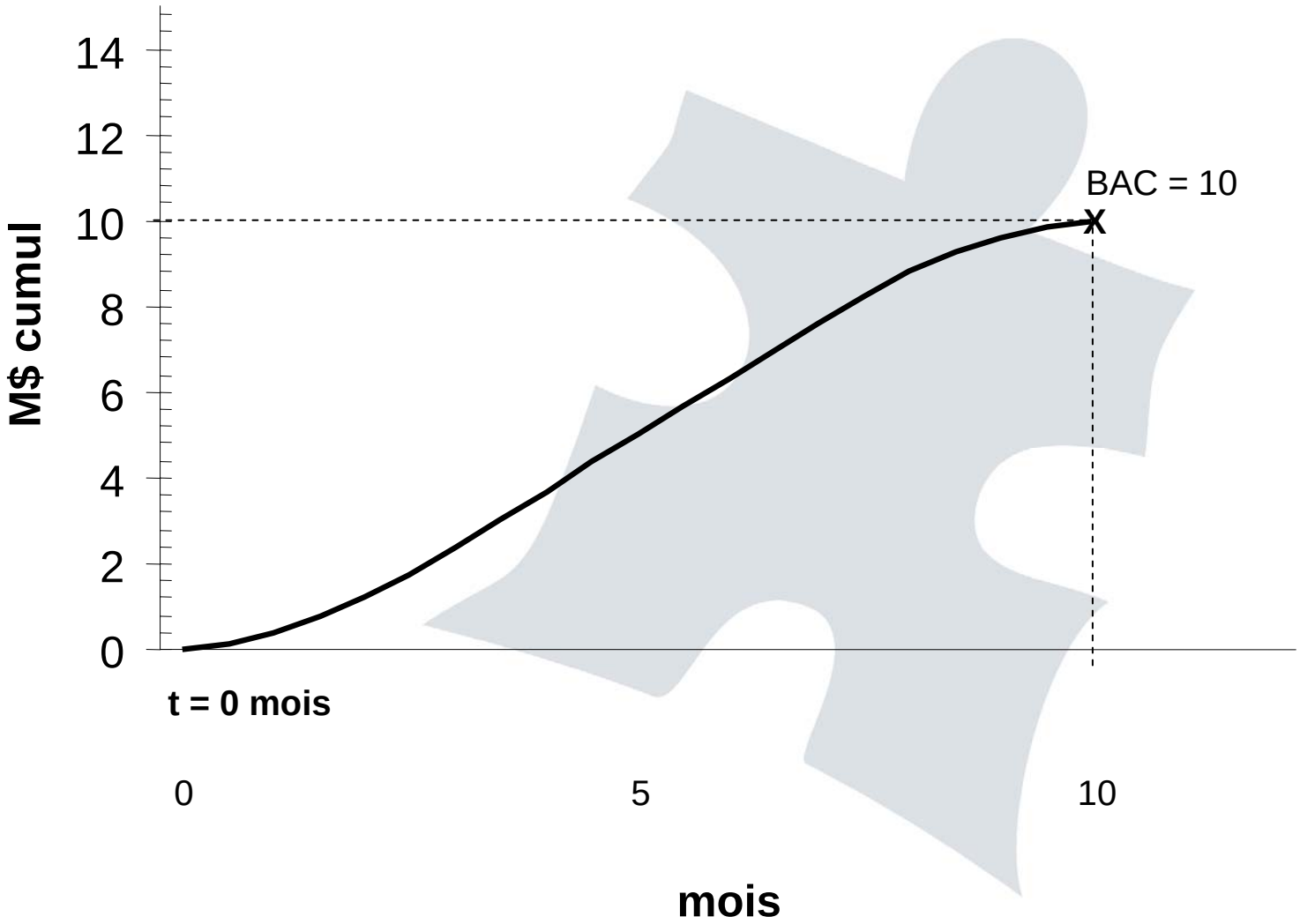
- **Construction d'une autoroute de 10 km**
- **1 km = 1 M$**
- **1 km = 1 mois**

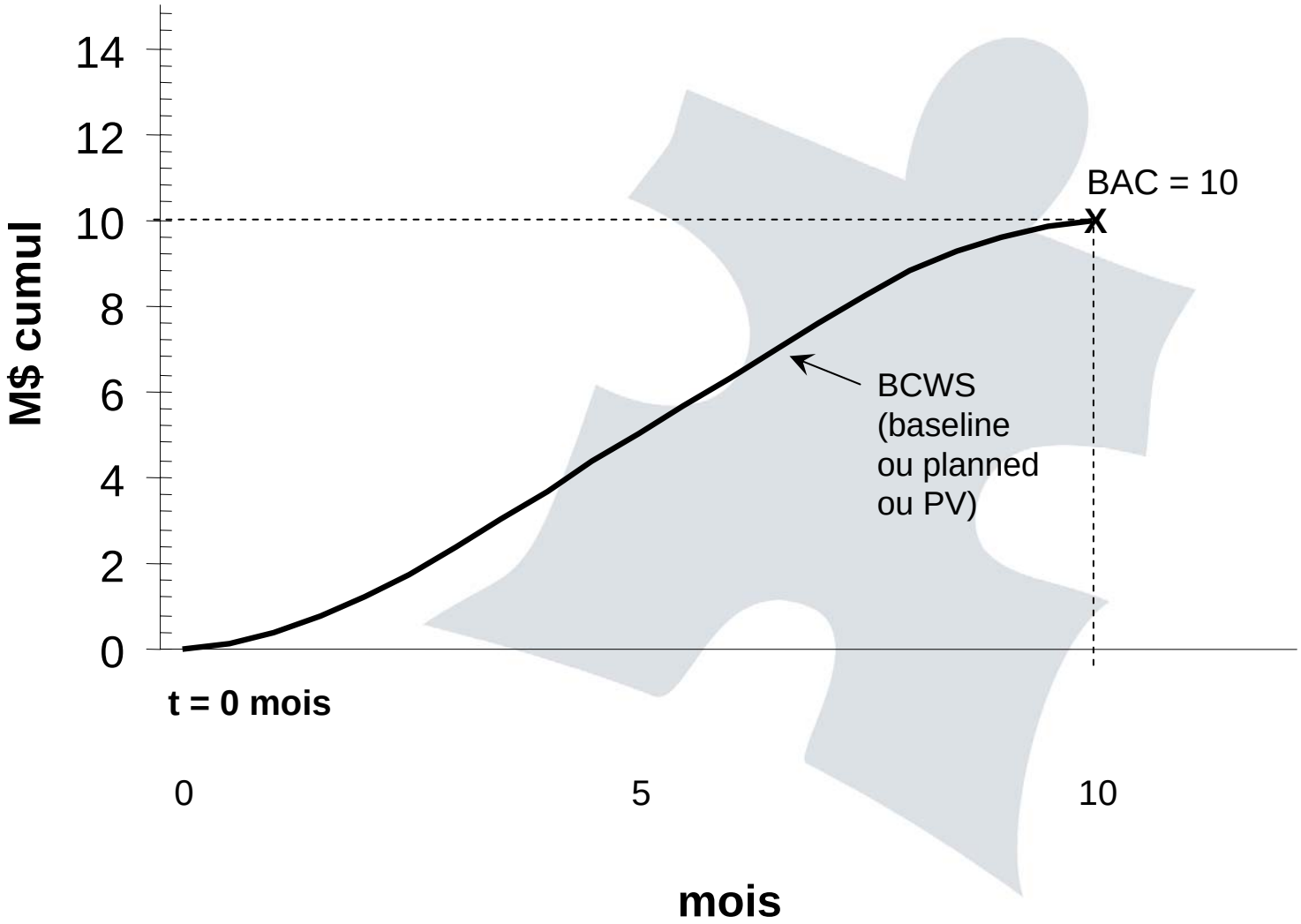


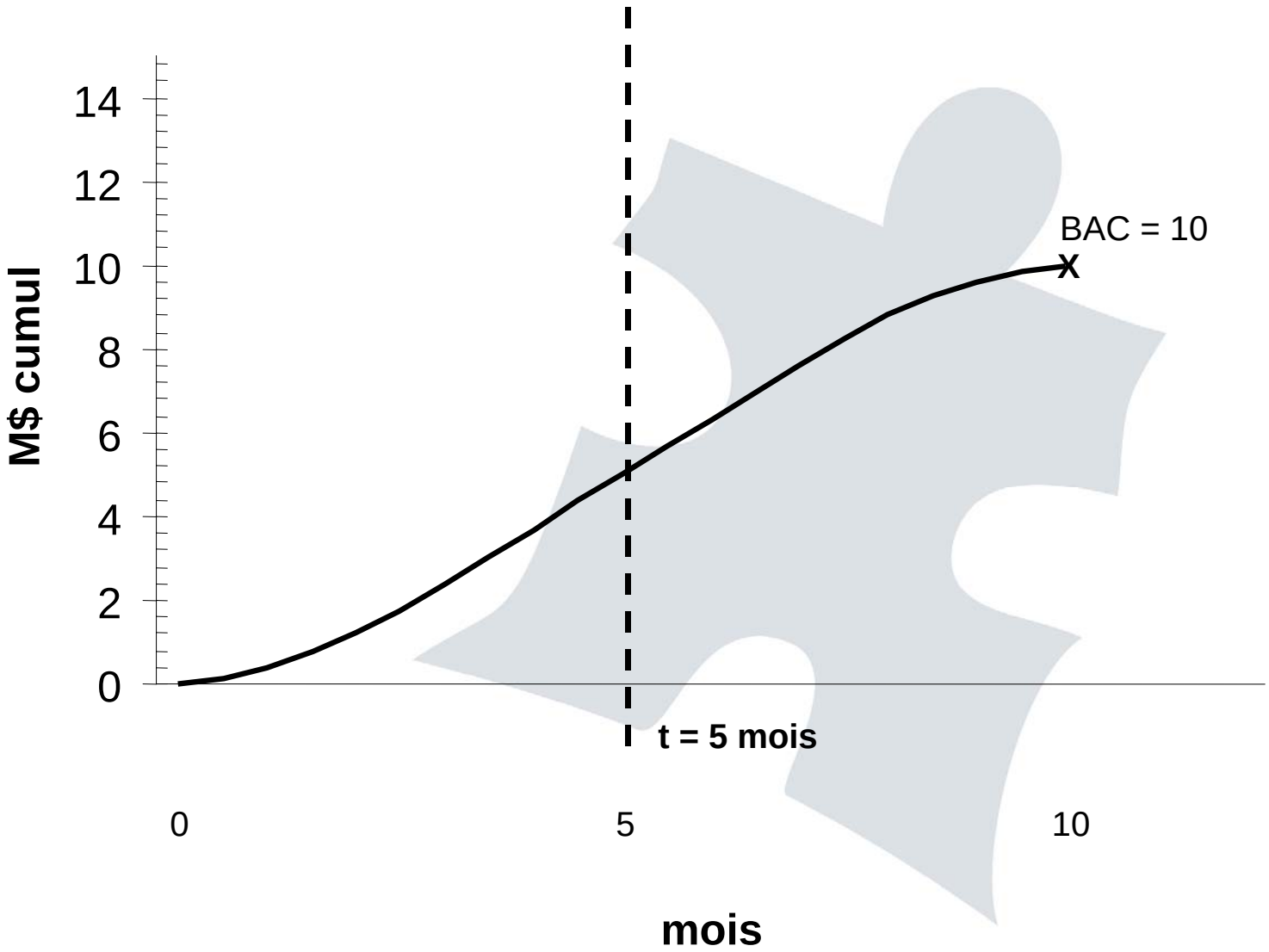


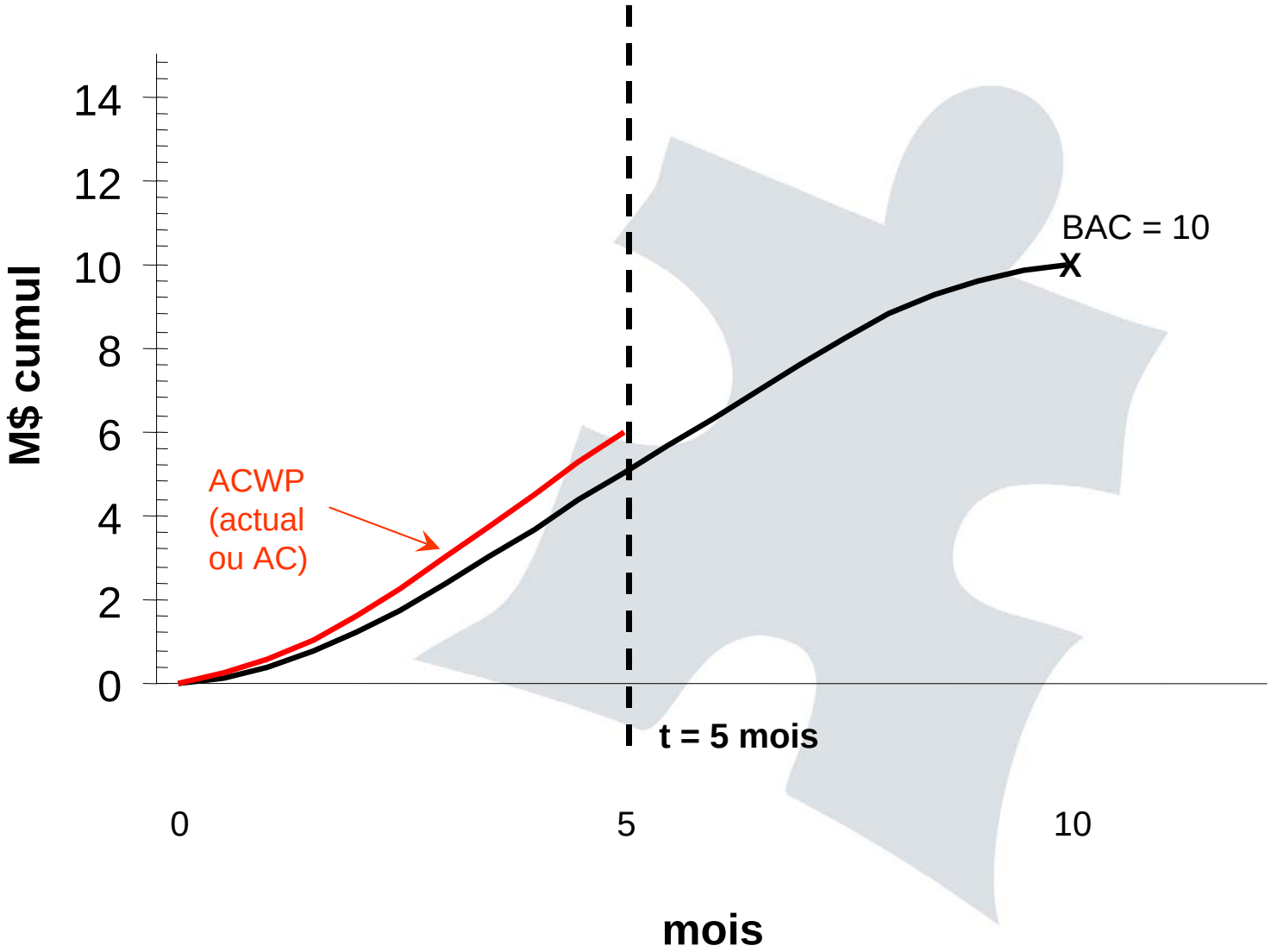


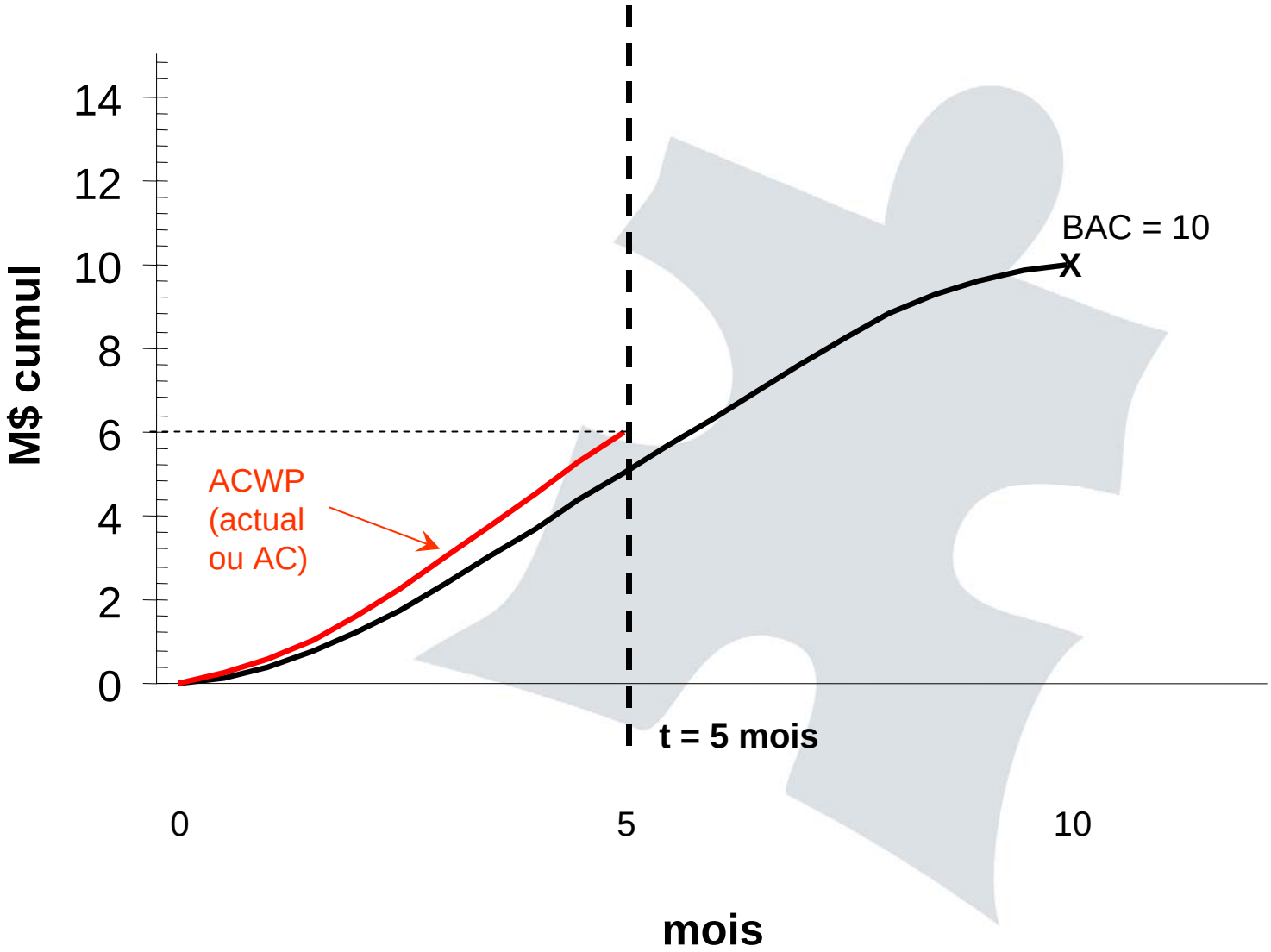


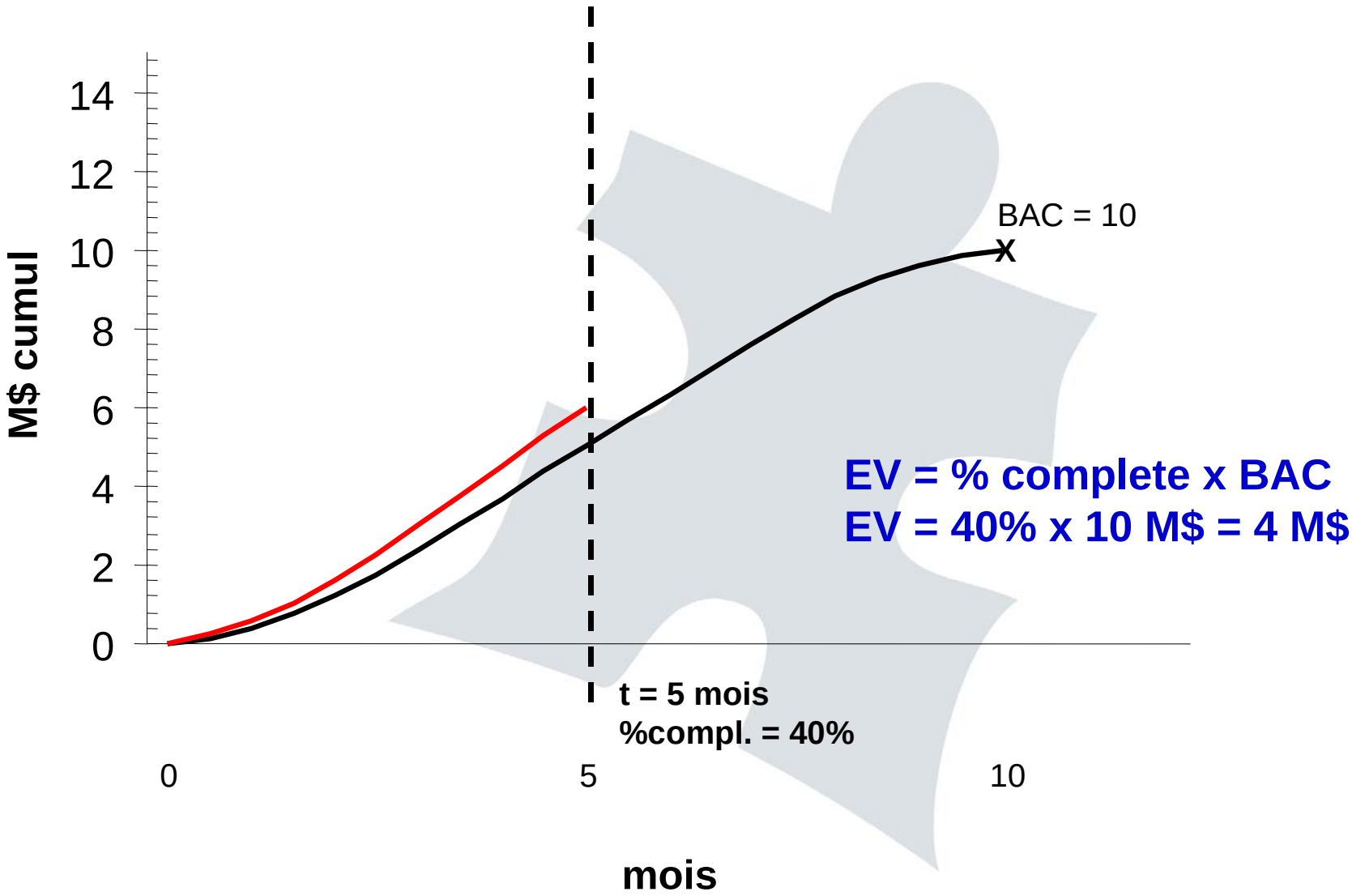


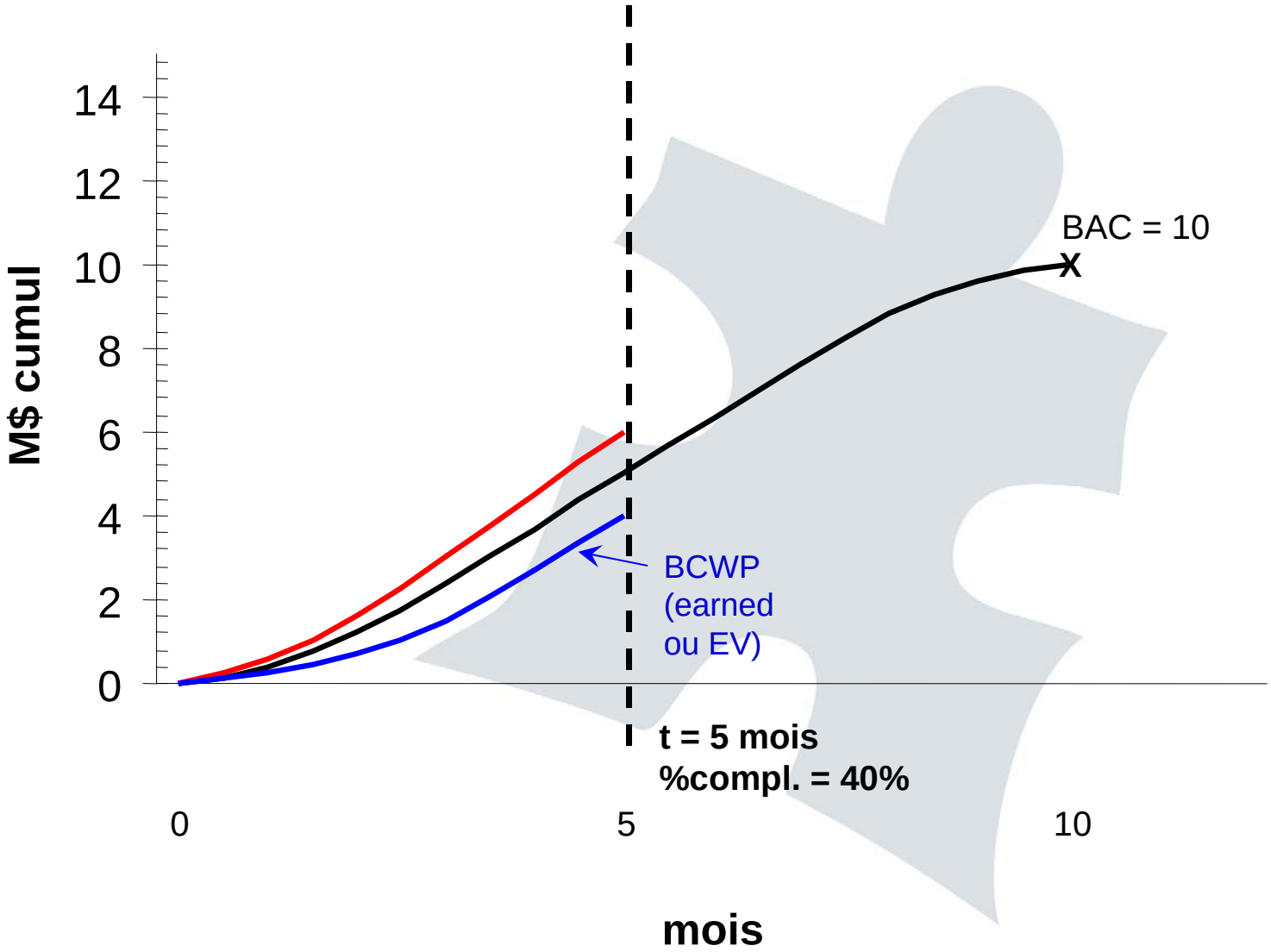


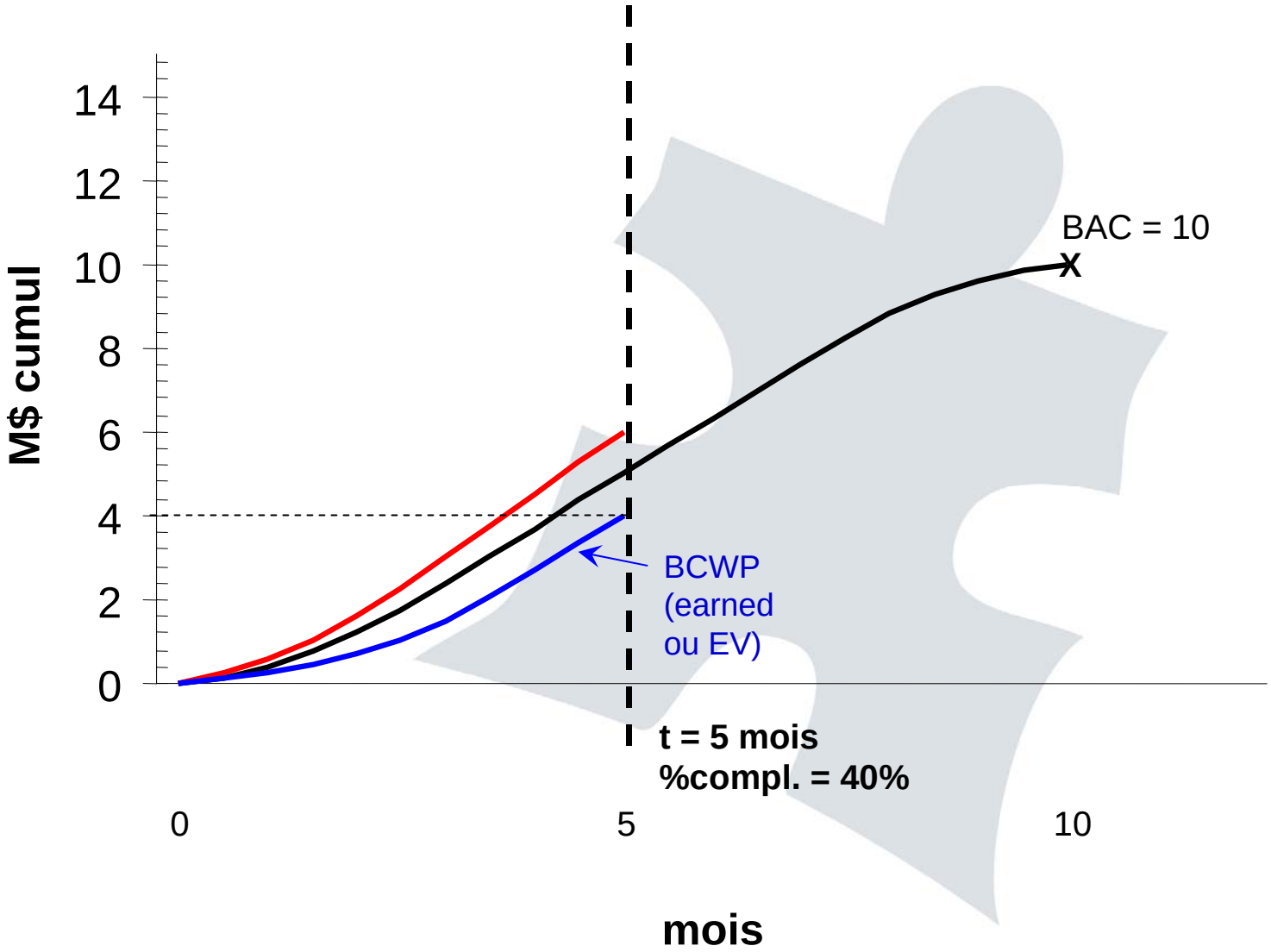


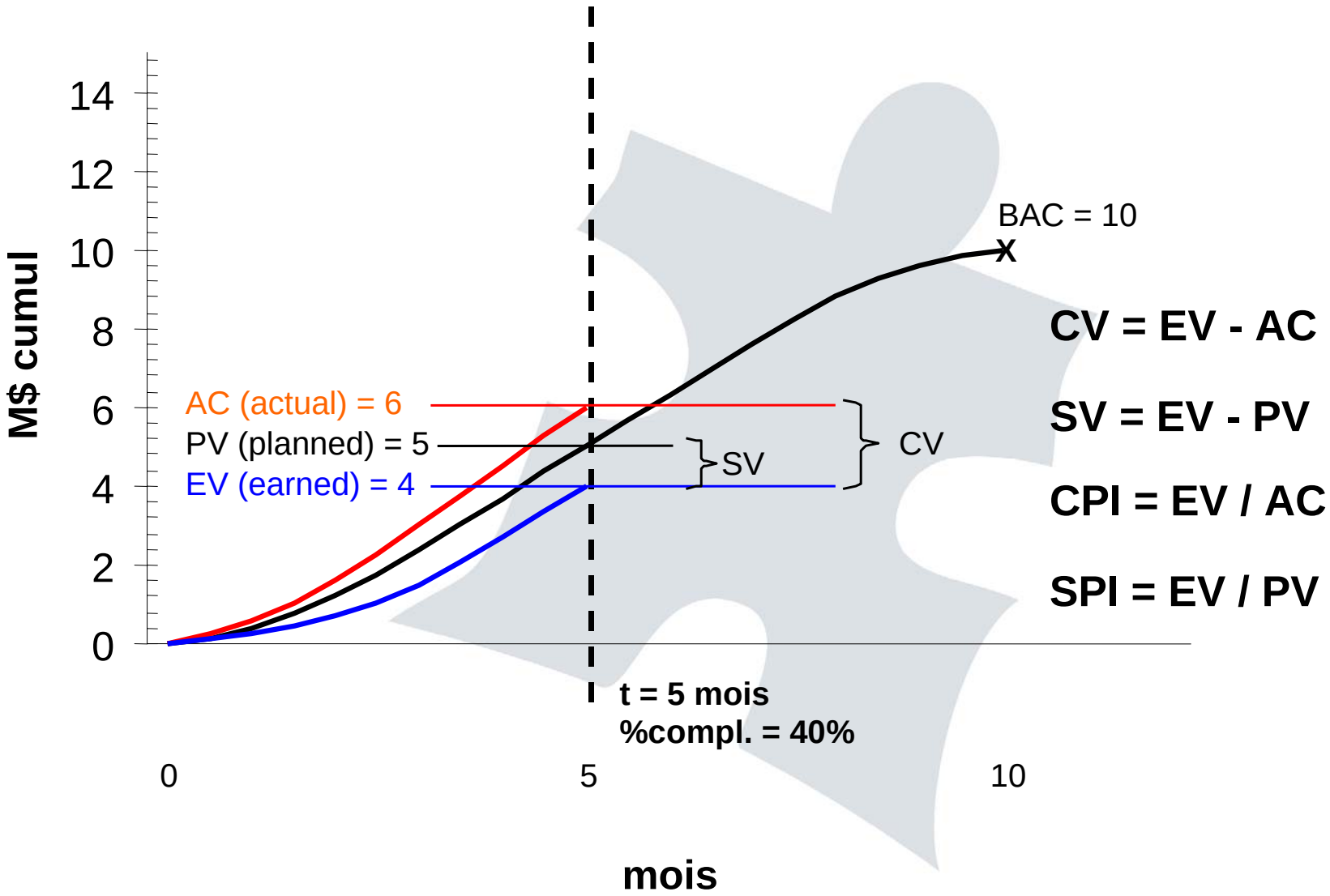


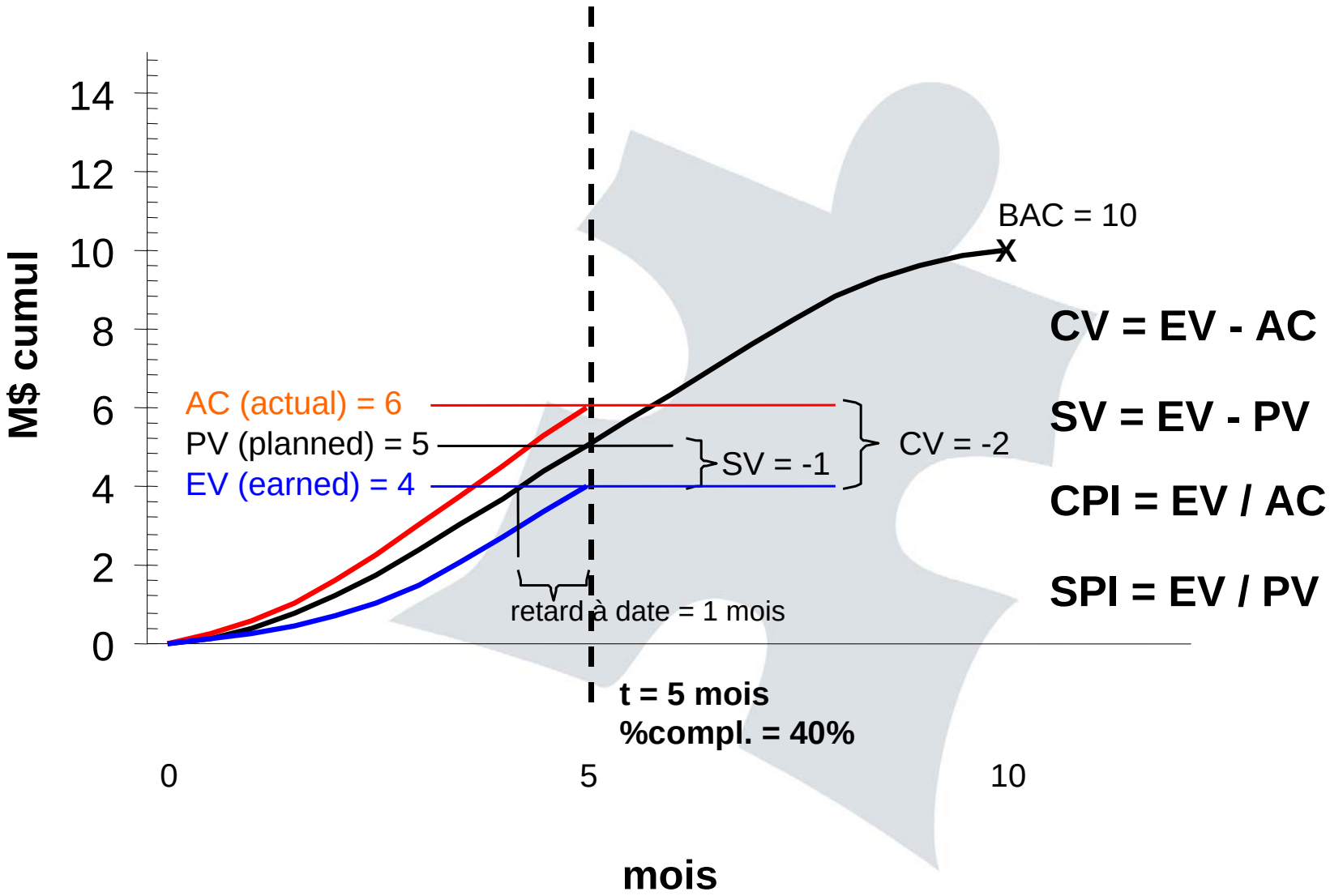


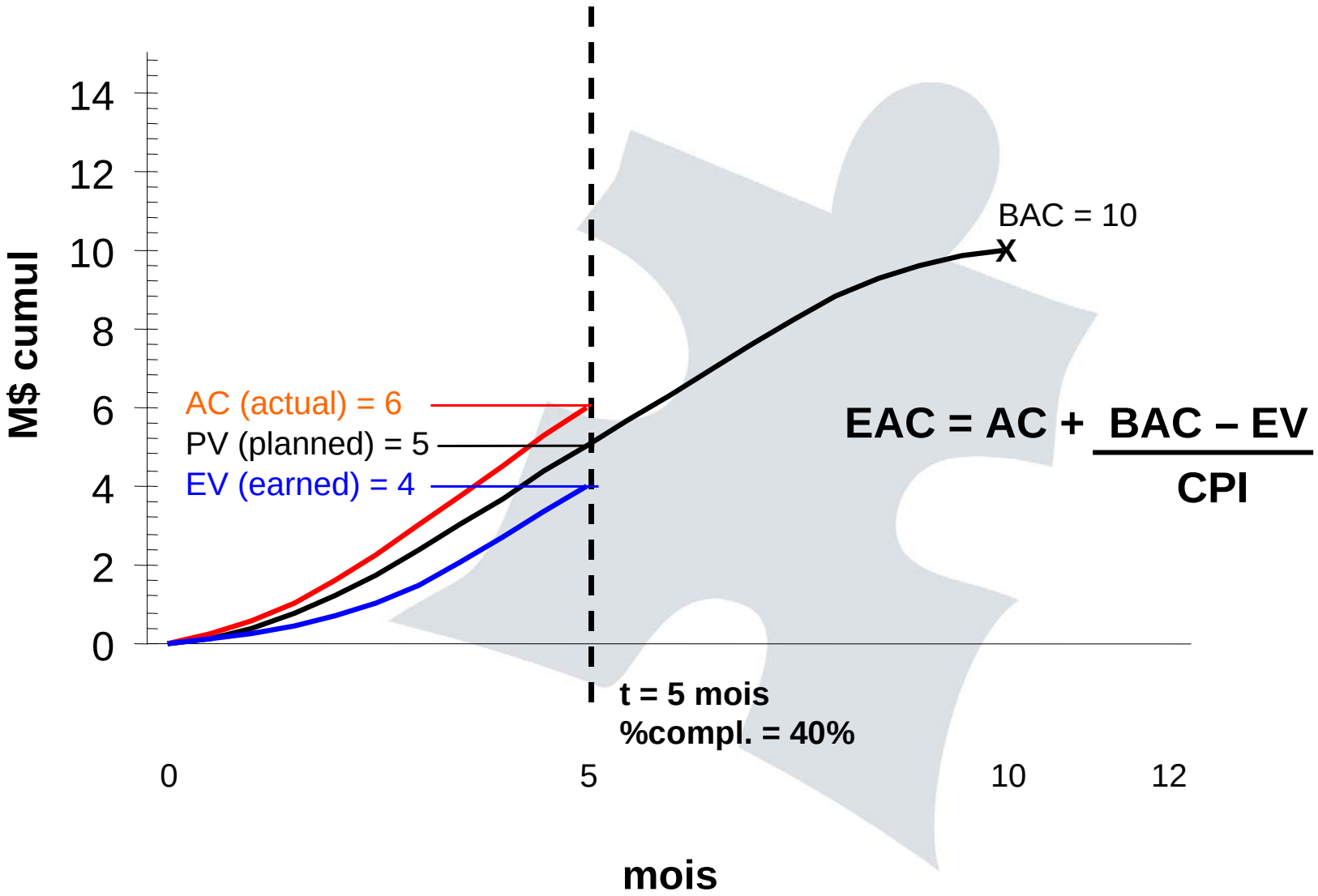


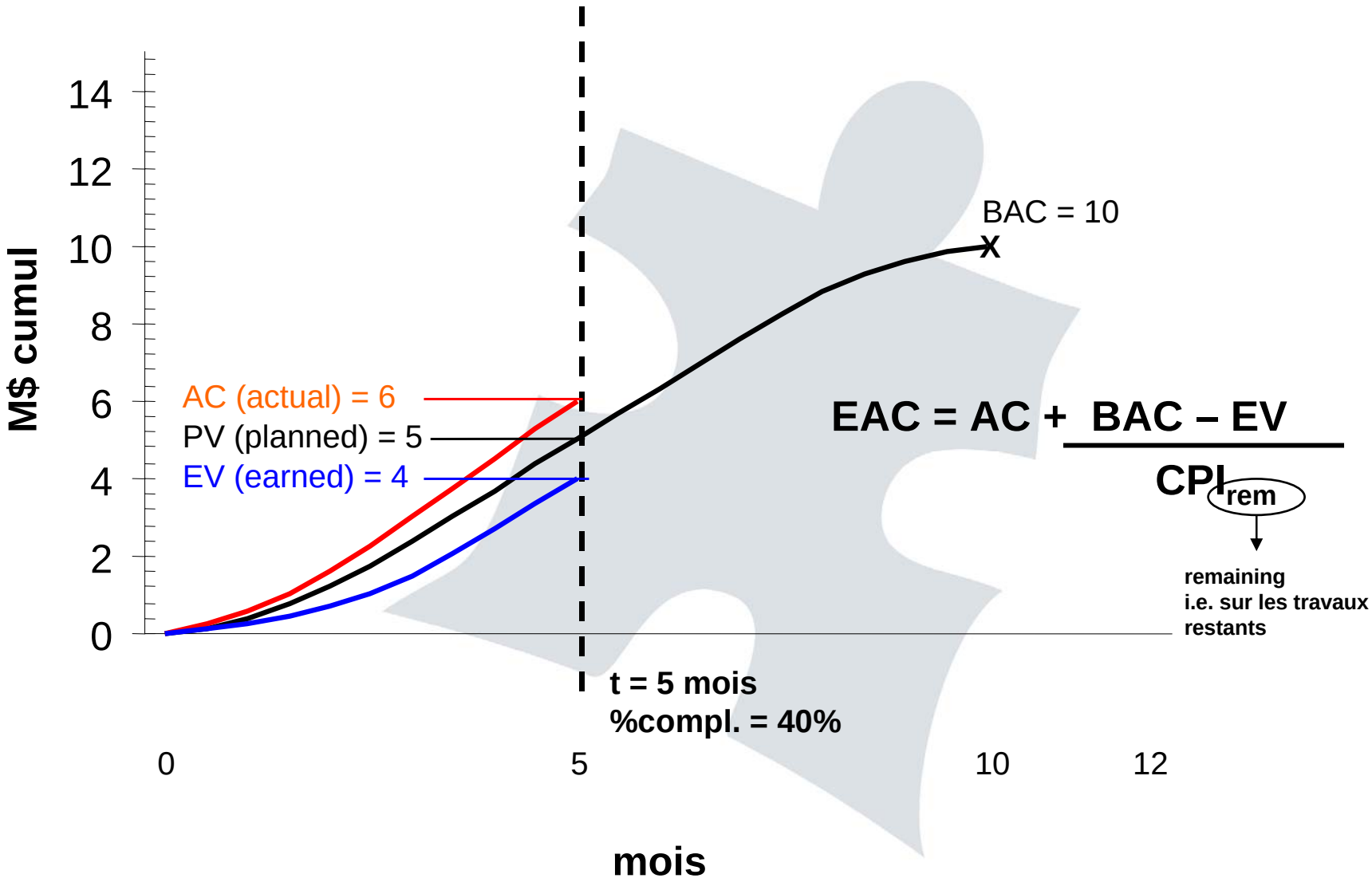


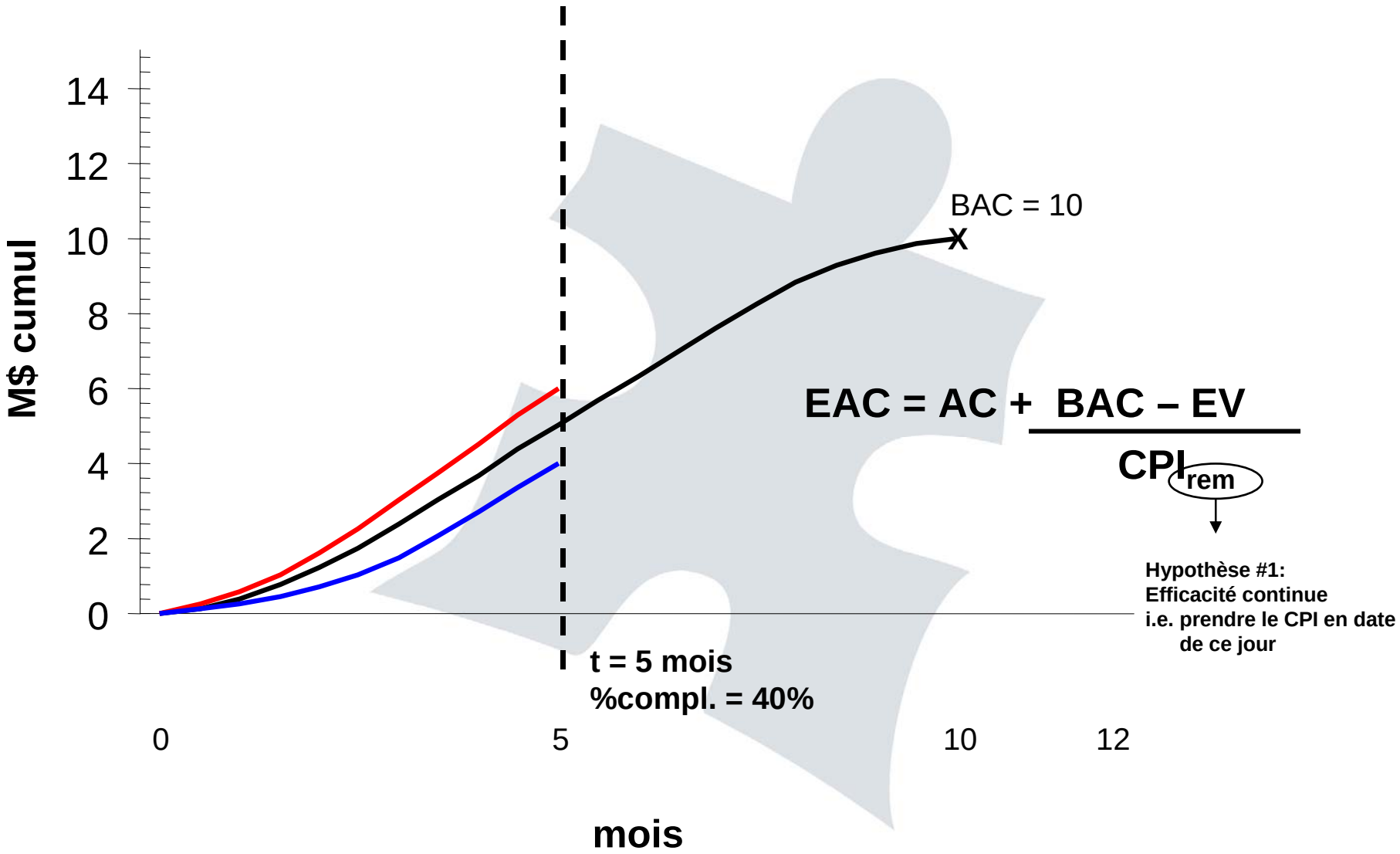


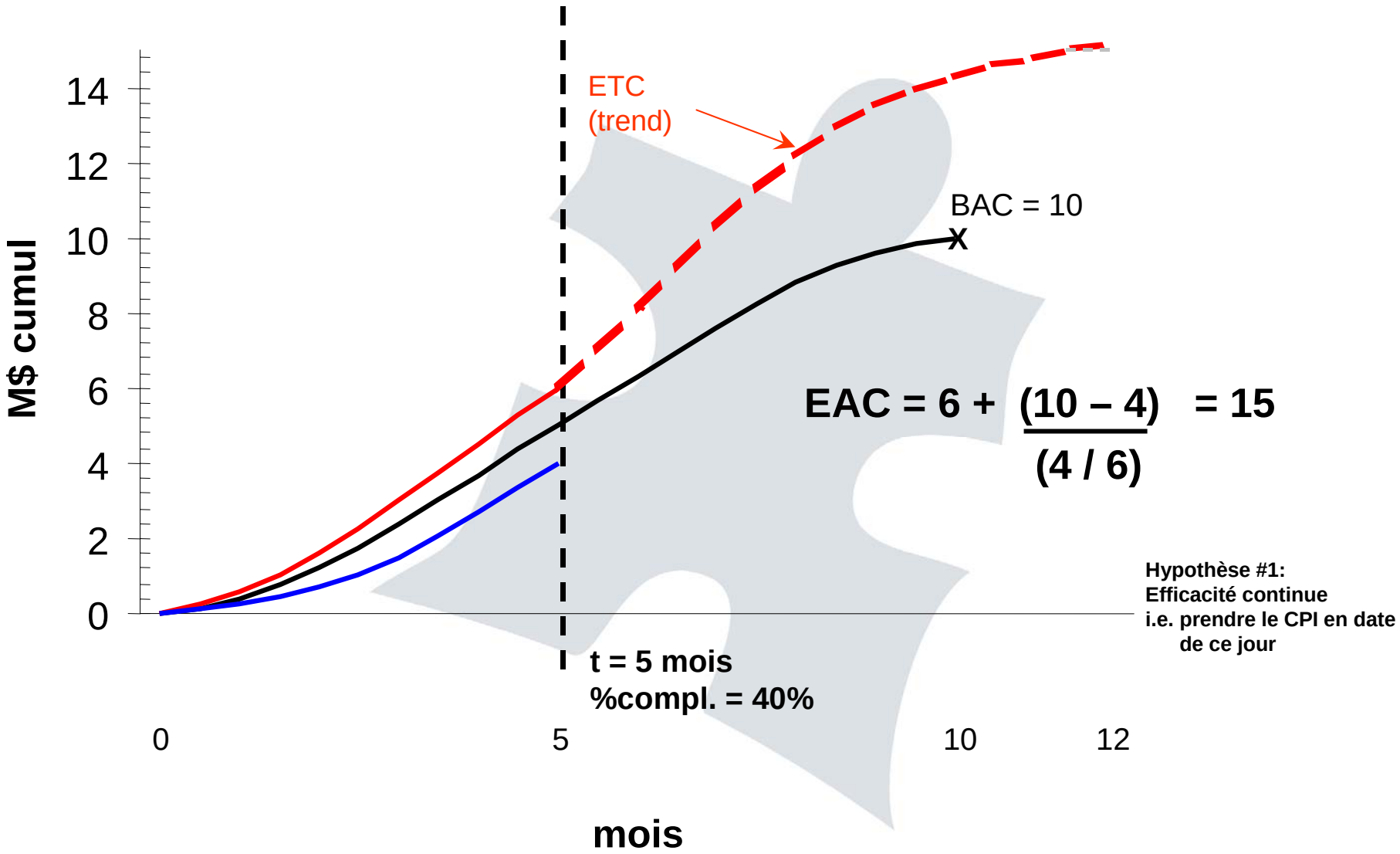


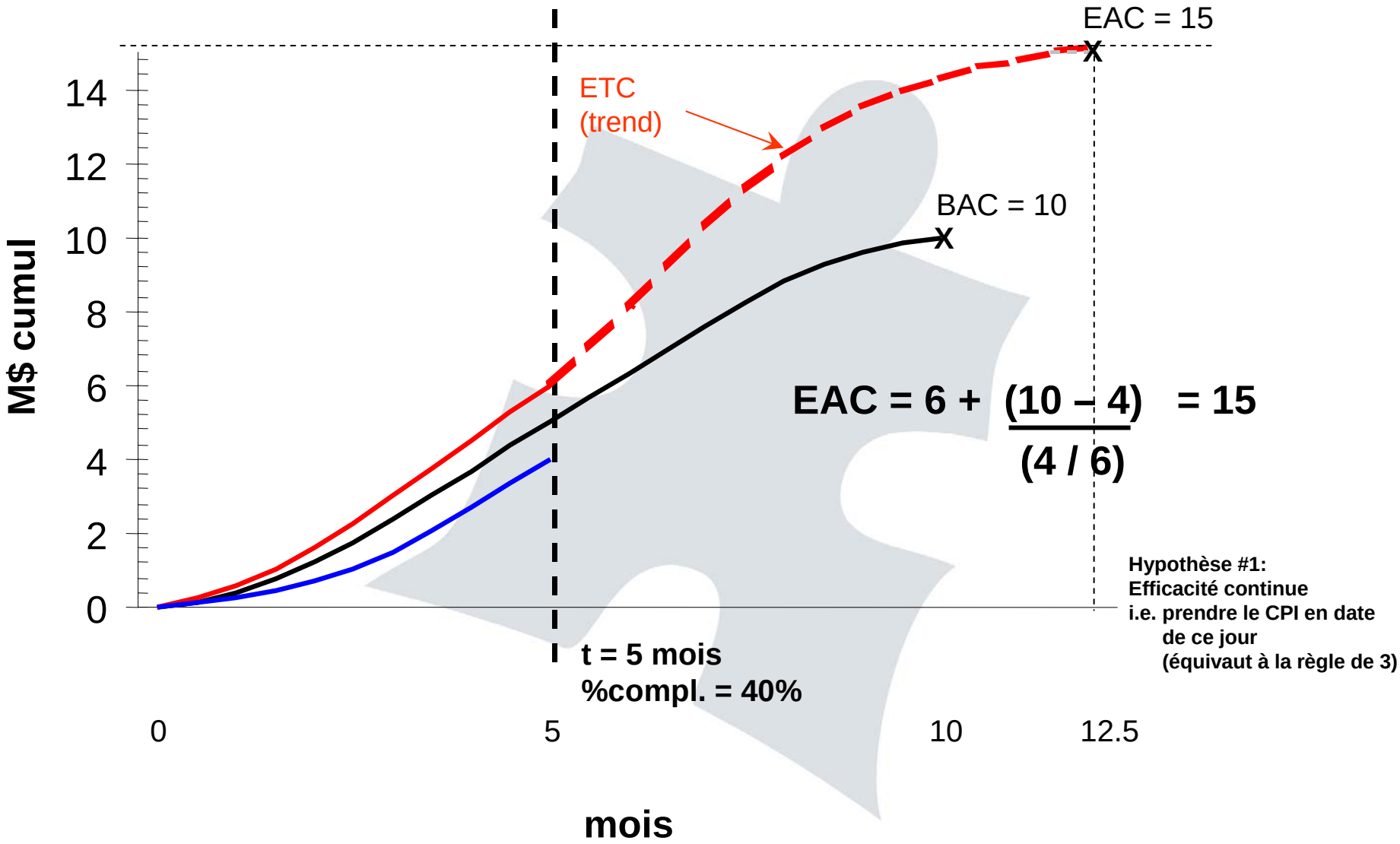


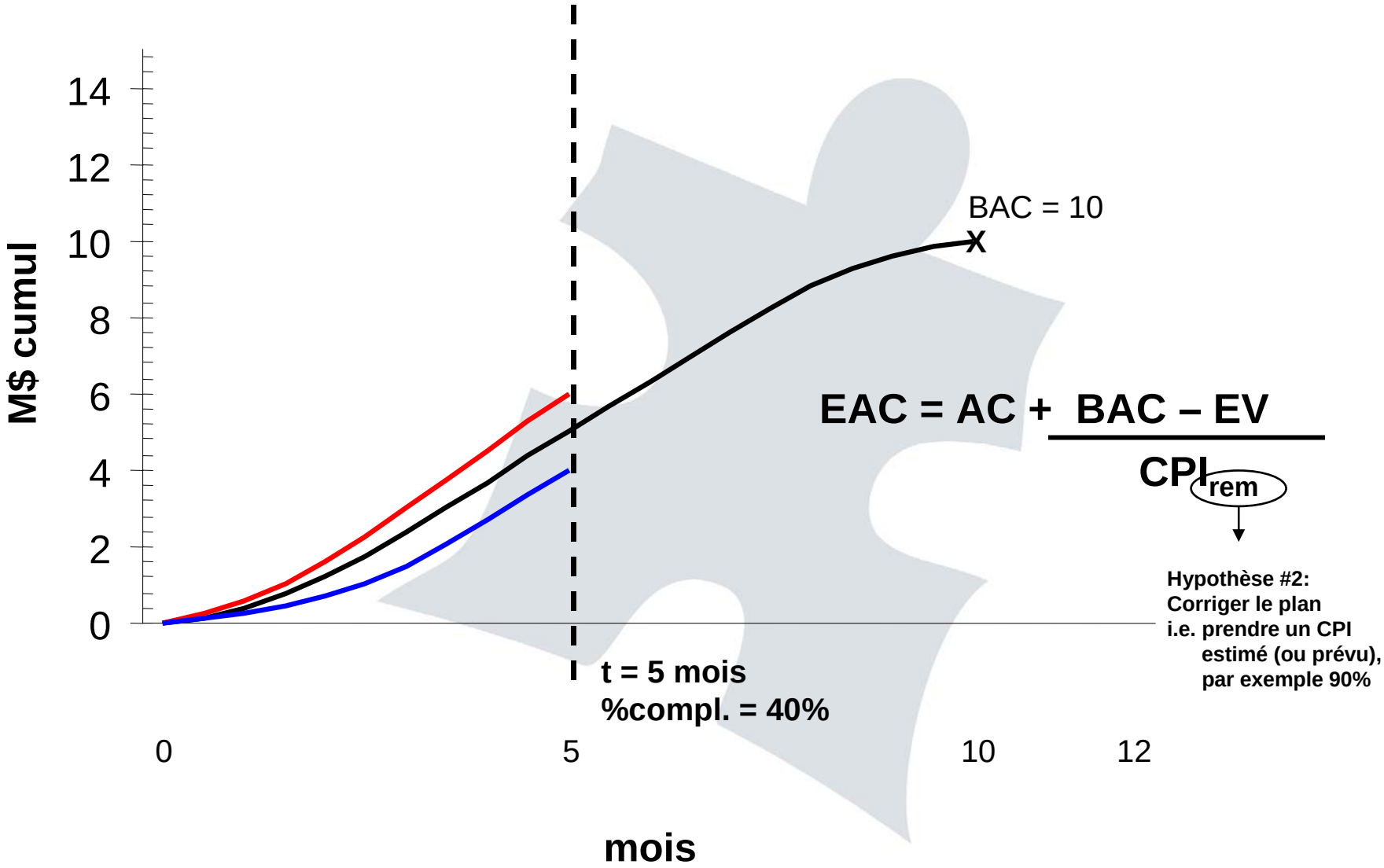


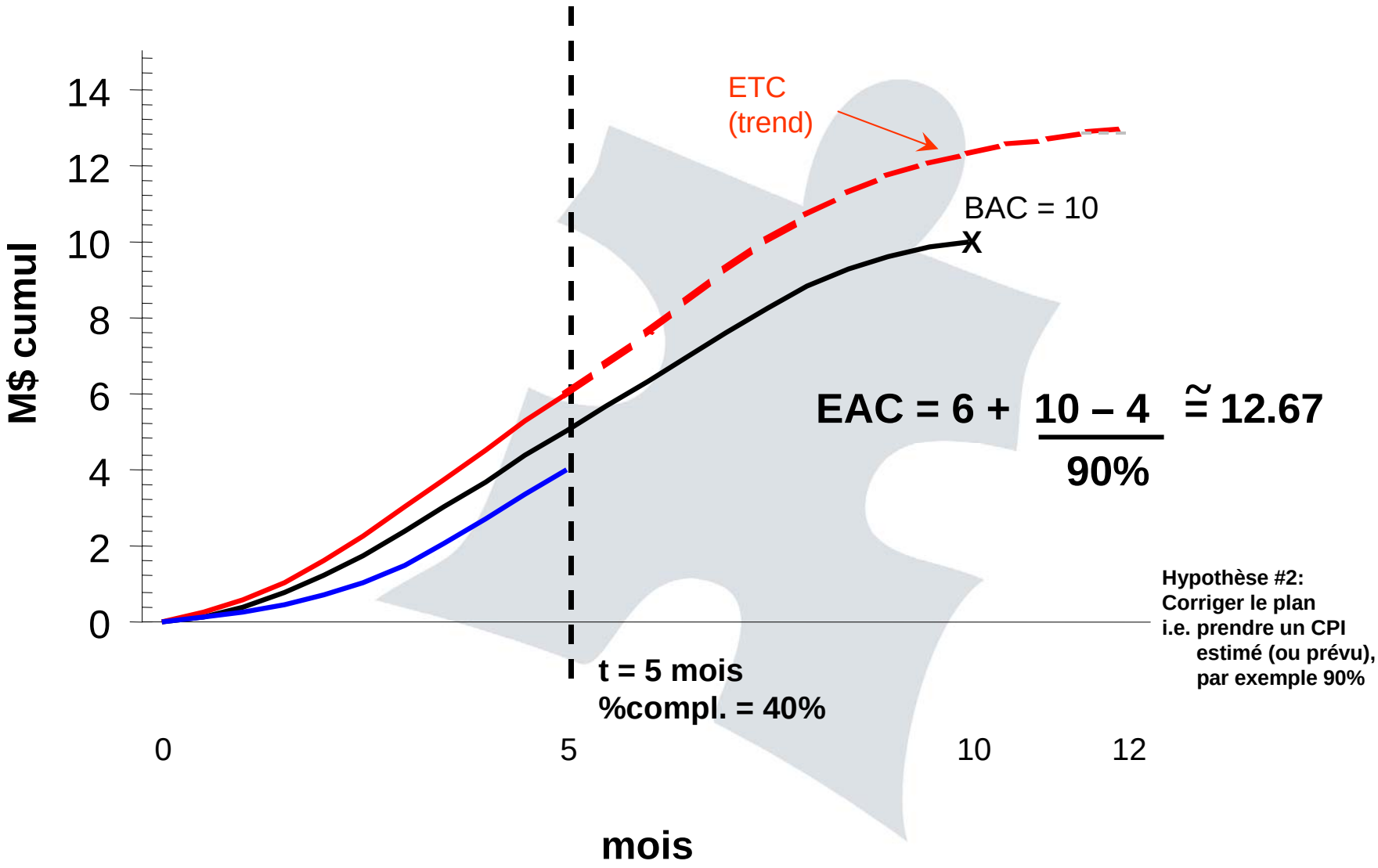


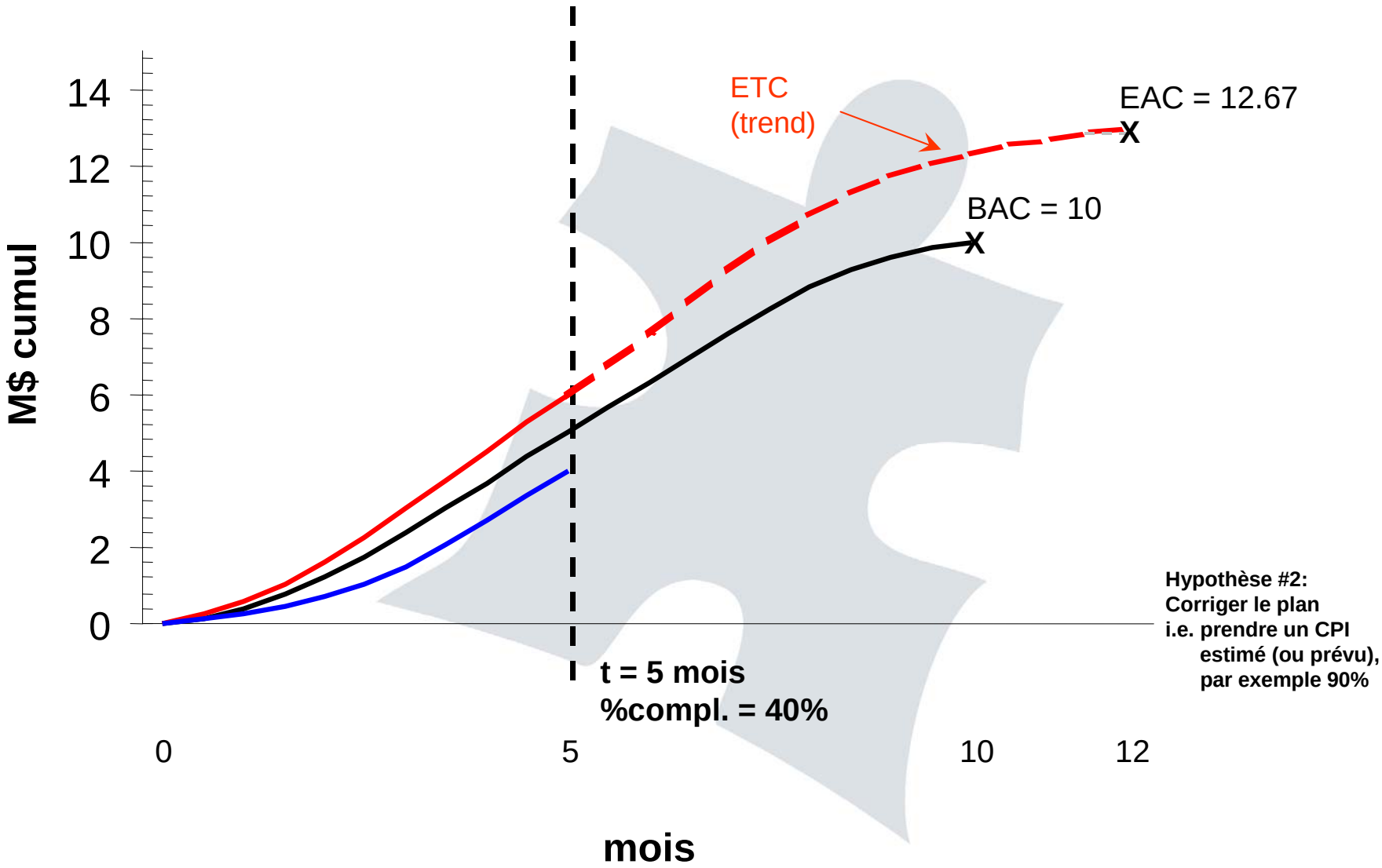


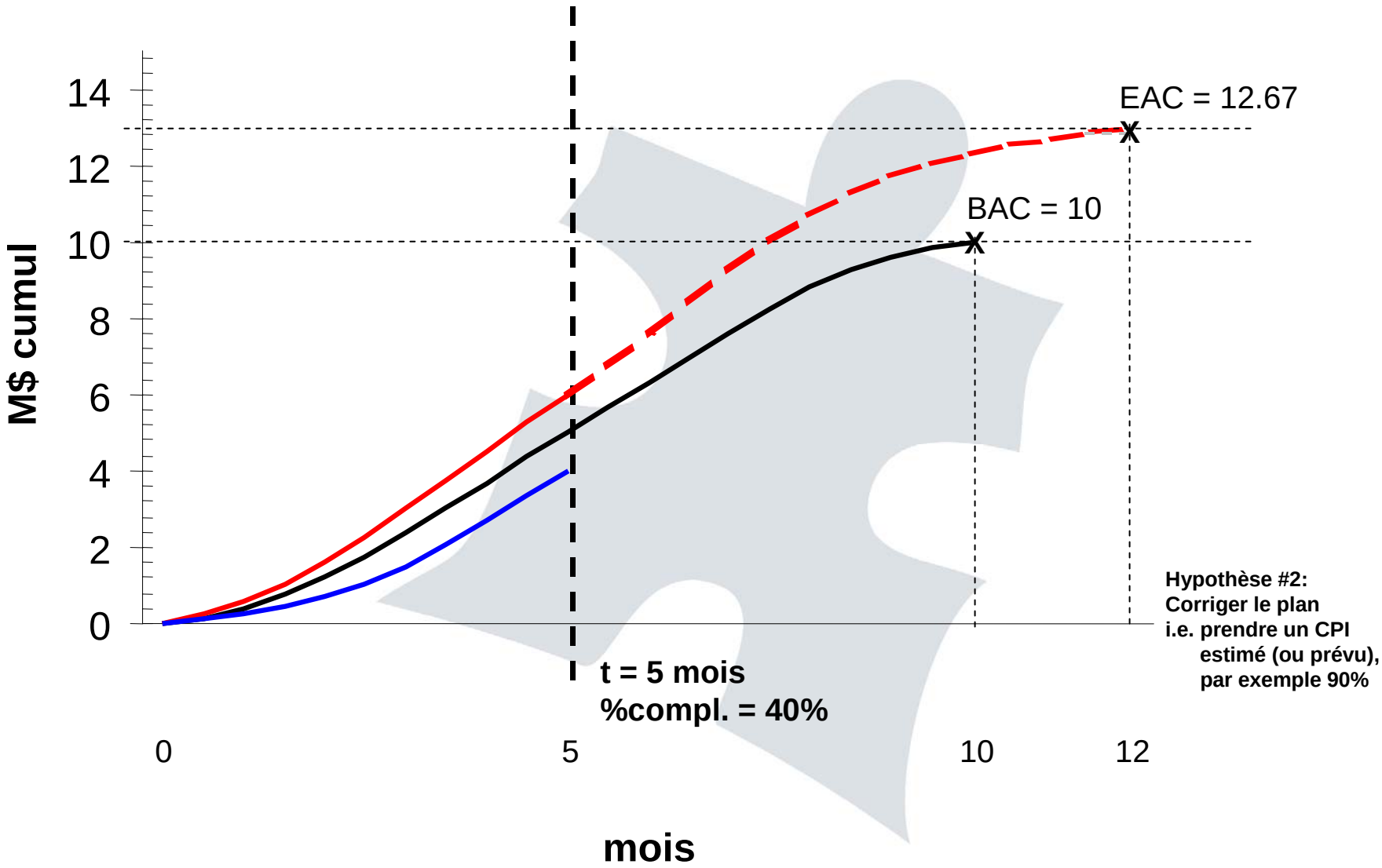


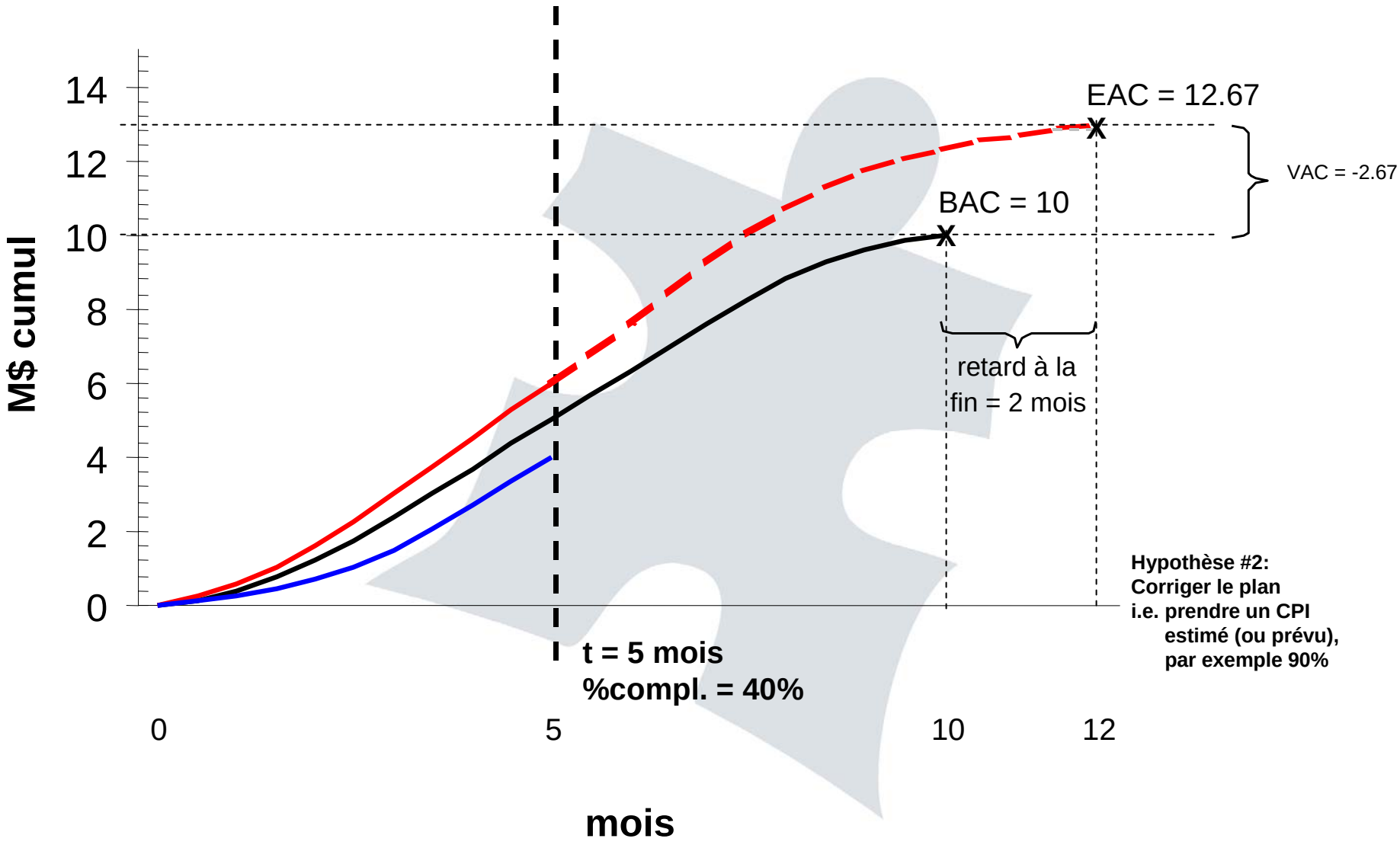


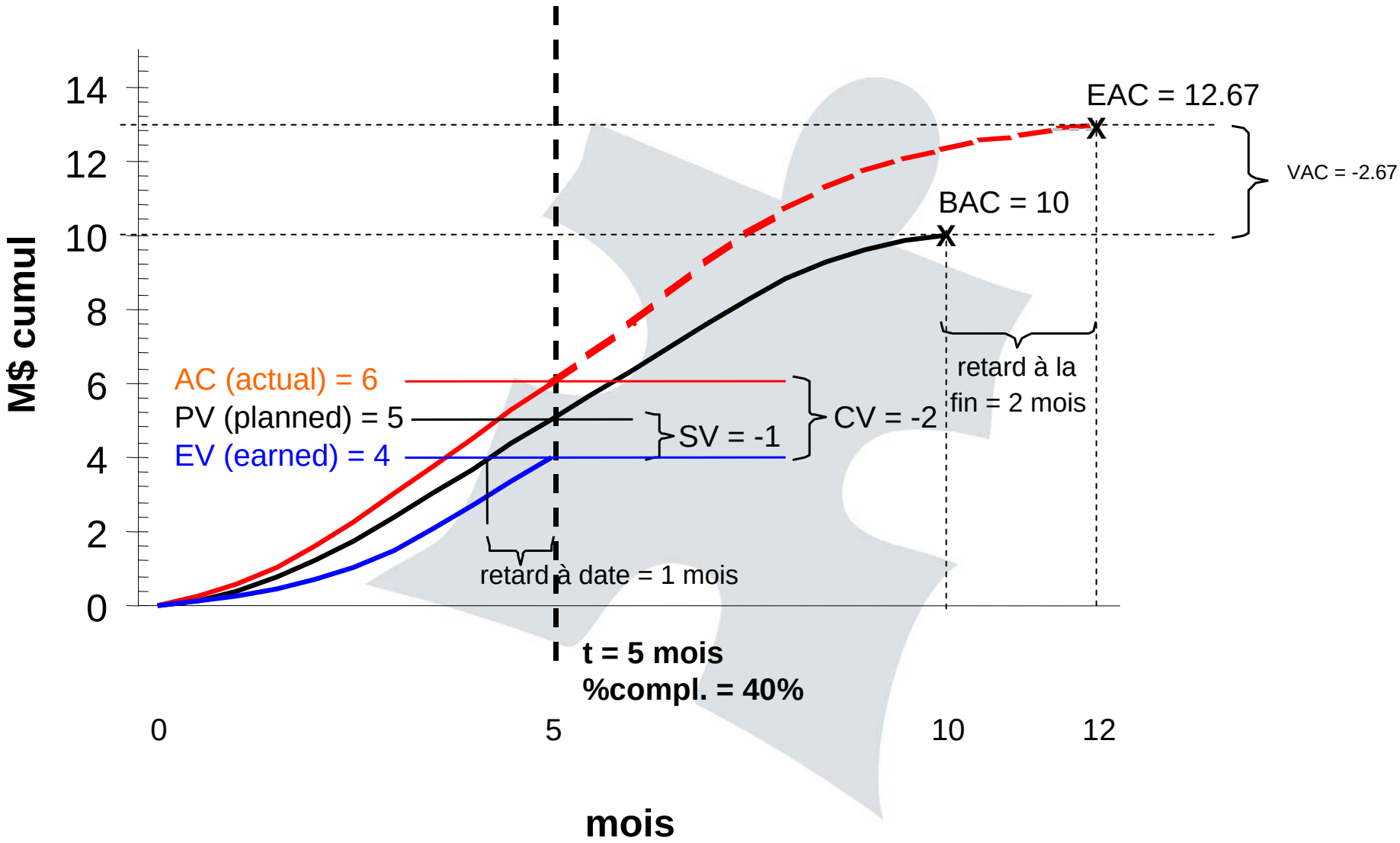


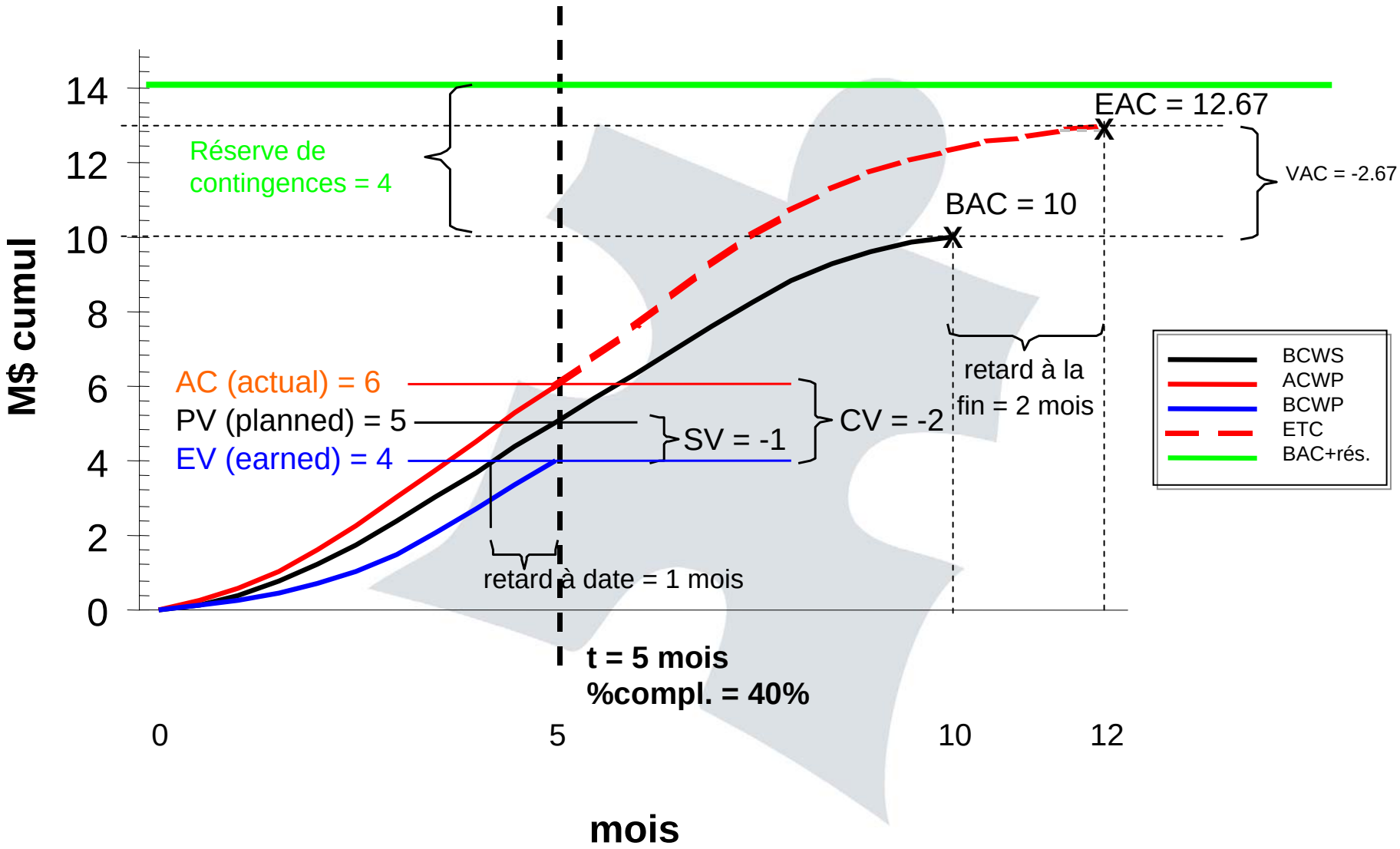












Synthèse et formules (mode page présentation)

Valeur acquise

Valeur acquise ("earned value"):

- **BCWS: Budgeted Cost of Work Scheduled**
  - CBTP: Coût Budgété du Travail Planifié
- **ACWP: Actual Cost of Work Performed**
  - CRTE: Coût Réel du Travail Exécuté
- **BCWP: Budgeted Cost of Work Performed (earned value)**
  - CBTE: Coût Budgété du Travail Exécuté(valeur acquise)
- **BAC: Budget at completion**
  - BAF: Budget à la Fin

$$BCWP = \%compl \times BAC$$

Valeur acquise

Gestion des écarts:

- **CV: Cost Variance**
  - VC: Variance (écart) Coût
- **SV: Schedule Variance**
  - VS: Variance (écart) Échéancier

$$CV = BCWP - ACWP$$

$$SV = BCWP - BCWS$$

Valeur des écarts

Positif 

Négatif 

Valeur acquise

Indicateurs de performance:

- **CPI: Cost Performance Index**
  - IPC: Indicateur de Performance Coût
- **SPI: Schedule Performance Index**
  - IPS: Indicateur de Performance Échéancier

$$CPI = BCWP / ACWP$$

$$SPI = BCWP / BCWS$$

Valeur des indices

> 1

< 1

Valeur acquise

Prévisions:

- **ETC: Estimate To Complete**
  - RAF: Reste à Faire
- **EAC: Estimate At Completion**
  - PAF: Prévision à la Fin (ou CFP: Coût Final Prévu)
- **VAC: Variance At Completion**
  - VAC: Variance (écart) à la Fin

$$EAC = ACWP + ETC$$

$$EAC = ACWP + (BAC - BCWP)$$

$$EAC = ACWP + (BAC - BCWP) / CPI$$

$$VAC = BAC - EAC$$

Valeur acquise

$$CV = BCWP - ACWP$$

$$SV = BCWP - BCWS$$

$$CPI = BCWP / ACWP$$

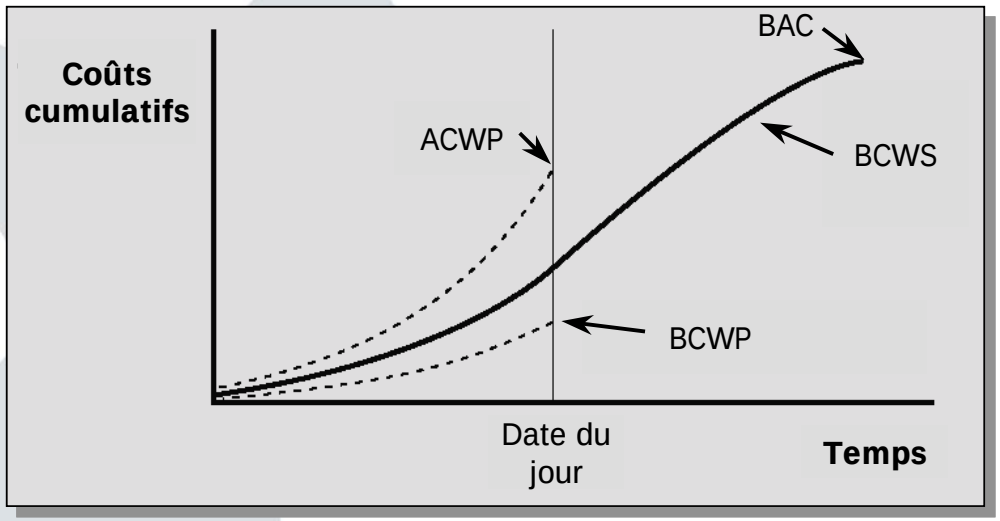
$$SPI = BCWP / BCWS$$

$$EAC = ACWP + ETC$$

$$EAC = ACWP + (BAC - BCWP)$$

$$EAC = ACWP + (BAC - BCWP) / CPI$$

$$VAC = BAC - EAC$$



Valeur acquise

Exemple d'application:

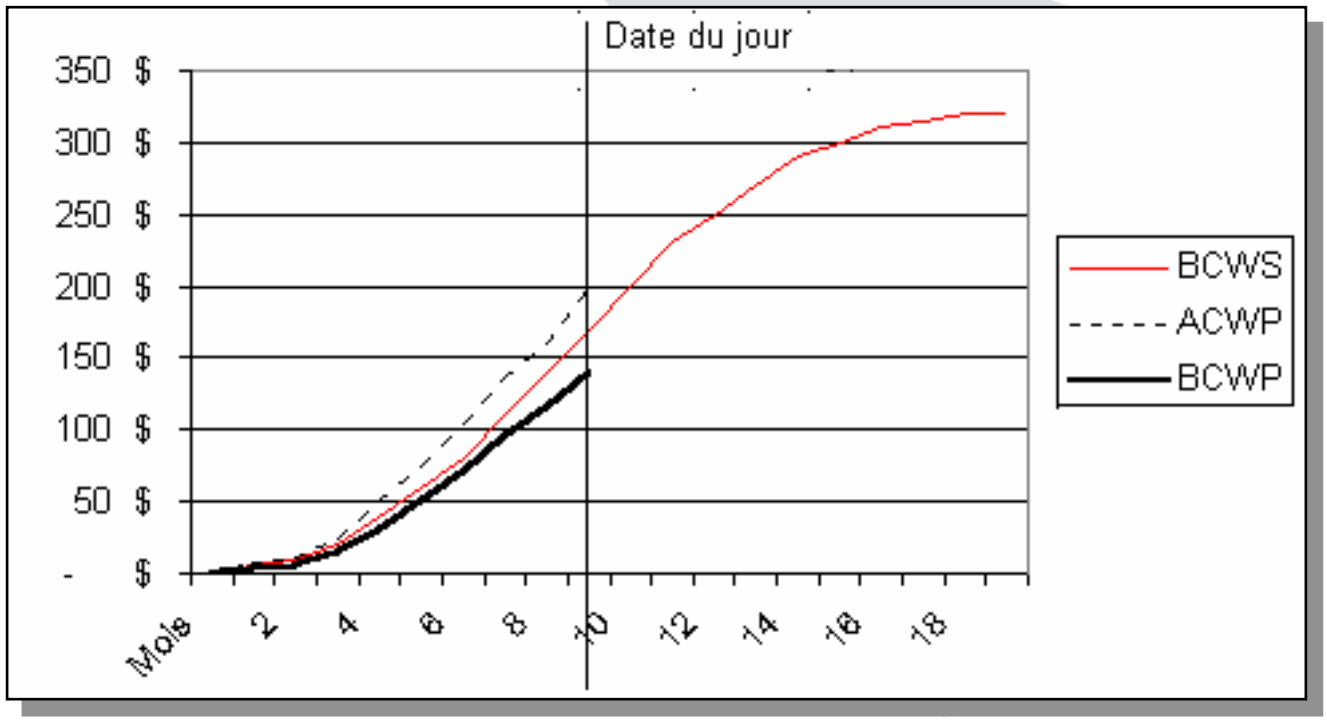
- **Données de base**

Mois	BCWS	ACWP	BCWP	CV	SV	CPI	SPI
1	- $	- $	- $	- $	- $	1,000	1,000
2	5 $	7 $	3 $	(4) $	(2) $	0,429	0,600
3	10 $	12 $	6 $	(6) $	(4) $	0,500	0,600
4	20 $	25 $	15 $	(10) $	(5) $	0,600	0,750
5	40 $	50 $	30 $	(20) $	(10) $	0,600	0,750
6	60 $	75 $	50 $	(25) $	(10) $	0,667	0,833
7	80 $	105 $	70 $	(35) $	(10) $	0,667	0,875
8	110 $	135 $	95 $	(40) $	(15) $	0,704	0,864
9	140 $	160 $	115 $	(45) $	(25) $	0,719	0,821
10	170 $	200 $	140 $	(60) $	(30) $	0,700	0,824
11	200 $						
12	230 $						
13	250 $						
14	270 $						
15	290 $						
16	300 $						
17	310 $						
18	315 $						
19	320 $						
20	320 $						

Valeur acquise

Exemple d'application:

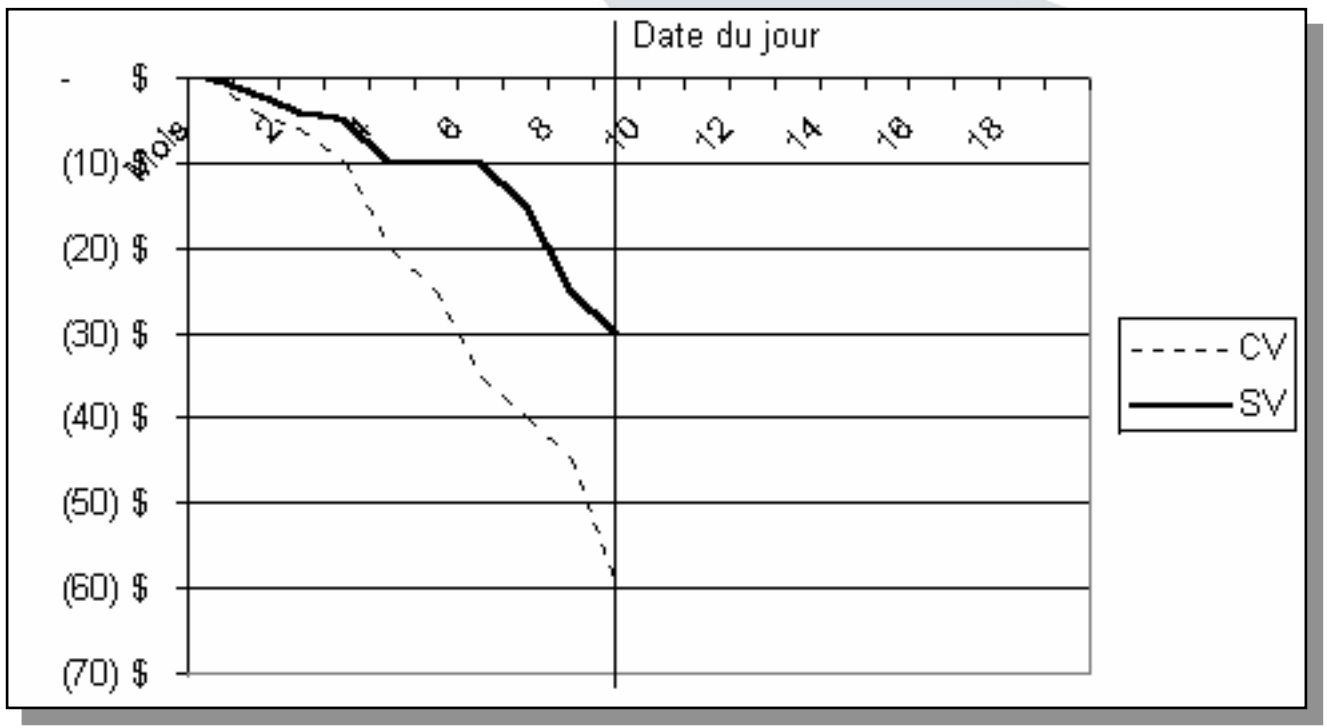
- Graphique des valeurs BCWS, ACWP, BCWP



Valeur acquise

Exemple d'application:

- Variances



Valeur acquise

Exemple d'application:

- Indicateurs de performance