




Exploration and Exploitation: Toward a Theory of Knowledge Sharing in Digital Government Projects

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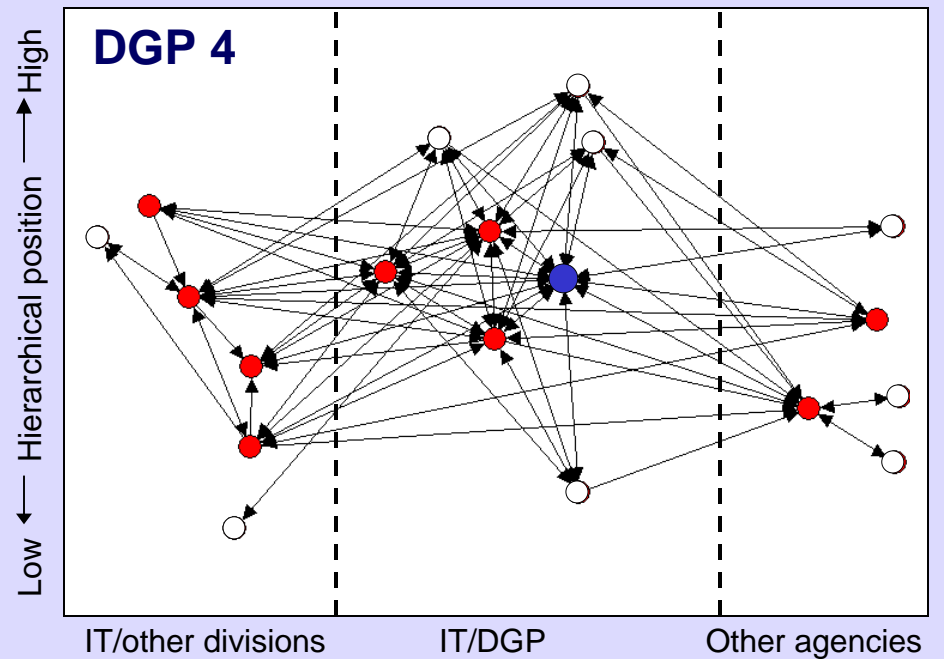
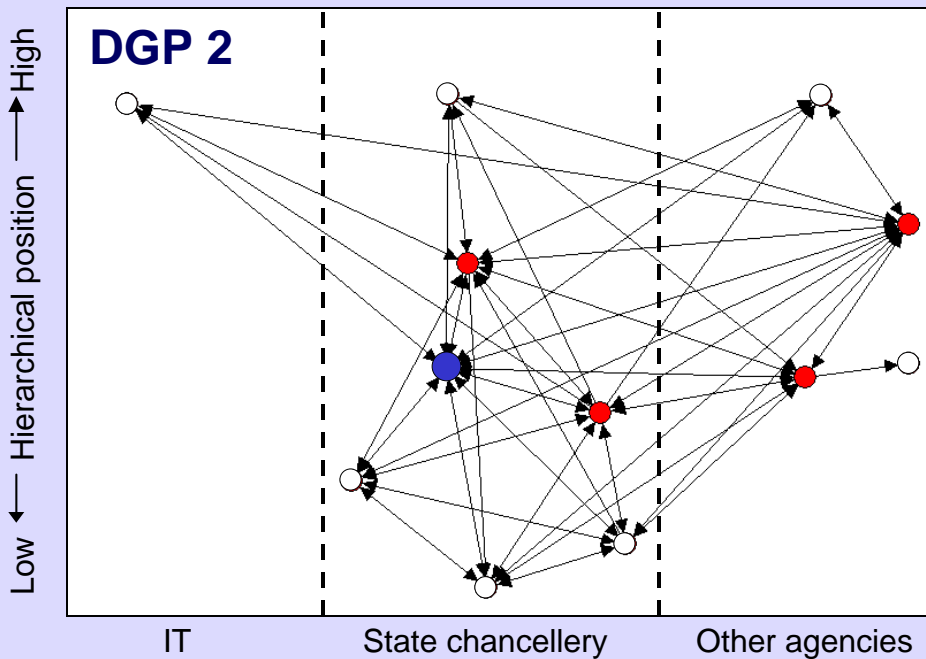
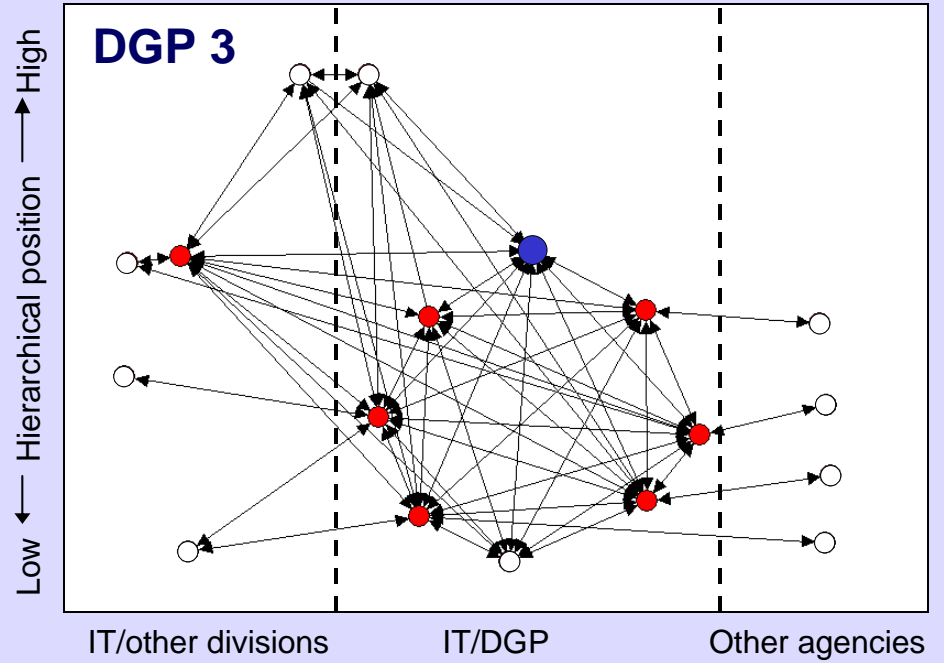
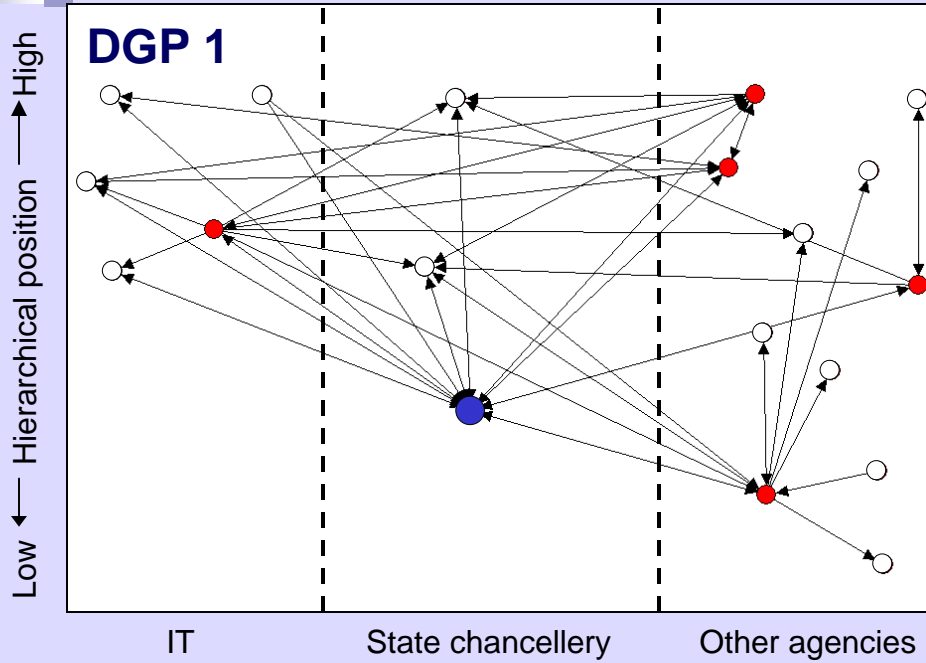


Das wirklich Harte an Reformen ist das Weiche.
(The really hard part of reforms is the soft part.)
- *Moritz Leuenberger, Swiss Federal Councillor*

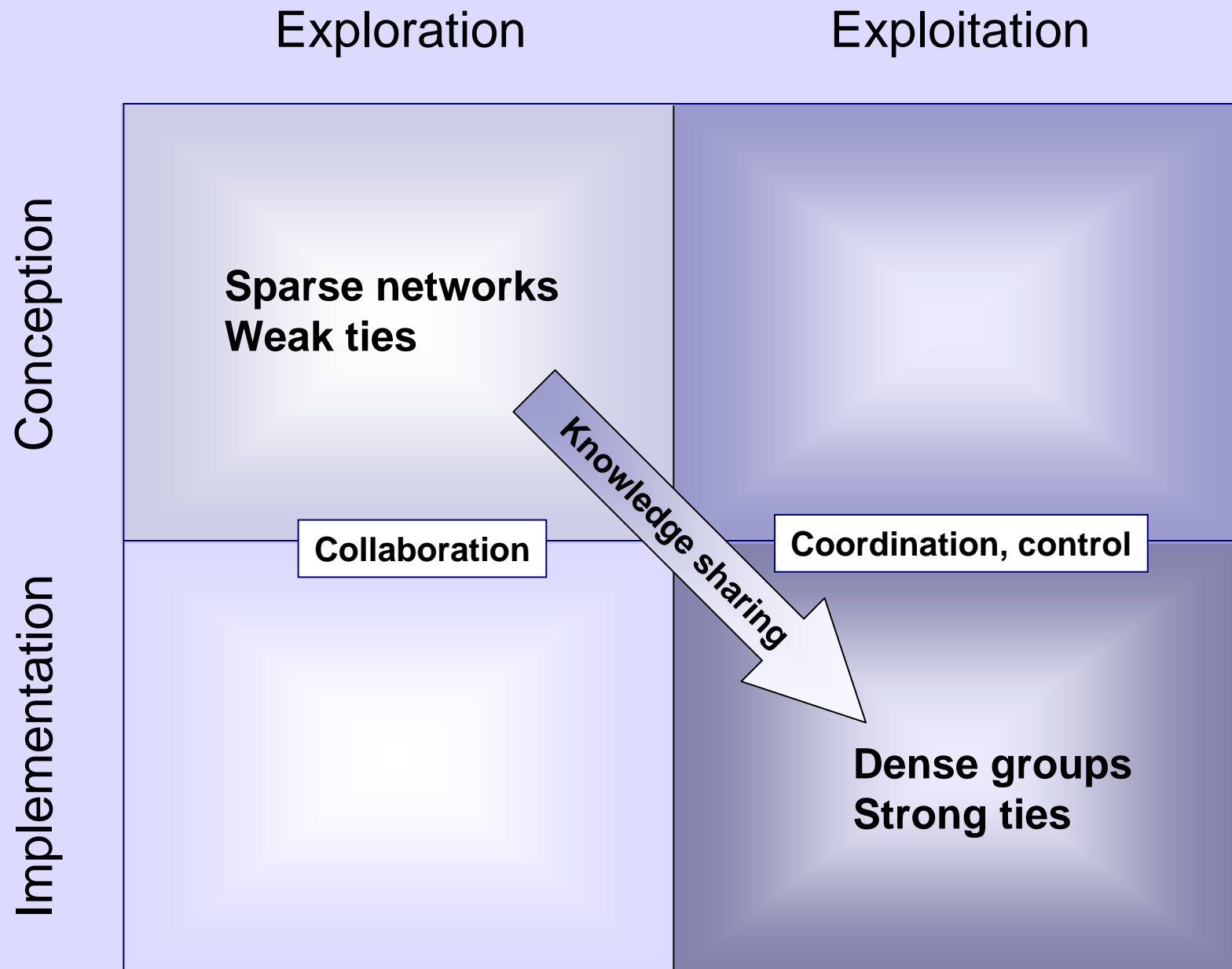
- Knowledge sharing processes are a **central feature** of the functioning of government
- This has become even more evident with the onset of digital government (DG) initiatives, as the latter rely on **cross-agency collaboration**
 - Individuals with differing skill sets and from different organizational units work on a **common task** in a network
 - With multiple agencies and multidisciplinary knowledge coming together, it is necessary to **combine and reconnect** the required knowledge
- Two task dimensions of knowledge sharing processes and content in DG projects (DGPs):
 - Conception / Implementation of project
 - Exploration / Exploitation of knowledge

- How is knowledge shared in DG projects?
 - What are the *modes and influencing factors* of knowledge sharing in DGPs?
 - What are the predominant *coordination mechanisms* for knowledge sharing in DGPs?

Social networks – functional subdivision



Toward a theory of knowledge sharing in DGPs



- The implementation of DG requires a balanced mix of exploration and exploitation of knowledge, where
 - **Exploration** is more important in the conceptual phase, and
 - **Exploitation** dominates the implementation phase
- DGPs should rely on sparse networks during the **conceptual** phase of the project, and employ teams or tightly-bound groups when the project moves towards **implementation**



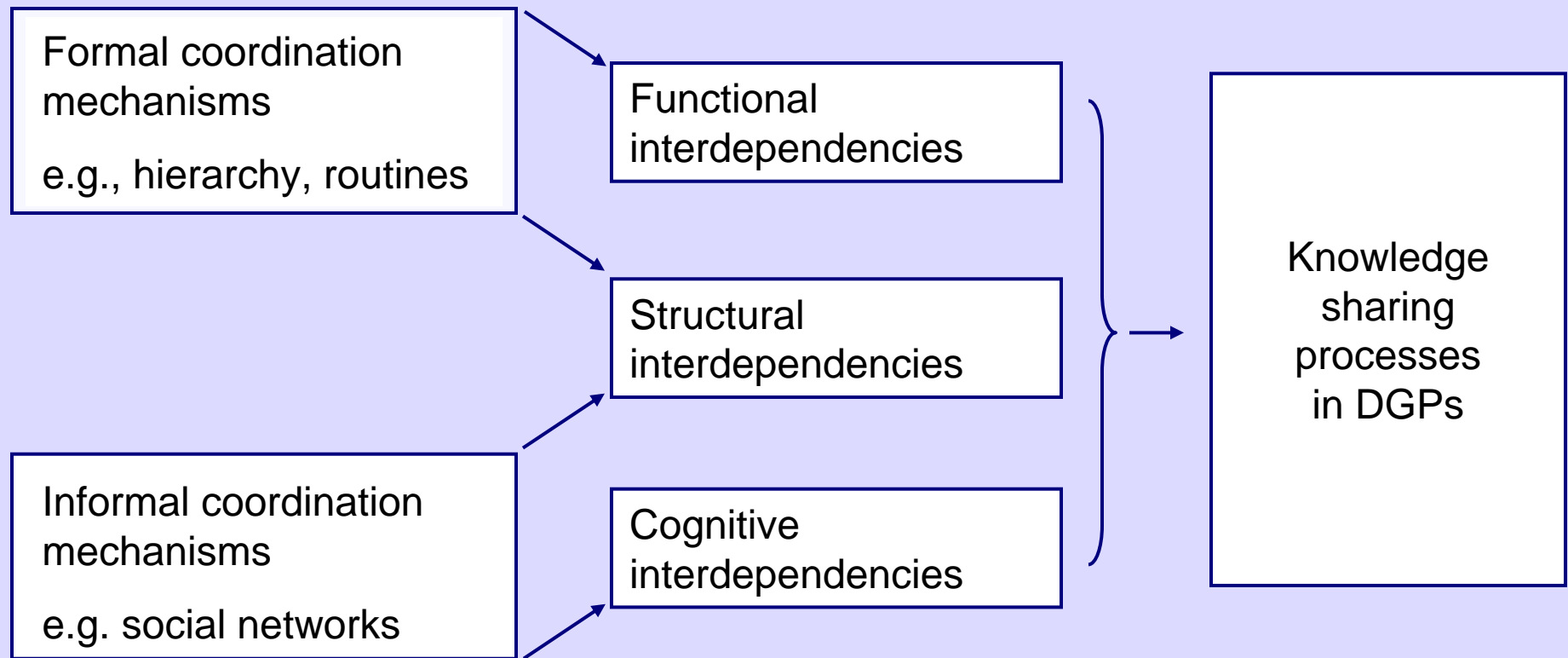
Appendix

- How is knowledge shared in DGPs?
 - What are the **objectives, modes, and influencing factors** of knowledge sharing in DGPs?
 - What role does the **cultural context** of DGPs play in their knowledge processes?
 - What are the predominant **coordination mechanisms** for knowledge sharing in DGPs?
 - **Hierarchies**: What roles do standardization, specialization, and authority play in DGPs? How does centralized/decentralized structure affect knowledge sharing in DGPs?
 - **Networks**: What are the structure and content of ties in DGPs? How do they affect knowledge sharing in DGPs?
 - **Groups**: What are the functional, cognitive, and structural interdependencies in DGP groups?

Structure

Interaction

Content

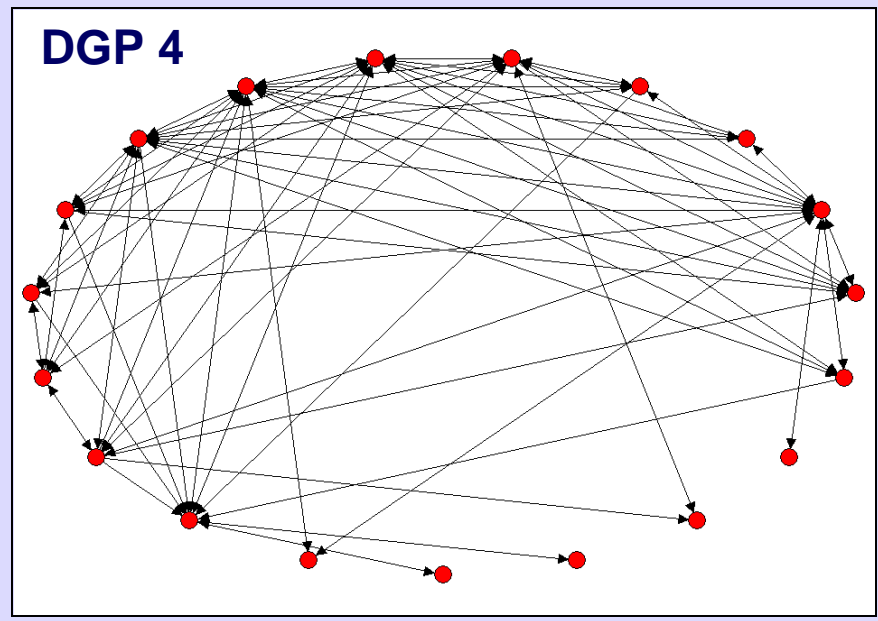
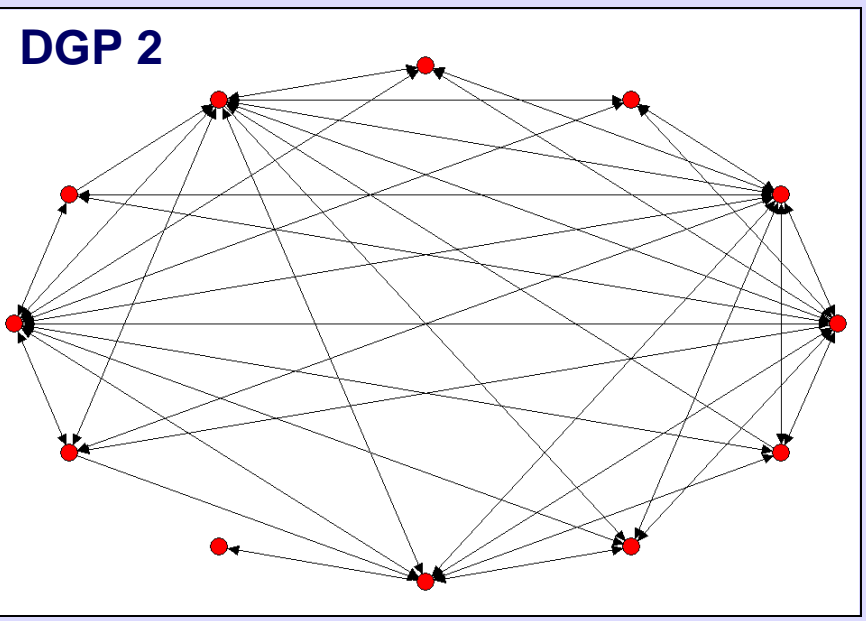
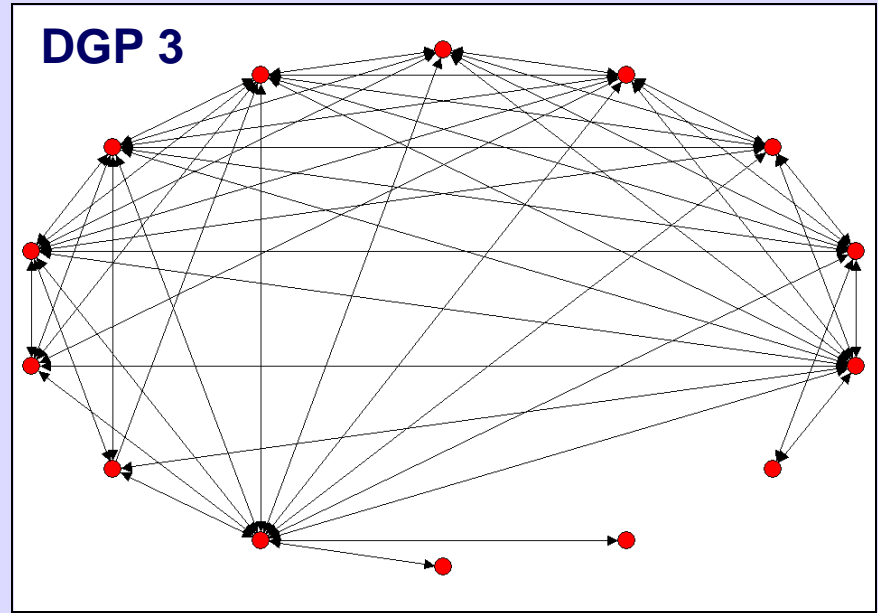
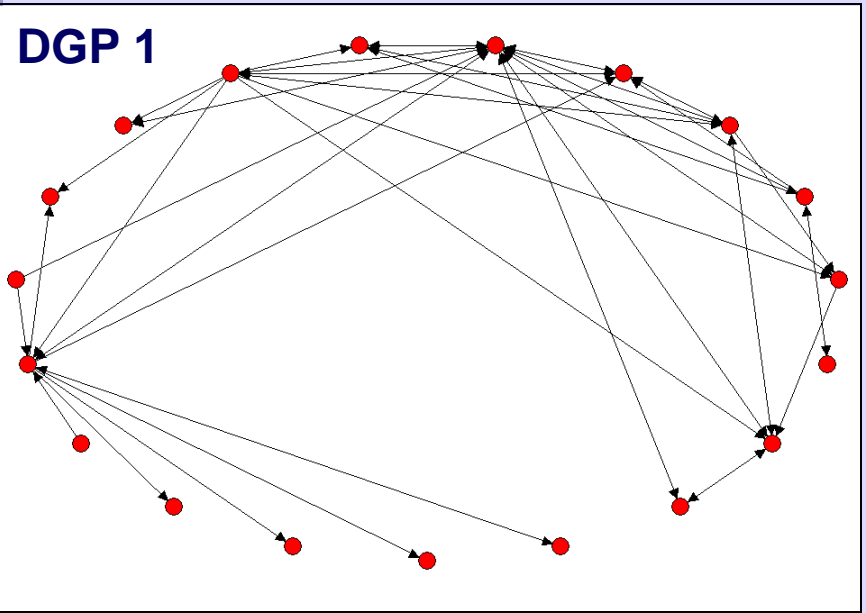


- Exploratory case study design
- Grounded theory method
- Sampling parameters for DGPs:
 - State-level government agencies in economically advanced settings with comparable jurisdictions
 - A clearly identifiable digital government project
 - Two different countries (Switzerland and the United States of America)
 - Cases in different stages of their project

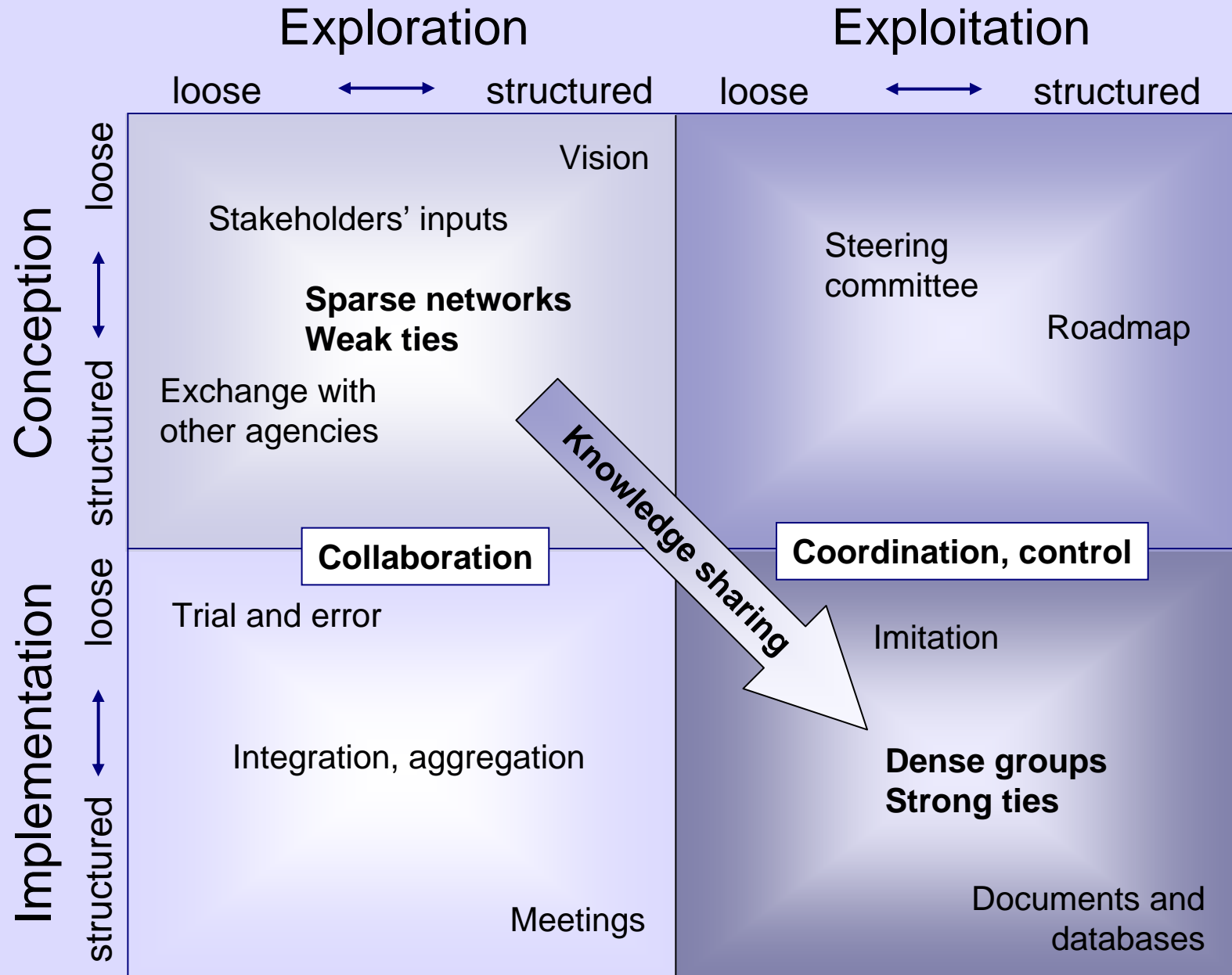
Research setting: Case overview

Case	Inter-views	Location	Project start	Portal launch	Description of group	Status (2002)
DGP 1	6	CH	2001	2003 (exp.)	Loosely connected project members	Expanding (conception)
DGP 2	5	CH	2000	2003 (exp.)	Core team of five	Ongoing (implementation)
DGP 3	8	US	2000	2002	Core team of six	Ongoing (implementation)
DGP 4	10	US	1998	2000	Members of project group part of closely-knit subgroups	Established (running)

Social networks – density of ties



Full model of knowledge sharing in DGPs



■ Research:

- Applies knowledge sharing and organizational learning theory to modern government agencies
- Contributes to public management literature by shedding light on human processes in cross-agency collaboration
- Contributes to social psychology by positioning teams in the context of their organizations

■ Practice:

- Assists public managers in an effective conception and implementation of DGPs by emphasizing knowledge sharing in cross-agency collaboration
- Gives specific guidelines for action in each stage of the project along the core categories of the model