

**Exploring the foundations of**

# **ORGANISATIONAL KNOWLEDGE**

**A joint paper by  
Richard Vines, Bill Hall  
and Luke Naismith**

# The origins of this paper

- EPICS,
  - Creator to Consumer project (and paper),
    - The DOI Project,
- Research about interoperability;
  - “Discovery” of Karl Popper;
    - Links with Bill Hall;
  - Invitation to write a paper

# The philosophical background to this paper

Explores the question of knowledge at the **personal level**

and knowledge pertaining to **whole organisations**

and the **dynamics** between them  
from a **practitioner** perspective

Our paper is necessarily abstract and conceptual.

But this inquiry has arisen from practical work and (nearly) being applied.

This thinking represents a foundation for understanding the social aspects of how organisations handle knowledge

Focus is on a synthesis of Karl  
Popper's evolutionary  
epistemology and 3 worlds  
ontology

and Maturana and Varela's  
concept of autopoiesis

# What is knowledge: a Popperian perspective

**Knowledge as  
doing what  
works  
(solutions to  
problems)**

**Knowledge is fallible!  
There is a need to test it in the world**

# Knowledge is fallible!

Management is "Knowledge-based Management," but that doesn't guarantee that it's based on knowledge that is any good

# Popper's three worlds

(previously discussed at length, so no in depth discussion required here)



**World 1**  
uninterpreted  
reality

# Popper's three worlds

(previously discussed at length, so no in depth discussion required here)

**World 1**  
uninterpreted  
reality



# Popper's three worlds

(previously discussed at length, so no in depth discussion required here)

**Picture  
deleted**

## **World 2**

**Personal knowledge  
(internal control  
systems)**

# Popper's three worlds

(previously discussed at length, so no in depth discussion required here)

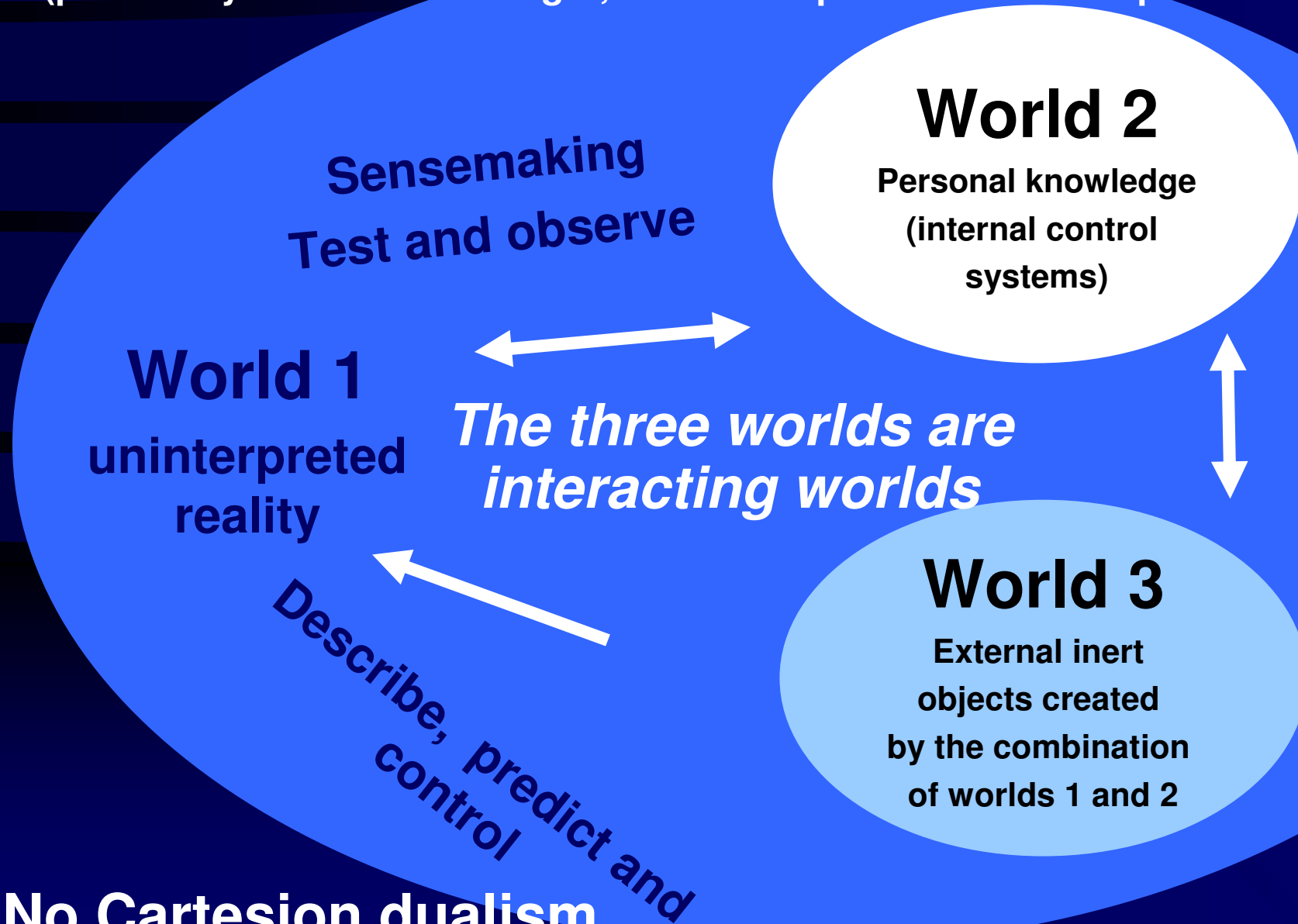
## World 3

External inert  
objects created  
by the combination  
of worlds 1 and 2

Picture  
deleted

# Popper's three worlds

(previously discussed at length, so no in depth discussion required here)



**No Cartesian dualism**

# Popperian view of organisational knowledge

World 1

World 2  
Personal  
knowledge

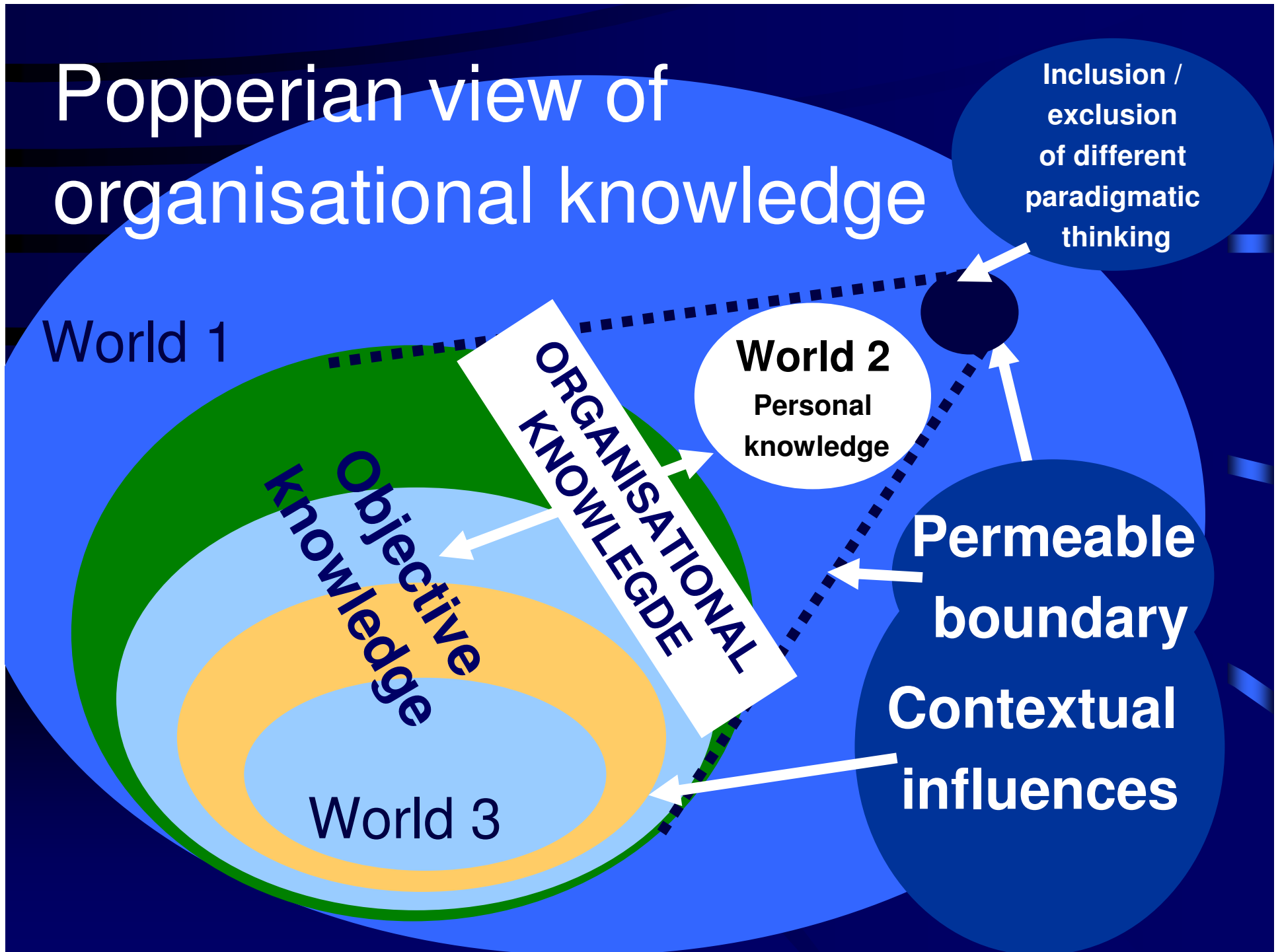
Objective  
Knowledge

World 3

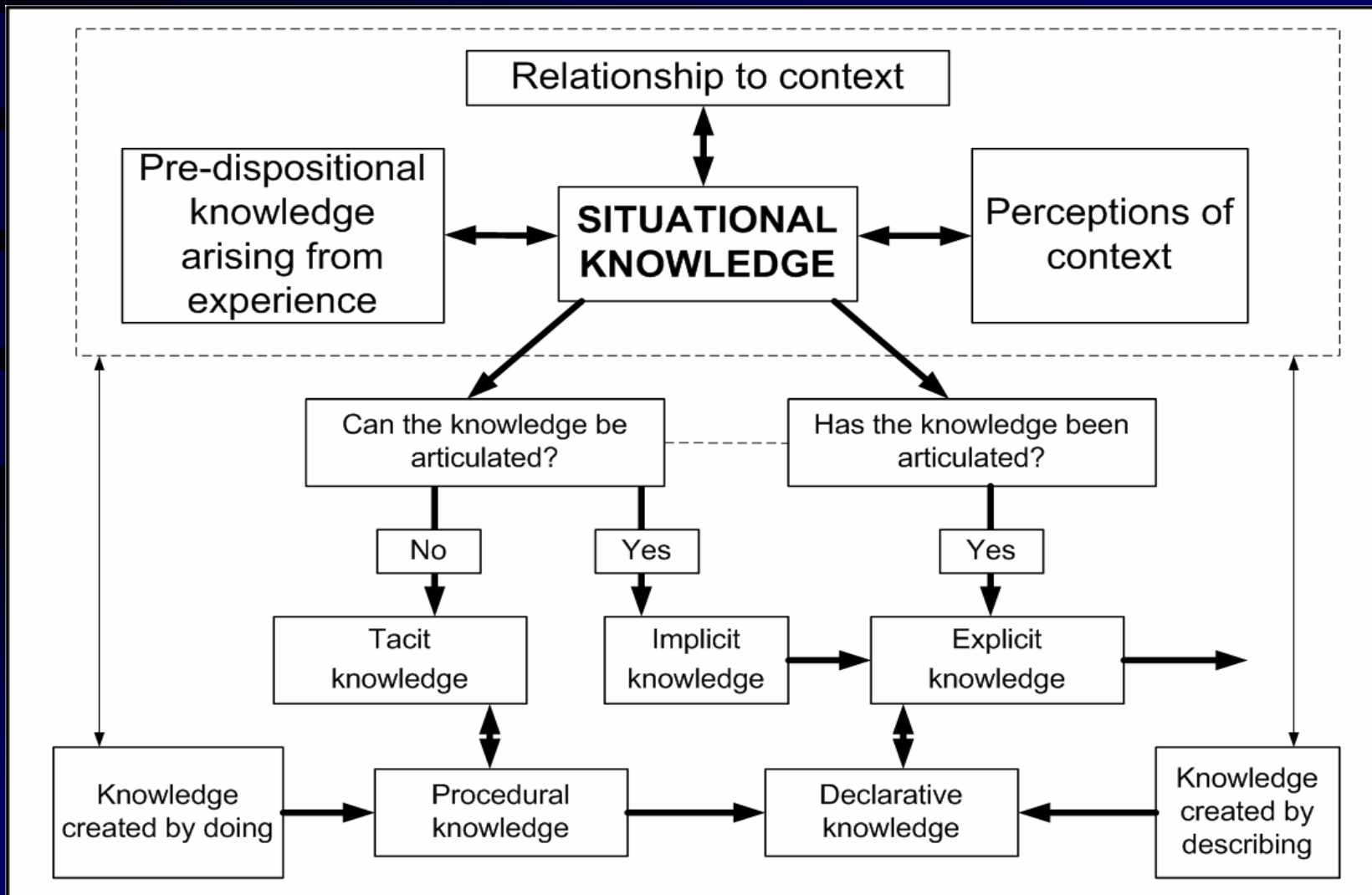
ORGANISATIONAL  
KNOWLEDGE

Inclusion /  
exclusion  
of different  
paradigmatic  
thinking

Permeable  
boundary  
Contextual  
influences



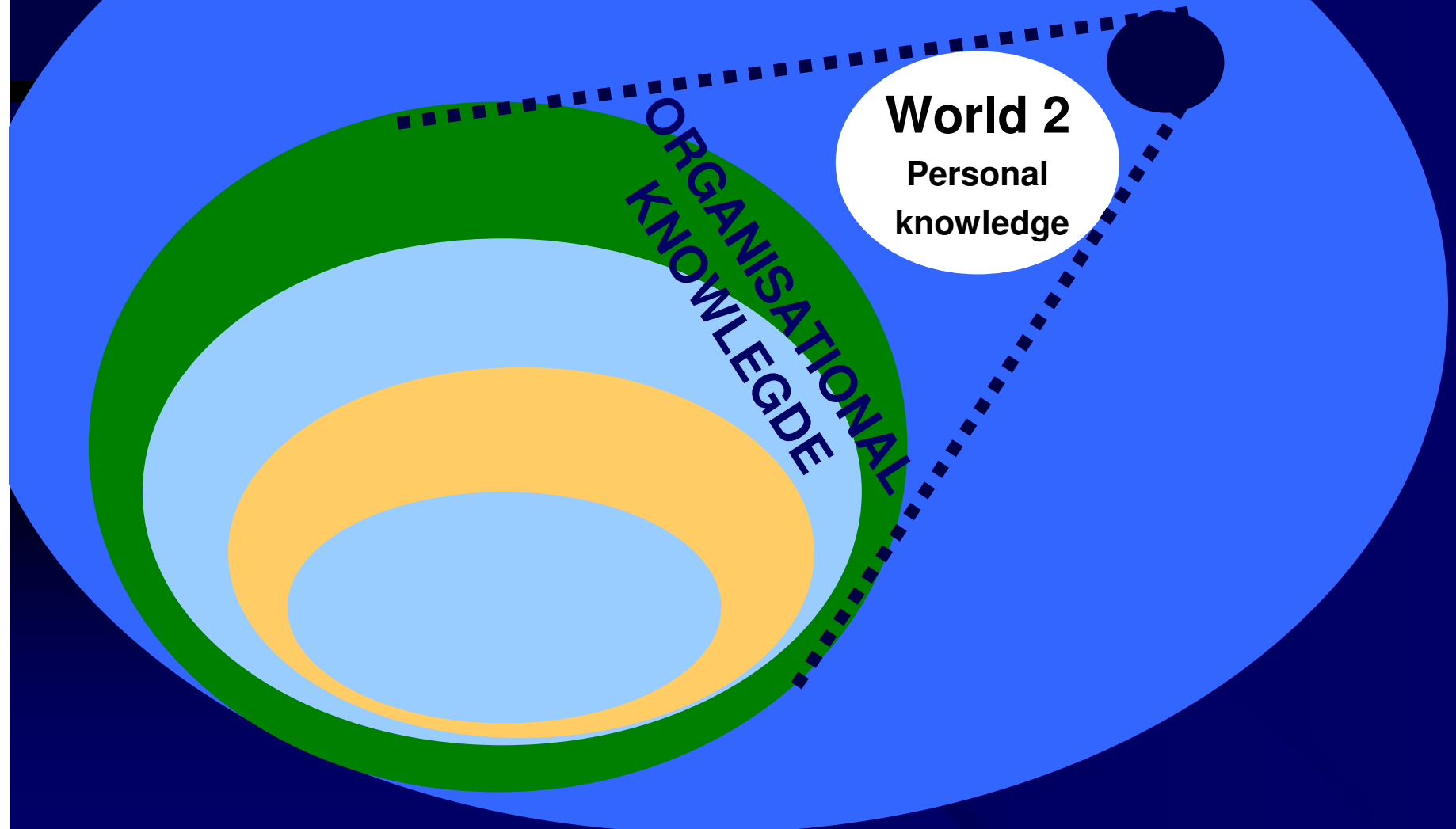
# Personal knowledge as highly contextualised



# Knowledge processing:

Over time

World 1



# Knowledge processing:

Over time



Explicit

Picture of email deleted

# Knowledge processing:

Over time

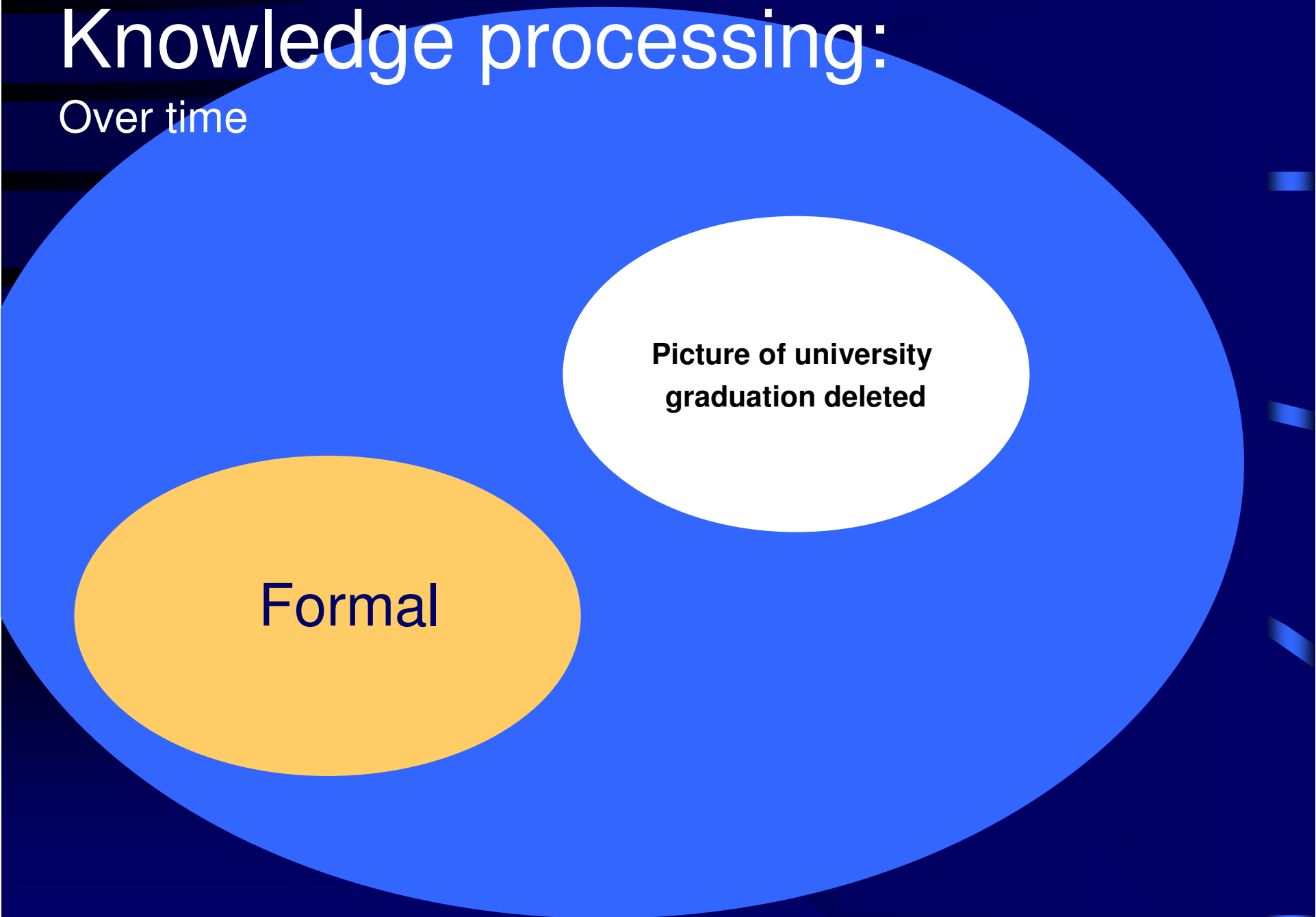
**Shared-Explicit**

The diagram features a large, dark blue oval background. Inside this background, there are two smaller ovals. On the left is a light blue oval containing the text 'Shared-Explicit'. On the right is a white oval containing the text 'Picture of server information deleted'. The overall layout suggests a progression or state of knowledge processing over time.

**Picture of server  
information deleted**

# Knowledge processing:

Over time

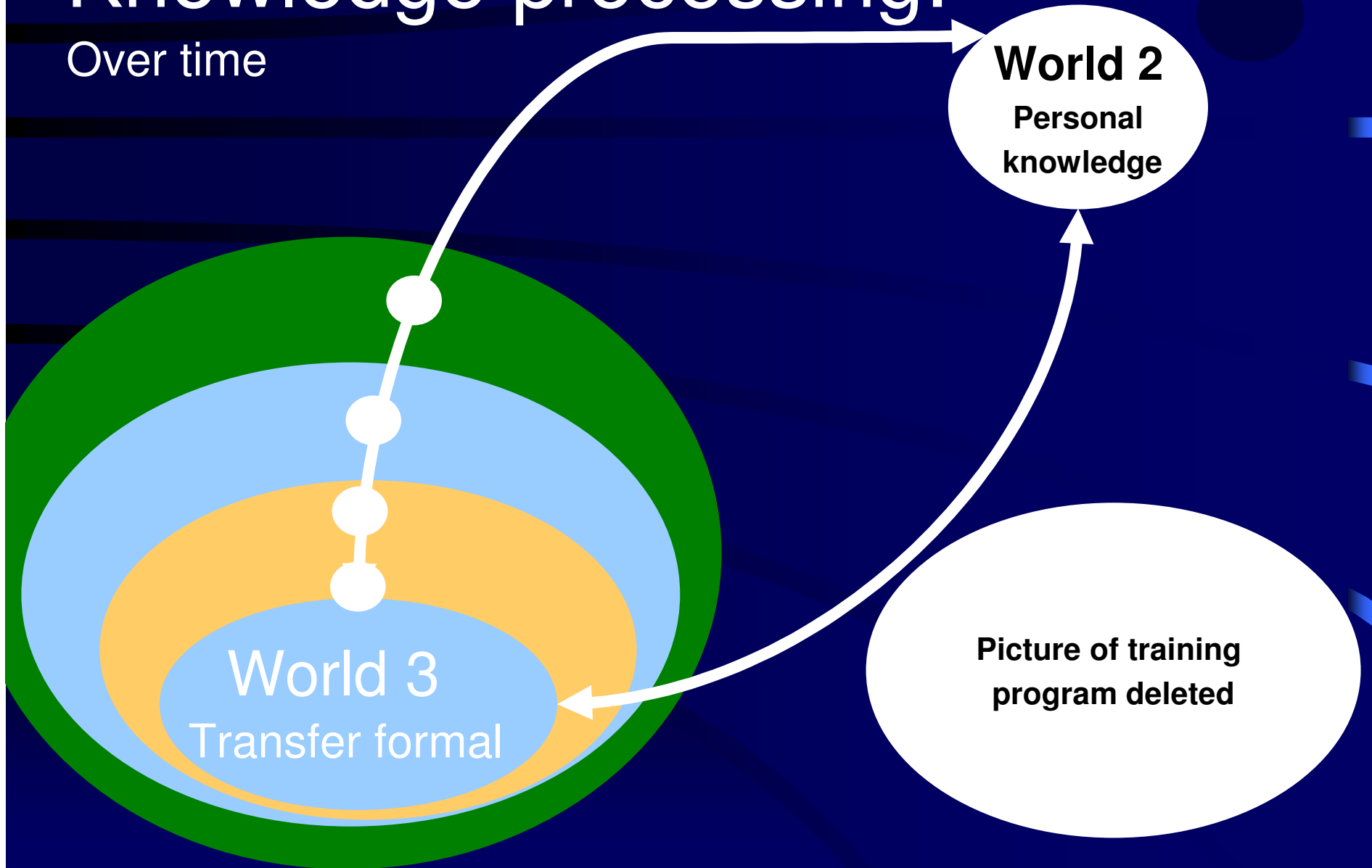


**Picture of university  
graduation deleted**

**Formal**

# Knowledge processing:

Over time



# Knowledge processing:

Over time

World 1

Inclusion /  
exclusion  
of different  
paradigmatic  
thinking

World 2  
Personal  
knowledge

Shared-Explicit

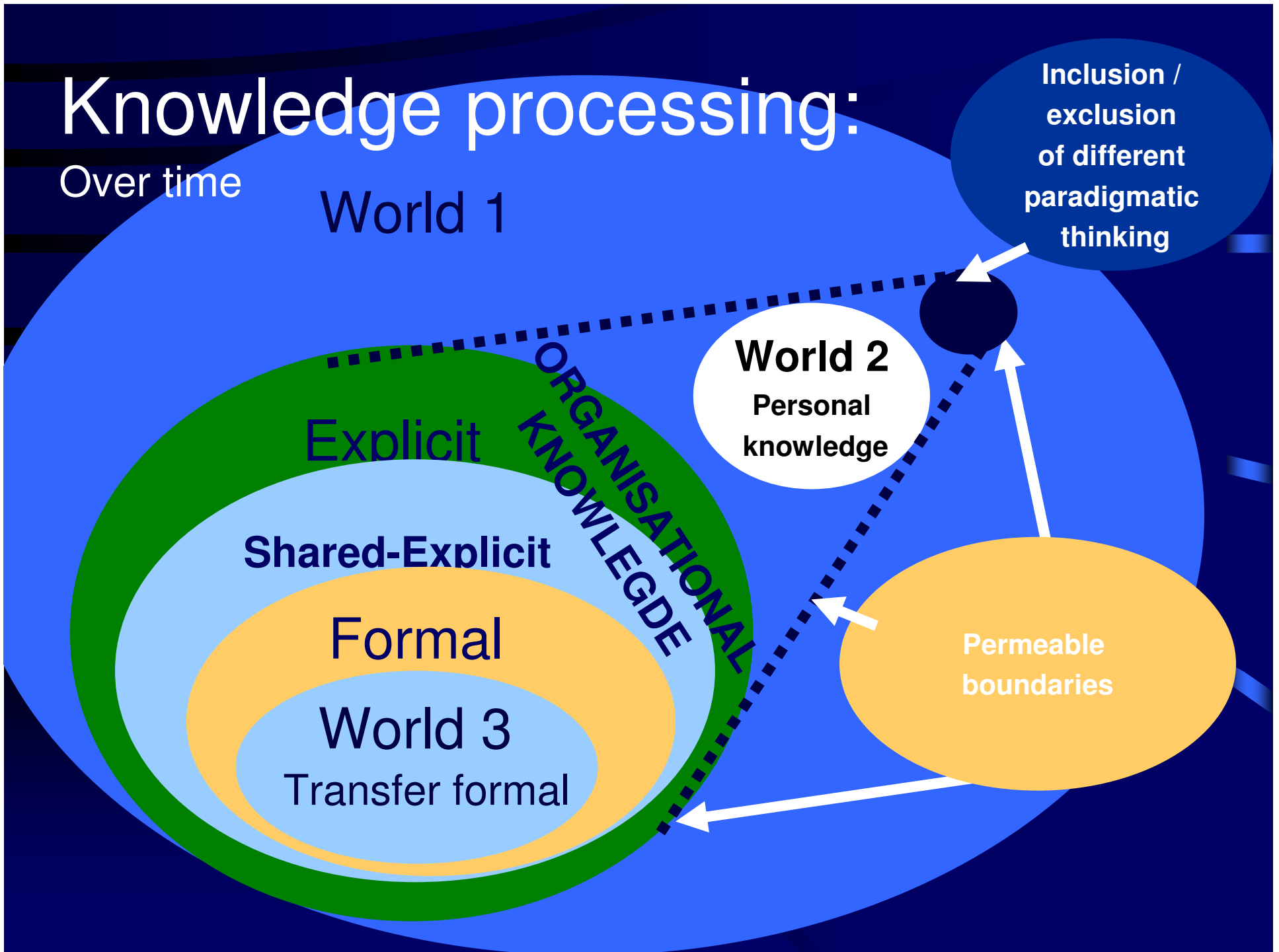
Formal

World 3

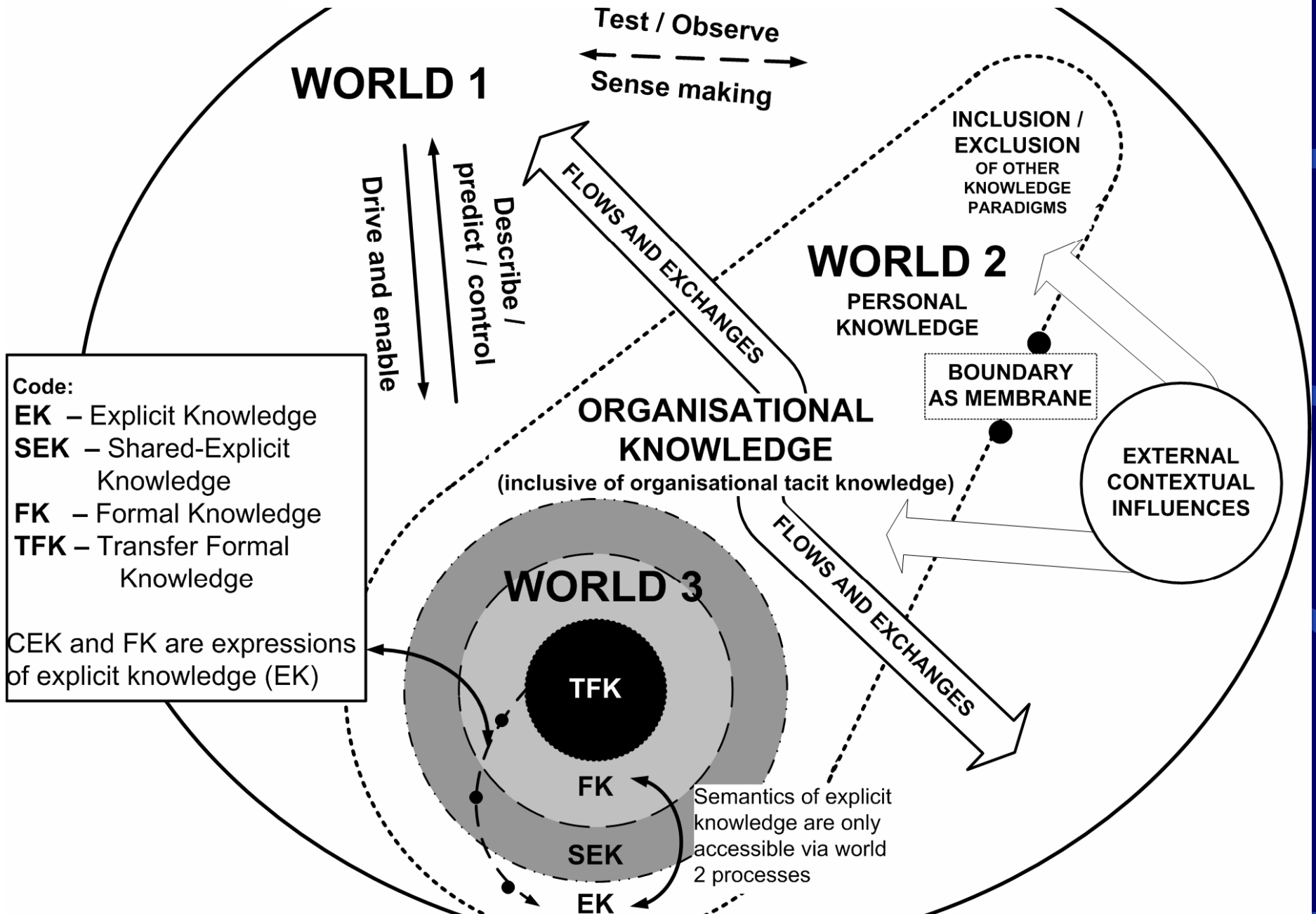
Transfer formal

ORGANISATIONAL  
KNOWLEDGE

Permeable  
boundaries



# A snapshot in time



How might this be conceived  
in an operational sense?

Management activities are time  
bound: and so there is a **time  
dimension** to knowledge

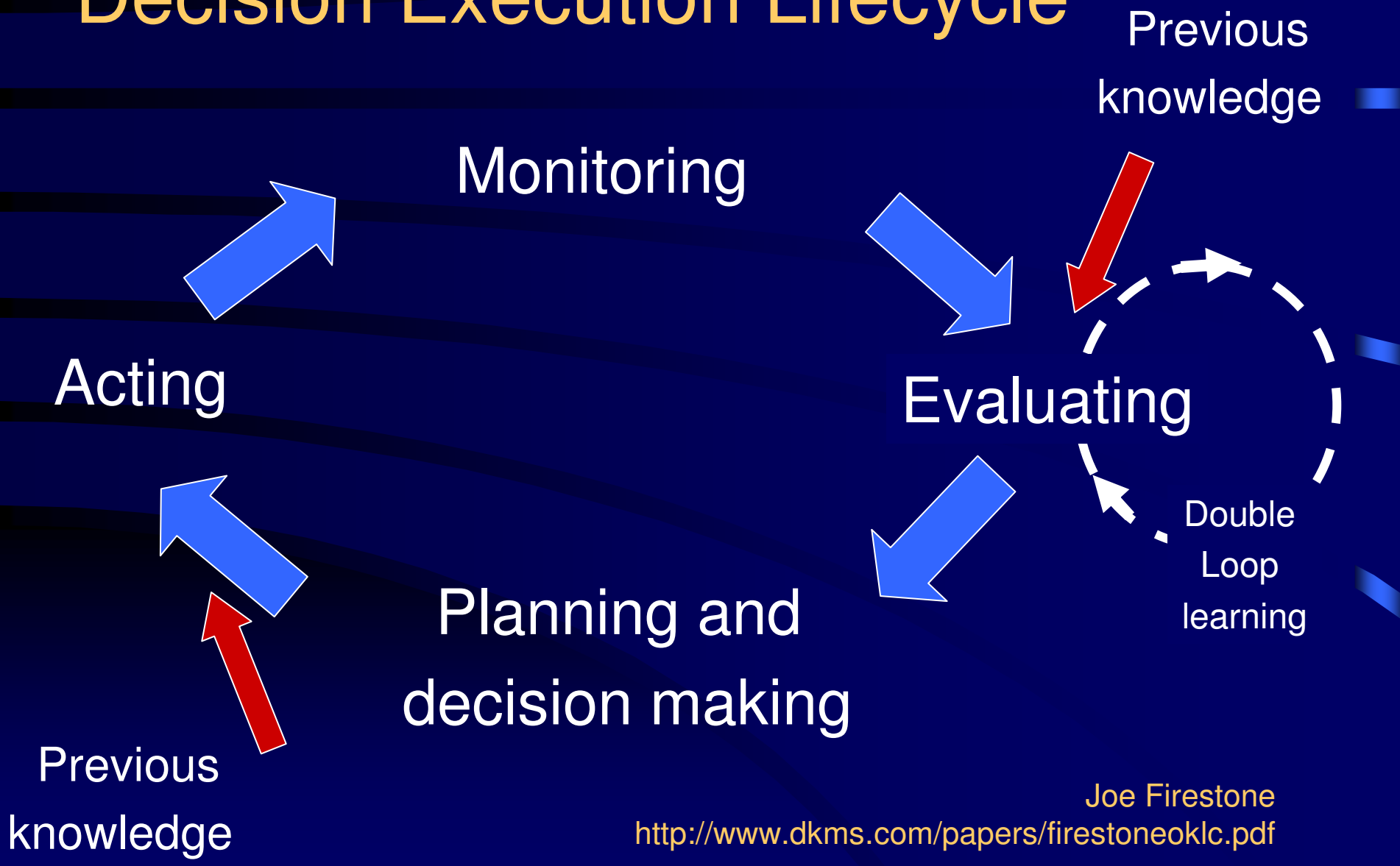
# Knowledge as an emergent property of life

**Knowledge as  
doing what  
works  
(solutions to  
problems)**

Autopoiesis: Maturana & Varela

Time dimension

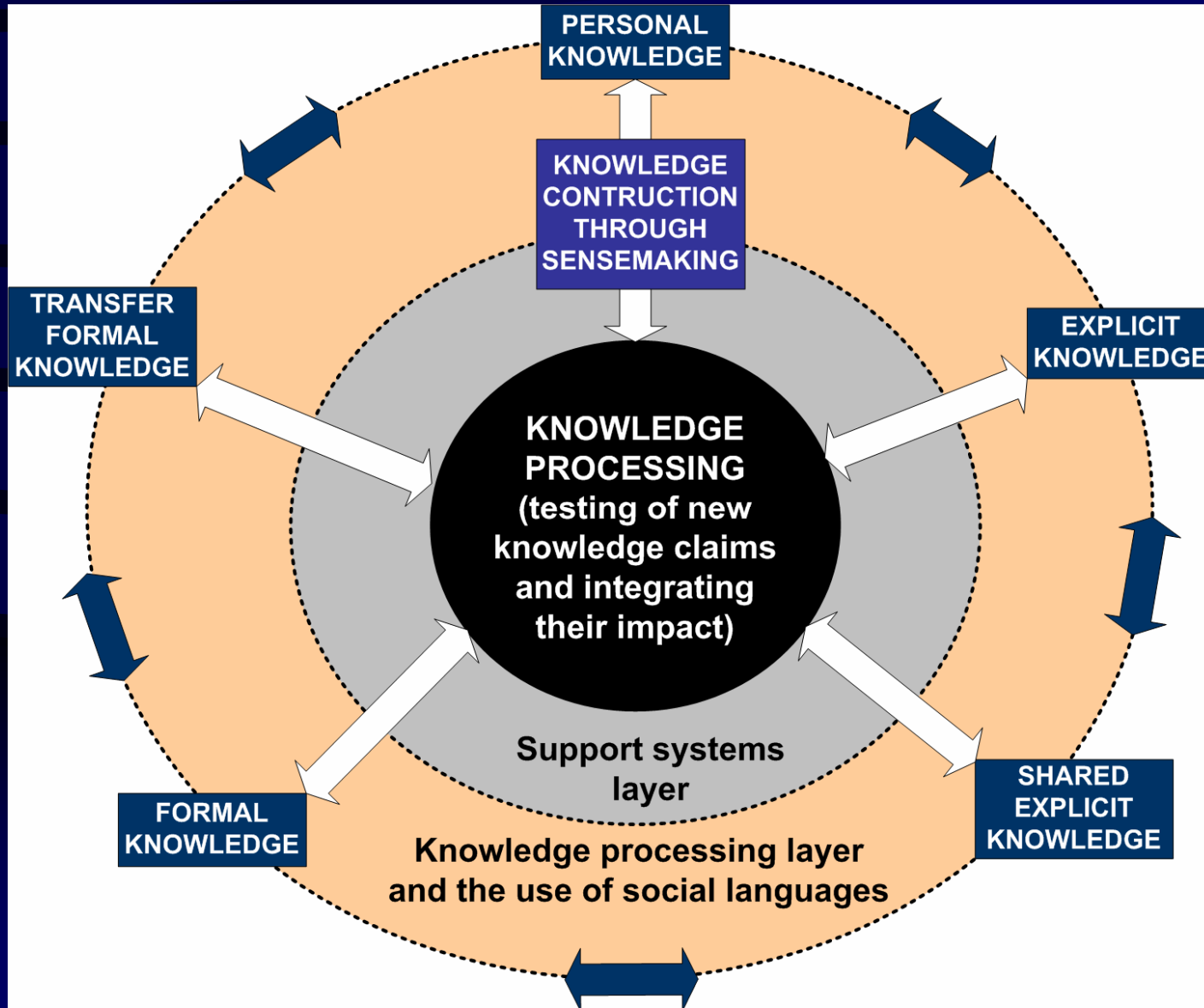
# Decision Execution Lifecycle



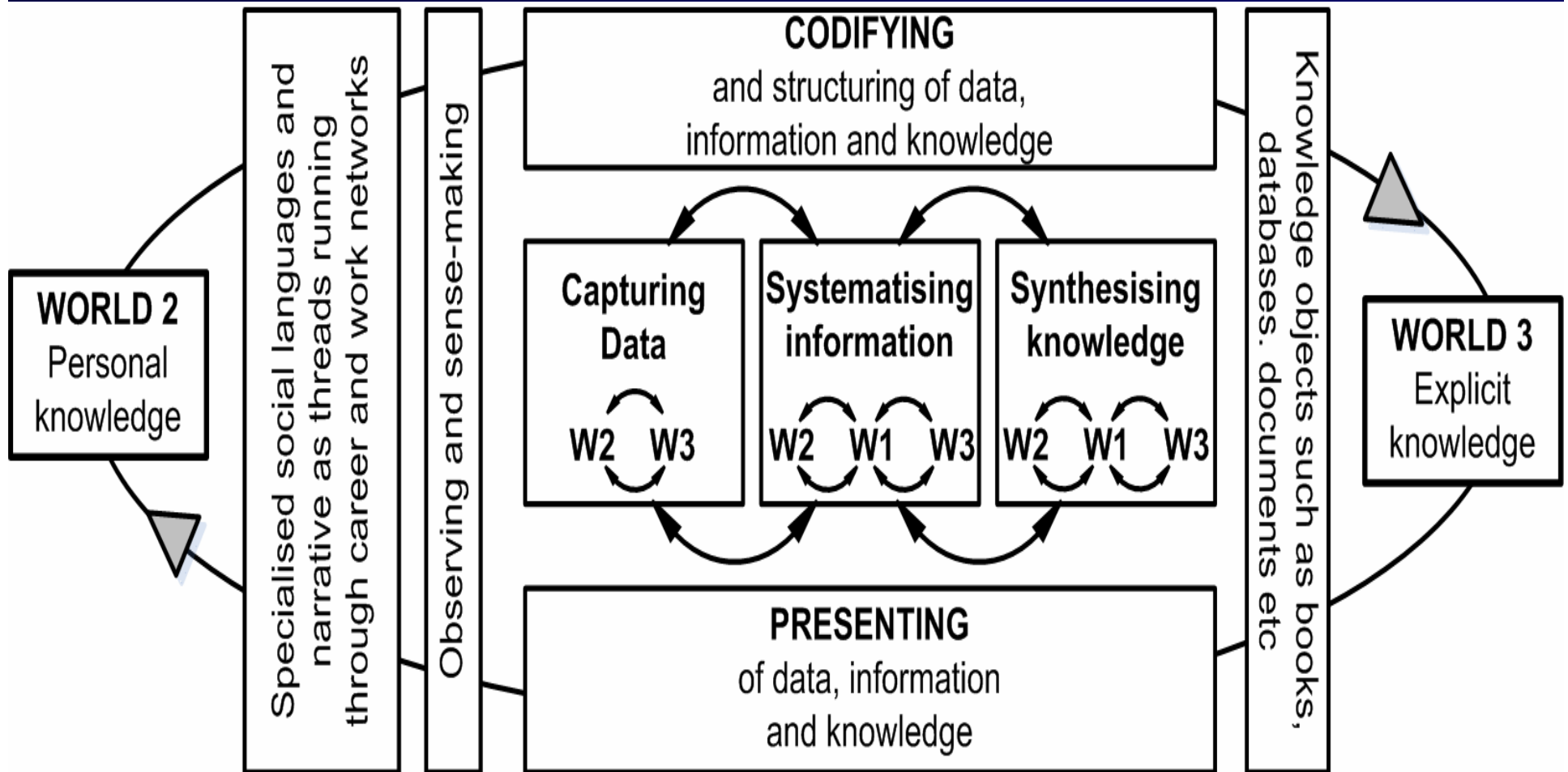
Joe Firestone

<http://www.dkms.com/papers/firestoneoklc.pdf>

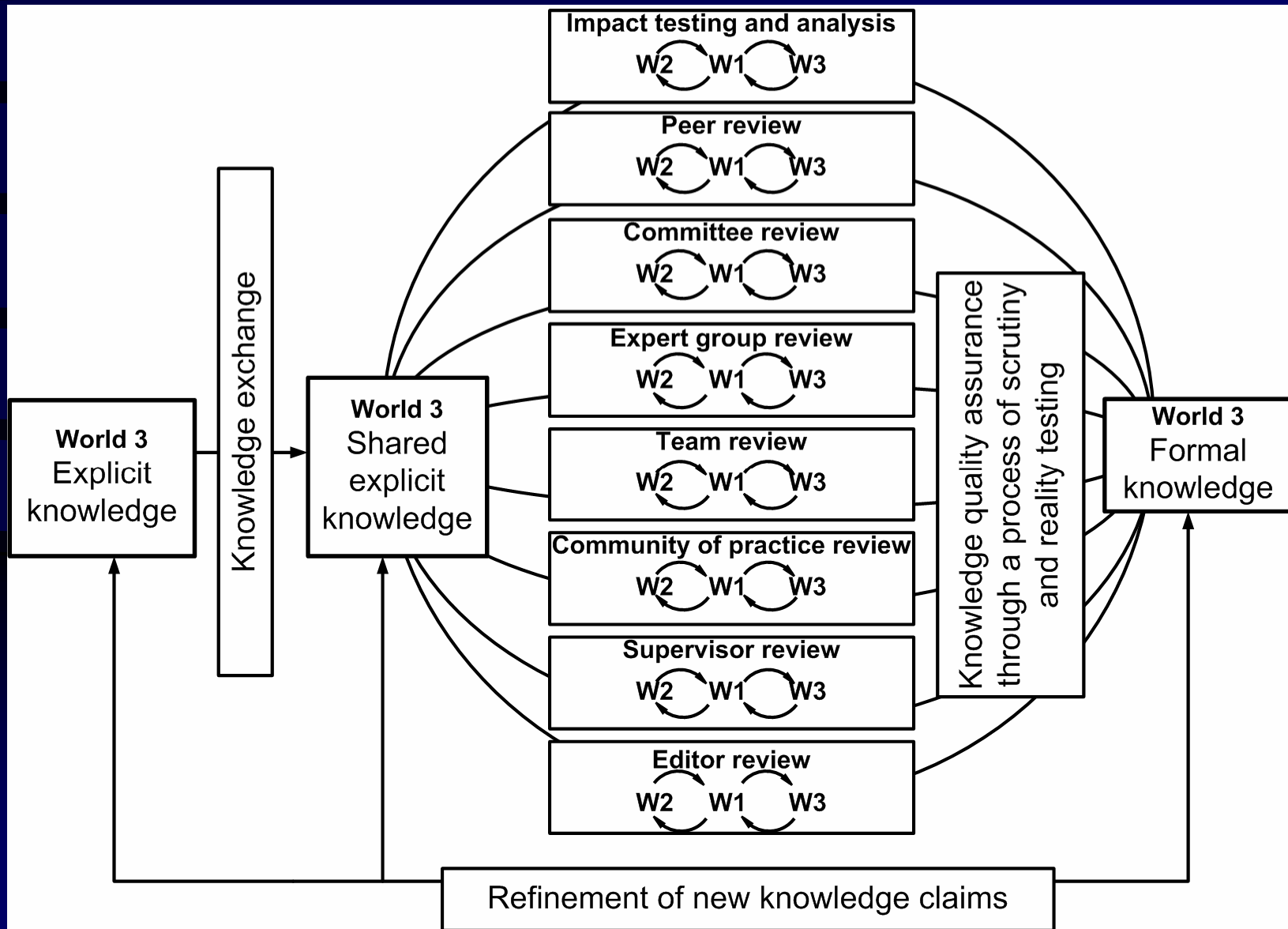
# Knowledge processing



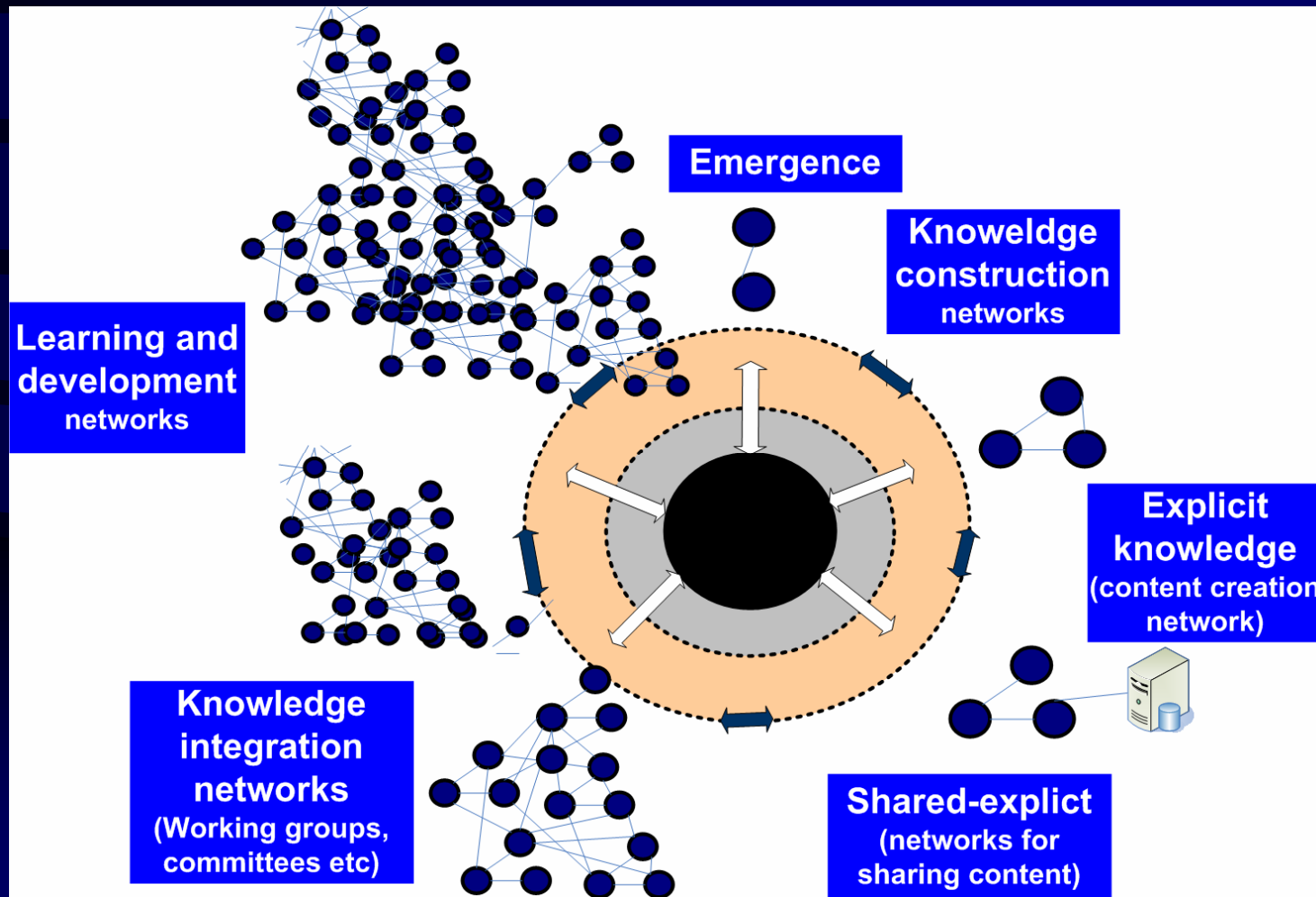
# Personal -explicit knowledge dynamics



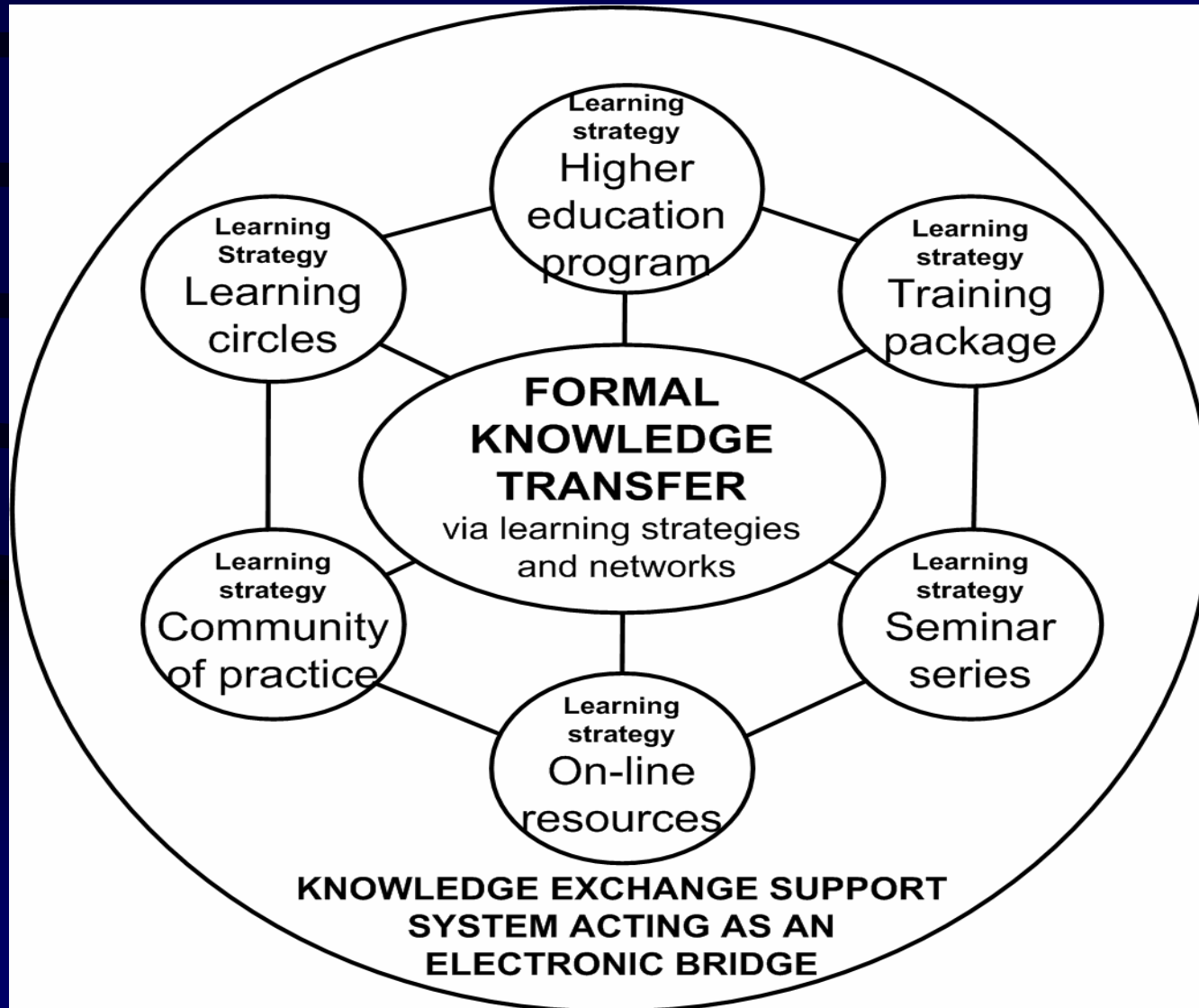
# Shared-explicit - formal knowledge dynamics



# Networks that co-evolve with the growth of knowledge over time

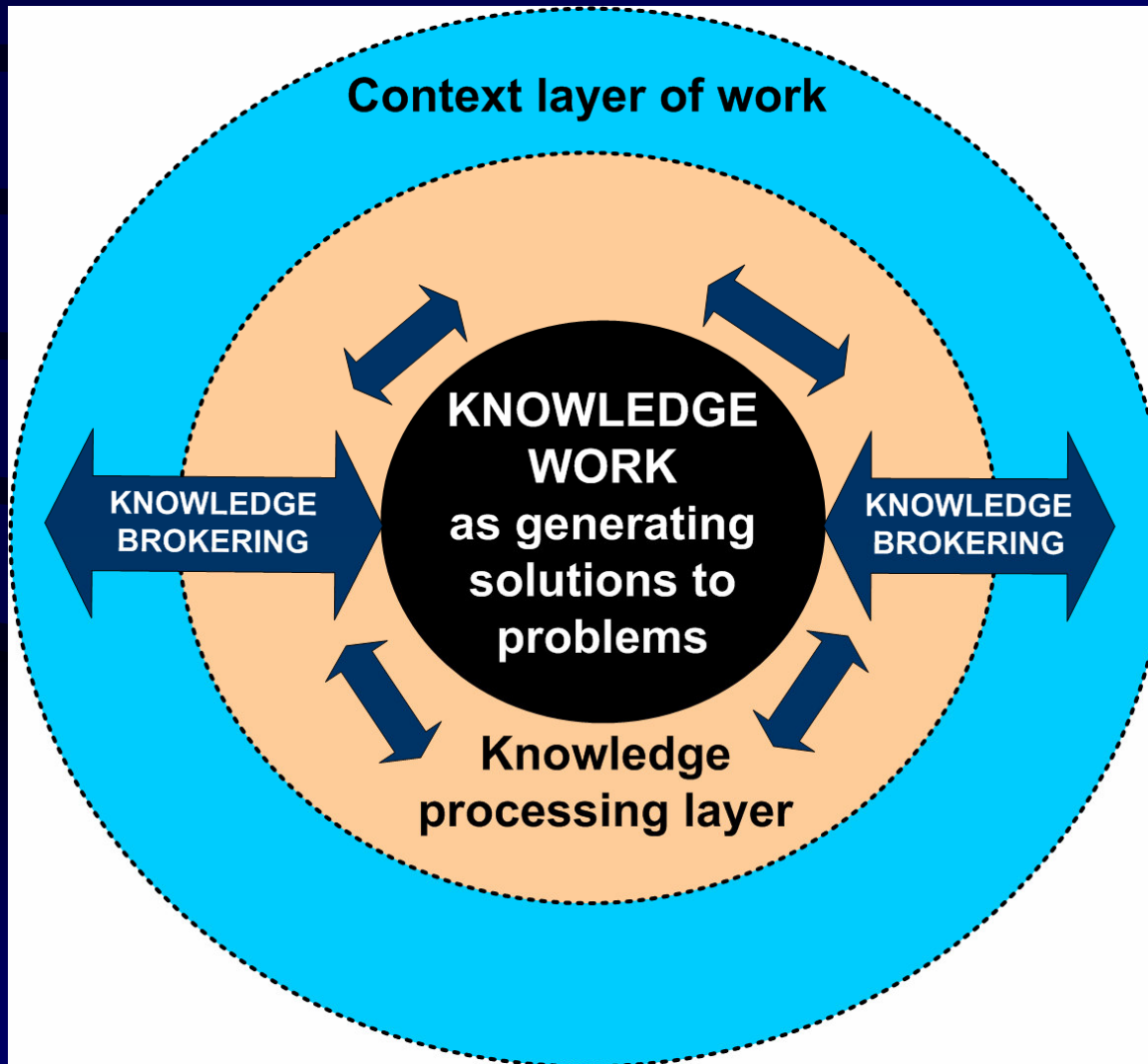


# The transfer of formal knowledge



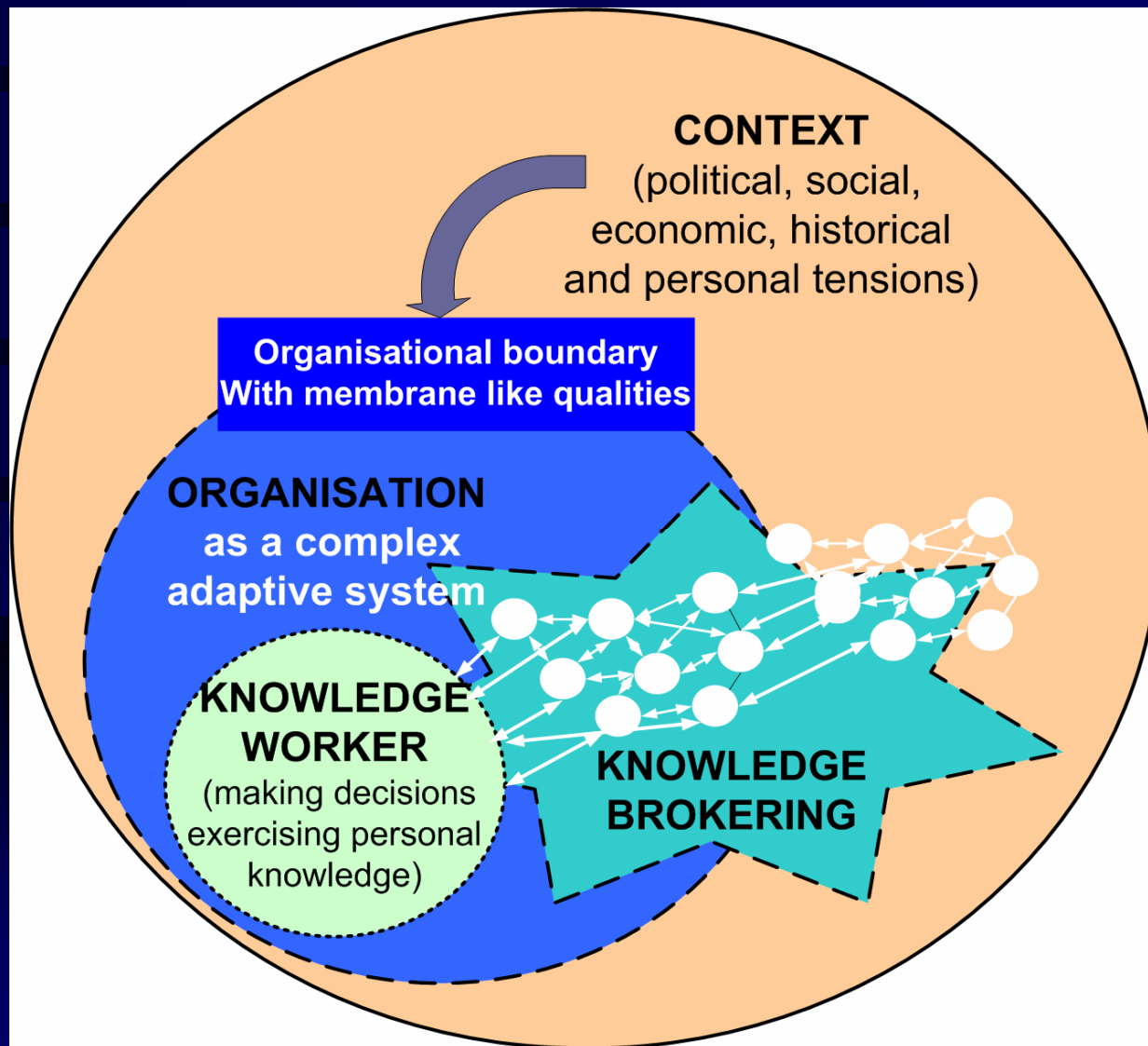
# Brokering knowledge

(the systematic approach to knowledge processing,  
grounded in context)



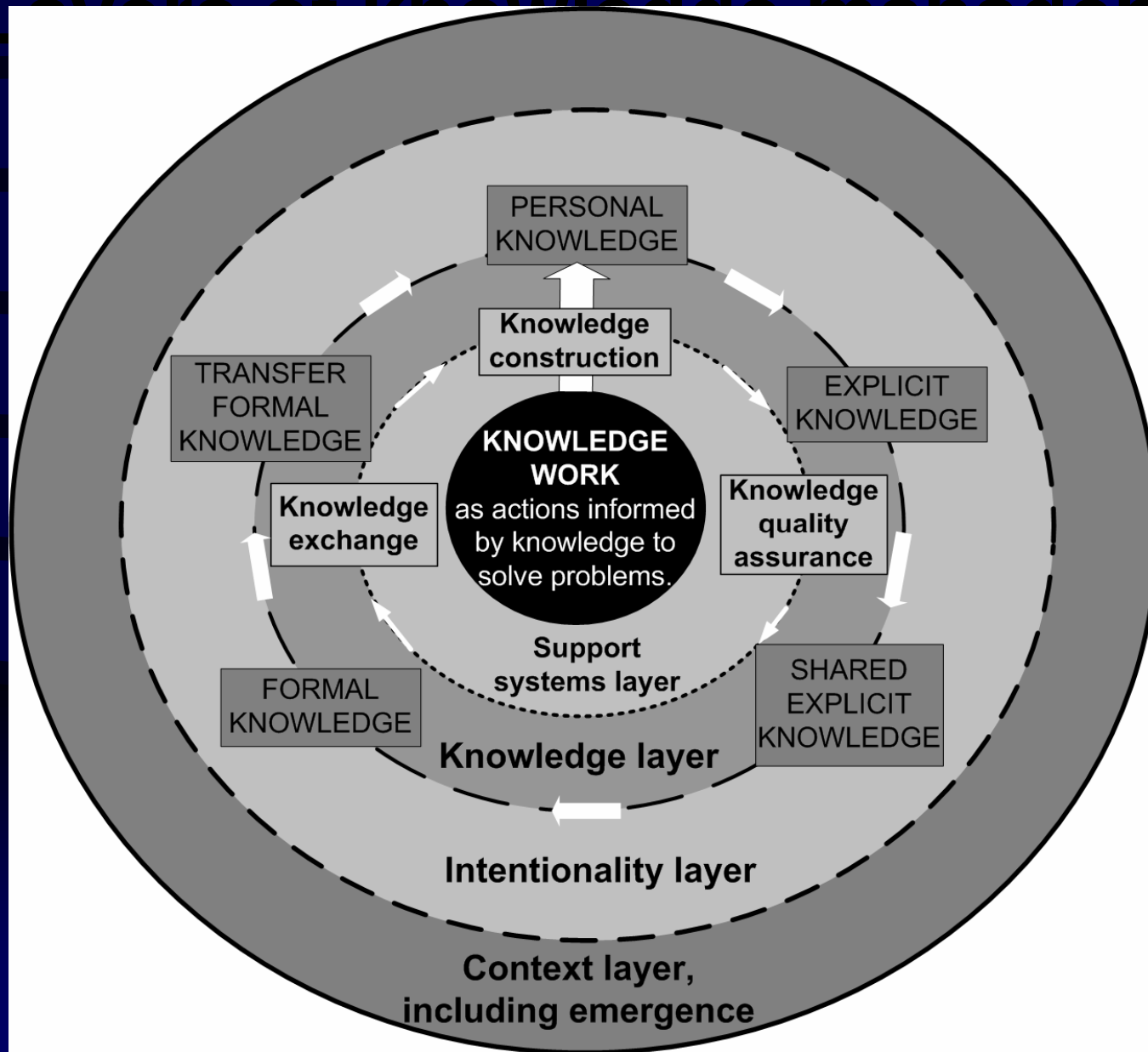
# Brokering knowledge

(also grounded in the idea of an organisation as a complex adaptive system)



# Knowledge management

(inclusive of the idea of context and intentionality)



# Concluding Remarks

- Knowledge has a biological nature to it
- It develops as part of an energy flow from high potential source to low potential sink
- Different dynamics for various forms and exchanges of knowledge – involving actions, called knowledge processing
- Organisational knowledge is exchanged across a porous membrane, through brokering, influenced by context, with emergence over time
- Intentionality leverages the value of knowledge from its context

# Thank you

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