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Developing Spatially Enabled Business Processes: the Role of Organisational Structures

Phd Student: Ezra Dessers
Supervisor: Geert Van Hootegem
Co-Supervisor: Joep Crompvoets

Overview

1. Problem statement
2. Research question and hypothesis
3. Research design





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Problem statement

Business processes

- SDIs are about facilitating and coordinating spatial information flows.
- Information is not flowing in the void, but is running through a network of business processes.
- A business process defines the setting in which SDIs become effective.



Spatially enabled business processes

- Business processes are defined as spatially enabled, when there is a high performing integration of spatial information flows in these business processes



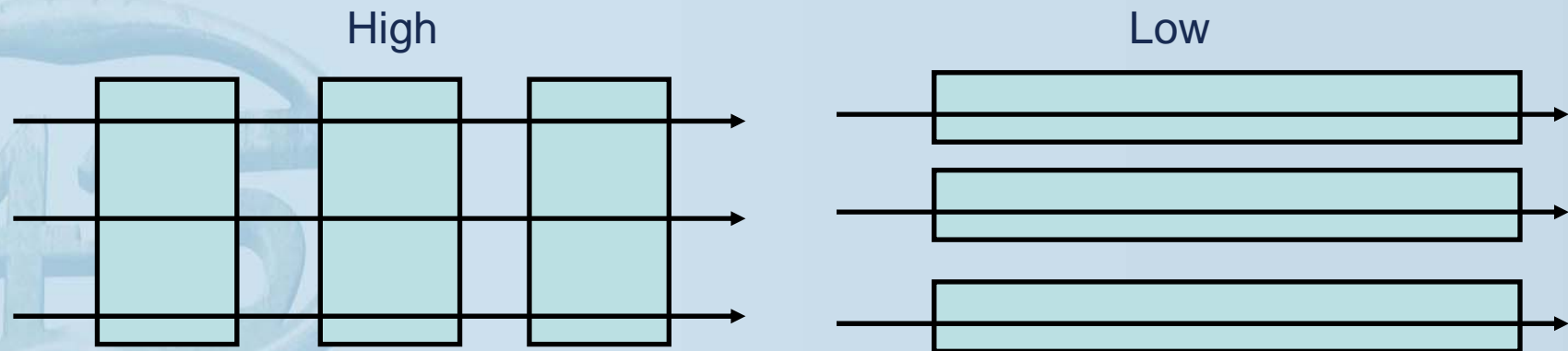
Background

- Business processes face increasing external demands for flexibility. A growing number of these business processes use and process spatial information.
- Increasing exchange and use of spatial information makes mutual alignment and cooperation between and within organisations ever more important. This increases the amount of flexibility which is expected from the business processes.
- SDI-initiatives often seem to demand a level of flexibility that organisations can't provide.



Organisational structures

- Business processes run through organisational structures
- Organisational structures are the result of the allocation of functions to organisational units
 - Within an organisation
 - But also: between organisations
- Functional concentration



Environment

- No “one best way of organising”
- Changing environmental demands
 - Dynamic environment
 - Flexibility becomes crucial
 - Predictability, routine and transparency decreases
- Process-based organisational structures are expected to offer better opportunities for handling flexibility demands.





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Research question and hypothesis

Research question and hypothesis

- Research Question
 - What is the impact of organisational structures on the spatial enablement of business processes?
- Hypothesis
 - Process-oriented organisational structures can be linked to high performing integration of spatial information in the business processes



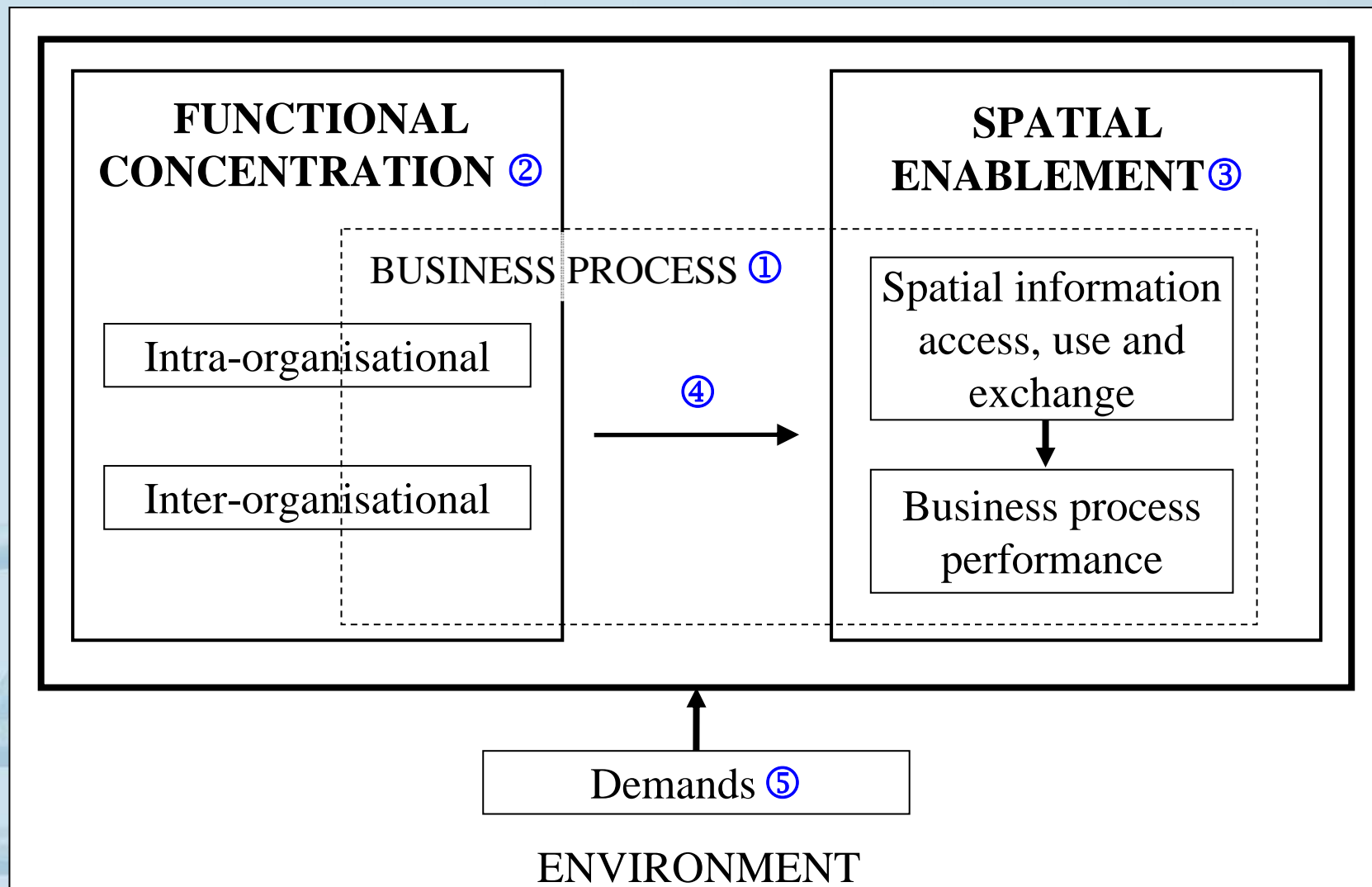


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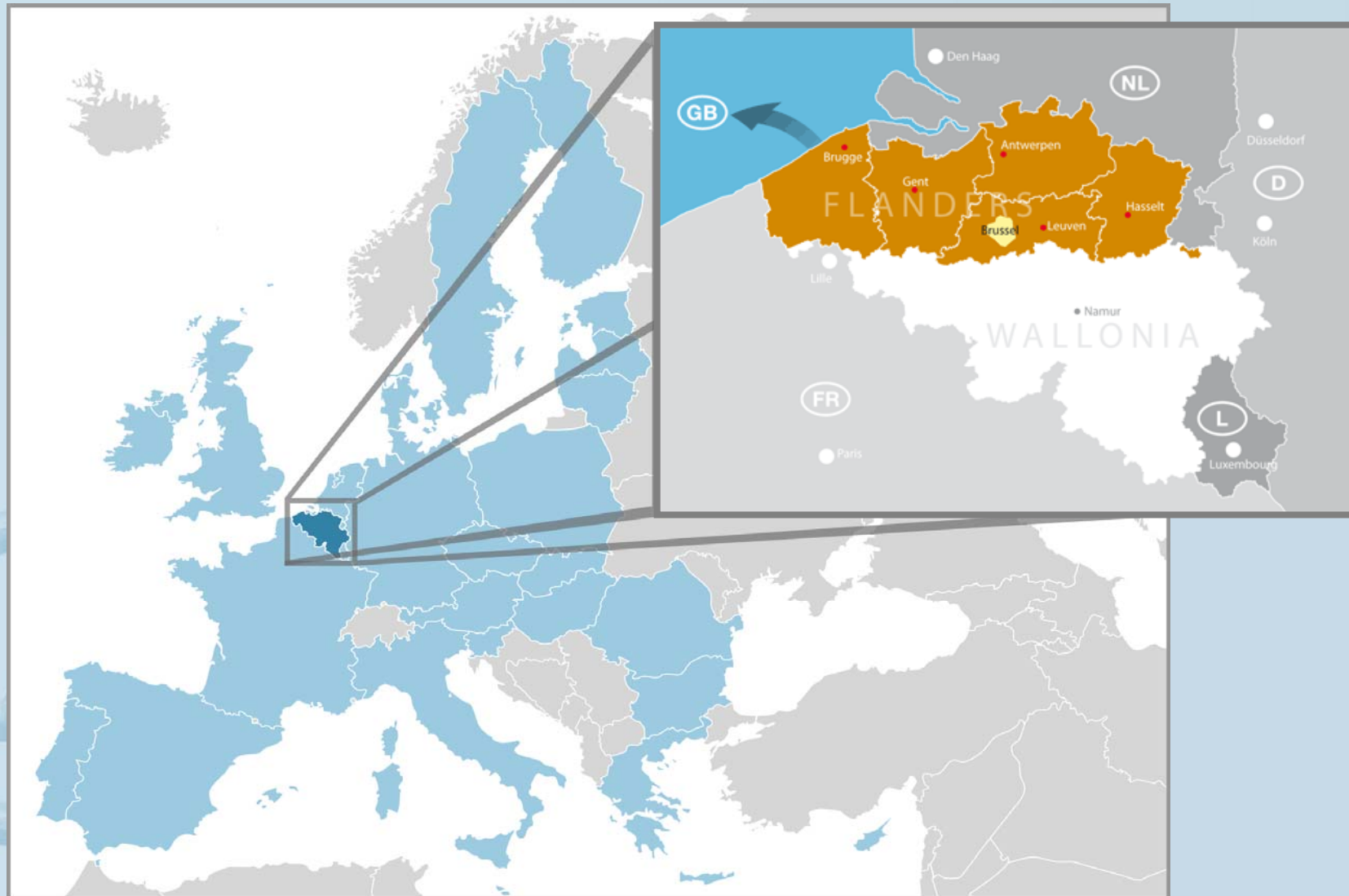


Research design

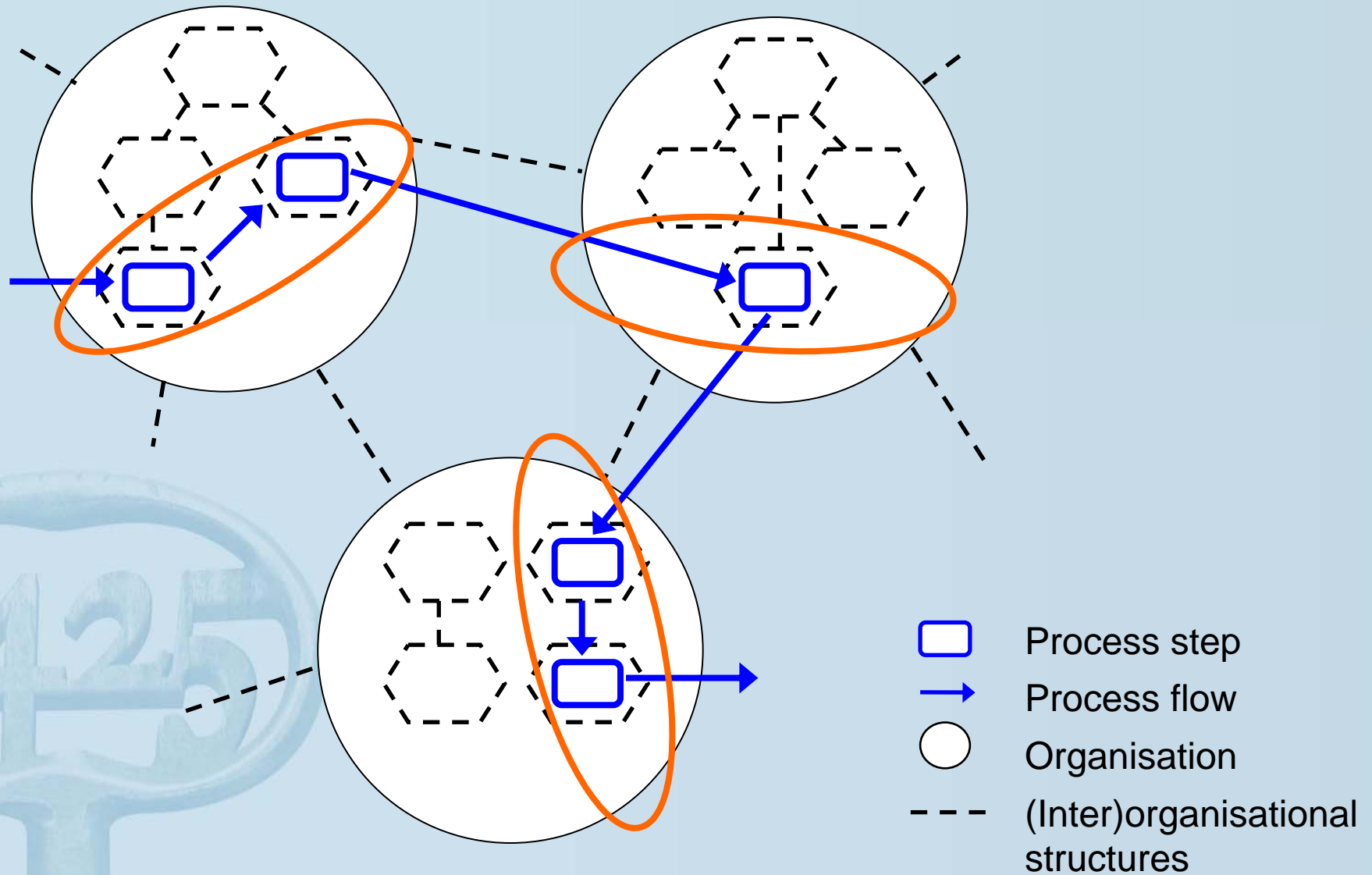
Conceptual Framework



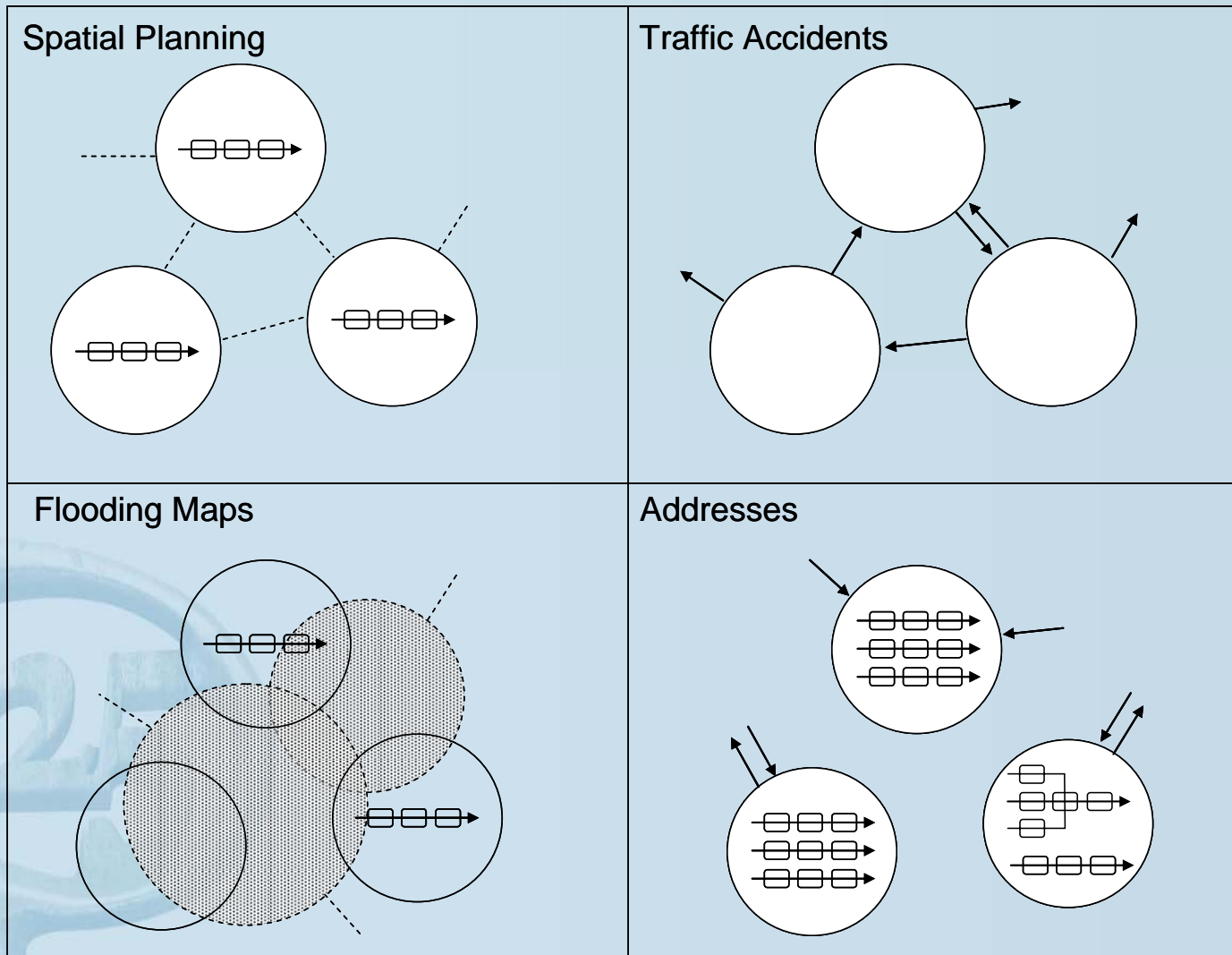
Study area: Flanders (Belgium)



Case and embedded cases



4 cases



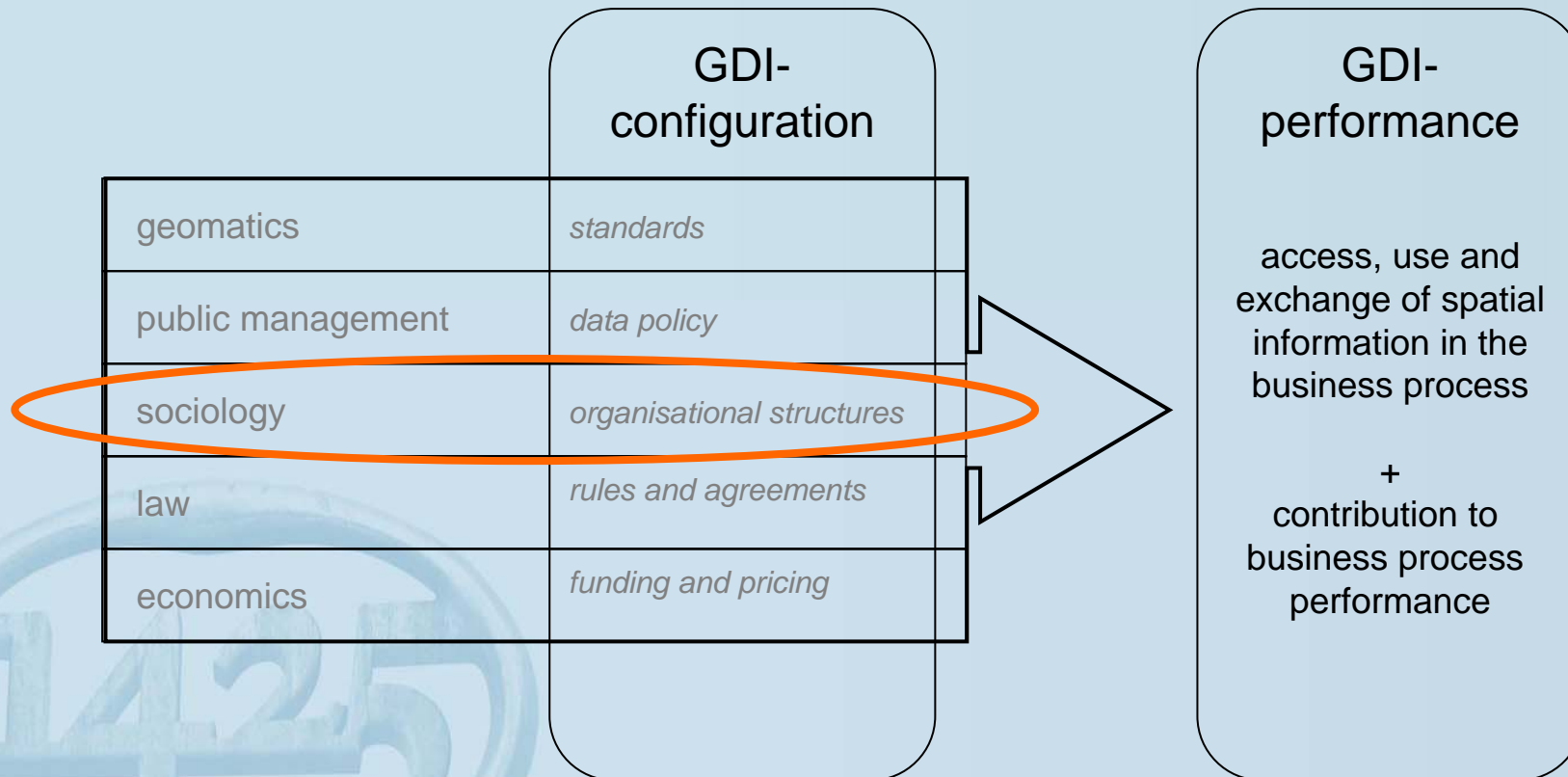
Embedded cases

Case	Embedded cases
Spatial Planning	3 municipalities, 2 provinces, regional spatial planning department
Traffic Accidents	3 local police departments, 2 provinces, regional mobility department, federal police, national statistics agency
Addresses	3 municipalities, 2 provinces, regional SDI agency, federal register
Flooding Maps	3 municipalities, 2 provinces, regional water department, 1 field organisation

Analysis

- Two levels
 - Comparing embedded cases
 - Within a case
 - Over the cases
 - Comparing 4 cases
- Methods:
 - Matrices relating
 - variables describing organisational structures with
 - Variables describing level of spatial enablement
 - Qualitative Comparative Analysis
 - <http://www.compass.org/>

Multi-disciplinary framework



Thank you for your attention

Ezra Dessers
Centre for Sociological Research
University of Leuven (Belgium)
Tel: +32 16 32 34 57
ezra.dessers@soc.kuleuven.be
www.spatialist.be

Groups of Variables

- Intra-organisational structures
 - Process
 - Context
- Inter-organisational structures
 - Process
 - Context
- Environment
 - Place of process within organisation
 - External demands
- Spatial enablement
 - Access, use and distribution of spatial information
 - Contribution to process performance

Public sector

- (1) SDI-initiatives are generally launched by public-sector organisations (Masser, 2005).
- (2) Most information in the public sector could be linked to a location (Longhorn & Blakemore, 2008). Therefore, the potential benefits of SDI in the public sector can be enormous (Masser et al., 2007).
- (3) Furthermore, the availability of clear and precise government information is of great importance to organisations outside the public sector, and individual citizens (Longhorn & Blakemore, 2008; Stiglitz, 1999).