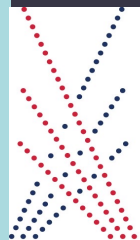


British Academy of
Management

2021 Doctoral
Symposium

6th September 2021



**BRITISH ACADEMY
OF MANAGEMENT**

***“An Architecture to Sustain
Interorganizational Knowledge”***

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Université de Technologie de Troyes

Computer Science and Digital Society

Laboratory (LIST3N)

Tech-CICO Research Team



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**UNIVERSITÉ DE TECHNOLOGIE
TROYES**

SUMMARY



Context and research issues



Key concepts and literature review



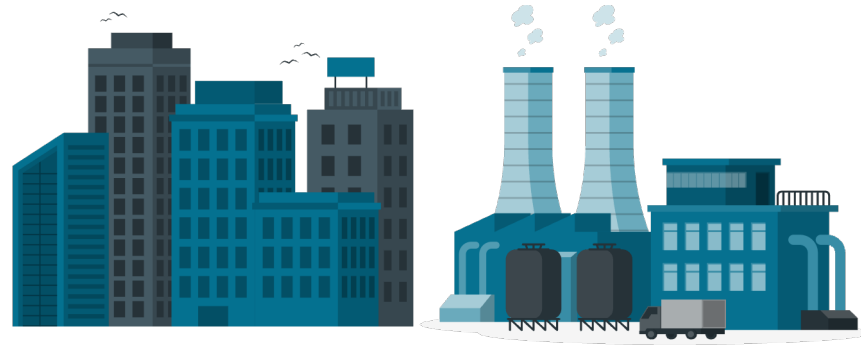
Design and research methodology



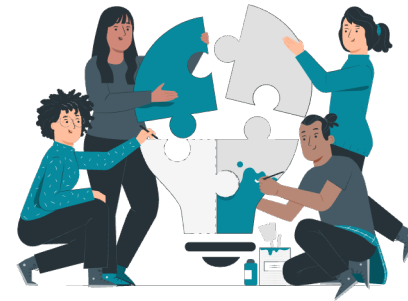
Structure and planning of the thesis

CONTEXT AND RESEARCH ISSUES

INTRODUCTION



Organizations



Collaboration



Knowledge



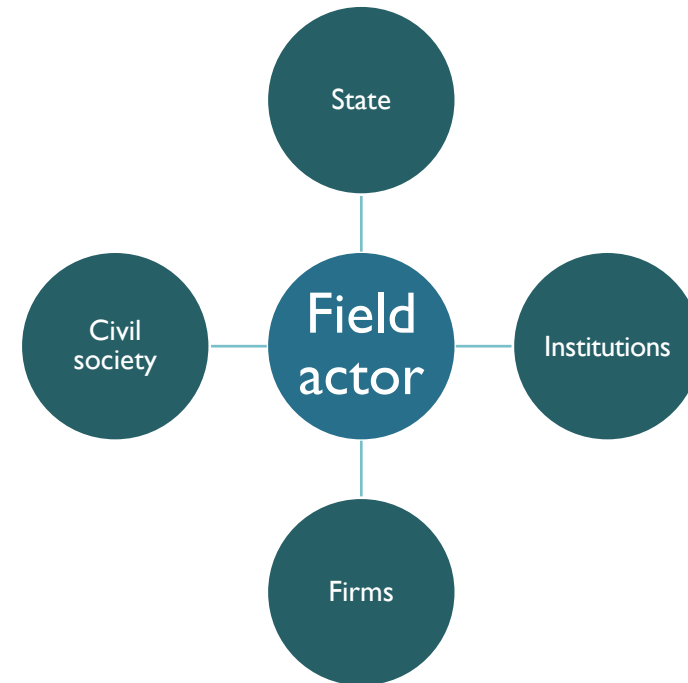


PROJECT

- This thesis project aims to **study the processes of knowledge exchange and combination, at the inter-organizational level and in the very long term.**
- To study this and respond to concrete problems arising from our collaboration with a field actor, we are conducting a **qualitative case study**, through a **Design methodology**.
- The main objective is to **provide an organizational architecture** to solve these problems.



- Research at an **inter-organizational level** carried out in **collaboration with a field actor**.
- **Institutional expert and operator of industrial sites.**
- **High-risk collaborative and organizational context, inducing a safety mission.**
- Funding of research and collaboration with the actor **facilitating access to the field and to data**, but raising **confidentiality issues**.





ISSUES

- **Interorganizational knowledge management is a complex phenomenon.**
- When knowledge is held by heterogeneous and distant actors (geographically and cognitively) **the exchange precedes the combination.**

In practice, organizations face **several issues:**

- **Daily management of their knowledge.**
- **The preservation of their inter-organizational knowledge over the long term.**



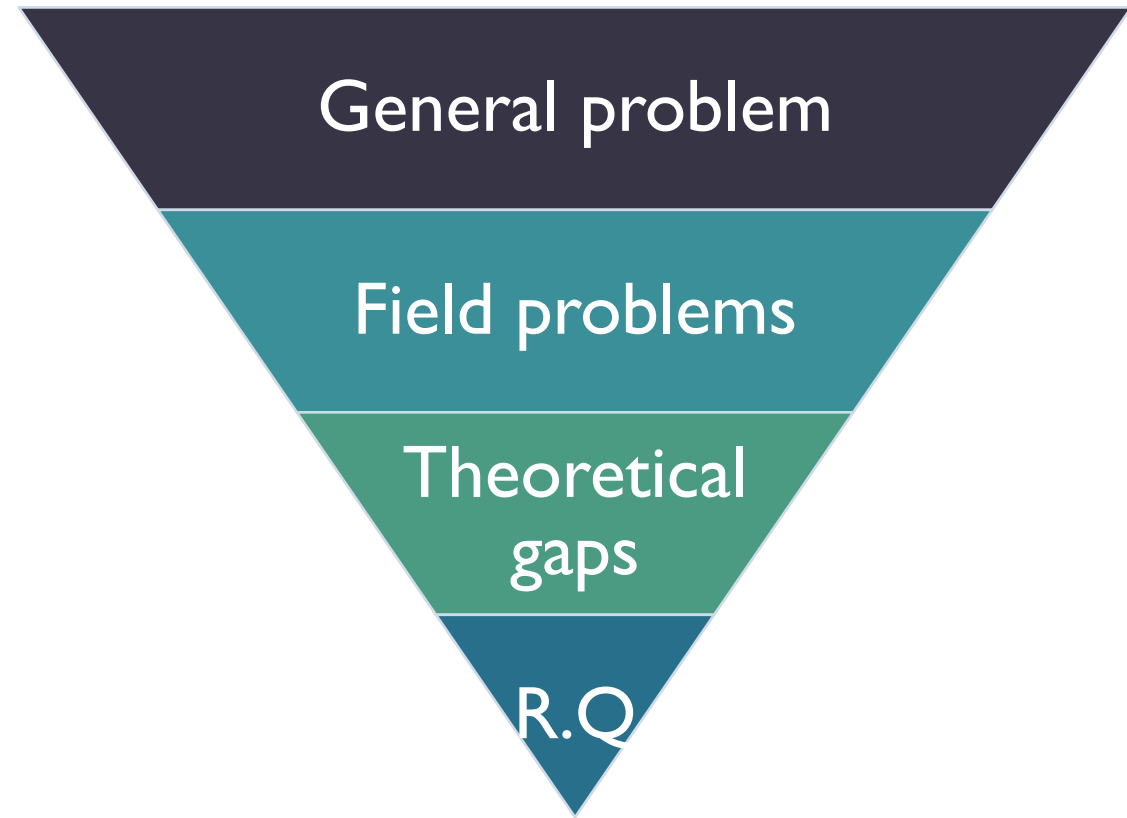
GOAL

Proposal for an organizational architecture:

- Architecture or structure corresponding to **the entire functioning of an organization and its processes.**
- **Based on management rules and principles.**

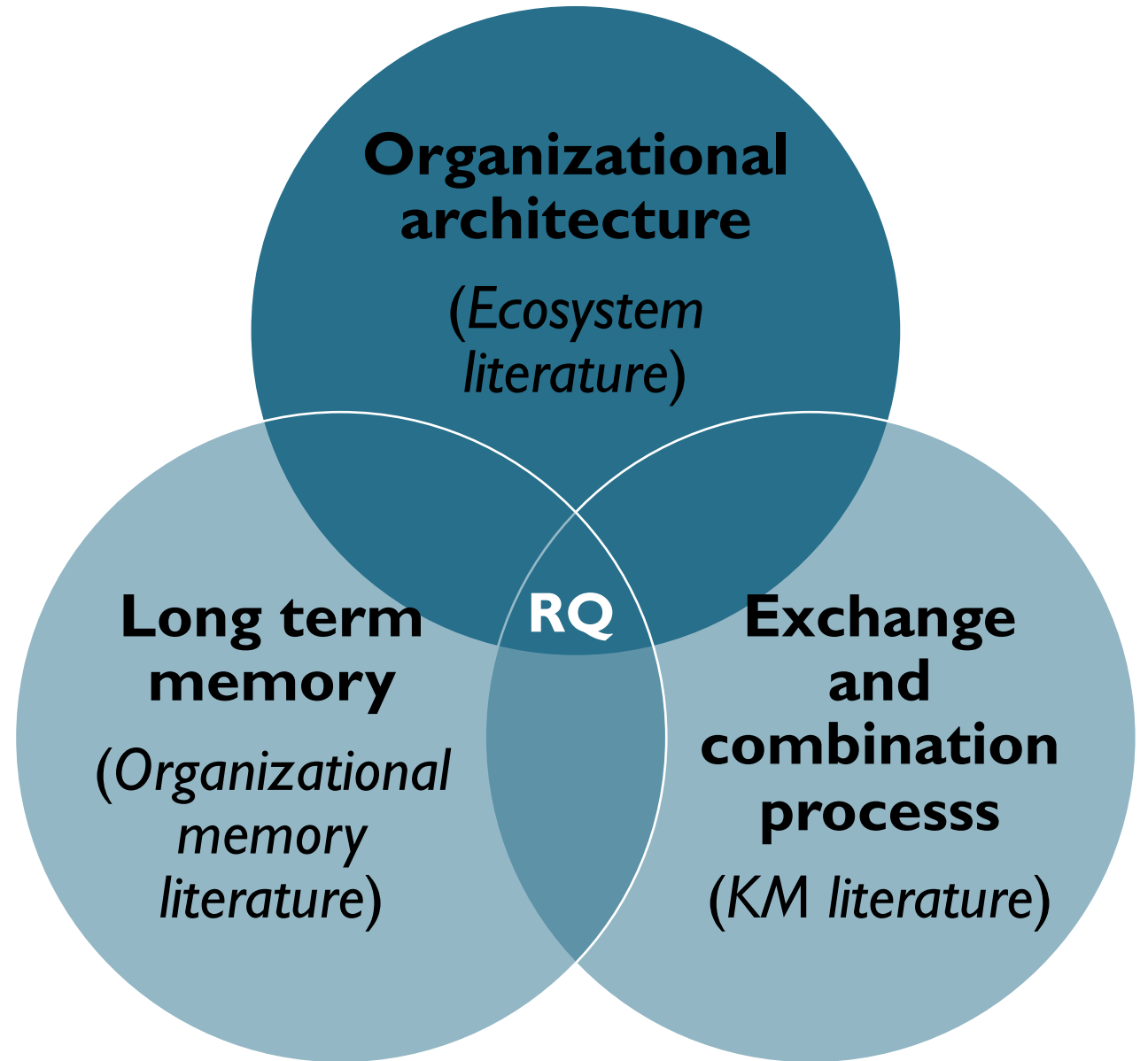
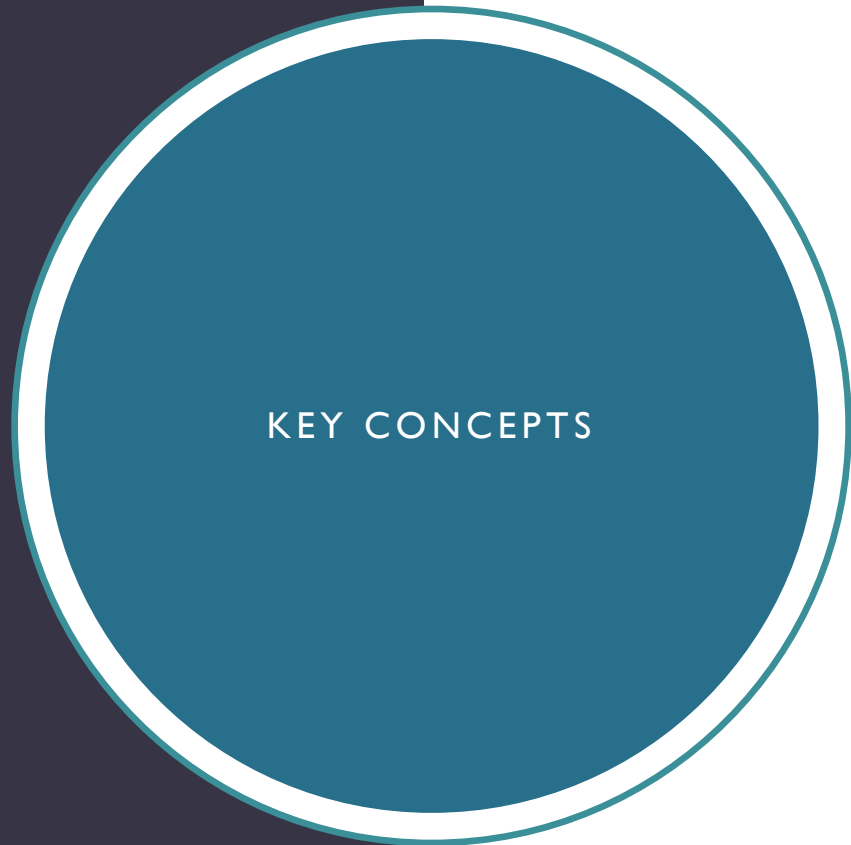
An architecture will support:

- **Daily knowledge management.**
- **Between different organizations.**
- **And to preserve their knowledge in the long term.**



« How to build an organizational architecture to promote and sustain the exchange and combination of inter-organizational knowledge over the very long term? »

KEY CONCEPTS AND LITERATURE REVIEW





ORGANIZATIONAL
ARCHITECTURE

Literature on ecosystems:

- Subject involving the **interaction and collaboration of different actors.**
- **Actors sharing objectives and a common value proposition, safety.**
- **Definition of an ecosystem:** *“The ecosystem is defined by the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize”* (Adner, 2017, p. 42).

Main flow and common value proposition corresponding to **knowledge and its preservation: focus on knowledge ecosystems.**

- **Referring to a set of actors whose objective and purpose are the creation of new knowledge,** through collaborative research and the development of a knowledge base (Borgh et al., 2012; Clarysse et al., 2014 ;Valkokari, 2015).
- **Definition of a knowledge ecosystem:** *“A knowledge ecosystem consists of users and producers of knowledge, organized around joint knowledge search”* (Järvi et al., 2018, p. 1524).



ECOSYSTEMS
-
THEORETICAL GAPS

- **Rarely used with other literatures.**
- **Literature on knowledge ecosystems is emerging** (Borgh et al., 2012; Clarysse et al., 2014; Valkokari, 2015).
- **Some mechanisms remain to be defined** (borders, coordination...) (Valkokari, 2015; Järvi et al., 2018).



KNOWLEDGE
EXCHANGE AND
COMBINATION
PROCESS

Literature on inter-organizational knowledge management:

- At the inter-organizational level, **the creation of knowledge will be based on processes of exchange and combination, a complex social process** (Nahapiet & Ghoshal, 1998).
- The exchange and combination of knowledge is **based on 4 elements** (Nahapiet & Ghoshal, 1998): **opportunity, anticipation, motivation and skill.**
- Ability or "**Combinative Capabilities**" corresponding to the **capacities of organizations to exploit and combine unexplored knowledge to create new knowledge.**
- Knowledge creation, requiring **an exchange mechanism** (knowledge may be held by several actors).
- Exchange based on **social interaction between different actors and a common understanding** (Kogut & Zander, 1993).



KNOWLEDGE
MANAGEMENT

-
THEORETICAL GAPS

- The exchange and combination of knowledge studied only in the literature in **specific contexts** (particularly in connection with innovation) (Kogut & Zander, 1992; Teece et al., 1997).
- **The combination lacks clarity** and sometimes seems **difficult to achieve**.
- **Few very long term approaches** (Dunham & Burt, 2010).



LONG TERM MEMORY

The literature on organizational memory:

- A **complex and multi-level phenomenon** (Walsh & Ungson, 1991).

There are **several types of memory:**

- A "***procedural memory***", **automatic and anchored in action and practice** (Moorman & Miner, 1998).
- A "***declarative memory***", **more general and focused on the facts** (Moorman & Miner, 1998).
- A **complementary combination of the knowledge and skills of an organization, with its past events.**
- **Allowing the organization to learn from past experiences** (Dunham & Burt, 2010).



ORGANIZATIONAL
MEMORY

—

THEORETICAL GAPS

- **Confused and fragmented** literature (Walsh & Ungson, 1991).
- **No long-term perspective** (Dunham & Burt, 2010).
- Memory presented as **unintentional**.

DESIGN AND RESEARCH METHODOLOGY



RESEARCH DESIGN

Carrying out a qualitative study:

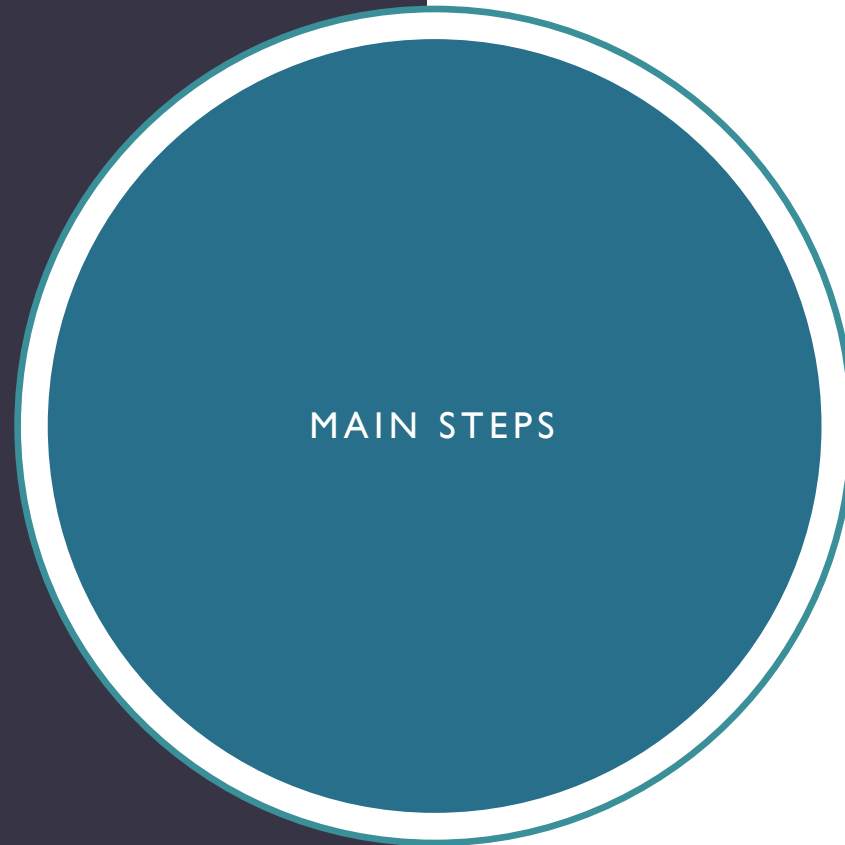
- **Where we study in depth a particular phenomenon and constructions that are difficult to quantify and measure** (Eisenhardt, 1989; Langley, 1999; Gehman et al., 2018).

Inductive approach and Theory Building:

- **Departure from the field and the data collected there to build our theory through interpretive reasoning.** Emphasis on the emergence of theories from field data (Suddaby, 2006; Gioia et al., 2013; Eisenhardt et al., 2016).

Design-type methodology:

- **Iterative process based on the combination of practical and scientific knowledge, and the proposal and construction of a solution** for the field actor (Romme, 2003; Denyer et al., 2008; Van Aken & Romme, 2009; Sein et al., 2011; Pascal et al., 2013).



Data collection:

- **The main data comes from semi-structured interviews** conducted in the organizational and environmental context of our case study (Langley & Meziani, 2020) and secondary data from archives.

Data analysis:

- **In order to bring out different explanatory mechanisms for the phenomenon studied.** Data coding and analysis are performed using the "**Gioia method**" (Dacin et al., 2010; Gehman et al., 2018; Gioia et al., 2013; Nag & Gioia, 2012).

- **Development and proposal of the solution:**

Through recommendations and confrontation with the "validation" of the field actor to resolve the initial problems.



DESIGN
METHODOLOGY

- **Iterative process of intervention in the field.**
- **Proposal and recommendation of a solution** (Van Aken & Romme, 2009; Sein et al., 2011; Pascal et al., 2013).
- **Varied and fragmented approaches in the literature** (Denyer et al., 2008).



Phase 1: Context and
diagnosis

Phase 2: Design
and
intervention

Phase 3:
Mechanisms
and
implementation

Phase 4: Results
and learning

STRUCTURE AND PLANNING OF THE THESIS



EXPECTED RESULTS
AND
CONTRIBUTIONS

Theoretical contributions:

- Design of an organizational architecture to preserve and manage long-term inter-organizational knowledge.
- Deepen the process of long-term inter-organizational knowledge exchanges and combinations.
- Enrich the definition of knowledge ecosystems and the design of organizational memory.

Managerial contributions:

- Propose an organizational architecture to solve the initial problems of the field actor and his ecosystem.

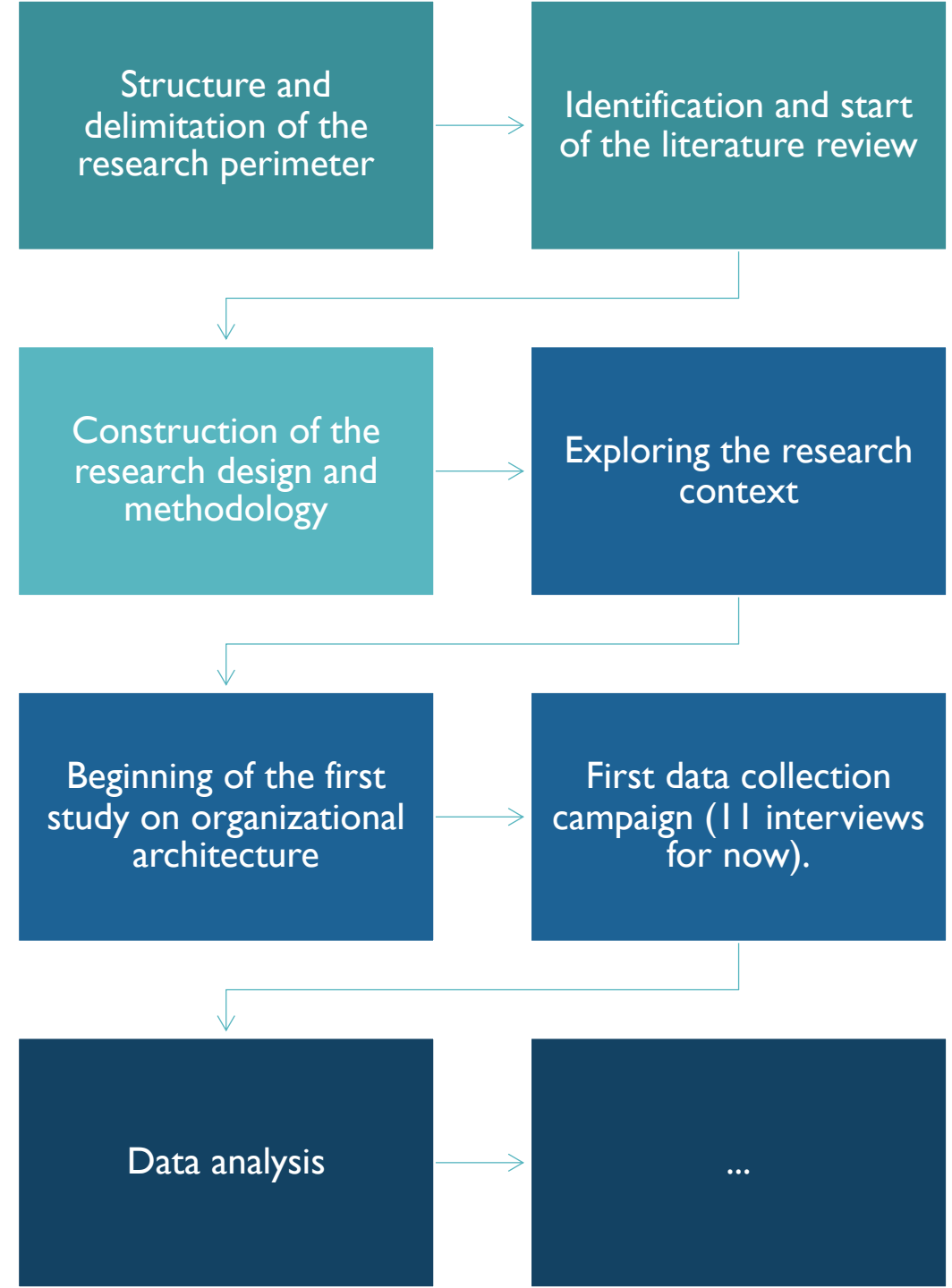
Methodological contributions:

- Participate in the enrichment of qualitative approaches based on a Design methodology.



January 2021

September 2021



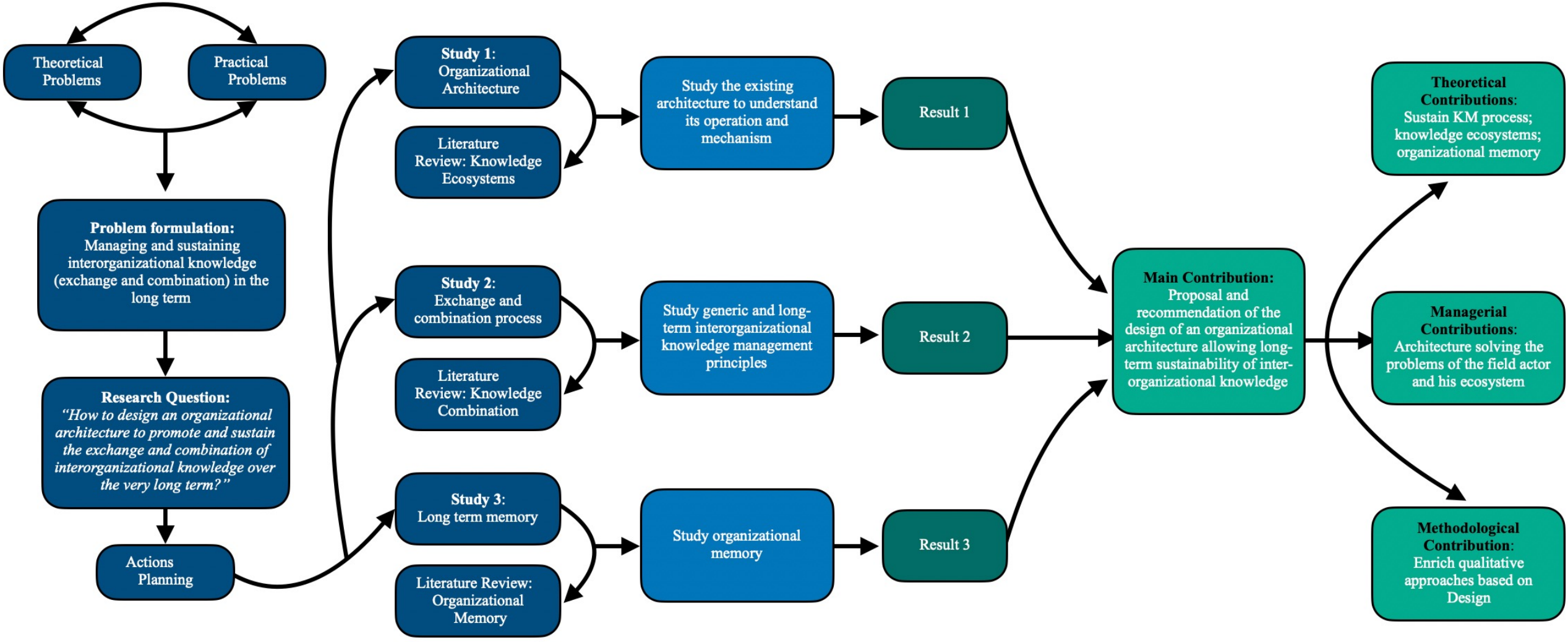
GENERALE STRUCTURE

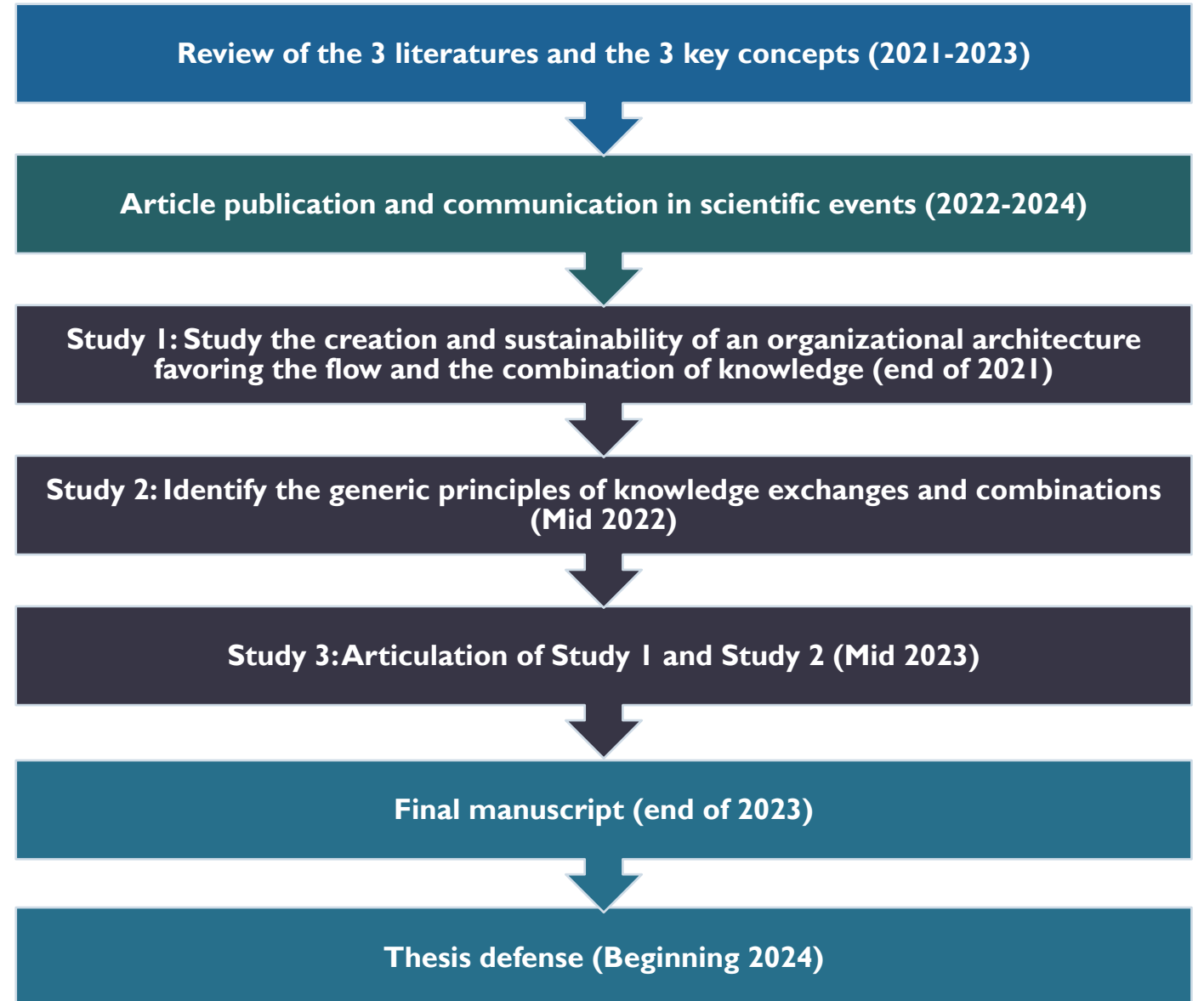
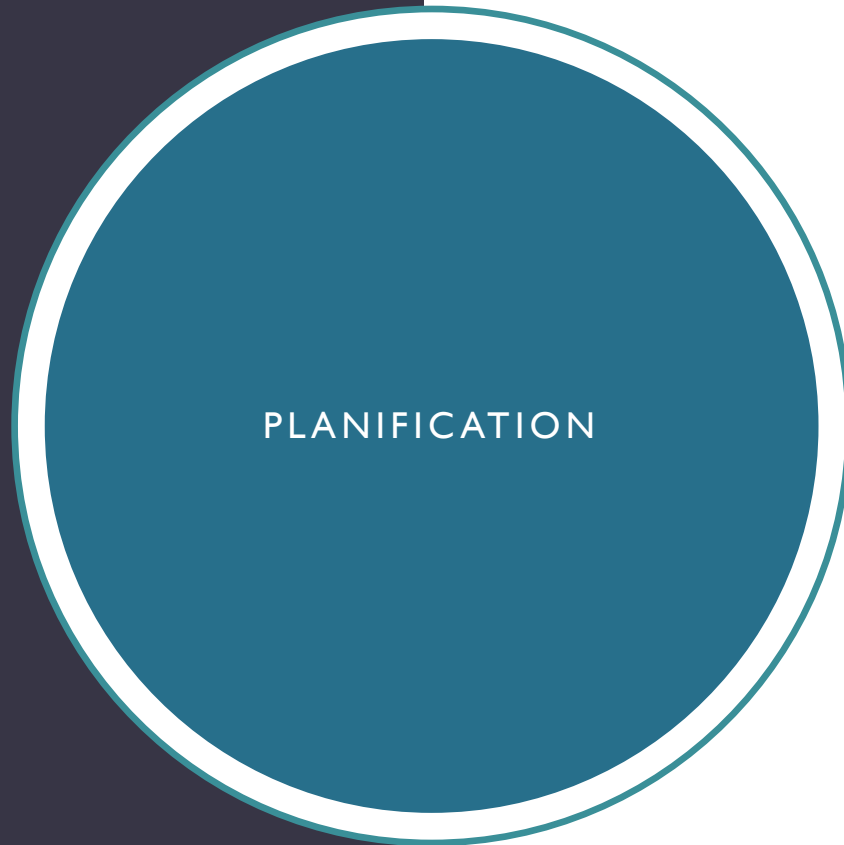
Phase 1: Context and Diagnostic

Phase 2: Design and Intervention

Phase 3: Mechanisms and Implementation

Phase 4: Outcome and Learning





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THANK YOU FOR YOUR ATTENTION !