



With the support of the  
Erasmus+ Programme  
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# Evaluation of research activities

Tbilisi - June 14th and 15th

Pascal Marty

*Ecole Normale Supérieure de Lyon*

and

*Hcéres - High Council for Evaluation of Research and Higher Education*



# Preliminary remarks

- Evaluation in HEIs
  - Institutions
  - Training programmes
  - Individuals
  - Research

# Preliminary remarks

- Evaluation in HEIs
  - Institutions
  - Training programmes
  - Individuals
  - Research
- Why to evaluate?
  - Context : competition at international level
    - Attractiveness (students, scholars, partnerships...)
    - Resources
  - Accreditation
  - Management and efficiency
  - Self-improvement
  - Information to the public and transparency

# Preliminary remarks

- Evaluation of research



The Clarivate Analytics Impact Factor



# Preliminary remarks

- Evaluation of research



The Clarivate Analytics Impact Factor



# Main contents

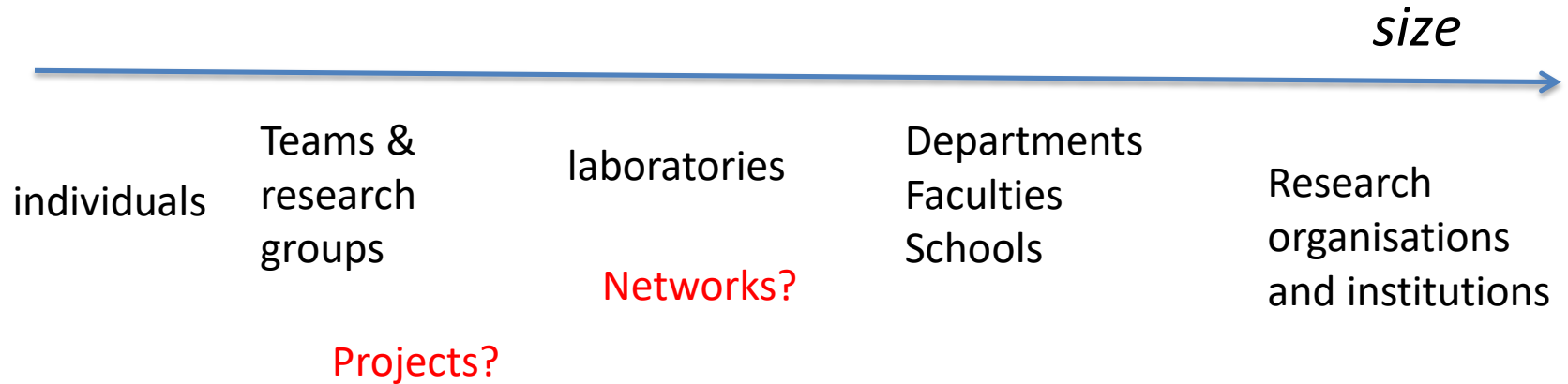
- Day 1
  - Criteria and objectives
  - Planning a cycle of self-evaluation reporting
  - Key factors for the success of an external evaluation
- day 2
  - Dissemination and communication of evaluation results

# **Session 1**

**Internal institutional methods for  
evaluation of research activities /  
research productivity of staff (I)**

# Evaluation of research

- Evaluation of research



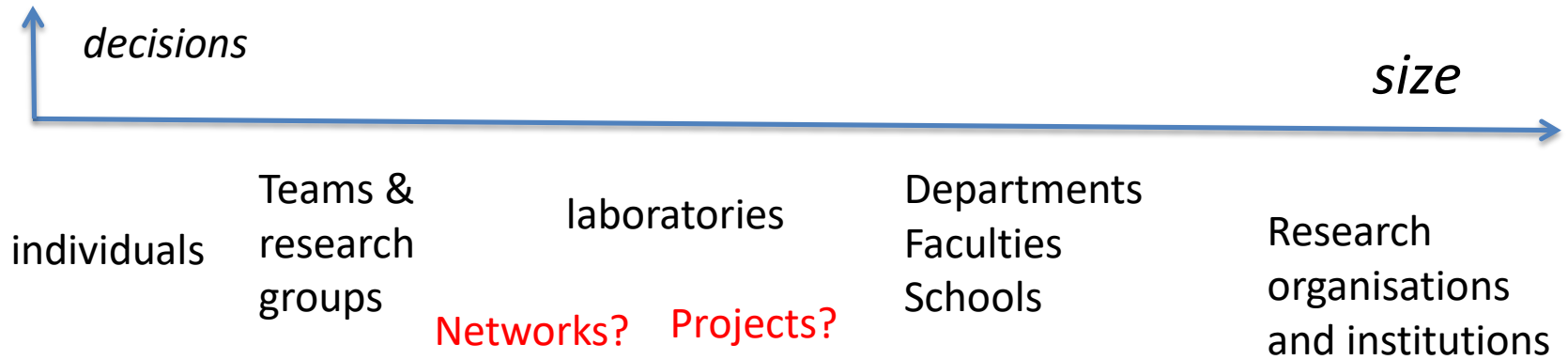
## Scientific domains

- Humanities and social sciences
- Science and technology
- Life and environmental sciences



# Evaluation of research

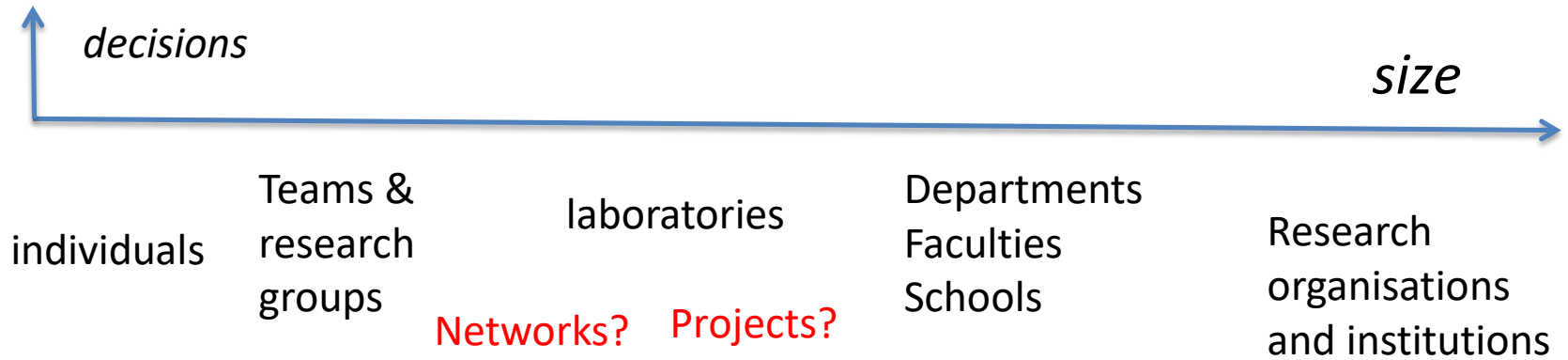
- Evaluation of research



- Decisions
  - Promotions - career
  - Resource allocation
  - Change
  - Transformation - restructuring

# Evaluation of research

- Evaluation of research



- Decisions

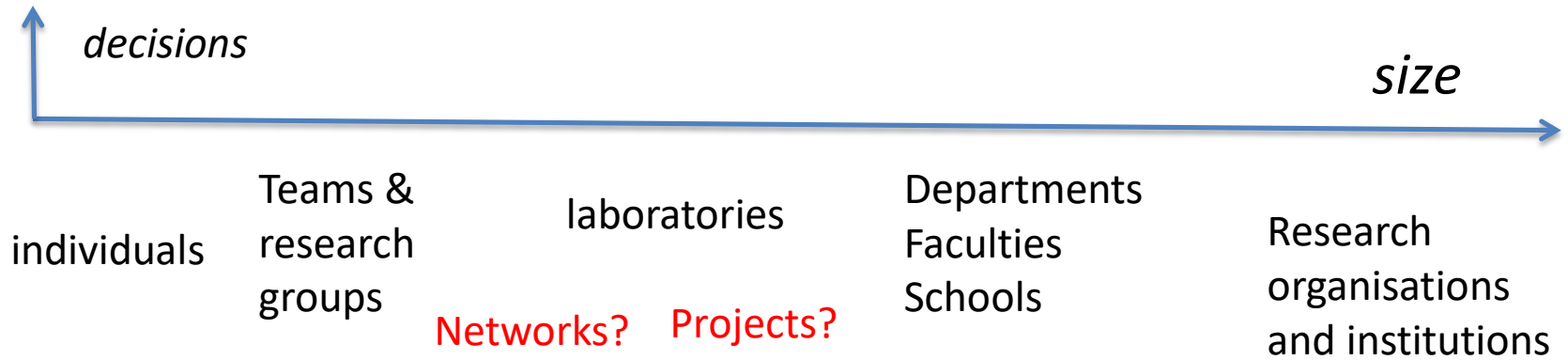
- Promotions - career
- Resource allocation
- Change
- Transformation - restructuring

- Methods

- External vs internal
- Quantitative vs qualitative
- Peer assessment?
- Blind vs non-blind?
- Rankings and marks?

# Evaluation of research

- Evaluation of research



- Decisions
  - Promotions - career
  - Resource allocation
  - Change
  - Transformation - restructuring
- Methods
  - External vs internal
  - Quantitative vs qualitative
  - Peer assessment?
  - Blind vs non-blind?
  - Rankings and marks?
- Building and conducting an evaluation process / cycle
  - Evaluation framework and time frame
  - Data and infrastructures
  - Professional environment

# ***Setting criterias and objectives***

- Objectives : evaluation of the quality and productivity of research
  - Individual / collective level
  - Domestic-national / international scale
- Criterias (self-evaluation reports, evaluation reports)

Criteria

*Scientific outputs and activities ;  
academic collaboration ; reputation ; academic  
attractiveness*

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academic collaboration ; reputation ; academic  
attractiveness*

**outputs**

Journal articles

Books

Congress-conferences  
proceedings

Digital tools and products  
(softwares...)

Instruments and  
methodology

Other products...

*Scientific outputs and activities ;  
academic collaboration ; reputation ; academic  
attractiveness*

**outputs**

Journal articles  
Books  
Congress-conferences  
proceedings  
Digital tools and products  
(softwares...)  
Instruments and  
methodology  
Other products...

**activities**

Editorial activities  
Peer reviewing  
Research grants  
applications  
Invitation of visiting  
scientists and recruitment  
of Post-docs  
Scientific recognition

*Scientific outputs and activities ;  
academic collaboration ; reputation ; academic  
attractiveness*

**outputs**

**activities**

.

**Issues and choices**

Hierarchy (type of products,  
authorship...)

Selective vs  
comprehensive?



*Scientific outputs and activities ;  
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**outputs**

**activities**

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Selective vs  
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**References**

Guidebook of scientific  
output and activities

List of journals,  
databases...

*Scientific outputs and activities ;  
academic collaboration ; reputation ; academic  
attractiveness*

**outputs**

**activities**

**Issues and choices**

Hierarchy (type of products,  
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databases...

**Strengths  
Weaknesses  
(assessment of  
the unit's  
*quality* by  
reference to  
international  
standards )**

Criteria

# *Interactions with the non-academic world*

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**Socio-economic interactions - patents**

**socio-economic interactions**

e.g. : R&D contracts, start-ups

**Expertise**

e.g. : consulting, legal expertise

**Public outreach**

e.g. : radio broadcasts, newspapers articles...

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Hierarchy

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**References**

Guidebook  
of scientific  
output and  
activities

Criteria

# *Involvement in training through research*

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## **Educational outputs**

e.g. textbooks, MOOCs, e-learning tools....

## **Training**

e.g. PhD supervision, defended PhDs, PhD duration...

## **Education**

e.g. : Courses with international label...

# *Involvement in training through research*

## **Educational outputs**

e.g. textbooks, MOOCs, e-learning tools....

## **Training**

e.g. PhD supervision, defended PhDs, PhD duration...

## **Education**

e.g. : Courses with international label...

## **Issues and choices**

Risk of replicating part of the training programme evaluation

## **References**

Guidebook of scientific output and activities



Criteria

*organisation and management*

# *organisation and management*

**Steering organisation**

**Resources and allocation  
of resources**

**Scientific animation**

**Equipment**

**Social inclusion**

**Sustainable development  
and environmental  
impact**

**Intellectual property**

**Issues and choices**

**Scale of evaluation  
and relevance**

Criteria

*scientific strategy and project*

# *scientific strategy and project*

## **SWOT analysis**

Potential breakthroughs

Competitiveness at  
international level

# *scientific strategy and next period project*

## **SWOT analysis**

Potential breakthroughs

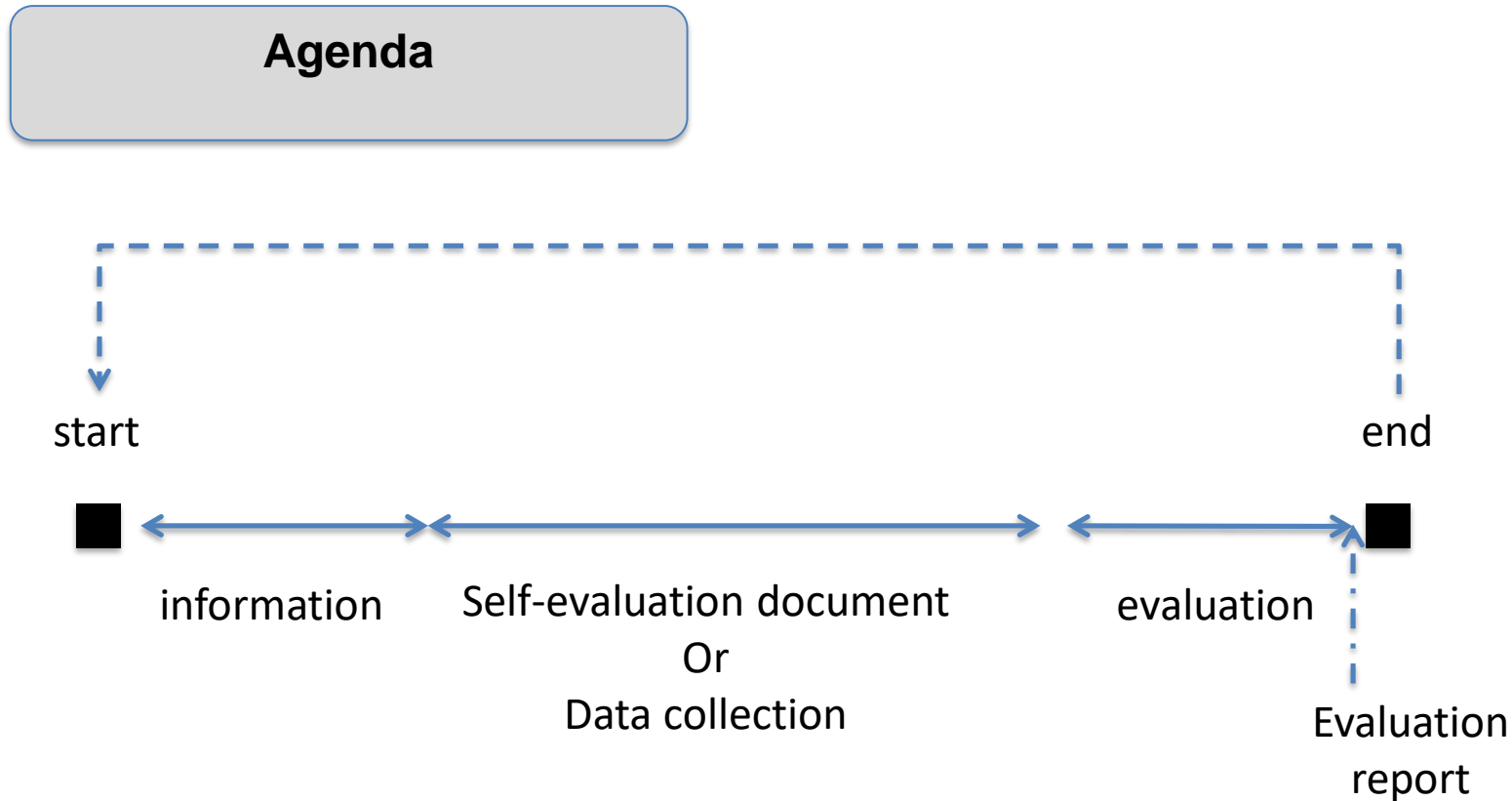
Competitiveness at  
international level

**Scientific orientation :**  
choices, objectives

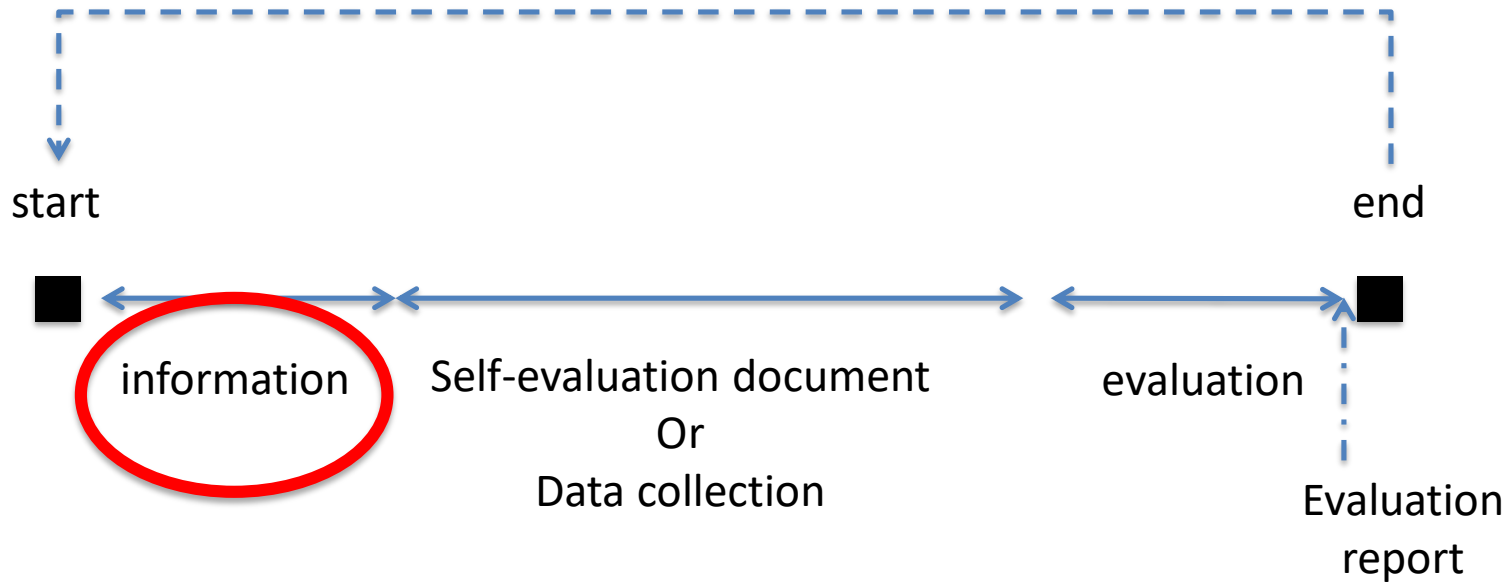
**Structure, workforce,  
means, resources,  
equipment, partnerships**

**Session 2 – Internal institutional methods for evaluation of research activities / research productivity of staff (II) – focus on small size HEIs with limited resources**

# ***Planning a cycle of self-evaluation reports :***



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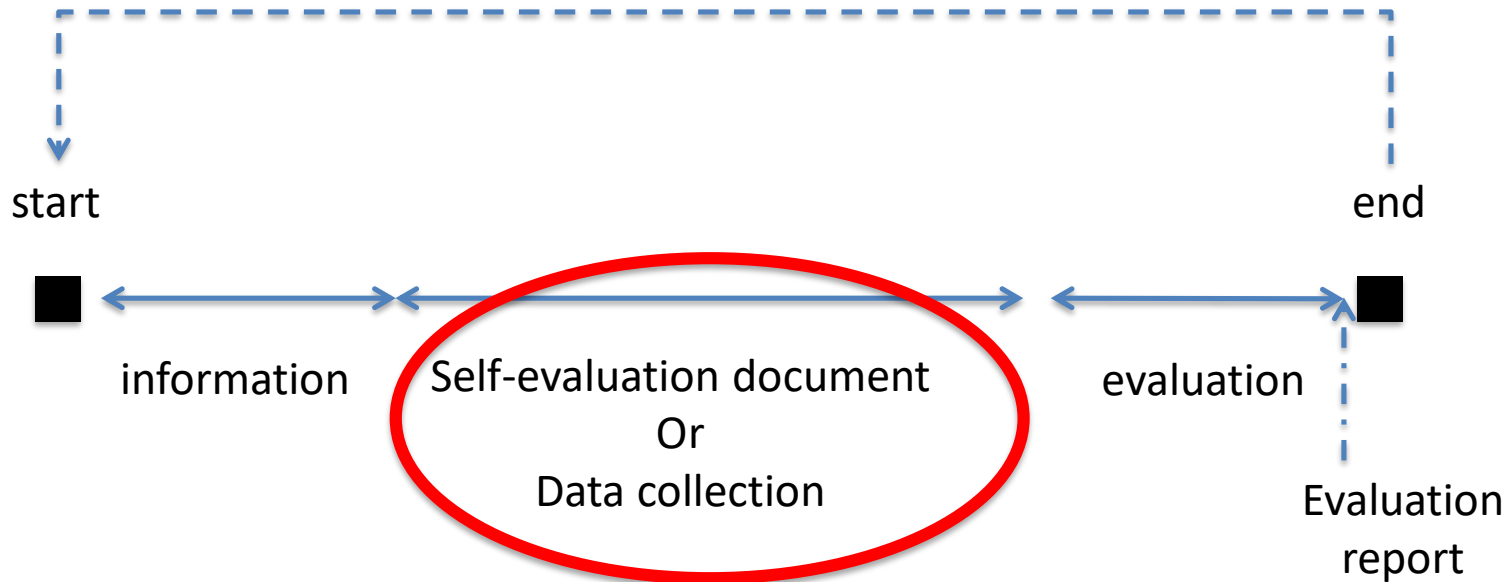


- Rules
  - Law, MoU, University decision...
- Information about the process
  - Website
  - On-site meetings
- Documents and templates
- Agenda and deadlines

Evaluation authority



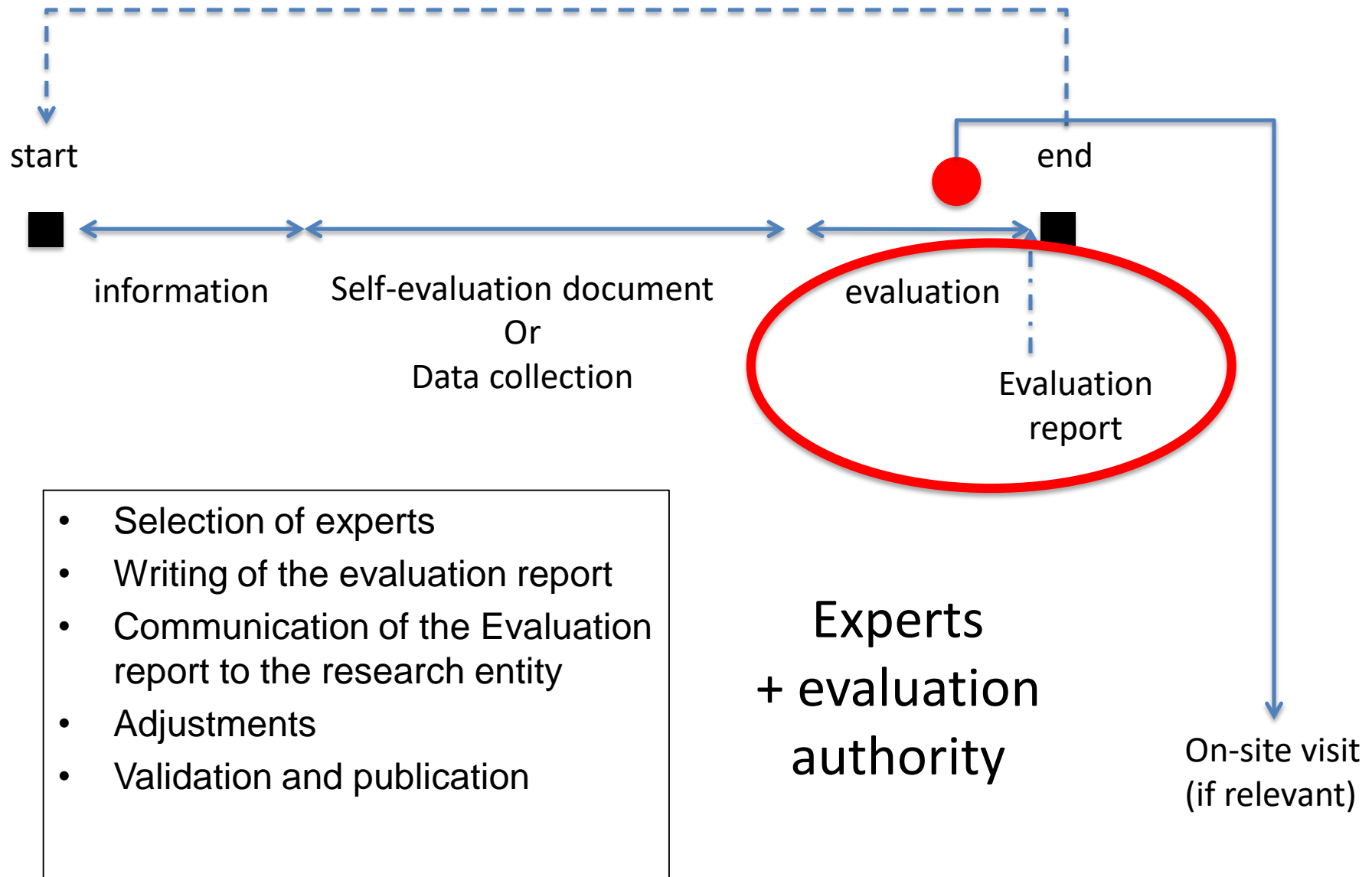
# *Planning a cycle of self-evaluation reports :*



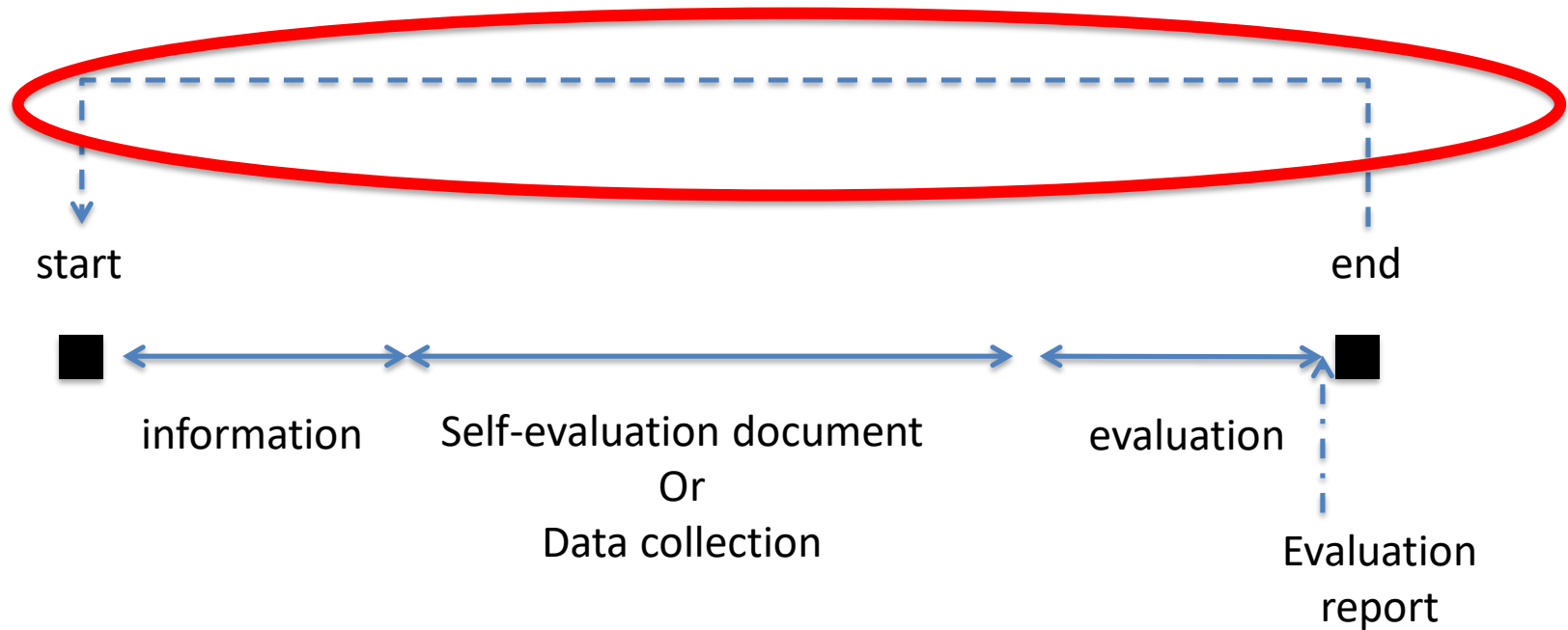
- Drafting a scientific project
- Filling-in and writing a self-evaluation document
  - Template
  - Data collection
- Validation by the governing body

Research entity  
to be evaluated

# *Planning a cycle of self-evaluation reports :*



# ***Planning a cycle of self-evaluation reports :***



- Decisions
- Changes
- ....

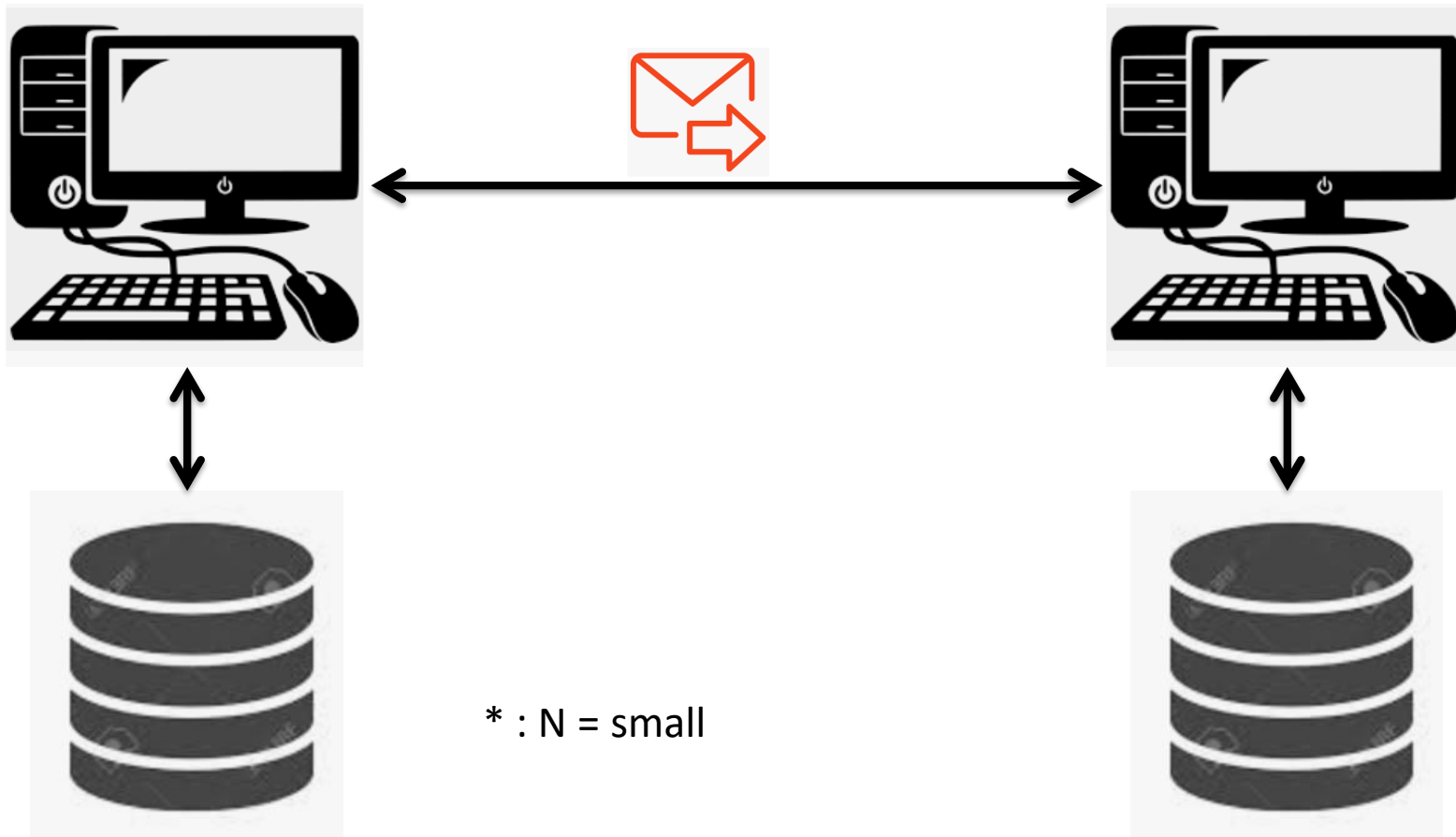
Governing and financing  
bodies

Research entity

# *Planning a cycle of self-evaluation reports :* *data collection data management (1)*

**N\* research entities**

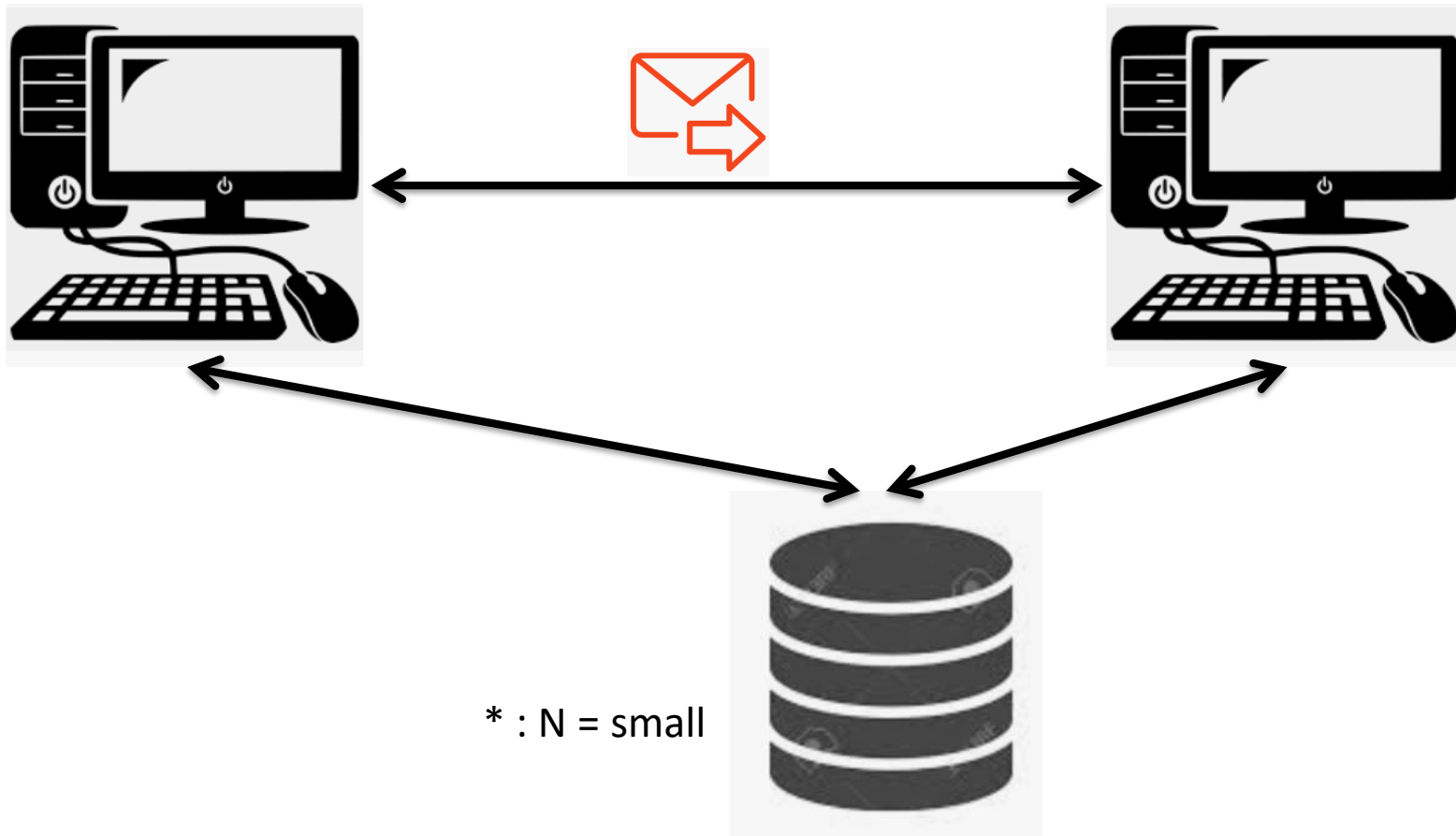
**Evaluation authority**



# *Planning a cycle of self-evaluation reports :* *data collection data management (1)*

**N\* research entities**

**Evaluation authority**



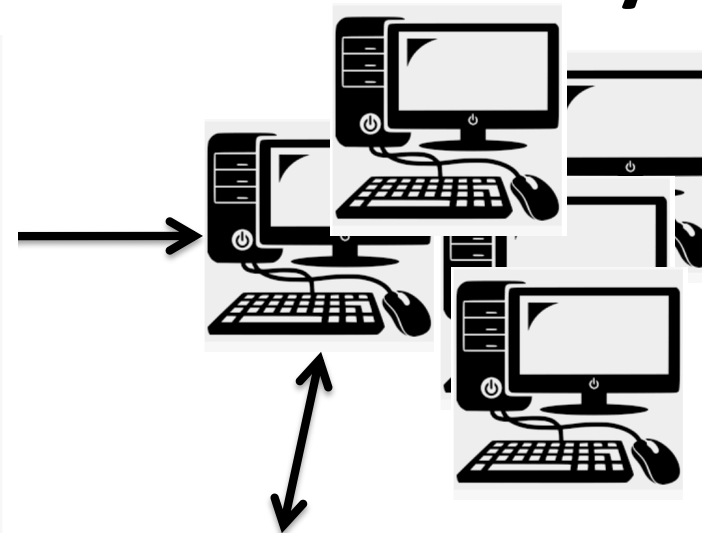
# *Planning a cycle of self-evaluation reports : data collection and data management*

**N research entities**

**Evaluation authority**

Databases?  
Updated?  
Workforce for data  
Management?  
Time consumption?

**N databases?**

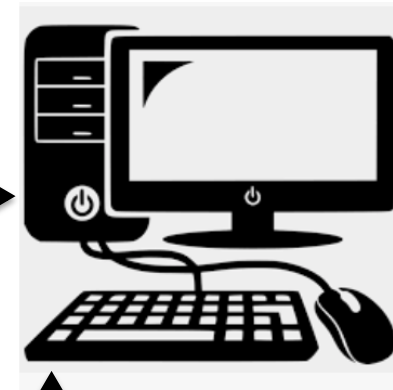
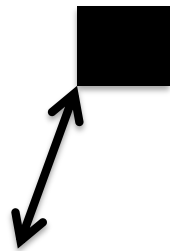


# *Planning a cycle of self-evaluation reports :*

## *data collection and data management*

**Research entities**

**Evaluation authority**



Data quality : +  
Time spent : -  
Costs : -

**Shared databases?**



Workforce  
Resources and budgets  
Publications  
Grants



**Monitoring  
Capacity ;  
reporting**

# **small size HEIs with limited resources**

- To invest resources in evaluation (staff, data management) vs to contract with an evaluation authority
- Internal vs external experts
- To adapt the evaluation effort
  - Number of entities to be evaluated
  - Adapting criterias to objectives
  - Time cycle



# **Session 3 – Internal vs. External evaluation of research activities**

***Key factors for the success of an (external) evaluation : experts committees ; selection of experts ; conflicts of interest ; drafting and review of evaluation report ; workflow and data management (2)***

# Internal vs external

internal

+

Easy to organise  
Cheap  
Good knowledge  
of the evaluated  
entity/project

-

Risk of Conflict of  
interest  
Expertise

external

+

No conflict of  
interest  
Expertise  
More demanding  
Unbiased

-

Cost  
Lack of flexibility  
Lack of local  
knowledge

# Internal vs external

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knowledge

# Individual reviewers vs expert committee

Reviewer

committee

+

-

+

-

No interference  
On-demand (focus  
on certain topics)  
Possibility of blind  
reviewing

No synthetic  
evaluation  
judgement  
Lack of  
interactions  
between  
evaluators

Balanced  
judgments  
Enhanced quality  
thanks to  
interactions  
Collective  
responsability

Cost of  
coordination  
Lack of flexibility  
Too supportive

# Individual reviewers vs expert committee

## Reviewer

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## committee

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Enhanced quality  
thanks to  
interactions  
Collective  
responsability

-

Cost of  
coordination  
Lack of flexibility  
Too supportive

# Experts committees

## Committee size

- Quality vs cost
- Size of the research entity (number of researchers-scholars)
- Complexity (number of internal teams or groups)
- Chairperson

# #1

- Depends on R.E. size
- If mixed unit with a national research institution (+ 1 expert for each)
- Supporting staff (Sup)

| workforce | Experts     | R.I. #1 | R.I. #2 <sub>s</sub> | Etc... |
|-----------|-------------|---------|----------------------|--------|
| <22       | 3           | 4       | 5                    |        |
| [22 à 33] | 4           | 5       | 6                    |        |
| [33 à 44] | 5           | 5       | 6                    |        |
| [44 à 55] | 6           | 6       | 6                    |        |
| [55 à 66] | 7           | 7       | 7                    |        |
| [66 à 77] | 8           | 8       | 8                    |        |
| [77 à 88] | 9           | 9       | 9                    |        |
| [88 à 99] | 10          | 10      | 10                   |        |
| >100      | Négociation |         |                      |        |

**+** Sup

# #2

- Depends on number of groups-teams
- 1 expert per group-team
- 10 experts max



# Experts committees

## Committee composition

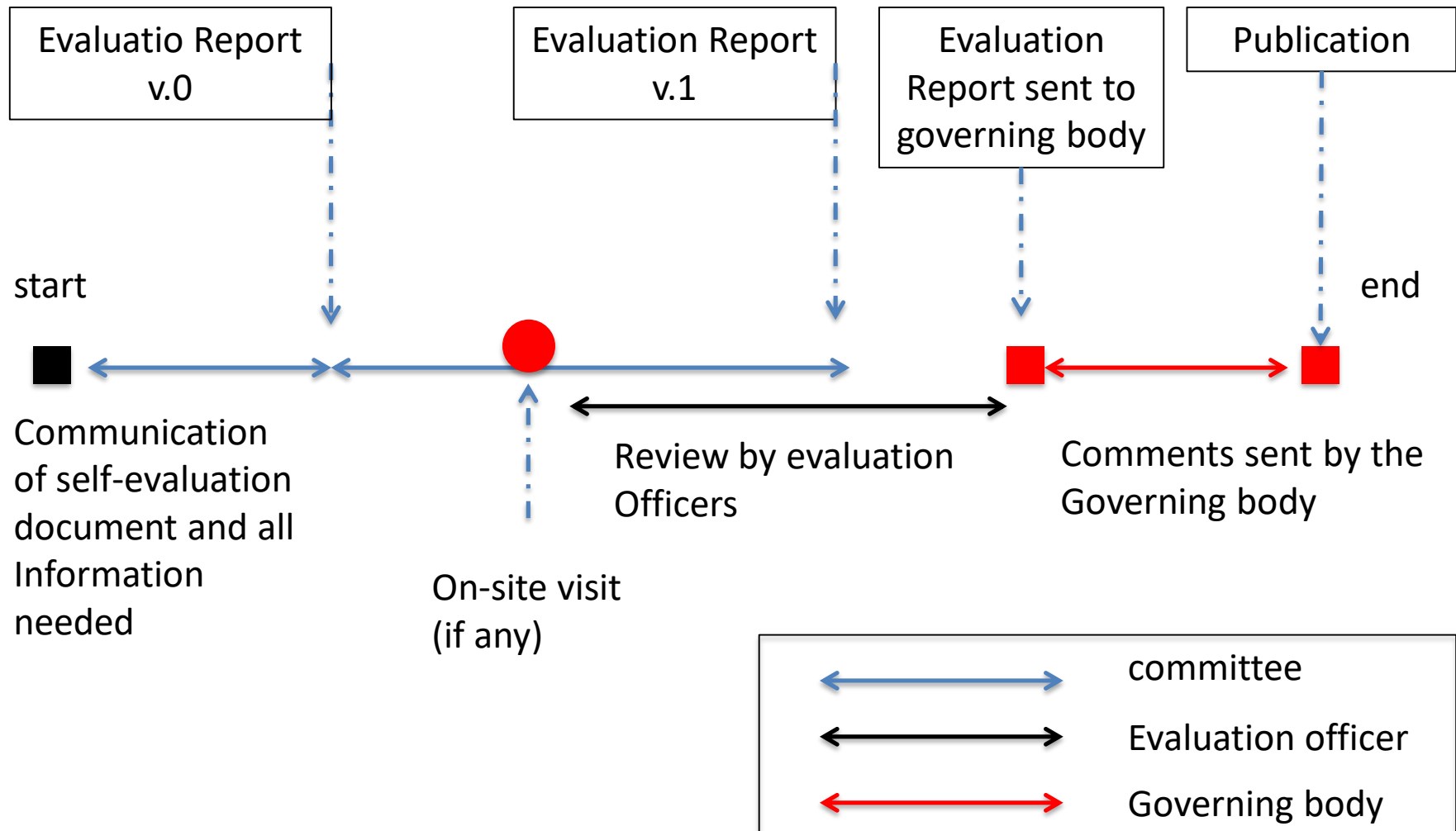
- Regulations
  - e.g. France : at least one member of the NUC per committee ; if more than 2 supporting staff in the R.E. : one expert Sup.
- Role of the Evaluation officer
  - Science : disciplines, topics
  - Dialog...

# Experts committees

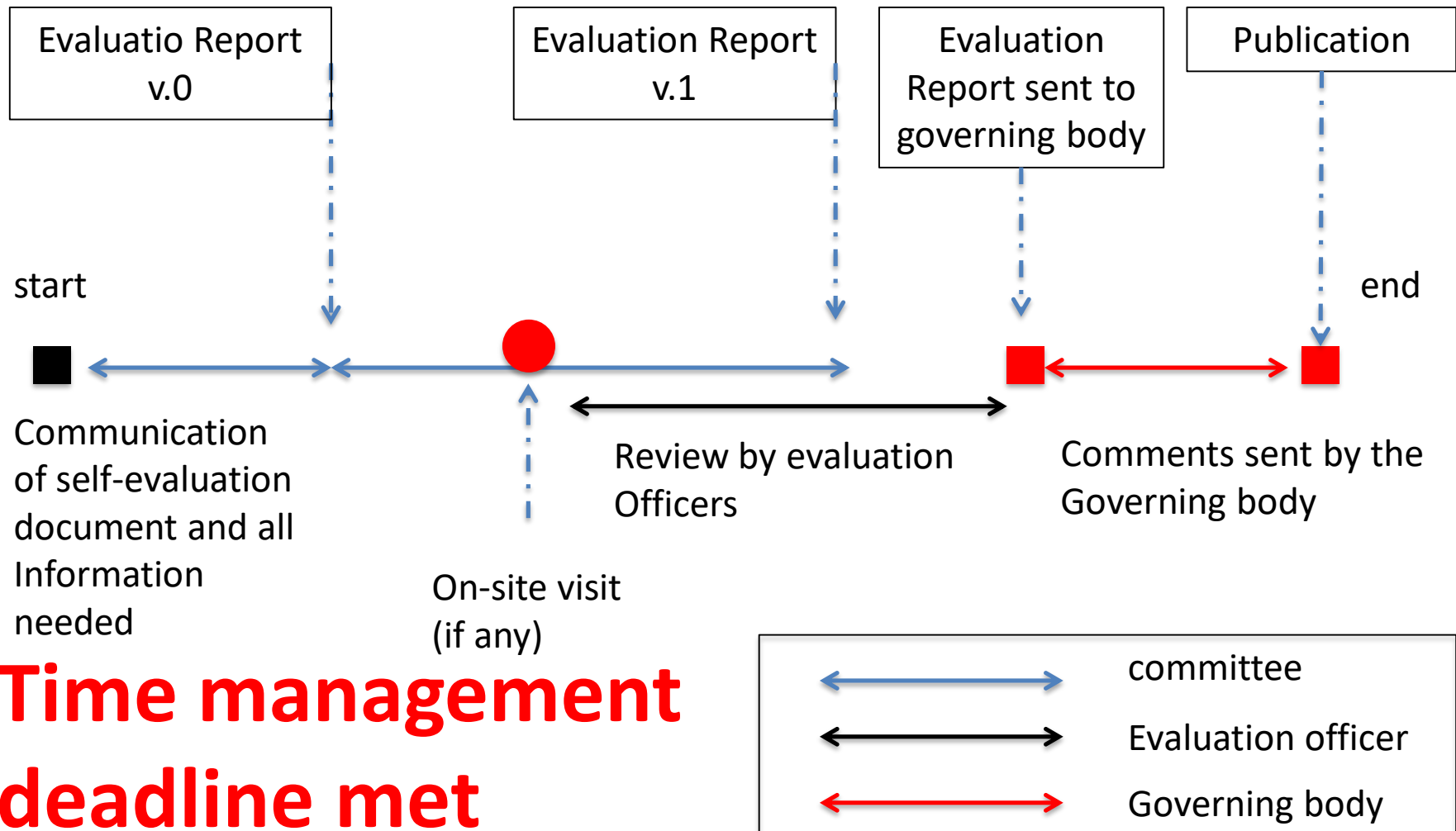
## Conflicts of interest

- Experts AND evaluation officers
- Positive or negative
- Definition
  - Personnal relationship
  - Hierarchical relationship
  - Scientific relationship
    - Intensity (co-authorship, project membership...)
    - Time...
  - Commission for scientific integrity
- Declaration of absence of conflict of interest
- Crisis management...

# Drafting and review of the evaluation report



# Drafting and review of the evaluation report

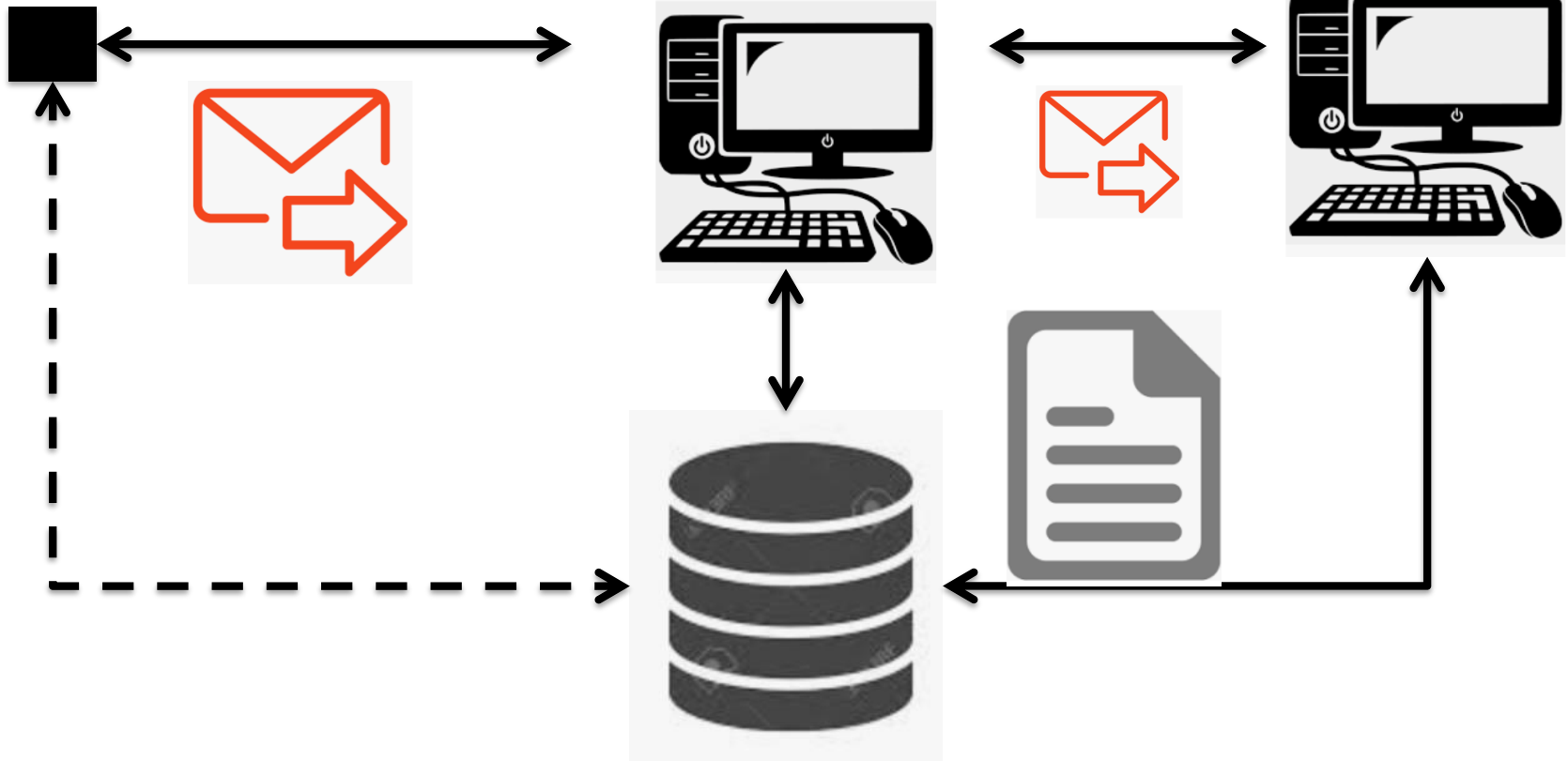


# workflow and data management (2)

**Research  
entities**

**Evaluation  
authority**

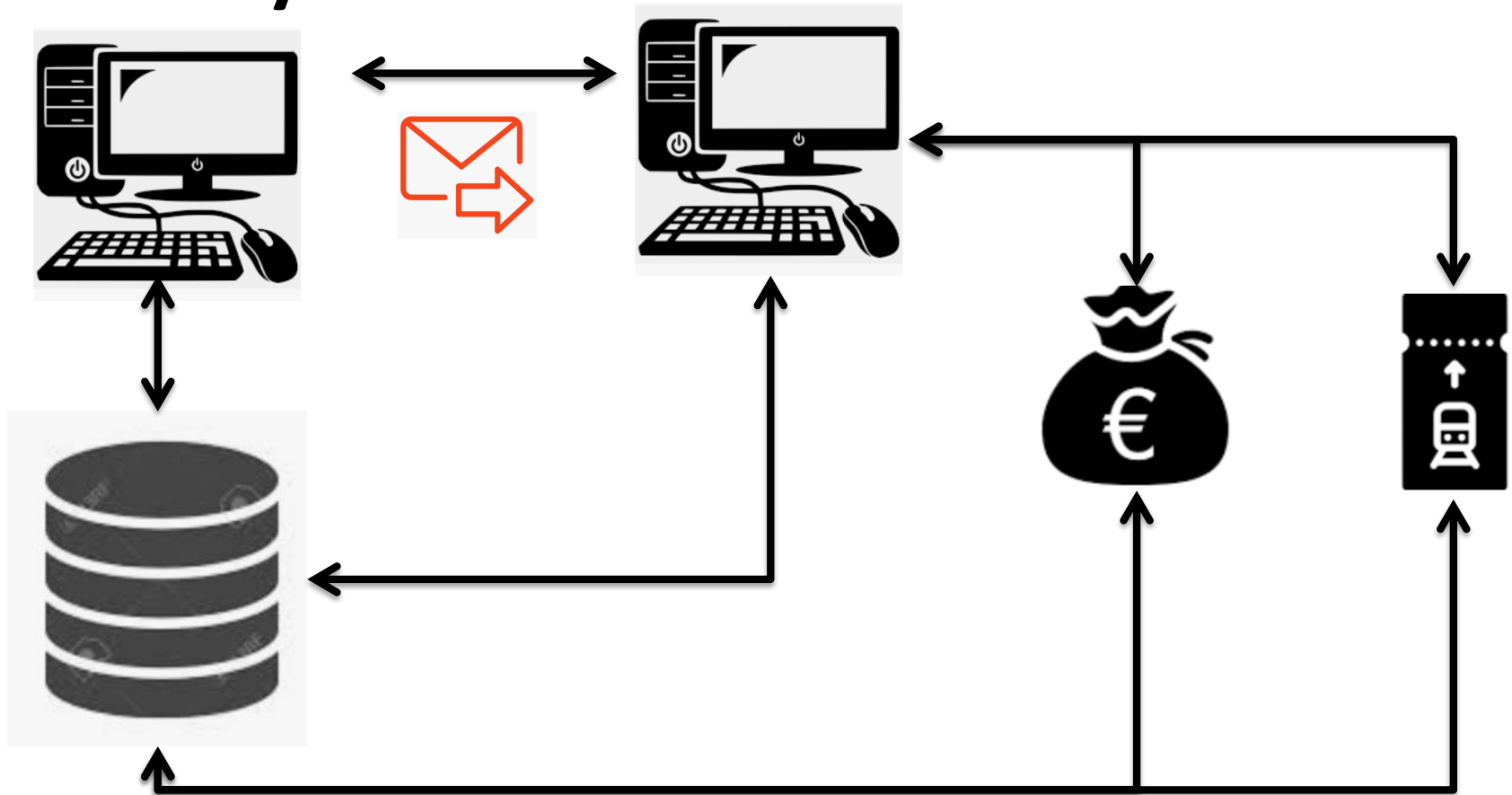
**Experts**



# workflow and data management (2)

Evaluation  
authority

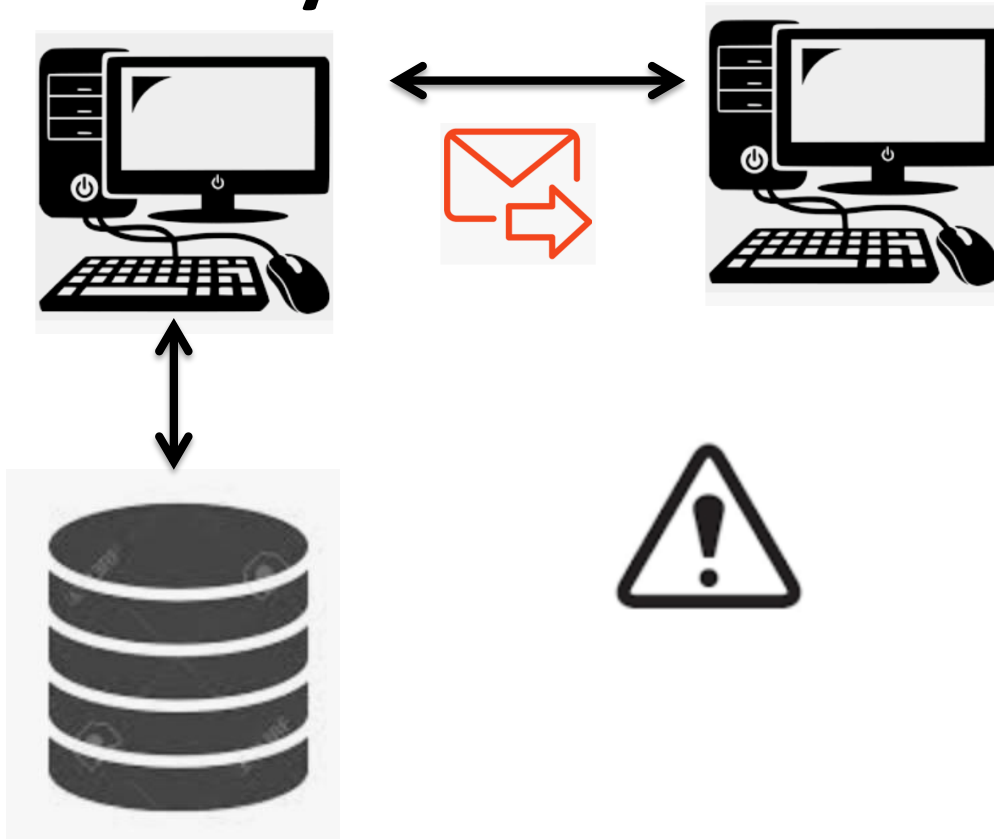
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# workflow and data management (2)

**Evaluation  
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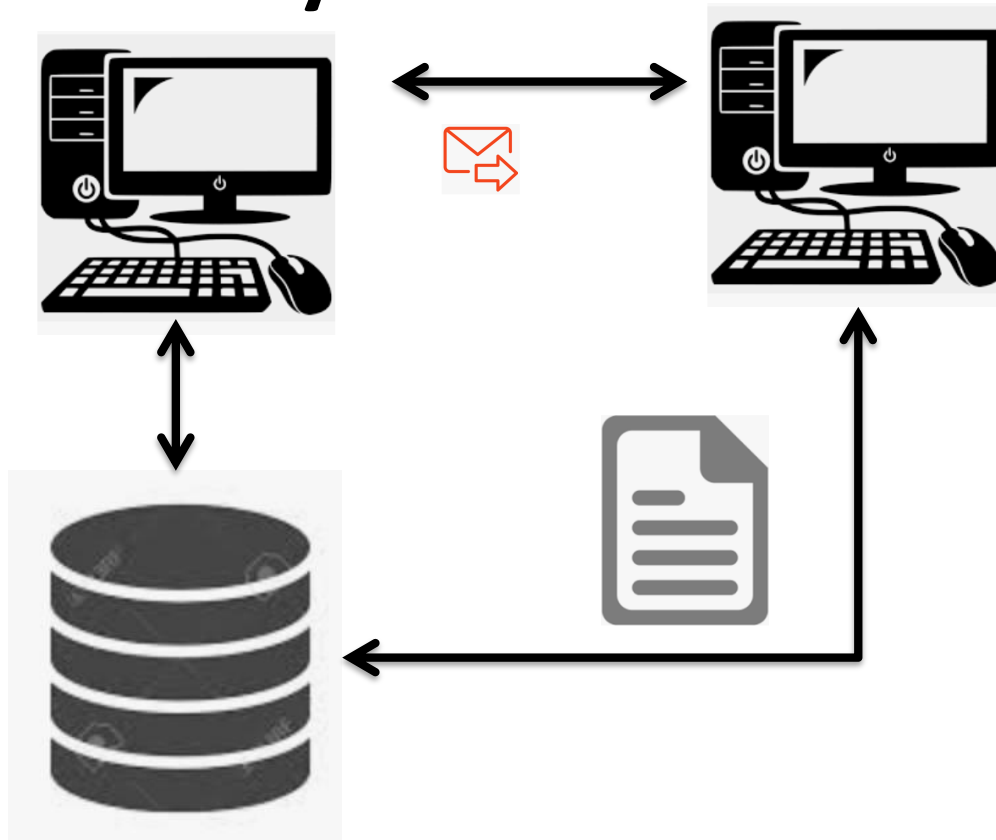
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# Expert work and report drafting

Evaluation  
authority

Experts

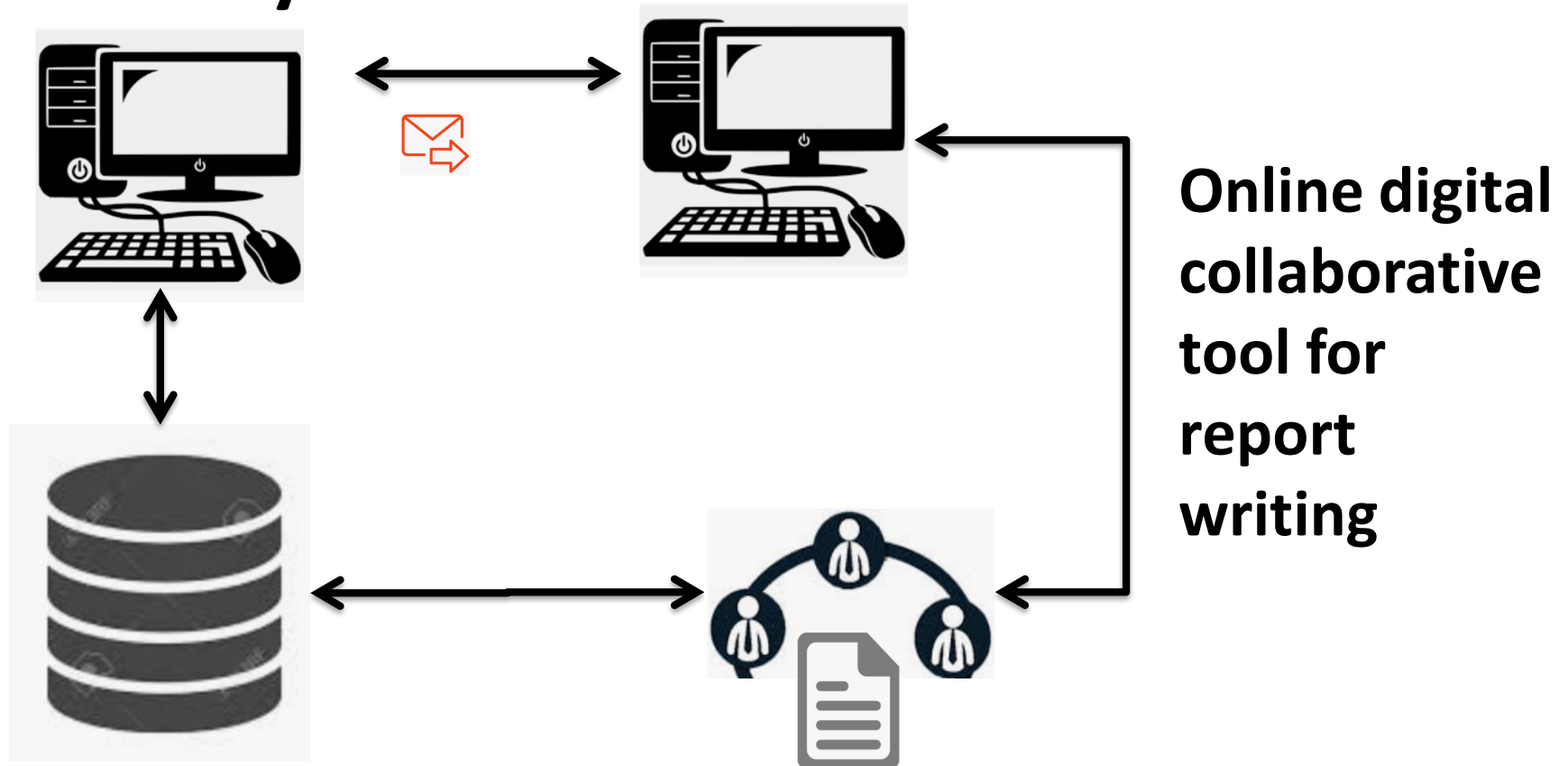




# Expert work and report drafting

**Evaluation  
authority**

**Experts**



გმადლობთ თქვენი  
ყურადღებებისთვის

Thank you for your attention

# Evaluation of research

- Building and conducting an evaluation process / cycle
  - Evaluation framework and time frame
  - Data and infrastructures
  - Professional environment

Scholars → Unions, Scientific societies, Disciplinary evaluation bodies

Governing bodies → Universities, Academies, Conference of deans,  
Conference of rectors / Presidents

Financing bodies → Ministries, Agencies....