

# FRENCH SPEAKING ERGONOMICS FROM THEORETICAL PRESENTATION TO PRACTICAL EXERCISE

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# PRESENTATION

## Major Issues about Ergonomics

- What is ergonomics?
- Task VS Real Activity
- Outcomes of Task' Ergonomics approach
- Income of activity' Ergonomics approach
- Standards or Compromise
- Ergonomists in France

## Practical Exercise: Real work analysis

# MAJOR ISSUES



# WHAT IS ERGONOMICS?



Adapt work to human and not the reverse

# WHAT IS ERGONOMICS?

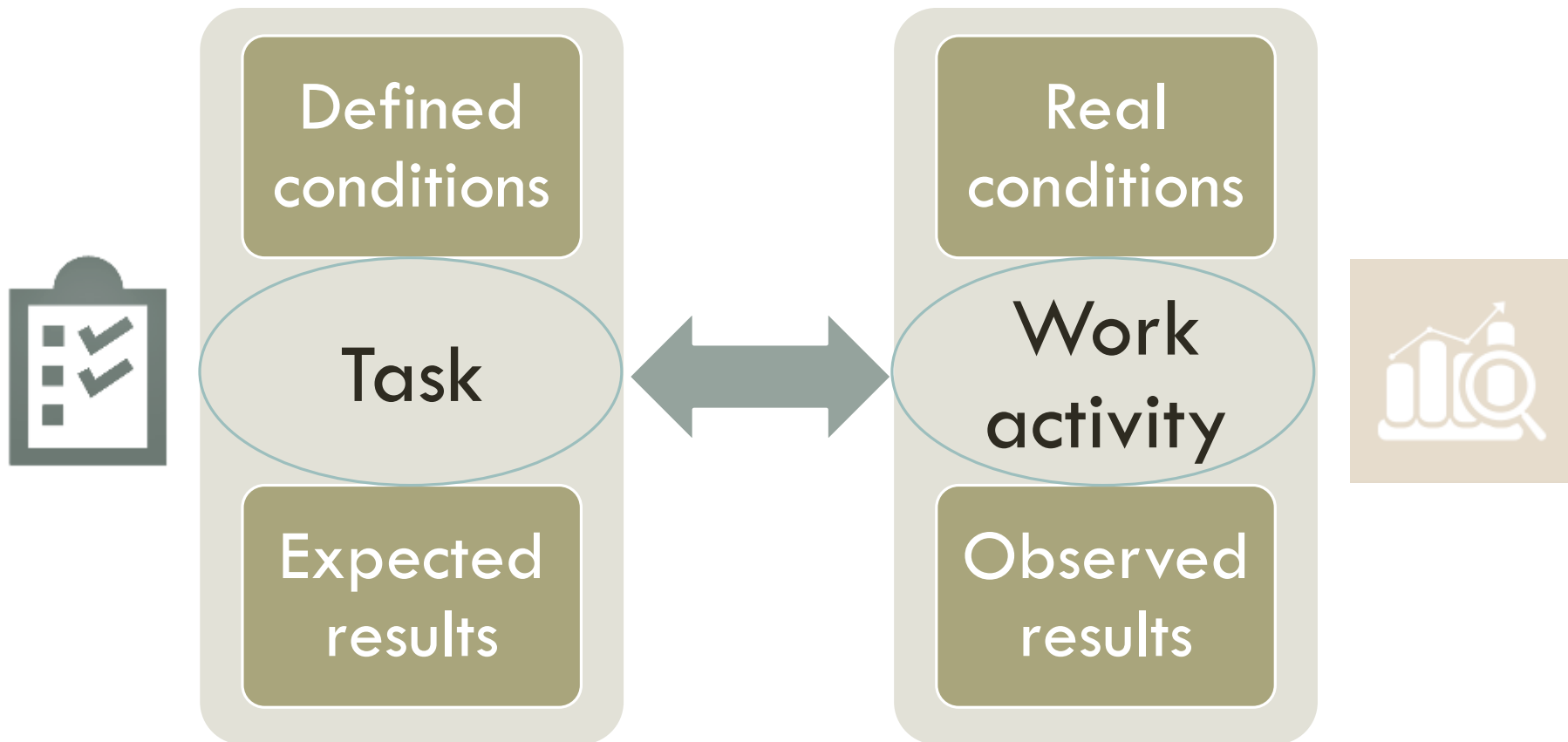
Ergon = Work

Nomos = Law, Rules

2 complementary disciplinary approaches:

- Ergonomics of task = Human Factor approach
- Ergonomics of activity = French speaking approach

# PRESCRIBE VS EFFECTIVE WORK



# OUTCOMES OF TASK' ERGONOMICS APPROACH

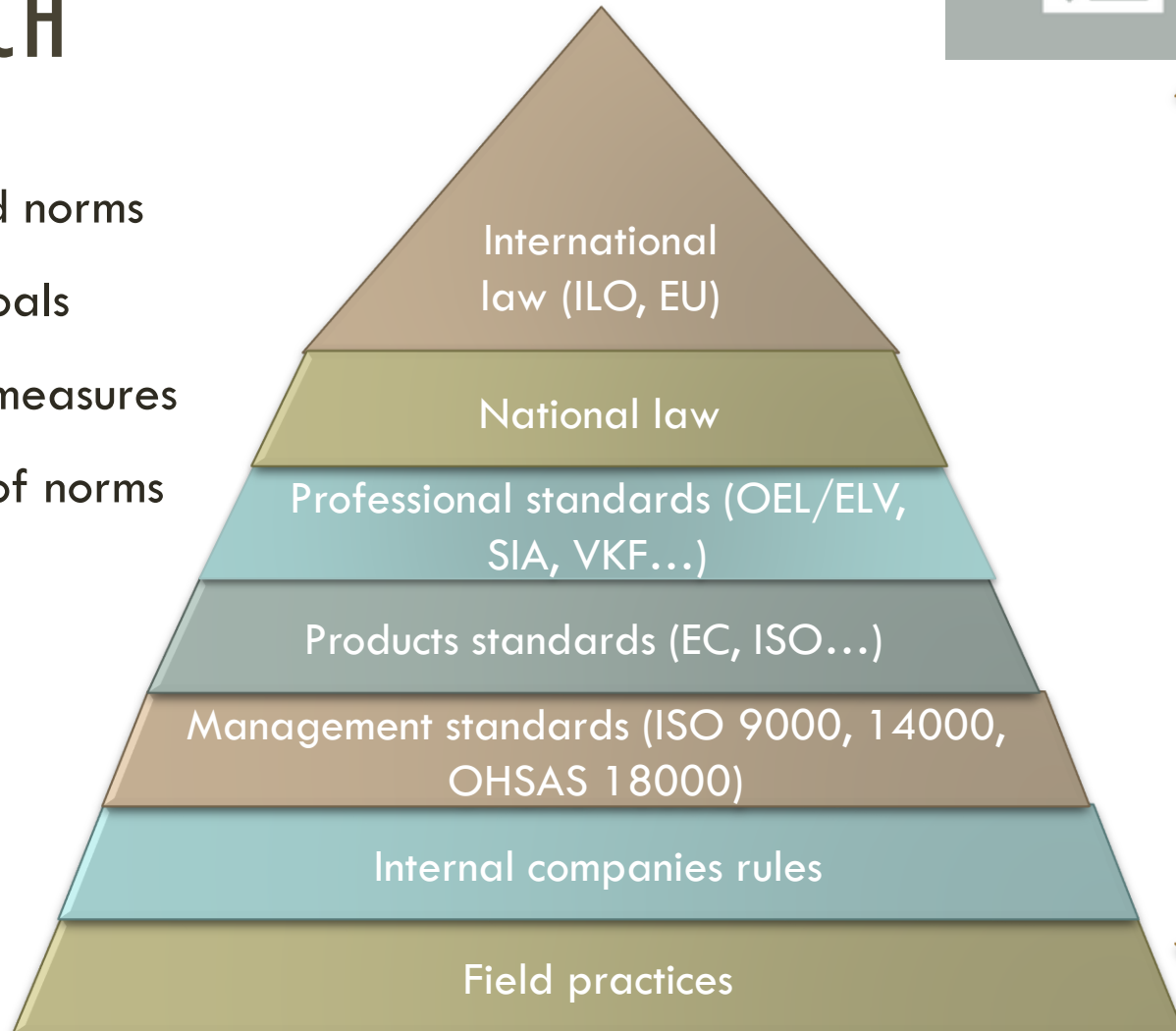


Standards and norms

Productivity goals

OSH prevent measures

Several level of norms



International law (ILO, EU)

National law

Professional standards (OEL/ELV, SIA, VKF...)

Products standards (EC, ISO...)

Management standards (ISO 9000, 14000, OHSAS 18000)

Internal companies rules

Field practices

Society

Company

# INCOME OF ACTIVITY' ERGONOMICS APPROACH

Human worker have to deal, between:

Productivity goals (that is demand by authority management)

and

Physical and psychological required (that's required for him)



To make an operating compromise





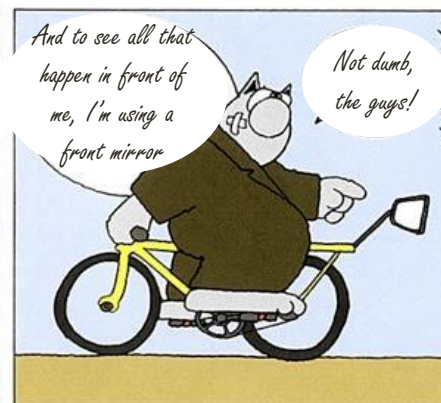
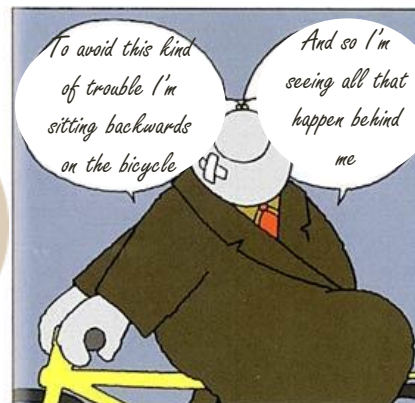
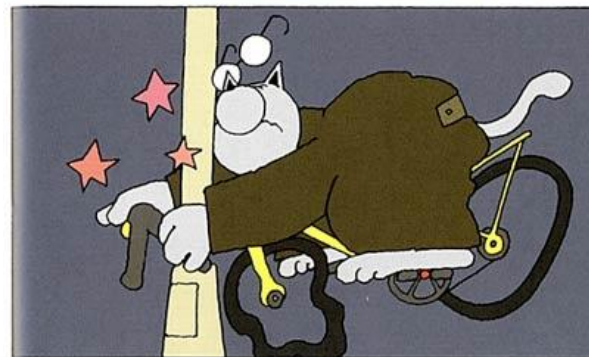
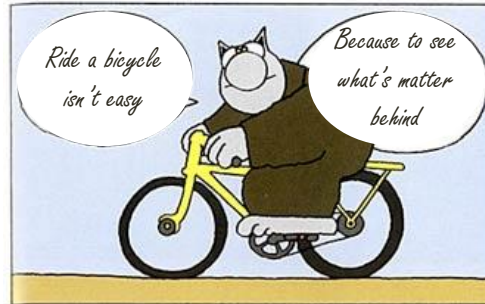
# TO DEFINE THE CORRECT HEIGHT OF WORK SURFACE



Standards or Compromise? It's depend of the task requirement...



# TASK VS REAL ACTIVITY

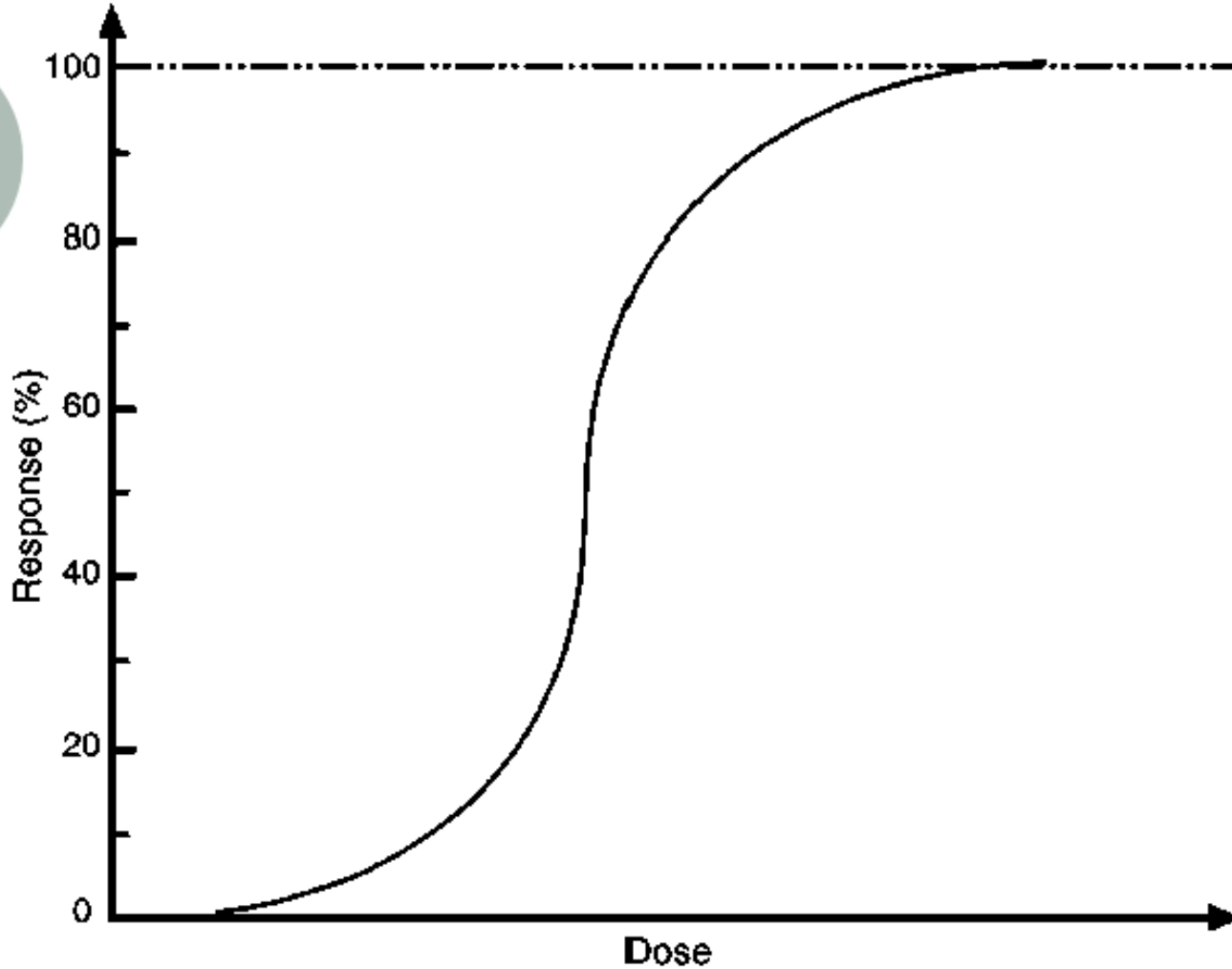


# HOW ERGONOMICS COULD PRETEND TO IMPROVE BOTH PRODUCTIVITY AND OCCUPATIONAL HEALTH AND SAFETY?

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# DOSE RESPONSE RELATIONSHIP



# SHOULD THE WORK PLACE OR THE WORK SITUATION TO BE ADAPTED?



# SIMILAR WORK PLACES, BUT... DIFFERENT WORK SITUATIONS



secretary



redactor



accountant



policeman



typographer



commander



# DEFINITION OF WORK SITUATION

Ergonomics: adapt global work situation to human worker requirements



# WHICH METHODS IN ACTIVITY' ERGONOMICS?





# REAL WORK ERGONOMICS ANALYSIS

Why do analyze real work situation?

- Science doesn't tell what is correct (the right way)
- Each work situation is unique
- Worker isn't a yes person

# PRESCRIBE WORK VS EFFECTIVE WORK

Effective work requires to take some initiative, to make some compromise and to take some decision.

To understand gap between prescribe and effective work is the way to transform work situation.

# EXAMPLE: EYE'S MIND



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Free examination.

1



Estimate material circumstances of the family

2



Give the ages of the people.

3



Surmise what the family had been doing before the arrival of the unexpected visitor.

4



Remember the clothes worn by the people.

5



Remember positions of people and objects in the room.

6

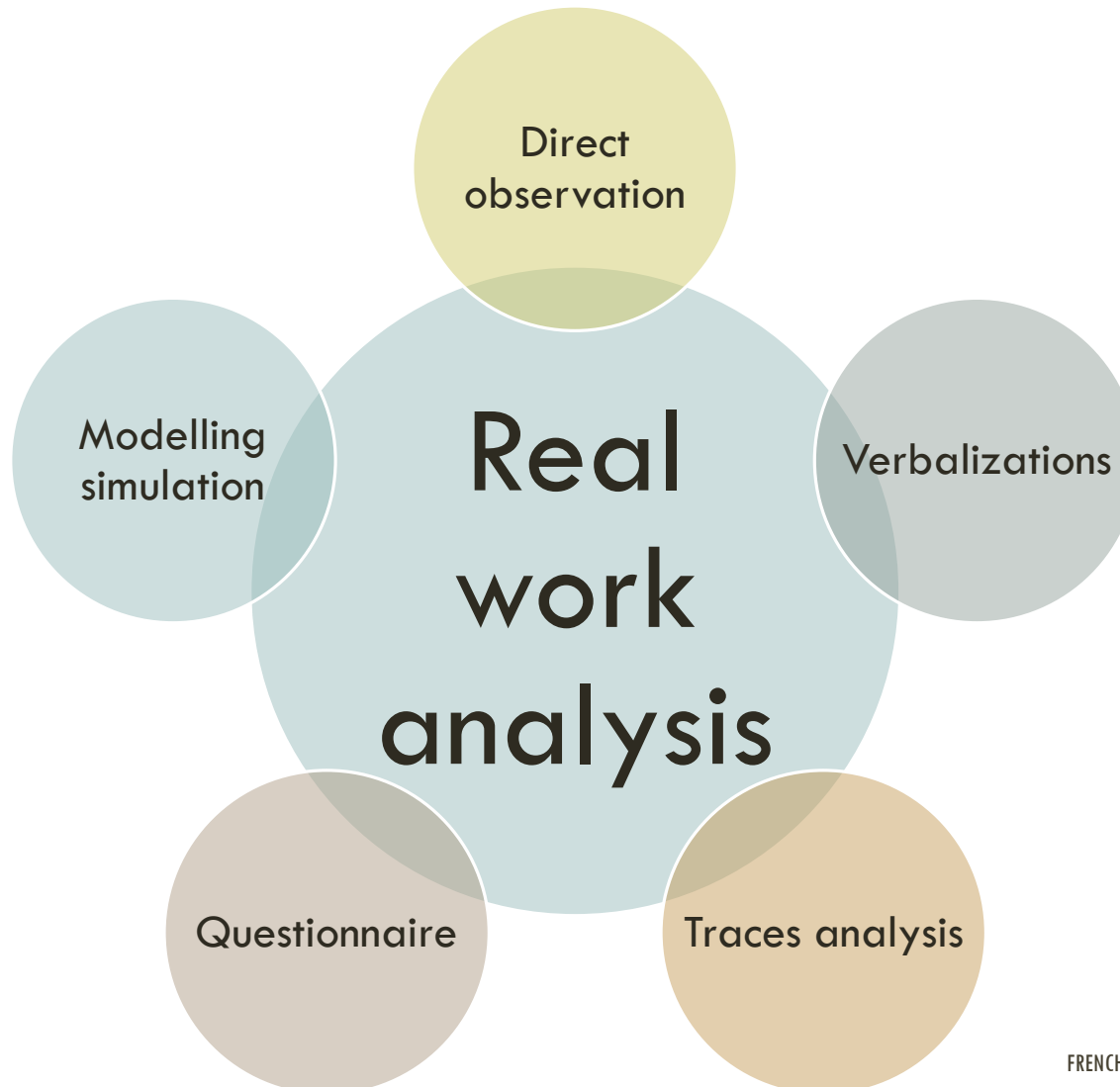


Estimate how long the visitor had been away from the family.

7

3 min. recordings of the same subject

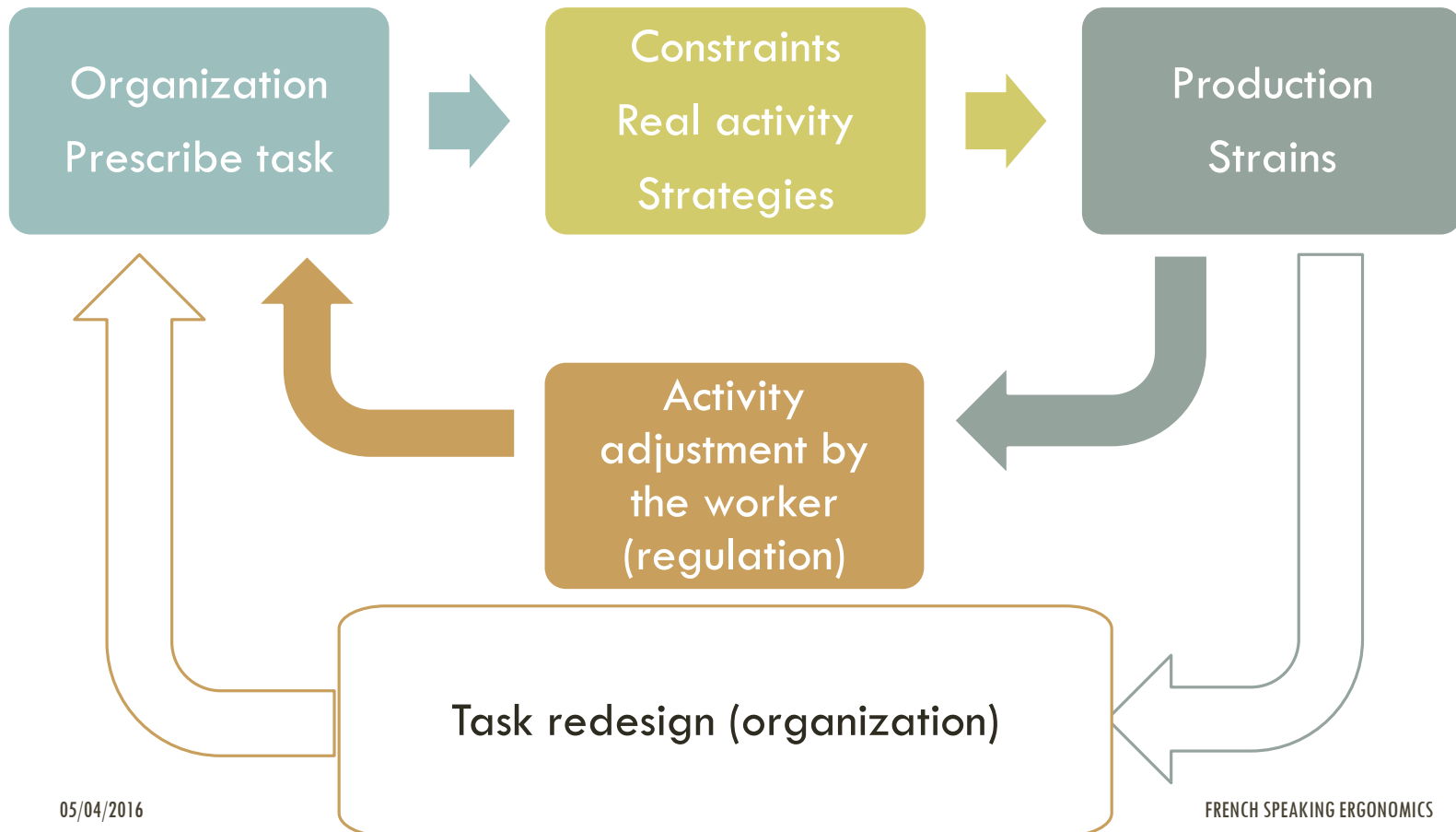
# METHODS FOR REAL WORK ANALYSIS



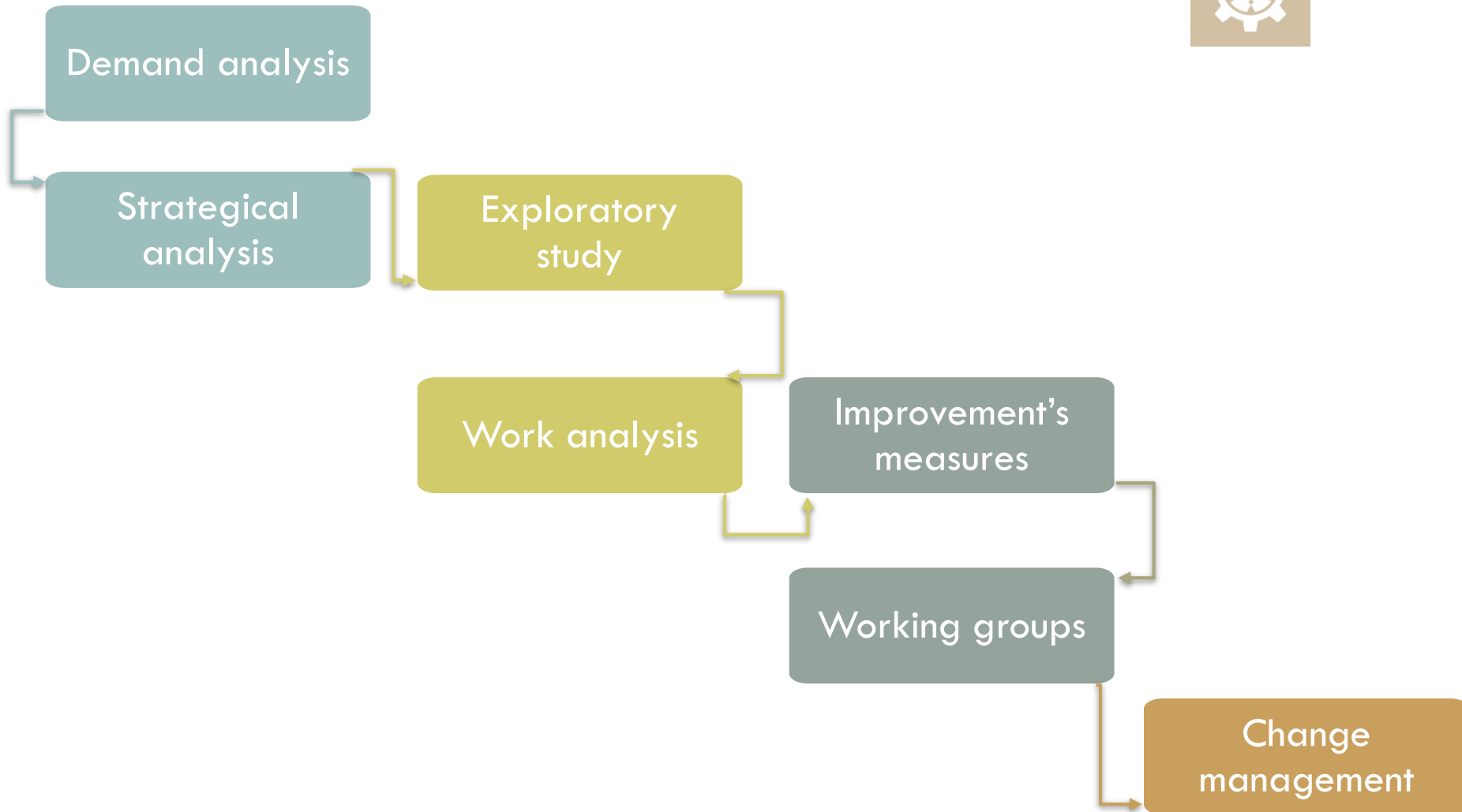
# WHAT IS ERGONOMICS INTERVENTION PROCESS?



# TO CREATE REGULATORY' PLACES AND TO TRANSFORM PRESCRIPTIONS

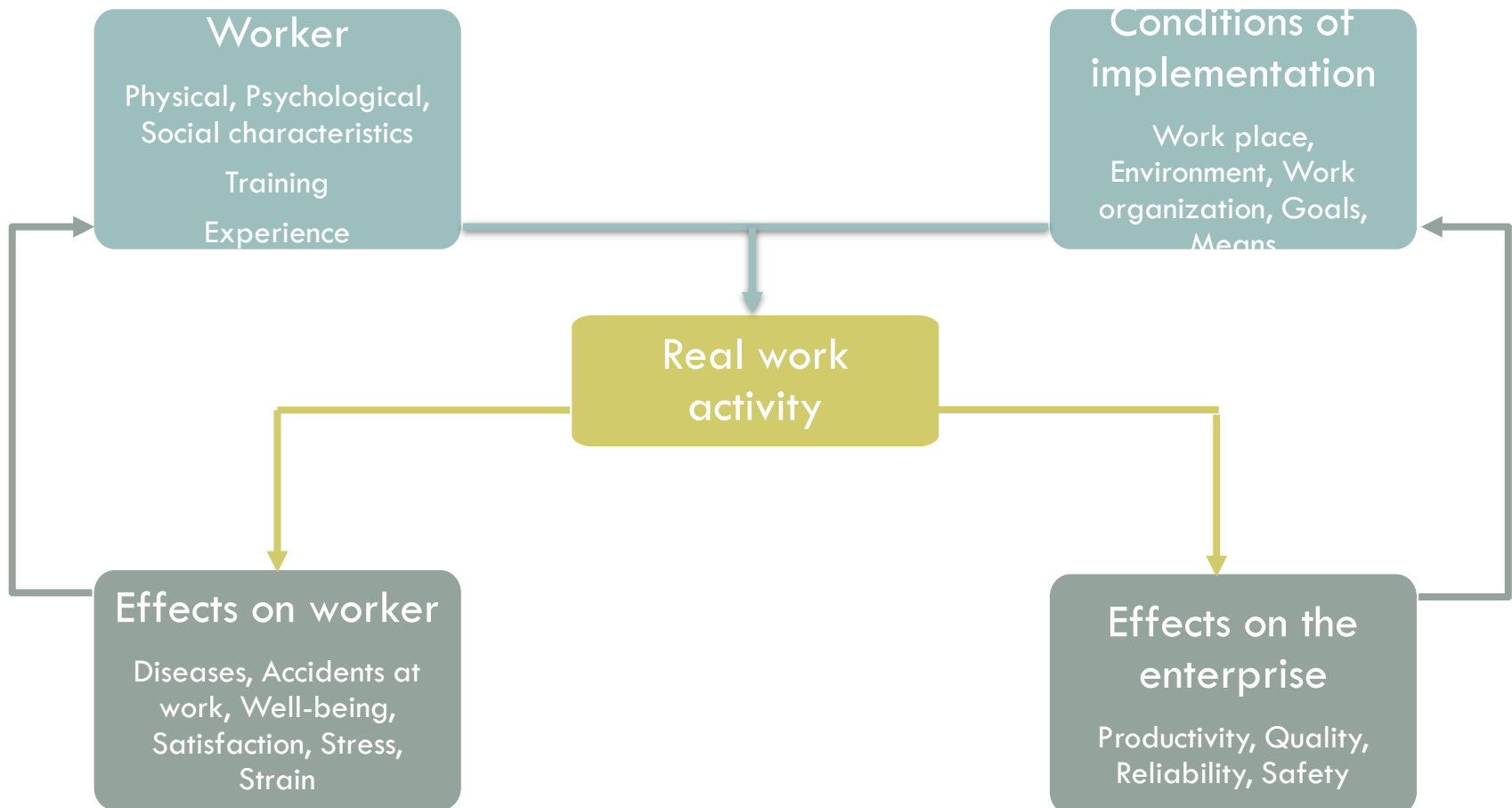


# GLOBAL AND PARTICIPATIVE INTERVENTION APPROACH





# FRAMEWORK ANALYSIS



# ERGONOMICS INTERVENTION: SEVERAL ENTRANCE GATES



**A JOB PAID FOR IT!**



# WHO ARE ERGONOMISTS IN FRANCE?

A wide community composed by teacher-researchers, practitioners, executive officers

	Ergonomist “product oriented”	Ergonomist “work oriented”
Internal job position	ICT, Automotive, Equipment	Industry, Private services, Administration
External job position	Consulting	Consulting, Institutional

Primary sector (agriculture, AREVA –mining)

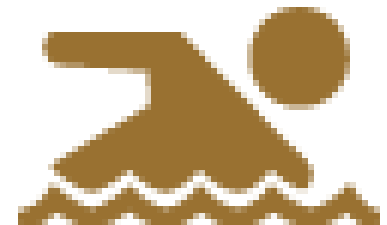
Secondary sector (PSA, Airbus, Renault...)

Third sector (services as bank, aircraft transport, administration)

To correct and/or to design

+ 4500 ergonomists in France

# EXERCISE: QUALITY CONTROL IN A GLASS FACTORY



# TO IMPROVE PRODUCTIVITY AND OSH

## Context:

- A glass factory
- 2 parts in the process: production of glass bottle, then the drawing on the bottle
- First part made by males workers
- Second part made by females workers

## Demand:

- Increase control quality productivity by multiplying by two
- Reduce the problems associated with health at work...
- ... but, since the beginning of this year, Human Resources Department have to lay off employees with occupational health trouble and don't succeed to hire new workers (after 3 day trial, people don't stay more longer).

## Goal:

- You've to find a way of solving that.

# MSD' MULTIFACTORIAL MODEL

