

# Design systems impact on implicit alignment work of UX designers and UI developers

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# Introduction and motivation

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# What?

- ▷ User centered design and agile software development working together
- ▷ The role of design systems

# Why?

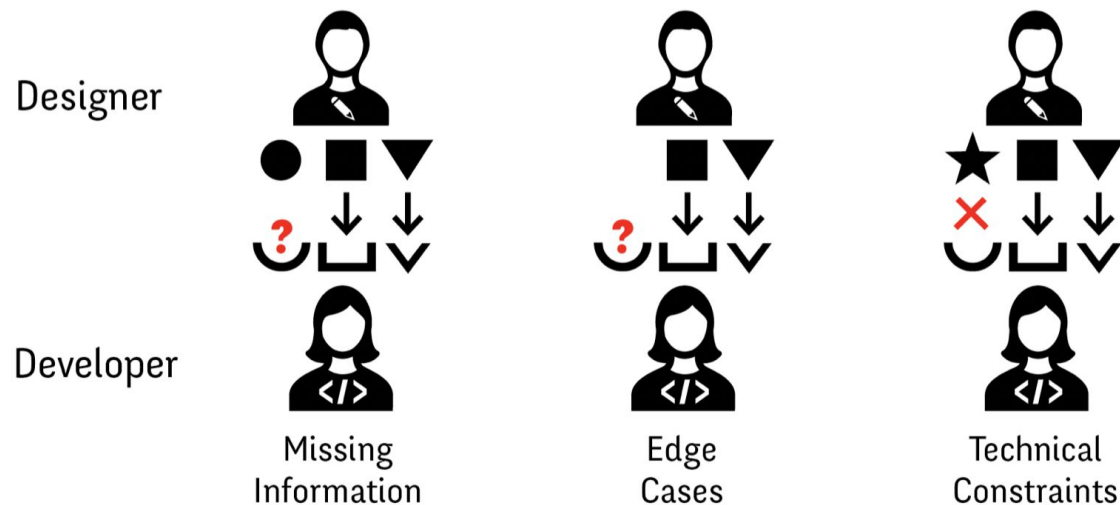
Today, all the companies are software development companies

1.

# WHY PRODUCTS FAIL?

or why the UX is so broken

# Design breakdowns

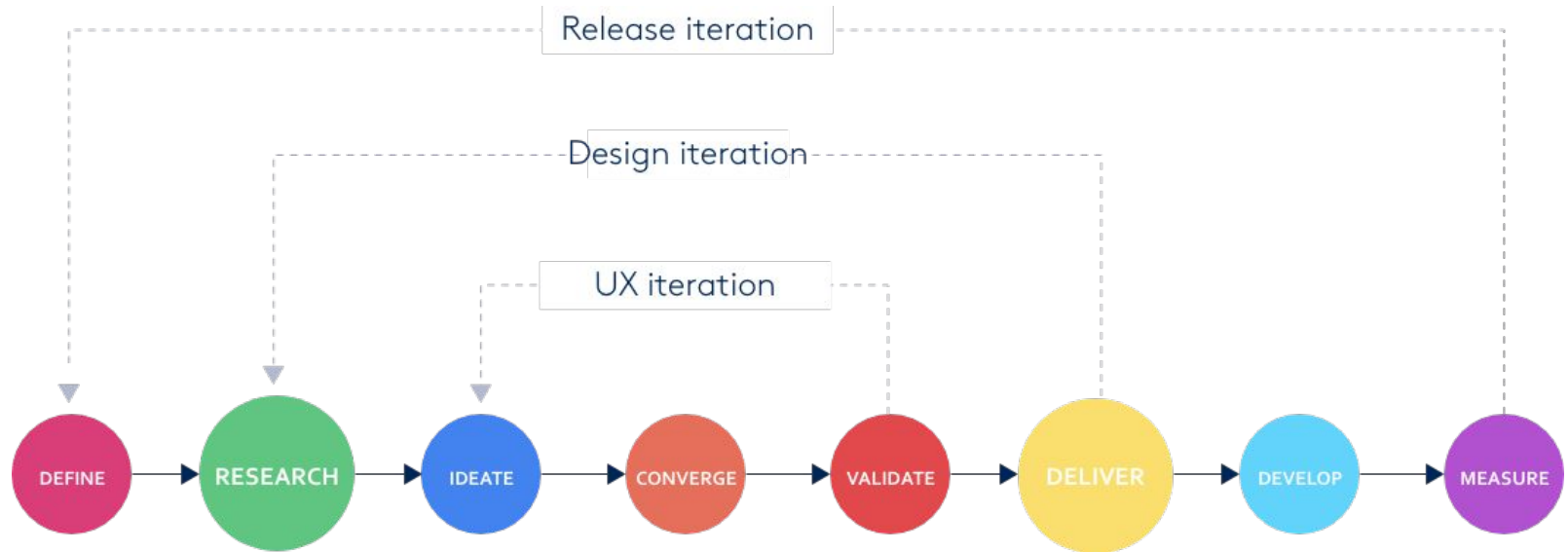


Maudet, Nolwenn, Germán Leiva, Michel Beaudouin-Lafon, and Wendy Mackay. 2017. “Design Breakdowns: Designer-Developer Gaps in Representing and Interpreting Interactive Systems.”

# Mental models

DESIGNER	DEVELOPER
holistic view, big picture	detail-focused
flat mock-ups	modularisation
lack of technical skills	lack of early feedback

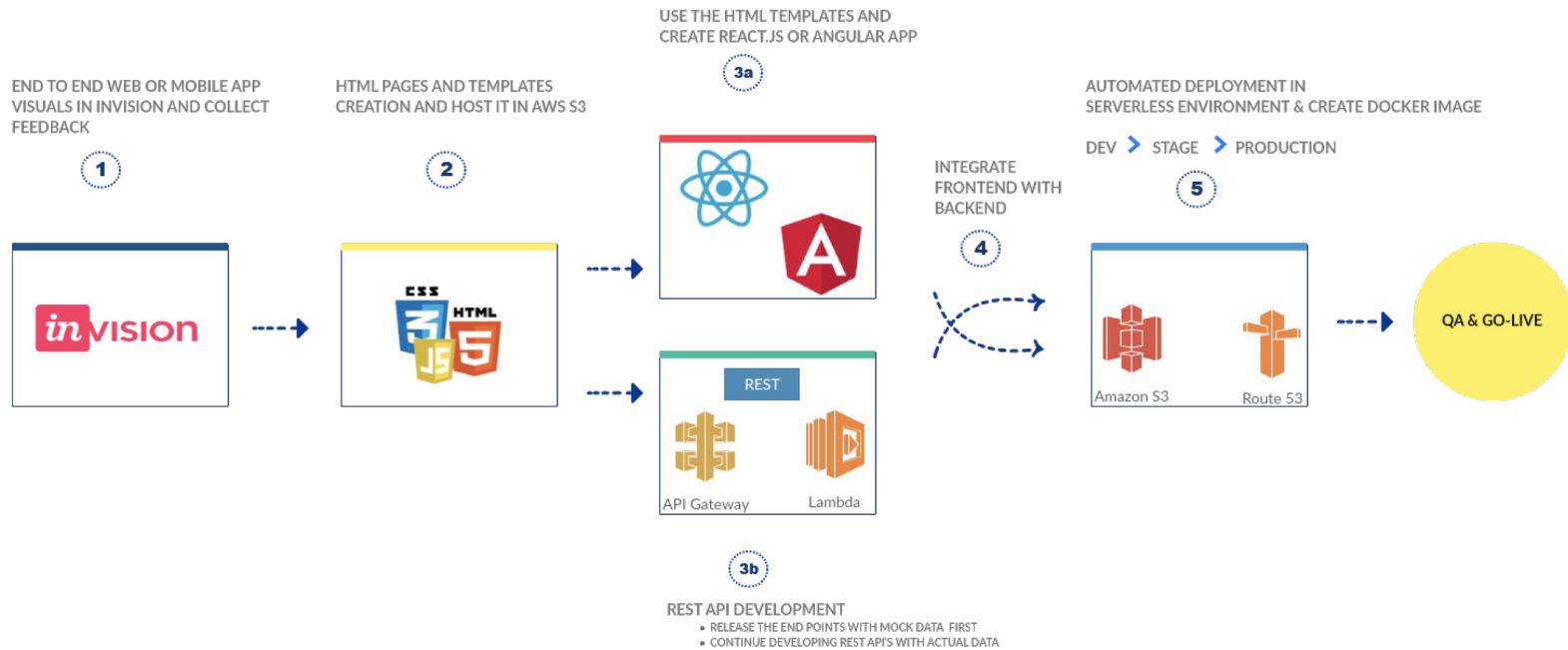
# UI creation flow



<https://medium.com/@manuellask/ux-workflow-combining-design-thinking-lean-ux-agile-development-d485243b75f8>



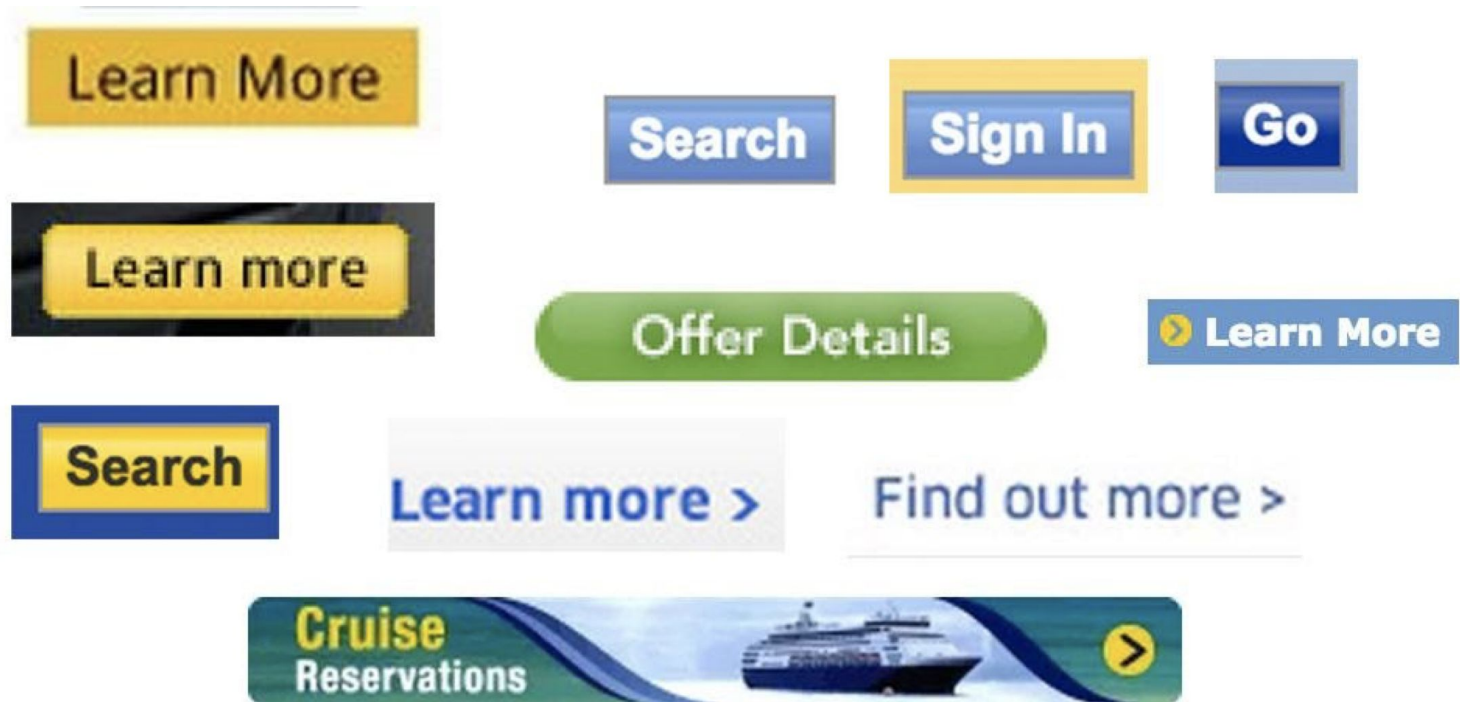
# The workflow



# Iterative agile process



# Inconsistent interfaces



 **THOUSANDS**

of pages

 **UPDATES**

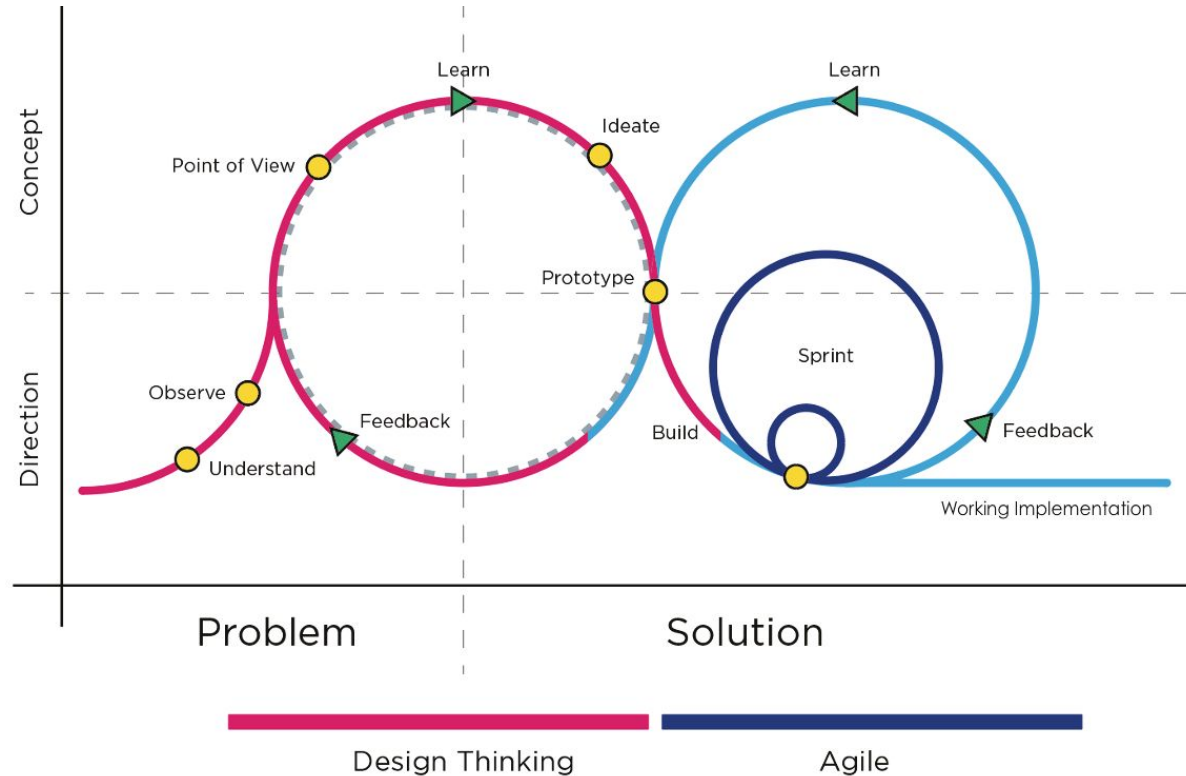
every week, or even every day

 **DOZENS OF TEAMS**

of developers, designers, managers

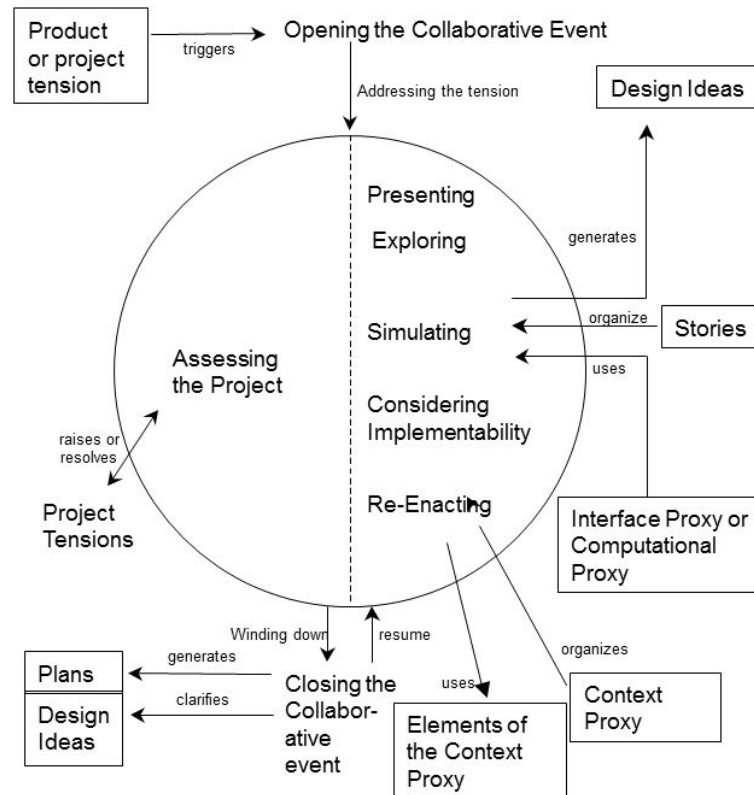
# 2. KNOWLEDGE of today

# Dual-tack agile



Yalcinkaya, Mehmet. 2017. "Understanding the Technical and Cognitive Challenges, and Closing the Gaps in Architectural, Engineering, Construction-Facility Management Standards." Doctoral dissertation, Aalto University, Helsinki.

# Joint alignment work



Brown, Judith M., Gitte Lindgaard, and Robert Biddle. 2012. "Joint Implicit Alignment Work of Interaction Designers and Software Developers." P. 693 in Proceedings of the 7th Nordic Conference on Human-Computer Interaction Making Sense Through Design - NordiCHI '12. Copenhagen, Denmark: ACM Press.

# 3. DESIGN SYSTEMS

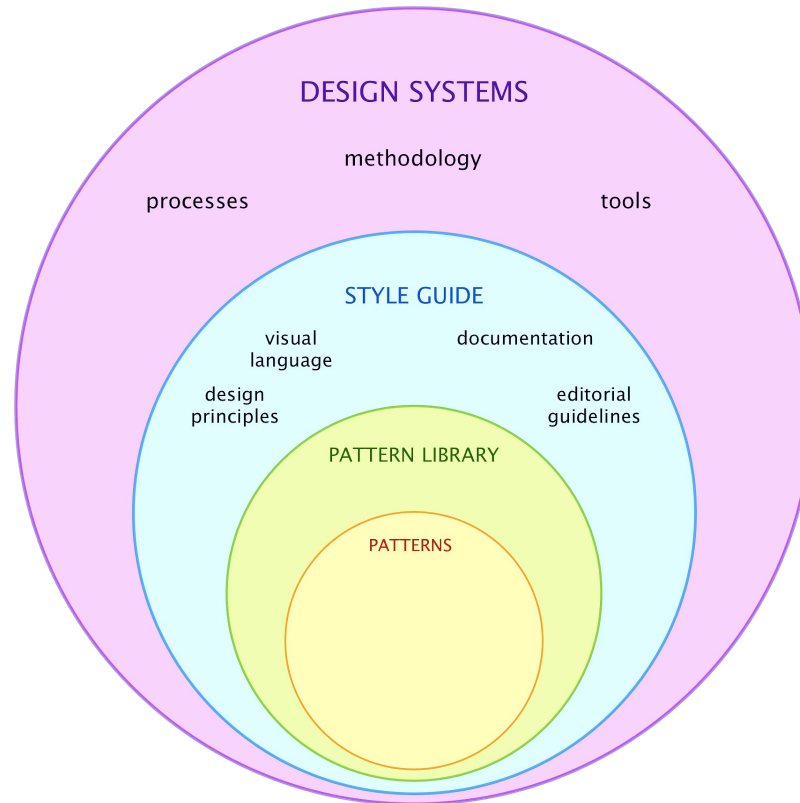
and what they change





*Design system is a systematic approach for creating, implementing and maintaining user interfaces.*

# What it means?



<https://varya.me/blog/design-systems-review/>

I need an MVP:  
Minimum-Viable  
Product.  
I need an MDP:  
Minimum  
Desirable  
Product.

If you're familiar with Eric Reis' Lean Startup methodology, he suggests you start by building an MVP: a product with just enough features to solve the core problem and start getting customer feedback.

An MVP focuses on the business perspective—what's the bare minimum I have to build in order to figure out whether or not I have a business? From a marketing perspective, Andrew Chen suggests we aim at building a Minimum Desirable Product instead.

What's the difference?

Simply, a minimum desirable product is one that focuses on the customer perspective—what's the minimum product I have to build to provide a great experience that creates enough value for the user to come back.

His definition:

"Minimum Desirable Product is the simplest experience necessary to prove out a high-value, satisfying product experience for users (independent of business viability)."

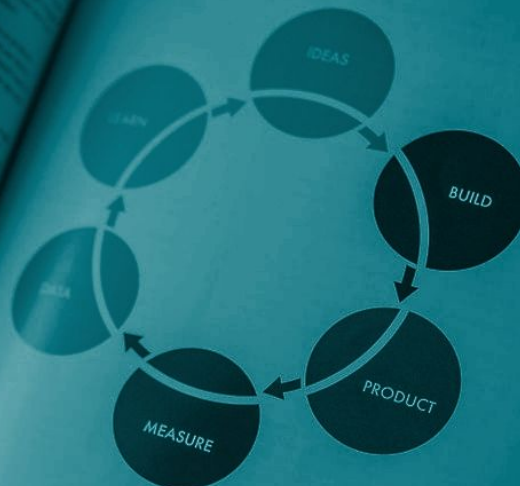
— Andrew Chen

BUT WHAT ABOUT THE  
FEEDBACK LOOP? "MEASURE" AND "LEARN"  
ARE THE OTHER TWO  
KEY PARTS OF THE LEAN  
STARTUP METHODOLOGY.  
SO YOU CAN CONTINUALLY  
ITERATE AND  
IMPROVE.

Instead, do an MVP: measure, build, and learn. Build in public, prove to others, and iterate.

By showing what you're building better, you can:

- Build audience early
- Get feedback
- Increase revenue
- Excite



TAKEAWAY

Each UI piece has its  
own development cycle

# 4.

# THE RESEARCH

question, objectives, and design

# Research objective

To understand the impact of the design systems on the alignment work of designer and developer.

# Research question

What do the design systems change in the alignment work of designer and developer?

# The research process

Data collection

6 semi-structured interviews

- 3 with designers
- 3 with developers

Codifying

Grounded theory

- 1st level concepts
- themes
- color-coded grouping

Theory building

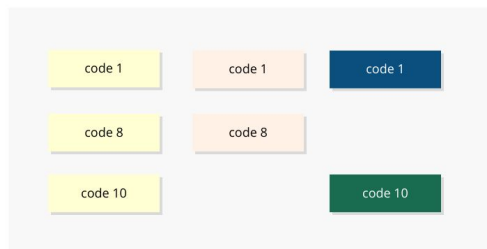
Finding and explaining relations between concepts

# Color-coded theme grouping

black text & light background — designers

white text & dark background — developers

**theme 1**



**theme 2**



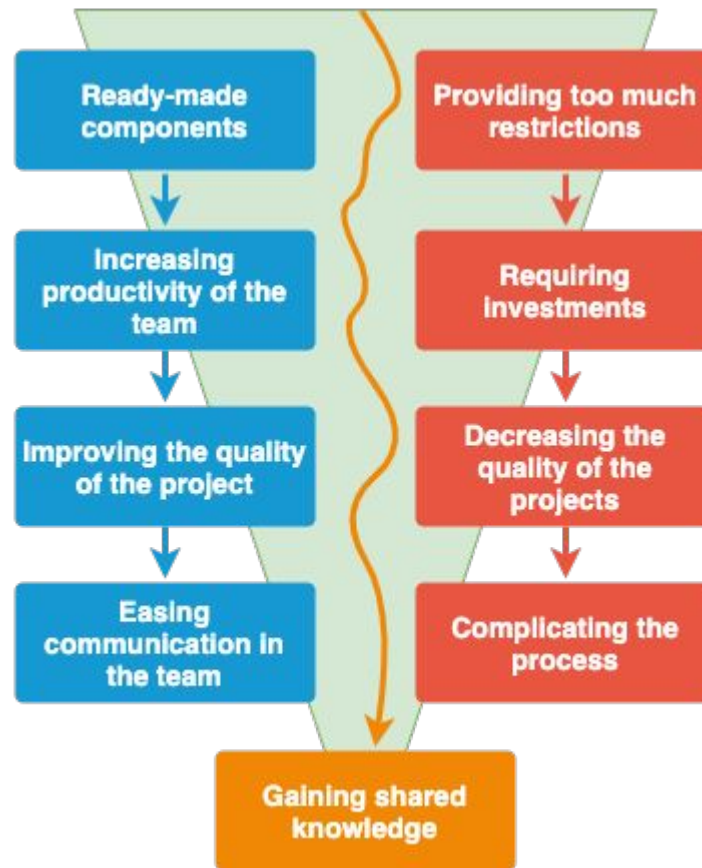
**theme 3**



# 5. THE FINDINGS



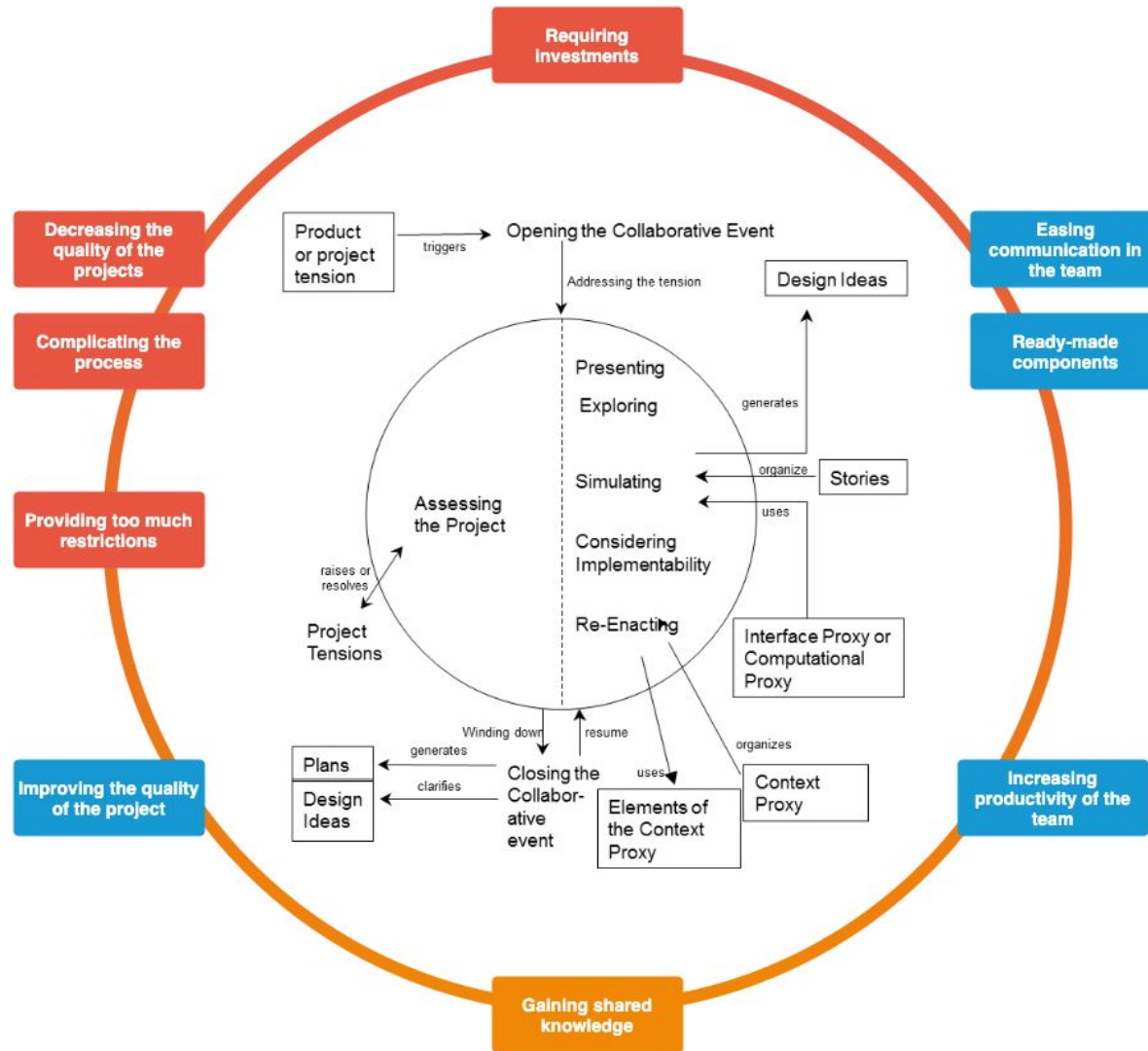
# Design-systems impact scheme



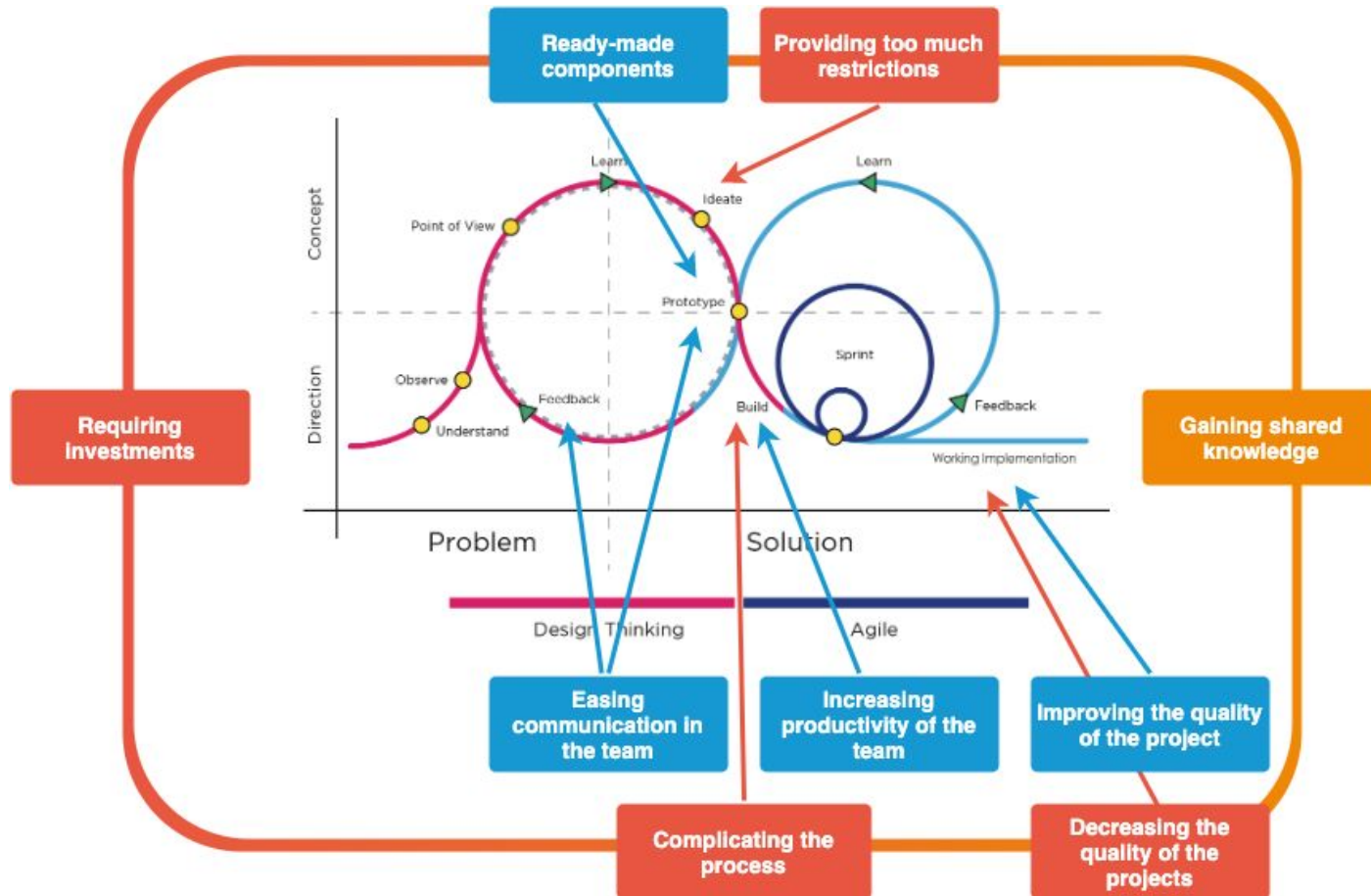
# The insights

- ▷ both positive and negative effects
- ▷ the balance work
- ▷ **gaining shared knowledge**

# on the alignment work model



# on the dual-track agile scheme



# Application of results

- ▷ justification of using design systems on the methodological level
- ▷ organising multidisciplinary work
- ▷ context for creating working tools

# Future studies

- ▷ same study on larger data set
- ▷ focus on “gaining shared knowledge”
- ▷ different shapes of design systems and their impact on the workflow
- ▷ other methodologies and attributes affecting the alignment work

# Thanks!

## Any questions?

Varya Stepanova

*Aalto University, December 2020*