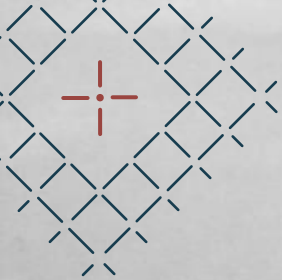
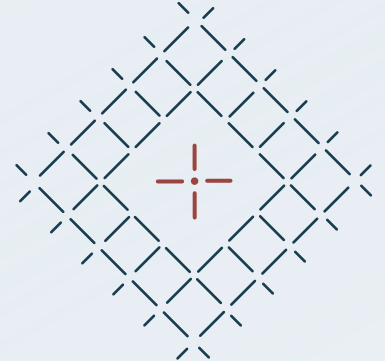
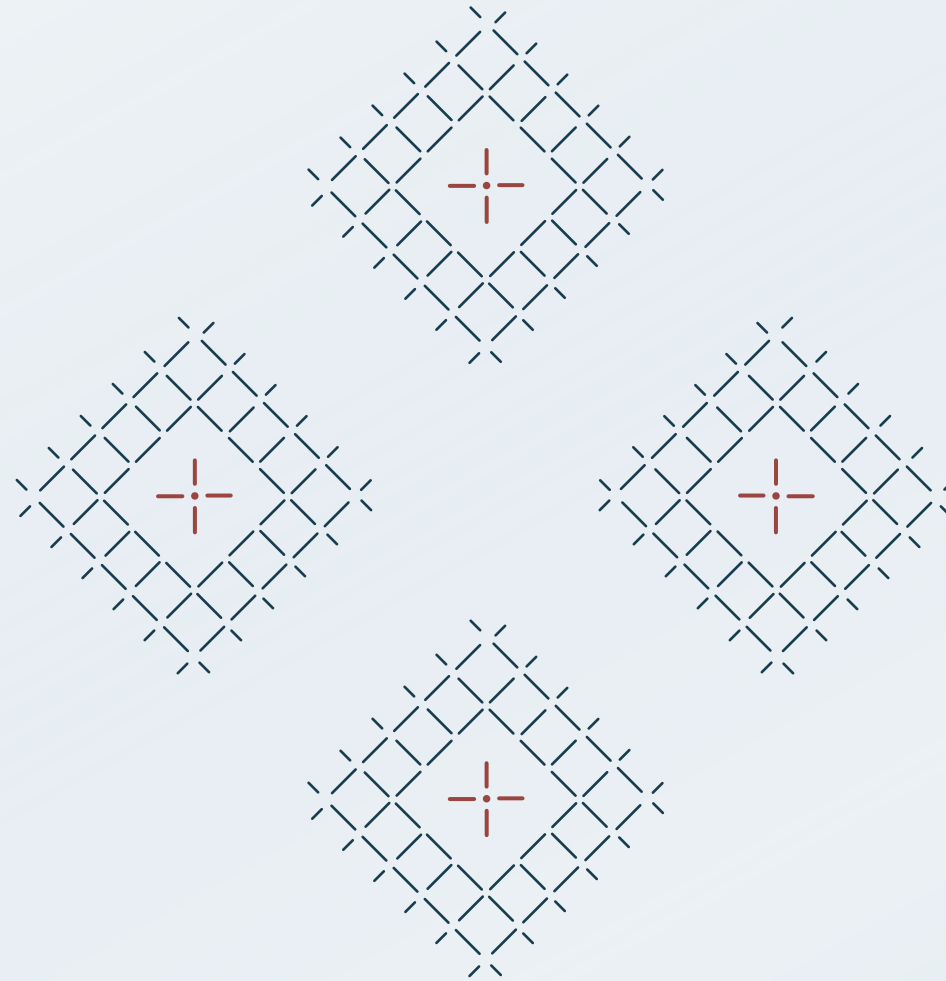

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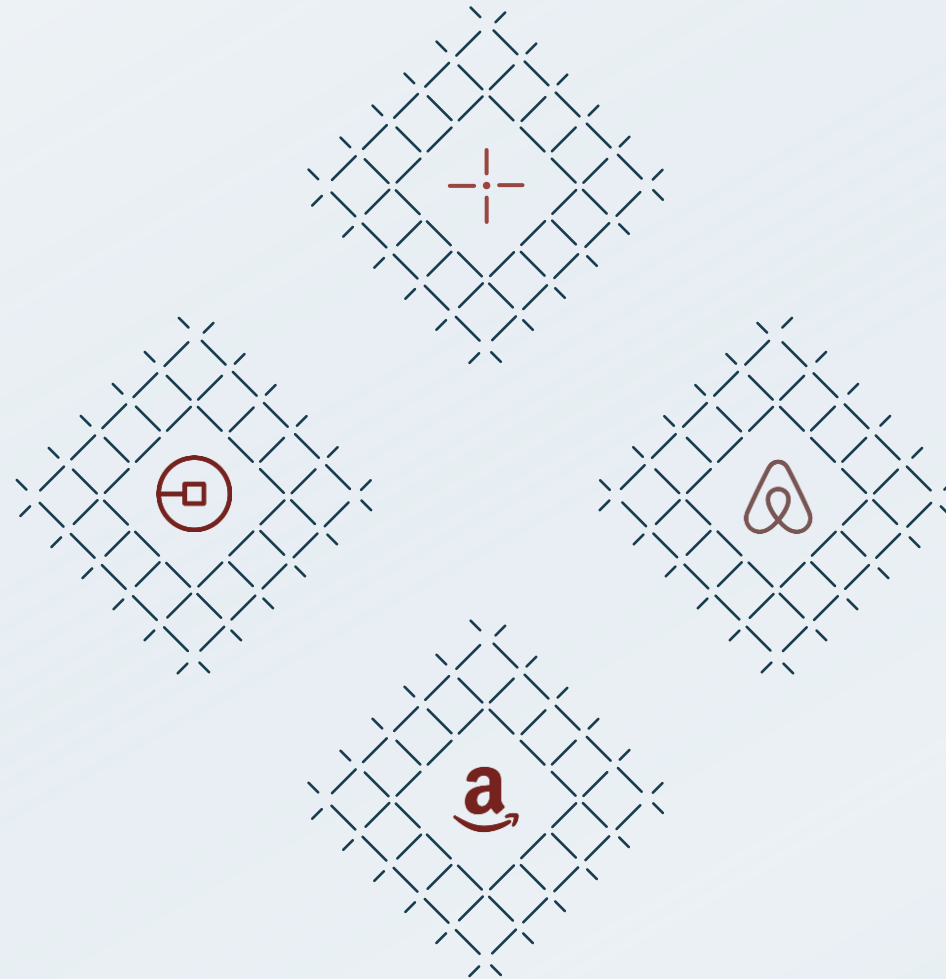


Thesis under construction

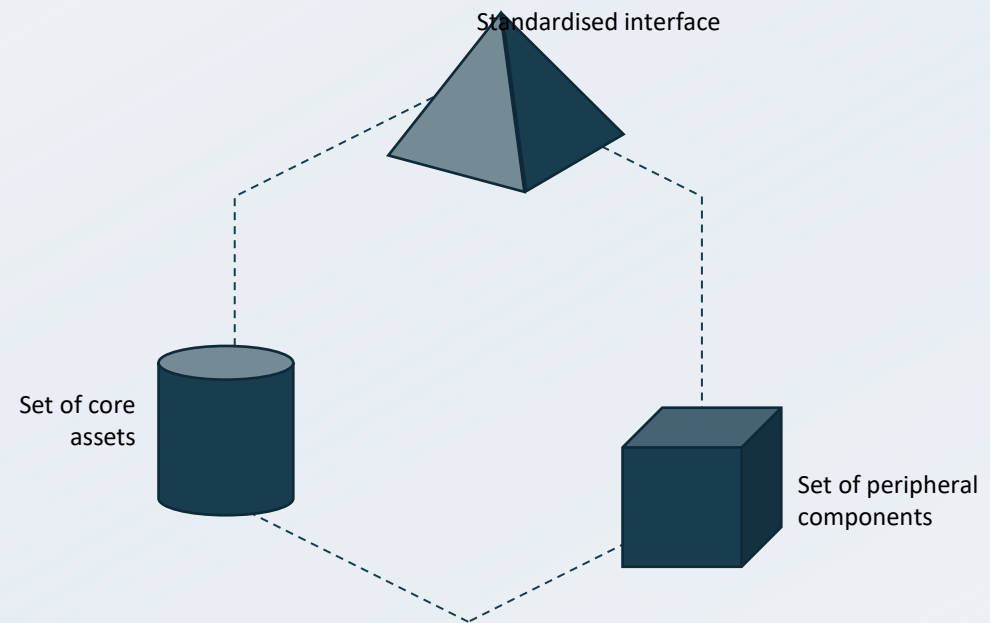






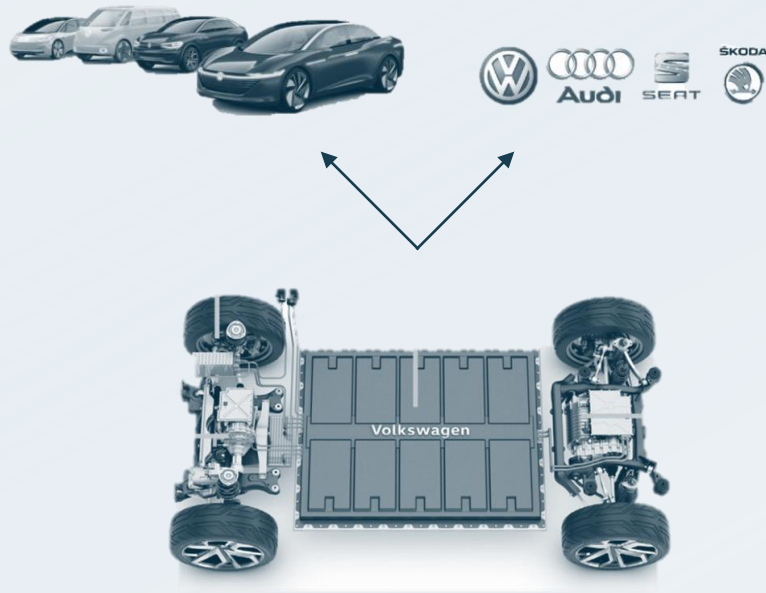


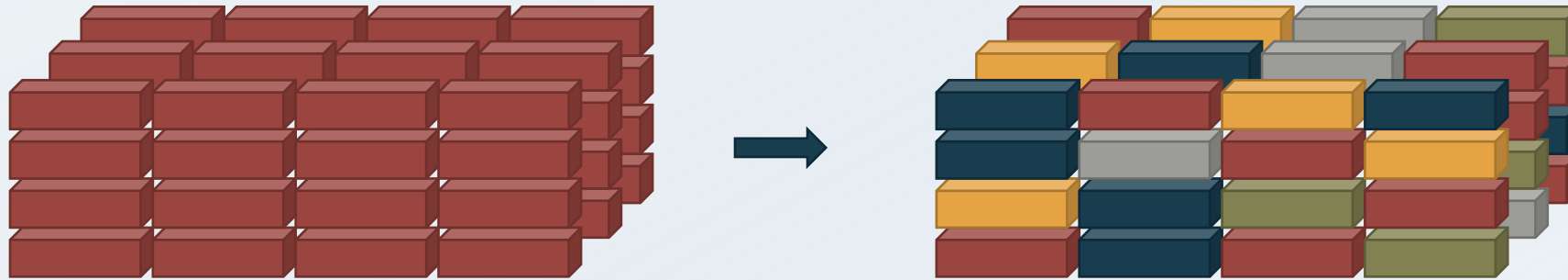


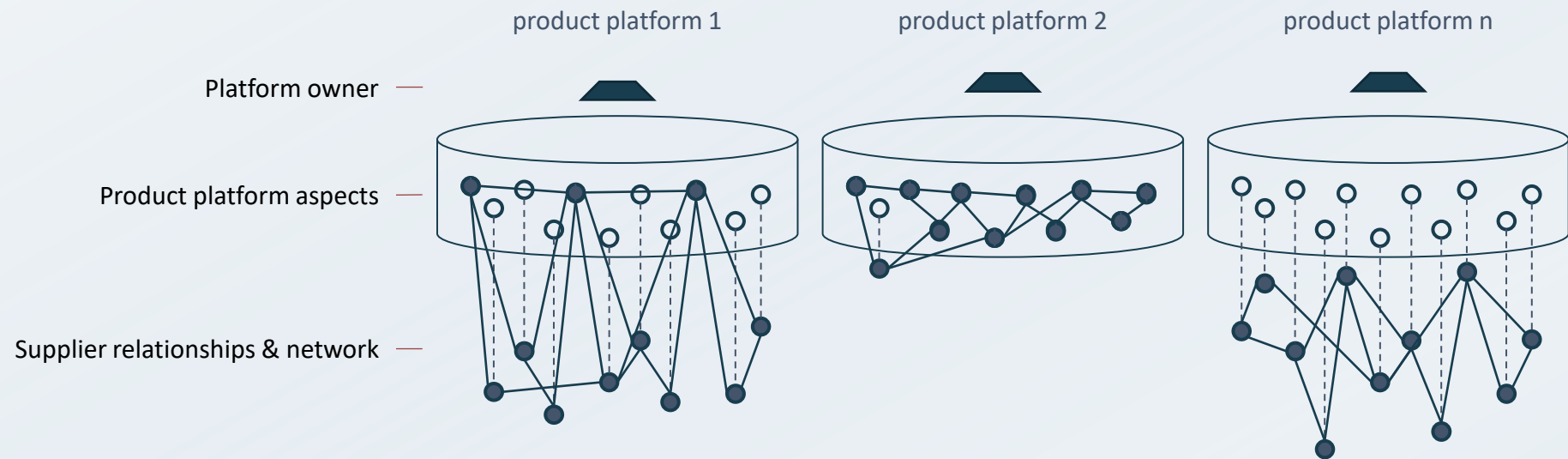


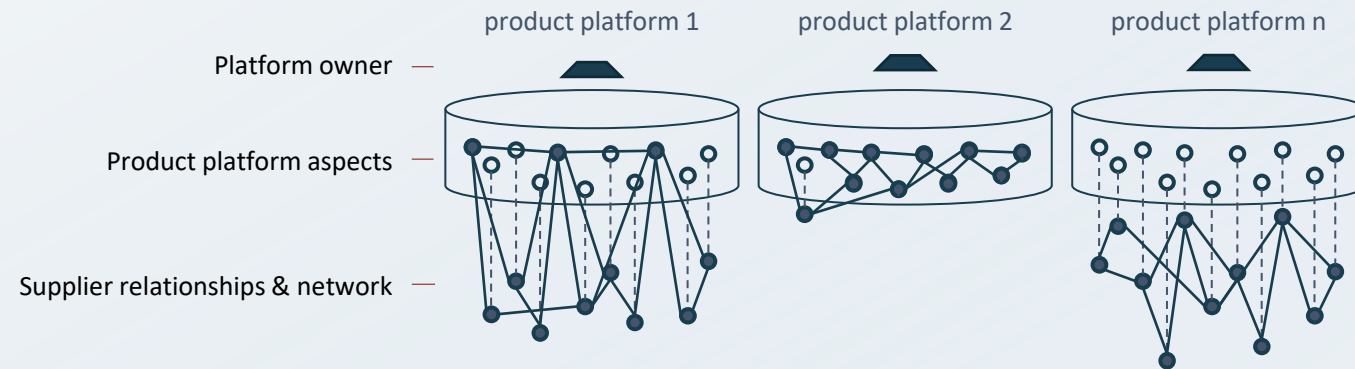


Volkswagen electric-vehicles product platform







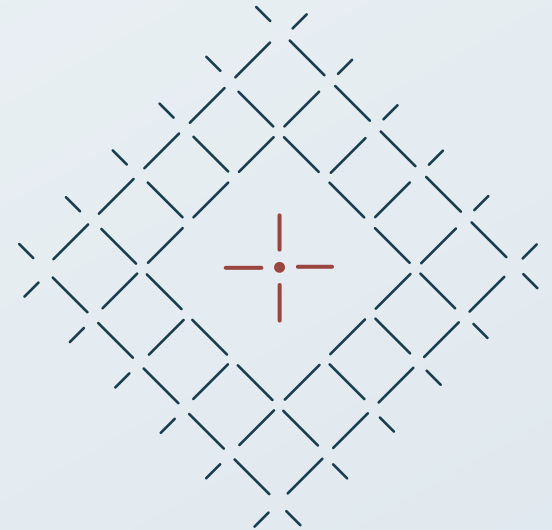


But...

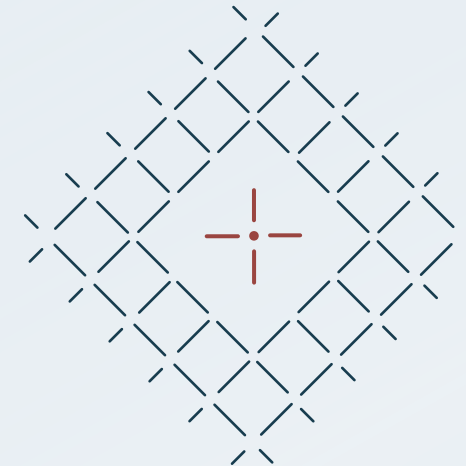
- Unified look at what aspects of PP to integrate
- How PP promote collaboration leading to network creation
- Strategies of platform owner

PRODUCT PLATFORM INTEGRATION STRATEGIES

Supplier network integration strategies in
industrialised house-building
product platform development:
the platform owner perspective



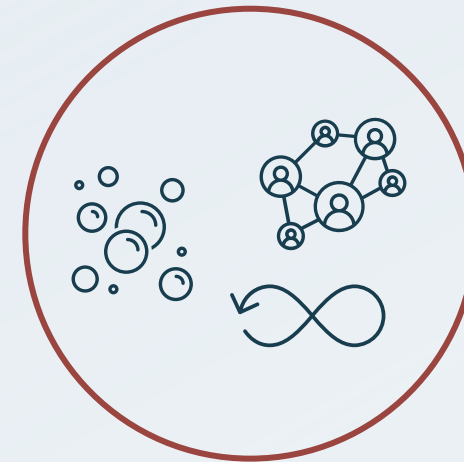
- ☐ RESEARCH OBJECTIVES & METHODS
- ☐ THEORETICAL FRAMEWORK
- ☐ EMPIRICAL RESEARCH
- ☐ FINDINGS
- ☐ DISCUSSION
- ☐ RECOMMENDATIONS
- ☐ CONCLUSION

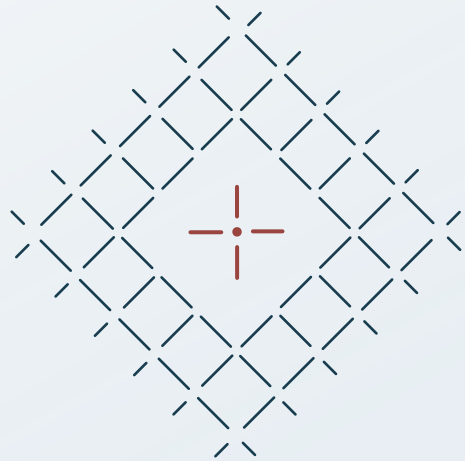


IHB – Industrialised house-building

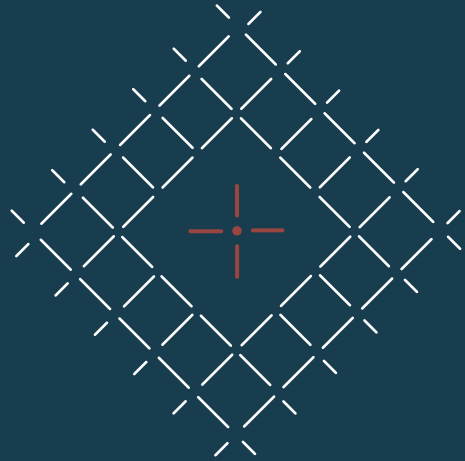


PP – Product platform





Explore integration of supplier networks to
critical product platform aspects



MAIN RESEARCH QUESTION

What are the strategies to integrate supplier networks in industrialised house-building product platform development?



MRQ

What are the strategies to integrate supplier networks in industrialised house-building product platform development?

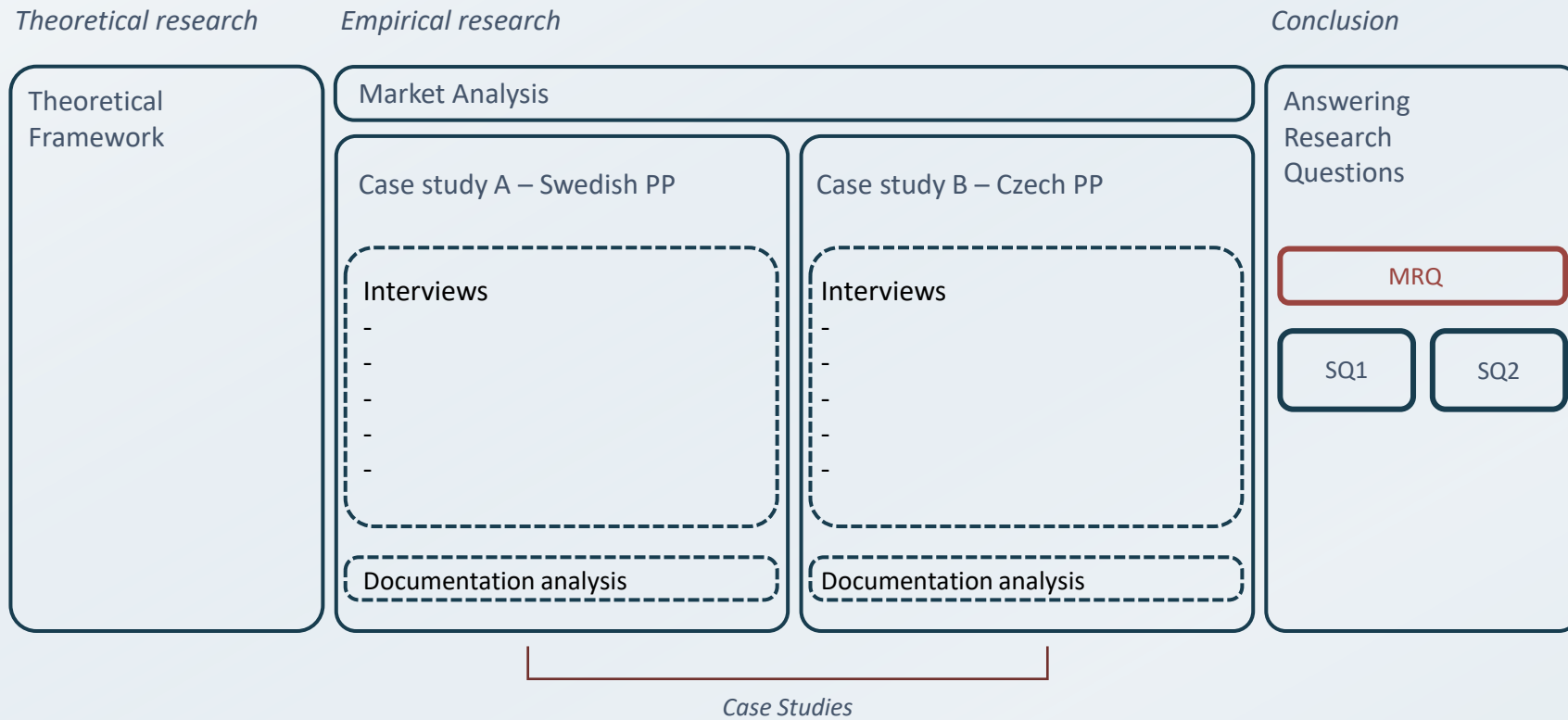
SQ1

What are the critical aspects of product platform development?

SQ2

What are the types of supplier network relationships in a product platform development?





Case study A – Swedish PP

Interview	Role
A.1	High-level executive officer
A.2	Platform development manager
A.3	Supply-chain manager
A.4	Business development manager
A.5	Product development manager

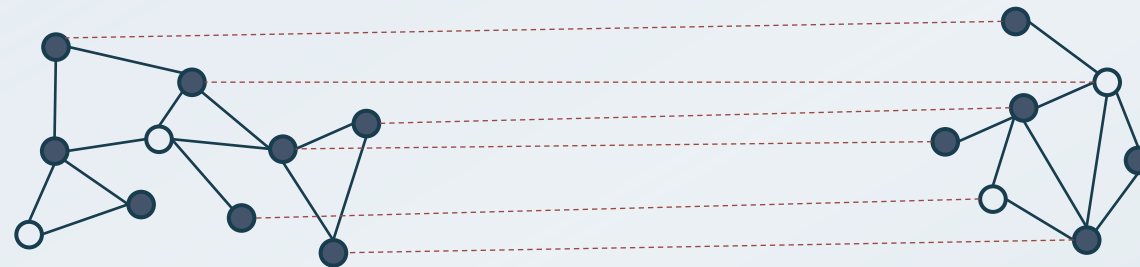
Documentation analysis

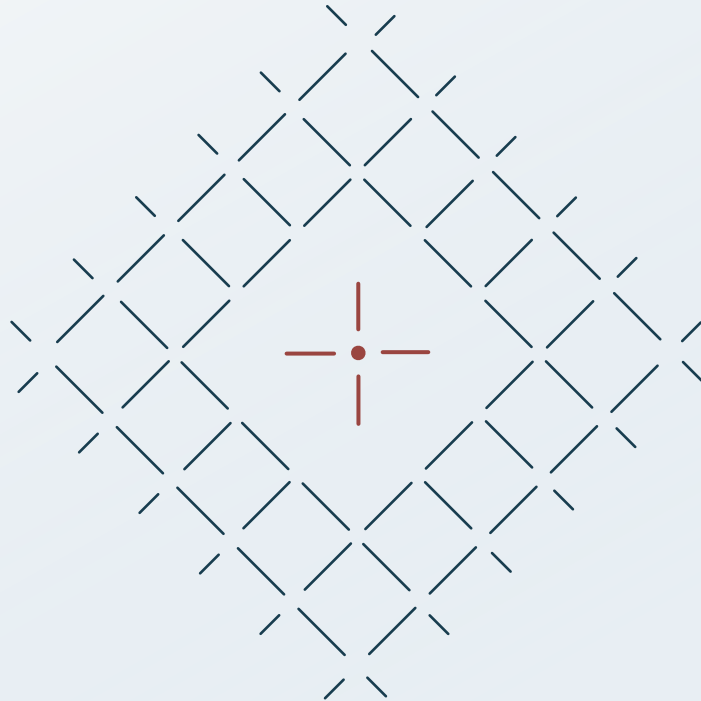
Case study B – Czech PP

Interview	Role
B.1	High-level executive officer
B.2	Platform development director
B.3	Product development manager
B.4	Supplier 1 (off-site production)
B.5	Supplier 2 (off-site production)
B.6	Supplier 3 (designer)

Documentation analysis

Different integration approach



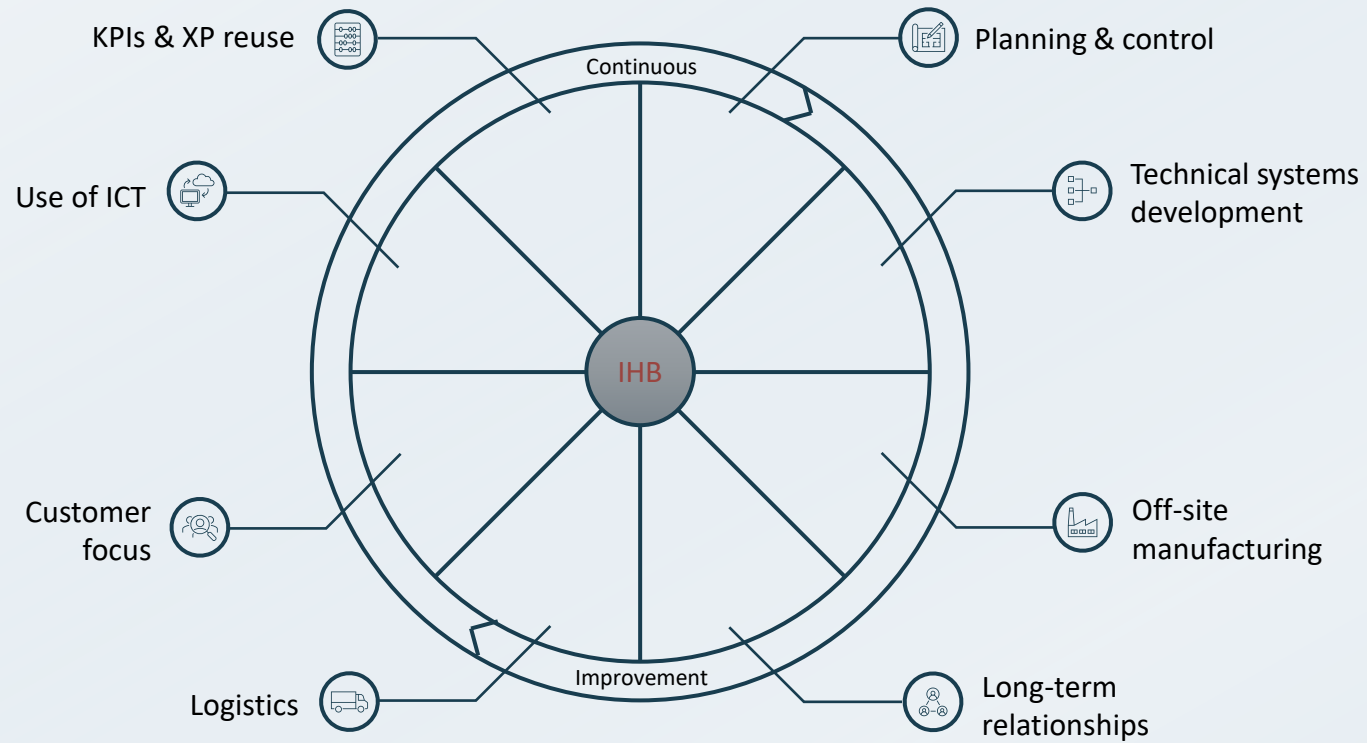


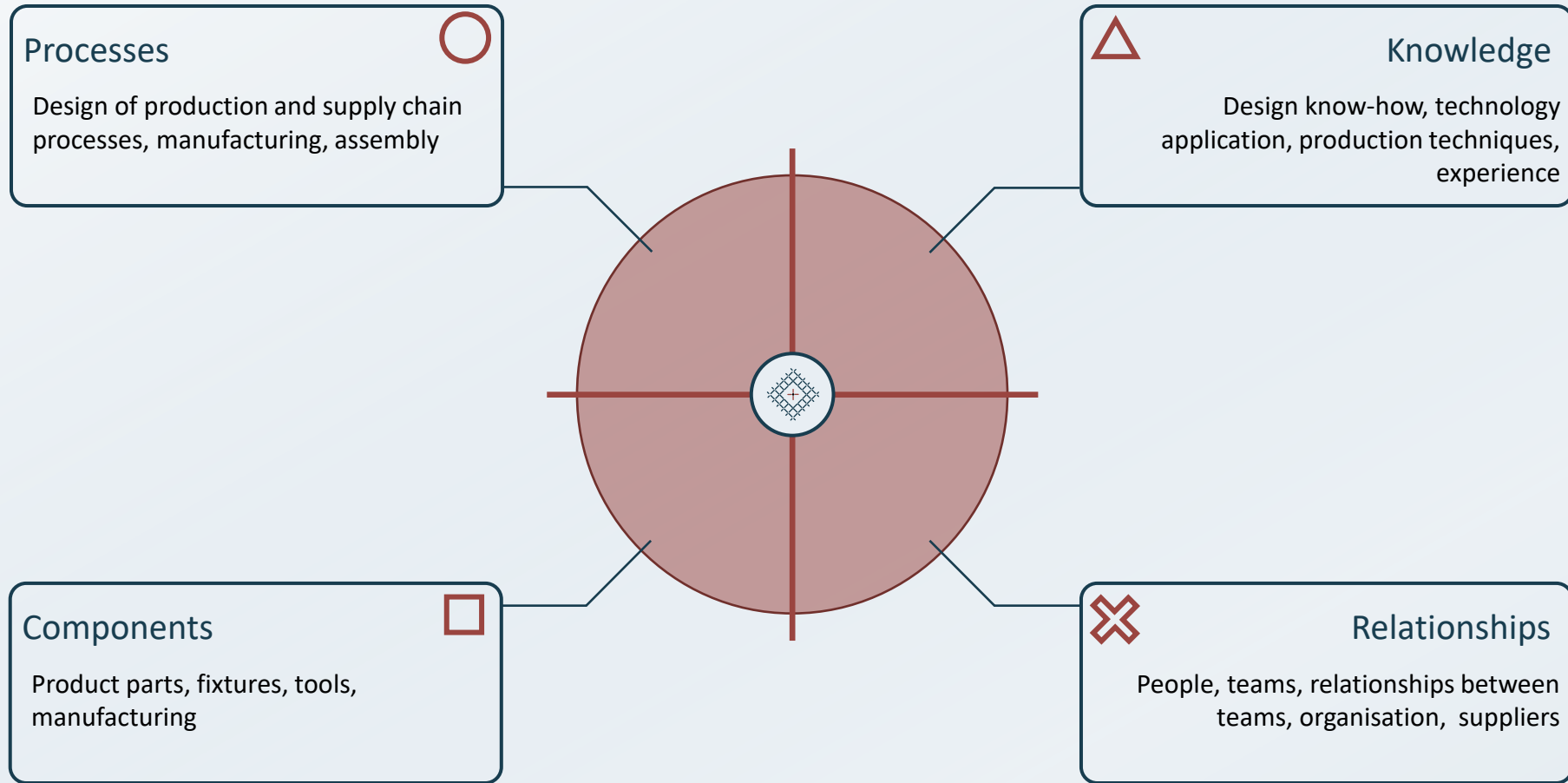
THEORETICAL FRAMEWORK

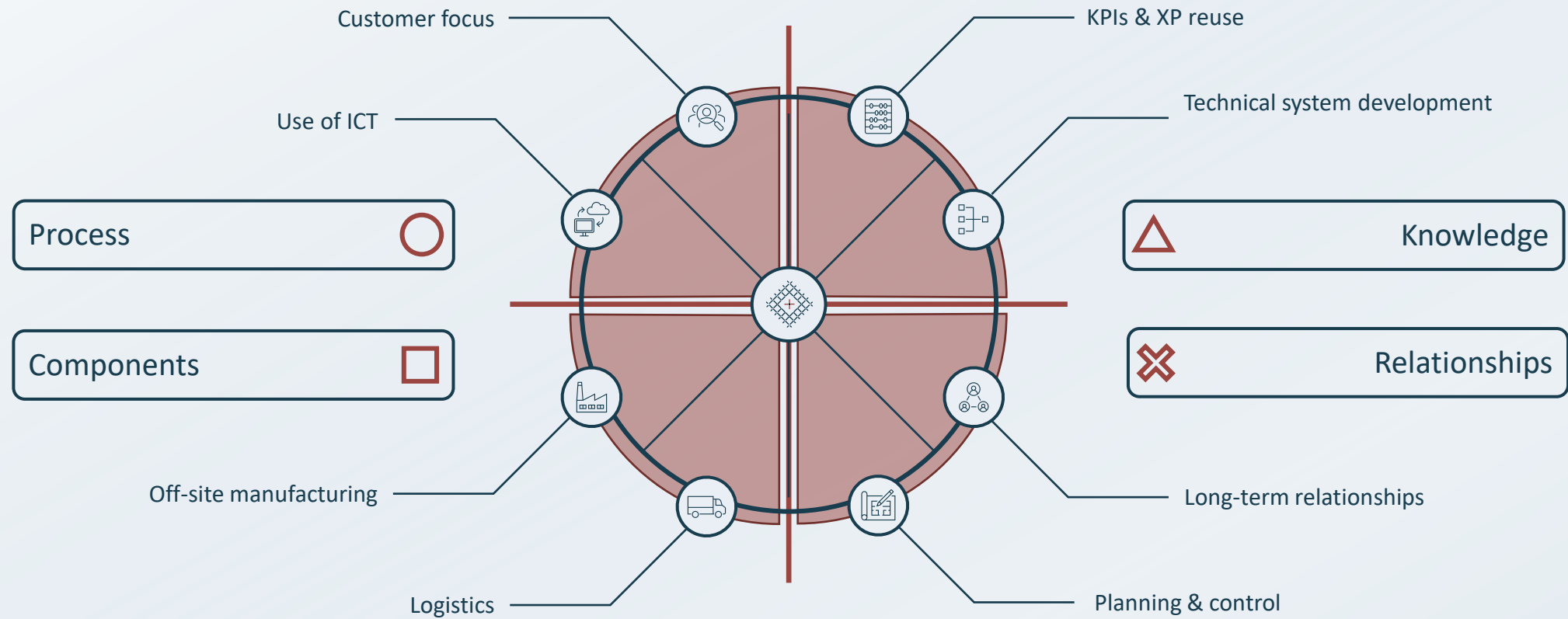
1. Industrialised House-building Product Platforms
2. Supplier Network Integration Strategies
3. Synthesis of Theoretical Framework



IHB Framework



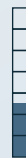
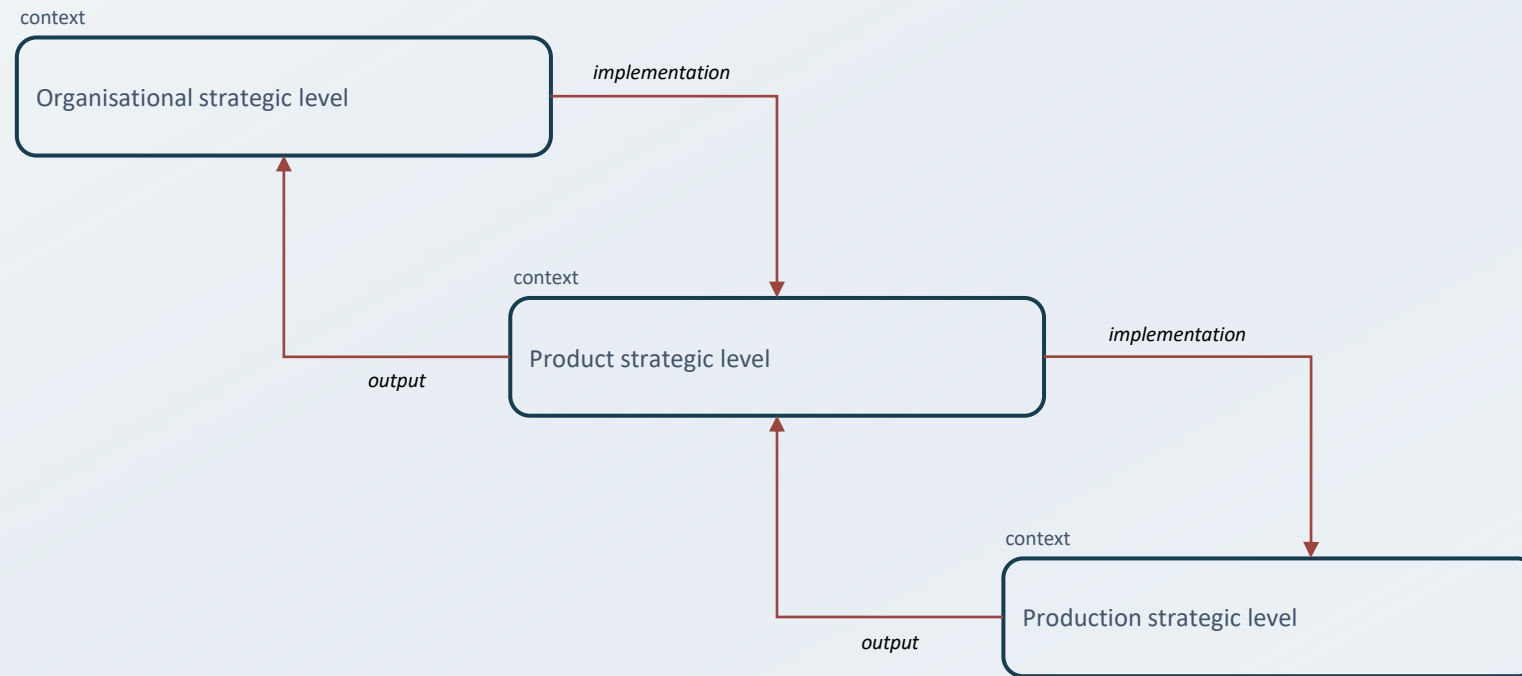
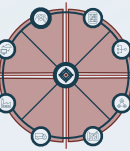


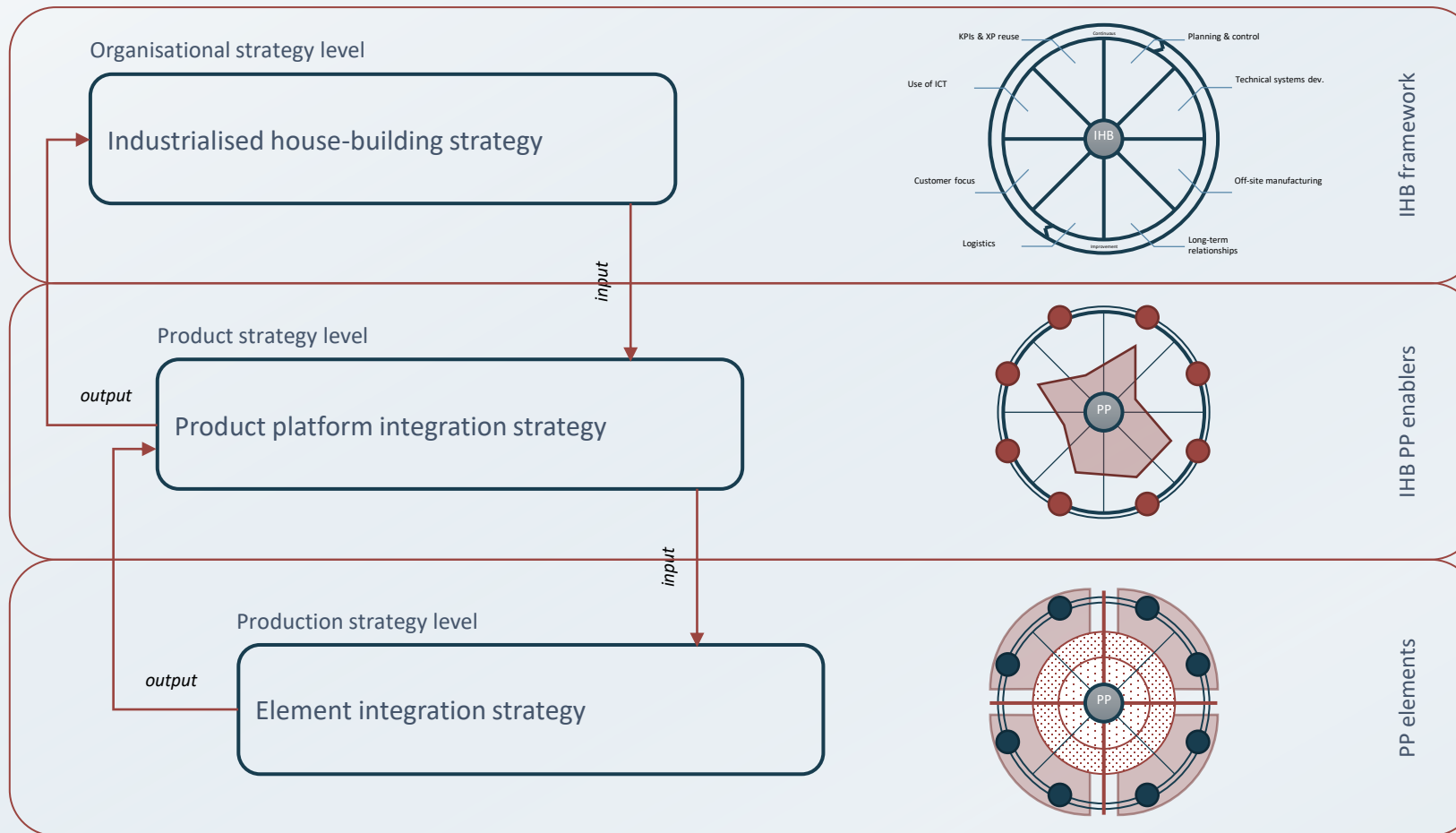
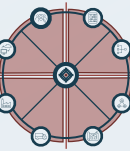


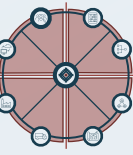


INTEGRATION

The act or process of combining two or more things so that they work together







Software/process
misalignment



Customer Perception



Market Position



Know-how
Development &
Protection



Business Model
Development



Sustainability
Adaptation



Investment Costs



Market Availability



Technical Solutions



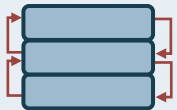
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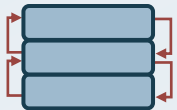
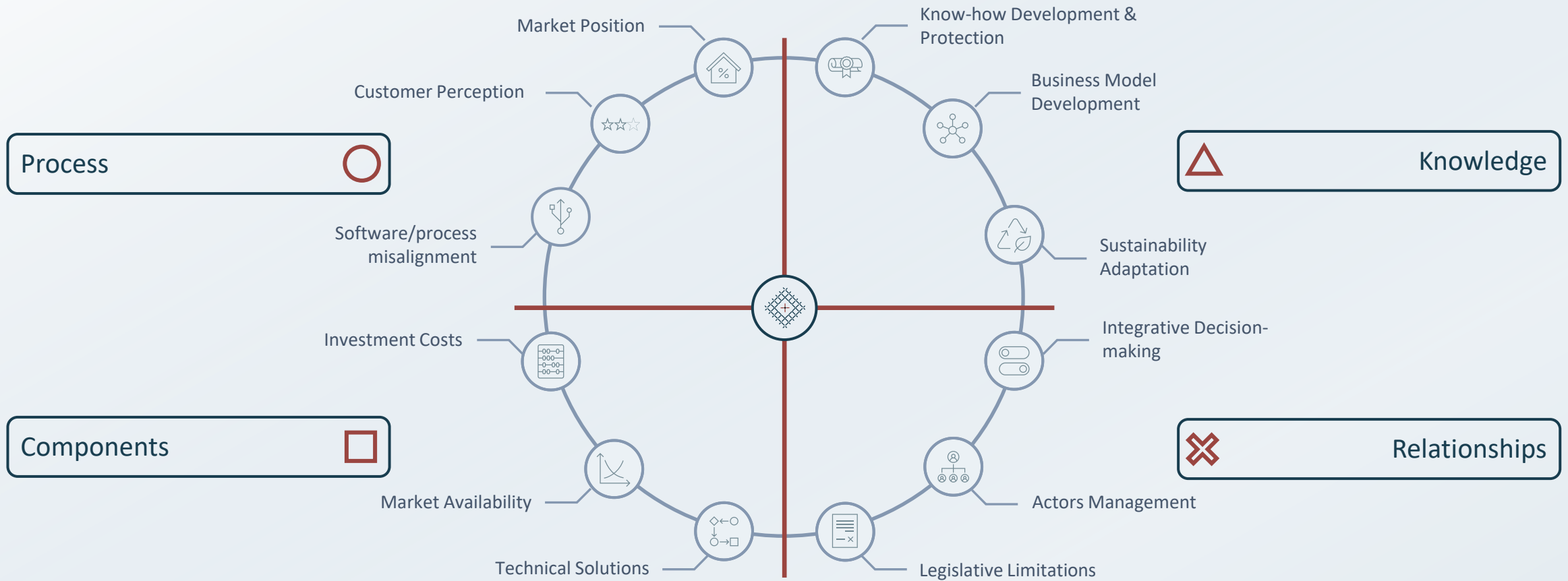
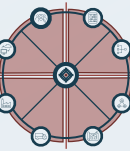


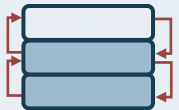
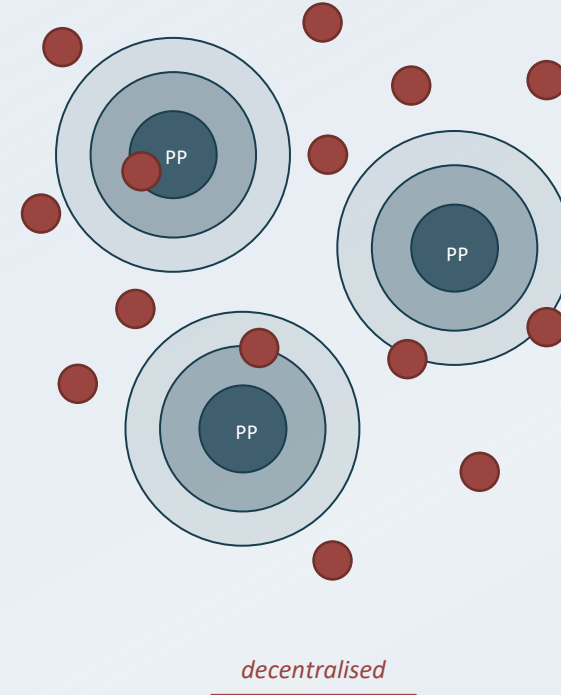
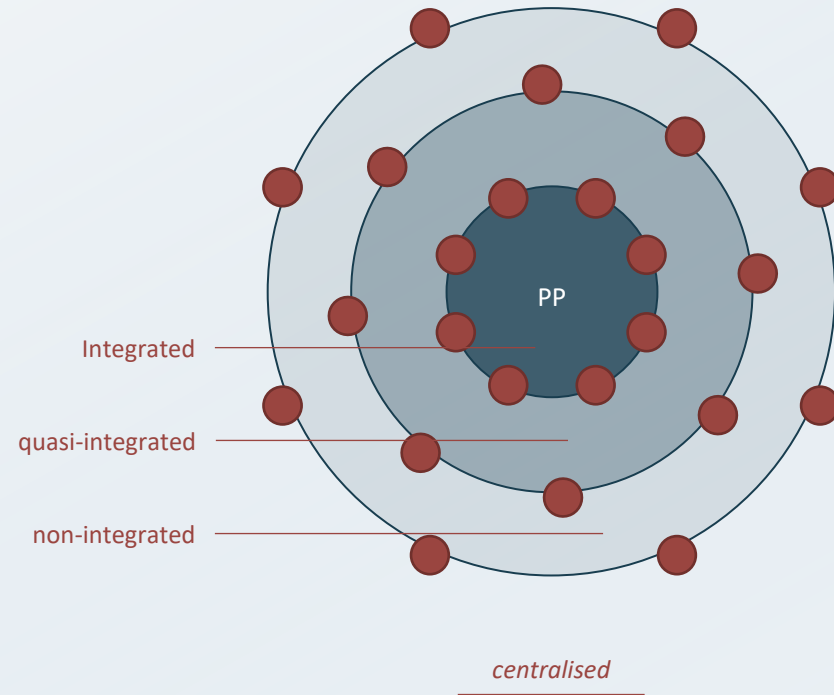
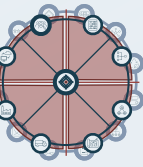
Actors Management

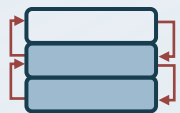
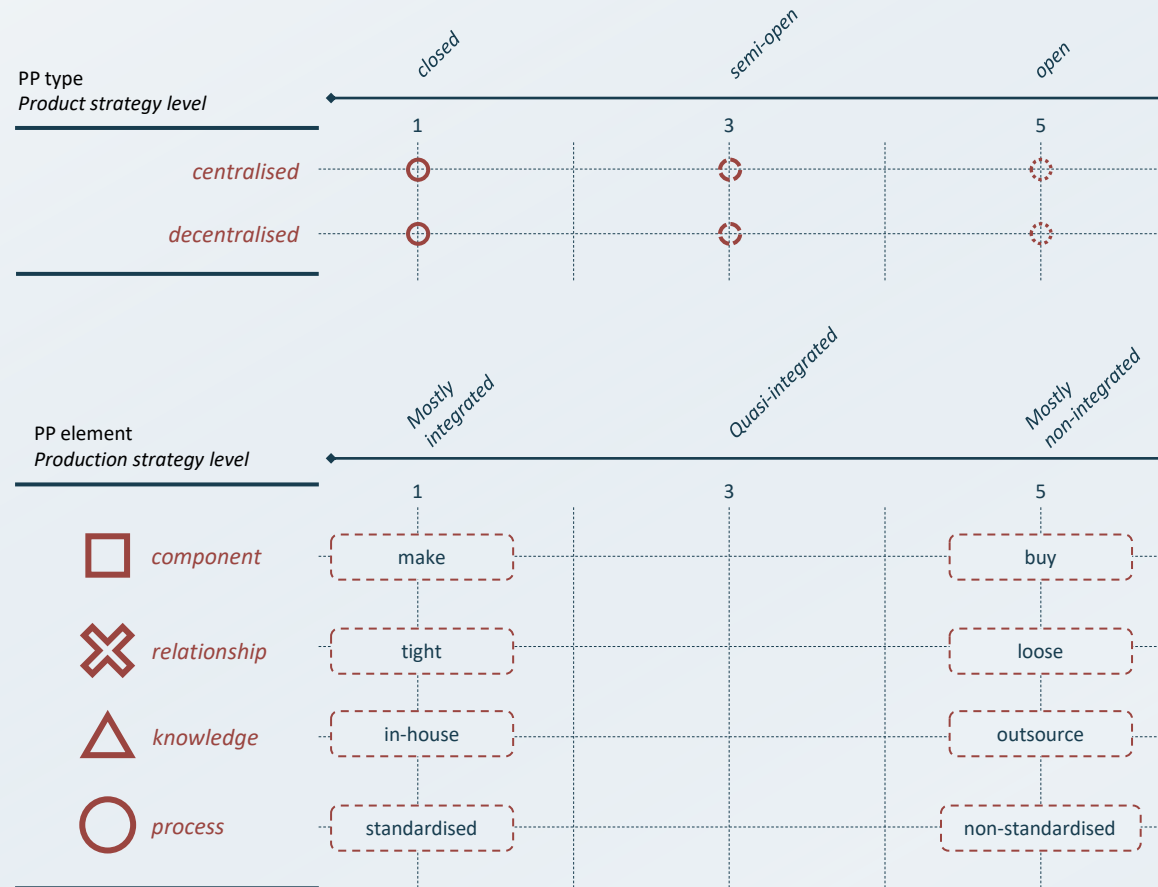
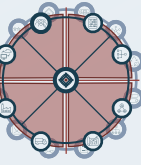


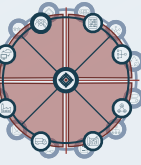
Integrative Decision-
making



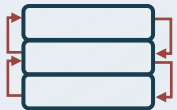








SYTHESIS OF THEORETICAL FRAMWEORK

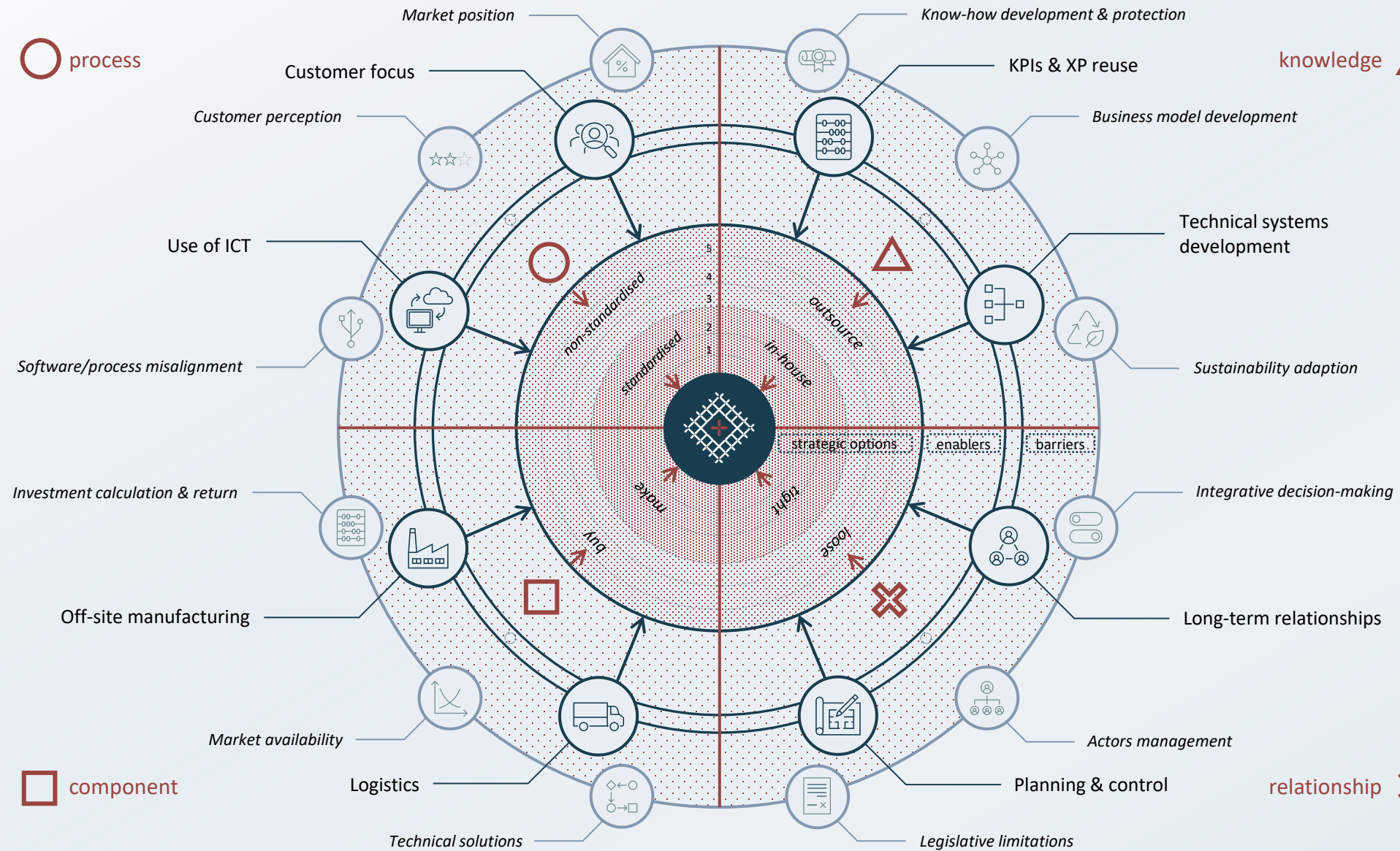


○ process

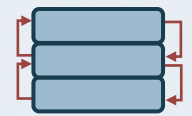
△ knowledge

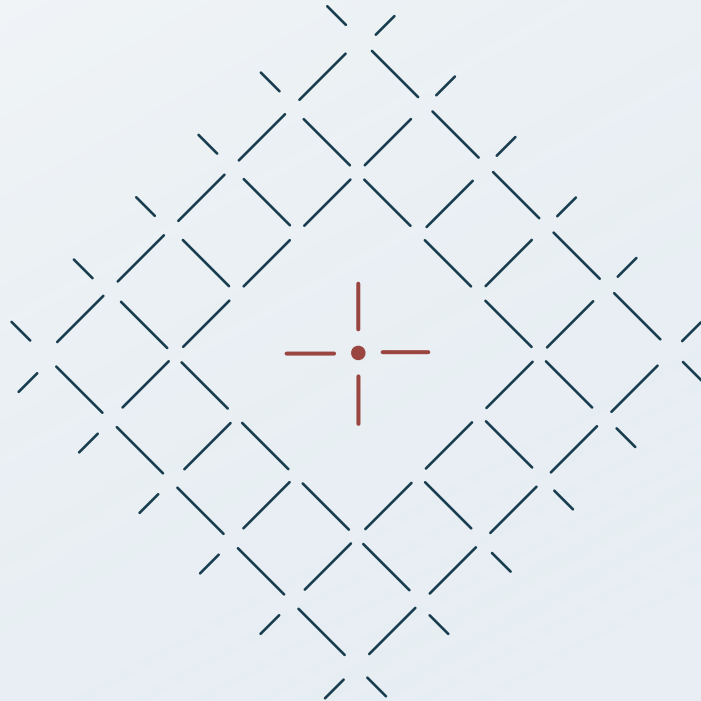
□ component

✕ relationship



✕ Relationships | □ Components | △ Knowledge | ○ Process | ● Enablers | ○ Barriers | ● Strategic options | ● Output

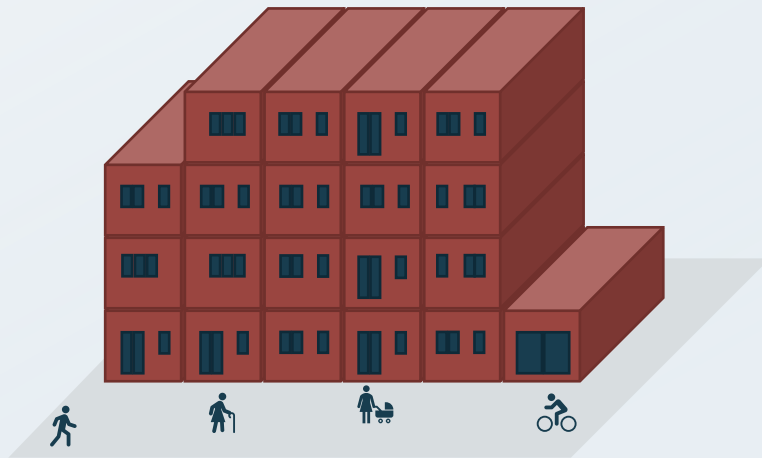
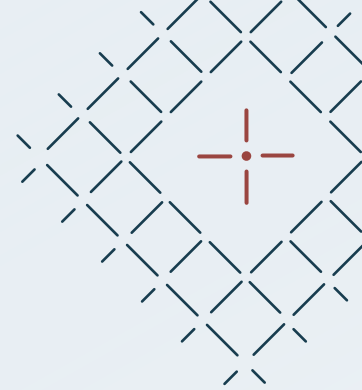




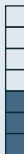
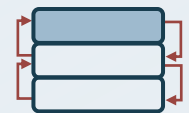
EMPIRICAL RESEARCH

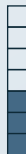
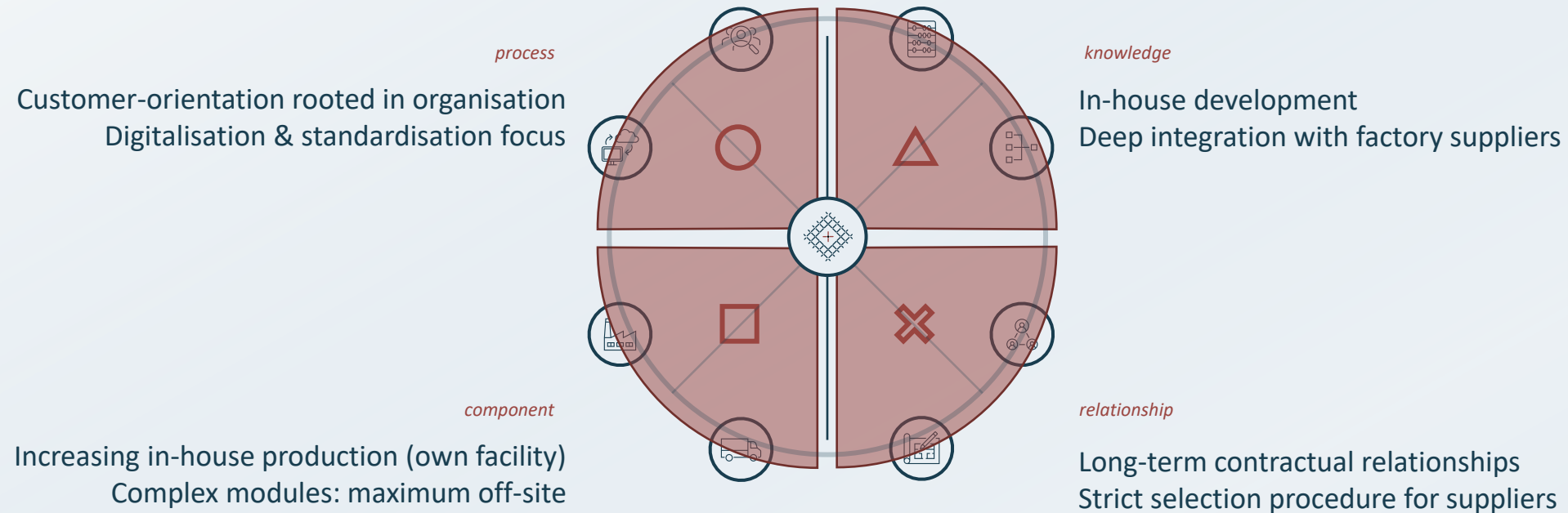
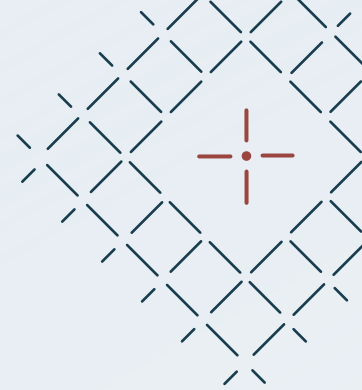
1. Case Study A: Swedish
2. Case Study B: Czech



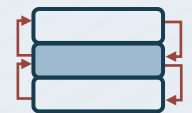
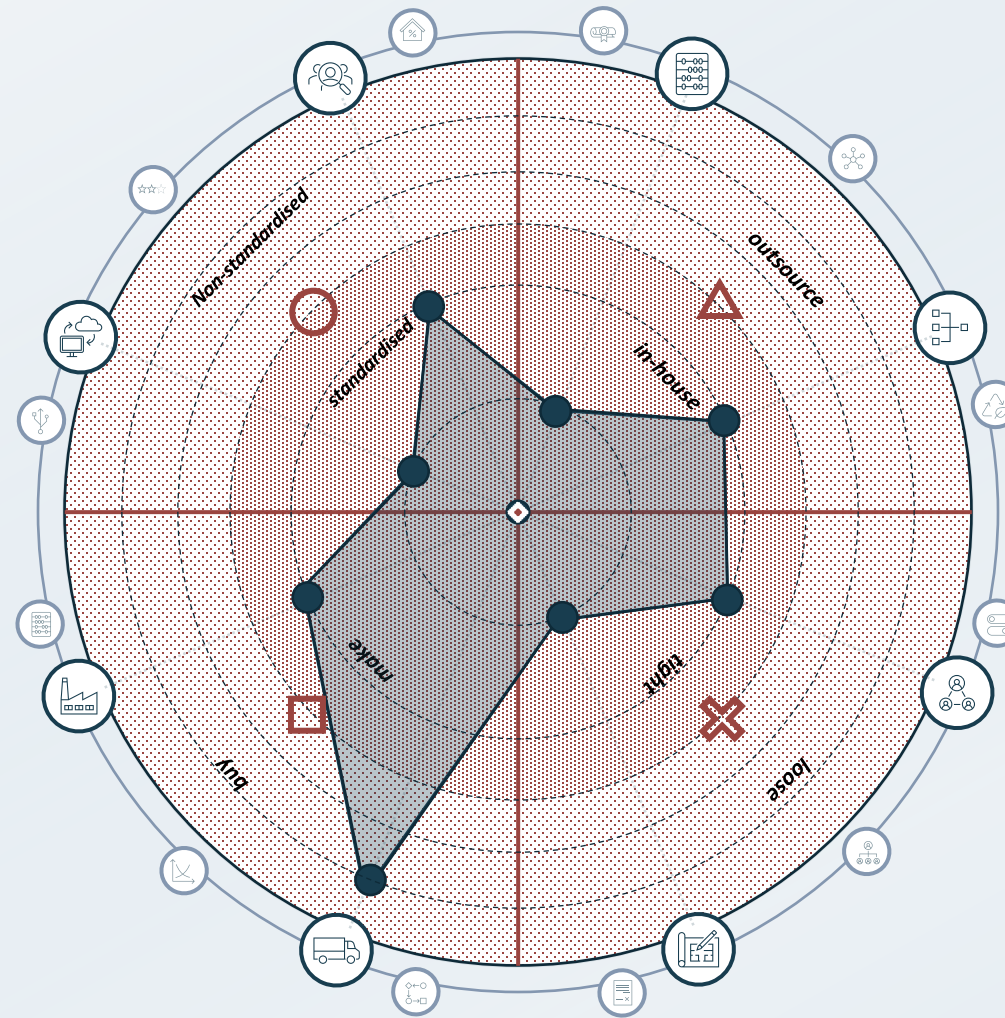


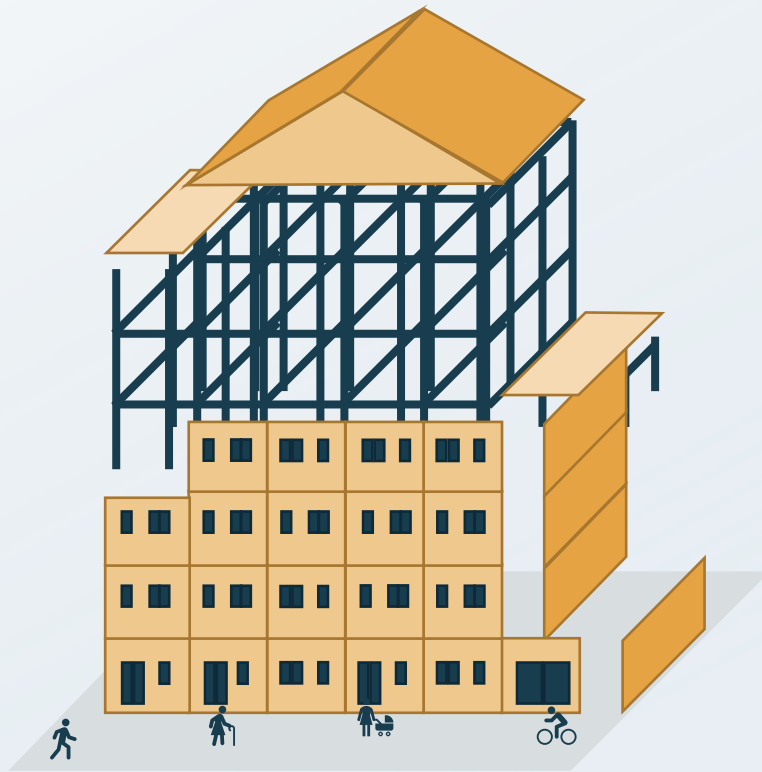
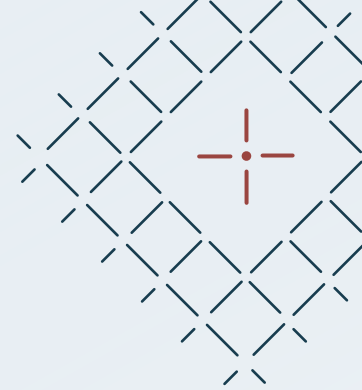
- 1200 units/year
- 25+ years on the market
- Volumetric modules
- 3 products
- Organisational strategy: vertical integration of entire value chain



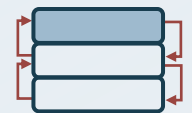


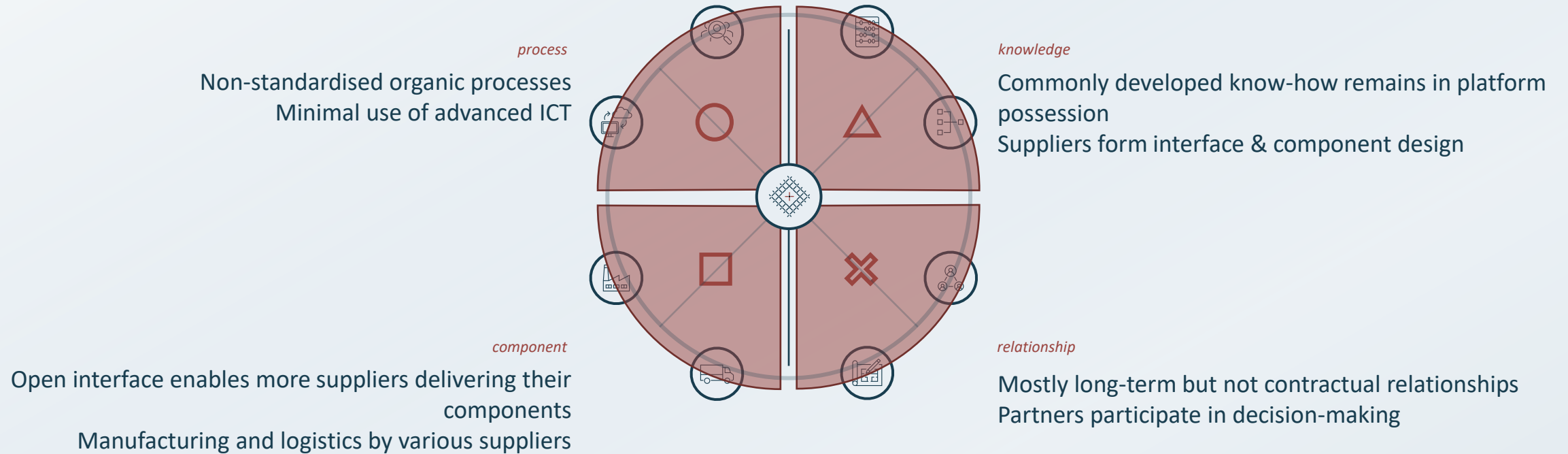
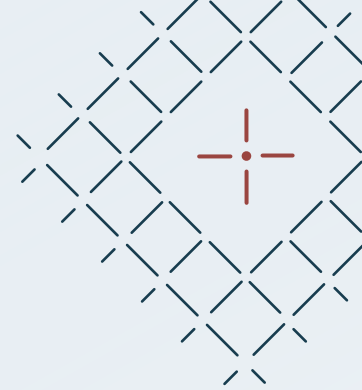
Case A



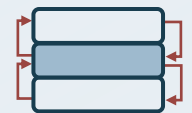
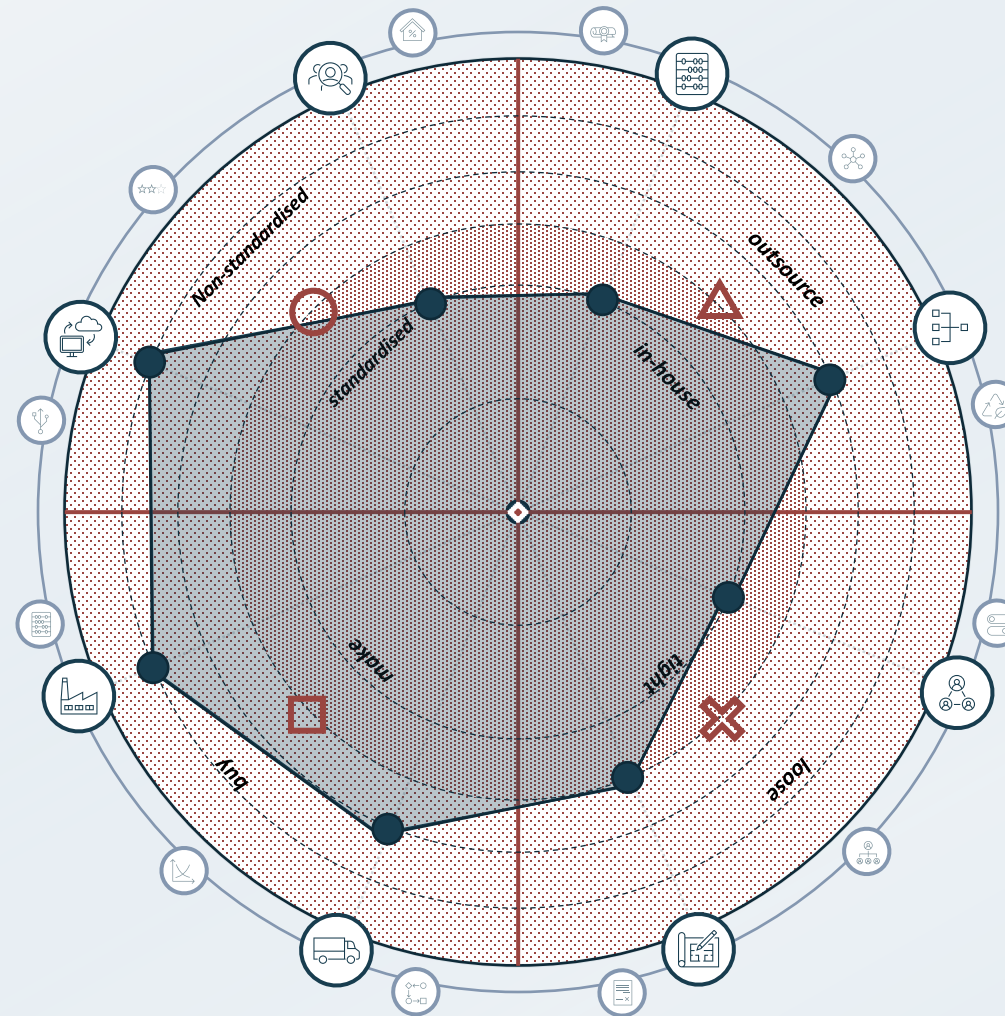


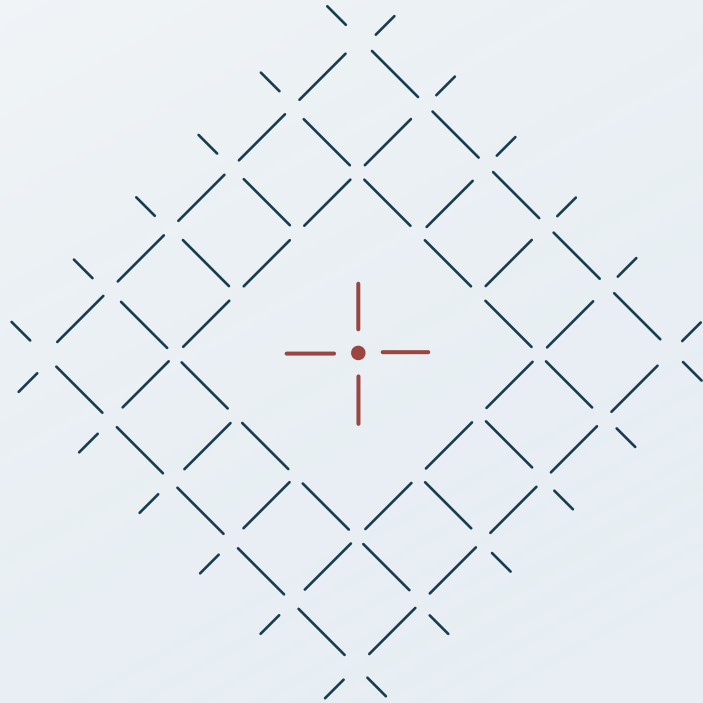
- Development started late 2018
- Panelised component prefabrication
- 4 products
- Organisational strategy: affordable housing by industrialising production





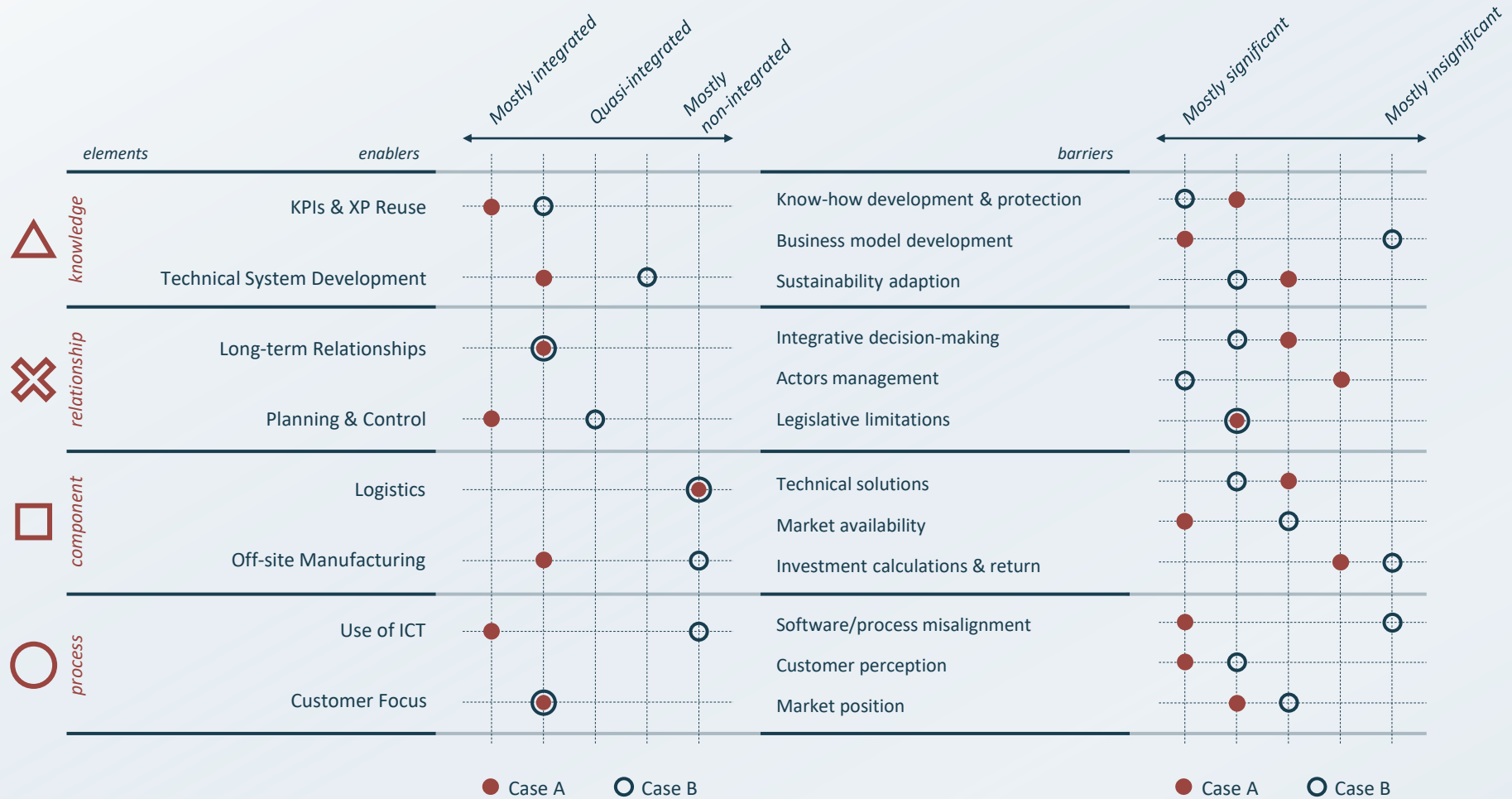
Case B



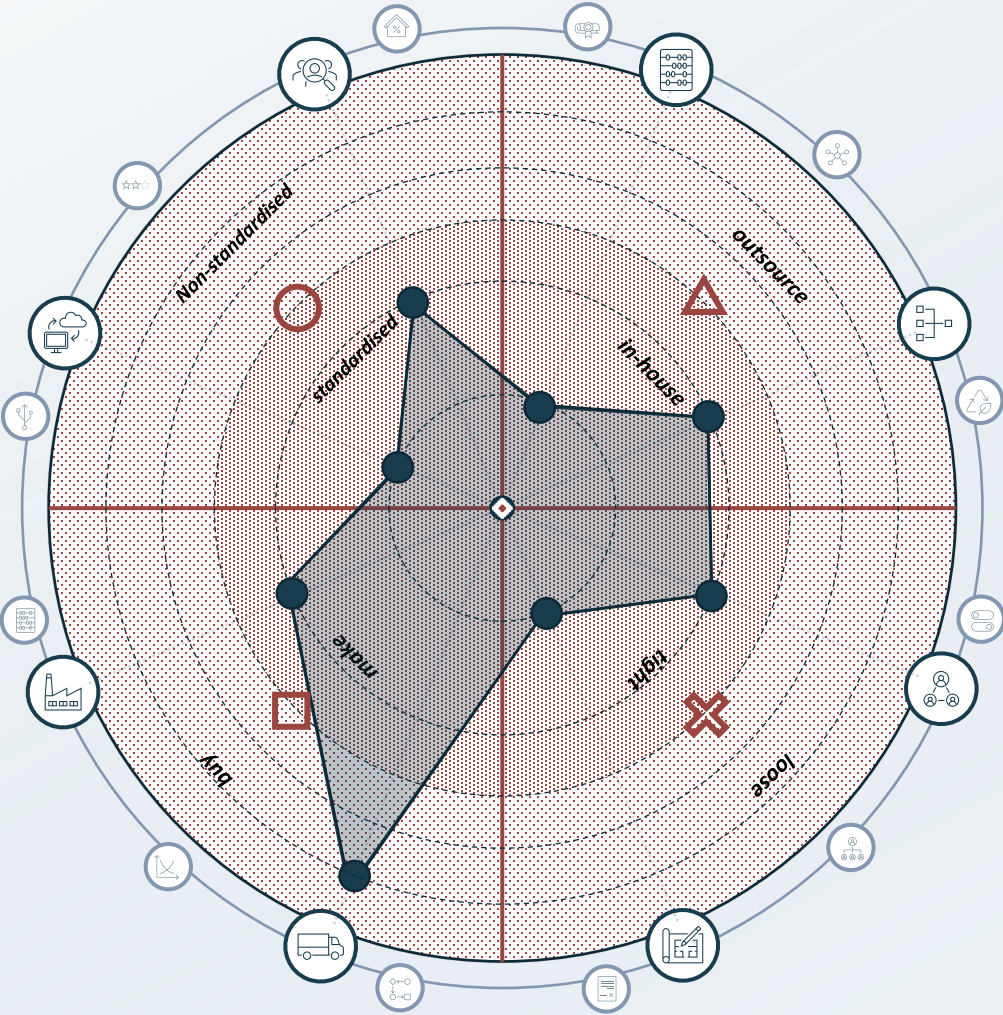


FINDINGS

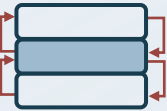
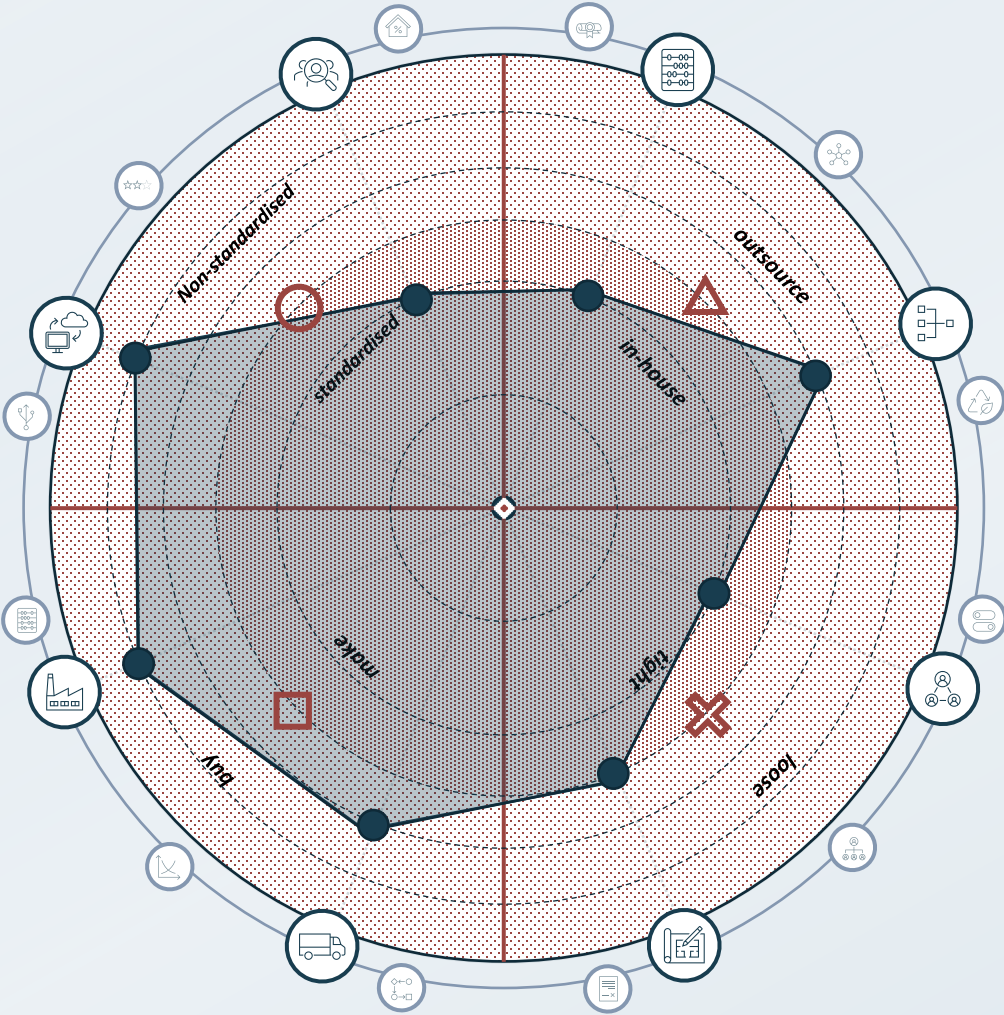


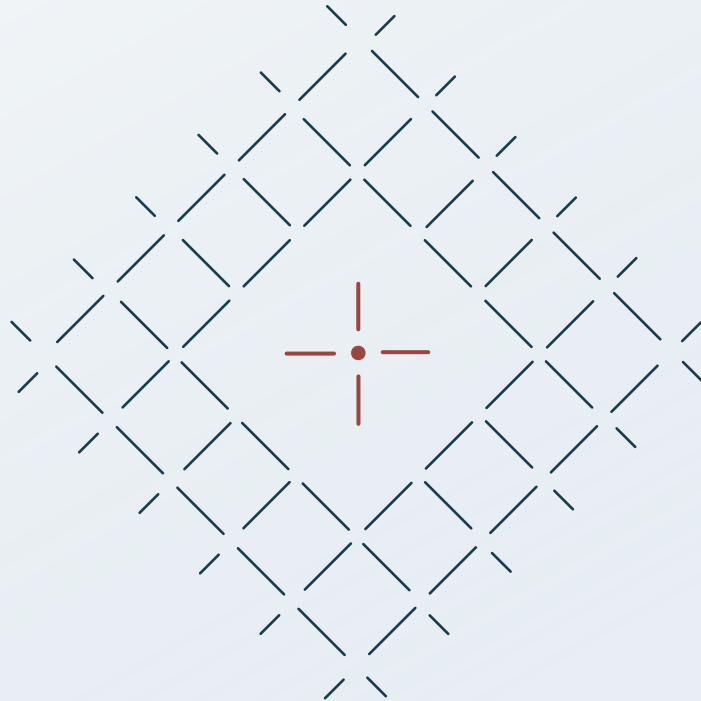


Case A: Platform of Internal Improvement



Case B: Flexible Starter Platform





DISCUSSION

1. General Findings
2. Integration Strategies





GENERAL FINDINGS DISCUSSION

Supply-side orientation

- Platforms focus on supplier attraction rather customers attention
- Various ways how to attract suppliers to the platform
- Traditional developers are the competition

Platform elements integration

Supplier networks



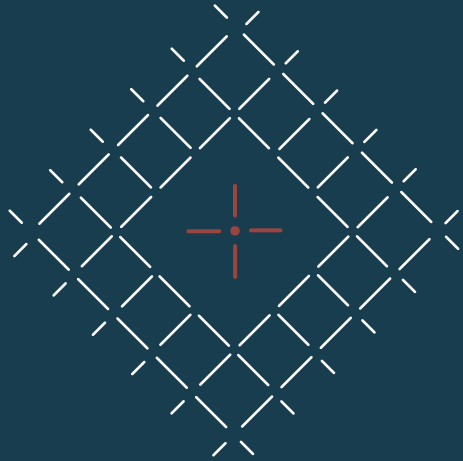
GENERAL FINDINGS DISCUSSION

Supply-side orientation

Platform elements integration

- 3rd strategic level is essential
- Most integrated suppliers are selected by platform owner
- Each element is complex system

Supplier networks



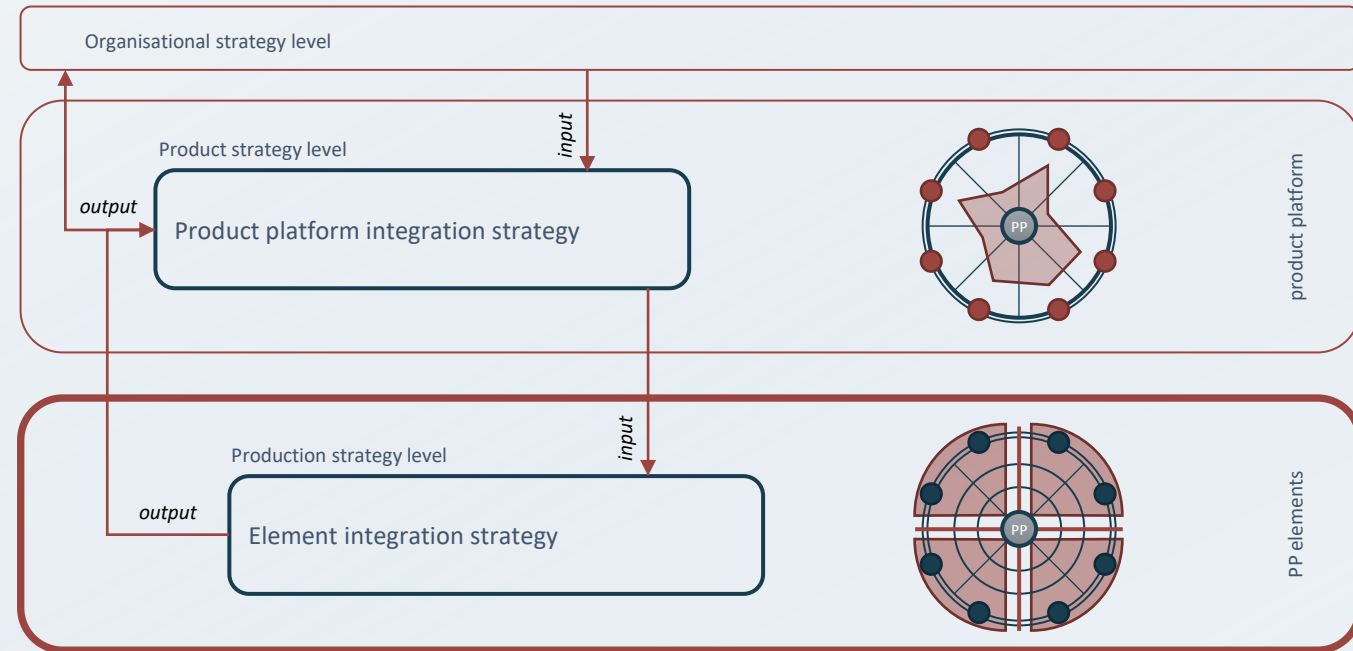
GENERAL FINDINGS DISCUSSION

Supply-side orientation

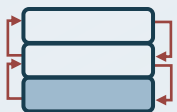
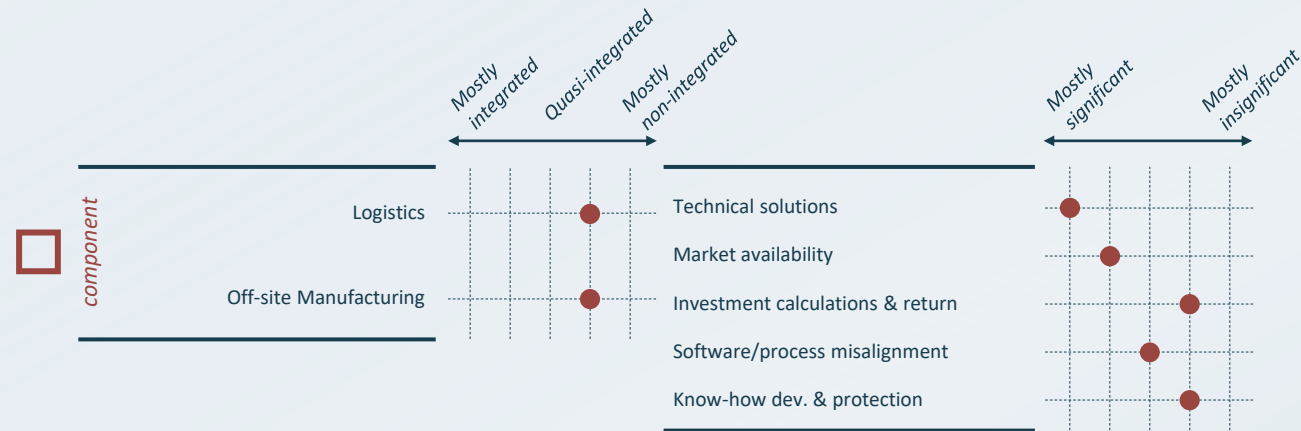
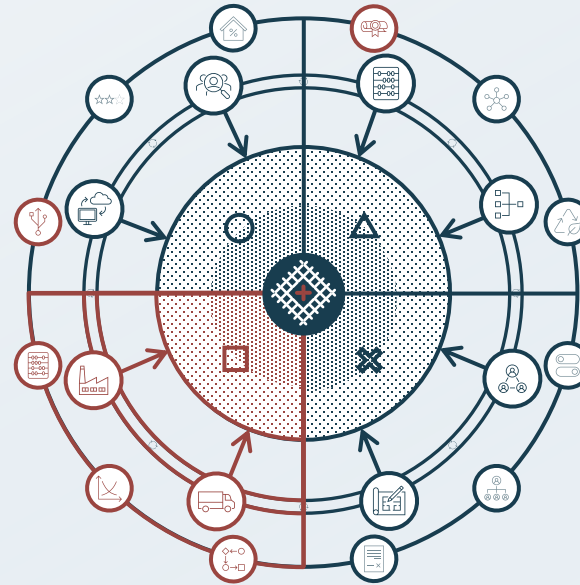
Platform elements integration

Supplier networks

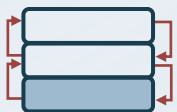
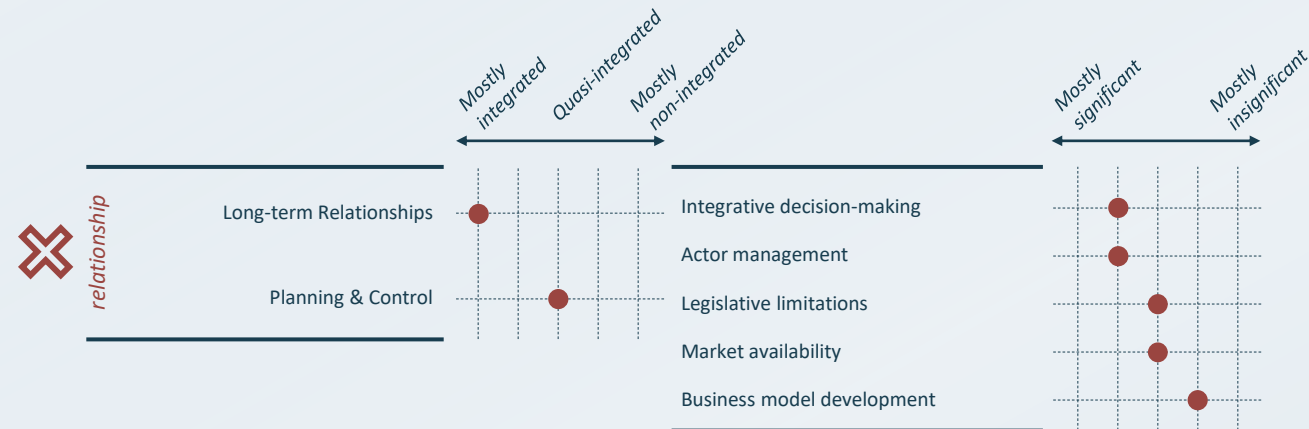
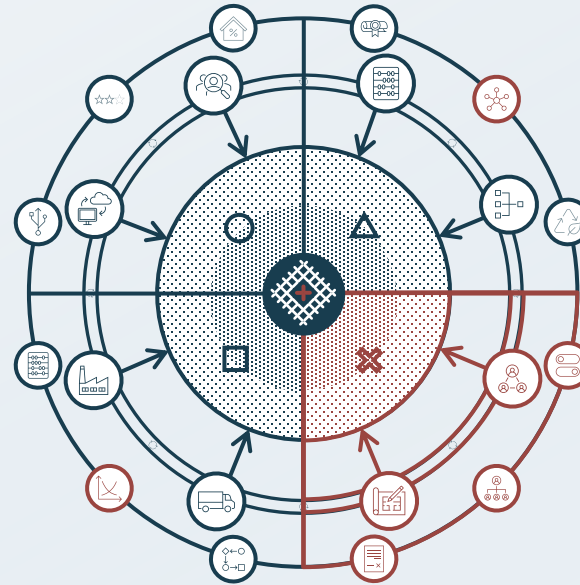
- Municipalities play important role and could be considered as a part of the network
- Each element creates specific network
- Suppliers attract other subcontractors, creating a well-developed supplier network
- Integration occurs on all 3 levels



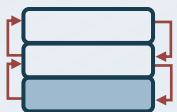
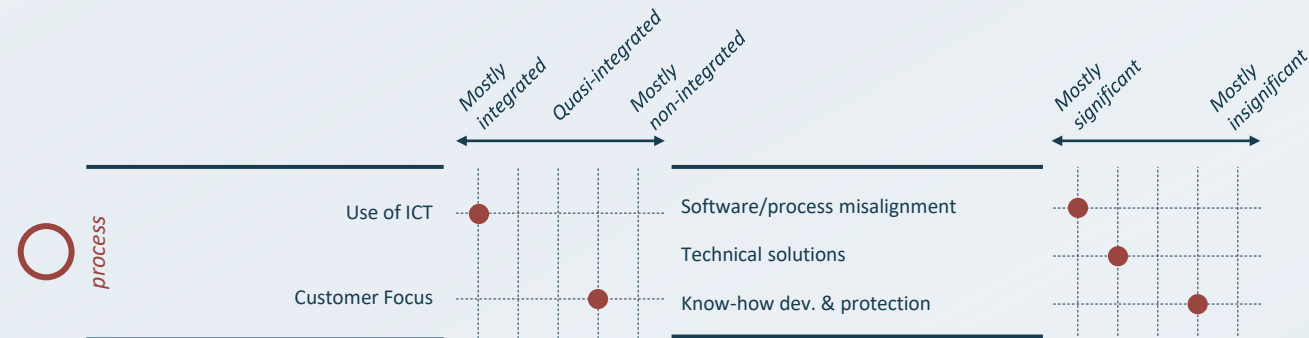
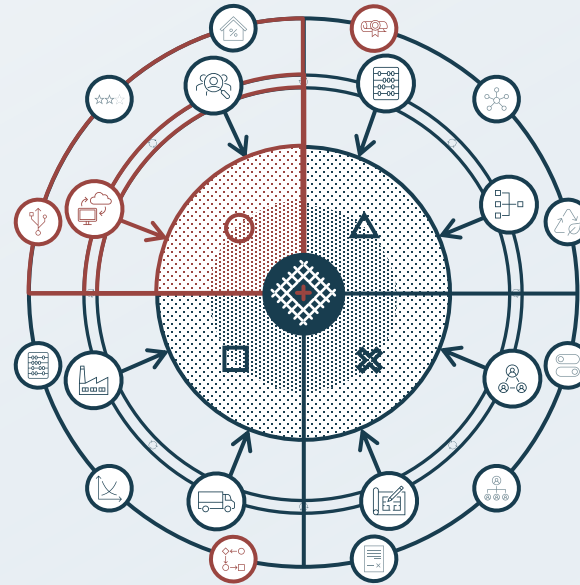
Flexible Components



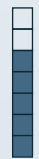
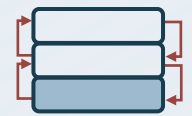
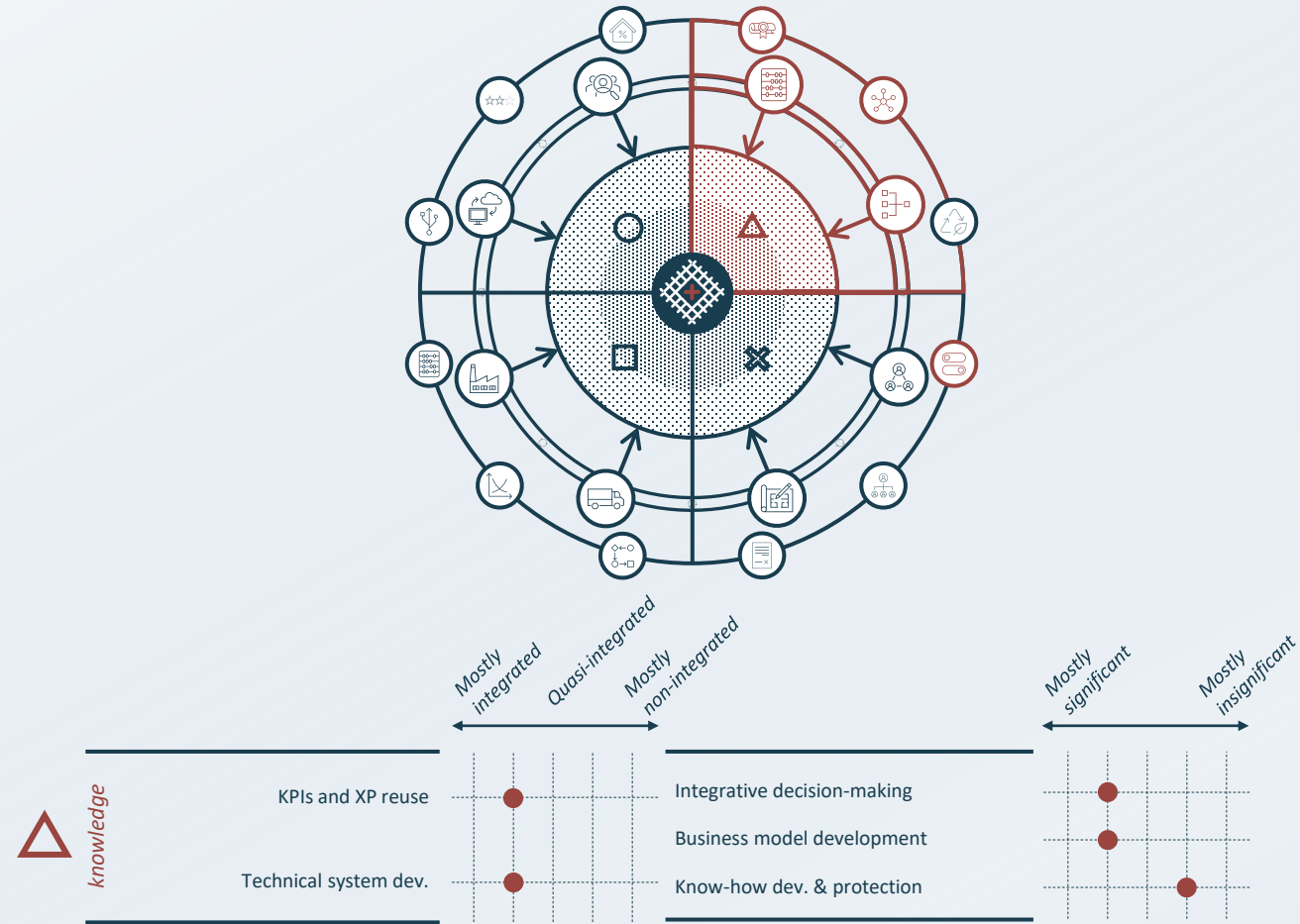
Firm Relationships

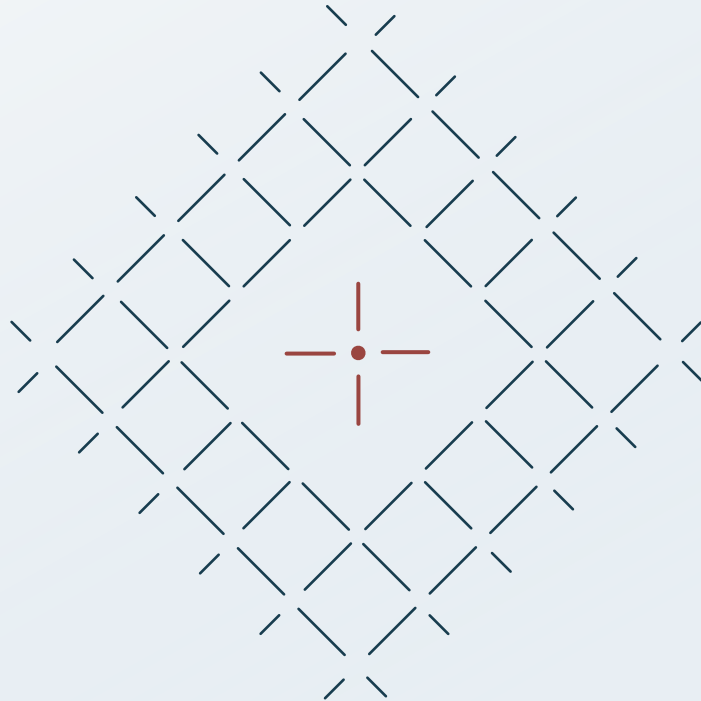


Digital Platform



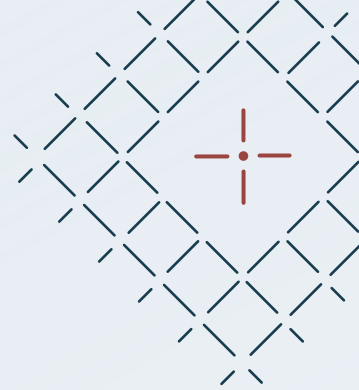
Knowledge Governance





RECOMMENDATIONS





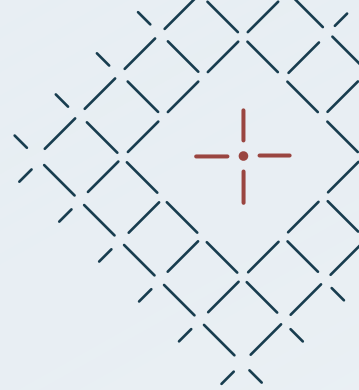
1. Governance style adjustment

- Platforms require different leadership & governance styles by the platform owner
- Governance influences the supplier network creation

2. Network effect is supply & demand side

- Network effect is created by suppliers and customers too
- Customer focus is essential





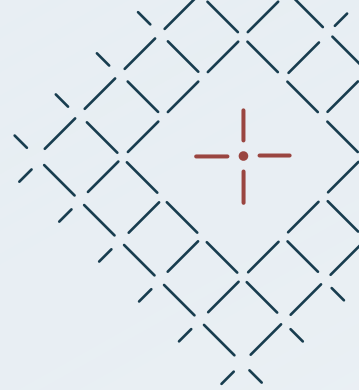
1. Governance style adjustment

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2. Network effect is supply & demand side

- Network effect is created by suppliers and customers too
- Customer focus is essential





1. Strategic alignment

- All three levels must be aligned
- Mind internal goals and resources

2. Long-term perspective

- Integration requires time
- It requires scale & scope

3. Actors in decision-making

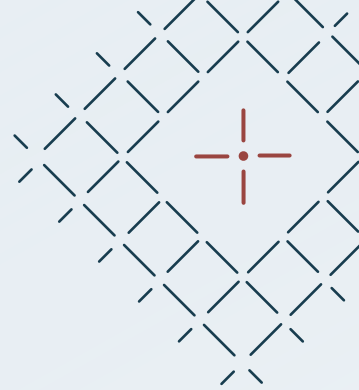
- Influential actors should participate in decision-making
- It promotes learning process & long-term integration

4. Municipalities are actors too

- Governmental bodies have significant influence on a product design
- Their integration at an early stage can facilitate future product adaptation

5. Select partners who bring added-value

- Mostly applicable for closed or semi-open platforms
- Partners with new insights prevent platform stagnation



1. Strategic alignment

- All three levels must be aligned
- Mind internal goals and resources

2. Long-term perspective

- Integration requires time
- It requires scale & scope

3. Actors in decision-making

- Influential actors should participate in decision-making
- It promotes learning process & long-term integration

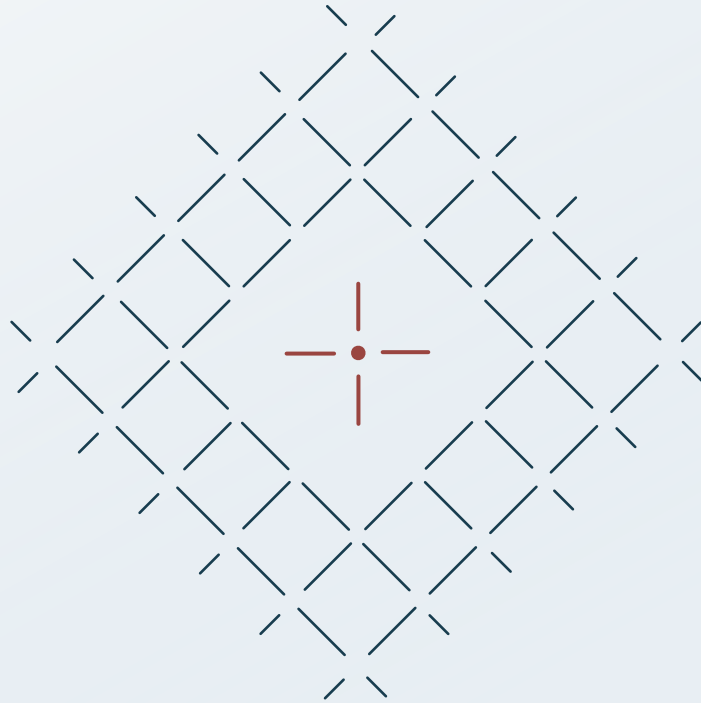
4. Municipalities are actors too

- Governmental bodies have significant influence on a product design
- Their integration at an early stage can facilitate future product adaptation

5. Select partners who bring added-value

- Mostly applicable for closed or semi-open platforms
- Partners with new insights prevent platform stagnation





CONCLUSION





SQ1: WHAT ARE THE CRITICAL ASPECTS OF PRODUCT PLATFORM DEVELOPMENT?

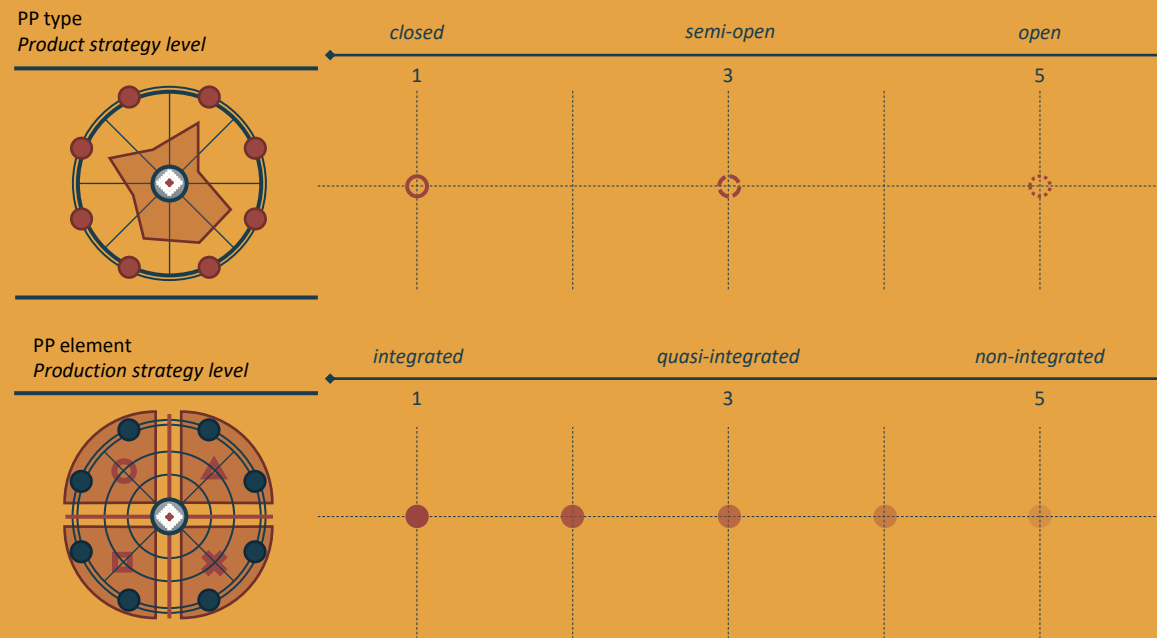
2 strategic options / 4 PP elements / 8 enablers / 12 barriers

options	elements	enablers	barriers
	 knowledge	KPIs & XP Reuse Technical System Development	Know-how development & protection Business model development Sustainability adaption
	 relationship	Long-term Relationships Planning & Control	Integrative decision-making Actors management Legislative limitations
	 component	Logistics Off-site Manufacturing	Technical solutions Market availability Investment calculations & return
	 process	Use of ICT Customer Focus	Software/process misalignment Customer perception Market position



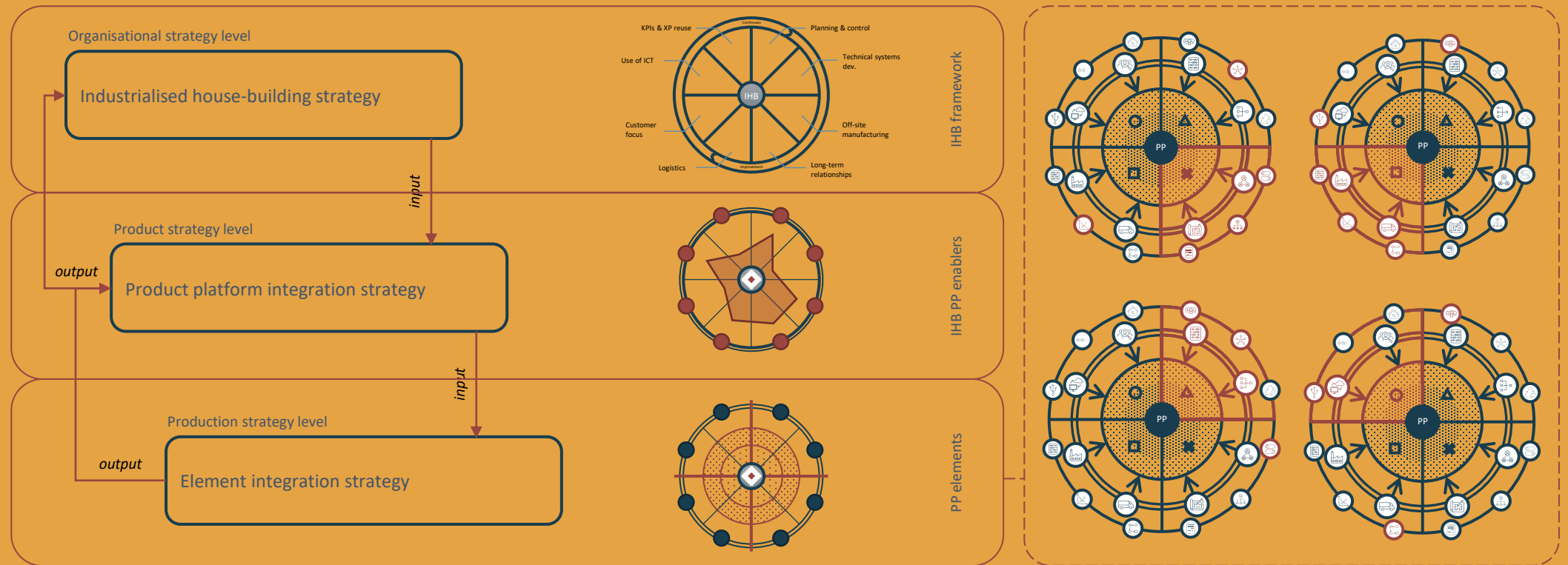
SQ2: WHAT ARE THE TYPES OF SUPPLIER NETWORK RELATIONSHIPS IN A PRODUCT PLATFORM DEVELOPMENT?

Platform openness & element integration





MRQ: WHAT ARE THE STRATEGIES TO INTEGRATE SUPPLIER NETWORKS IN INDUSTRIALISED HOUSE-BUILDING PRODUCT PLATFORM DEVELOPMENT?



PRODUCT PLATFORM INTEGRATION STRATEGIES

Supplier network integration strategies in industrialised house-building
product platform development: the platform owner perspective



Paul Chan



Herman Vande Putte

Thank you!

PRODUCT PLATFORM INTEGRATION STRATEGIES

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