

58th Annual Meeting of the EAAP – Dublin – Ireland

26th - 29th August 2007

Session L-13: Understanding and assessing farmers' decision making

A conceptual model of the farmers' information system to improve the understanding of their decision making

- The case of beef cattle farmers -

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Why focusing on the farmers' information system?



Failure of the advisors to intervene with the farmers while the informational environment has been more and more diversified and extended

(lack of accounting of farmers' diversity to choose and use information)



Failures of the researchers to transfer ag-models or their simulation results to farmers or extension advisors

(too complex in data inputs and outputs // non realistic representations of farmers' management)

**→ The question is:
what is upstream from farmers' decision-making?**

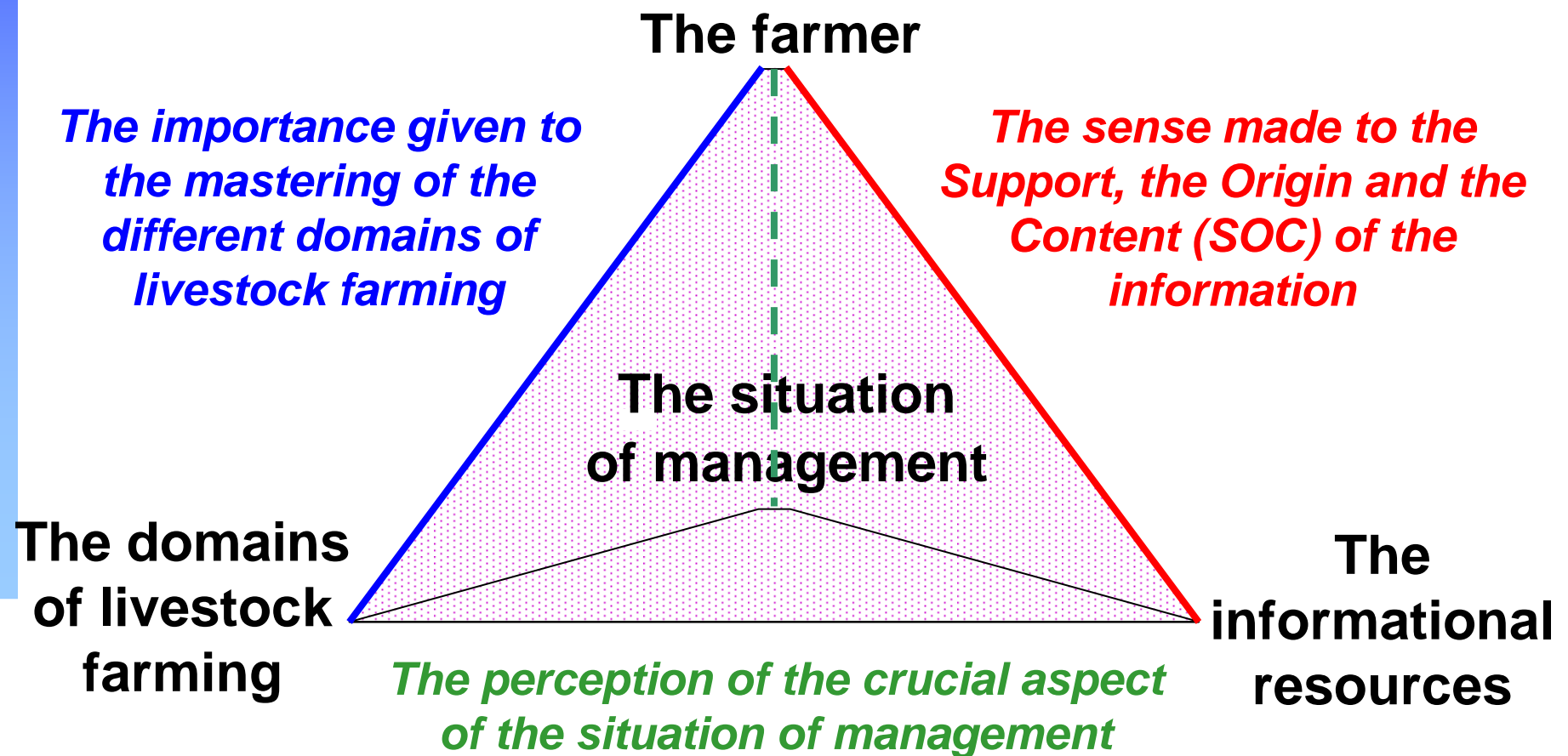
The aim of the study is ...

... to design a conceptual model of the farmers' information system accounting for the diversity:

- to create the categories and their variations in attributes which represent this diversity;***
- to identify the criteria which explain the instance of such attributes***

The framework of analysis of the diversity of the farmers' informational activity

The finalities given to the production activity and to the personal development



Data collection and their treatment

Interviews among beef cattle farmers

- 1st step: single interview / $n_1 = 30$
- 2nd step: 3 repeated interviews / $n_2 = 9$ (among n_1)

Data

Design of the model of information system

- abstraction from the data to different classes
- systemic modeling to organize them

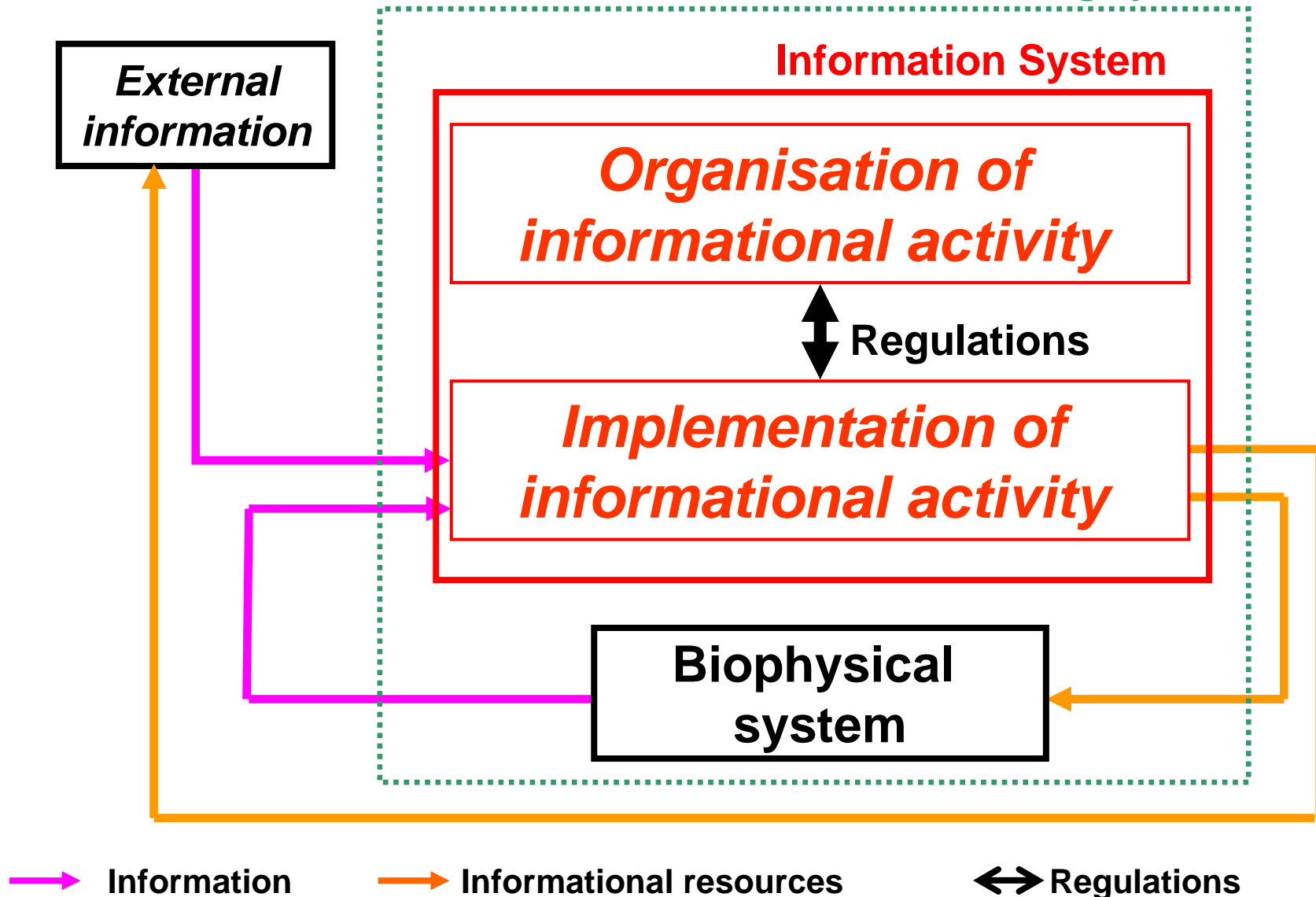
The model

- the categories and their variations in attributes
- the criteria to explain the instance of such attributes

The information system

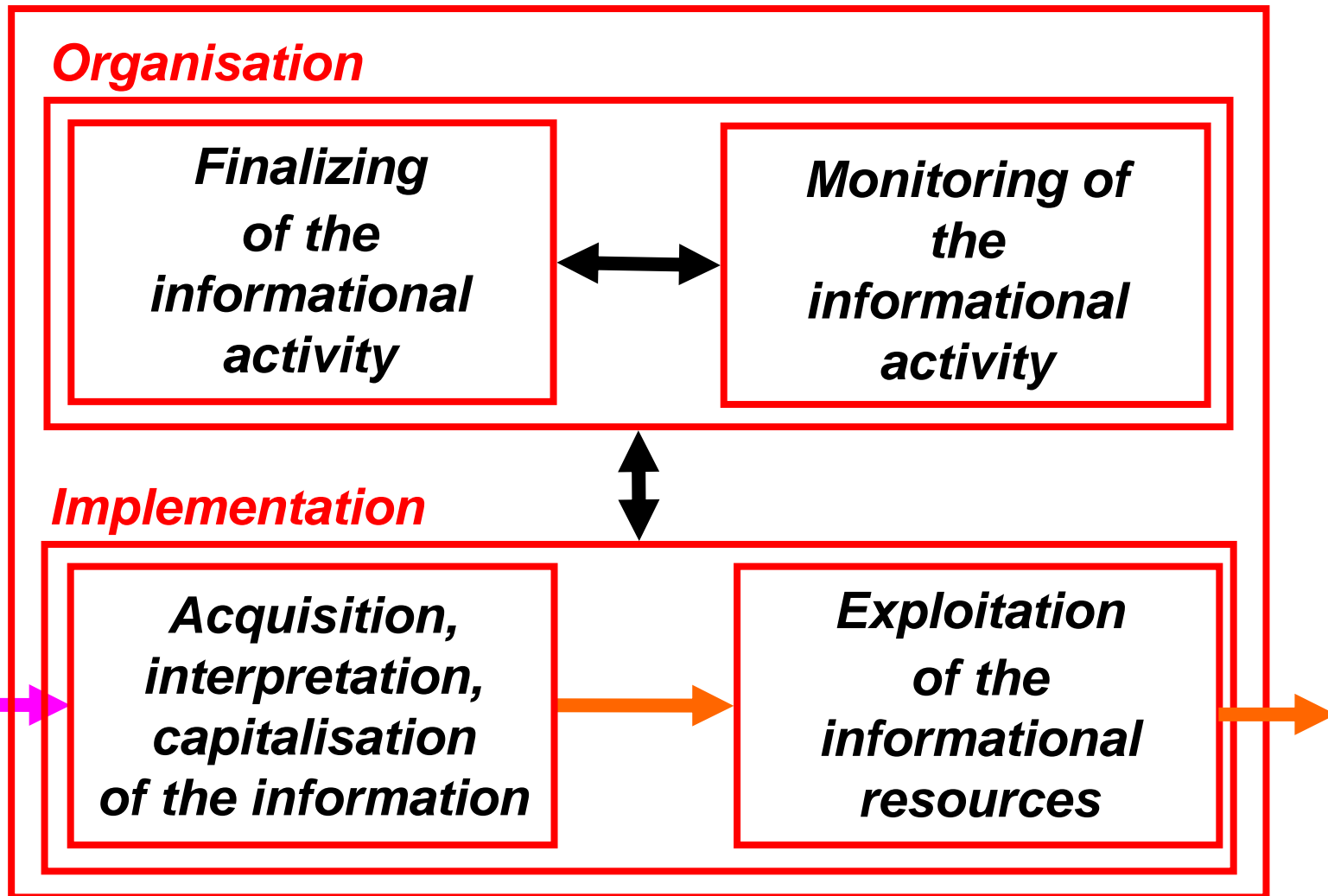
Livestock farming system

Results



Four units of the information system

Information system



→ Information

→ Informational resources

↔ Regulations

Four units of the information system

Information system

Organisation

*To give a framework
of direction of the
informational
activity*



*To readjust
the informational
activity according
to the situation of
management*



Implementation

*To build the
informational
resources and
maintains its
dynamics*



*To integrate
the informational
resources in
decision making
(action/management)*



→ Information → Informational resources ↔ Regulations

Results

Four units of the information system

Information system

Organisation

**Finalizing
of the
informational
activity**



**Monitoring of
the
informational
activity**



Implementation

**Acquisition,
interpretation,
capitalisation
of the information**



**Exploitation
of the
informational
resources**

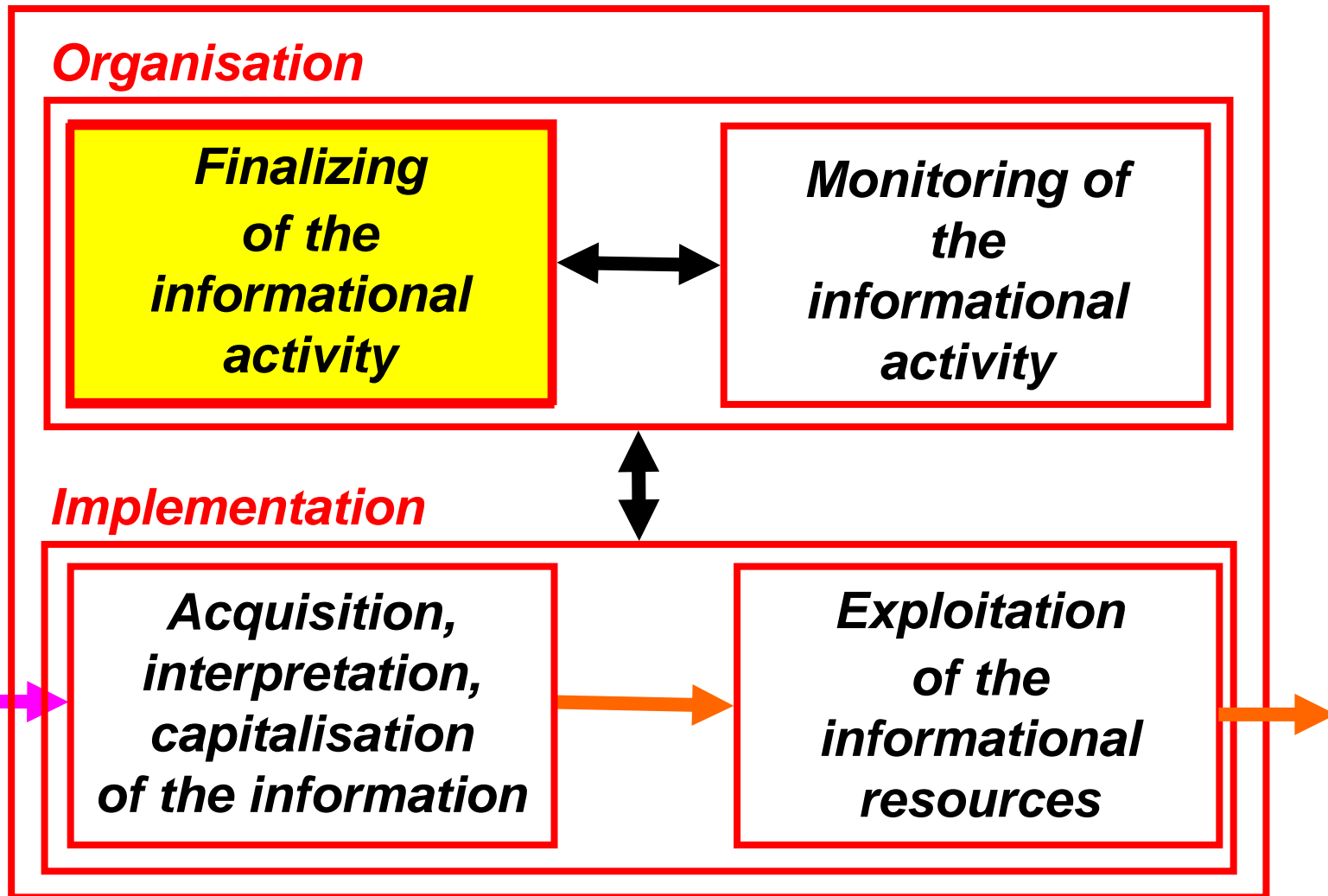


→ Information → Informational resources ↔ Regulations

Results

Four units of the information system

Information system



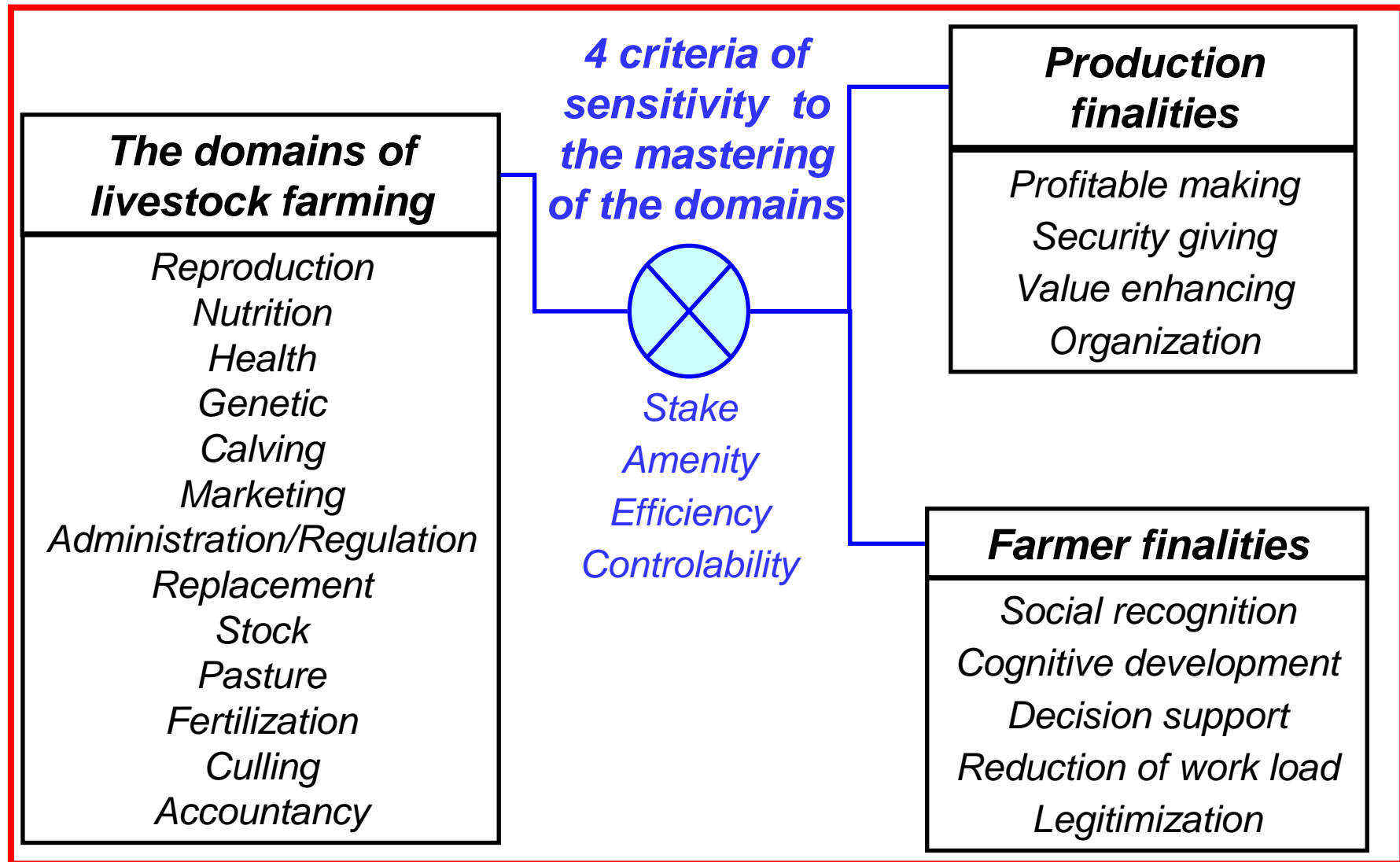
→ Information

→ Informational resources

↔ Regulations

Structure and functioning of the finalizing unit

Results



Four units of the information system

Information system

Organisation

*Finalizing
of the
informational
activity*



*Monitoring of
the
informational
activity*



Implementation

*Acquisition,
interpretation,
capitalisation
of the information*



*Exploitation
of the
informational
resources*

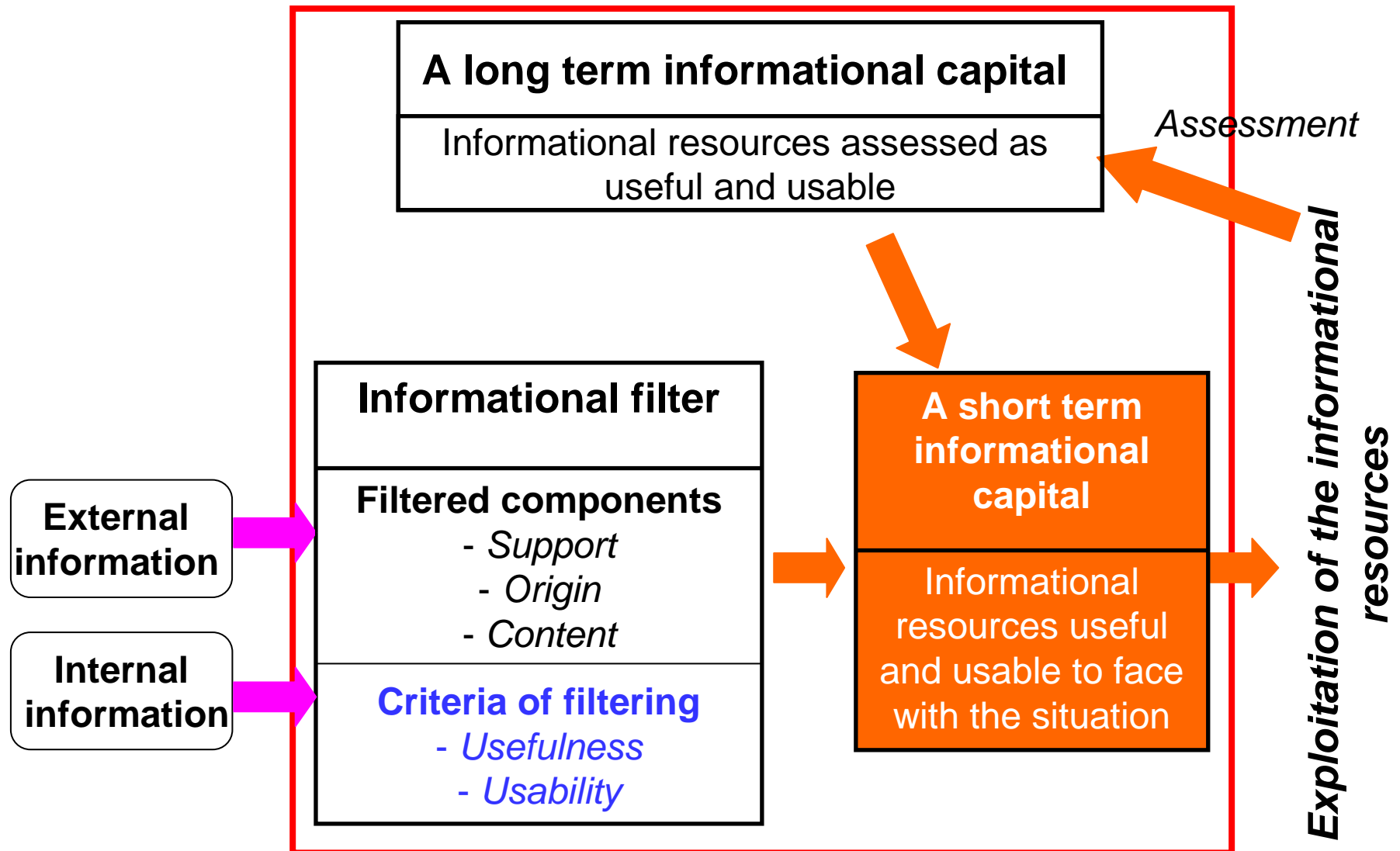


→ Information → Informational resources ↔ Regulations

Results

The structure and functioning of the acquisition, interpretation and capitalization unit

Results



Some scientific and operational directions

- **A framework to a better understanding of the farmers' decision-making by integrating :**
 - the diversity of farmers' projects by a coupling of their subjective and productive rationalities
 - the diversity of farmers' representations of their context of action
- **Some markers for the advisors:**
 - the criteria of sensitivity to the mastering of the different domains of livestock farming to better define the objects of the advisory services
 - the criteria of usefulness and usability of the informational resources to better define how to manage the relation with the farmers

Thanks for your attention

