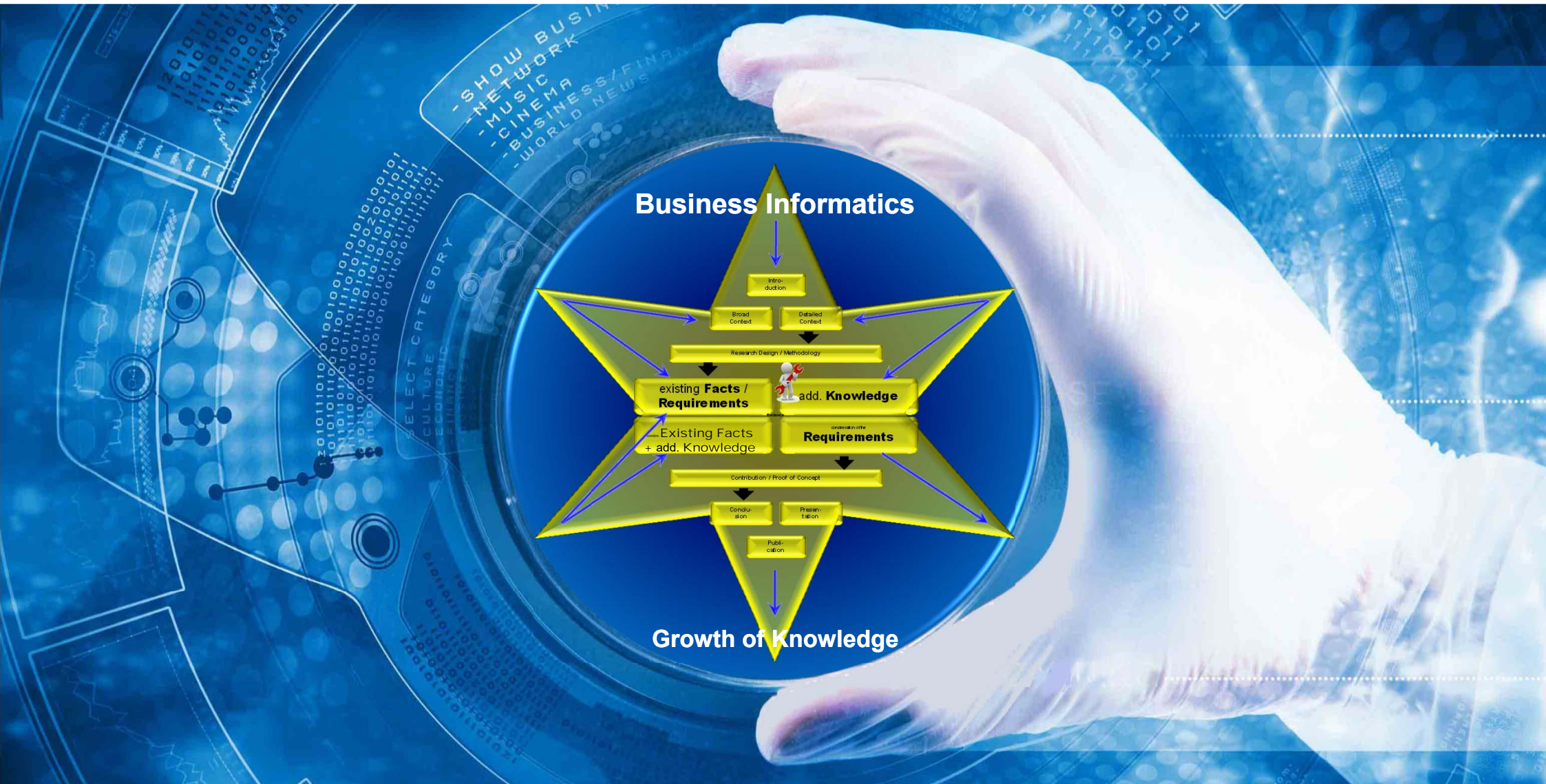# Star of Business Informatics

Rigor

- the quality of being valid and strict in adhering to standards or methods

➪ **we need this quality when answering a question of a client**

➪ **for comparison :**
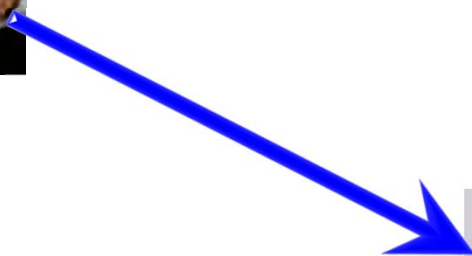**we need this quality when answering a research-question**

Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **Working in the field of Business Informatics,**
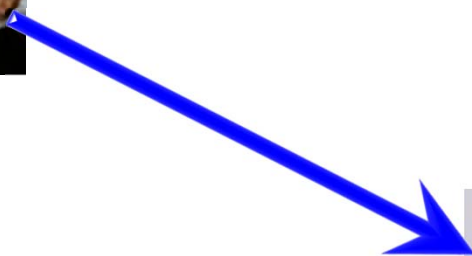**we often are in charge to answer important questions of the economy / industry.**

QUESTION

NEEDS
KNOWLEDGE

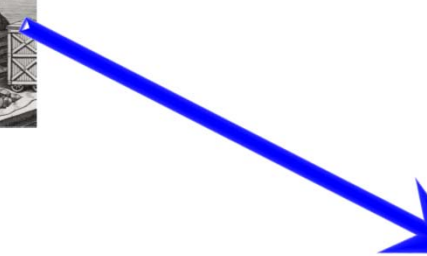# Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **for comparison :**
In a master thesis or a PhD, we normally have more research questions.
The RQ's are in a sequence that leads us to the evidence to proof or disproof a statement / thesis.
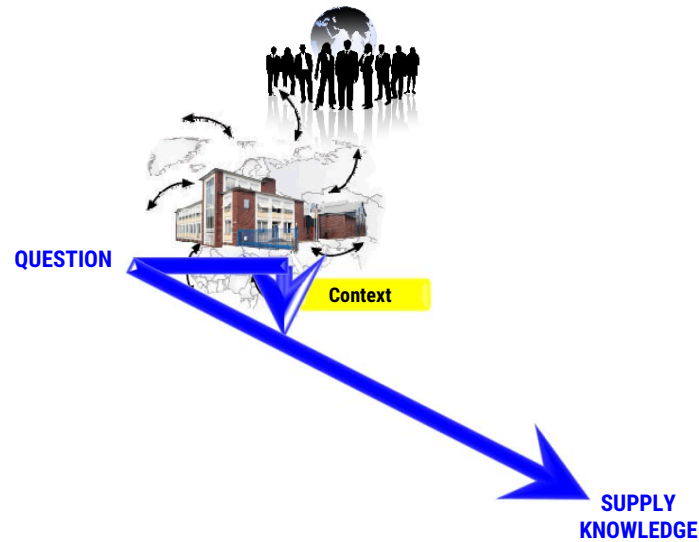
QUESTION

RESEARCH-
QUESTION

NEEDS
KNOWLEDGE

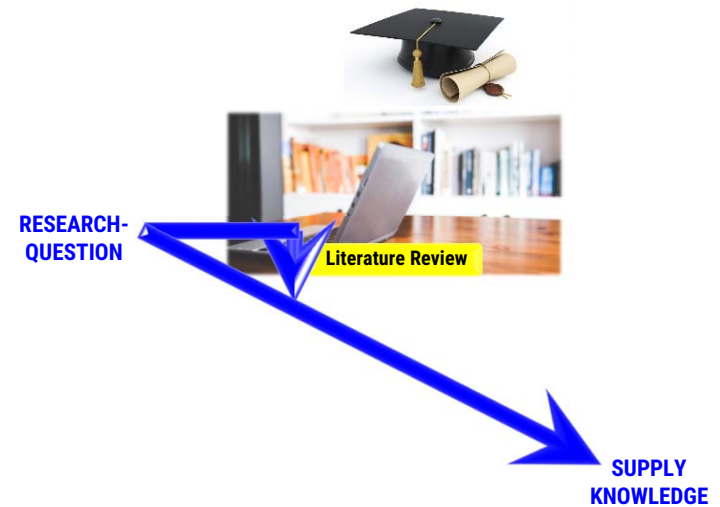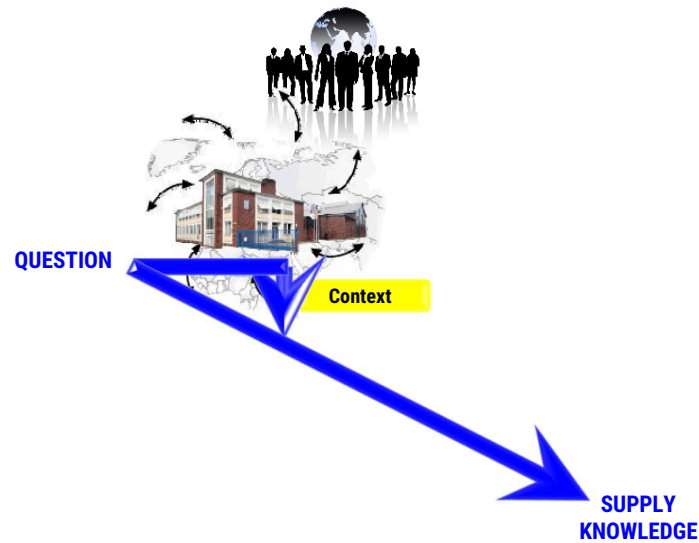# Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **Working in the field of Business Informatics,**
we have to understand the context.

QUESTION

Context

SUPPLY
KNOWLEDGE

Rigor *- the quality of being valid and strict in adhering to standards or methods*

⇨ **for comparison :**
In a master thesis or a PhD, we often find the context in the literature.

QUESTION

Context

SUPPLY
KNOWLEDGE

RESEARCH-
QUESTION

Literature Review

SUPPLY
KNOWLEDGE

Rigor *- the quality of being valid and strict in adhering to standards or methods*

⇨ **Working in the field of Business Informatics,**
  we have to obtain facts and requirements related to the business of investigation.
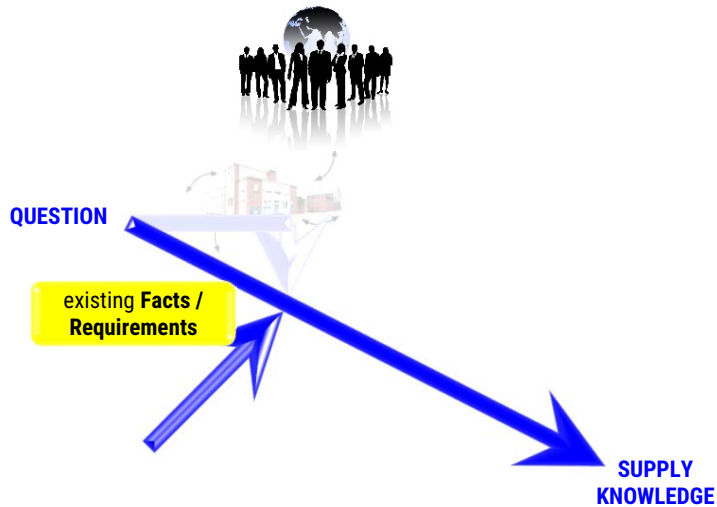
QUESTION

existing **Facts /
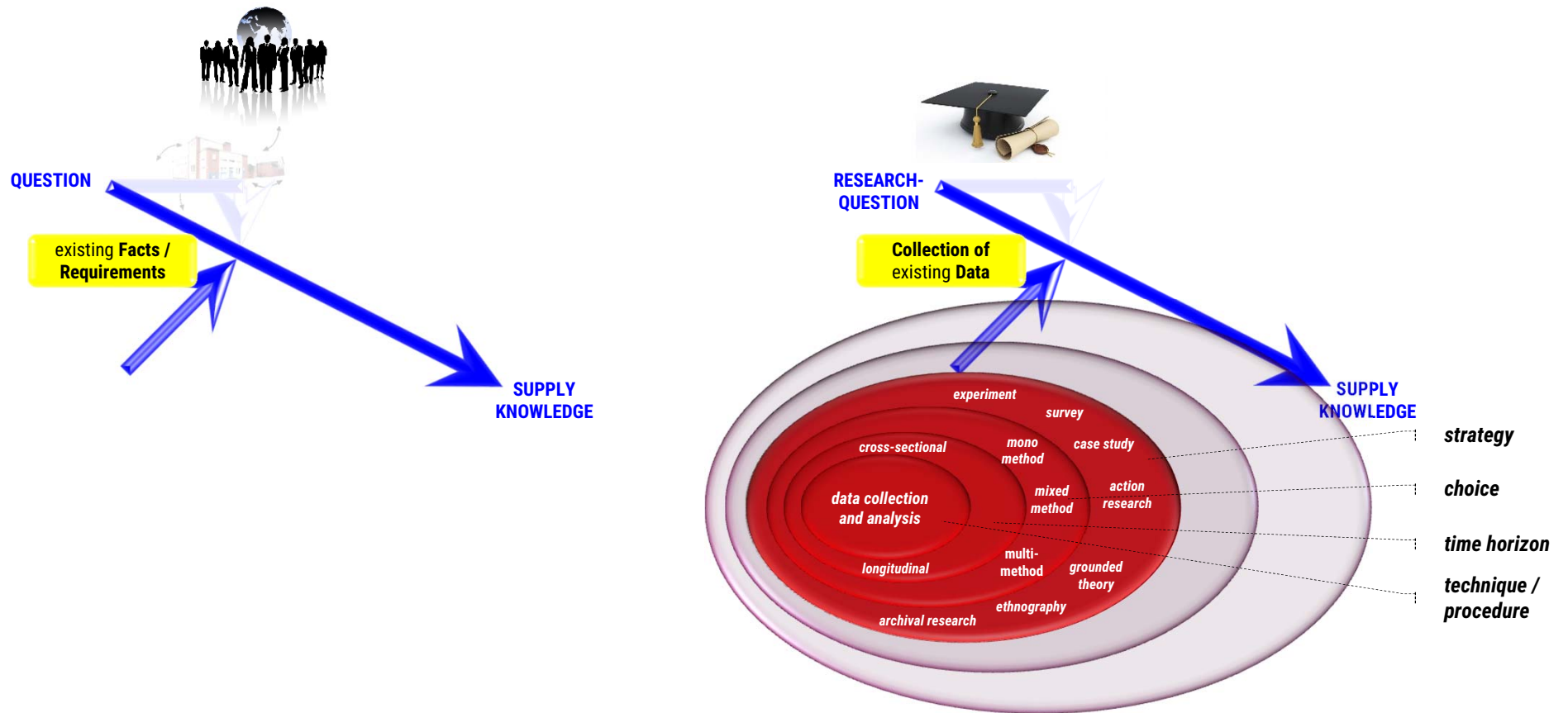Requirements**

**SUPPLY
KNOWLEDGE**

Rigor *- the quality of being valid and strict in adhering to standards or methods*

⇨ **for comparison :**
**In a master thesis or a PhD, we also have to obtain data related to the field of investigation.**
Saunders describes techniques, time horizon, choice, and strategy to obtain needed data (Research Design).

QUESTION

existing **Facts / Requirements**

SUPPLY KNOWLEDGE

RESEARCH-QUESTION

Collection of existing **Data**

SUPPLY KNOWLEDGE

experiment
survey
cross-sectional
mono method
case study
data collection and analysis
mixed method
action research
longitudinal
multi-method
grounded theory
archival research
ethnography

strategy
choice
time horizon
technique / procedure

Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **Working in the field of Business Informatics,**
we have to know and to search for new possibilities.
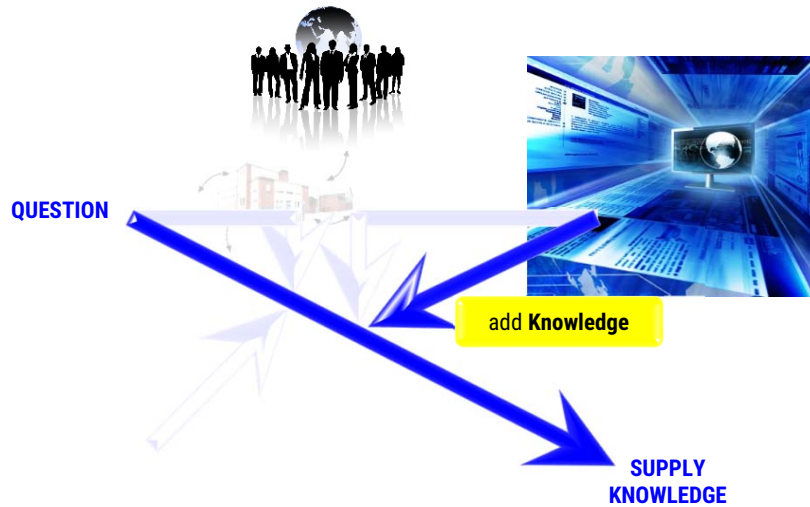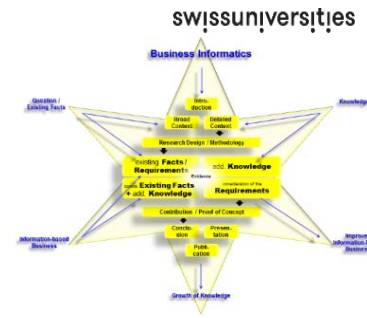
QUESTION

add **Knowledge**

SUPPLY
KNOWLEDGE

Rigor *- the quality of being valid and strict in adhering to standards or methods*

⇨ **for comparison :**
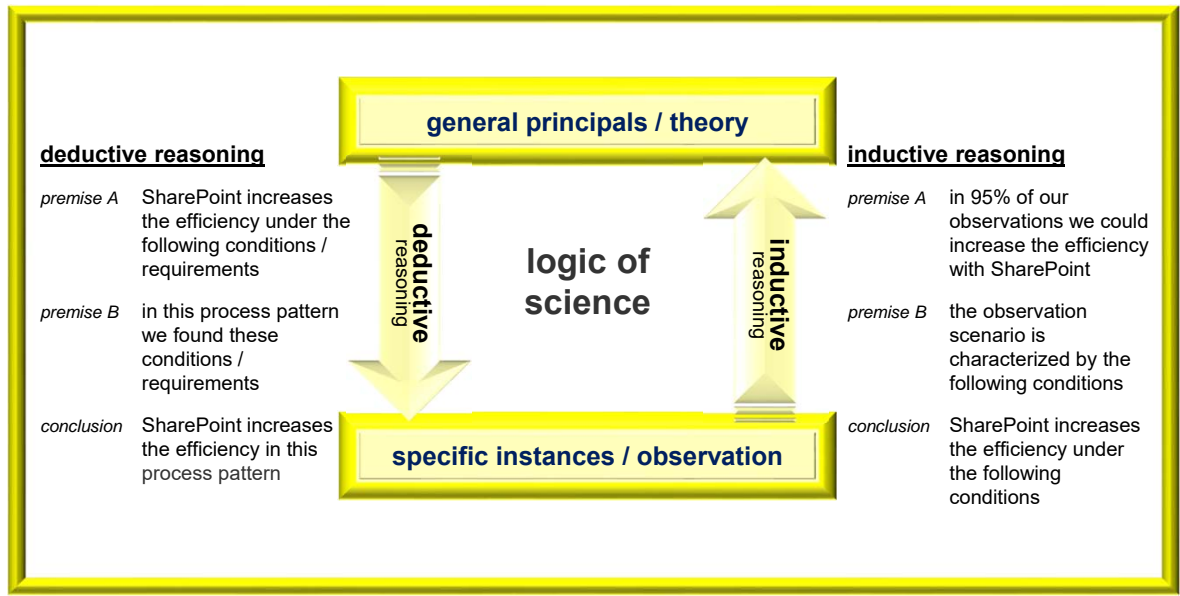**In a master thesis or a PhD, we often build on already proofed knowledge / artifacts.**
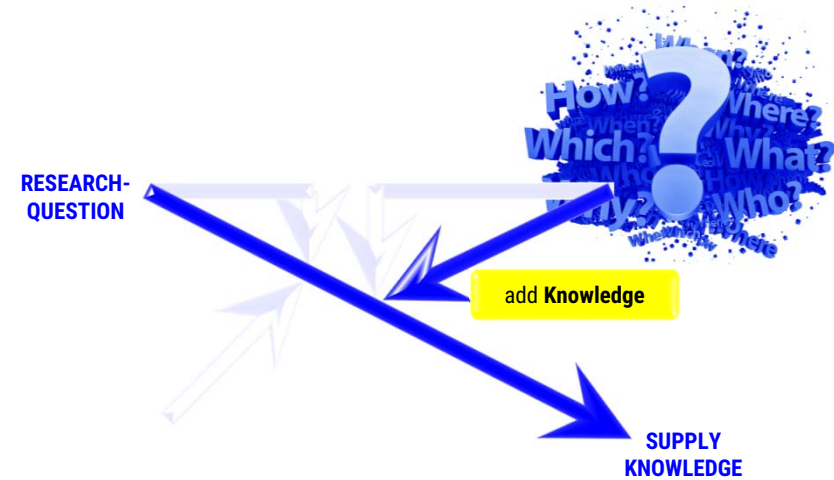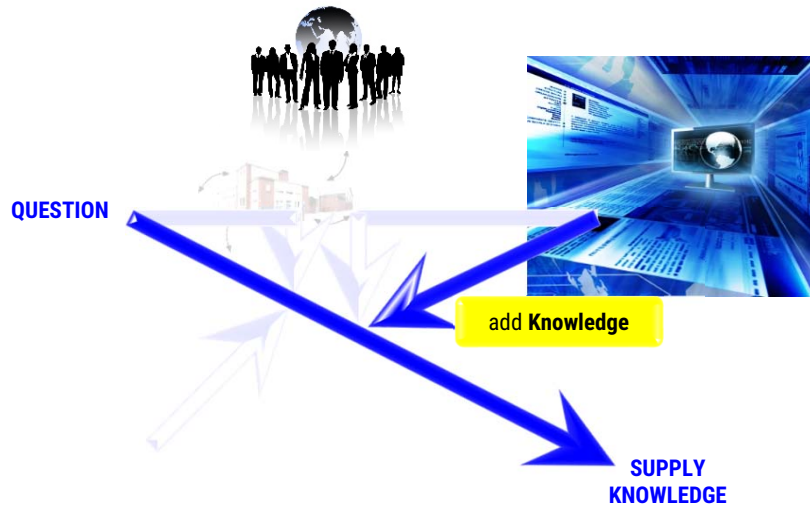
QUESTION

add **Knowledge**

SUPPLY
KNOWLEDGE

RESEARCH-
QUESTION

add **Knowledge**

SUPPLY
KNOWLEDGE

Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **Working in the field of Business Informatics,**
**we have to map the business of investigation with the new possibilities.**

existing **Facts**

example :

in this process pattern we found these conditions / requirements

add **Knowledge**

example :

SharePoint increases the efficiency under the following conditions / requirements

QUESTION

combine **Existing Facts + add. Knowledge**

SUPPLY KNOWLEDGE

existing **Facts**   example :   add **Knowledge**

=> we expect an increase of efficiency in this process pattern

general principals / theory

deductive reasoning

premise A SharePoint increases the efficiency under the following conditions / requirements

premise B in this process pattern we found these conditions / requirements

conclusion SharePoint increases the efficiency in this process pattern

deductive reasoning

logic of science

inductive reasoning

inductive reasoning

premise A in 95% of our observations we could increase the efficiency with SharePoint

premise B the observation scenario is characterized by the following conditions

conclusion SharePoint increases the efficiency under the following conditions

specific instances / observation

Rigor - *the quality of being valid and strict in adhering to standards or methods*
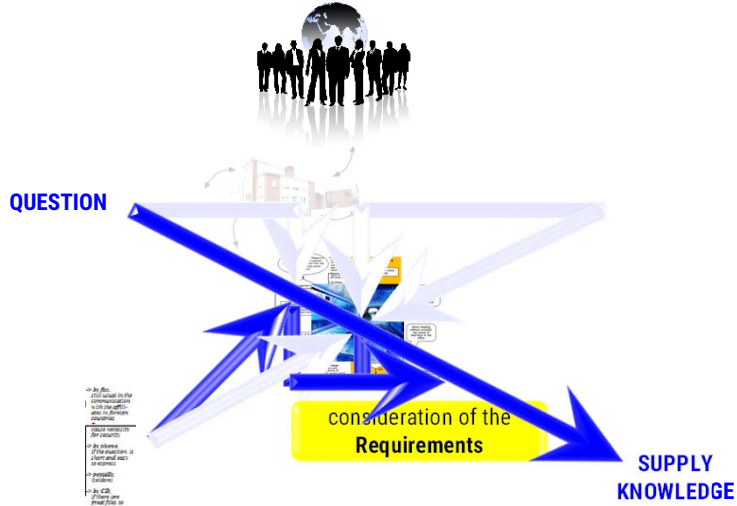
⇨ **for comparison :**
In a master thesis or a PhD, we normally call this approach (of reasoning),
based on a selected research design.
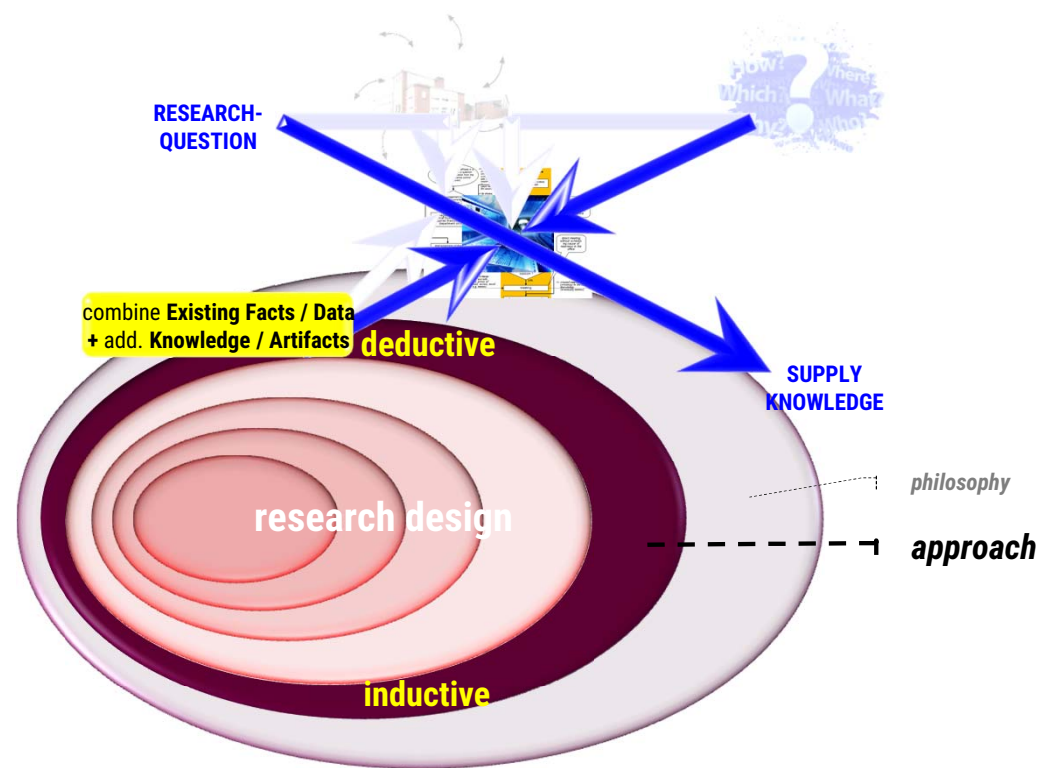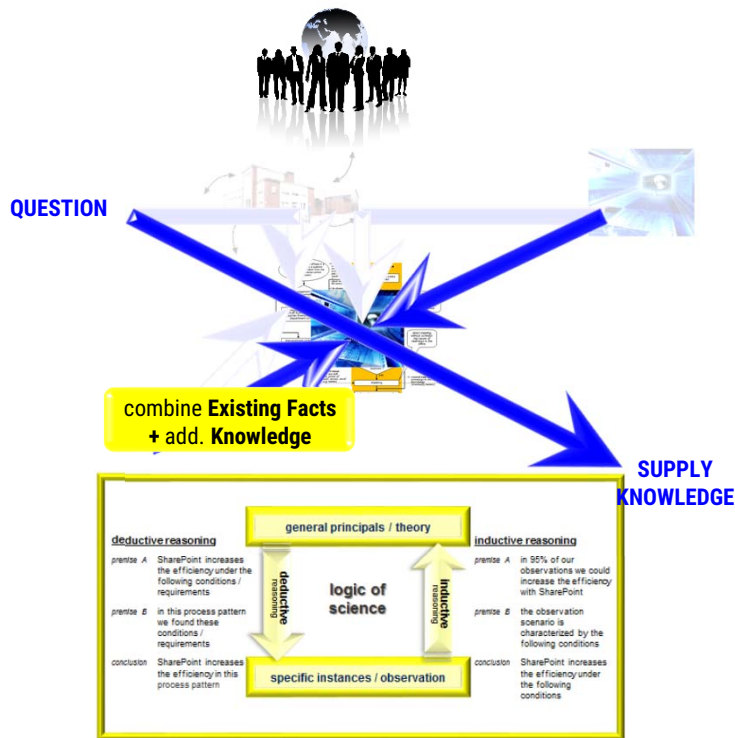
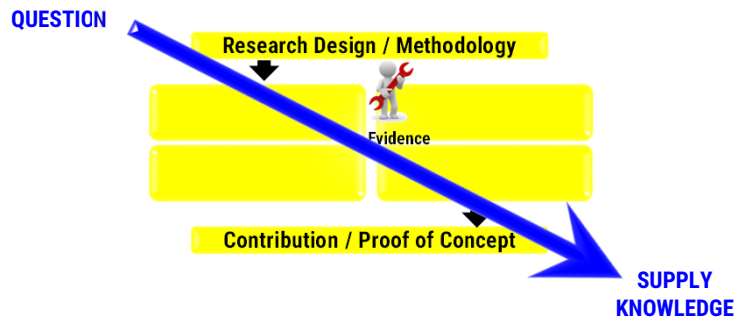# Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **Working in the field of Business Informatics,**
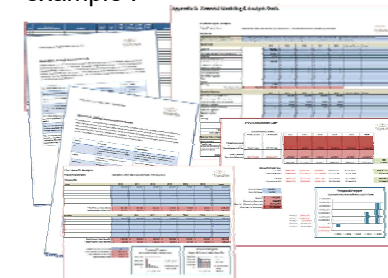**we have to check whether the new combination meets the requirements …**

QUESTION

consideration of the
Requirements

SUPPLY
KNOWLEDGE

example :

⇨ **… and to proof the quality / additional value of the new knowledge in an adequate and accepted way.**

QUESTION

Research Design / Methodology

Evidence

Contribution / Proof of Concept
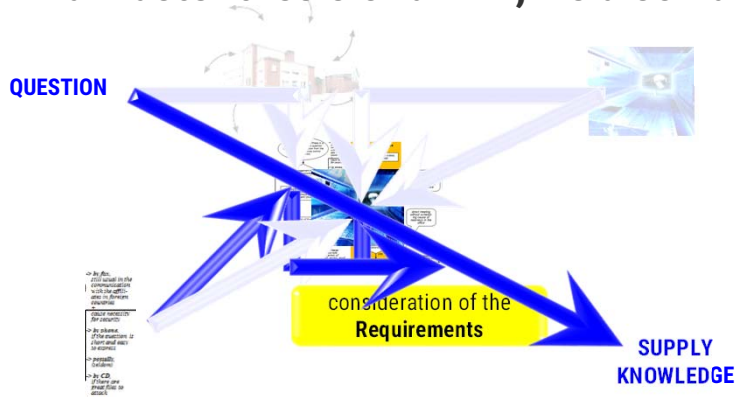
SUPPLY
KNOWLEDGE

example :

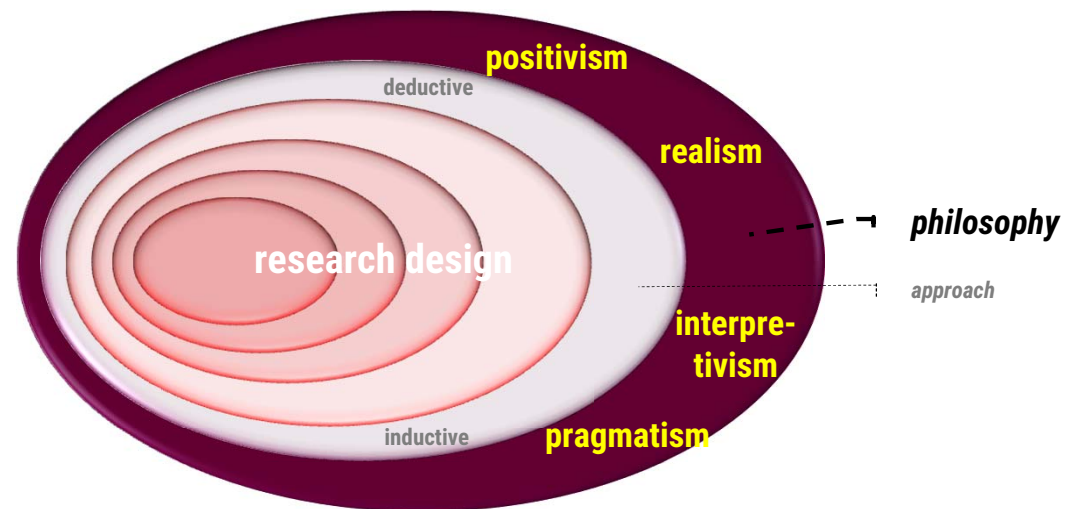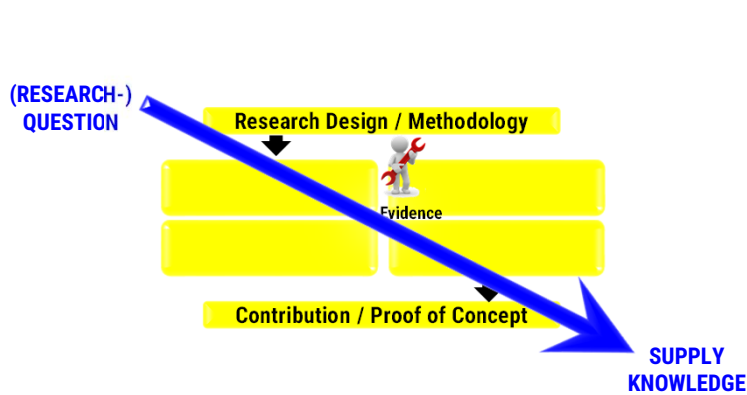# Rigor - *the quality of being valid and strict in adhering to standards or methods*

⇨ **for comparison :**
In a master thesis or a PhD, we also have to check whether the new findings fits into the selected context …
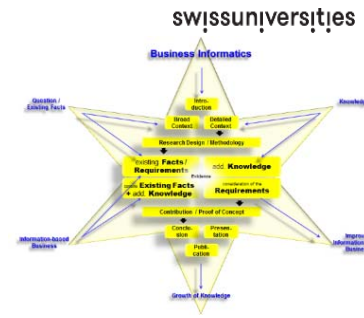
QUESTION

consideration of the **Requirements**

SUPPLY KNOWLEDGE

RESEARCH-QUESTION

consideration of the **Context**

SUPPLY KNOWLEDGE

⇨ **… and to proof or disproof the selected statement / thesis in an adequate and accepted way.**

(RESEARCH-)QUESTION

Research Design / Methodology

Evidence

Contribution / Proof of Concept

SUPPLY KNOWLEDGE

positivism

deductive

realism

research design

philosophy

approach

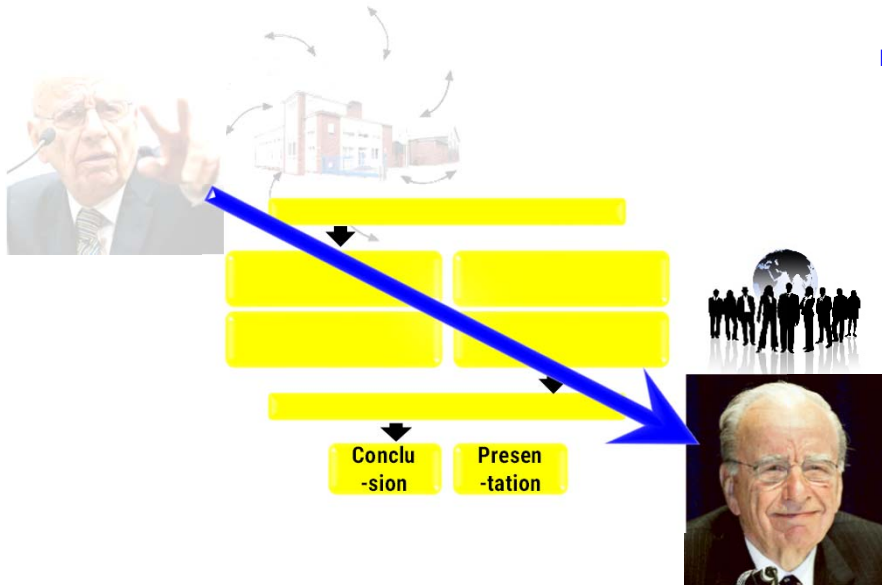**interpre-tivism**

inductive

pragmatism

Rigor *- the quality of being valid and strict in adhering to standards or methods*

⇨ **We have to present the new knowledge.**
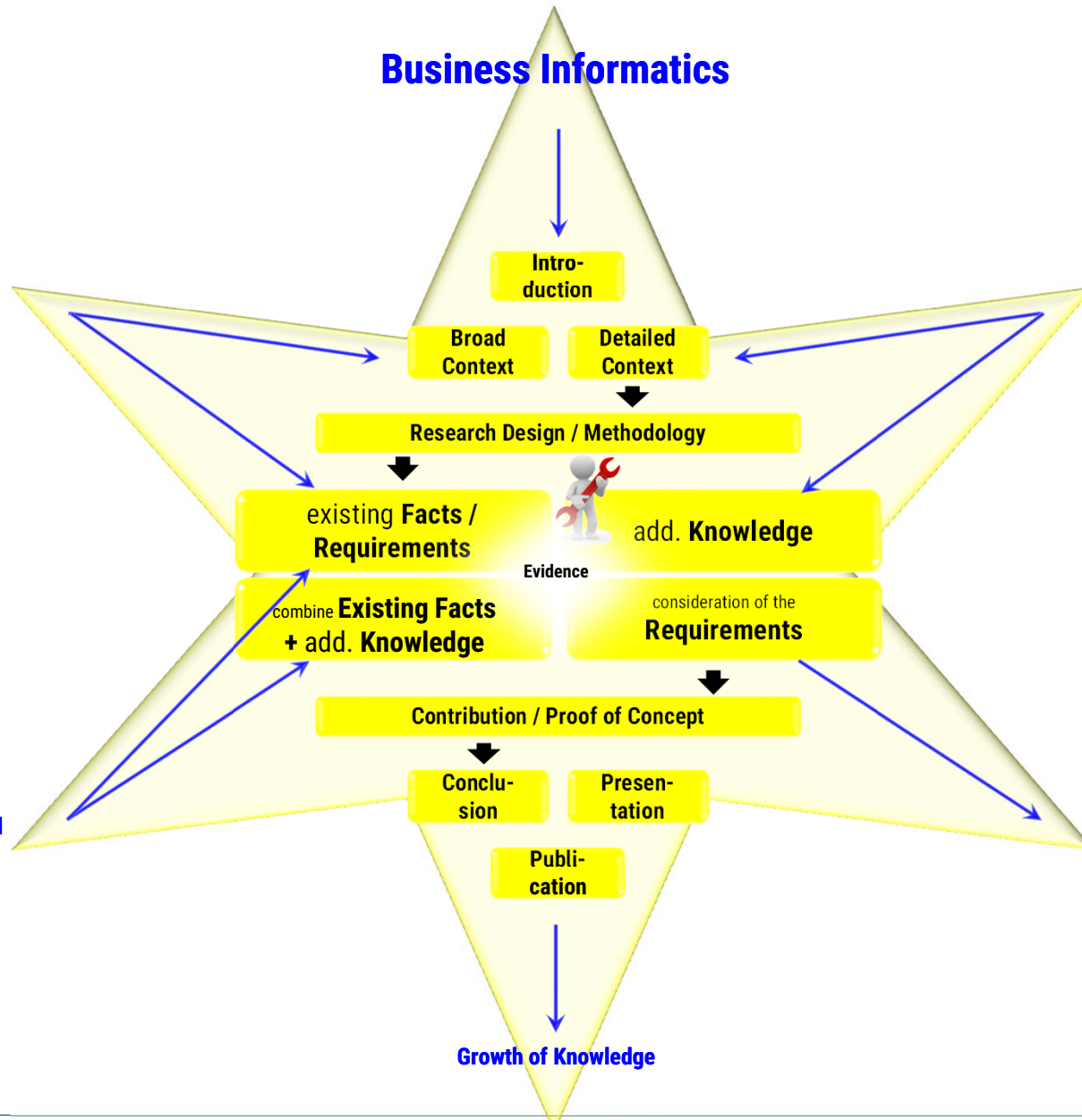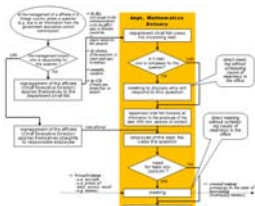

QUESTION

RESEARCH-
QUESTION

Conclu
-sion

Presen
-tation

SUPPLY
KNOWLEDGE

Conclu
-sion

Presen
-tation

SUPPLY
KNOWLEDGE

EUREKA!

Star of Business Informatics
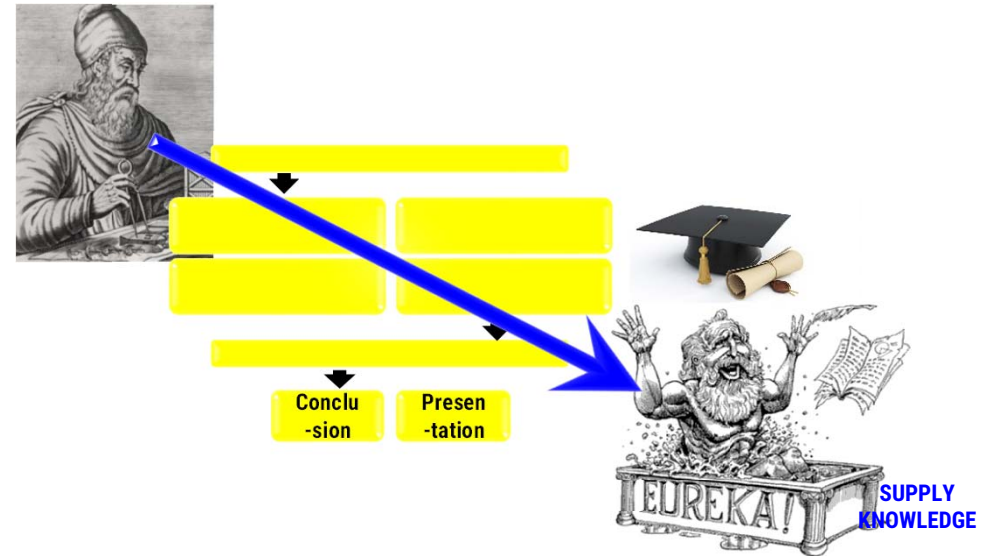
Business Informatics

Question / Existing Facts

Knowledge

Intro-duction

Broad Context

Detailed Context

Research Design / Methodology

existing **Facts / Requirements**

add. **Knowledge**

Evidence

combine **Existing Facts + add. Knowledge**

consideration of the **Requirements**

Contribution / Proof of Concept

Conclu-sion

Presen-tation

Publi-cation

Information-based Business

Improved Information-based Business

Growth of Knowledge