



CI/TI is a complex system

# CI/TI is a complex system

*a complex system is characterized initially by the number of elements which constitute it (...) by the nature of the interactions between these elements, the number and the variety of the connections which connect these elements between them (...) and by the nonlinear dynamics of its development, i.e. accelerations, inhibitions, the not easily predictable oscillations*  
(Joël de Rosnay)

*the simplification of the complicate applied to the complex has as a consequence an aggravation of complexity. The projects of modeling the system are not given: they are built.* (Jean-Louis LE MOIGNE)

# Complex system

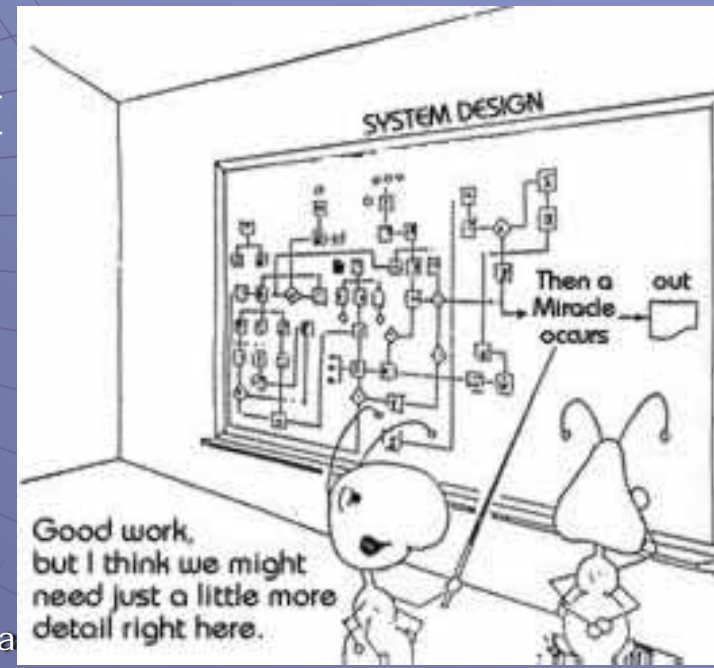
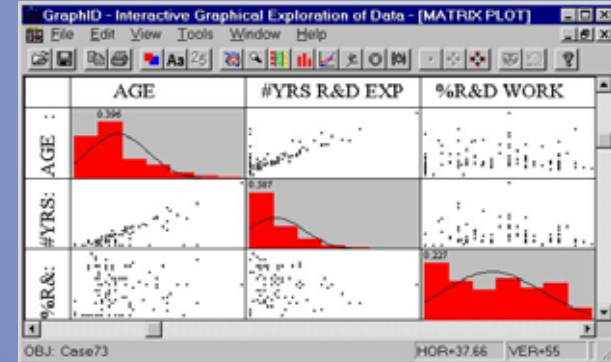
TO UNDERSTAND... and thus to give sense

a COMPLICATE SYSTEM:

one can SIMPLIFY it  
to discover its INTELLIGIBILITE (explanation)

a COMPLEX SYSTEM

One must MODELISE it to build its INTELLIGIBILITE  
(comprehension)



# Complex system

- ◆ modeling a complex system = modeling an action system using the
- ◆ process (exercise and result) with 3 functions
  - ◆ temporal and spatial transfer
  - ◆ morphological transformation.
- ◆ duality of the action and its results
- ◆ formulation of problems = formulation of projects
- ◆ systemic modeling
  - ◆ solve the problem which consists to pose the problem and not to solve the problem
- ◆ the organization (one of the complex system properties) is :
  - ◆ Active
  - ◆ auto-organized
  - ◆ dependent and interdependent of the environment

# CI/TI is a complex system

Temptation is large but...

CI cannot be improvised

No short-term miracles



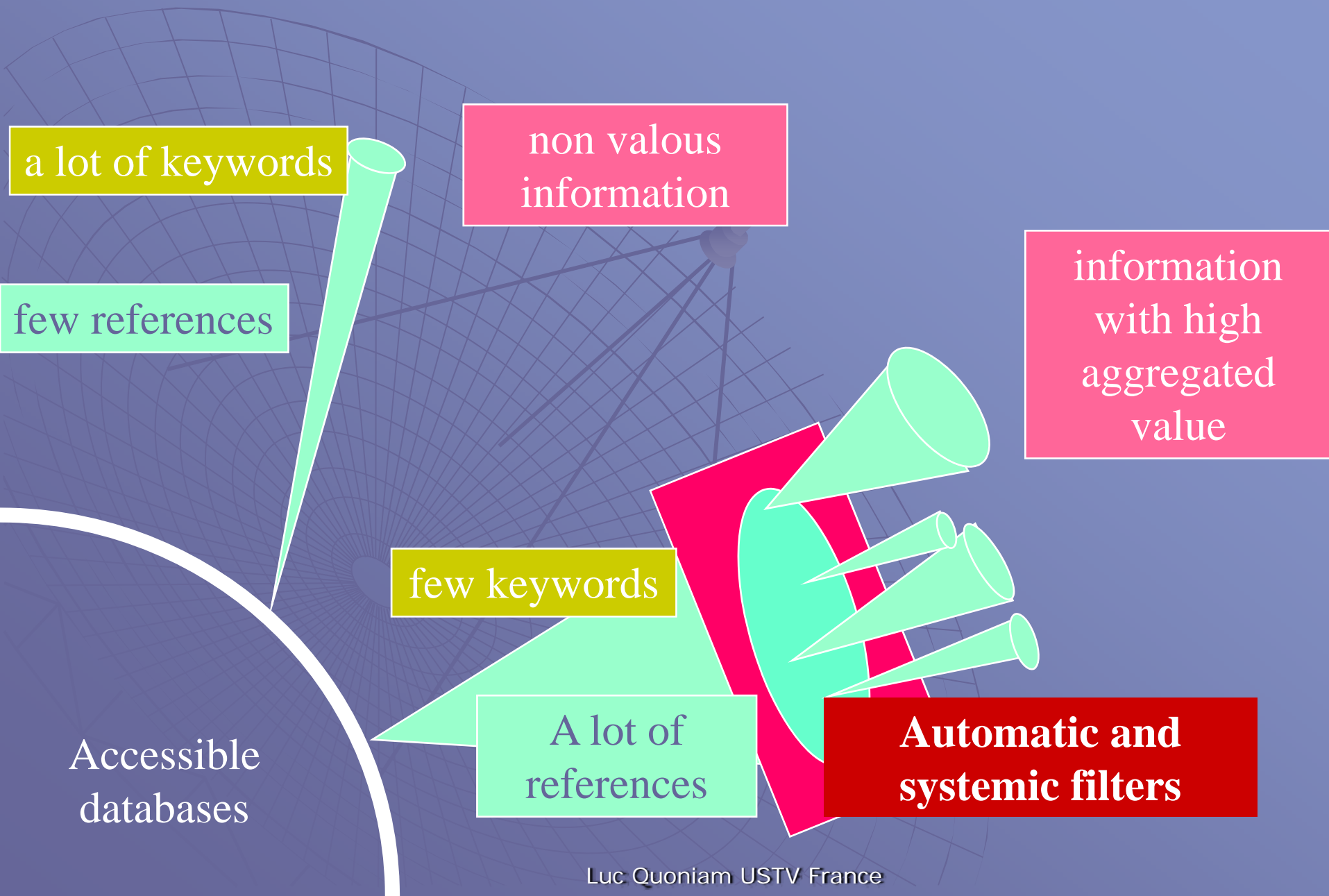
# CI/TI is a complex system

The integration of all the needed information  
in the same system

is the first step to pass from:  
**information**  
to  
**intelligence**



# CI/TI is a complex system : collecting in another way

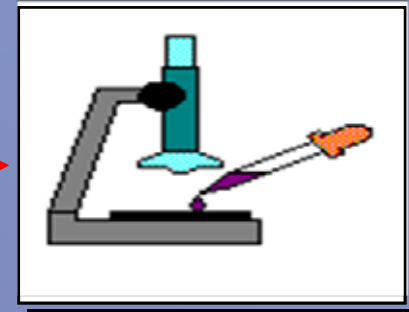


# CI/TI is a complex system : diffusing with the right form

## Actors of the process: researchers, experts

documentation  
service

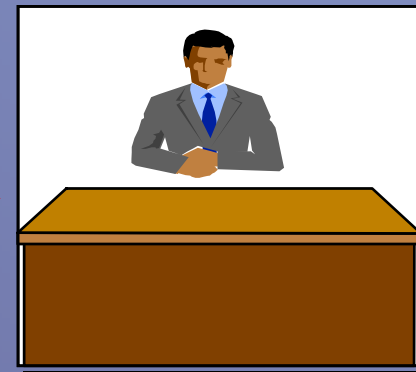
**Rough  
information**



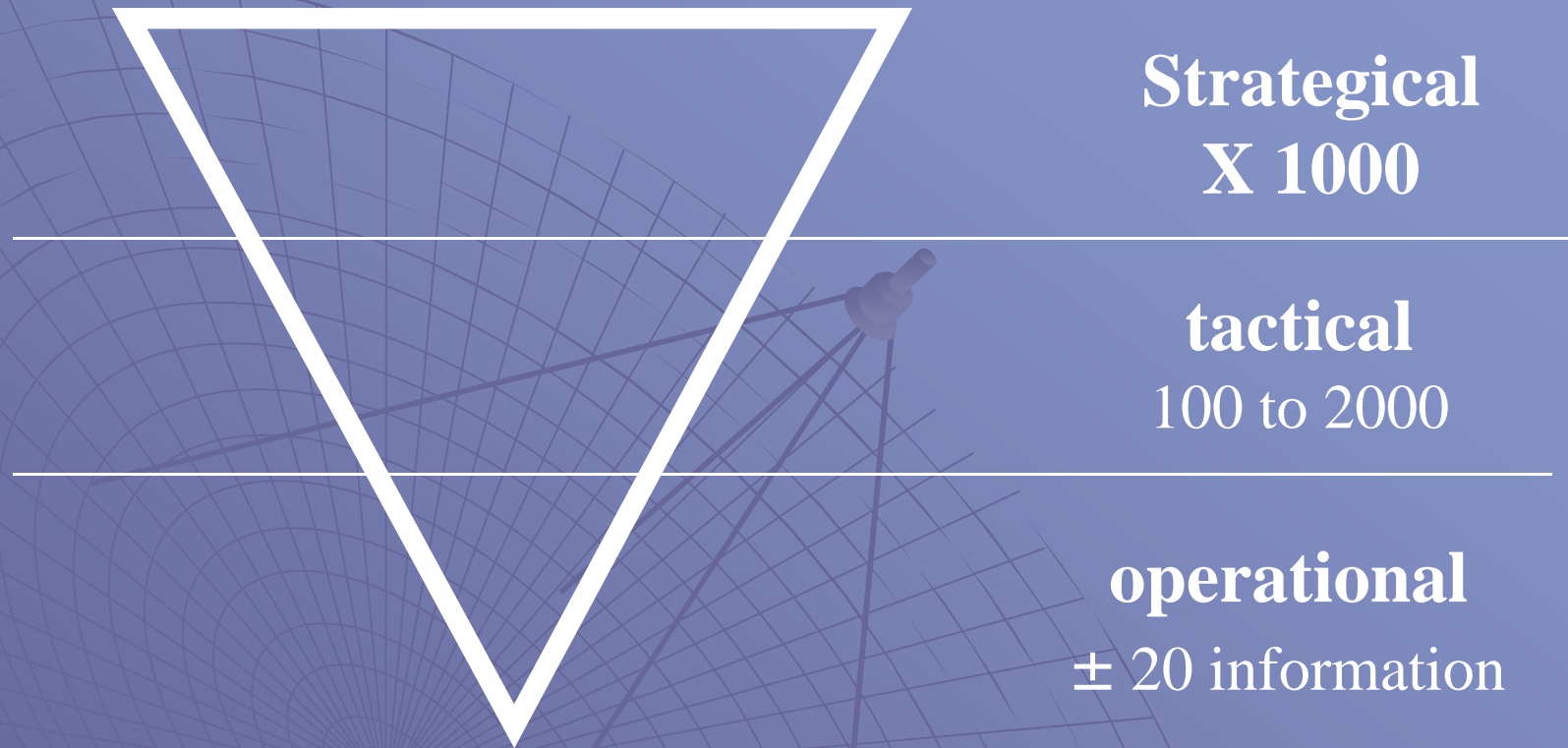
## Managers, decision makers, research directors

Intelligence  
service

**Treated  
information  
with aggregated  
value**



# CI/TI is a complex system : the right information quantity

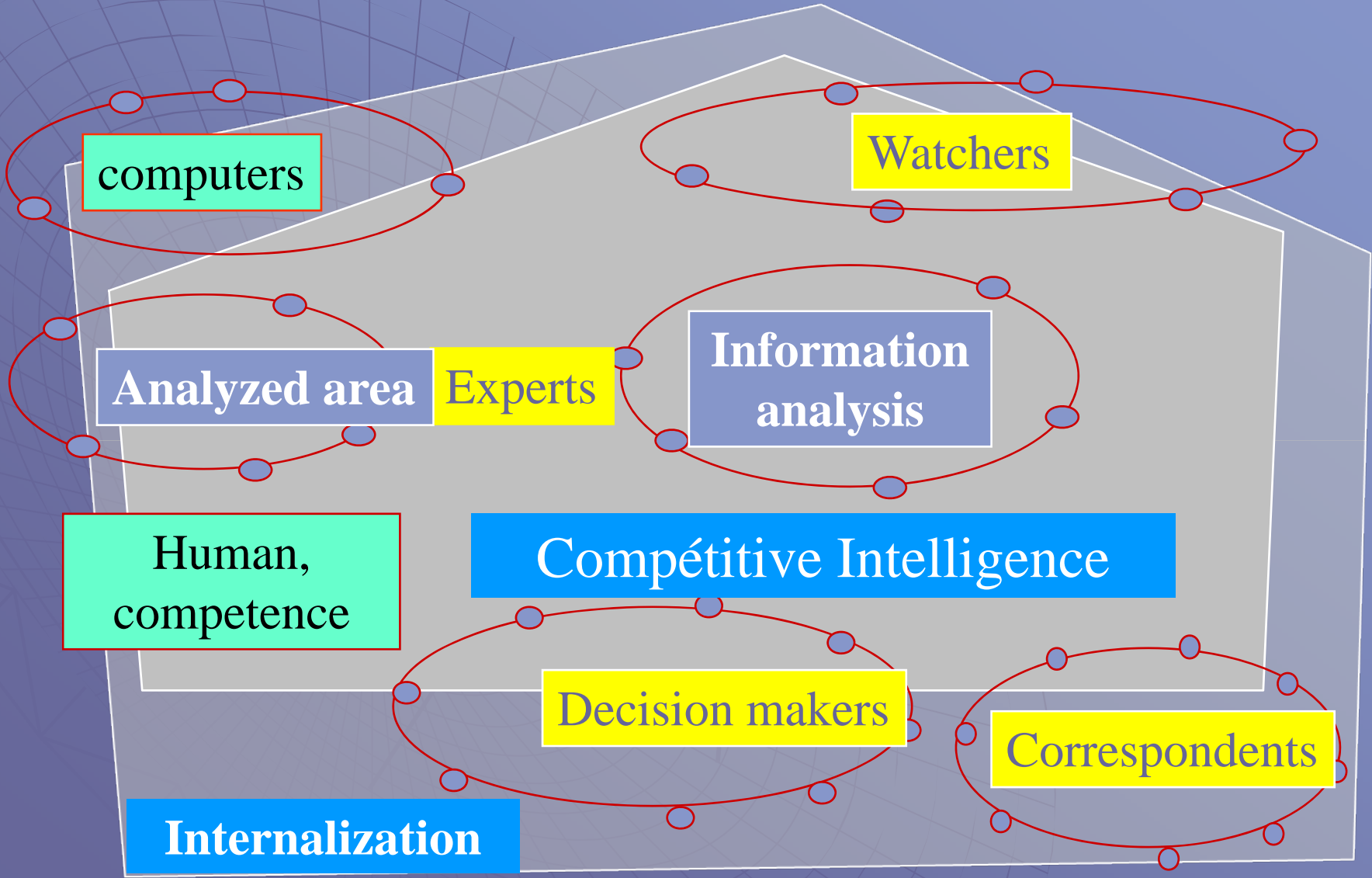


Boolean are inefficient for this reduction

**automatic analysis needed with expert networks  
to validate results**

# CI/TI is a complex system : networks

**Fuzzy Information**



# CI/TI is a complex system: Networks

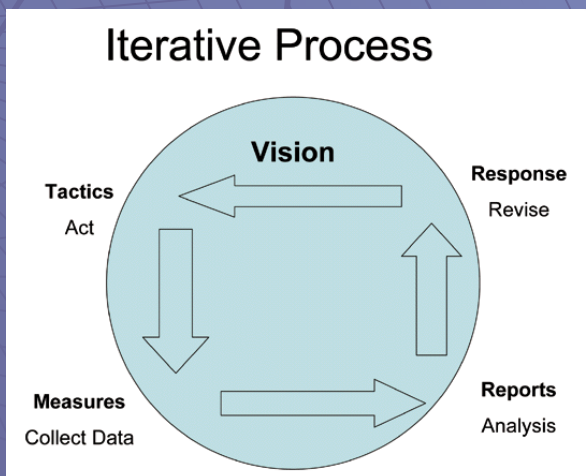
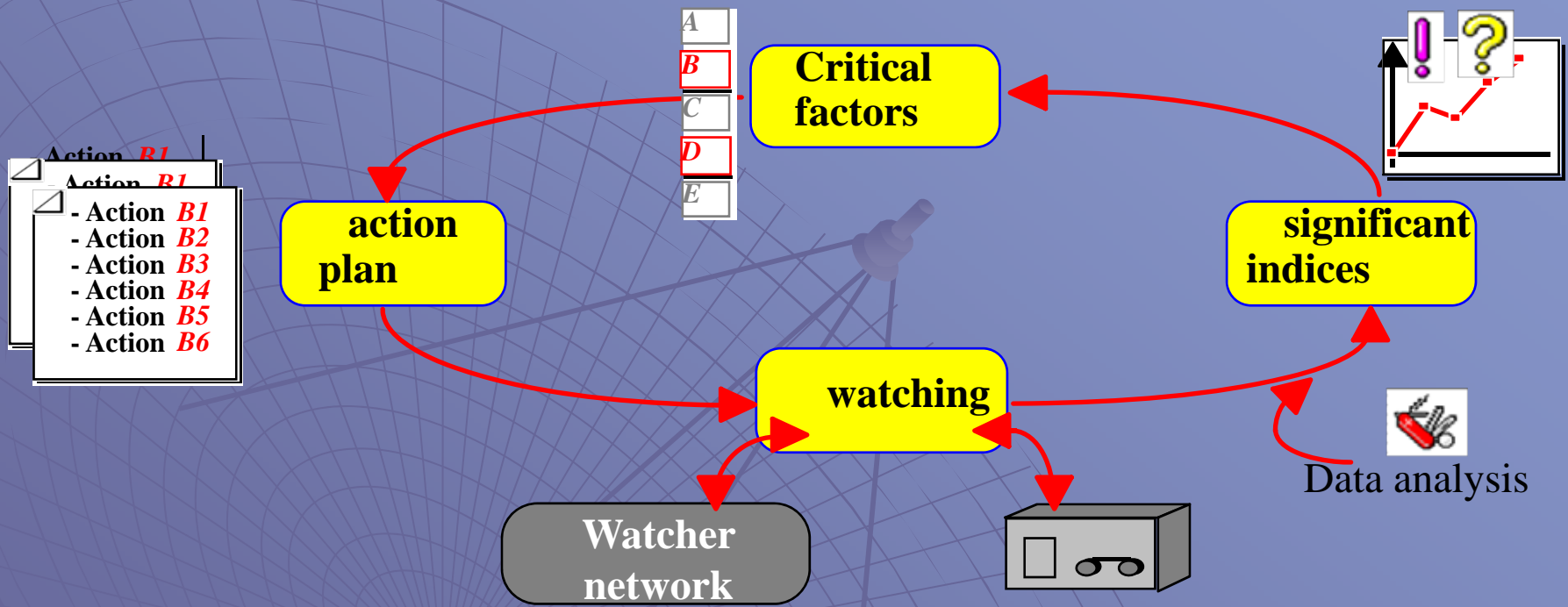
- ◆ Working in network: a state of mind problem
  - ◆ Identify the networks is not difficult
  - ◆ Working in network is much more difficult
- ◆ Holding information is not any more the power
  - ◆ Sharing information is the power
- ◆ How to work in human networks
  - ◆ gaining-gaining strategy
  - ◆ What can you offer before receiving?
  - ◆ Recognize one competency limits
  - ◆ Look for the future
- ◆ This is not studied in universities and schools
- ◆ Will, support, recognition on behalf of the decision makers

# CI/TI is a complex interactive system

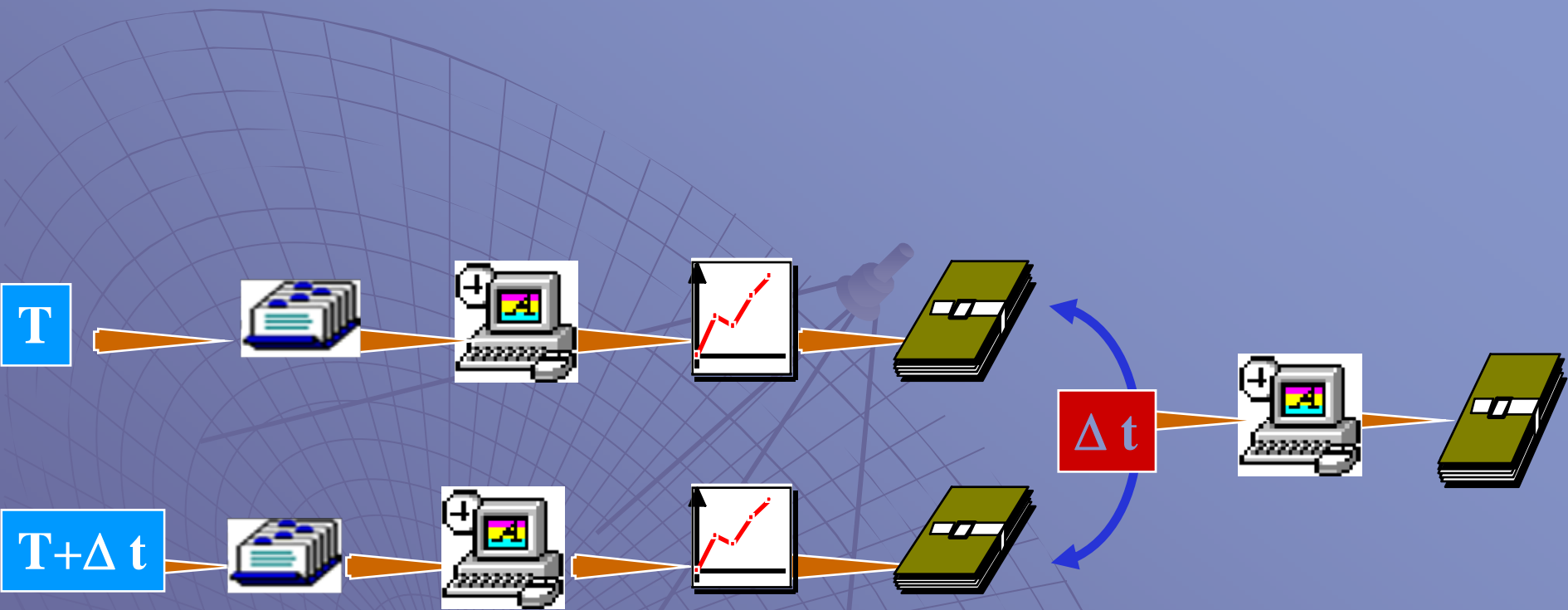


within the different expert groups and decision makers

# CI/TI is a complex iterative system



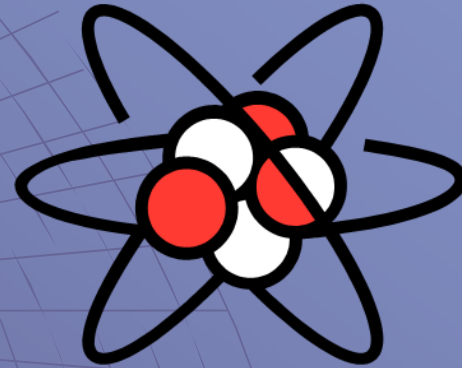
# CI/TI is a complex dynamic system



# CI/TI is a complex dynamic system

## ◆ Glocal culture

- ◆ Think globally, build locally



# CI/TI is a complex system

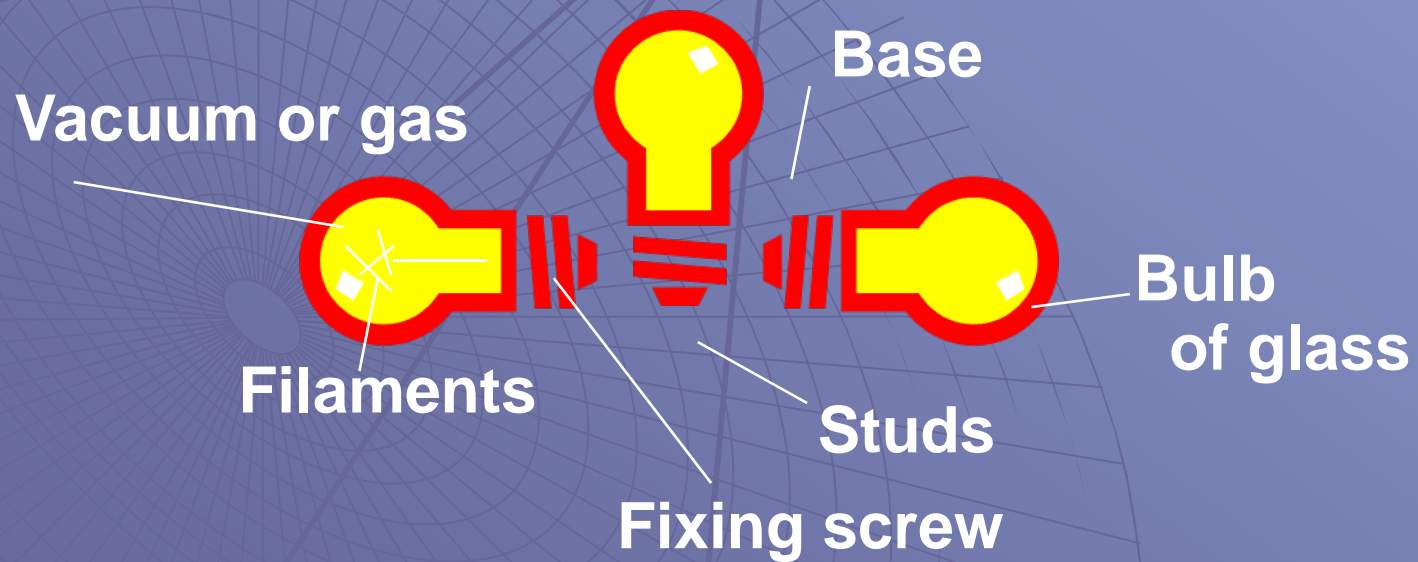
- ◆ From the decision to the action  
it is a question of state of mind
- ◆ It is not a tool question  
tools are essential but...  
do not have any intelligence
- ◆ That can become a question of money
  - Financing projects indispensable



# CI/TI is a complex system: Observe in another way

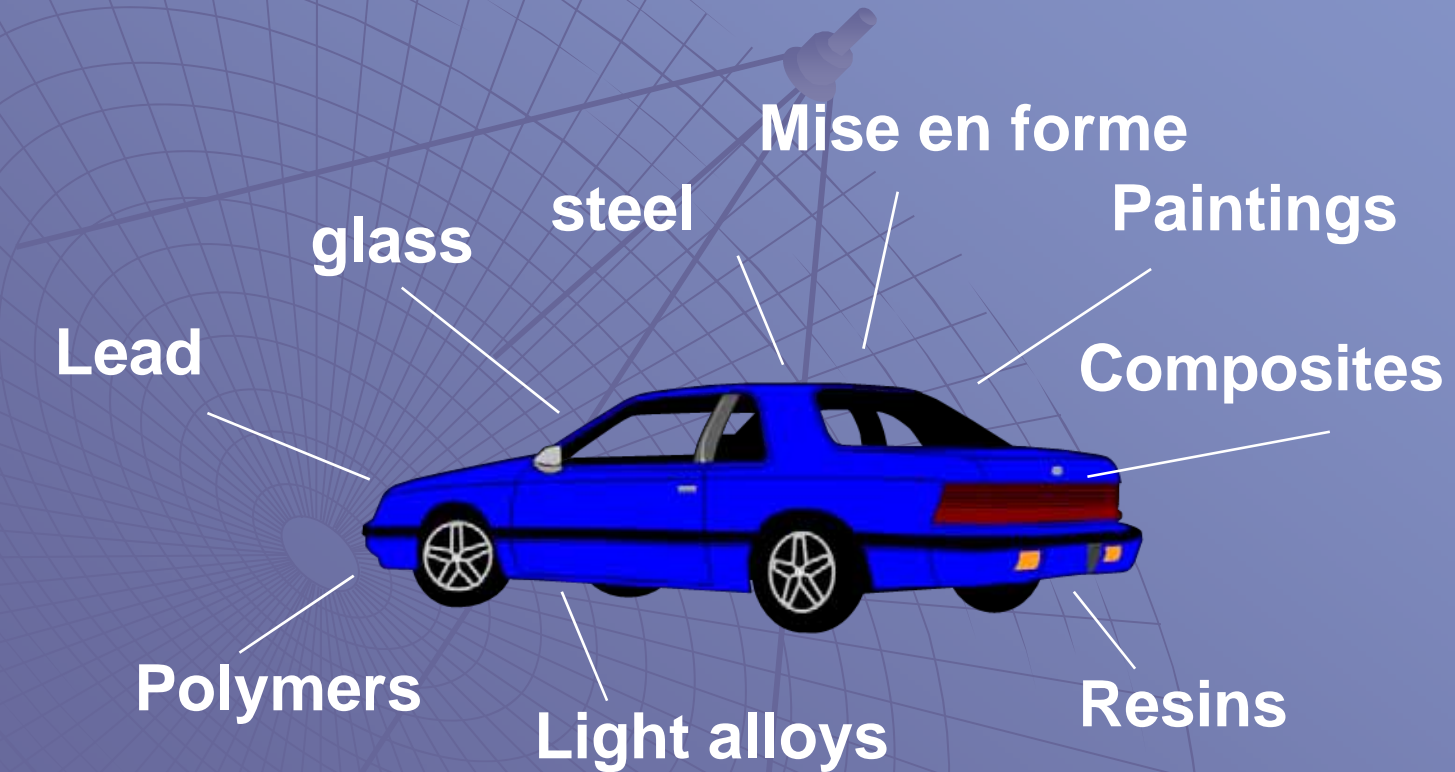
- ◆ State of mind : morphological vision

All the elements which provide to industry an advantage or a disadvantage are cut out



# CI/TI is a complex system: Observe in another way

- ◆ State of mind : material vision  
for each material: qualities, use, production, transformation....



# CI/TI is a complex system: Observe in another way

- ◆ State of mind : technological vision

**Thought by products**

Tiles



**Thought by function:**

sealing, cover

**Thought by application:**

roof

# 2.0 concept

Architecture

N to N communication  
Knowledge co-elaboration  
Glocal

participation

social

application

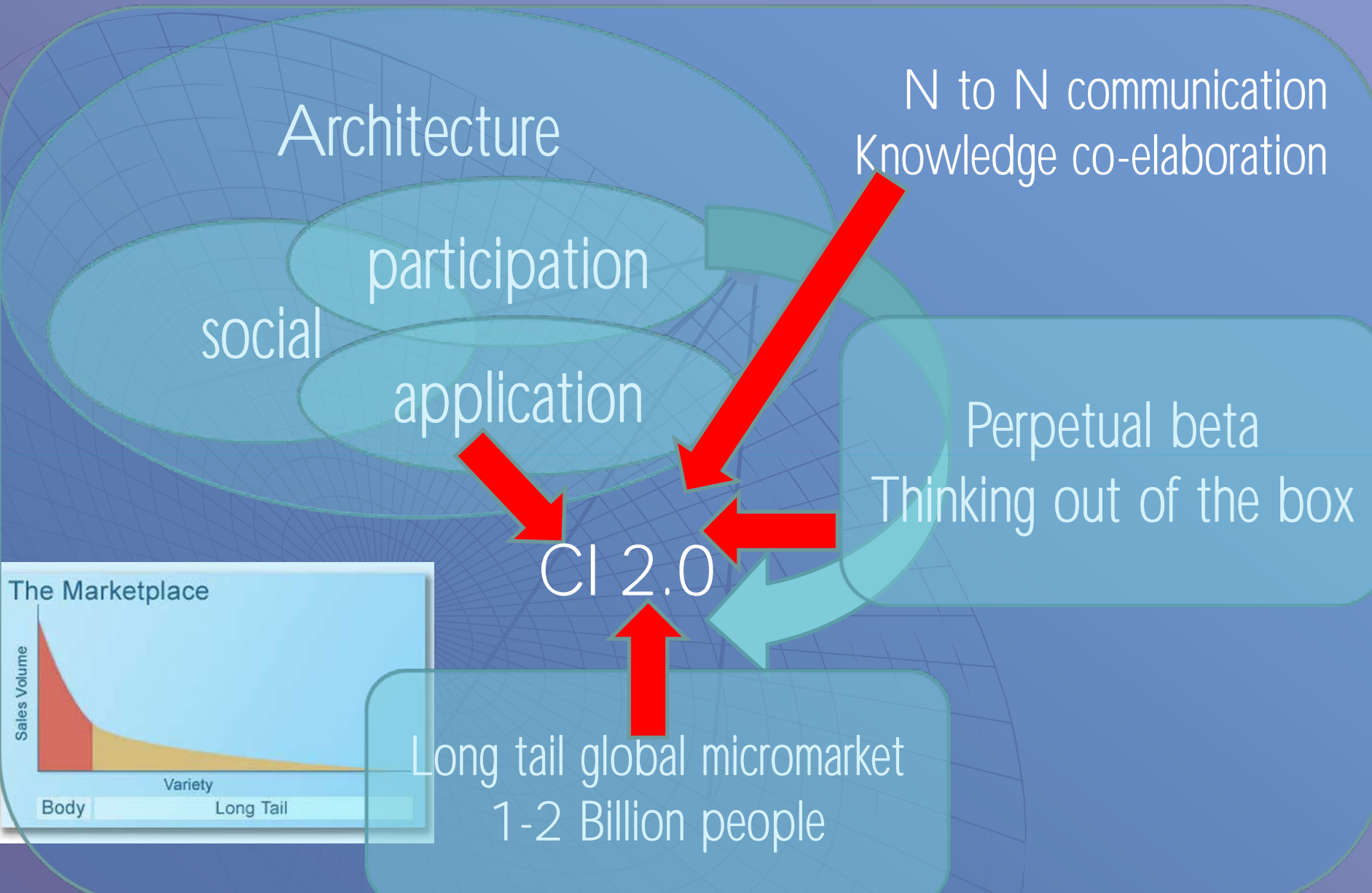
Perpetual beta  
Thinking out of the box

The Marketplace



Long tail global micromarket  
1-2 Billion people

# Competitive Intelligence 2.0



# CI/TI is a complex system

- ◆ CI/TI is information for decision making
  - Client: decision maker
    - strategy
    - product of CI/TI system
    - to help them in good decision making (evaluation of the CI/YI)
  - Decision maker must be
    - ◆ the starting point (they have to want CI/TI)
    - ◆ the final point (client)