

“In construction we are strong at managing the status quo... but change is headed at us like a fast-moving train, whether we are ready for it or not.”

— *Dr. Barbara Jackson, It's Broken, and It's Time to Fix It* (2021)

# From One-offs to Roll-outs

Navigating Organizational Tensions in Product Platform Development towards Industrialized Construction

Eefke Huisman

5503418

---

P5 presentation

18-06-2025

# Table of contents

Introduction



Literature



Methodology



Findings



Discussion



Conclusion



A large construction site is visible in the background, featuring a prominent yellow lattice-boom crane and a building under construction with scaffolding and steel beams. The sky is overcast with grey clouds.

# Introduction

1

## Why?

Research  
industrialized  
construction

---

# Context

Terwijl de wooncrisis voortwoekert, sneuvelt het  
ene na het andere nieuwbouwproject

*Het Parool, Sept 2023*

**Honderdduizenden  
nieuwbouwwoningen in  
gevaar door stikstof: 'Tijdbom  
is zichtbaar'**

*Het Parool, March 2025*

 **'Vol stroomnet en  
bureaucratie zetten streep  
door 1 miljoen woningen voor  
2030'**

*De Telegraaf, July 2024*

**Opinie FNV: 'Hoe wil het kabinet  
100.000 woningen bouwen zonder  
vaklui?'**

*AD, Dec 2024*

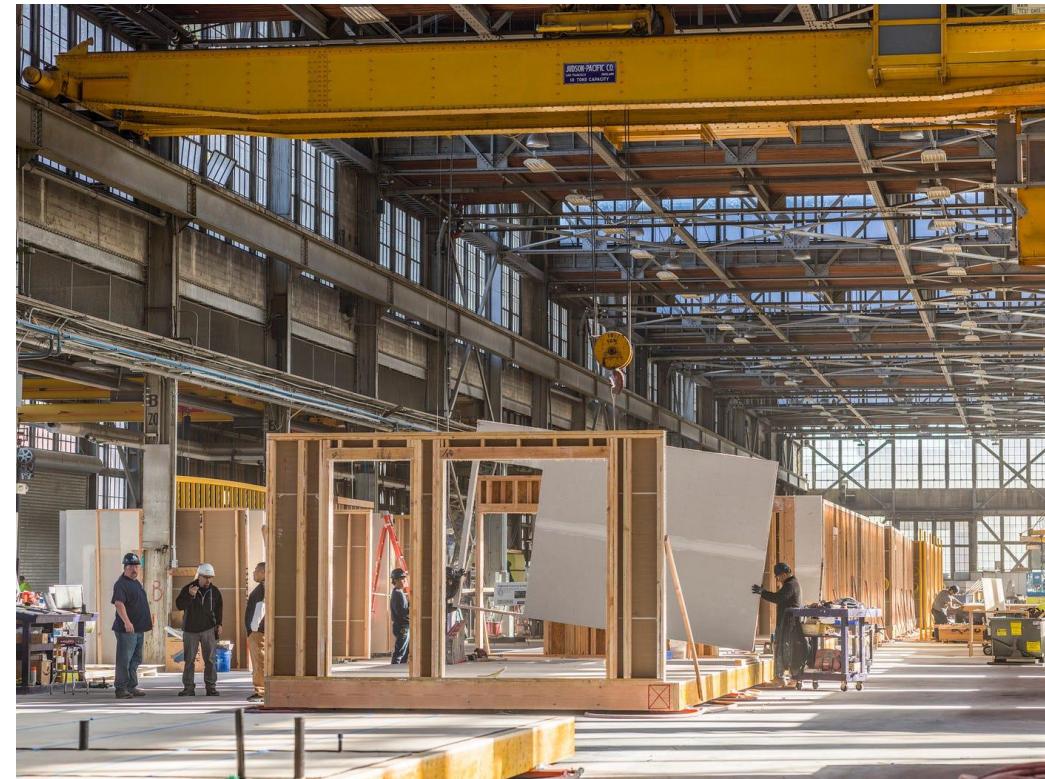
**Twee op de drie ondernemers  
kampen met  
personeeltekort: bouwsector  
het hardst geraakt**

*De Telegraaf, May 2025*

**Schreeuwend tekort aan woningen en hoge  
huizenprijzen: hoe is het zo gekomen?**

*De Volkskrant, July 2024*

# Sector transition



## Shift towards industrialized construction

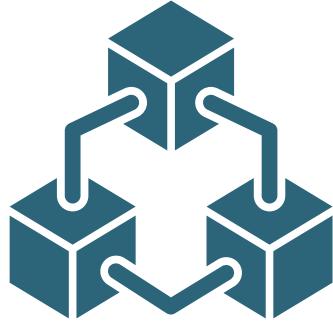
Off-site manufacturing

Product-orientation

Standardization

Efficiency and control

# Problem statement



Product platform development



Organizational barriers

# Case introduction



- Innovation unit of VORM Holding, focused on scalable and sustainable housing
- Industrialized construction principles to reach ambition of building **20% cheaper 50% faster**
- Shifting from project-oriented to **product-oriented** business model
- 80% standardized 20% customization



**The strategy...**

Standardized  
floorplans

Prefabrication  
(façade, structural  
shell, bathrooms)



Fixed network of  
partners

Internal process  
development

# Research question

“What is the role of **organizational practices** during **product platform development** in a construction company’s transition towards industrialized construction?”

# Sub questions

1

What **organizational practices** shape the transition of construction companies from traditional to industrialized construction?

How do these practices **interact** with the principles of **platform-based industrialized construction?**

Which **practical recommendations** can support construction companies in their transition?

# Sub questions

1

What **organizational practices** shape the transition of construction companies from traditional to industrialized construction?

2

How do these practices **interact** with the principles of **platform-based industrialized construction?**

Which **practical recommendations** can support construction companies in their transition?

# Sub questions

1

What **organizational practices** shape the transition of construction companies from traditional to industrialized construction?

2

How do these practices **interact** with the principles of **platform-based industrialized construction?**

3

Which **practical recommendations** can support construction companies in their transition?

# 2

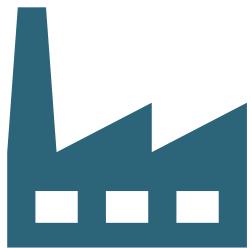
## Theoretical background

### What?

Concepts guiding  
the research

---

1



Industrialized construction

2

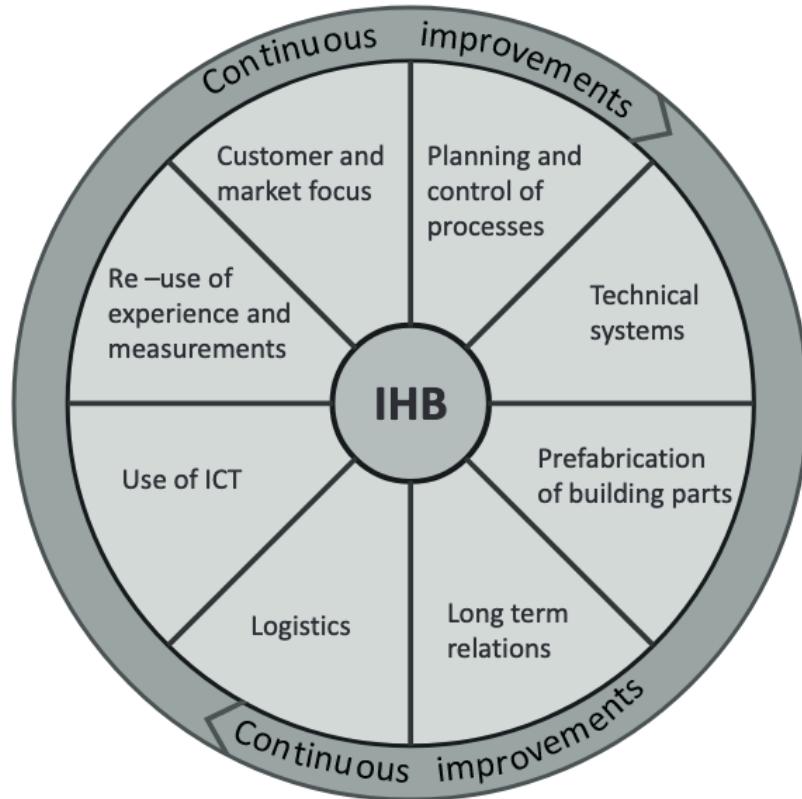


Change management

Product platform

Paradox theory

# Industrialized construction



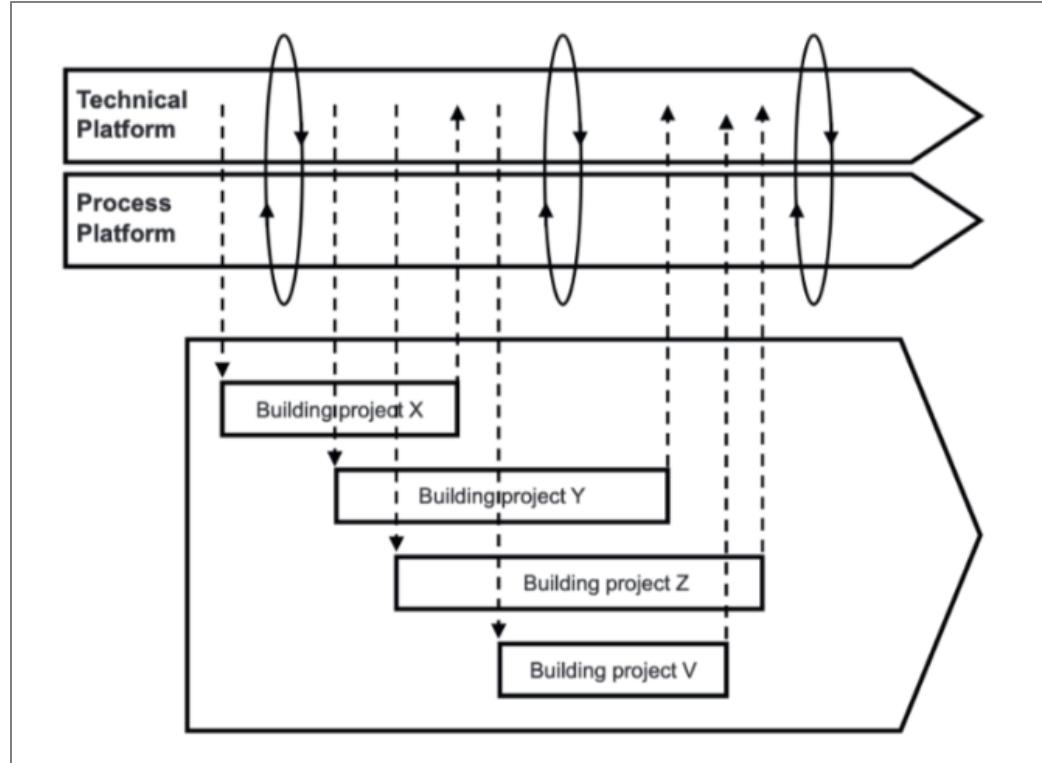
Industrialized house-building (source: Lessing, 2006)

Integration of **technical, organizational**, and **supply chain** elements

Key elements include:

- Standardized processes
- Reuse of knowledge
- Digital tools
- Logistics
- Long-term partnerships

# Product platform

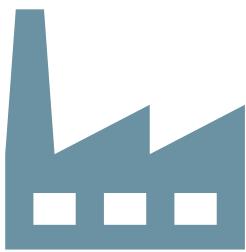


*Interplay between technical and process platform (source: Lessing, 2006)*

Combines **technical components** (e.g. prefab bathrooms, standard floorplans) with **organizational processes** (e.g. workflows, decision-making)

Lessons learnt from **individual projects** inform ongoing development of the platform

1



Industrialized construction

2



Change management

Product platform

Paradox theory



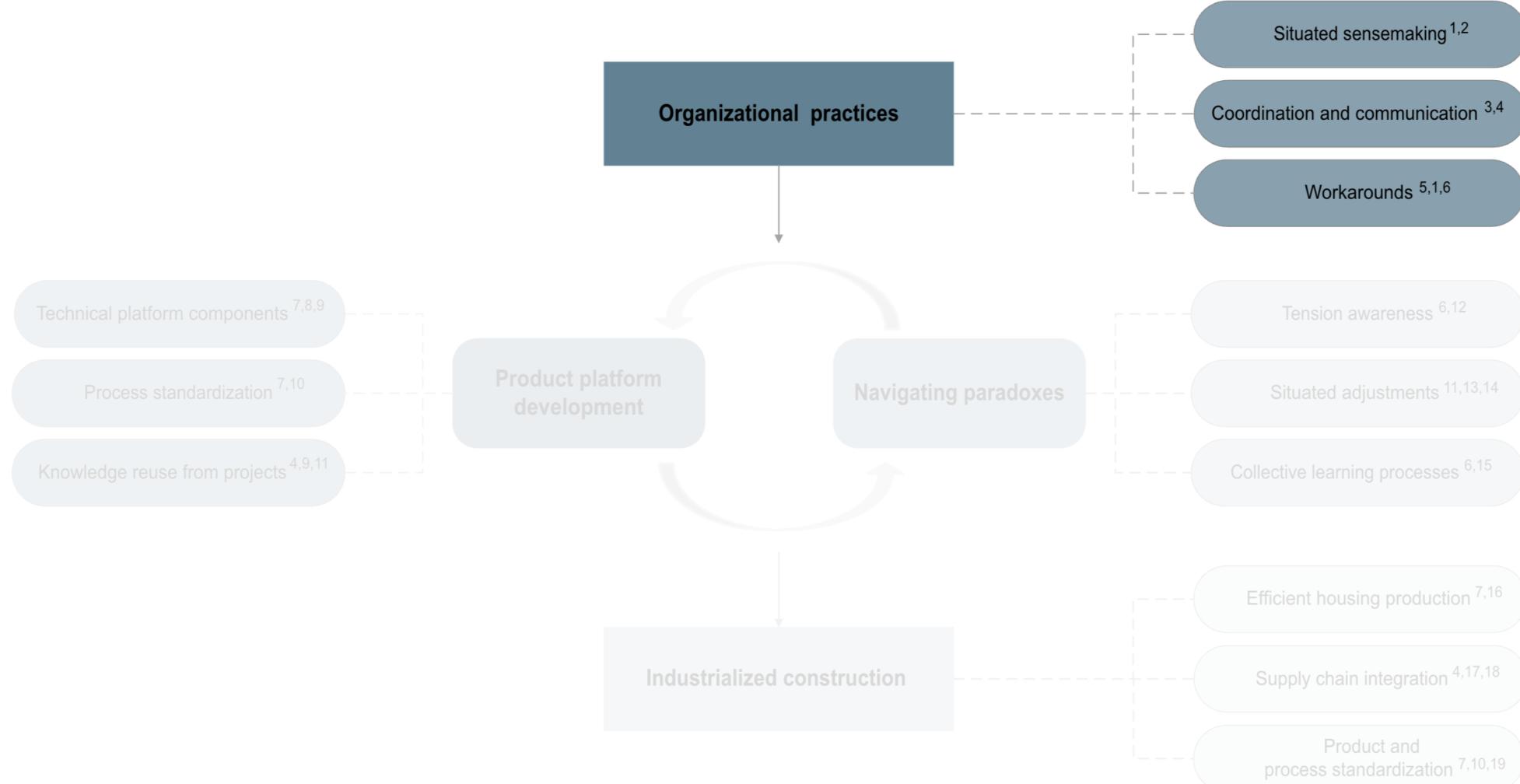
# Paradox theory

Change is shaped **practices**; by how people act, coordinate, and interpret in everyday work

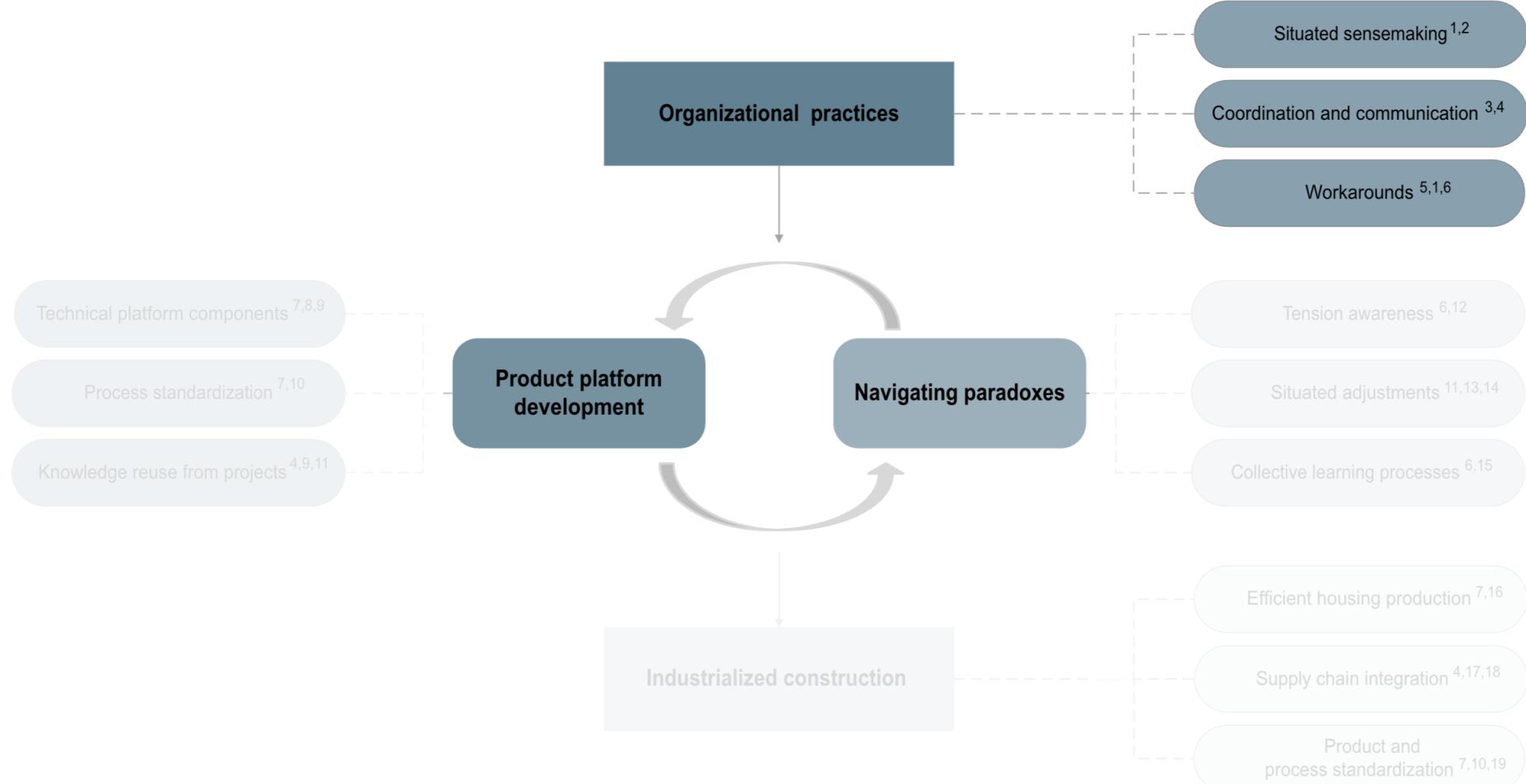
Platform development involves **tensions** (e.g. standardization vs. flexibility)

**Paradox theory** shows change is not linear, it requires collective sensemaking and learning over time

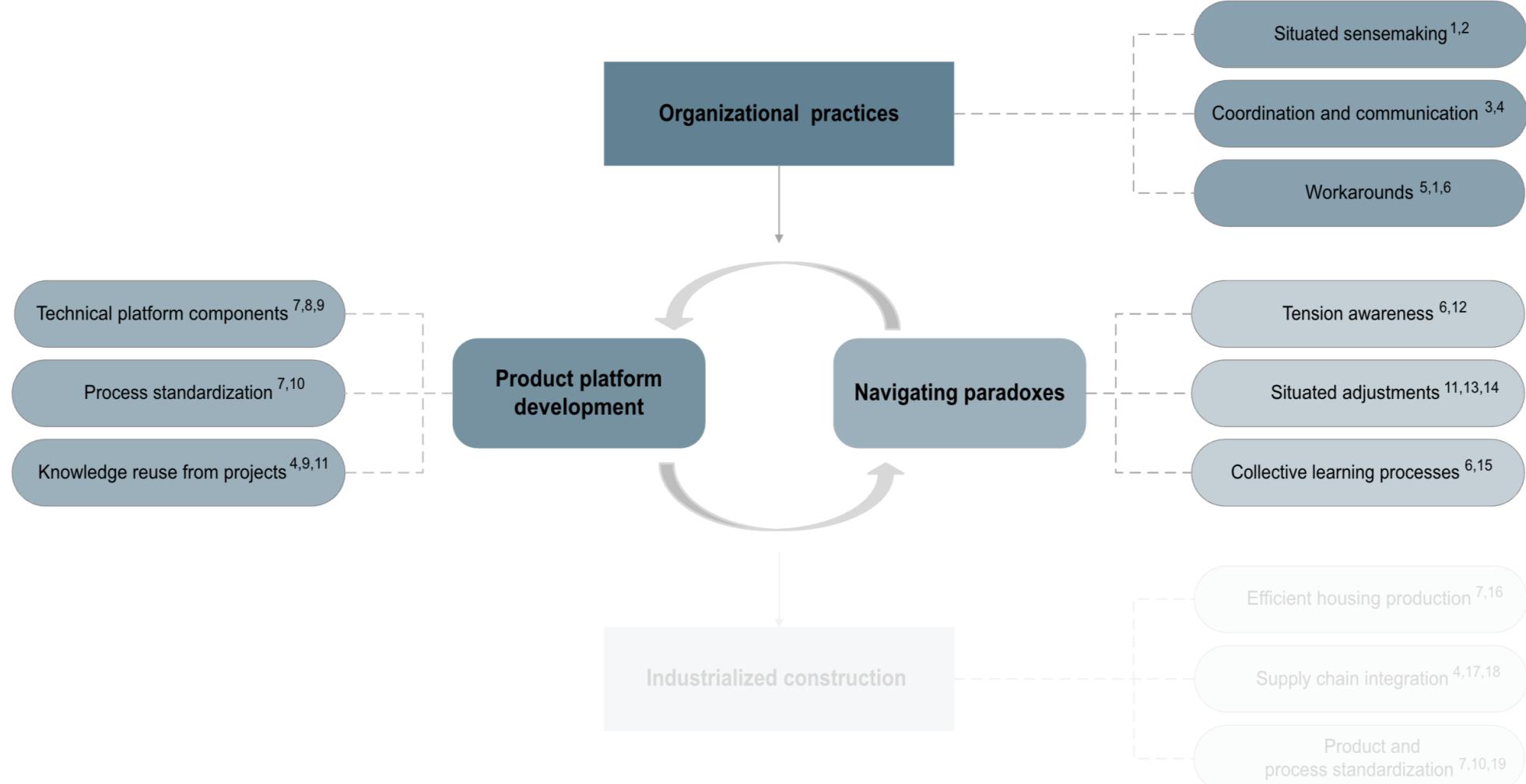
# Conceptual framework



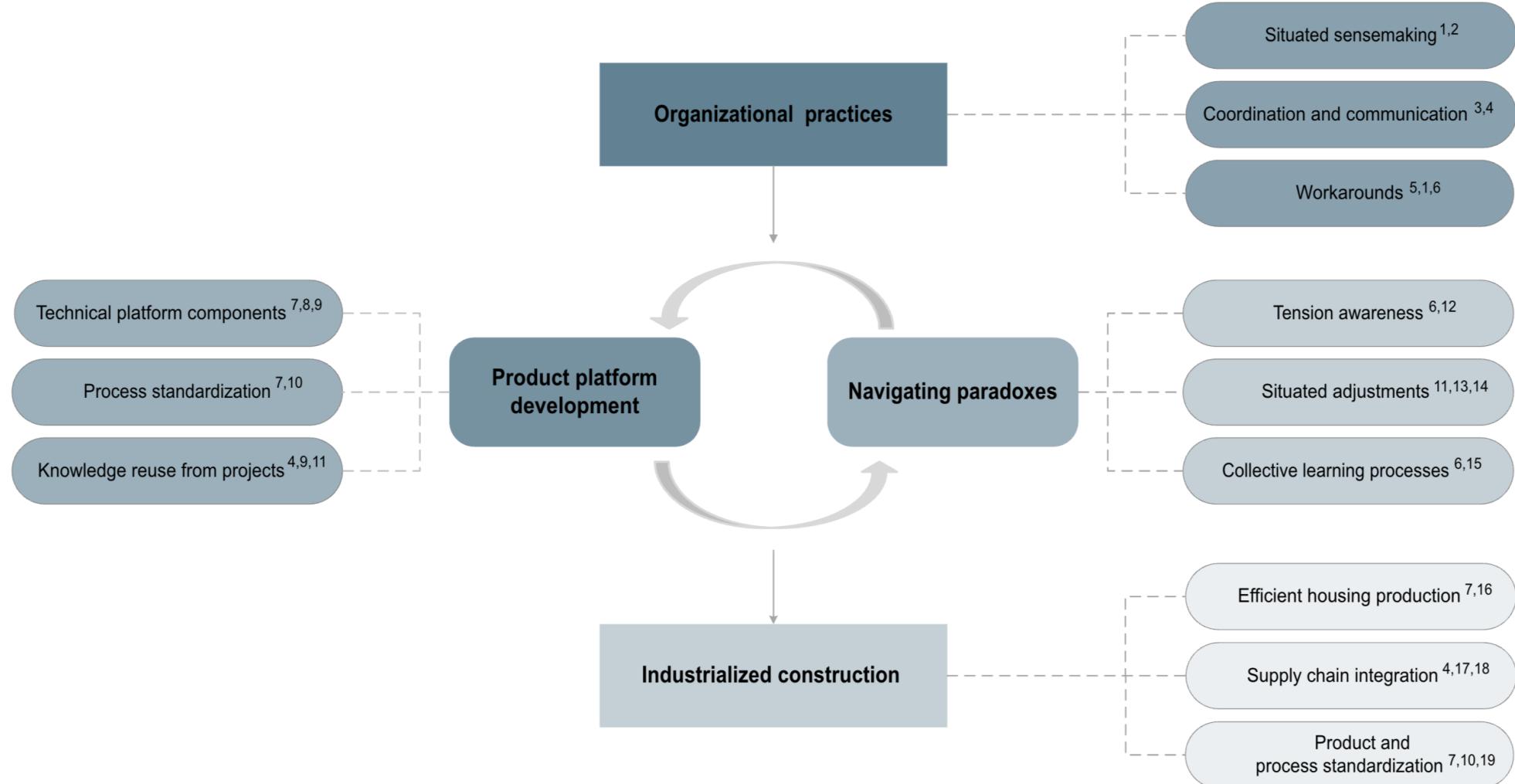
# Conceptual framework



# Conceptual framework



# Conceptual framework





# Research method

# 3

**How?**  
Execution of the  
research

---

# Methodology

Research questions	Type of study	Method
RQ 1 Organizational practices	Qualitative research through abductive single-case study	Semi-structured interviews & organizational ethnography
RQ2 Interaction of practices & product platform	Qualitative research through abductive single-case study	Semi-structured interviews & organizational ethnography
RQ3 Practical recommendations	Practice-based reflection	Focus group workshop

# Data collection



## Internship

5 months  
4 days a week



## 79 observations

15	Strategic meetings
29	Project coordination
35	Informal conversations



## 24 interviewees

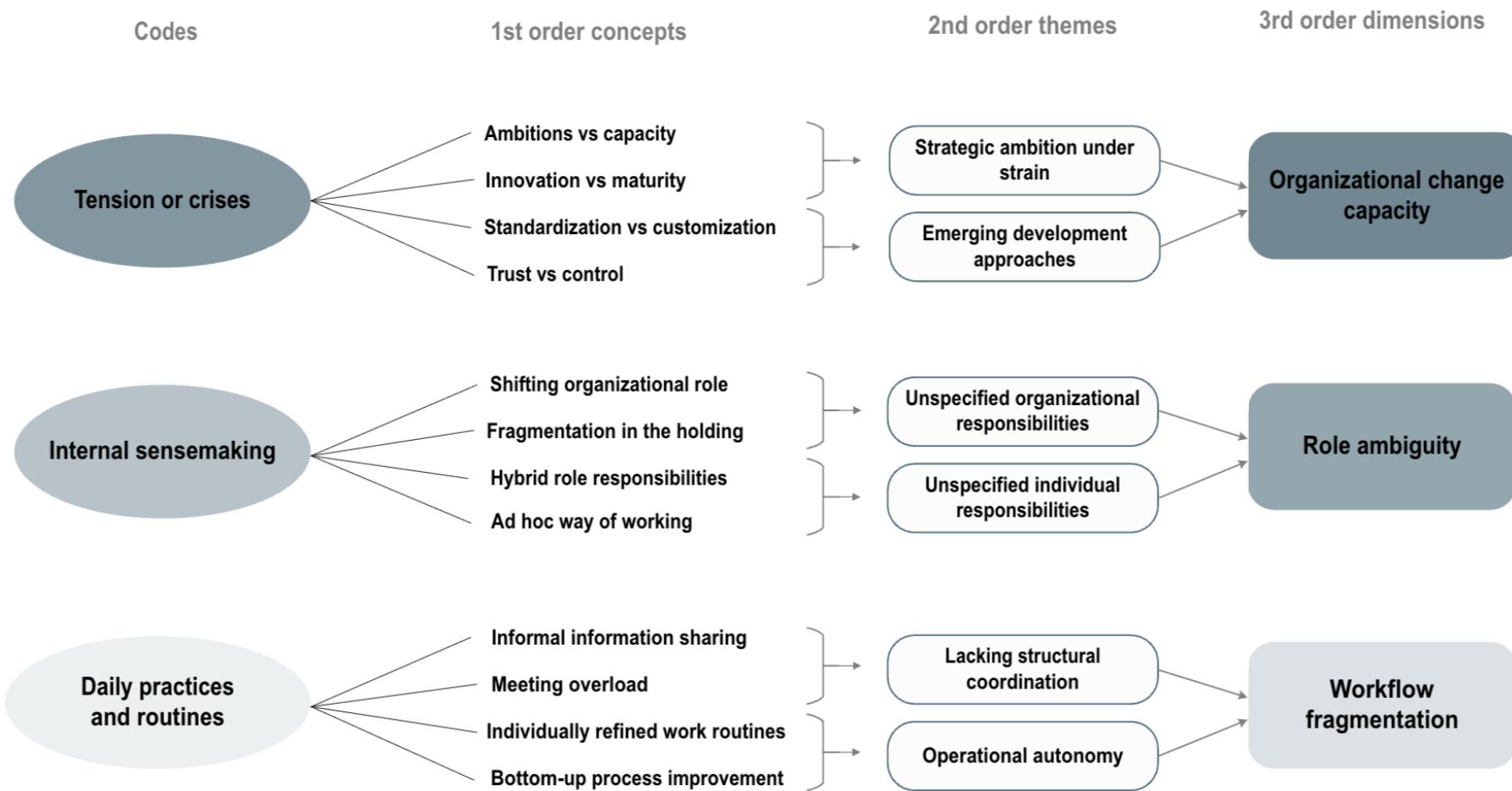
18	team members
3	partners
3	additional interviewees



## 2 focus group workshops

2 hours  
Polarity map structure

# Data analysis



(Based on Gioia et al., 2013a)



# Findings

# 3

## What?

Insights from the field

---

# Overview results

Dimension	Key challenge	Observed organizational practice	Implication for IC transition
Organizational change capacity	Strategic ambition under strain	<ul style="list-style-type: none"> <li>Pursuit of product development alongside project execution due to financial pressure</li> <li>Limited strategic prioritization between concept development and internal improvement efforts (e.g., process standardization, digital tooling)</li> <li>Misalignment between projects and the 2050 platform, limiting standardization</li> <li>High share of freelancers affects consistency</li> </ul>	<ul style="list-style-type: none"> <li>Resource strain and overload</li> <li>Difficulty embedding long-term thinking</li> <li>Tensions between short-term project delivery and strategic goals reduce organization's ability to steer towards industrialized practices</li> <li>Limiting opportunities for feedback loops and continuous improvement</li> </ul>
	Emerging development approaches	<ul style="list-style-type: none"> <li>The 2050 concept lacks a consistent definition</li> <li>Teams interpret standardization differently, leading to inconsistent implementation</li> <li>There is limited time available to evaluate lessons learned or refine the concept</li> </ul>	<ul style="list-style-type: none"> <li>Increased workload</li> <li>Innovation risks being implemented without sufficient support</li> <li>Difficulty translating the concept into repeatable, scalable practices</li> </ul>
Role ambiguity	Unspecified organizational responsibilities	<ul style="list-style-type: none"> <li>Blurred responsibilities between development, design, and construction roles across entities within the holding</li> <li>Traditional division of responsibilities leaving less room for standardization of product components</li> </ul>	<ul style="list-style-type: none"> <li>Confusion about leadership at various project stages hinders effective decision-making and communication</li> <li>Risk of inconsistent implementation of the 2050 concept</li> </ul>
	Unspecified individual responsibilities	<ul style="list-style-type: none"> <li>Hybrid roles occur without clearly defined tasks and responsibilities</li> <li>Strategic roles on concept and process development are not anchored yet</li> <li>Employees pick up tasks based on engagement rather than mandate</li> </ul>	<ul style="list-style-type: none"> <li>Lack of accountability and task ownership resulting in less efficient collaborations</li> <li>Working according to ad hoc solutions, also creating room for creative ideas and initiatives</li> </ul>
Workflow fragmentation	Lacking structural coordination	<ul style="list-style-type: none"> <li>Overarching support system is missing, including shared operational routines and tools</li> <li>Critical decisions and actions are inconsistently captured or followed up</li> <li>New team members lack a clear structure to integrate into shared routines and standards</li> <li>Level of coordination varies based on whether the organization is in a more traditional role</li> </ul>	<ul style="list-style-type: none"> <li>Absence of shared operational routines makes it difficult to maintain continuity across projects</li> <li>Team members compensate with ad hoc solutions, limiting standardization</li> </ul>
	Operational autonomy	<ul style="list-style-type: none"> <li>Initiative to develop own documentation and coordination methods</li> <li>Autonomy through the entrepreneurial mindset and flat organizational structure</li> <li>Falling back on familiar practices rooted in traditional construction processes</li> </ul>	<ul style="list-style-type: none"> <li>While autonomy fosters ownership and adaptability, it also leads to fragmented and inconsistent ways of working</li> <li>Personal systems and habits limit interoperability and reduce feedback loops into the product platform</li> </ul>

# Strategic ambition under strain

Organizational change capacity

- Long-term platform goals vs short-term project pressure

Role ambiguity

- Limiting capacity for standardization and internal alignment

Workflow fragmentation

- Losing track of core construction principles

Organizational change capacity

Role ambiguity

Workflow fragmentation

"We want everything at once: a new strategy, developing the 2050 concept, and running multiple projects. But we simply don't have the people for that."



Participant 4



Participant 15

"We remain a project-driven organization. Projects are pushed through at all costs, even when they don't actually fit the concept."

# Operational autonomy

Organizational change capacity

Role ambiguity

Workflow fragmentation

- Initiative fosters flexibility, but also fragmented, individual working methods
- Teams develop own tools, templates, and coordination routines
- Limits standardization and feedback loops into the product platform, with ad hoc solutions
- Also room for innovation and growth

Organizational change capacity

Role ambiguity

Workflow fragmentation

“ Everyone does it in their own way... We don't have fixed agreements on how to write meeting notes, and since everyone comes from different organizations, they bring their own working methods.”



Participant 15

“You shouldn't go too far with standardization either. If I have a certain task, I don't want to follow a fully step-by-step plan. ... There's a limit to how much you can plan out, we're not building an IKEA cabinet.”



Participant 4



# Discussion

# 4

## So what?

Meaning of the findings

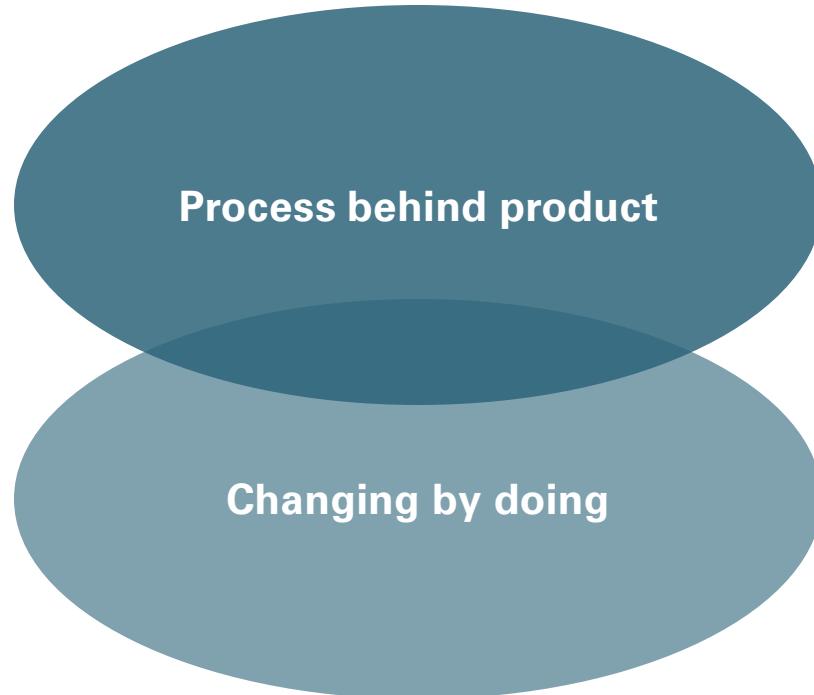
---

# Discussion

## Process behind product

Technical standardization advanced faster than supporting organizational routines

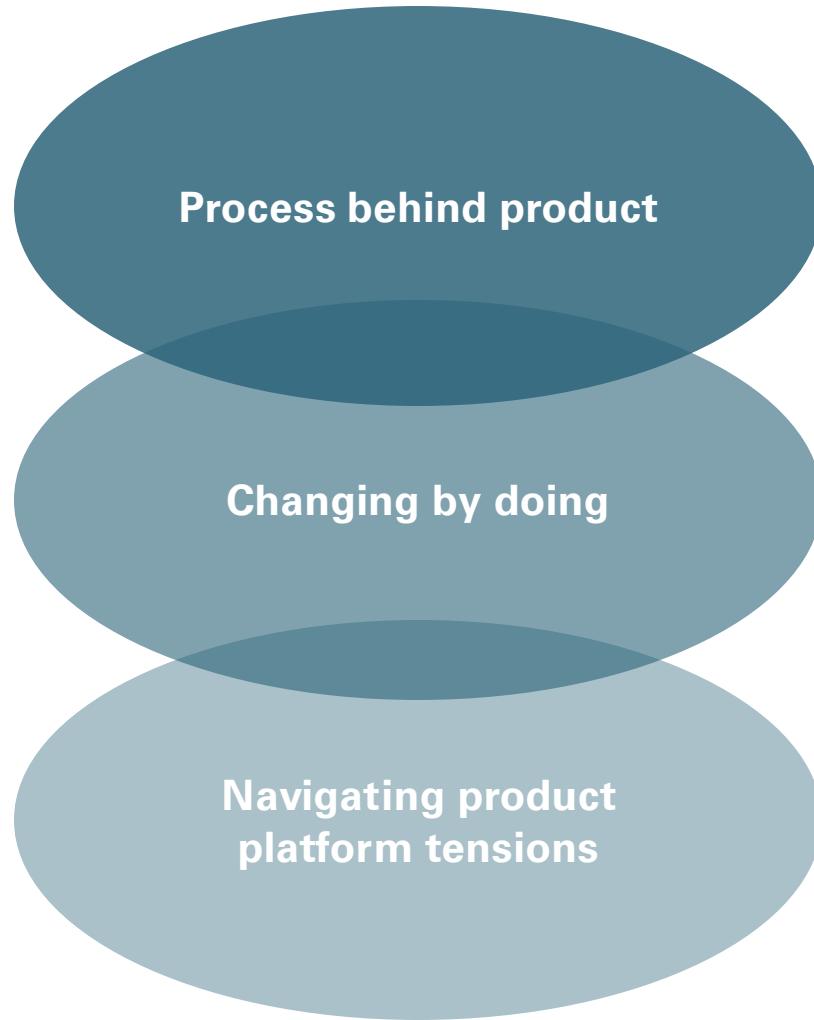
# Discussion



Technical standardization advanced faster than supporting organizational routines

Change unfolded informally through daily work, not structured top-down plans

# Discussion



Technical standardization advanced faster than supporting organizational routines

Change unfolded informally through daily work, not structured top-down plans

Persistent tensions: standardization vs. flexibility, short- vs. long-term,, which are not problems to solve but dynamics to engage with



# Conclusion

# 5

## Now what?

Key takeaways  
and next steps

---

# Organizational Practices

- 1 Balancing project delivery and concept development
- 2 Operating through hybrid roles
- 3 Relying on informal, non-standardized workflows
- 4 Managing capacity reactively across projects
- 5 Overlooking core principles construction

# Interaction with IC Principles

Process standardization

Hybrid roles and unclear responsibilities, inconsistent workflows hinder **repeatability**

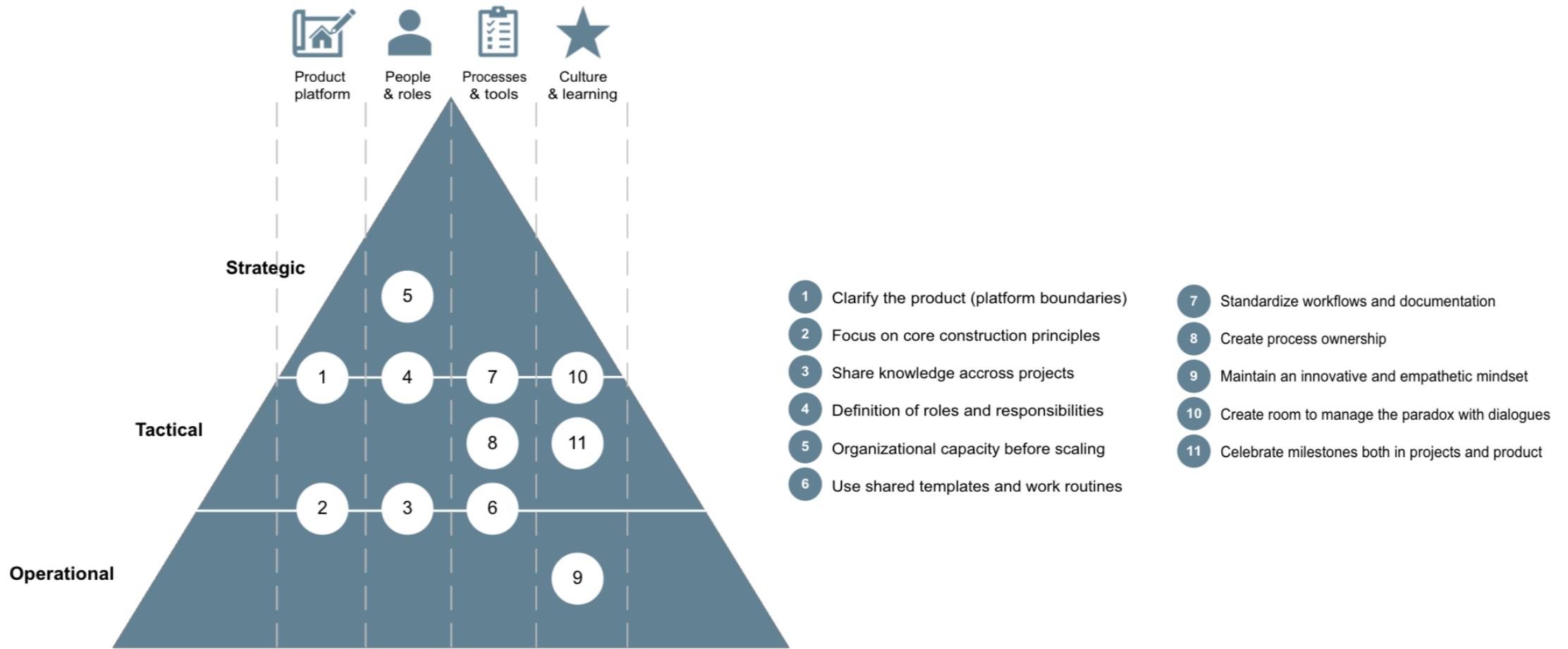
Integration of technical and process platform

Technical solutions advance, limiting learning and **continuous improvement**

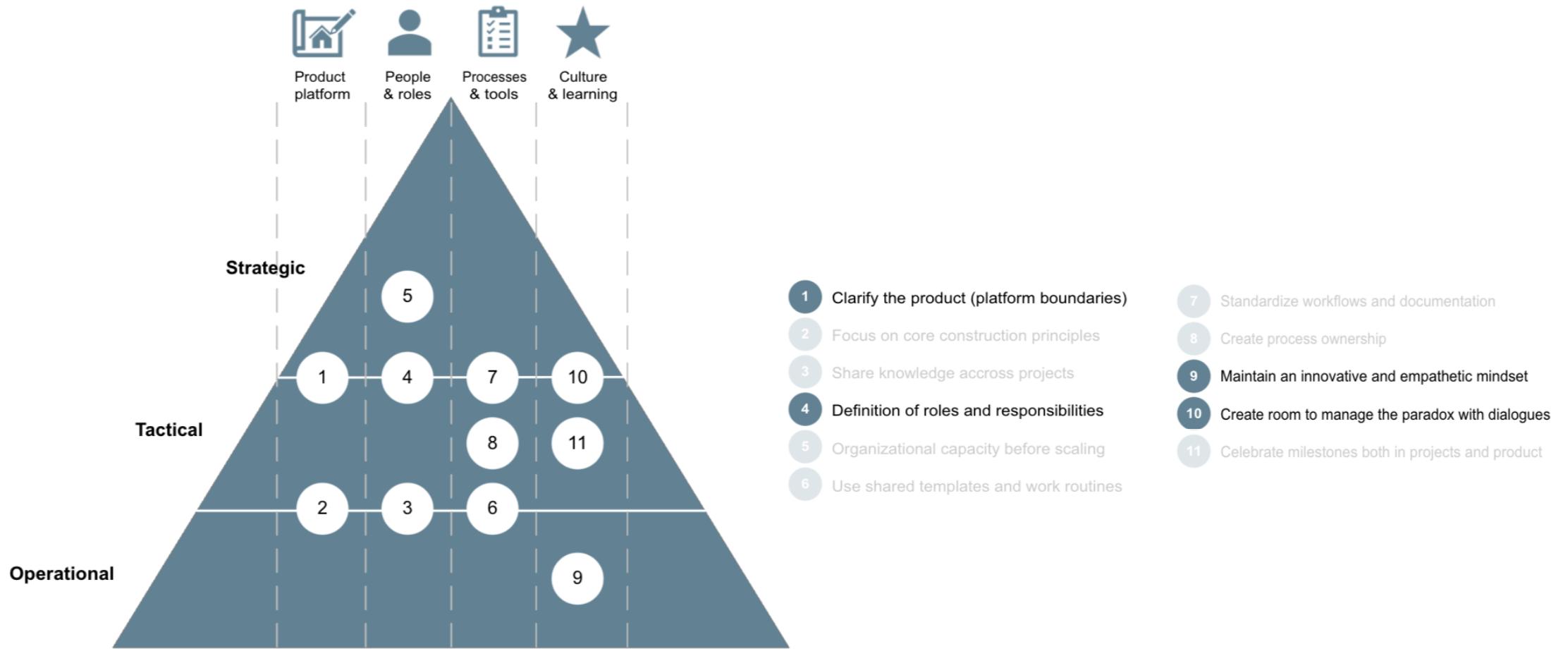
Long-term partnerships

Underdeveloped internal structures and coordination undermines **trust** in collaborations

# Recommendations



# Recommendations



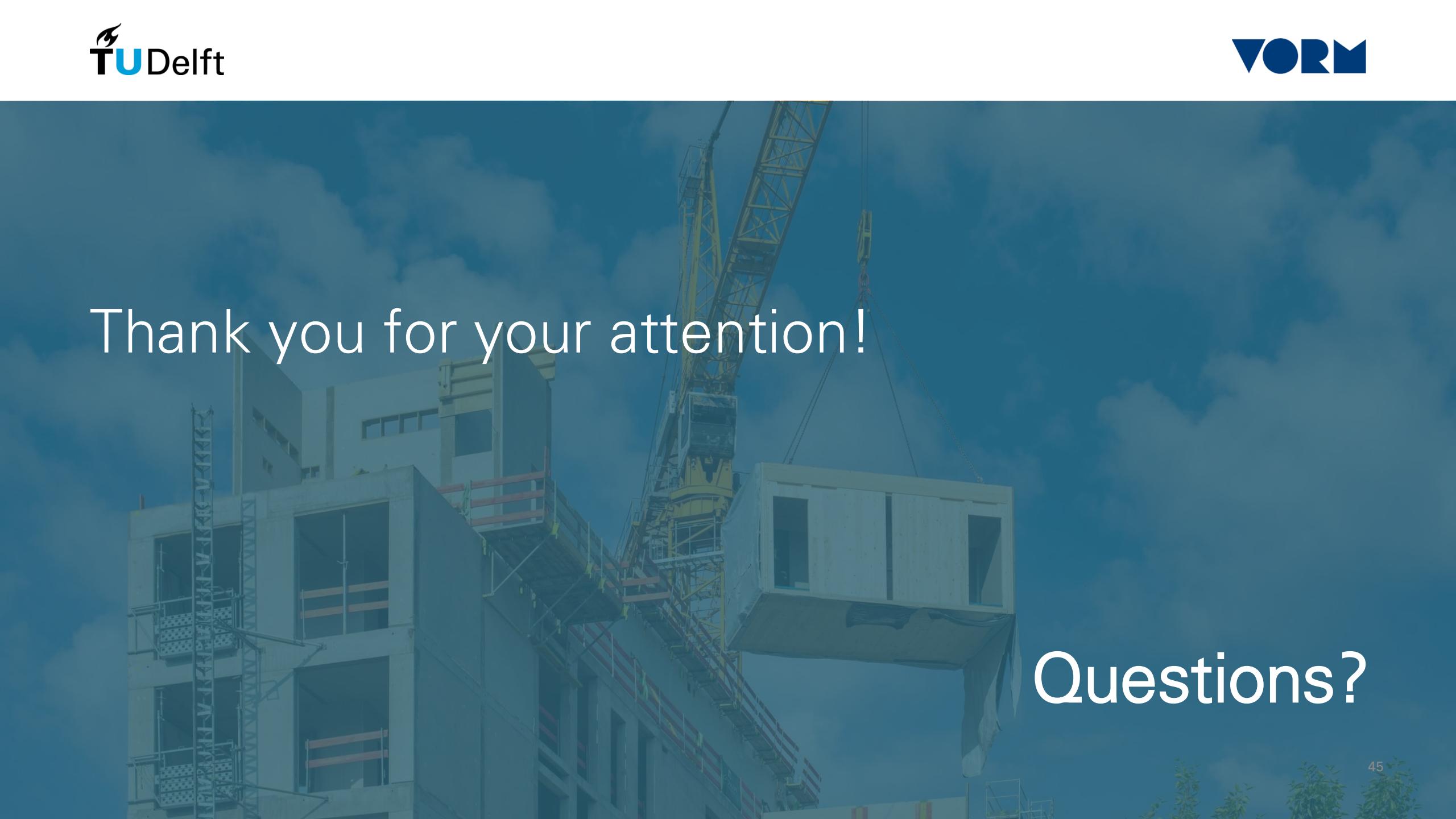
# Overall conclusion

“Product platforms will only deliver impact if the organizational practices that support them are actively developed, aligned, and continuously improved.

“Without addressing the human and organizational dimensions of change, platform strategy remains idealistic.”

“In construction we are strong at managing the status quo... but change is headed at us like a fast-moving train, whether we are ready for it or not.”

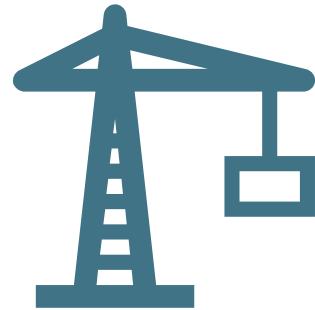
— *Dr. Barbara Jackson, It's Broken, and It's Time to Fix It* (2021)

A photograph of a construction site. A yellow lattice-boom crane is lifting a large, white, rectangular concrete or steel panel. The panel has several rectangular cutouts, possibly windows or doors. The crane is positioned next to a multi-story building under construction, which has scaffolding and various construction materials visible. The sky is blue with some white clouds.

Thank you for your attention!

Questions?

# Limitations



Single case-study



Participation



Timeframe

# Further research

Multiple case  
studies

Paradox tools as  
polarity maps

Internal and external  
collaboration

Longitudinal studies