LEARNING WITH DIFFERENCES: PROCESSES OF INTERORGANIZATIONAL COLLABORATION

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KIN²RESEARCH
The Knowledge, Information and Innovation Research Group

AGENDA

- Process theory in OLKC
- Process thinking & empirical research
- Example: making sense of capabilities in interorganizational collaboration
- Reflection

VARIANCE RESEARCH AND PROCESS RESEARCH
(MOHR 1982; LANGLEY 1999; VAN DE VEN 2007)

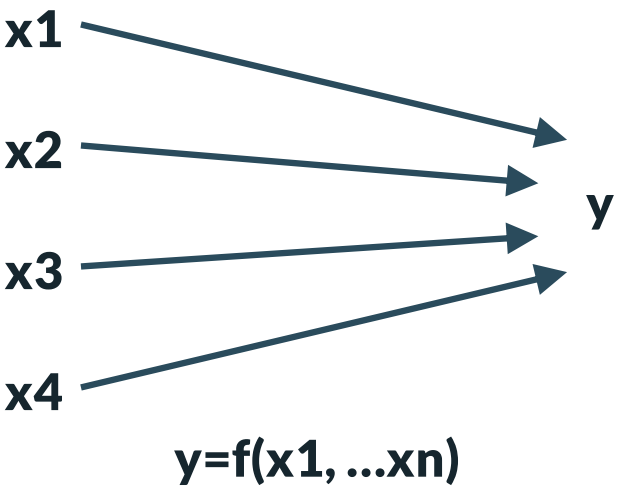
Variance research:

"What are the antecedents or consequences of the issue"

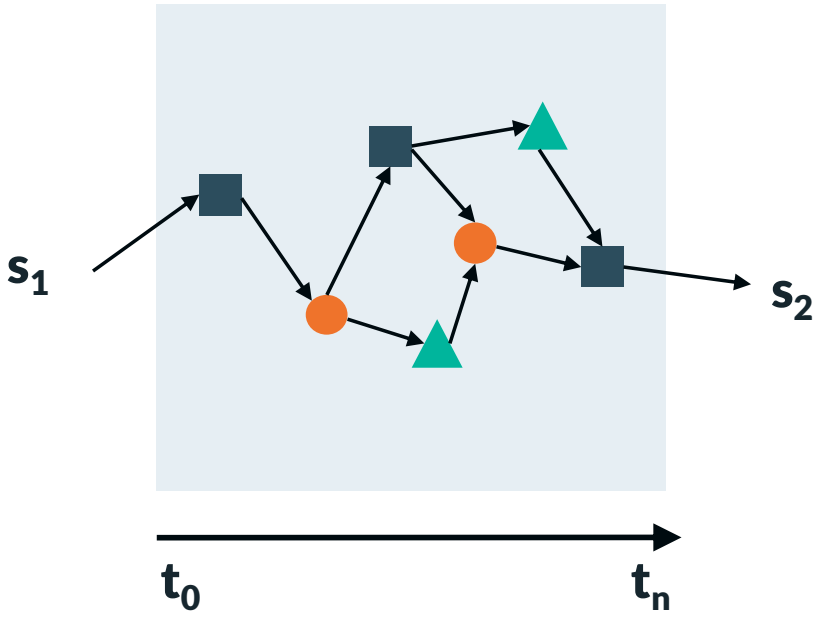
Process research:

"How does the issue emerge, develop, grow or terminate over time"

variance research



process research



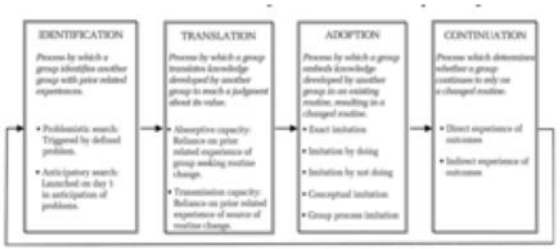
PROCESS IN OLKC

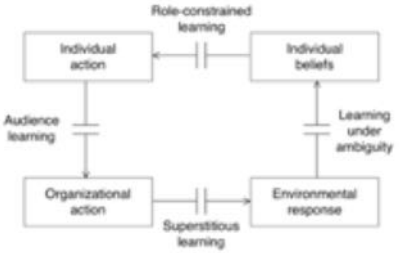
Organizational learning

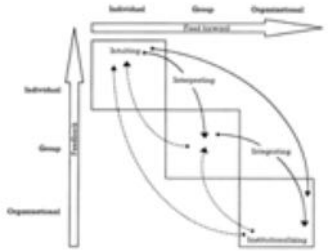
- ….as life cycle process (e.g Bresman 2013, AMJ)
- …. as teleological process (e.g. Cohen, March & Olsen, 1976)
- …. as combination of mechanisms (e.g. Crossan et al. 1999)

Knowledge processes (e.g. Van Burg, Berends, Van Raaij 2014, JMS; Thompson 2011, AMR; Ben-Menahem et al. 2016, AMJ; Malhotra & Majchrzak 2016, ISR)

Capabilities (e.g. Schreyögg & Kliesch-Eberl 2007, SMJ; Salvato 2009, OrgSci)



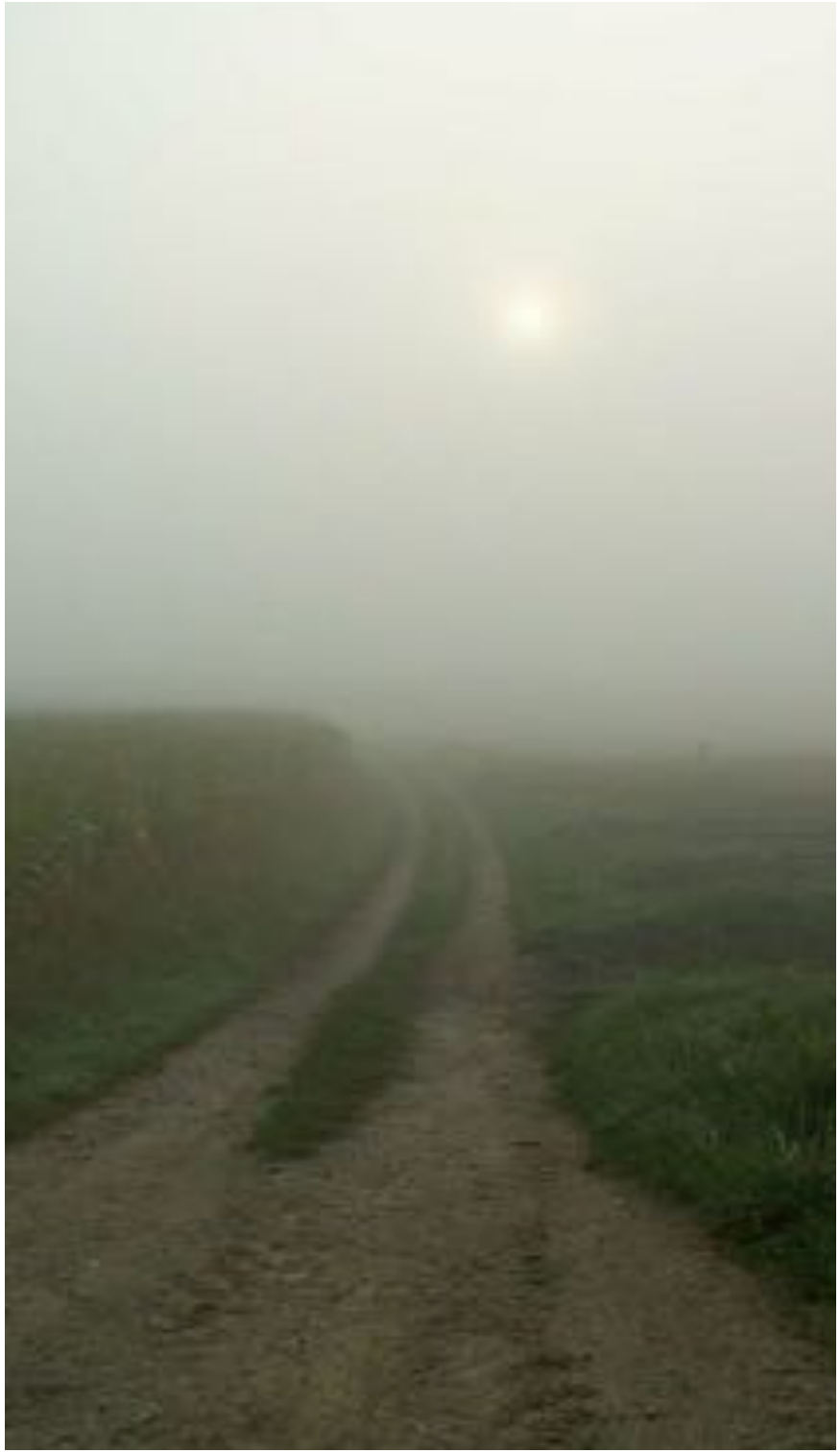




PROCESS THEMES (1)
OPEN-ENDED

- Becoming (e.g. Tsoukas)
- Creation of options and possibilities
- Effectuation, bricolage (creative use of resources) (e.g. Sarasvathy)
- Generation of uncertainty, knowledge-in-the-making
- Path creation (e.g. Garud)
- Wayfinding (Chia & Holt)

- *How to capture openness with determinate language?*
- *How to do justice to experience of openness?*



PROCESS THEMES (2): TIME

- Too often: linear models
- Iterations over time (Crossan et al. 1999; Berends & Lammers 2010)
- Temporal structures and learning (e.g. Lervik, Fahy & Easterby-Smith 2010, ML)
- Past, present, future (e.g. Hernes)
- See for review: Berends & Antonacopoulou 2014, IJMR

- *When to start & end analysis?*
- *How to account for future and past in ongoing present?*

PROCESS THEMES (3): RELATIONALITY

- Learning as relational (e.g. LPP, CoP's, Lave and Wenger 1991)
- Role of materiality
- Interdependence & learning on rugged landscapes (e.g. Gavetti & Levinthal 2000; Berends et al. 2016, SO!)
- Configuring capabilities as bundles of resources and routines (e.g. RBV; Sirmon et al. 2007)

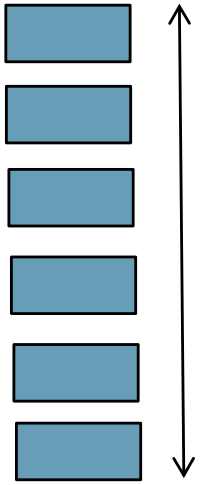
- *What to include and exclude?*
- *How to zoom in and out (Nicolini 2009)*

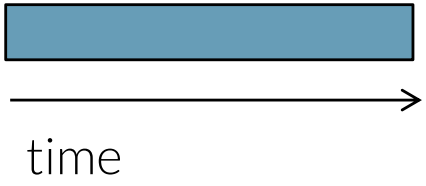
SOME CONCERNS

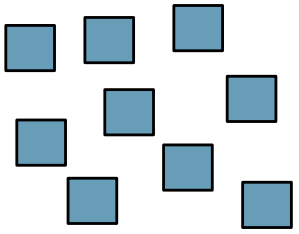
- Think process, do variance (see Thompson, 2011 AMR)
- Disconnect between theory & empirics
- Findings idiosyncratic, limited accumulation
- Emphasis on concepts (only) instead of explanation
- Confusion of types qualitative research

THREE BASIC TYPES OF QUALITATIVE RESEARCH

	Comparative Case Study	Process Research	Interpretative Research
Key author	Eisenhardt	Langley	Gioia
Structure of data	Data structured by cases	Data structured over time	Data structured thematically
Logic of Inference	Cross-case analysis (analytic induction)	Change over time	Actors' interpretations







See also Gehman et al. (2017, JMI)

GIOIA's ~~DATA STRUCTURE~~ -> CONCEPTUAL STRUCTURE

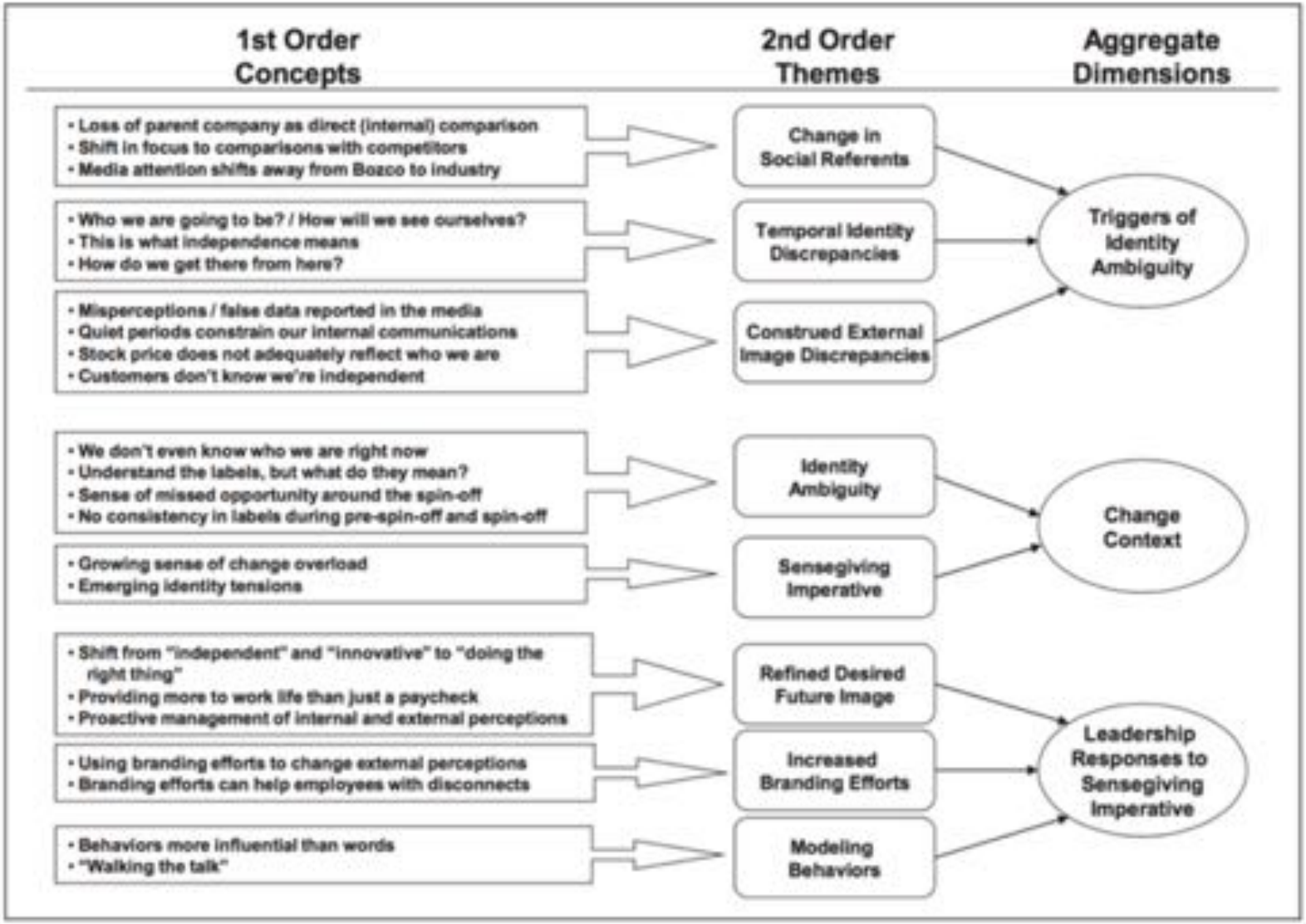
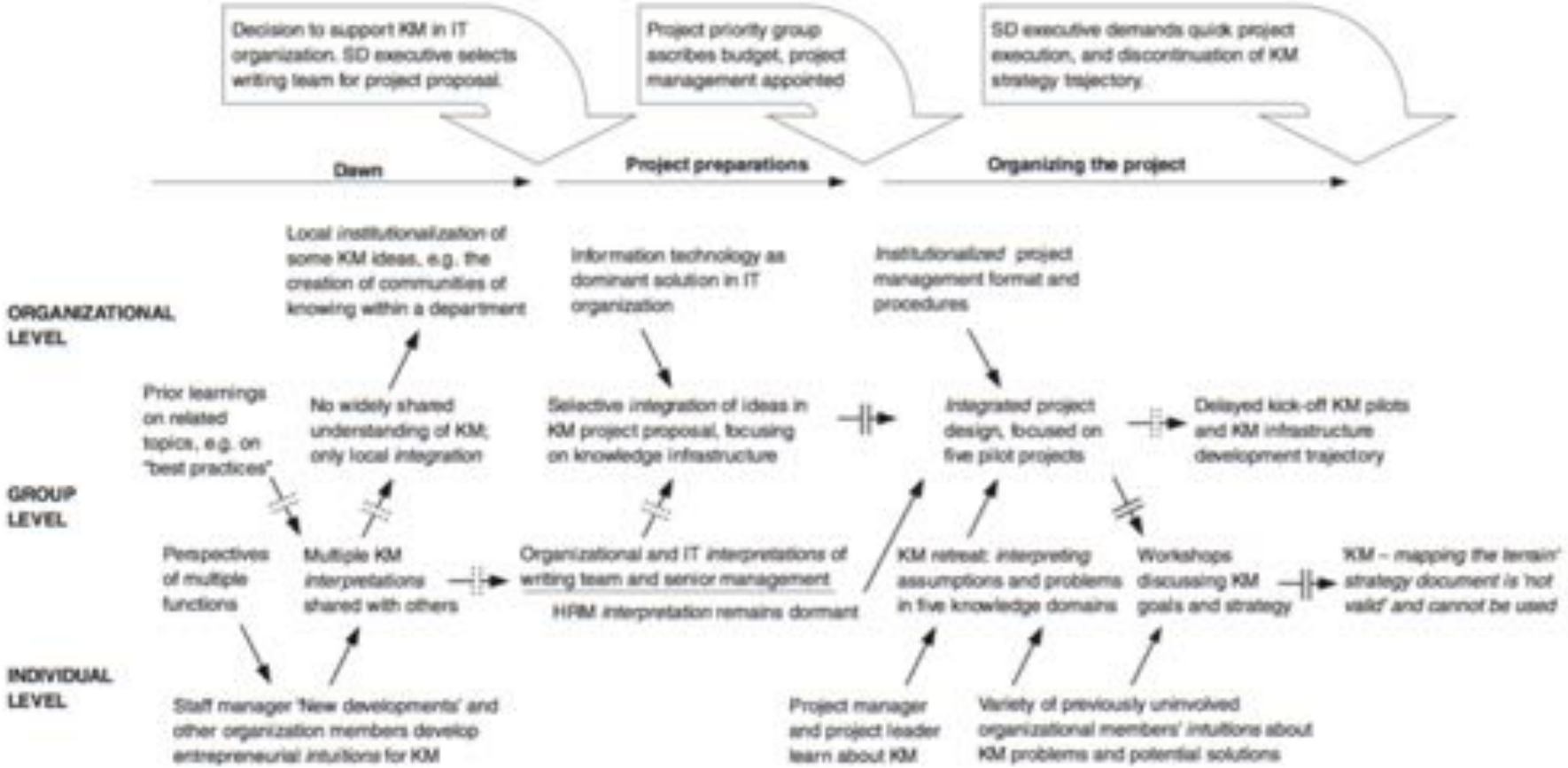


Figure 1. Data structure
Reproduced from Corley and Gioia (2004).

ANALYTICAL STRUCTURE

- Develop process theory that is **systematically supported by data**



Berends, H., & Lammers, I. (2010). Explaining discontinuity in organizational learning: A process analysis. *Organization Studies*, *31*(8), 1045-1068.

ANALYTICAL STRUCTURE

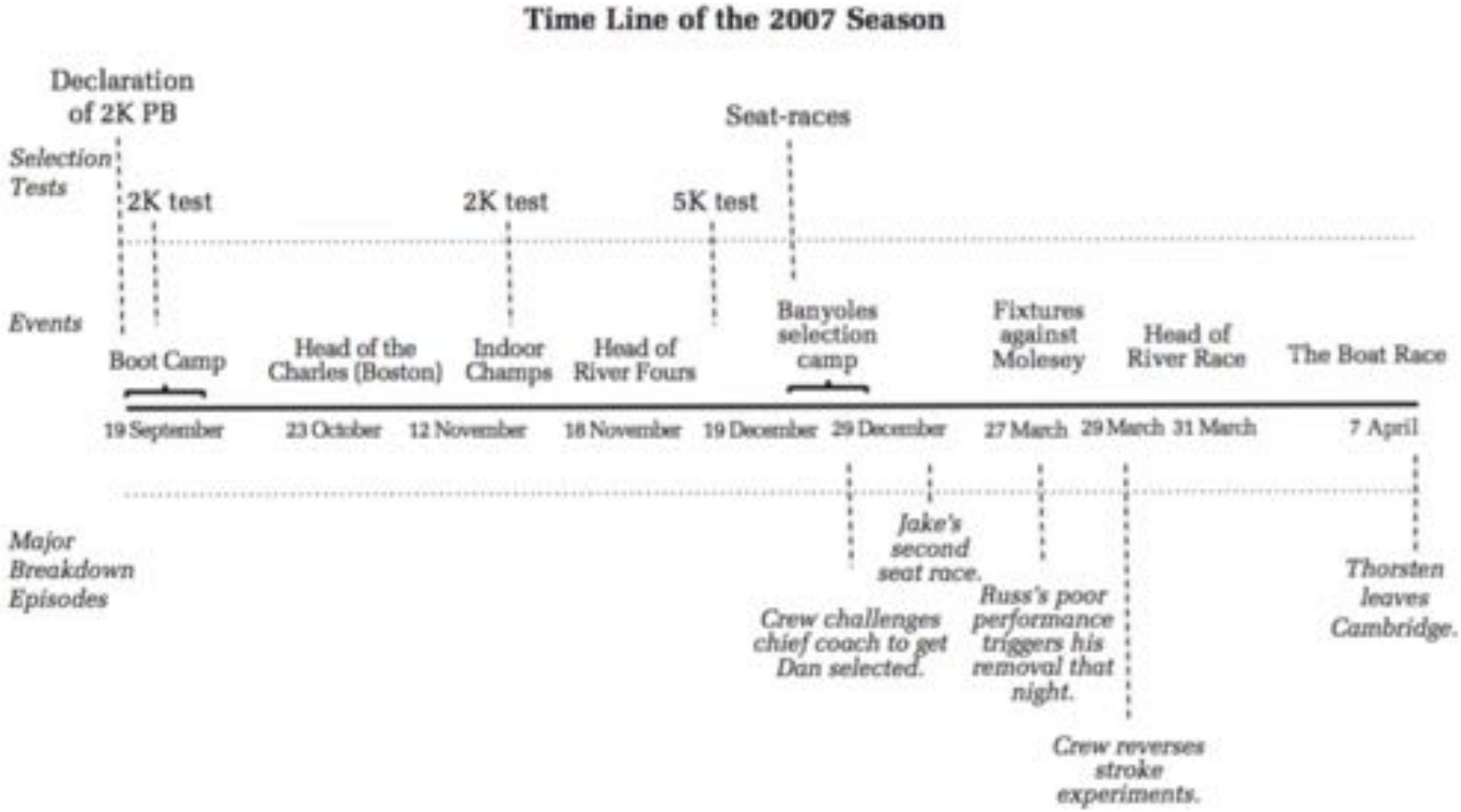
- Develop process theory that is **systematically supported by data**

- **Analytical structure:**
  the way we cut up data (data structure) …
  …. link theoretical concepts and data …
  … and use the data to make theoretical inferences

- relates to "unit(s) of analysis", but (also) temporal dimension: e.g. events episodes, incidents

- **Informed by theoretical lens**
- **Enable comparison** (for replication logic / inference)
- Can be complex, with embedded units of analysis

EXAMPLE: LOK & DE ROND (2013, AMJ)



Crew hesitates to speak out against Russ despite history of poor performance.	Stephens test.	No	Yes	No	*Self-correcting*	Crew publicly demotes Russ and replaces him with Rebecca, justified in terms of the institutional imperative.
Crew ignores and overrules coaching staff in stroke seat decision.	Authority of the coach.	No	No	Yes	*Excepting and coopting*	Decision justified on the basis that the crew knows better what is required to win the race better than the coach does, because of his incompetence.
Thorsten leaves Cambridge early after winning the race.	In statu populari rule.	No	No	No	*Formal disciplining*	Thorsten is punished by stripping of his Blue.

EXAMPLE: LOK & DE ROND (2)

Strategizing and the initation of interorganizational collaboration through prospective resourcing

Fleur Deken, Hans Berends, Gerda Gemser, Kristina Lauche

(forthcoming in AMJ; published online)

BACKGROUND

- **Interorganizational collaborations** are indispensable for innovation and strategic renewal
- RDT and RBV: organizations collaborate to get access to **complementary resources** (Pfeffer & Salancik, 1978; Eisenhardt & Schoonhoven, 1996; Teng, 2007; Lavie, 2006)
- For innovation and renewal these complementary resources usually concern **knowledge and capabilities**

- Resources are complementary when:
  - are **different** from own resources (e.g. Parkhe, 1991)
  - generate **synergy** in combination (Barney, 1991; Harrison et al. 2001)
  - offer **value in light of strategy** (Wiedner et al. 2016)

Much research assumes that strategies and dependencies on external resources can be known ex ante like missing pieces of a puzzle

Strategy defines needs (Teng 2007)

"Special insight" (Barney 1988; Barney & Arikan 2011)

Embeddedness (Granovetter 1985; Gulati 1995)

PROBLEMATIZATION

- We question this 'missing pieces' assumption
- A conundrum for managers:
  - When **resources** and what can be achieved with them are **unknown** …
  - When **potential synergies** between external and internal resources are **indeterminate**
  - When **strategy** is **not yet crystallized** …

- RQ: how do actors establish resource complementarity when initiating interorganizational collaboration for an innovative strategic initiative?

When we drop the ‘missing pieces’ assumption we need to know how organizational actors deal with this puzzle …

OUR LENS: RESOURCING

- Shift of focus from resources to **what actors do with resources** (Feldman, 2004; Howard-Grenville, 2007; Sonenshein, 2013; Wiedner et al. 2017)

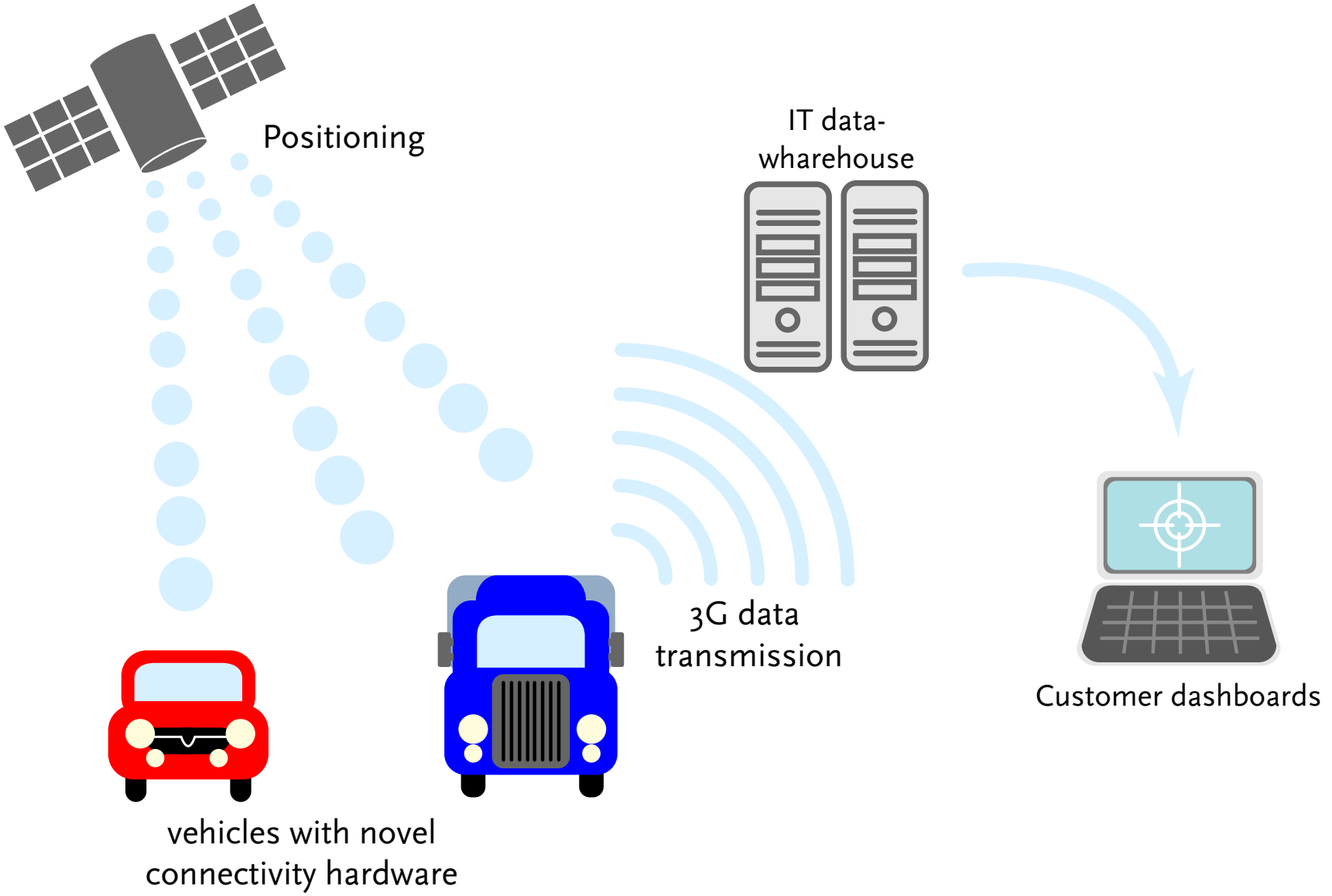
- **"Resourcing"** refers to the process through which actors **create resources from objects** to accomplish their goals (Feldman, 2004)

- Resourcing emphasizes that:
  - assets have **no inherent value**
  - the value of resources only exists **'in use'**
  - the same asset can be 'resourced' in different ways

METHODS

- Field study at AutoCo
- Ethnographic methods (>17 months)
- Focus on micro-actions to identify how actors use resources (Feldman & Orlikowski, 2011)
- Process research (Langley, 1999; Poole et al. 2000)
- Analysis:
  - Event list (276 events) and case narrative (50 pages)
  - Inductive coding of progress on content of initiative
  - Inductive theorizing of process

STRATEGIC INITIATIVE 'CONNECT'



INITIAL OBSERVATIONS

- Many early interactions with potential external partners
- Preferences for potential partners shift suddenly along the trajectory
- A mess according to people involved:

[Ron]: I prefer to go more into detail here –

[John]: Well, that is OK. But at the end of the day, we need to have the feeling that –

[Ron]: We at Purchasing do many large projects and we always use the [routine] with detailed criteria. I wonder how much you already know about the details here. If you just use your feelings and impressions, it is a slippery slope –

[John]: Well, I don't want to take down your [routine] or the entire Partner Selection process for that matter, but if we use your [routine], we will end up with the conclusion that we can use all the partners on the short list. Then what? –

[Lynn]: Then we focus on the *total costs*. –

[John]: No, I already told you before, I am not going to follow that approach here –

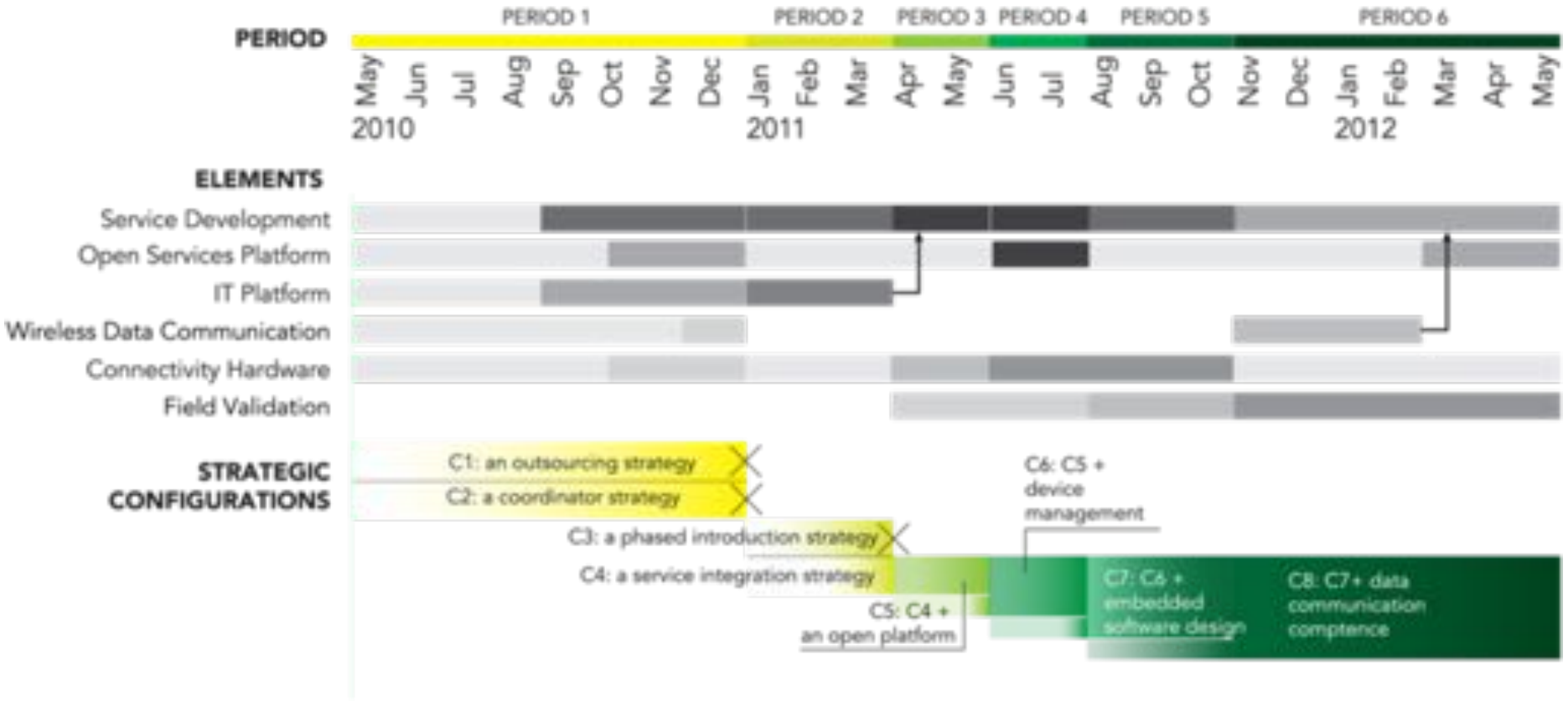
[Lynn]: Well, then I don't know what I am doing here [starting to gather his papers]

[John]: I don't know either. [..] –

[Lynn]: Goodbye then [Ron and Lynn leave the meeting]

See also Deken et al. 2016, Org Science

STRUCTURE IN A MESSY PROCESS



INTERACTING WITH ITCORP (PERIOD 2)

TIME

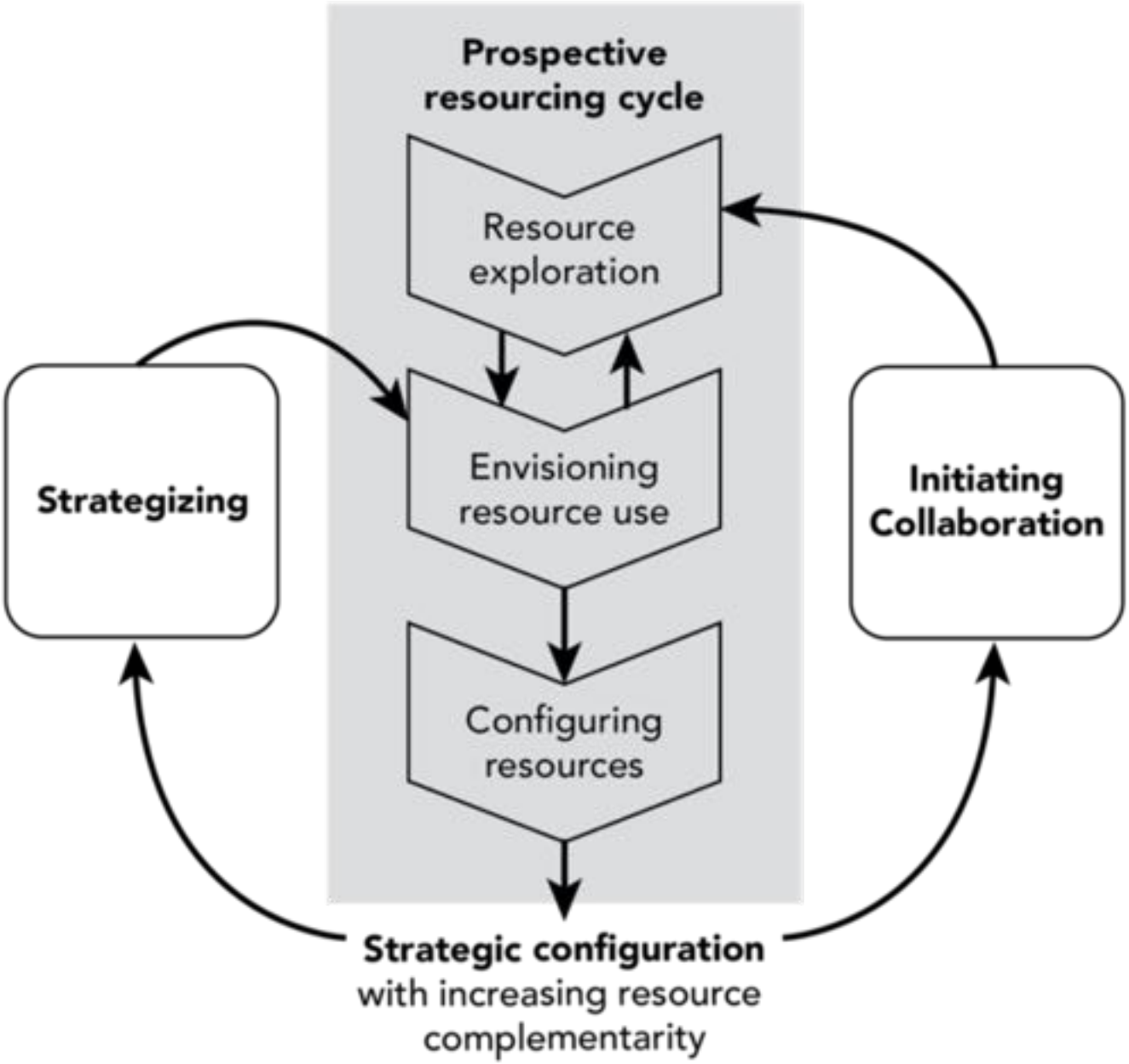
ITCorp manager discusses their recently developed data analytics technologies with AutoCo's Director Business Development, resulting in a workshop by ITCorp:

"I told [them] to surprise us with their tools. To show that they can do more than we can think of".

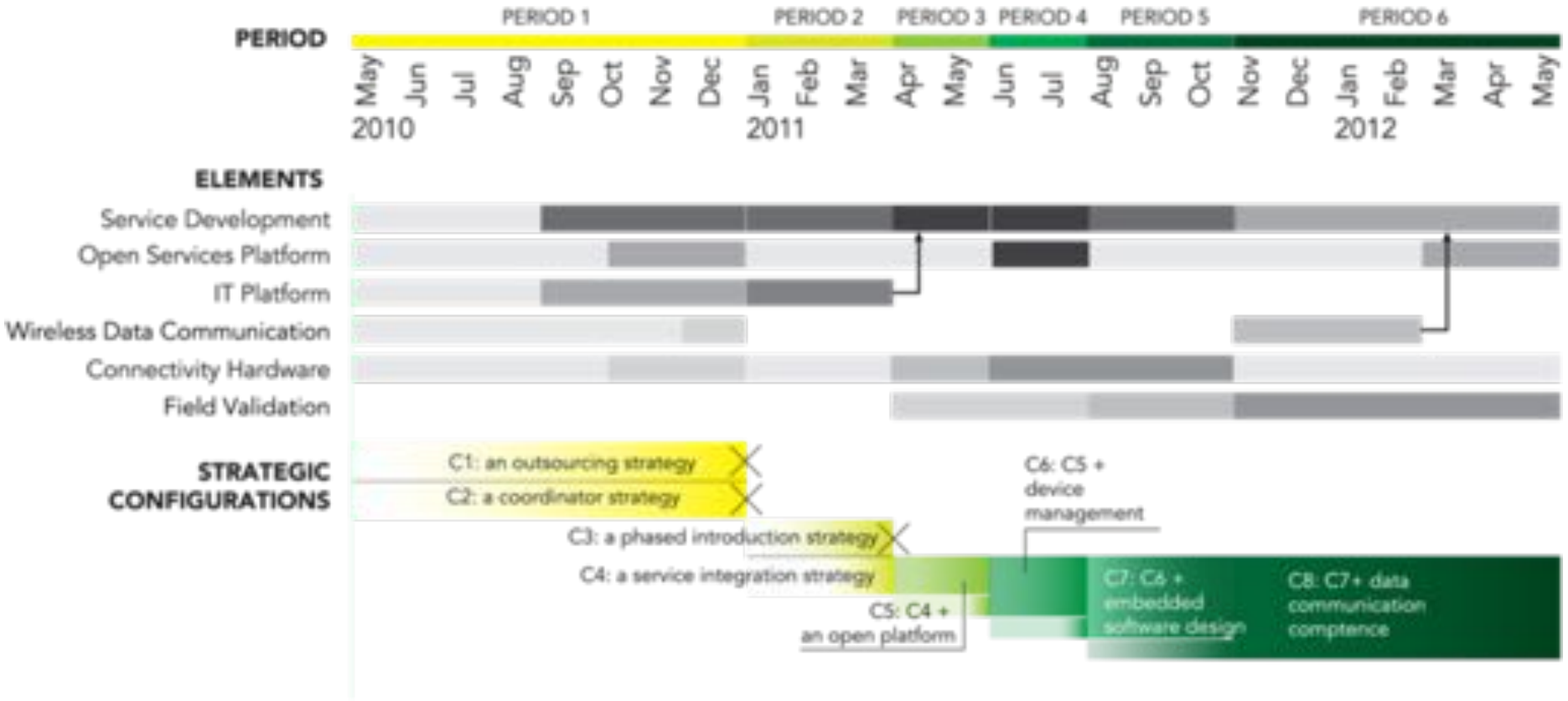
ITCorp emerges as preferred service development partner, linking the IT platform through their analytics

"we need to use the cases in our presentation [for the Board] that ITCorp used in their workshop" … "[ITCorp is] ahead of the game with analytics tools. They have everything in-house that we need […] and they have so much experience!"

-→ C4 SERVICE INTEGRATION STRATEGY


Prospective resourcing cycle
Resource exploration
Envisioning resource use
Configuring resources
Strategizing
Initiating Collaboration
Strategic configuration
with increasing resource complementarity

STRUCTURE IN A MESSY PROCESS



Period 2 (Jan 2011 - Mar 2011)		
Resource exploration	**Envisioning resource use**	**Configuring resources**
Example 2a (IT platform): Together with TechCom the strategy team explored how they could capitalize on AutoCo's existing resources (such as existing **IT systems** and **vehicle sensors)** to launch (parts of) the initiative in the market as soon as possible. During three subsequent workshops, the strategy team and TechCom jointly investigated which adjustments had to be made to AutoCo's existing **IT systems** to start implementing their initiative and upgrade to a full-fledged version later. Furthermore, they explored which analyses and services TechCom could develop based on AutoCo's internal resources in two daylong workshops.	Example 2a (continued): As a strategy team member argued: *"TechCom helped us to find out how we can grow from using our existing **IT systems** in subsequent phases"*. The strategy team evaluated these insights during half-day long meetings to decide, for example, which regions and customer segments they should prioritize for a phased introduction of the initiative to best meet their strategic objectives.	Example 2a + 2b (continued): The interactions with potential partners TechCom and HardCo in particular, informed the emerging strategy which the strategy team started referring to as the 'phased introduction' (C3), where they aimed *"[for] maximum carry over from existing **IT systems**"*. Yet one month and many interactions later, the strategy team saw more problems than opportunities regarding this configuration. ***Strategic configuration 3 (C3)***: 'A phased introduction strategy', which emphasized leveraging existing internal resources (such as existing **IT systems** and existing **vehicle sensors**) and existing partnerships, such as with TechCom. Although this was the quickest option in terms of time to market, the strategy team concluded after much exploration with internal and external people that this combination of resources would not enable them to realize their strategic objectives. By the end of Period 2, this strategic configuration was discounted. HardCo was the only potential partner that could build **connectivity hardware** that could easily be retrofitted into AutoCo's existing vehicle design; existing partner TechCom was considered for adapting AutoCo's existing **IT platform**. In parallel, an alternative configuration was developed: ***Strategic configuration 4 (C4)***: 'service integration strategy', which emphasized using **data analytics** as a catalyst for service development (see explanation in the case narrative Period 2). Through collaborative resource exploration with ITCorp, the strategy team had developed a preference for ITCorp as a 'service integrator' partner. Various **connectivity hardware** partners were considered in this configuration. In Period 3, the strategy team continued developing the service integration configuration (C3).
Example 2b (Connectivity hardware): Based on the responses to the 'Request for Proposal' received in Period 1, the strategy team could quickly review the proposals to identify which potential **connectivity hardware** partners had solutions that became closest to what they felt would help them to realize the full initiative. They considered HardCo as the only potential partner. During subsequent episodes of collaborative resource exploration with HardCo, the strategy team learned about the details of what functions HardCo's **connectivity hardware** could enable. As HardCo mentioned in an email to the strategy team: *"[Thus] the main questions that need to be answered are, how feasible are these scenarios [i.e., the different phases in launching the initiative] and how does that impact the costs and timing of development."*	Example 2b (continued): The strategy team realized that HardCo had developed their **connectivity hardware** in a way that would support developing the services they envisioned for their customers. In particular, they were alerted to the importance of the **embedded software** on the **connectivity hardware** as a key aspect of the external resources they needed: *"What they can currently offer is much more advanced compared to the other fifteen [potential partners]. They have created **software** for their **connectivity hardware** that we can directly use [...] Although **software** isn't their core competence, they have made this pre-investment so companies like us can use it as a stepping stone."*	

INTERACTING WITH IT CORP (PERIOD 3)

TIME

ITCorp also proposes a framework for involving third party service developers on an open services platform that the Strategy Team envisioned.

"What really surprised me [...] is that they have this SDK framework already integrated with their analytics tools that can help [third party service providers] to quickly create new apps, and that makes the development process very flexible. And they have already developed this framework!"

→ C5: SERVICE INTEGRATION WITH OPEN STRATEGY

DEVICE MANAGEMENT (PERIOD 4)

- Besides ITCorp, TechCom and ITDevelop are also asked to develop a proposal for IT integration.

"[TechCom's] people realize what an enormous effort is required [for device management]. But we really lack a clear plan, our people think "our IT department can do that", but unfortunately, it's not so simple"

"the robustness of the ITCorp platform for device management is [indeed] a huge issue".

- ITCorp's proposal fell short—especially on device management. TechCom becomes preferred partner. ITCorp is discounted, leaving them very disappointed.

"We certainly won't be doing a project with AutoCo any time soon."

OVERALL ANALYSIS

- Multiple cycles of prospective resourcing, punctuated by moments of reconfiguration
  - Triggered by discovery of interdependencies
  - New potential partners gain prominence after reconfigurations
  - Value of resources depends on strategic configuration
- Iterations
  - progressing (from naïve and simple to well-specified and complex)
  - 'amplitude' of change diminishes
- Differences between elements
  - Less novel elements progress more smooth (e.g. connectivity hardware)
  - More novel elements progress more difficult (e.g. IT integrator)
  - Addressing novel elements first enabled progression over time

CONTRIBUTIONS (1): INTERORG. COLLABORATION

- **complementarity** between capabilities **is created over time** through prospective resourcing, rather than determined ex ante through superior managerial foresight
- **reverses the prevailing logic** that strategy is an initial condition that precedes and determines collaboration.
- **against** the prevailing **"missing pieces" assumption** in the literature
- can backfire when partners' **frustration** mounts

CONTRIBUTIONS (2): STRATEGIZING

- prospective resourcing as specific mechanism for **emergent strategy**.
- "part– whole" dynamics when combining resources result in **radical reorientations** in strategy content
- Depend on external actors's knowledge and capabilities to identify **interdependencies**
- **external actors shape strategizing**, not only as source of ideas
- **strategic behavior** of focal firm and its potential partners in the strategizing process

CONTRIBUTIONS (3): RESOURCING

- emphasize **the strategic significance** of resourcing : how resources get value
- show how **practice perspective** offers additional insight into **resource-based perspectives**.
- more **distant external resources** requires more (prospective) iterations to mutually align objectives with internal and external resources
- to **bundle resources**, actors need to explore new uses in combination with other resources to create synergy.

REFLECTIONS

- Learning with differences
- Illustration of process themes:
  - Open-endedness; iterations; relationality
- Analytical structure:
  - emergent
  - study-specific
  - focused on content as well as process
  - enabled comparison (replication logic)


THANK YOU !
More Process?
PROS
AOM PDW Process Research
PHD Course ‘Process Research Methods’