

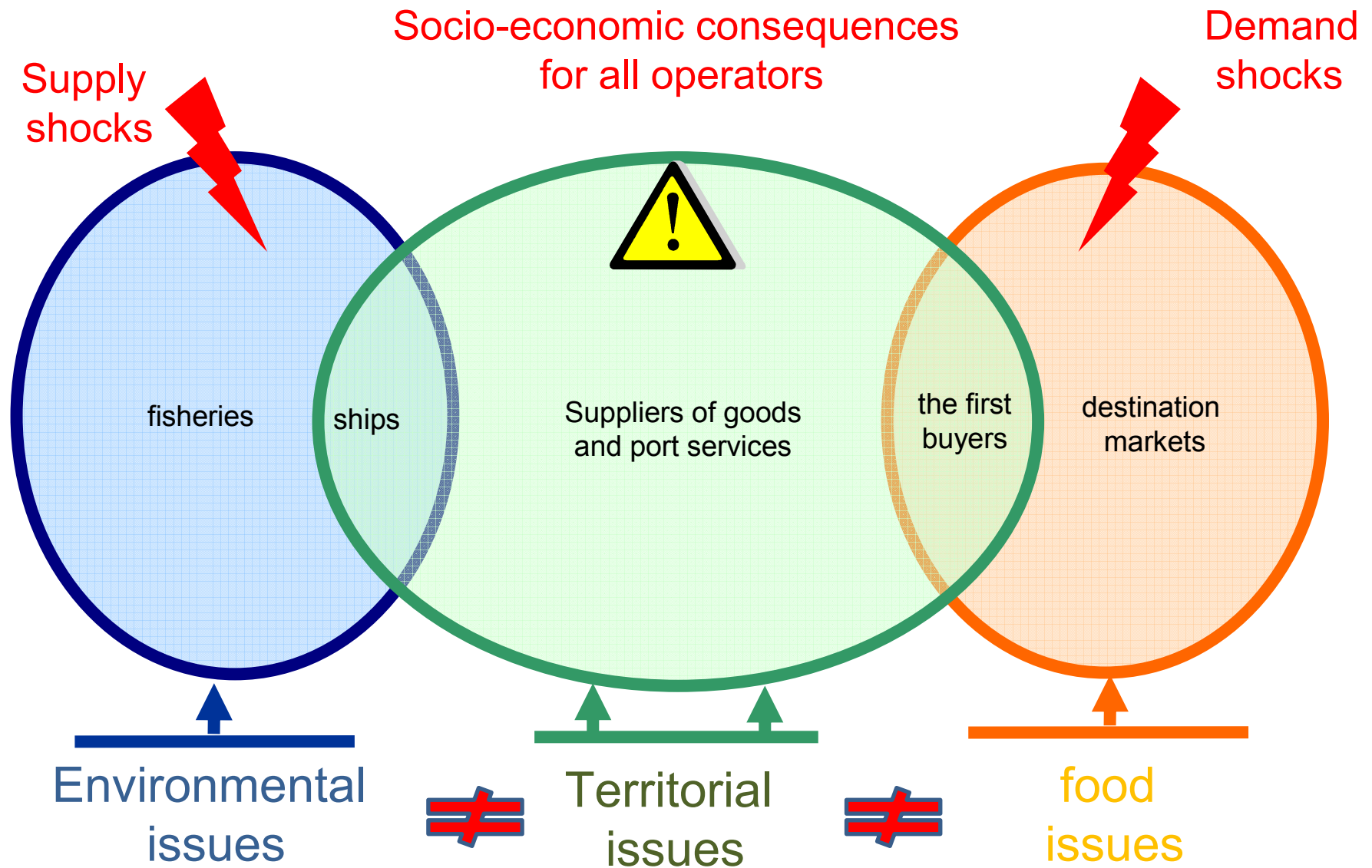
Economical considerations in management plans

-

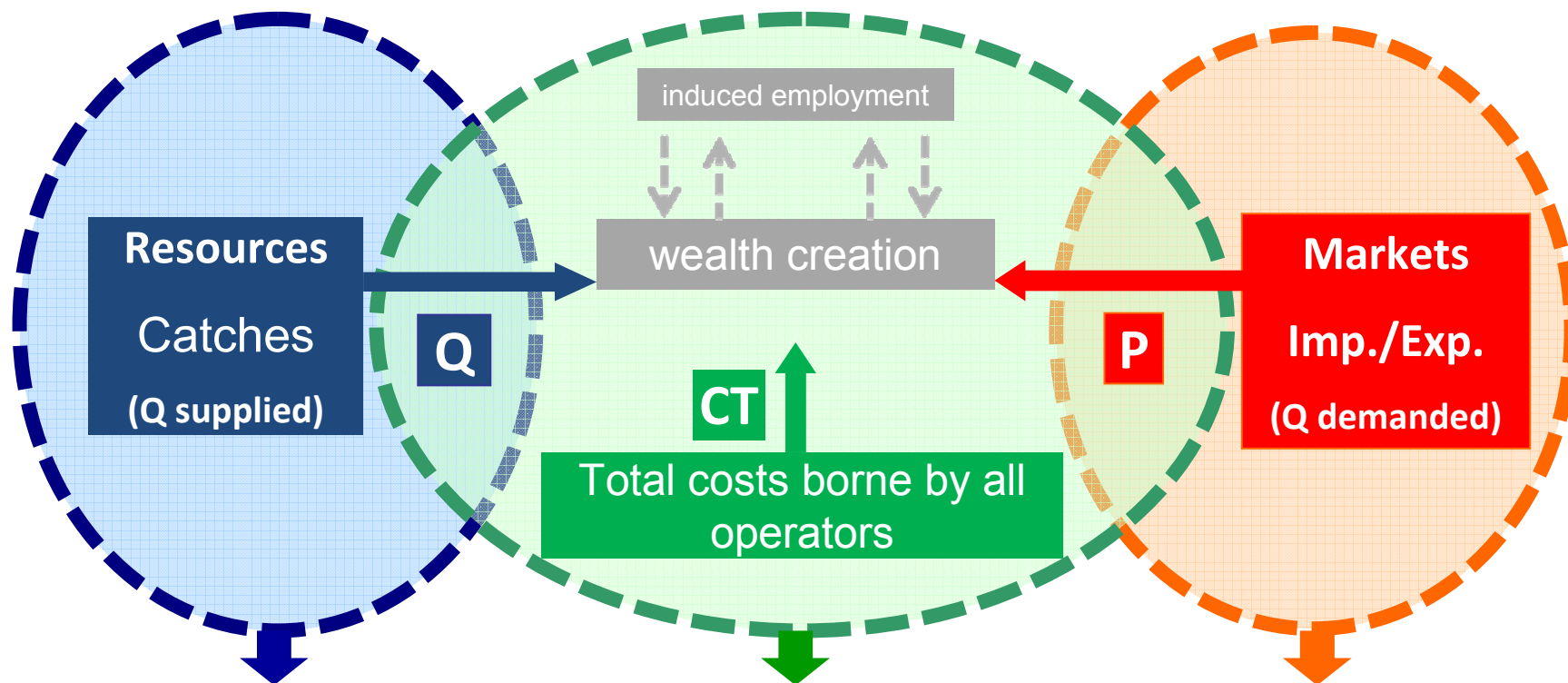
Discussion on methodology



The socio-economic problems of the French fishing industry facing the challenges of sustainable development



General principles of the analysis of socio-economic problems of the French fishing industry



Sustainability of the sector of the seafood

=> A central issue related to the consideration of three components :

- ☐ the available volume (supply Q)
- ☐ Operating costs and investment (total costs TC)
 - ☐ the value of the harvested products (price P)

General principles of the analysis of socio-economic problems of the French fishing industry

The inclusion of these three components leads to another approach in the sustainable management of fisheries :

- ❖ Analysis not based solely on the resource, but on consideration of all aspects of the industry because of their interdependence => consideration of "Domino effects"
- ❖ Opportunity to spend a logical "consequence assessment" socio-economic (suffer) a logic of "adequacy of measures" with the socio-economic issues (fit) " => another time scale (more consistent with the durations of financial investments) and other management tools (adapt existing mechanisms in other areas on land) :

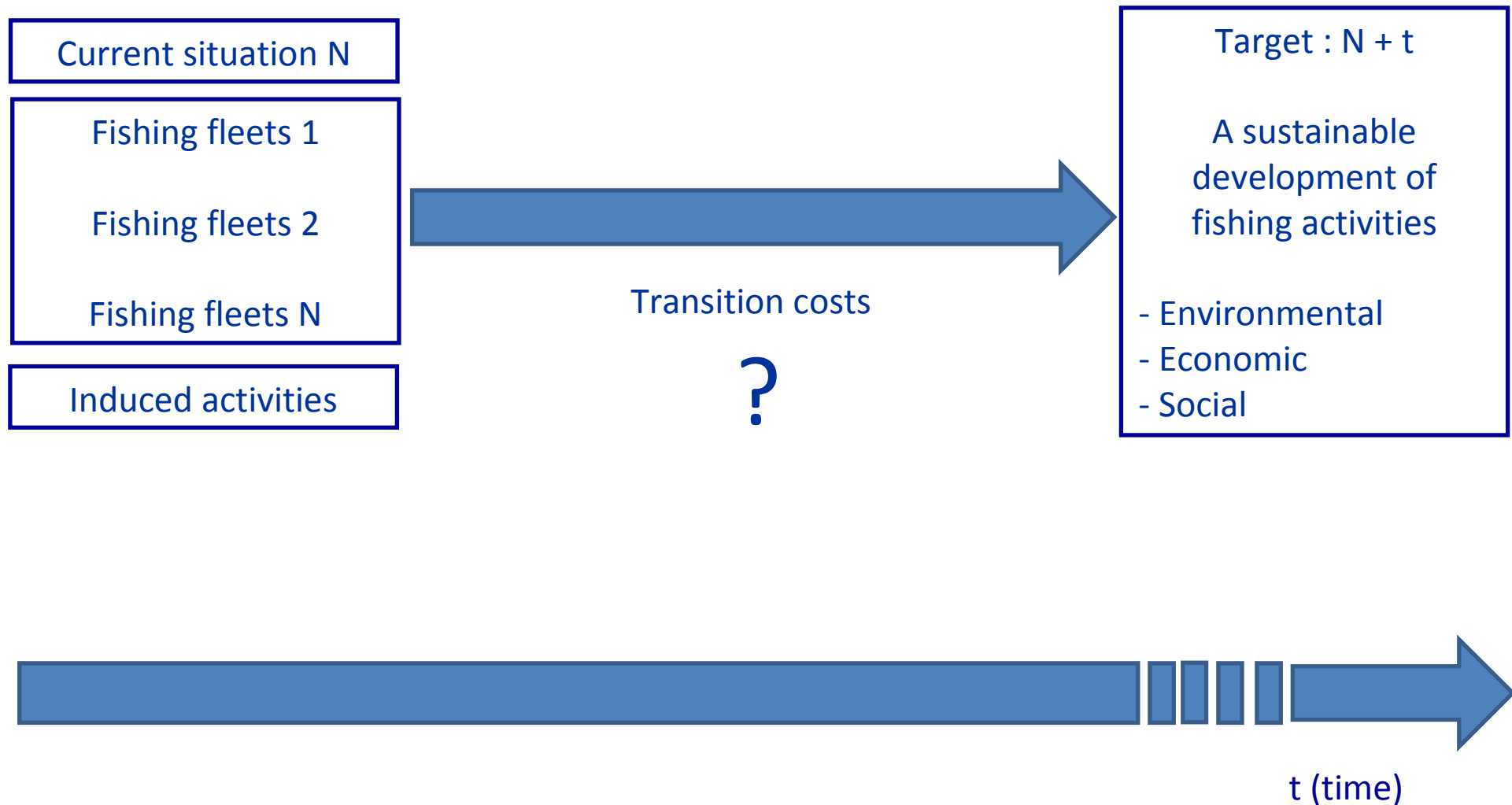
- ☐ The volume harvested (supply Q): consistent with maintaining market
- ☐ Operating costs and investment: consistent with maintaining the profitability of operators
- ☐ The value of the harvested products (price P) aligned with the target markets and product positioning

How to take into consideration the socio-economic dimension in the development of a management plan?

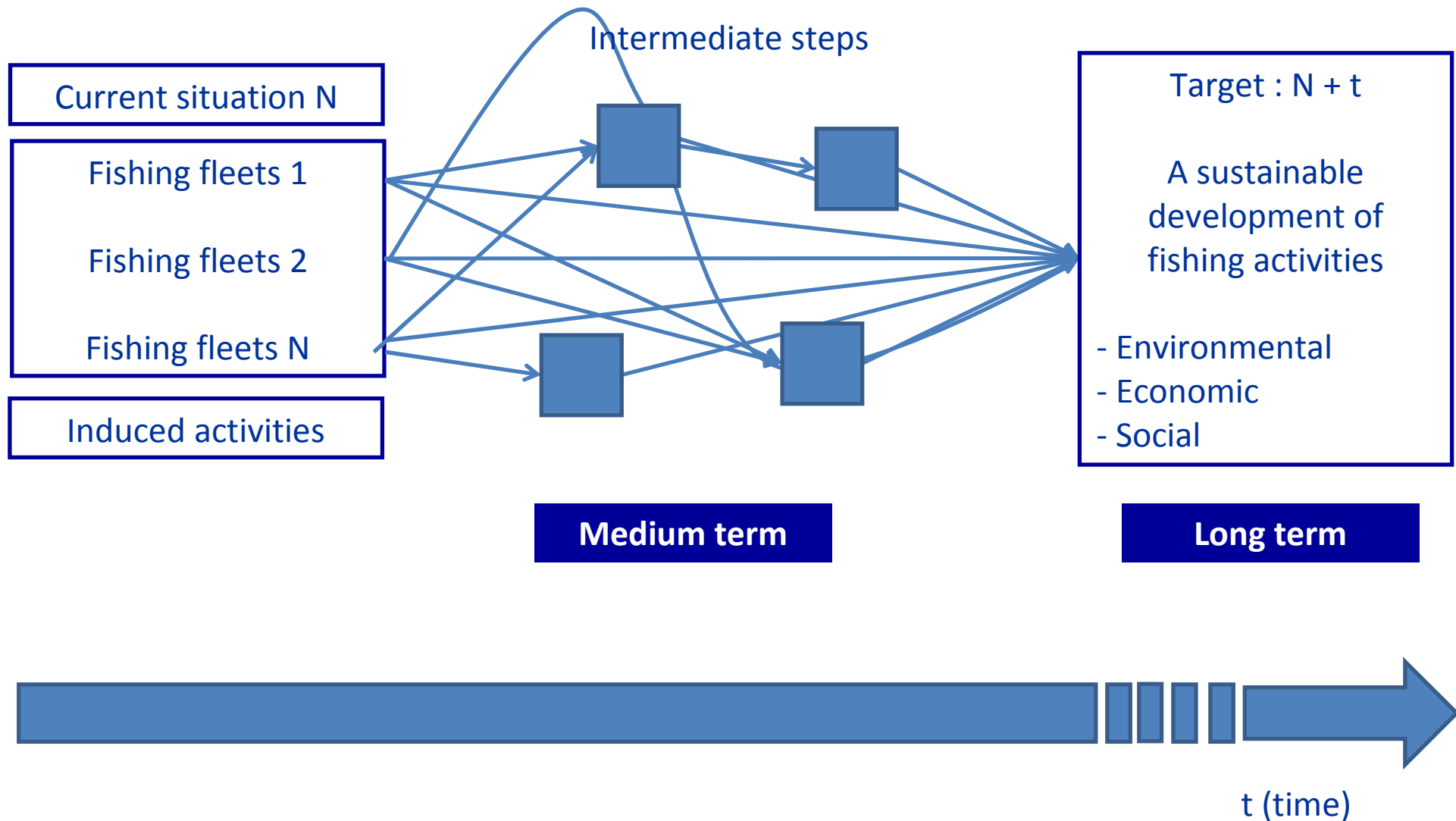
methodological principle :

- ✓ An assessment which takes into consideration all components of the sustainable development
- ✓ An assessment of indirect effects (value chain, induced employment)
- ✓ An assessment available for all fisheries / Member State
- ✓ An assessment based on tests of scenarios
- ✓ Scenarios developed in concerted way
- ✓ An assessment based on cost accounting principles (fixed and variable costs)

Example of assessment of measures on management plan fishery



Example of assessment of measures on management plan fishery



ASSESSMENT PROCESS

Characterising of the current situation relating to :

- Fishing companies
- Induced activities

Descriptive statistics
Identify key issues

- Environmental indicators
- Economic indicators
- Social indicators

Select performance indicators adapted to the issue (monitoring)

Growth indicators

- Indicators on the 3 pillars
- Audit risk matrix

Current situation N

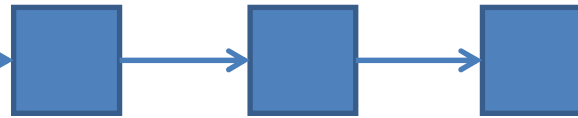
Fishing fleets 1

Fishing fleets 2

Fishing fleets N

Induced activities

Set intermediate targets



Select management measures to be tested (scenarios)

- Technical measures
- Closure of fishery
- Fishing quota, ...

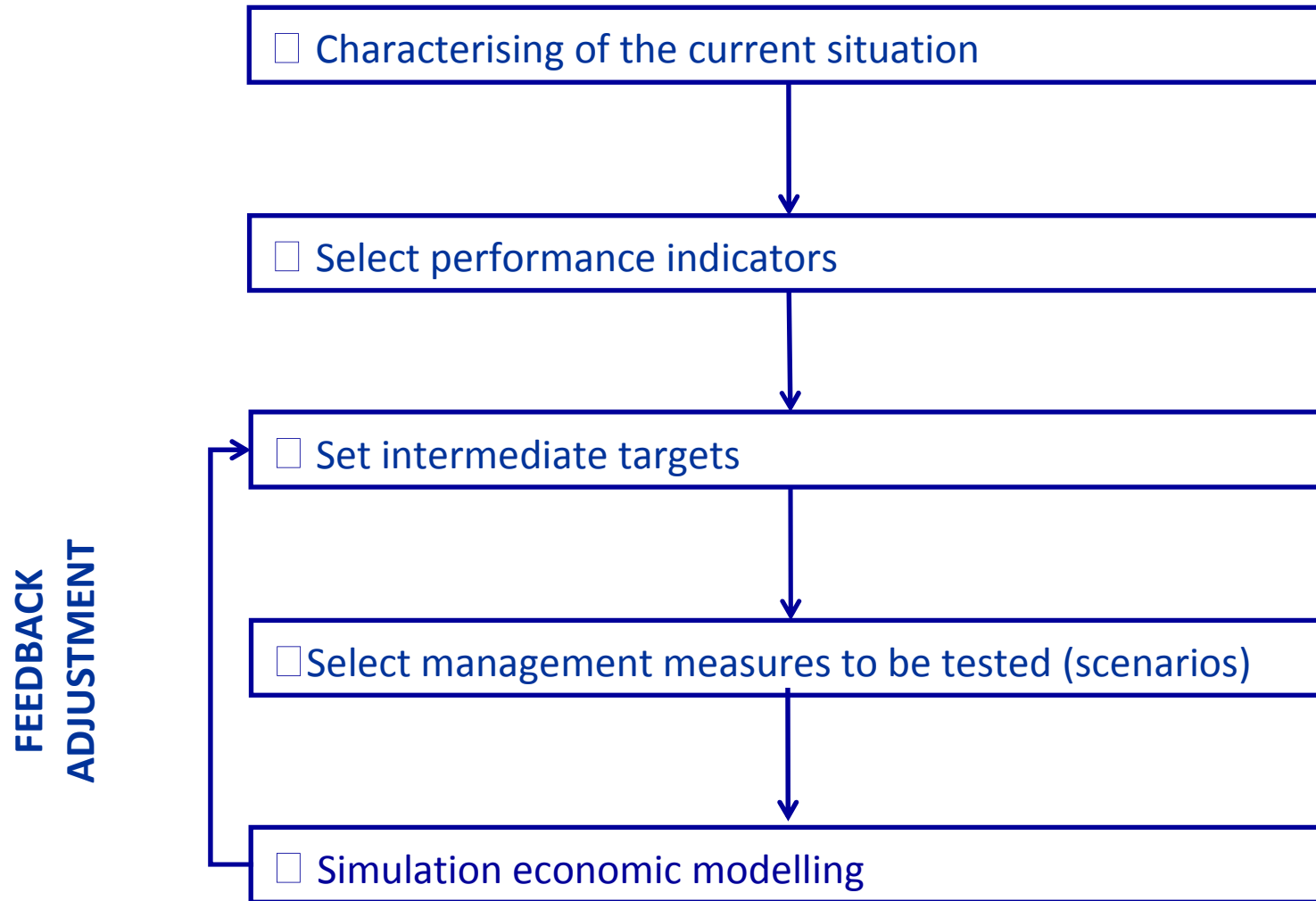
Simulation economic modelling

Target : N + t

A sustainable development of fishing activities

- Environmental
- Economic
- Social

SUMMARIZATION ASSESSMENT PROCESS



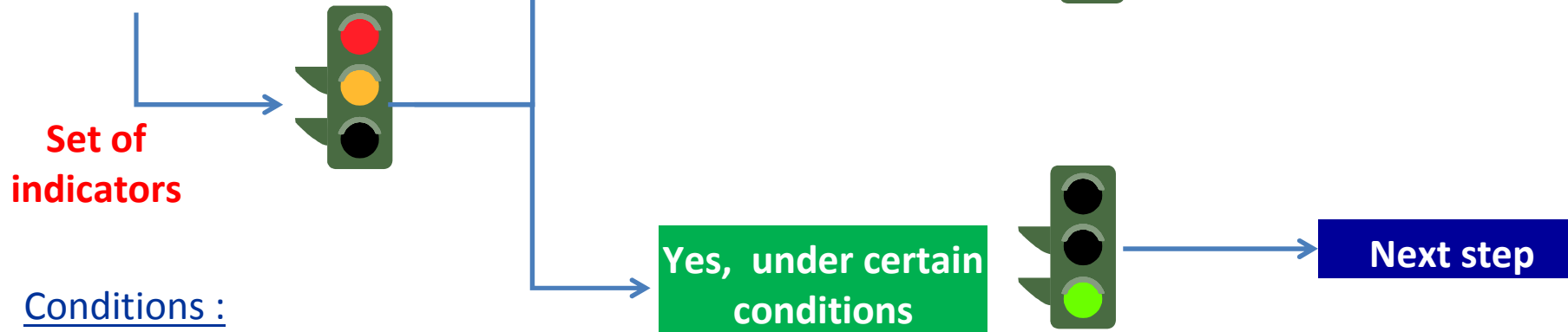
Simulation results

Judge the relevance of tested measures with a set of indicators on the 3 pillars



SCENARIO 1

Fewer days at sea on a quarter (-X%)



- Play with timescale (increase time between intermediate steps)
- Use valid compensatory measure to address all negative indicators
- Redefine intermediate objectives (reduce constraints for short-term)

Advantages of this approach

- Identifying major parameters
- Pointing out obstacles and identify existing levers or potential ones (acceptability)
- Identifying critical thresholds cannot be exceeded (irreversible choice)
- Identifying management measures or a combination of measures which are the most operational
- Identifying compensatory measures (support the transition)

limitations of this approach

- Having an homogeneous databases for each Member State (DCF ?)
- Arbitration can sometimes be difficult (obstacles to the concerted action)
- It's a new approach for management plans (no experience effects)

Potential databases

- Data collected in the DCF program : sustainability of fishing enterprises
(social and economic statistics and rates, production data)
- Other national statistics (Eurostat, ...) : sustainability of the sector (value, markets and jobs)
- Data collected by survey (“expert estimates ») : setting scenarios

Some examples of performance indicators on the sustainability of fisheries enterprises

► Key Ratios of fishing activity

1/ Changes in financial position

- Compare the evolution of the operating income RO and $K + i$
- Return on capital $EBE / \text{GROSS FIXED ASSETS}$

2/ Study the company's solvency, its ability to repay its debts and its short-term liquidity

- Ratio of short-term solvency ($\text{Current assets} / \text{Current liabilities}$)
- Debt ratios ($\text{debt} / \text{value of the vessel}$)

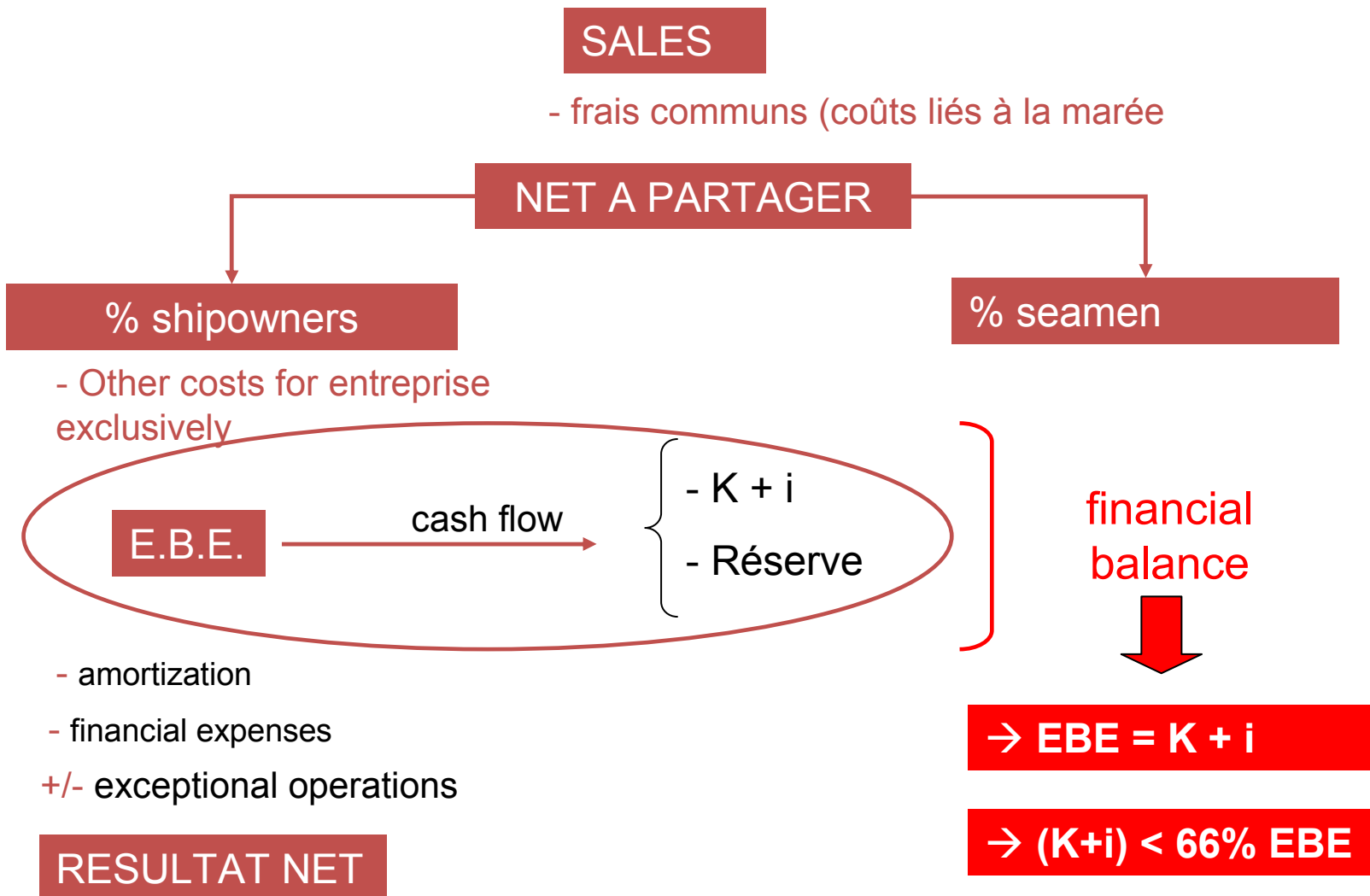
3/ Risk analysis and profitability

- Repayment capacity: $LT \text{ debt} / RO$
- Gross margin Operating: RO / CA

► Balances of the company regarding the financial situation in France

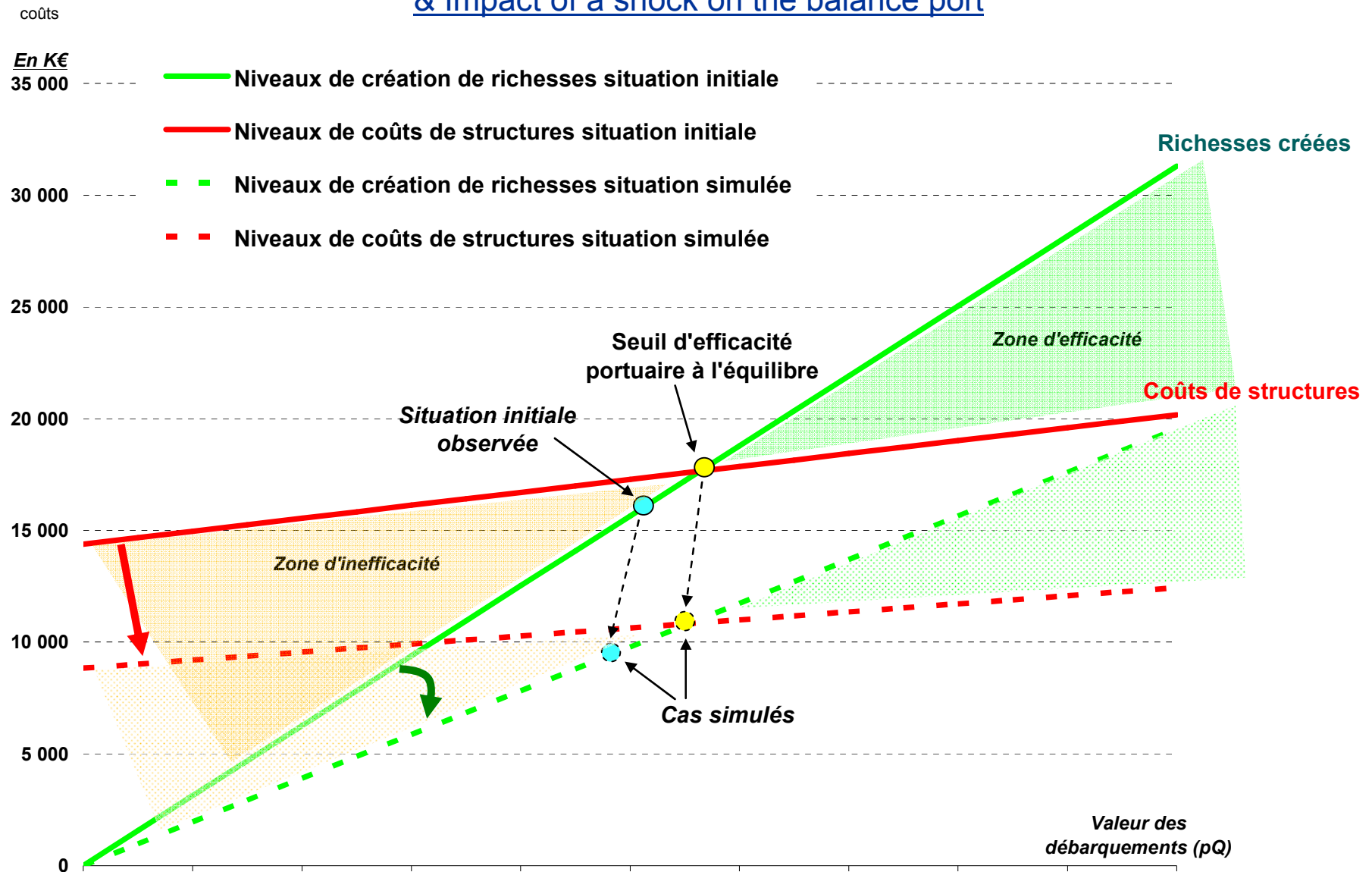
► The operating balance: $EBE = 0$

► The financial balance:

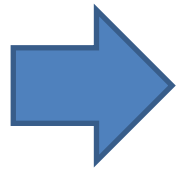


Quelques exemple d'indicateurs de performance sur la durabilité des opérateurs portuaires

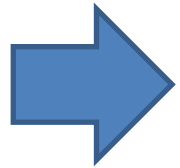
Theoretical representation of the economic model port & Impact of a shock on the balance port



Some example of studies



The anchovy in the gulf of Biscay



The nephrops in the gulf of Biscay

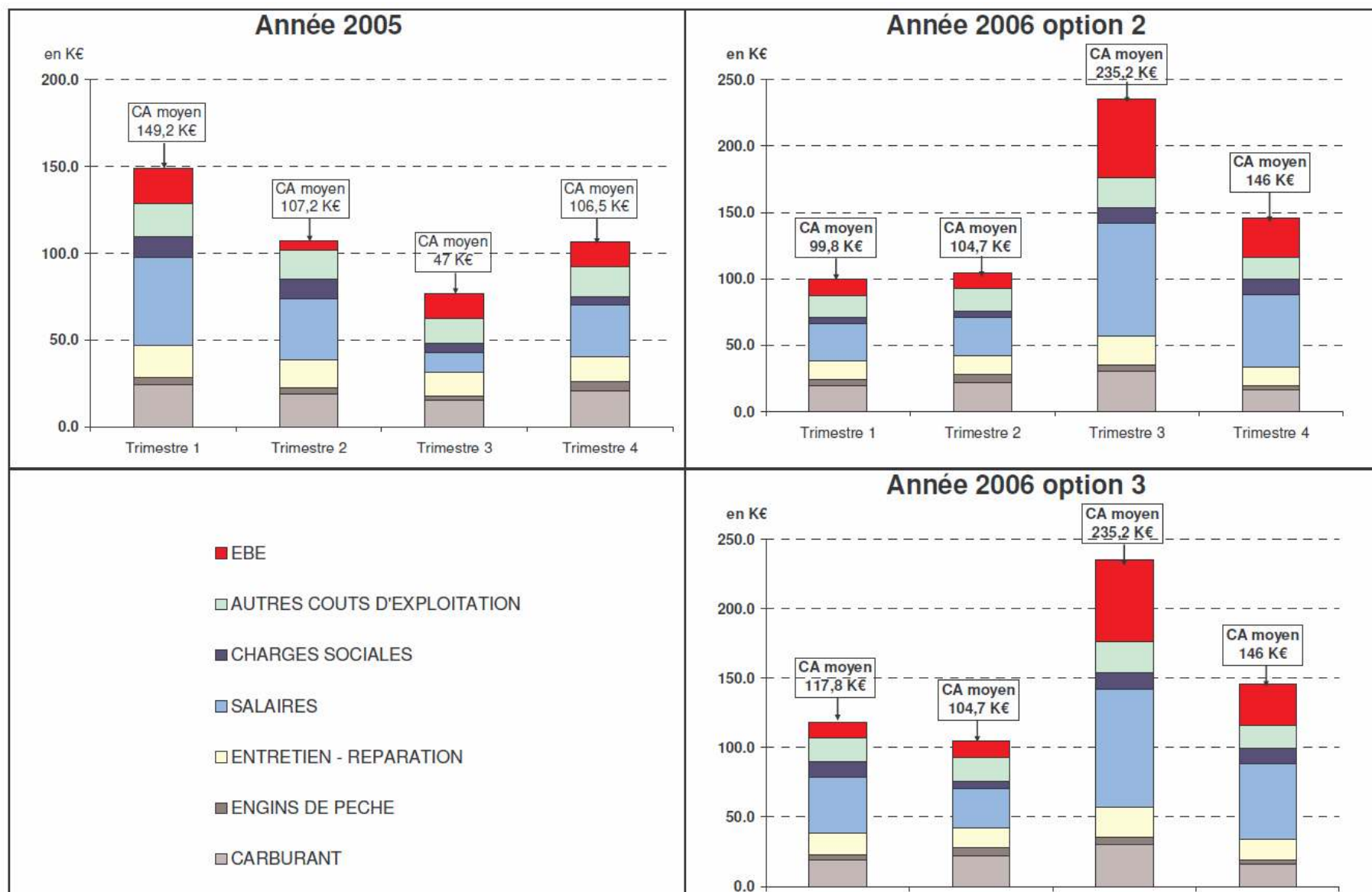
Exemple de l'anchois dans le golfe de Gascogne : scénarios simulés

Deux options (2 et 3) d'activité mixte (chalutage pélagique – chalutage de fond) ont été retenues :

		2005	2006
Option 1 Report de pêche sans reconversion de métier	Trimestre1	Chalutier pélagique	Chalutier pélagique sans anchois et sans compensation
	Trimestre2	Chalutier pélagique	Chalutier pélagique sans anchois et sans compensation
	Trimestre3	Chalutier pélagique sans anchois mais compensation arrêt biologique de 45 jours	Chalutier pélagique
	Trimestre4	Chalutier pélagique sans anchois et sans compensation	Chalutier pélagique
Option 2 Reconversion de métier totale durant le dernier trim. 2005 et le 1 ^{er} semestre 2006	Trimestre1	Chalutier pélagique	Chalutier de fond
	Trimestre2	Chalutier pélagique	Chalutier de fond
	Trimestre3	Chalutier pélagique sans anchois mais compensation arrêt biologique de 45 jours	Chalutier pélagique
	Trimestre4	Chalutier de fond	Chalutier pélagique
Option 3 Reconversion de métier partielle durant le dernier trim. 2005 et le 2 nd trim. 2006	Trimestre1	Chalutier pélagique	Chalutier pélagique sans anchois et sans compensation
	Trimestre2	Chalutier pélagique	Chalutier de fond
	Trimestre3	Chalutier pélagique sans anchois mais compensation arrêt biologique de 45 jours	Chalutier pélagique
	Trimestre4	Chalutier de fond	Chalutier pélagique

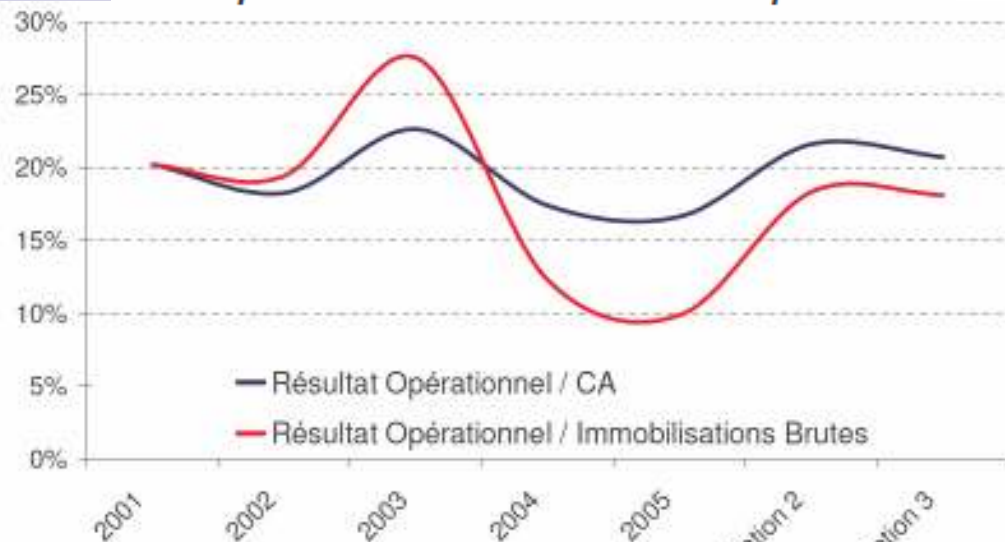
Exemple de l'anchois dans le golfe de Gascogne : scenarios simulés

Répartition trimestrielle du CA et des coûts d'exploitation des navires de 12 m. et plus en fonction des hypothèses retenues (estimations sur la base de 2001-2004)



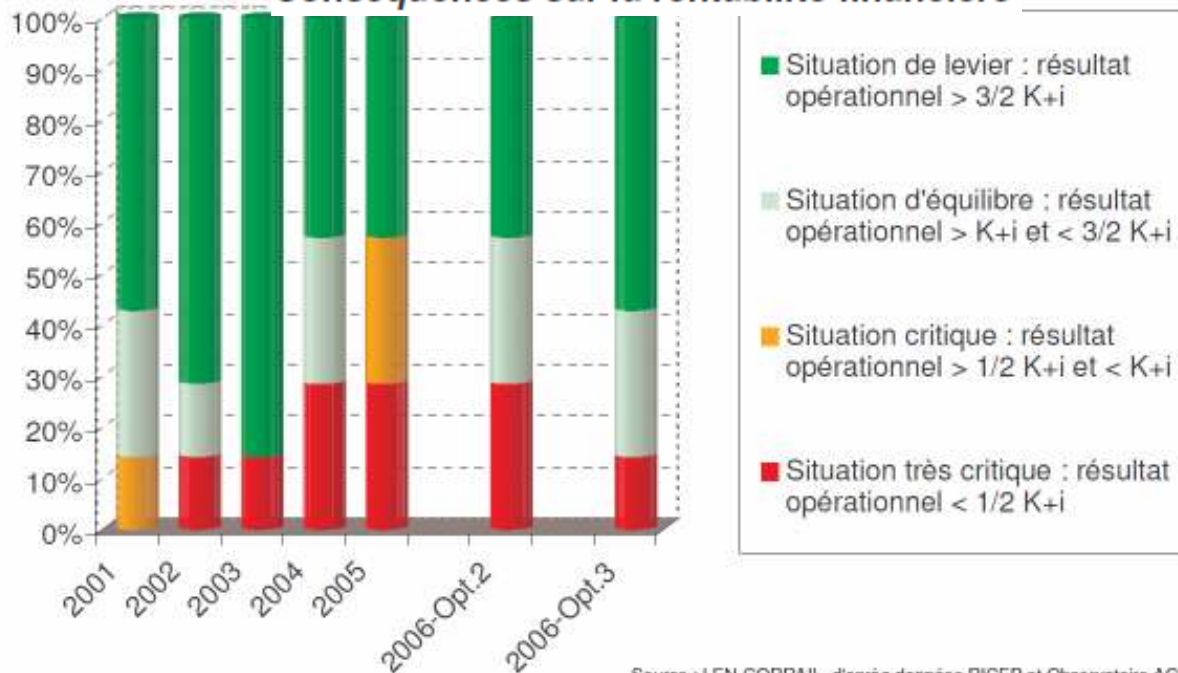
Exemple de l'anchois dans le golfe de Gascogne : scénarios simulés

Conséquences sur la rentabilités d'exploitation



Source : LEN-CORRAIL, d'après données RICEP et Observatoire AGLIA

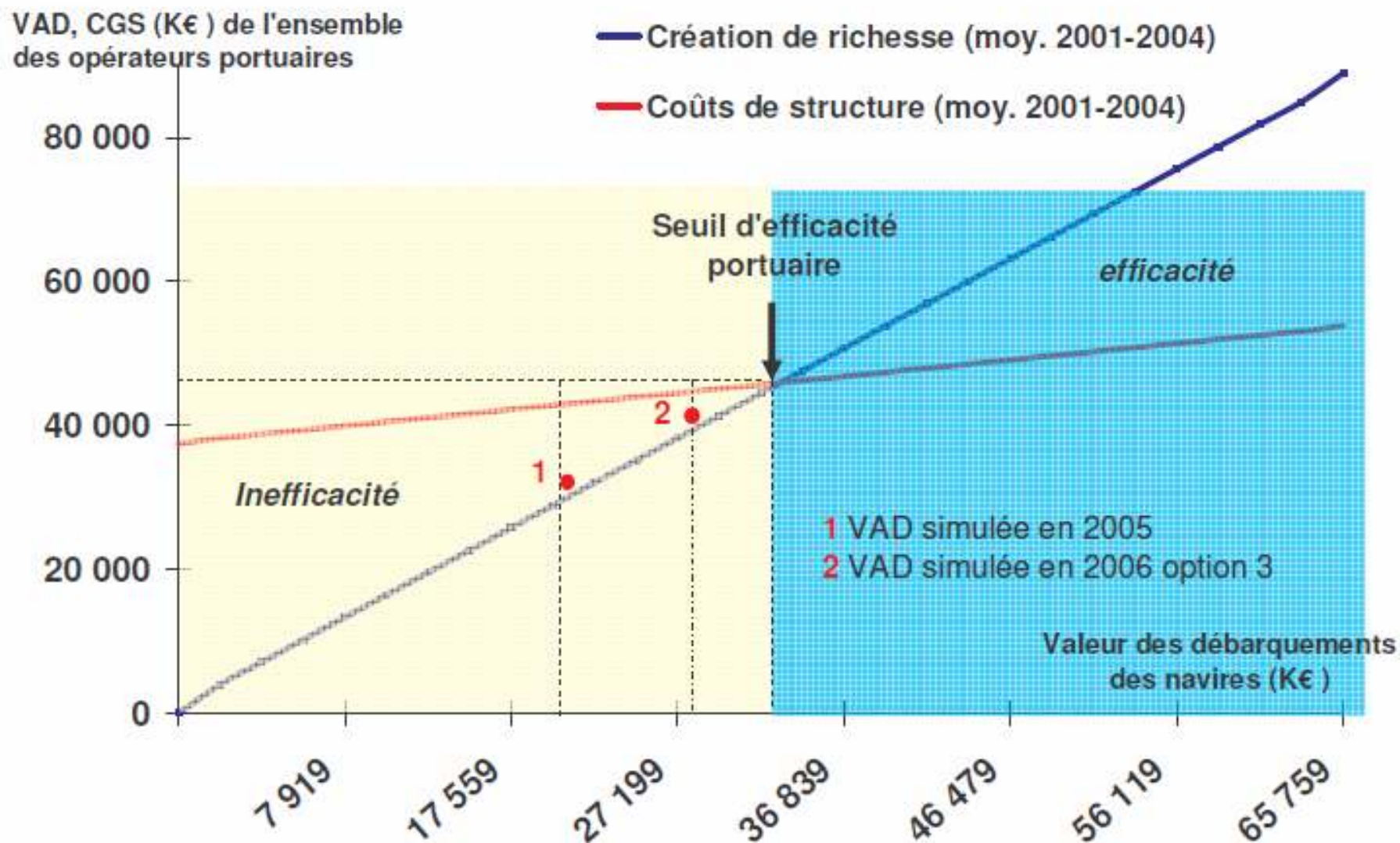
Conséquences sur la rentabilité financière



Source : LEN-CORRAIL, d'après données RICEP et Observatoire AGLIA

Exemple de l'anchois dans le golfe de Gascogne : scénarios simulés

Conséquences sur la sphère portuaire



Source : LEN-CORRAIL, Université de Nantes, 2005

La langoustine du golfe de Gascogne

Scénarios étudiés

	Arts dormants initialement	Arts traînant initialement
Polyvalence au cours de la marée	Cas N°1	Cas N°4
Polyvalence saisonnière	Cas N°2	Cas N°5
Année complète	Cas N°3	Cas N°6

Faisabilité technico-économique des scénarii étudiés – premiers résultats

	Arts dormants initialement	Arts traînant initialement
Polyvalence au cours de la marée	Cas N°1	Cas N°4
Polyvalence saisonnière	Cas N°2	Cas N°5
Année complète	Cas N°3	Cas N°6

SUMMARIZATION ASSESSMENT PROCESS

6 months

FEEDBACK
ADJUSTMENT

