

# THE PRODUCTIVE PHARMACIST: PROCESS AND WORKFORCE PLANNING

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# DISCLOSURE

- **CONFLICT OF INTEREST: nothing to disclose**



# GENERAL OUTLINE

- INTRODUCTION
- SOCIO-ECONOMIC APPROACH MANAGEMENT APPLIED IN HOSPITAL PHARMACIES
- WHAT IS INTERVENTION-RESEARCH
- SEAM IN HOSPITAL PHARMACIES

# SELF ASSESSMENT QUESTIONS

**CAN YOU DEFINE TWO KINDS OF COSTS?**

**1/ Visible costs and hidden costs**

**2/ Medical device and drug costs**

## **SELF ASSESSMENT QUESTIONS**

**WHAT IS THE RANGE OF THE HIDDEN COSTS?**

**1/ 20,000 to 70,000€ per person per year**

**2/ 15,000 to 30,000€ per person per month**

## SELF ASSESSMENT QUESTIONS

THE IMPLEMENTATION OF SEAM APPROACH CAN  
REDUCE THE HIDDEN COSTS UP TO:

1/ 35-55%

2/ 60-80%

## CLINICAL GOVERNANCE CONCEPT

Clinical governance is « to manage a collective activity to develop stakeholders ability in coordinated practices »  
(Hatchuel A., 2000)

→ reduce patient stay and complex medical acts  
(M-P. Pomey, J-L. Denis et A-P. Contandriopoulos, 2008)

***MANAGEMENT IS A CLINICAL ACTIVITY***

# THE PHARMACIST UNKNOWN AND MISUNDERSTOOD!

## Pharmaceutical activities are insufficiently known:

- many technical and transverse activities
- underestimated activities in accounting systems

*AND HOWEVER,*

- Hospital pharmacy is a real transverse key player**
  - The pharmacist meets modern management codes:
    - he stimulates cooperation
    - he incorporates high level standards
- The pharmacist is a high rightful healthcare manager

# **SEAM: AN ORGANIZATIONAL CHALLENGE FOR PHARMACY AND HOSPITAL**

**TO IDENTIFY RESOURCES AND HIGH VALUE CLINICAL  
TIME REDUCING DYSFUNCTION REGULATIONS**

**TO DEVELOP COOPERATION EXPERIENCES ON MEDICINE MANAGEMENT  
BETWEEN PHARMACY AND MEDICAL CARE UNITS**

## ISEOR Research Center

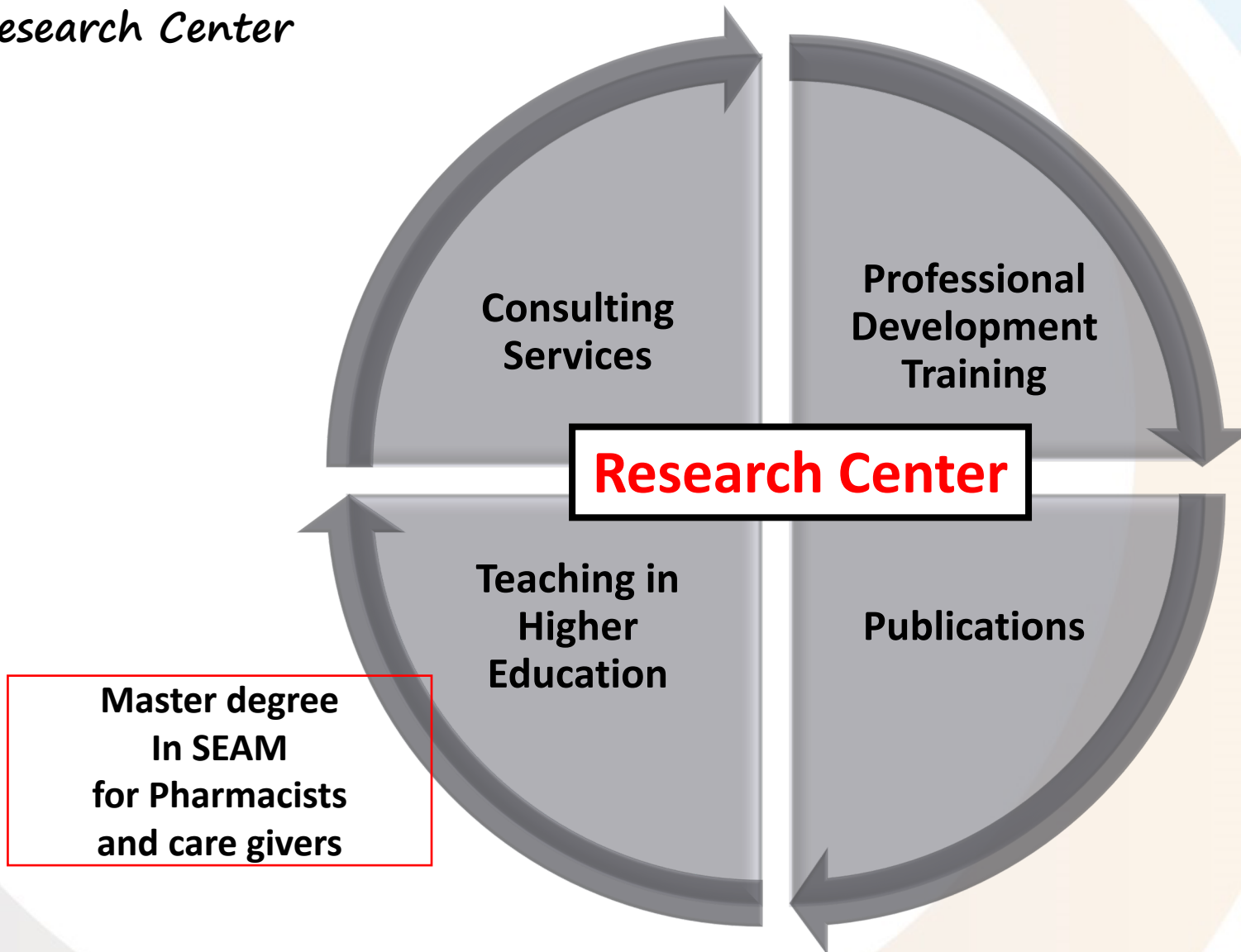
- ❑ Research center in management, associated with IAE Business School, U. Jean Moulin Lyon 3, France, founded in 1974 by Dr Henri Savall
- ❑ 30 full-time employees & more than 50 consulting partners  
→ *Cap O2 is a Scientific consultancy society affiliated to ISEOR*
- ❑ More than 100 active clients-companies and organizations in Europ, North America, Latin America & Middle East
- ❑ **“Socio-Economic Approach to Management” (SEAM)** : the result of a scientific approach to consulting



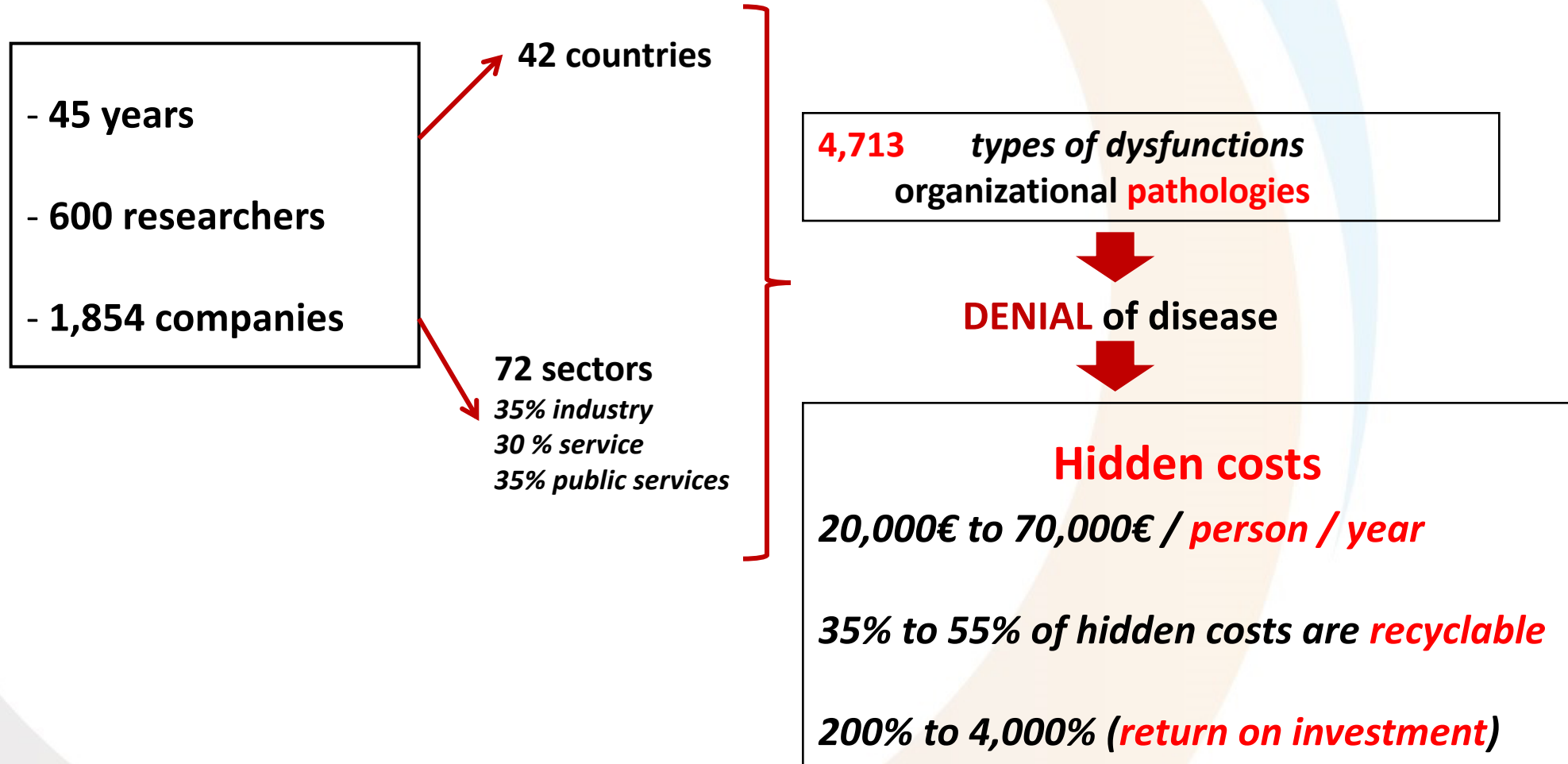


# What do we do?

ISEOR Research Center



## Dysfunctions and Hidden Costs

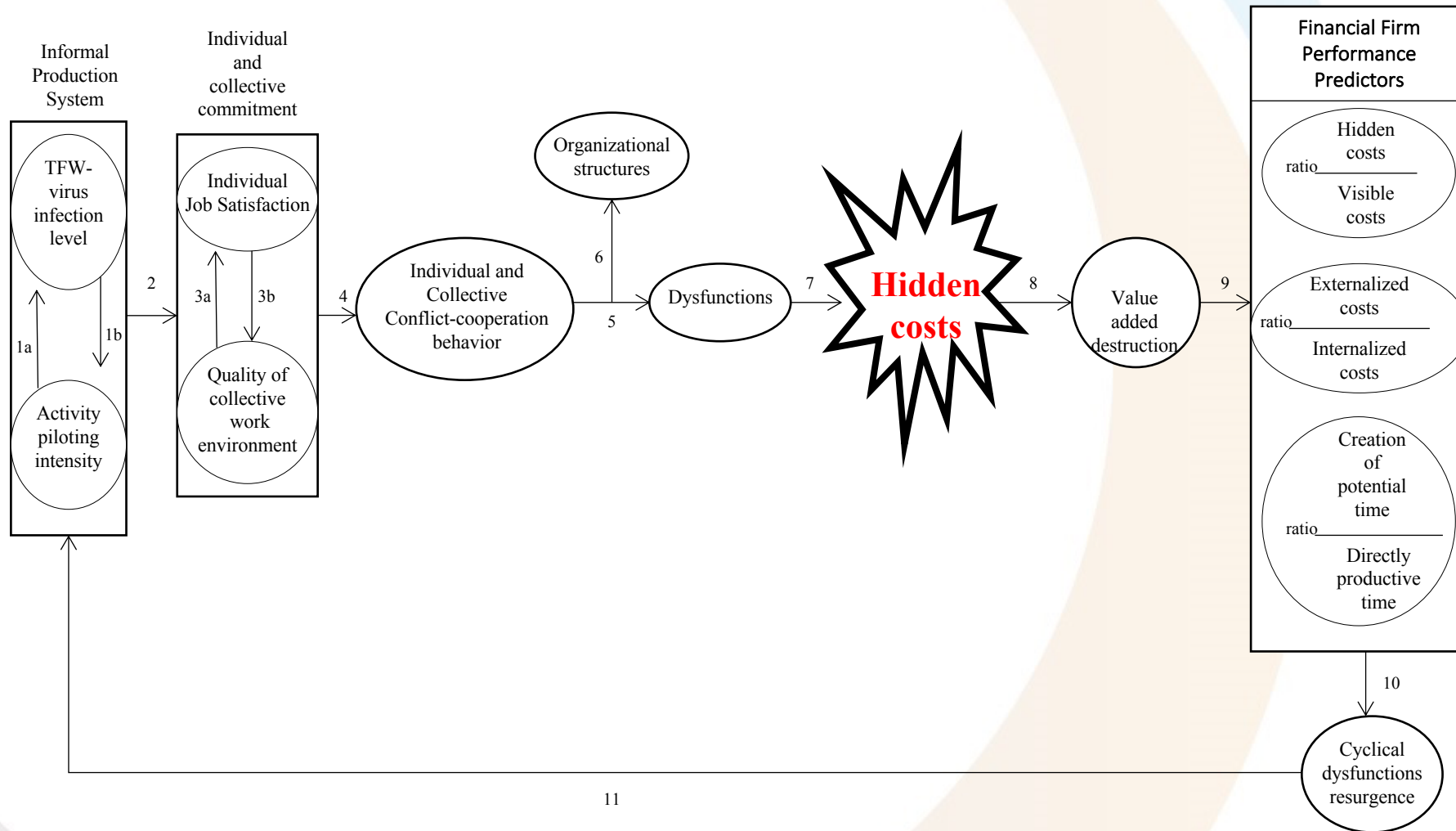


# SEAM discoveries

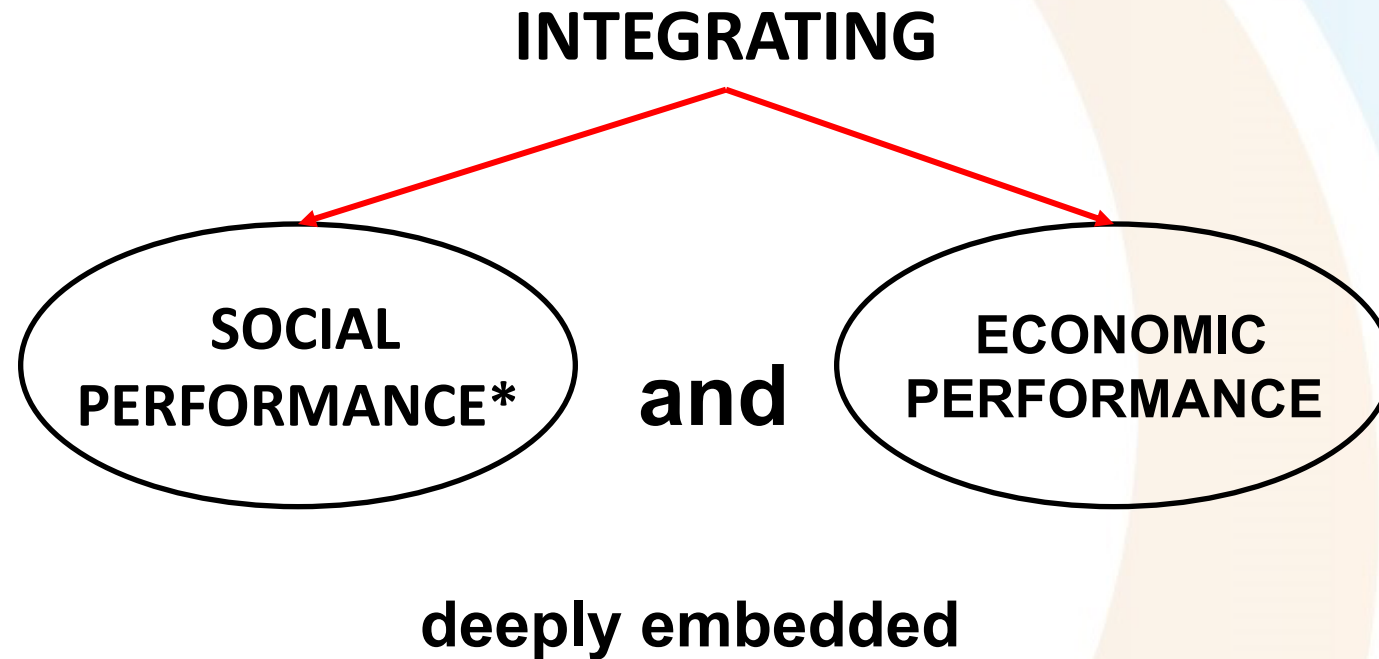
- **4,713** generic Dysfunctions (organizational pathologies)
- Hidden costs from **€20,000 to €70,000/p/year**
- **35 to 55%** of hidden costs are recyclable into added-value
- Sustainable performance increases thanks to **intangible investment in human potential development**
- This kind of investment has a very high **return on investment: between 2 and 40** (€1 brings back €2 to €40)

*Any organization can self-finance its survival and development,  
by recycling periodically its hidden costs*

# General presentation of the hidden costs socioeconomic theory

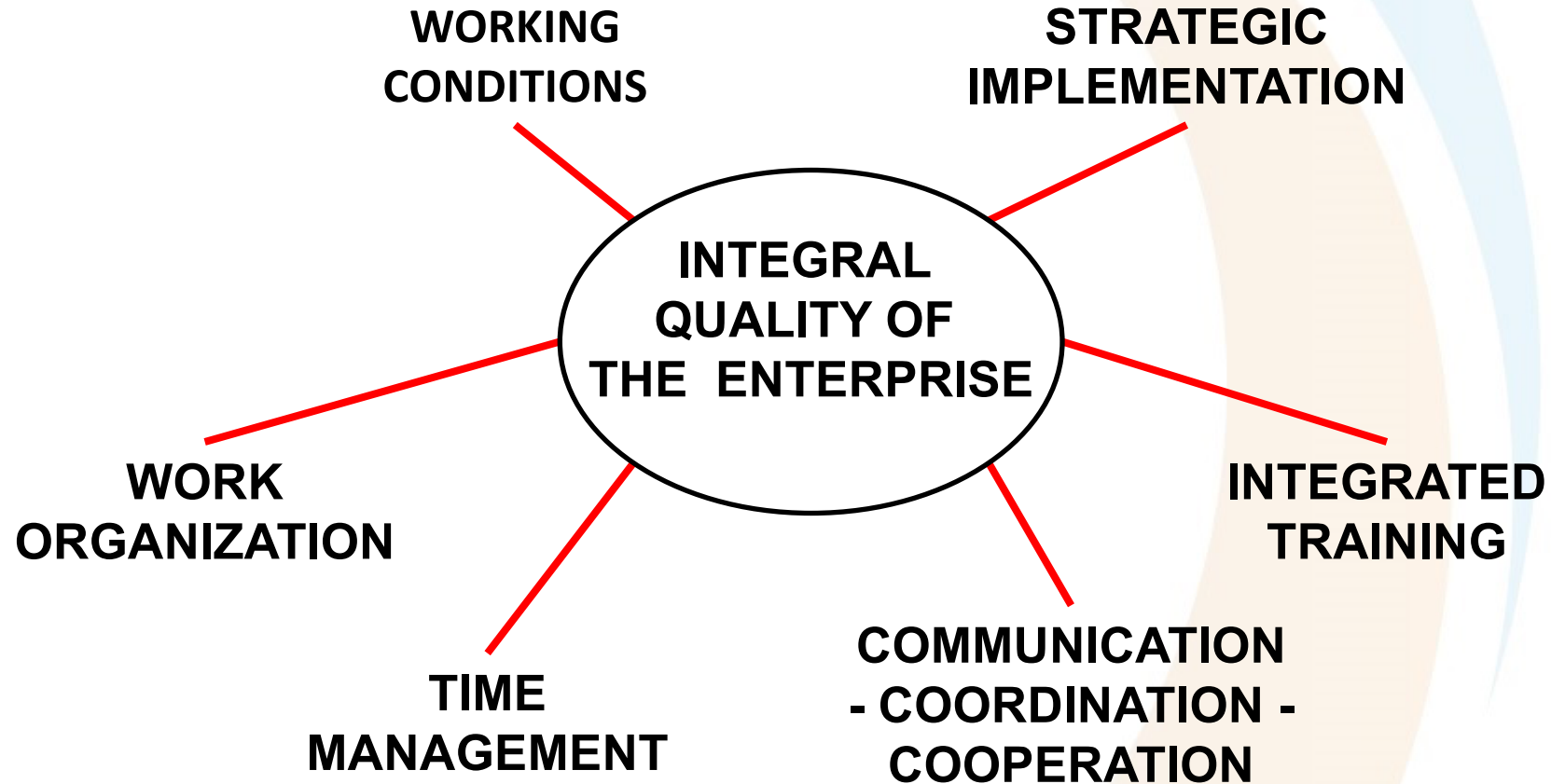


# SEAM : an innovative management



\*SOCIAL = **HUMANE** AND SOCIAL

# Social performance



# Economic performance

**visible** costs

**Hidden** costs

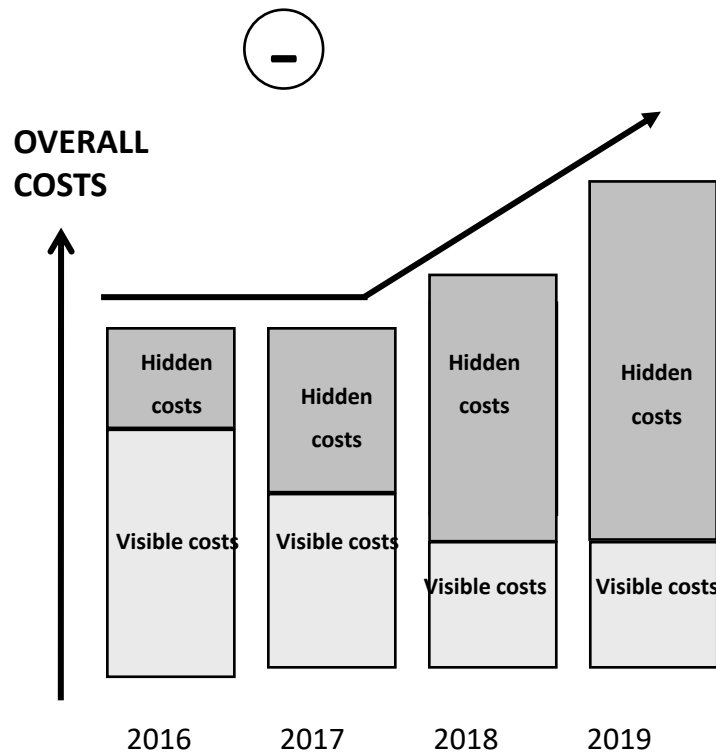
**visible** performance

**Hidden** performance

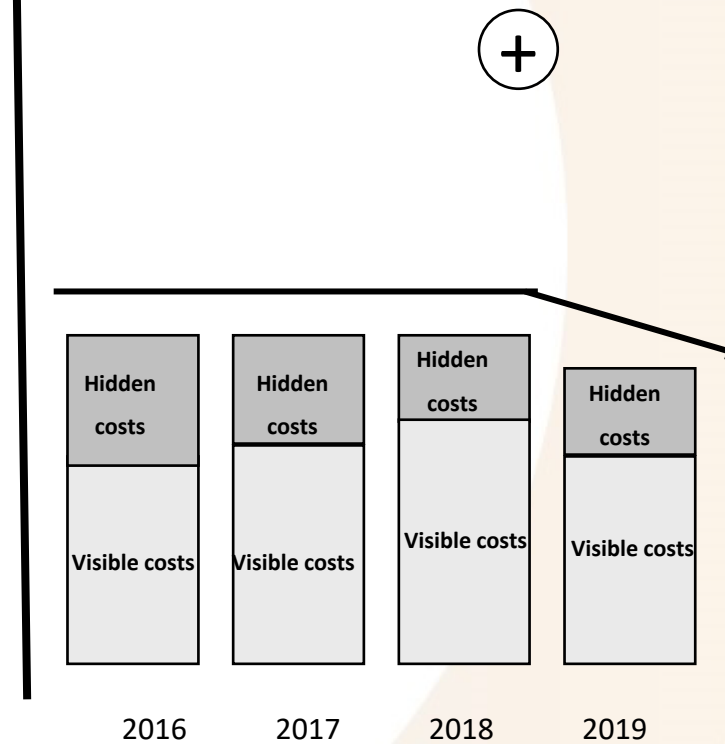
they don't appear in the  
accounting,  
are not measured although they  
are known

# Regular strategic mistakes: NO taking into account hidden costs

**HARMFUL TRADITIONAL STRATEGY TO  
CUT DOWN VISIBLE COSTS**

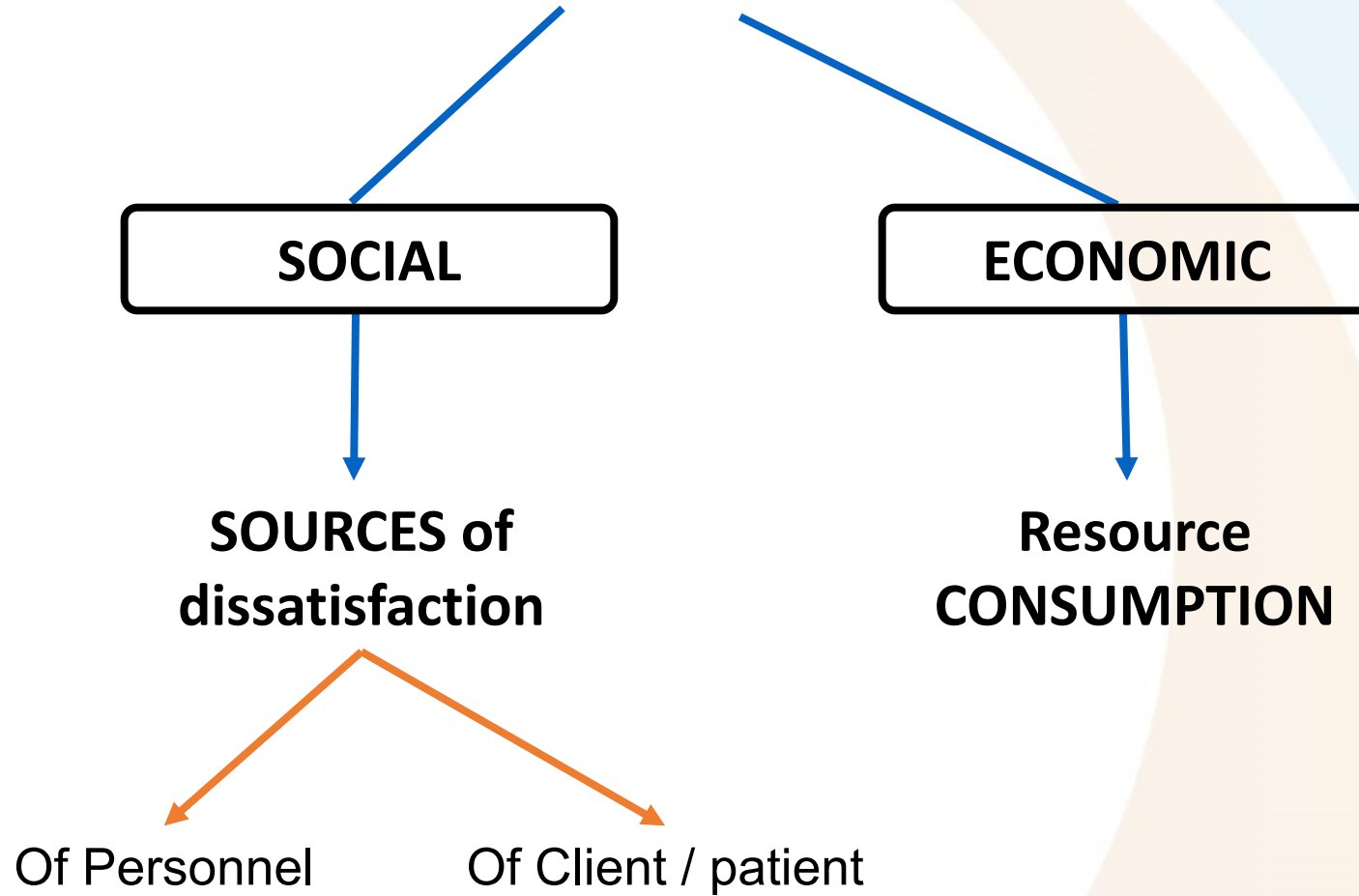


**CONVERT HIDDEN COSTS INTO  
IMPROVEMENT INVESTMENT**

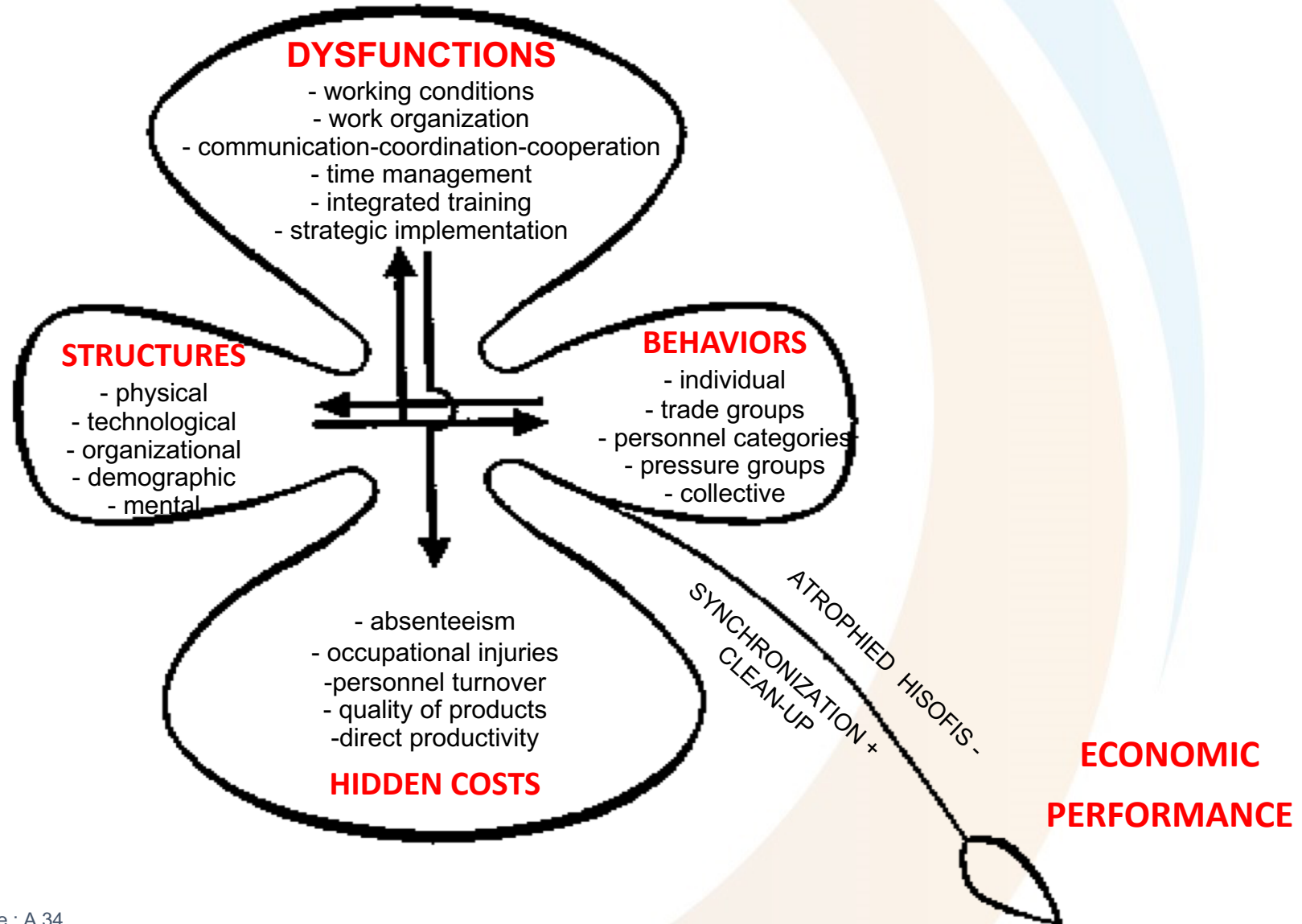




## Lack of action has a cost



# SOCIO-ECONOMIC DIAGNOSIS OF ORGANIZATIONS



# Qualitative modelization of dysfunction treatment (*expert system software* SEAMES 1987-2004)

Working conditions	578
Work organization	703
Communication-Coordination- Cooperation	647
Time management	384
Integrated training	254
Strategic implementation	968

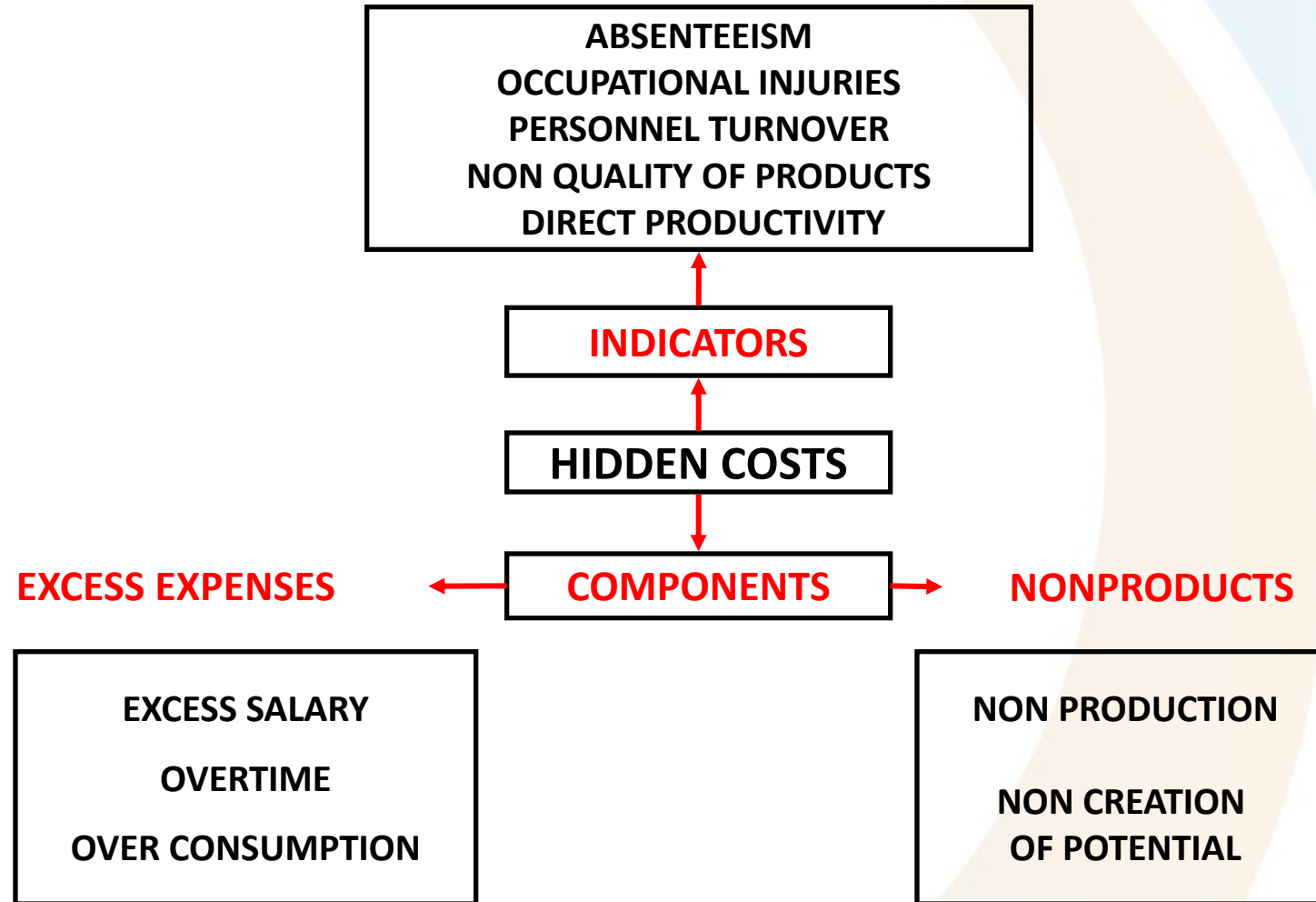
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4,713

<p>Knowledgebase 1, 834 enterprises 42 countries</p>
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<i>Number of generic dysfunctions</i>			
<b>1-WORKING CONDITIONS</b>	578	309 – Information transmission	132
101 - Layout and arrangement of the premises	120	310 – Vertical 3C	108
102 - Equipment and supplies	235	311 – Horizontal 3C	93
103 - Nuisance	58	<b>4-TIME MANAGEMENT</b>	<b>384</b>
104 - Physical conditions of work	23	401 - Respecting deadlines	64
105 - Physical workload	6	402 - Planning, scheduling of activities	97
106 - Work hours	52	403 - Poorly-assumed tasks	180
107 - Atmosphere at work	84	404 - Factors disturbing time management	43
<b>2-WORK ORGANIZATION</b>	<b>703</b>	<b>5-INTEGRATED TRAINING</b>	<b>254</b>
201 - Distribution of tasks, missions and functions	246	501 - Adequacy of training-job	52
202 - Regulation of absenteeism	27	502 - Training needs	48
203 - Interest of the work	15	503 - Available competency	45
204 - Autonomy on the job	80	504 - Training frameworks	99
205 - Workload	75	505 - Training and technical change	10
206 - Rules and regulations	187	<b>6-STRATEGIC IMPLEMENTATION</b>	<b>968</b>
207 - Organization chat	73	601 Strategic orientation	105
<b>3-COMMUNICATION-COORDINATION-COOPERATION</b>	<b>647</b>	602 Authors of the strategy	38
301 - 3C internal to the service 306	34	603 Breaking down and organizing strategic implementation	205
307 308 Transmission of information			
309 Vertical3C			
310 Horizontal 3C			
302 - Relationship to neighboring services	93	604 Tools for strategic implementation	87
303 - 3C between the network and the home office	41	605 Information systems	83
305 - 3C between the home office and branch offices	13	606 Means for strategic implementation	52
306 - 3C at the board of directors level	24	607 Personnel management	312
307 - 3C between elected authorities and public servants	11	608 Mode of management	86
308 - 3C frameworks	98	<b>TOTAL</b>	<b>3534</b>

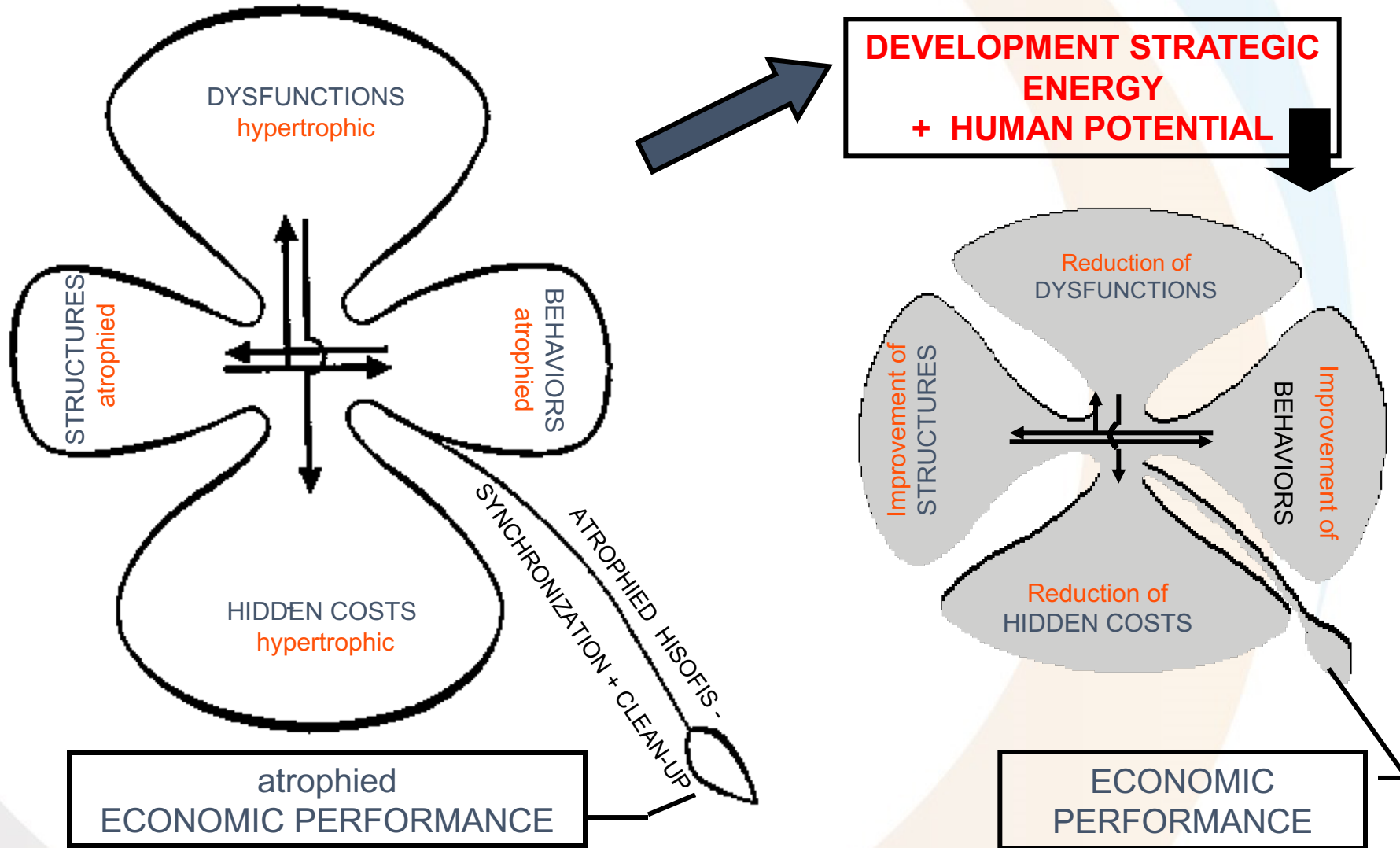
# These dysfunctions cause **hidden costs** that affect the organization's performance



## Some financial results in hospitals

	<b>Hidden costs/pers/year</b>	Date	Conversion of hidden costs into value added	Date
Hospital 1	<b>21,000 €</b>	2005	<b>39%</b>	2007
Hospital 2	<b>24,000 €</b>	2005	<b>37%</b>	2007

# Strategic strengths and weaknesses



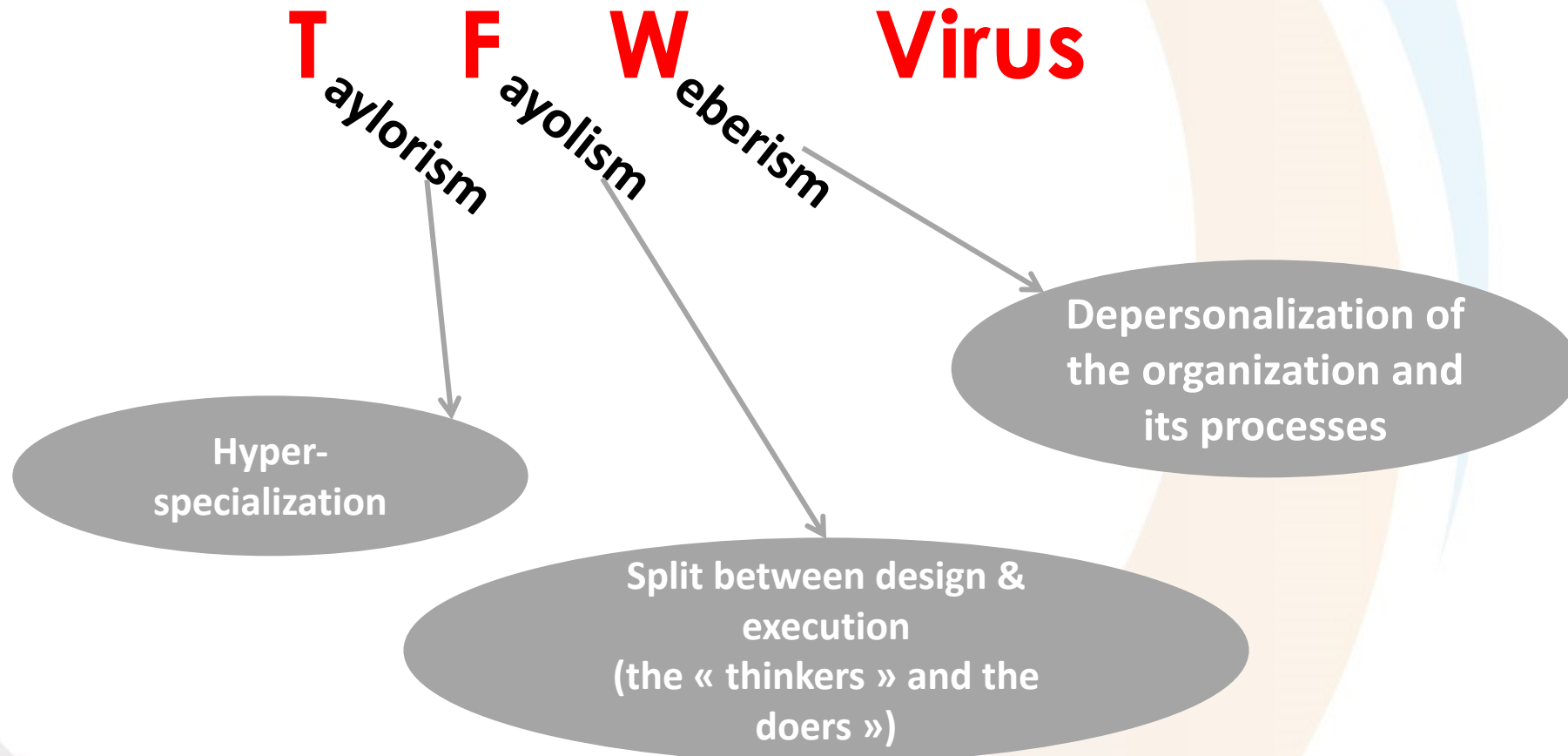
**4 steps in the change process  
with everyone's involvement**

- **Participative diagnosis** : dysfunctions and hidden costs : listening, transparency of feedback (mirror-effect)
- **Participative project group led by managers** : designing solutions to reduce dysfunctions
- **Implementation of solutions** : developing everyone's sensitivity to efficiency and effectiveness
- **Rigorous evaluation** (assessment) of socio-economic results

**A hybrid process : bottom-up and top-down  
more efficient than only top-down**

# TFW Virus and World Conception

High Level of Infection in all individuals and organizations





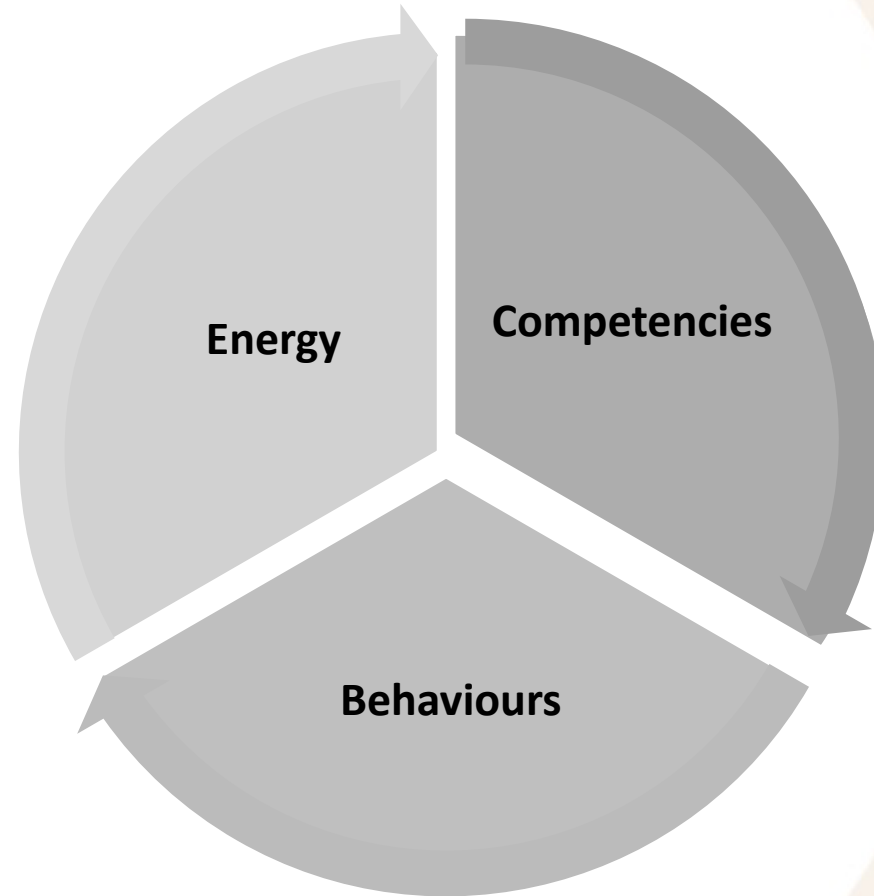
# Why investing in Human Potential?

Human Potential

=

The only active factor for  
value-added creation

# Components of Human Potential



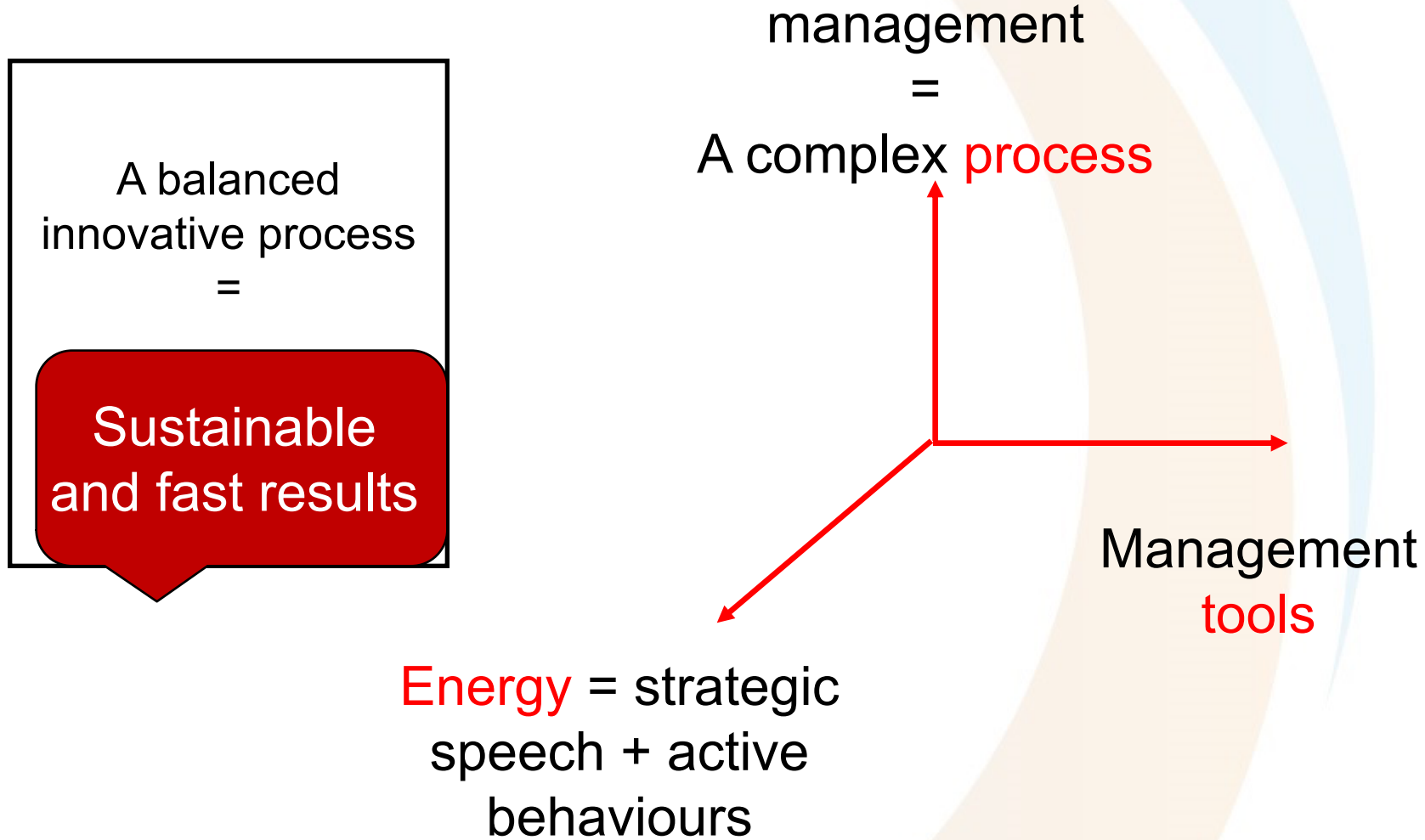
# Improving Quality of Management

In terms of People and Business

**Take care of your collaborators, they will take care of your clients ( patients, clinical services...) and your equipment**

**Investing in people management is  
EXTREMELY profitable !**

# The trihedral



# WHAT IS INTERVENTION RESEARCH?

**2 OBJECTIVES:**

**-TO SUPPORT ORGANIZATIONAL TRANSFORMATION**

**-TO GENERATE SCIENTIFIC KNOWLEDGES**

# **S.E.A.M. IN HOSPITAL PHARMACIES**

*EXTRACT OF OUR RESEARCH PROGRAM*

## **SOME EXAMPLES OF INTERVENTION-RESEARCH PROGRAMS**

**A 10 Hospitals program in Paris & Lyon area  
managed by Cap O2 under ISEOR oversight**

➤ **To improve**

**-cooperation within Pharmacy**

**-cooperation between Pharmacy and  
care units**

➤ **To help merging several Pharmacy Units in the same  
territory**

# STAGES OF A INTERVENTION-RESEARCH

## 4 STAGES: *some examples*

- **Socio-economic diagnostic**: to identify dysfonctions of drug provisions in care units and measure hidden costs
- To **design** solutions and set **priorities** in an action plan
- To implement the project change management
- To assess performance value through classical and socio-economic indicators (evaluation)



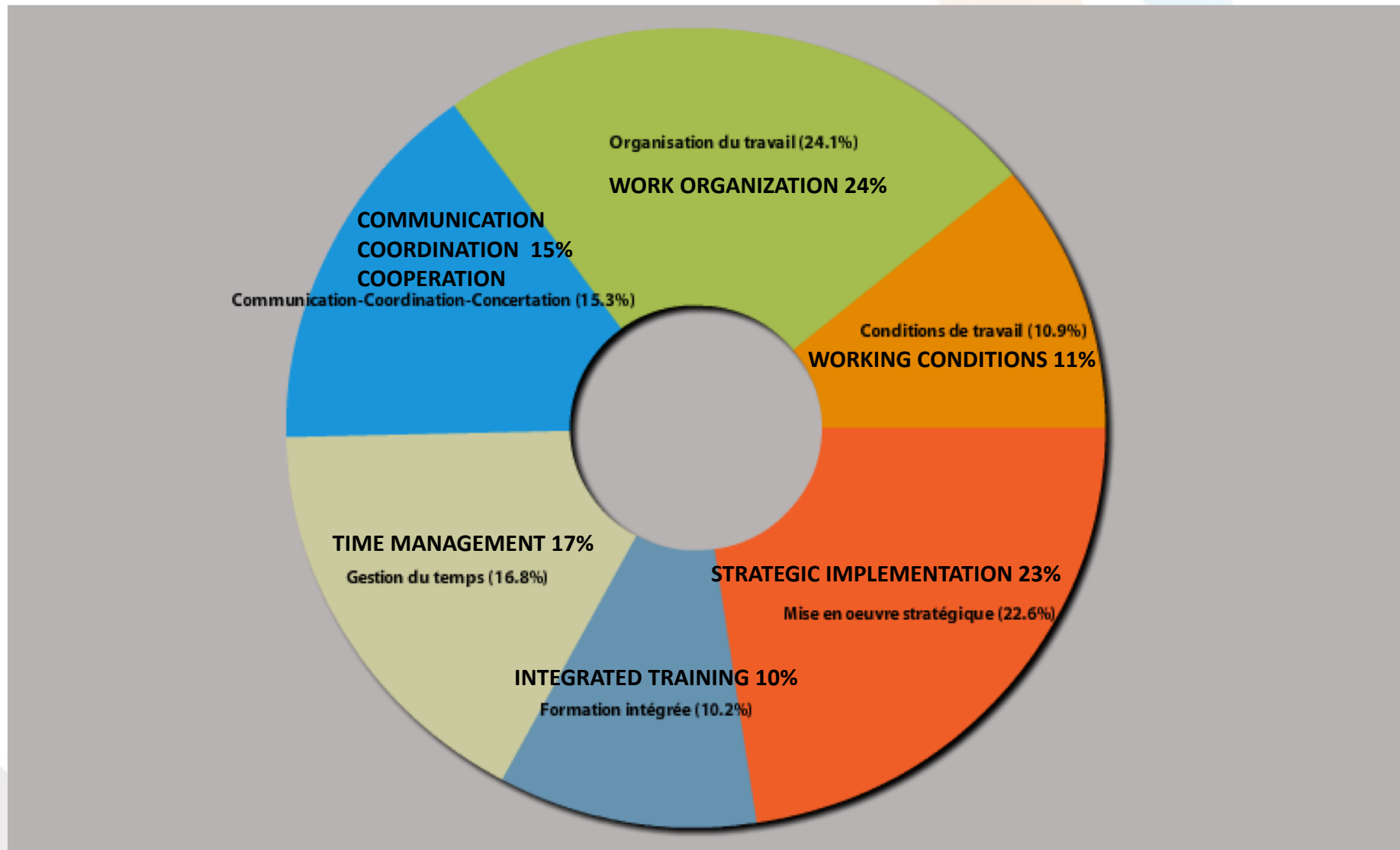
# ESTIMATED PLANNING

<b>ANNUAL PLANNING</b>	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
<b>4 STAGES</b>												
<b>SOCIO-ECONOMIC DIAGNOSIS</b>	X	X	X									
<b>PROJECT DESIGN</b>				X	X	X	X					
<b>PROJECT IMPLEMENTATION</b>							X	X	X	X	X	X
<b>EVALUATION / ASSESSMENT</b>							X	X	X	X	X	X

## DIAGNOSIS INTERVIEWS: example

- **25 people** (pharmacists, pharmaceutical assistants, physicians, nurses)
- **9 individual and group interviews**
- **256 quotes expressing dysfunctions**
- **39 Key-ideas of dysfunctions**

# DYSFONCTIONS RANKING . Example



# WORKING CONDITIONS

- **PROBLEM OF STORAGE PLACE AND MEDICINES CABINETS**

*« Medicine premises in care units are too small; we get conflict between nurses and pharmaceutical assistants »*

- **WASTE ON EXPIRED MEDICINES**

*« The high level of expired medicines is a big concern for pharmacy; we don't have any visibility in the different care units »*

- **LACK OF PHARMACY ACKNOWLEDGEMENT**

*« The pharmaceutical assistant role is unknown; he is not a provider or a box ranger »*

# WORK ORGANIZATION

- **PROBLEMS LINKED TO HIGH ABSENTEEISM LEVEL**

*« Working conditions are altered; after each resignation sick leave grow »*

- **HEAVY WORKLOAD AND LOSS OF WORK INTEREST**

*« Since we have lost a nursing position, we have a frenetic rythm; it is difficult to mobilize the healthcare team on new activities »*

- **LACK OF COMPLIANCE WITH THE COMPUTING PROCEDURES**

*« Prescriptions in the software are not clear. They don't always match with the right dosage form »*

## COMMUNICATION-COORDINATION-COOPERATION

- **LACK OF COHESION AND CONFLICTUAL POINTS**

*« There is a gap between pharmacists and pharmaceutical assistants; we pretend to be fellows, but in fact it looks like social class struggle »*

- **INEFFECTIVE MEETINGS**

*« We are used to having only information meetings, without active participation »*

- **LACK OF COOPERATION BETWEEN PHARMACY AND CARE UNITS**

*« We don't have any sharing on medicine, even during shift change procedure »*

# TIME MANAGEMENT

- **PLANNING ACTIVITIES IS DIFFICULT**

*« Plannings are often changed unexpectedly because of absenteeism and we are not up to date »*

- **POORLY ASSUMED ACTIVITIES on drug management**

*« Medicines are not stored; they stay in the care units corridors »*

- **LACK OF PLANIFICATION**

*« Nurses are often going back to the pharmacy to get medicines, to review prescriptions; they lose lots of time on round trips »*

# INTEGRATED TRAINING

- **TRAINING NEEDS FOR CARE UNITS**

« *We don't have any time for medicine training, unless during shift changes* »

- **LACK OF NEW PHARMACEUTICAL ASSISTANTS TRAINING**

« *New pharmaceutical assistants are not trained* »



# STRATEGIC IMPLEMENTATION

- **STAFF MANAGEMENT AND WORKFORCE DISTRIBUTION**

*« Since the number of working positions remains unchanged, it is difficult to divide pharmaceutical assistant time between the different care units »*

- **LACK OF STRATEGY VISIBILITY**

*« It is difficult to select medicines to satisfy everybody: physicians, pharmacists, buyers »*

*« We spend a lot of time on projects; and a lot of them will not be realized »*

# FINDINGS

## **NON PRESENCE OF THE PHARMACY IN CARE UNITS LEADS TO:**

- DRUG MANAGEMENT PROBLEMS IN CARE UNITS: STORAGE, PRESCRIPTION...
- SLOW COMMUNICATION BETWEEN PHARMACY ET CARE UNITS ABOUT DRUG MANAGEMENT
- LOSS OF NURSES TIME AND PHARMACY MALFUNCTIONING
- POOR INFORMATION SYSTEM LEADING TO POOR MEDICATION CIRCUIT QUALITY
- IMPROVED ACTIVITY AND STAFF DISTRIBUTION BETWEEN PHARMACY AND CARE UNITS

# DYSFUNCTIONS TO HIDDEN COSTS

## DYSFONCTIONS

Working conditions

Premises wrong equiped

## INDICATORS OF HIDDEN COSTS

→ Productivity gaps

Unnecessary staff movements

## FINANCIAL COMPONENTS

→ Overtimes

1,000 hours per year

# 70,000€

## DYSFUNCTIONS TO HIDDEN COSTS

### DYSFONCTIONS

Work organisation

Chemotherapy unit  
poorely organized  
(planification)

### INDICATORS OF HIDDEN COSTS

→ Staff turnover

17 people turnover  
in one year

### FINANCIAL COMPONENTS

→ Overtime & Excess  
salaries

3,600h

**# 160,000€**

# DYSFUNCTIONS TO HIDDEN COSTS

## DYSFUNCTIONS

3C:

Communication-coordination-cooperation

## INDICATORS OF HIDDEN COSTS



Non quality



## FINANCIAL COMPONENTS

1100h

**#40.000€**

Unrealized prescriptions  
Booming emergency  
drug demands

# DYSFUNCTIONS TO HIDDEN COSTS

## DYSFUNCTIONS

Strategic implementation →

Shifting responsibilities  
from employees to managers

## INDICATORS OF HIDDEN COSTS

Direct productivity gaps →

Management spends  
a lot of time to catch up  
with employees activities

## FINANCIAL COMPONENTS

Excess salaries

3.600h

# 130.000€

## HIDDEN COSTS: example

• ABSENTEISM	185.000 €
• OCCUPATIONNAL INJURIES AND OCCUPATIONNAL DISEASES	43.000 €
• STAFF TURNOVER	186.000 €
• NON QUALITY	611.000 €
• DIRECT PRODUCTIVITY GAP	586.000 €
• TOTAL HIDDEN COSTS	1.611.000 €

→ 55 people                      **29.000€ / people per year**

Nota Bene : OVERTIME = 820.000 €

# CHANGE MANAGEMENT

**To appoint pharmaceutical assistants to care units each day**

**To make care giver's work easier**

**To train care givers about medicines**

**To improve cooperation between physicians and pharmacists on protocols and patient's pathway**





# CHANGE MANAGEMENT: competency grid

Column 1: actors

Other columns: activities

## Legend

- daily use mastery
- occasional use or incomplete mastery
- basic knowledge without practice
- neither theoretical knowledge, no practice
- to be acquired

	CHEMOTHERAPY						
	Analyze the fabrication sheet	Preparing the preparation tray	Put the appropriate clothes for the white room	Apply hygienic instructions	Realize a preparation in the insulator	Manage thewaste procedure ocole	Clean the insulator according to the procedure
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# CHANGE MANAGEMENT

## PILOTING LOGBOOK

- **CLASSIC INDICATORS**

Minutes of drug provisions in care units

Expired drugs follow-up

Prescriptions level analysis

Level of pharmacist's drug training in care units

- **SOCIO-ECONOMIC INDICATORS**

Pharmacy time invested in care units (training/drug management)

Coordination time between pharmacists and physicians

Coordination time between nurses and physicians (prescriptions...)

# SOCIO-ECONOMIC BALANCE: HOW TO SUCCEED WITHOUT ANY ADDITIONNAL STAFF?

## COSTS

pharmaceutical time invested  
(and skills)

## PROFITS

care time reallocated  
(healthcare provision...)

pharmaceutical time reallocated  
into value activities

Drug waste reduction

# EVALUATION QUANTITATIVE FINAL ASSESSMENT

**4 pharmaceutical hours invested**

**=>**

**+ 11 hours available to care**

**Pharmaceutical presence into care units has a very high value  
So it is a self financed activity\***

\*Zardet V., Frachette M., Dussossoy E., Leboucher G. (2017), Améliorer la présence pharmaceutique auprès des unités de soins sur la gestion des dotations de médicaments: apports de la recherche-intervention socio-économique, CALASS, septembre 2017, Liège

# EVALUATION

## QUALITATIVE FINAL NURSES ASSESMENT

***The pharmaceutical presence in the care unit :***

***« An essential time flow to the care unit functioning »***

***« Avoid us several round trip every day to the pharmacy »***

***« We save time and we can do care activities »***

***« The pharmacist assistant avoids us to waste time in drug management and to go to the hospital pharmacy 3 or 4 times a day »***

***« Allow us to save time on logistic activities »***

***« Many time saved by the action of the pharmaceutical assistant; we have less overtime since his arrival»***

## **SELF ASSESSMENT ANSWERS**

**CAN YOU DEFINE TWO KINDS OF COSTS?**

**1/ Visible costs and hidden costs**

**2/ Medical device and drug costs**

# SELF ASSESSMENT ANSWERS

CAN YOU DEFINE TWO KINDS OF COSTS?

1/ **Visible costs and hidden costs**

2/ **Medical device and drug costs**



## **SELF ASSESSMENT ANSWERS**

**WHAT IS THE RANGE OF THE HIDDEN COSTS?**

**1/ 20,000 to 70,000€ per person per year**

**2/ 15,000 to 30,000€ per person per month**

## SELF ASSESSMENT ANSWERS

WHAT IS THE RANGE OF THE HIDDEN COSTS?

1/ 20,000 to 70,000€ per person per year

2/ 15.000 to 30.000€ per person per month

## SELF ASSESSMENT ANSWERS

THE IMPLEMENTATION OF SEAM APPROCH CAN  
REDUCE THE HIDDEN COSTS UP TO:

1/ 35-55%

2/ 60-80%

## SELF ASSESSMENT ANSWERS

THE IMPLEMENTATION OF SEAM APPROCH CAN  
REDUCE THE HIDDEN COSTS UP TO:

1/ **35-55%**

2/ **60-80%**

## TAKE HOME MESSAGES

- 1/ **LISTEN** TO PEOPLE and **EVALUATE** HIDDEN COSTS
- 2/ **TAKE INTO ACCOUNT** HIDDEN COSTS: the decision making focused on only visible costs generates mistakes and decreases efficiency and quality
- 3/ **IMPROVE COOPERATION** BETWEEN PHARMACY AND CARE UNITS: Organize presence of pharmacie's staff within care units, develop training of nursing staff, and structure communication and dialog between both
- 4/ **HIDDEN COSTS** WILL DECREASE AND **SATISFACTION** WILL BE BETTER IN PHARMACY AND CARE UNITS



# THANK YOU !

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