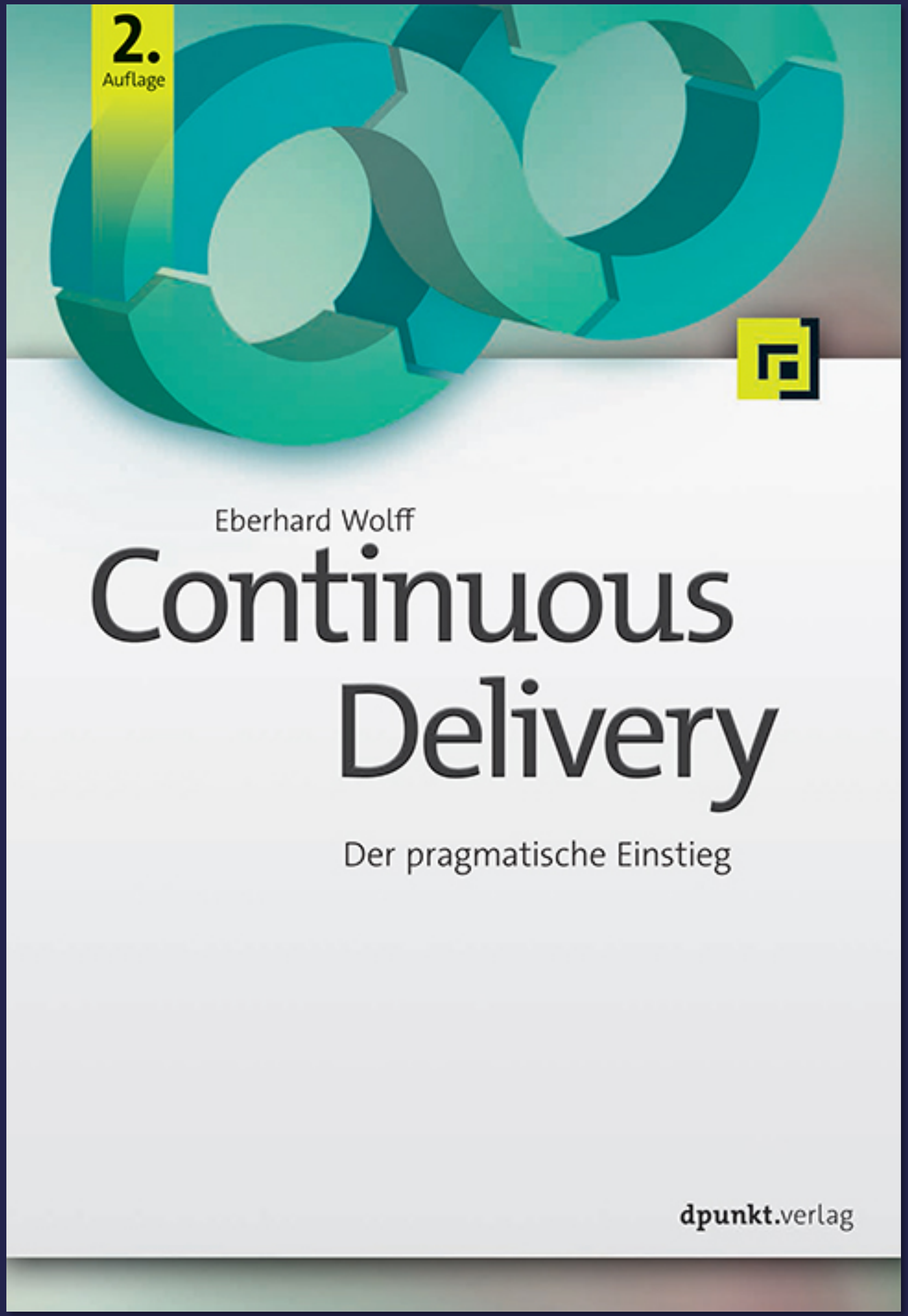
Organization: A Tool for Architecture

INNOQ

Eberhard Wolff
Fellow



2. Auflage

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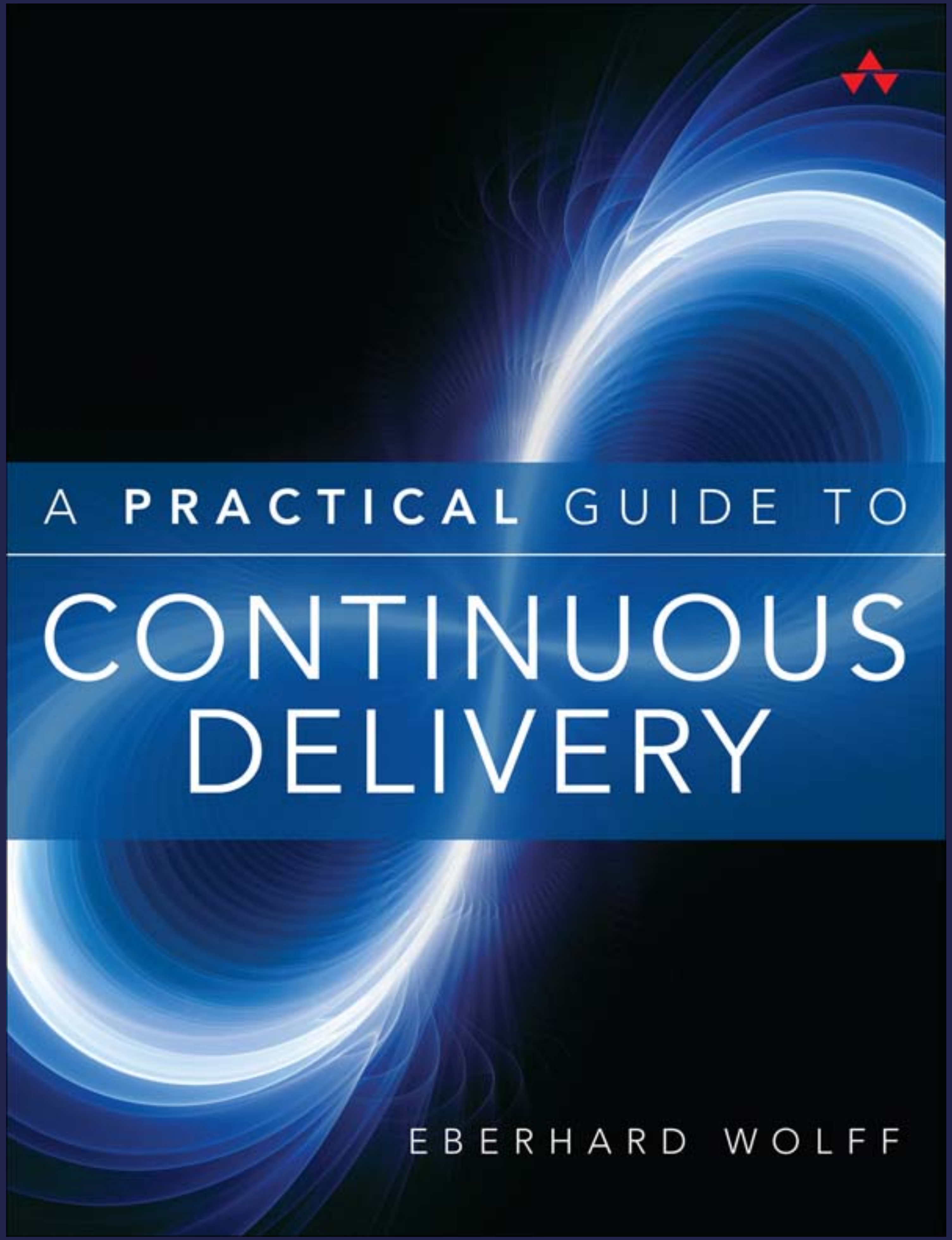

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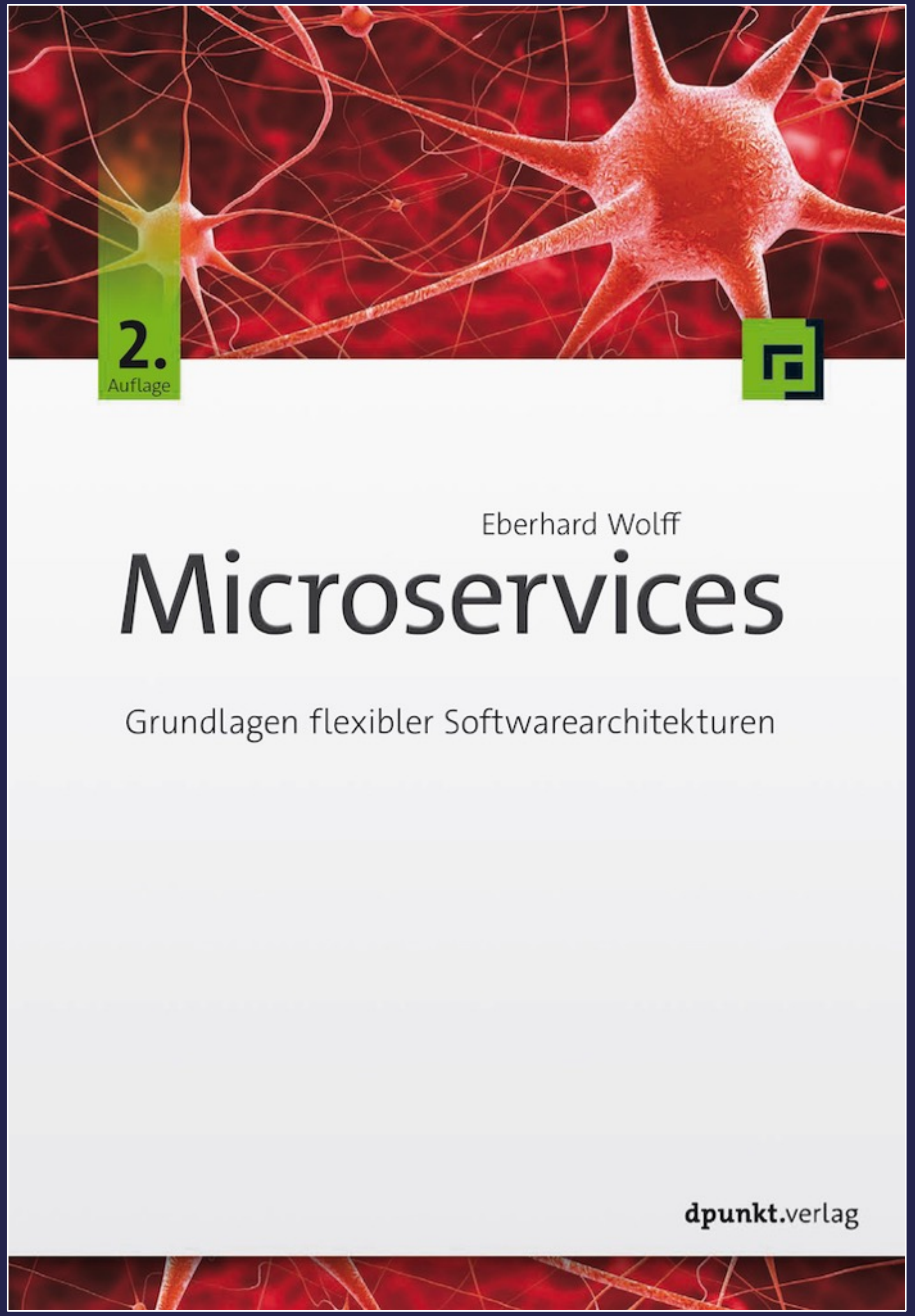

2. Auflage

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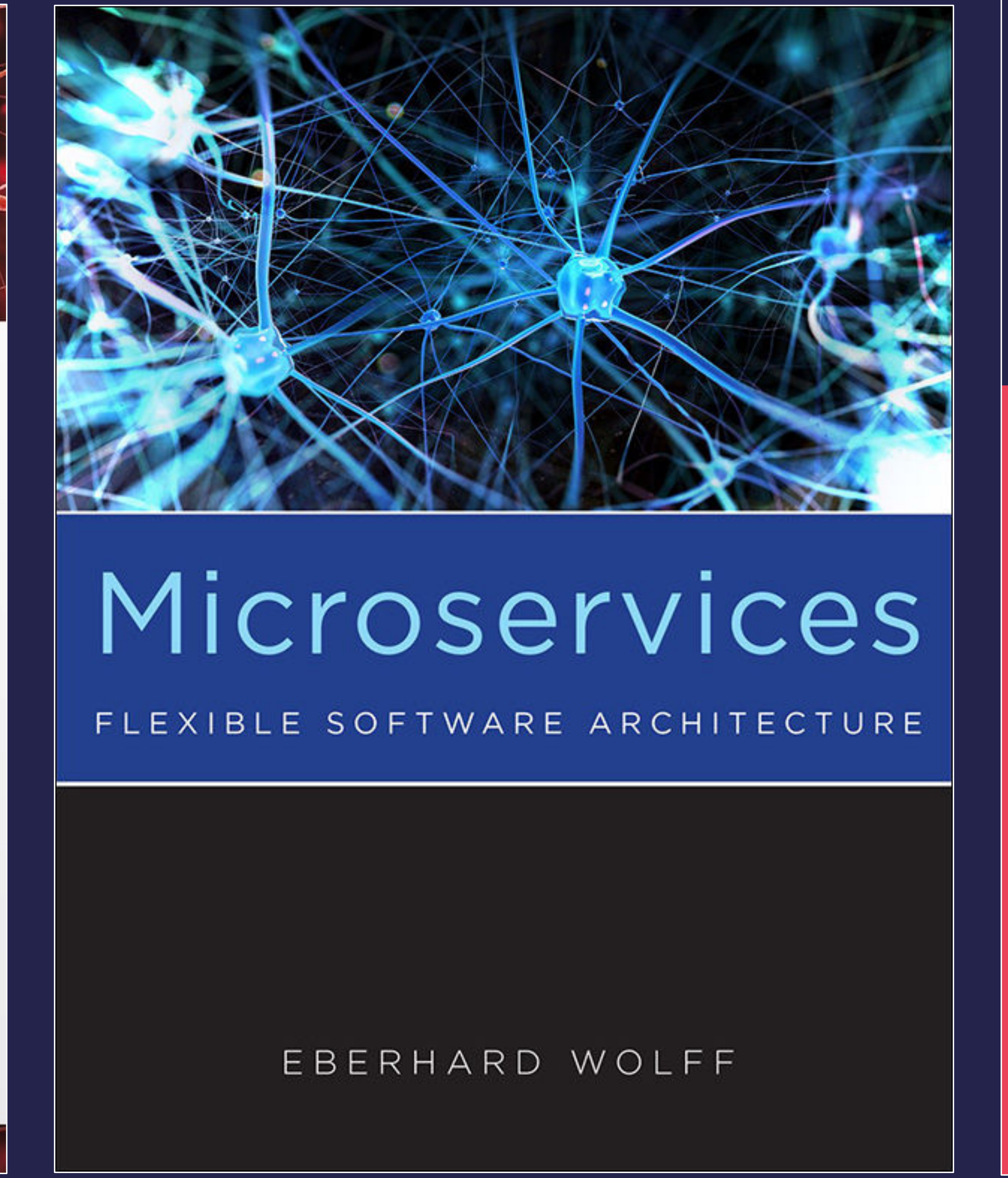

Microservices

FLEXIBLE SOFTWARE ARCHITECTURE

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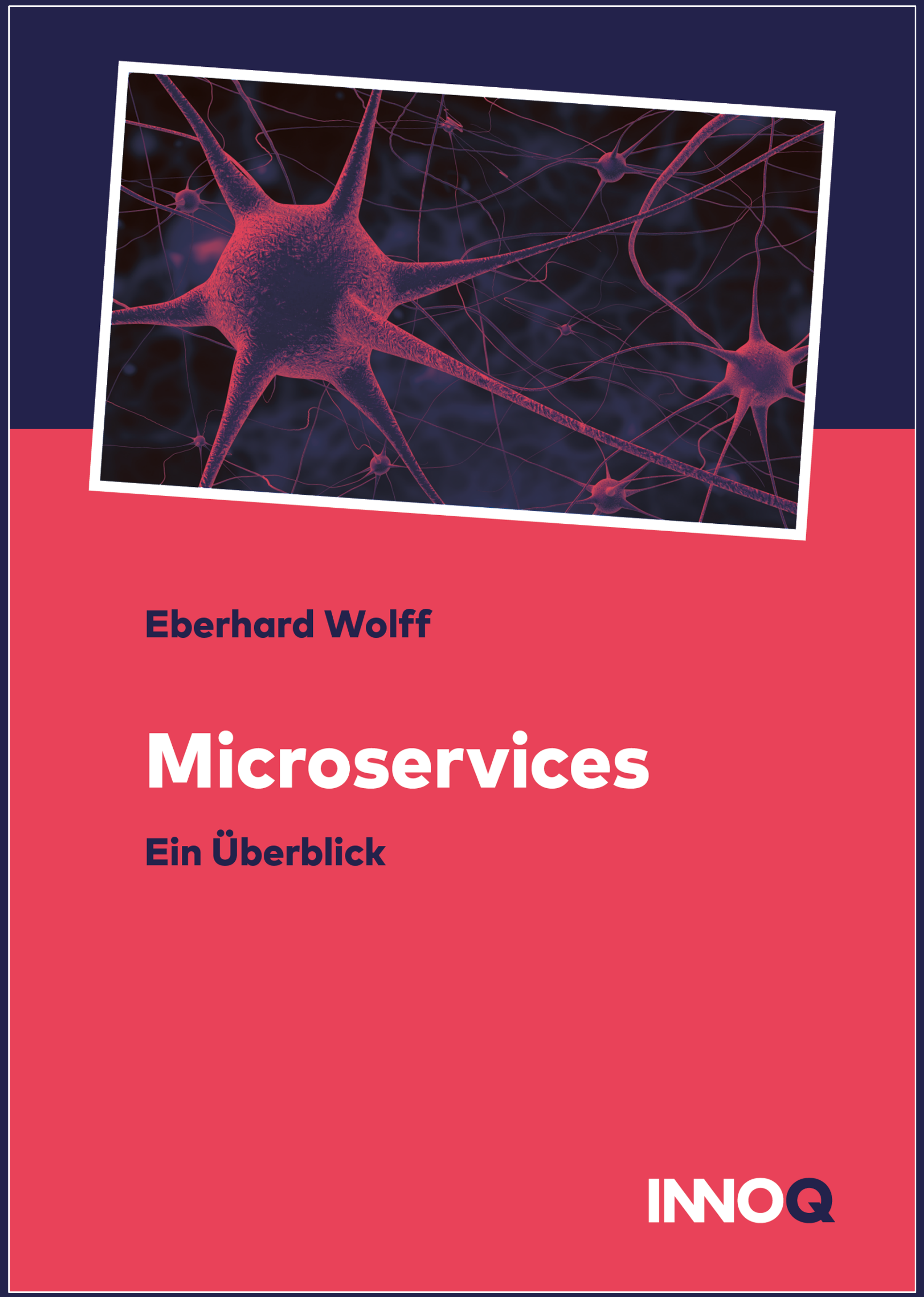

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Microservices

Ein Überblick

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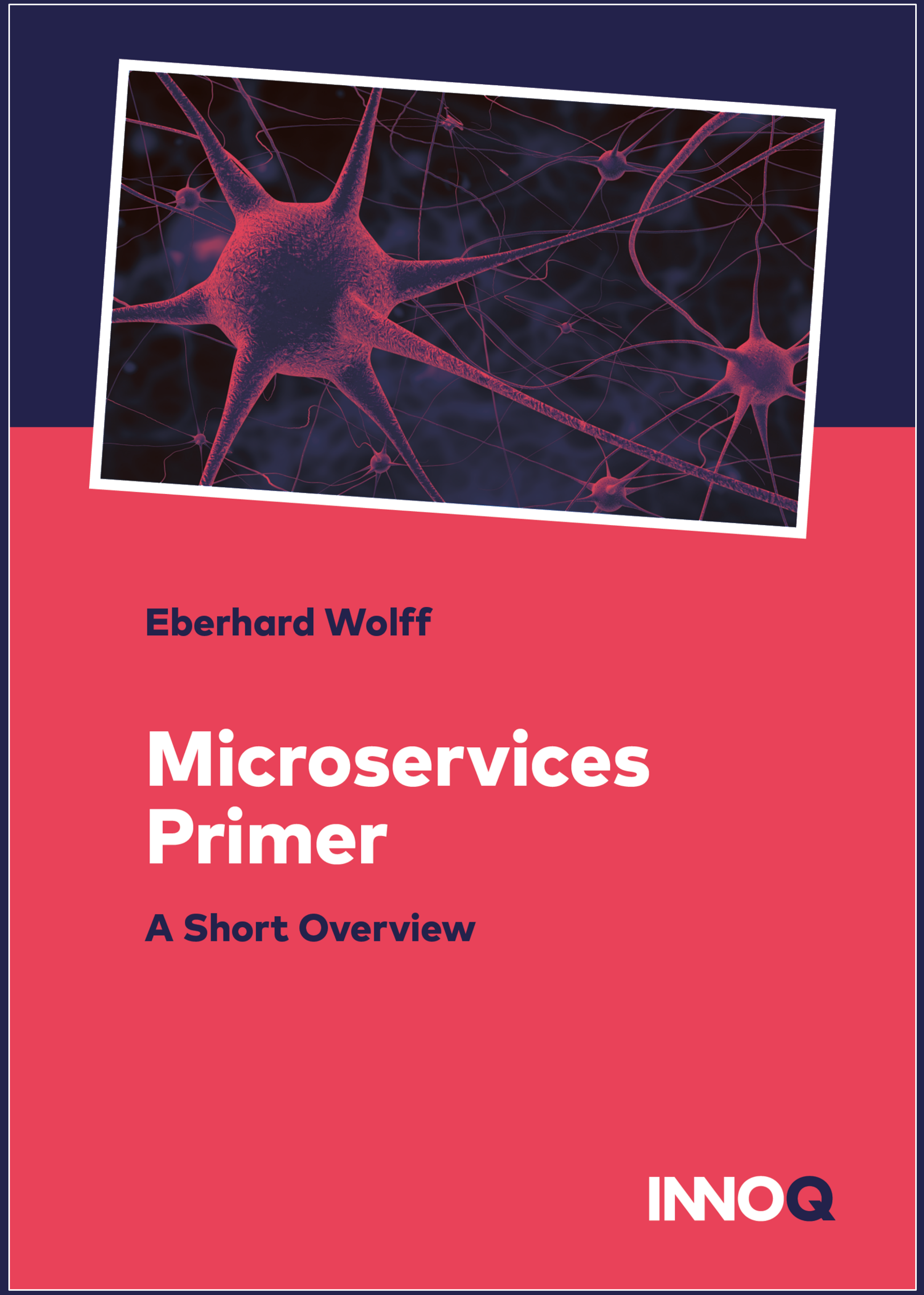

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A Short Overview

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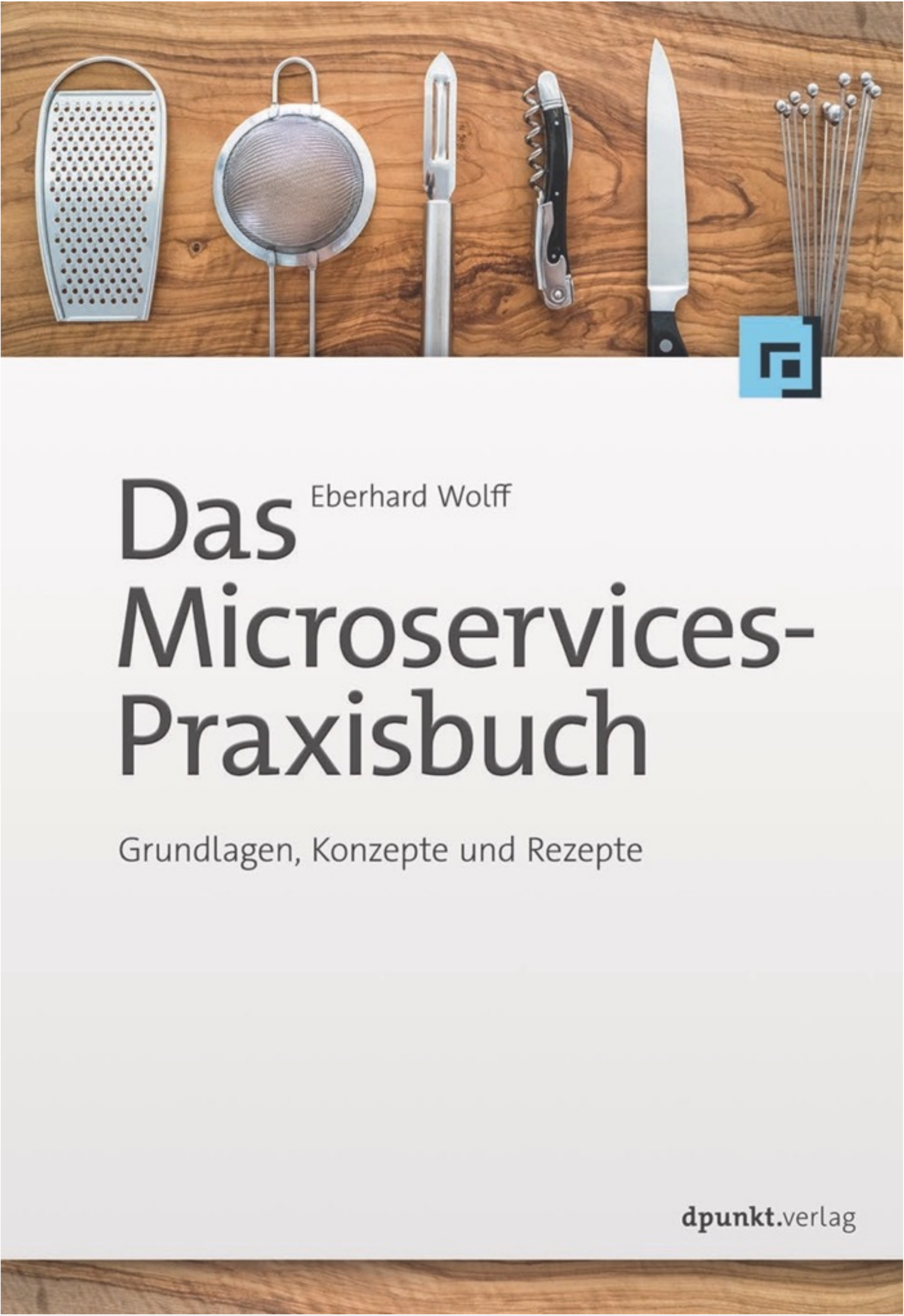

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Grundlagen, Konzepte und Rezepte

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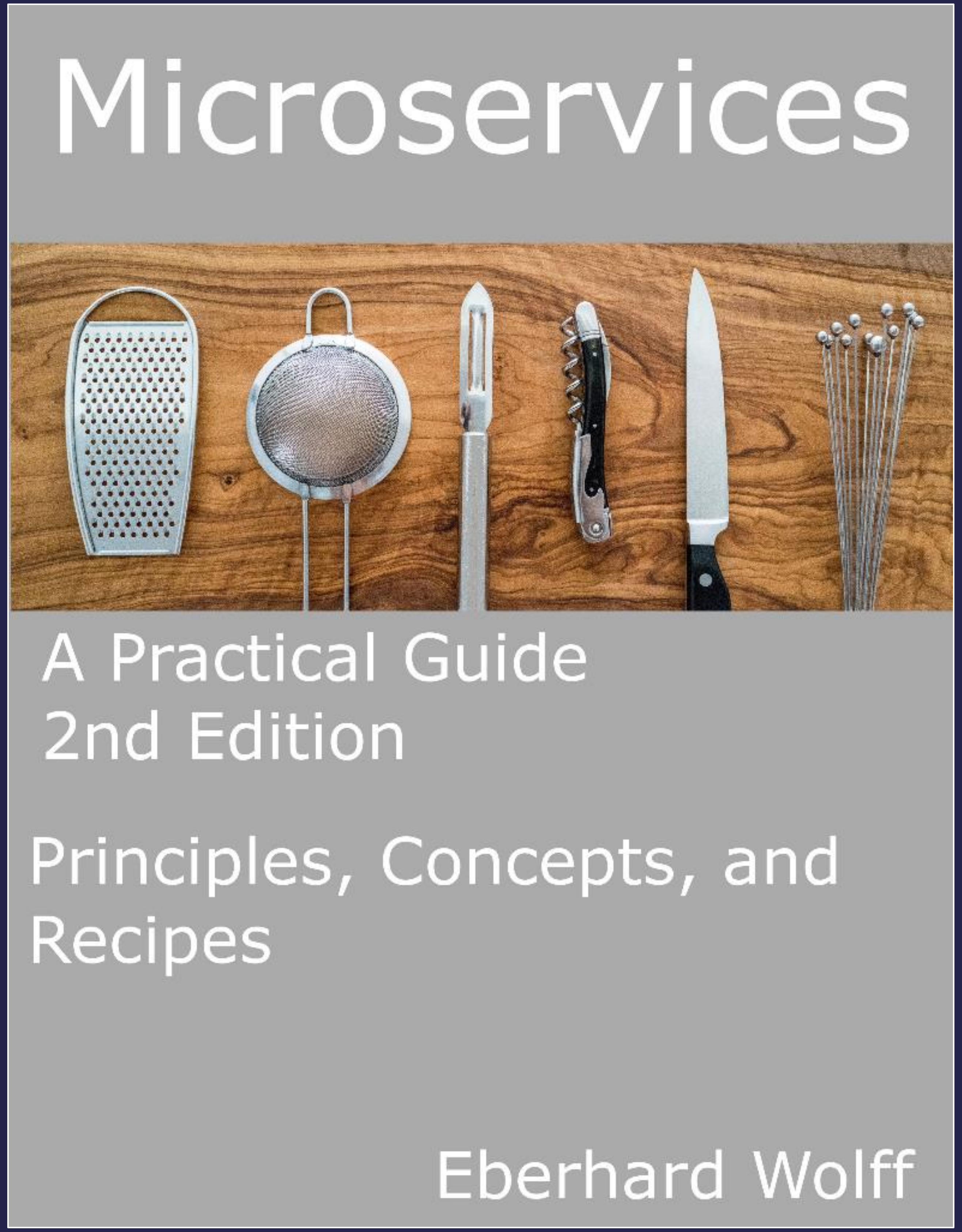

Microservices

A Practical Guide
2nd Edition

Principles, Concepts, and Recipes

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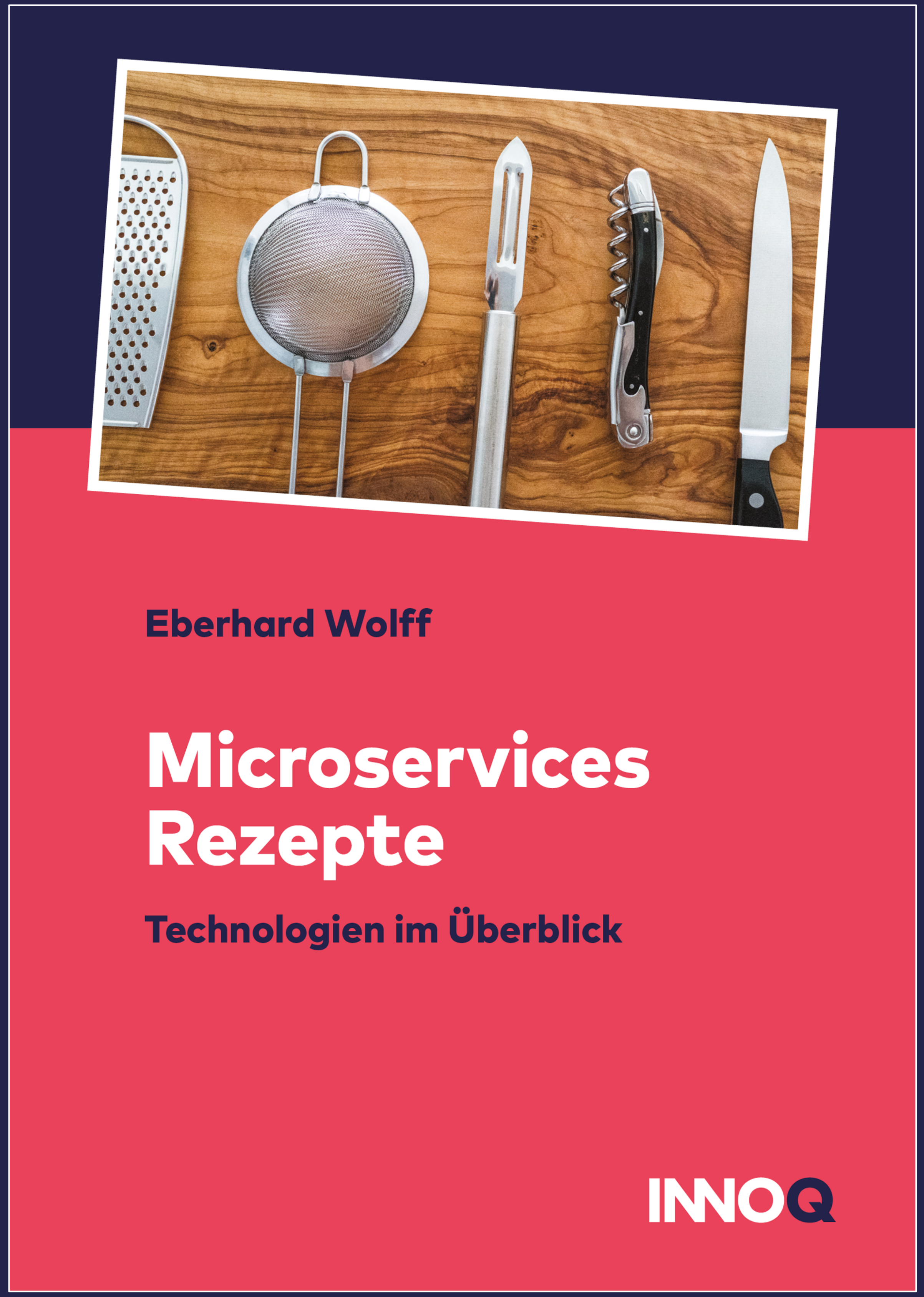

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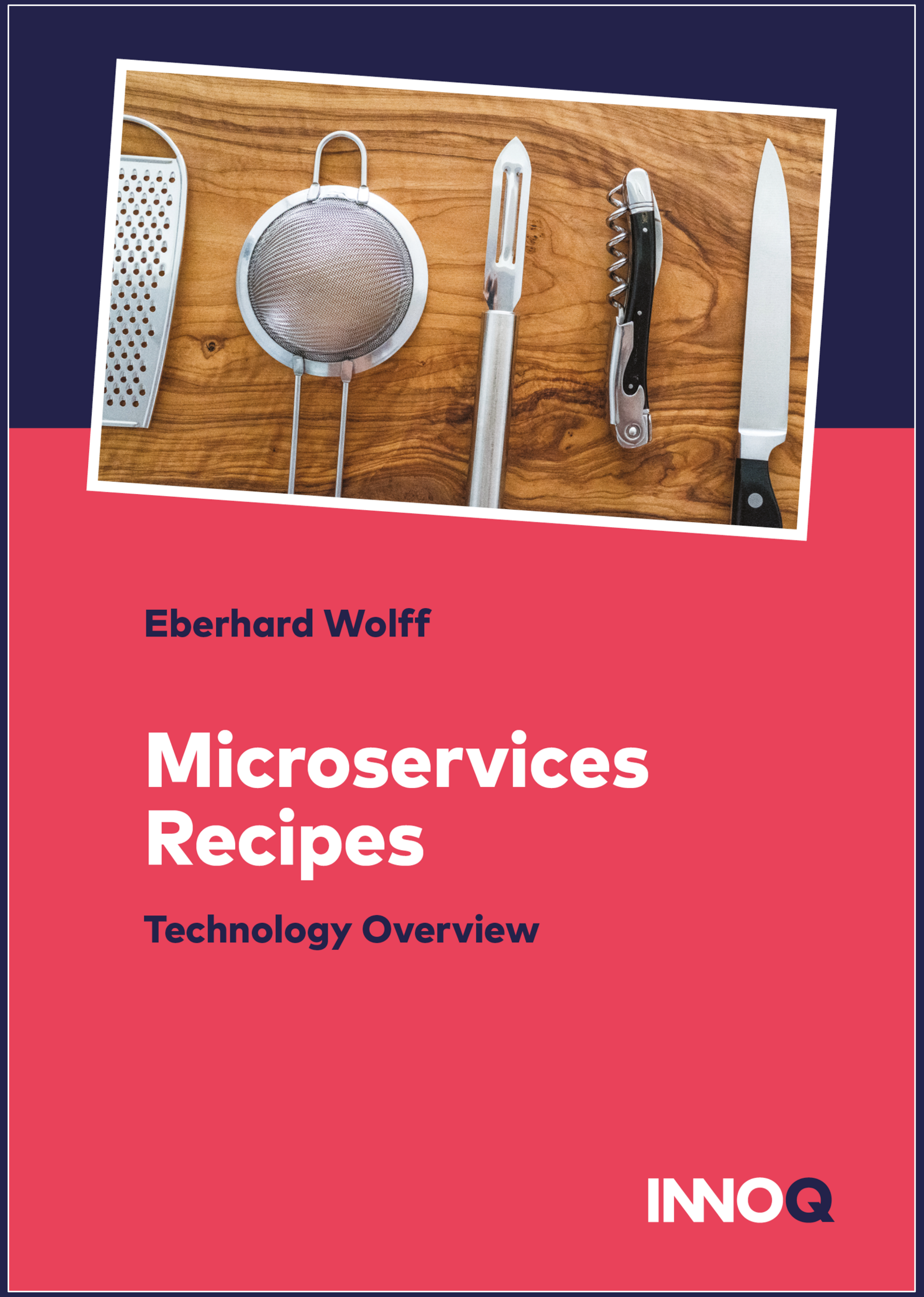

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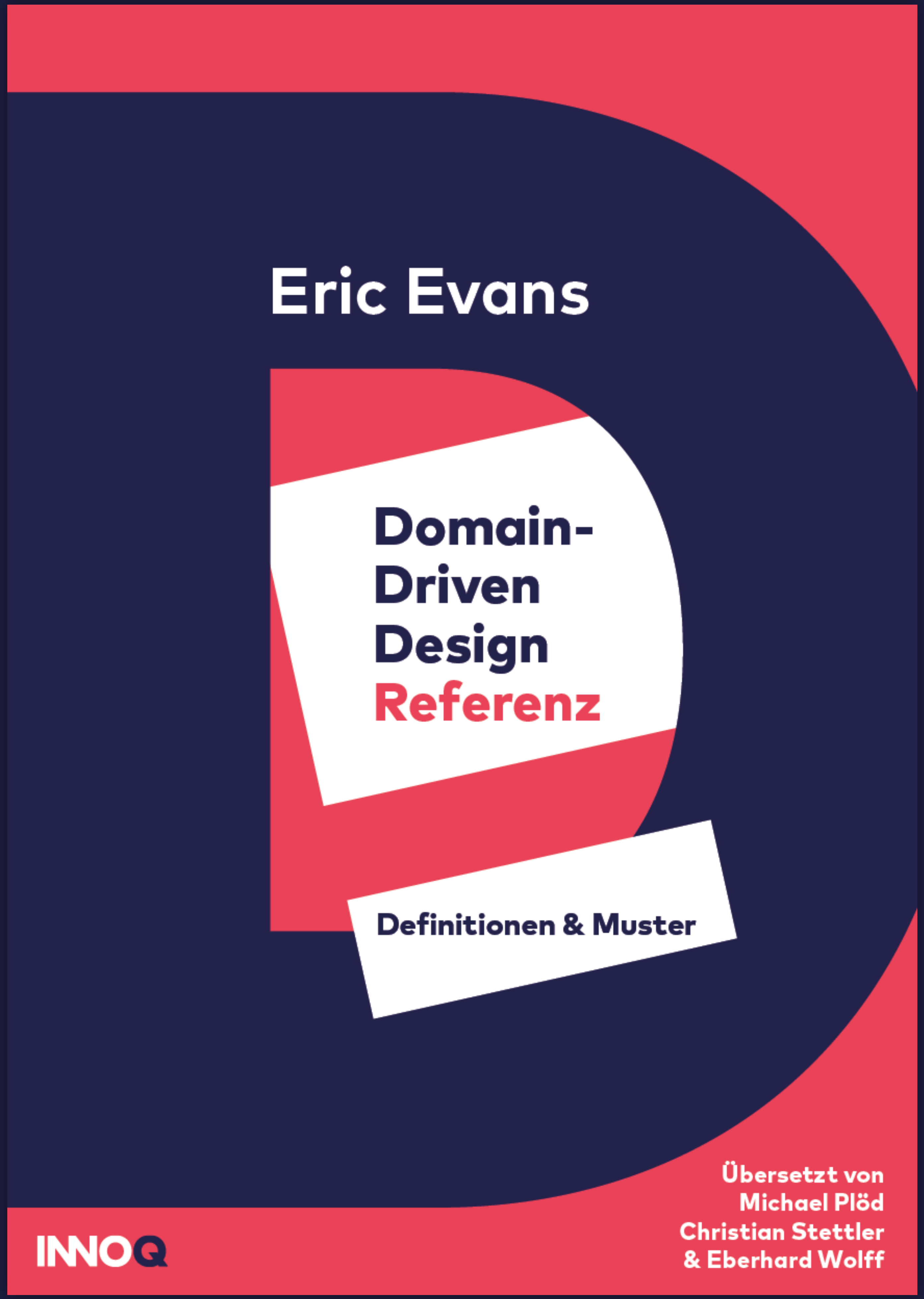

Eric Evans

Domain-Driven Design Referenz

Definitionen & Muster

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Übersetzt von
Michael Plöd
Christian Stettler
& Eberhard Wolff

www.ddd-referenz.de www.domainlanguage.com/ddd/reference

Architects do architecture

& technology!

Organization? 🤷‍♂️

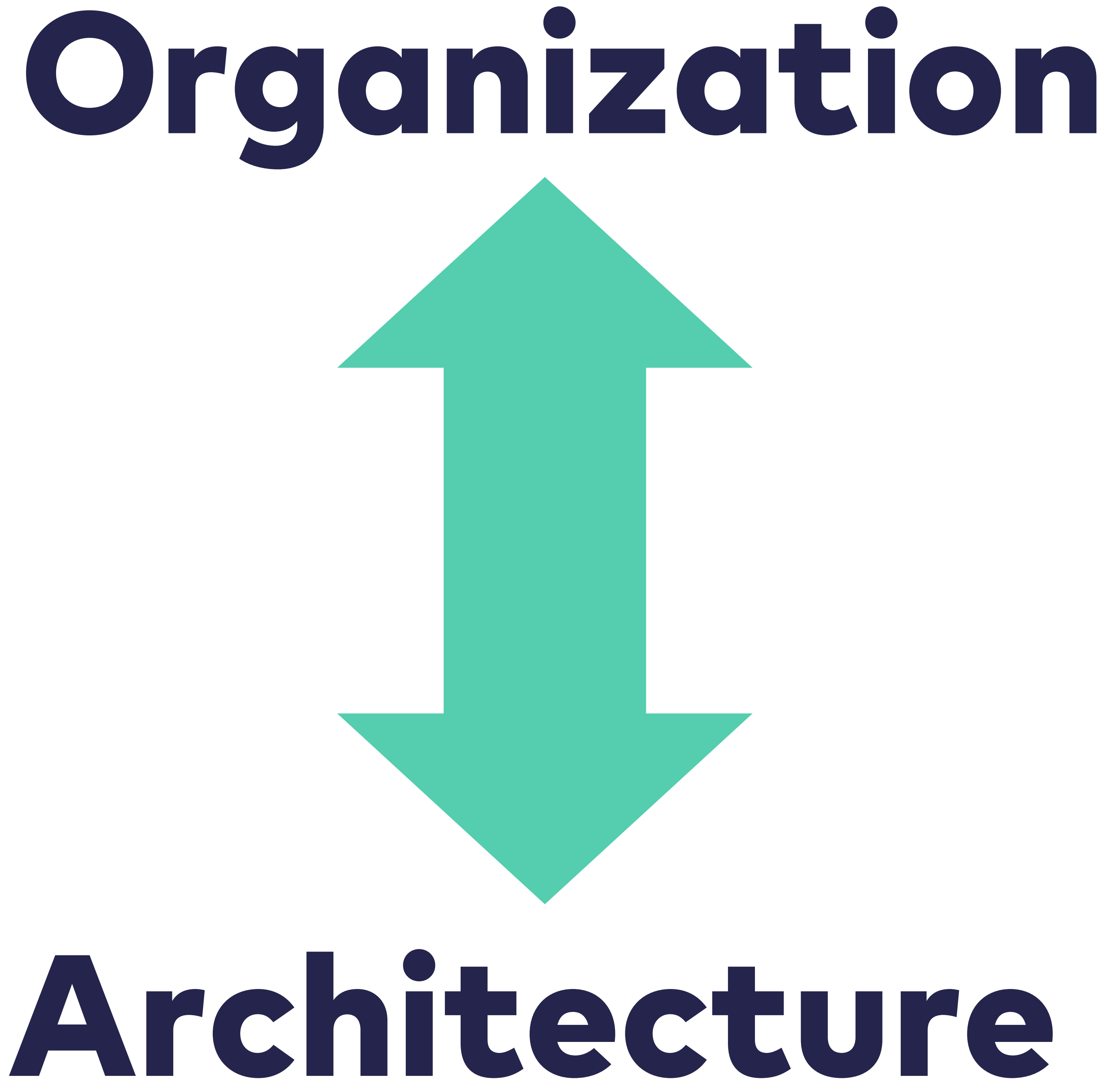
Conway's Law

Architecture

copies

communication structures

of the organization



Organization

Architecture

Organization

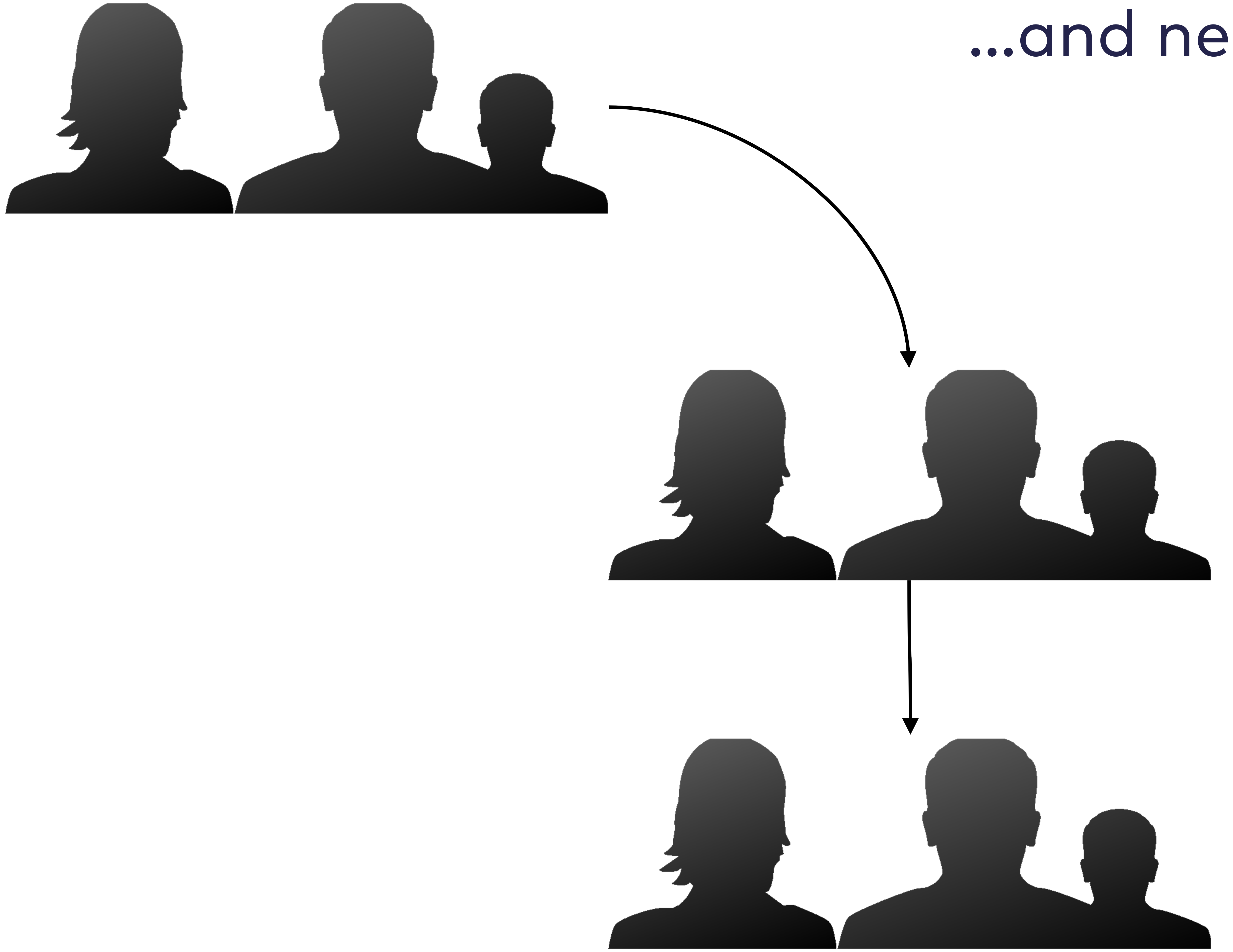
↓

Architecture

Organization

Teams will build modules

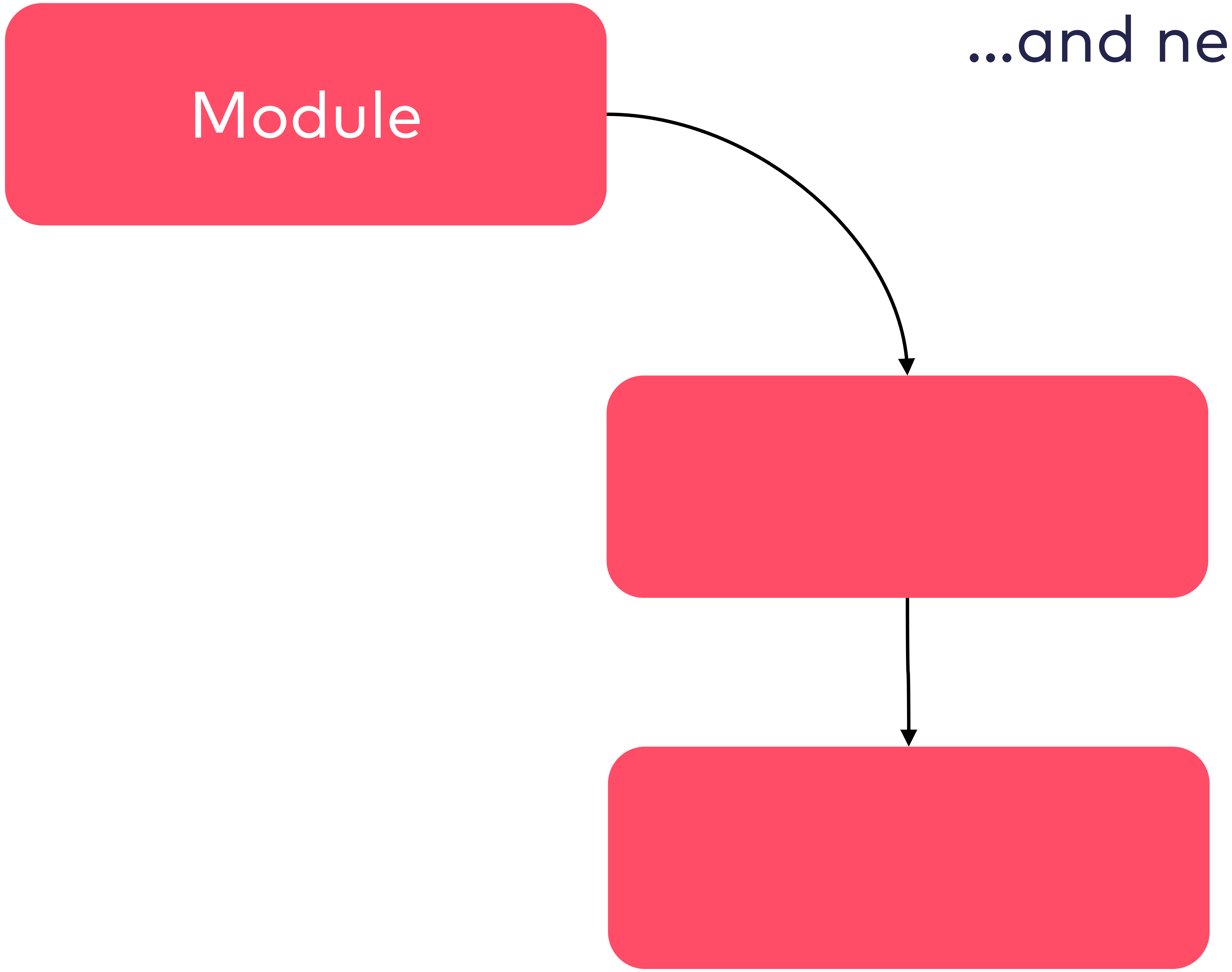
…and negotiate interfaces

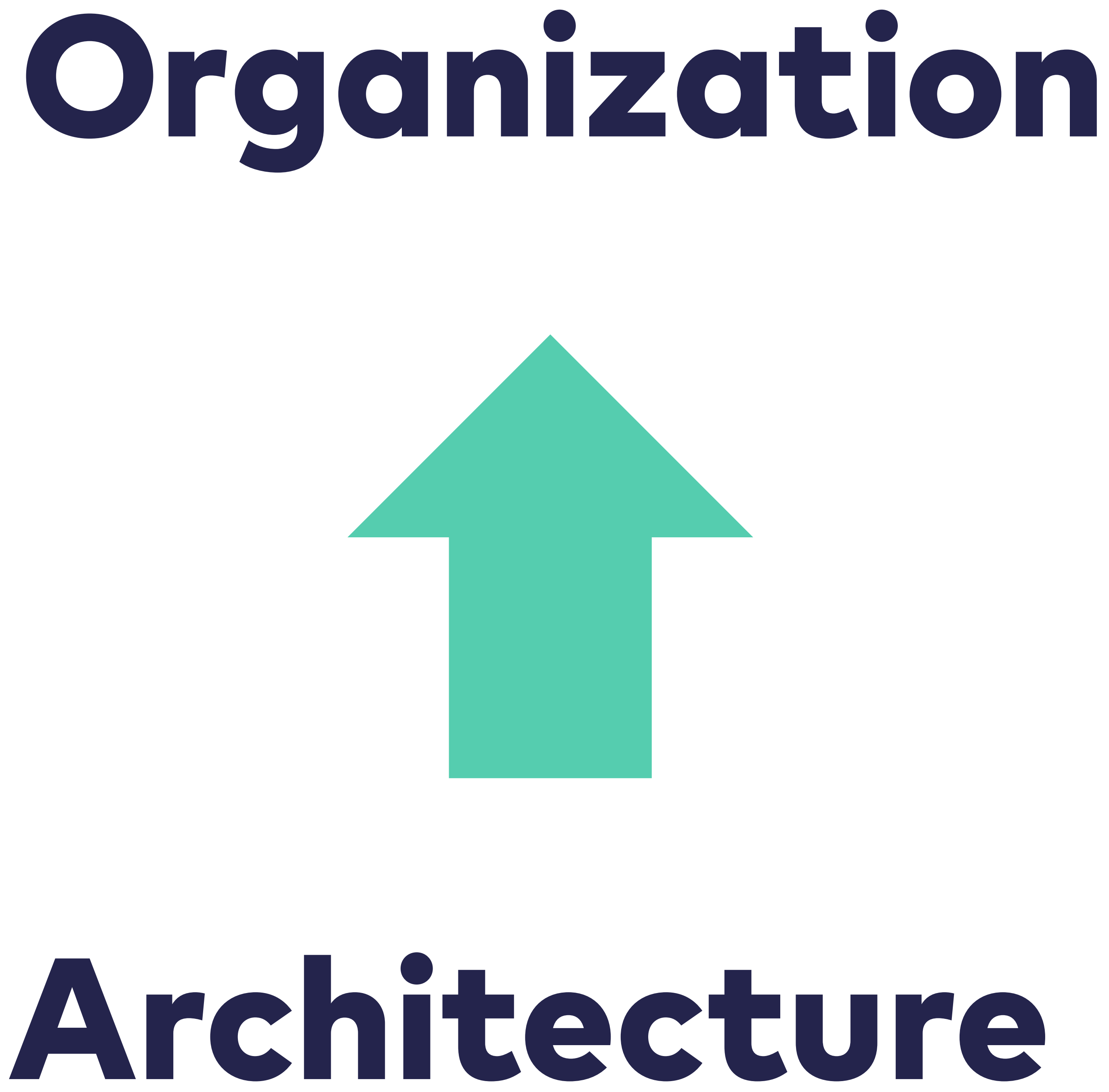


Architecture

Teams will build modules

...and negotiate interfaces





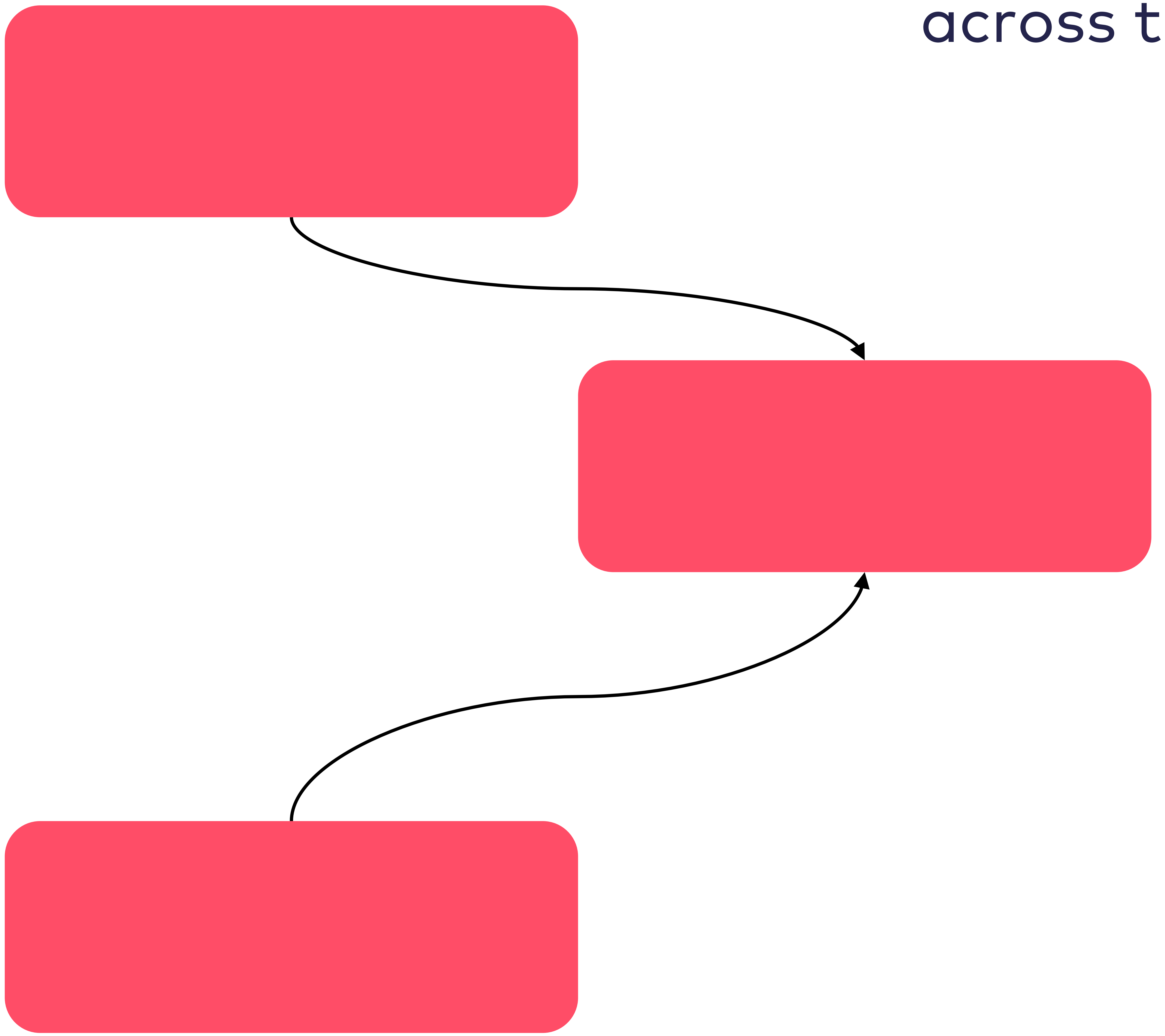
Organization

Architecture

Inverse Conway Maneuver

Microservices

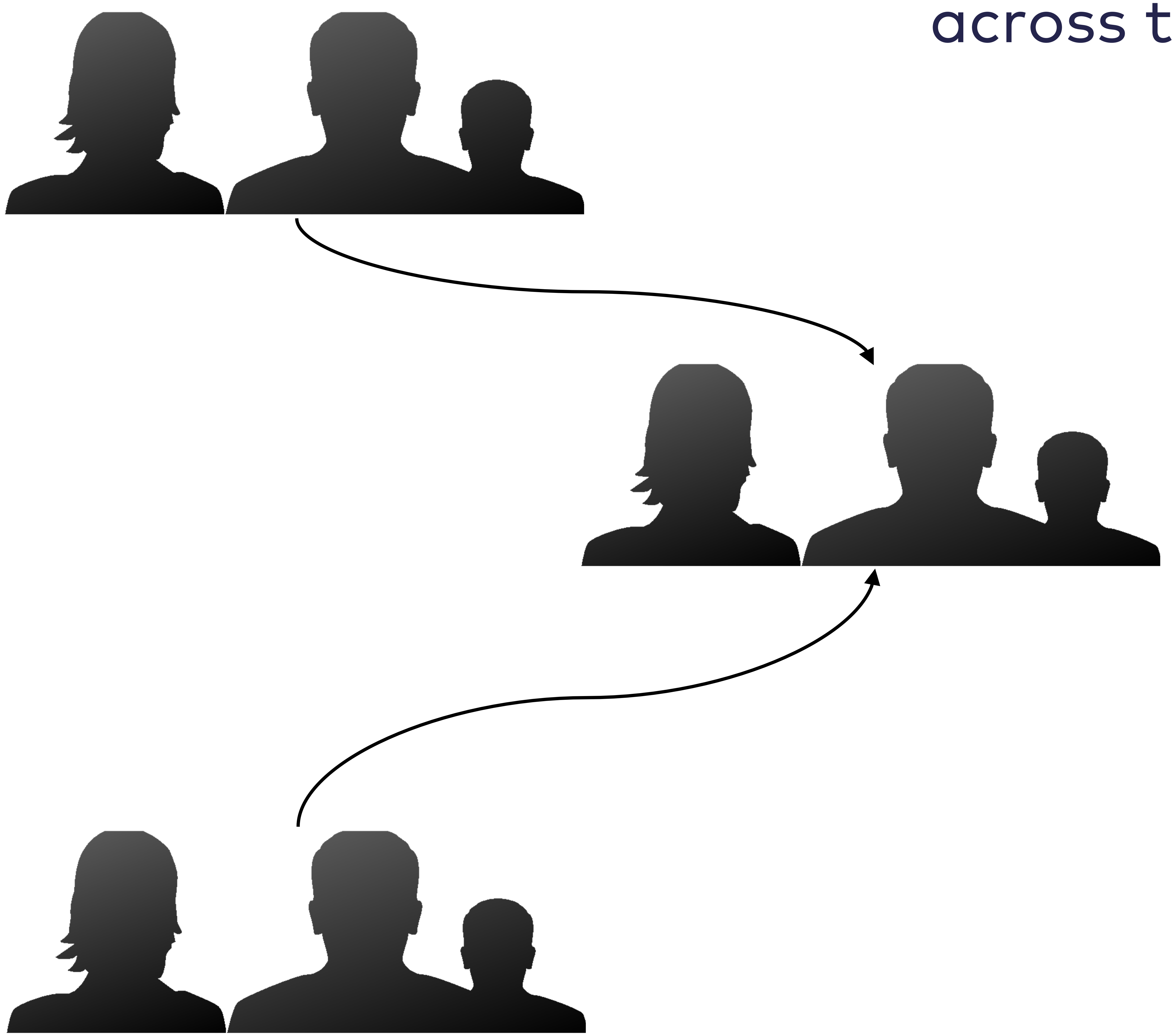
Architecture



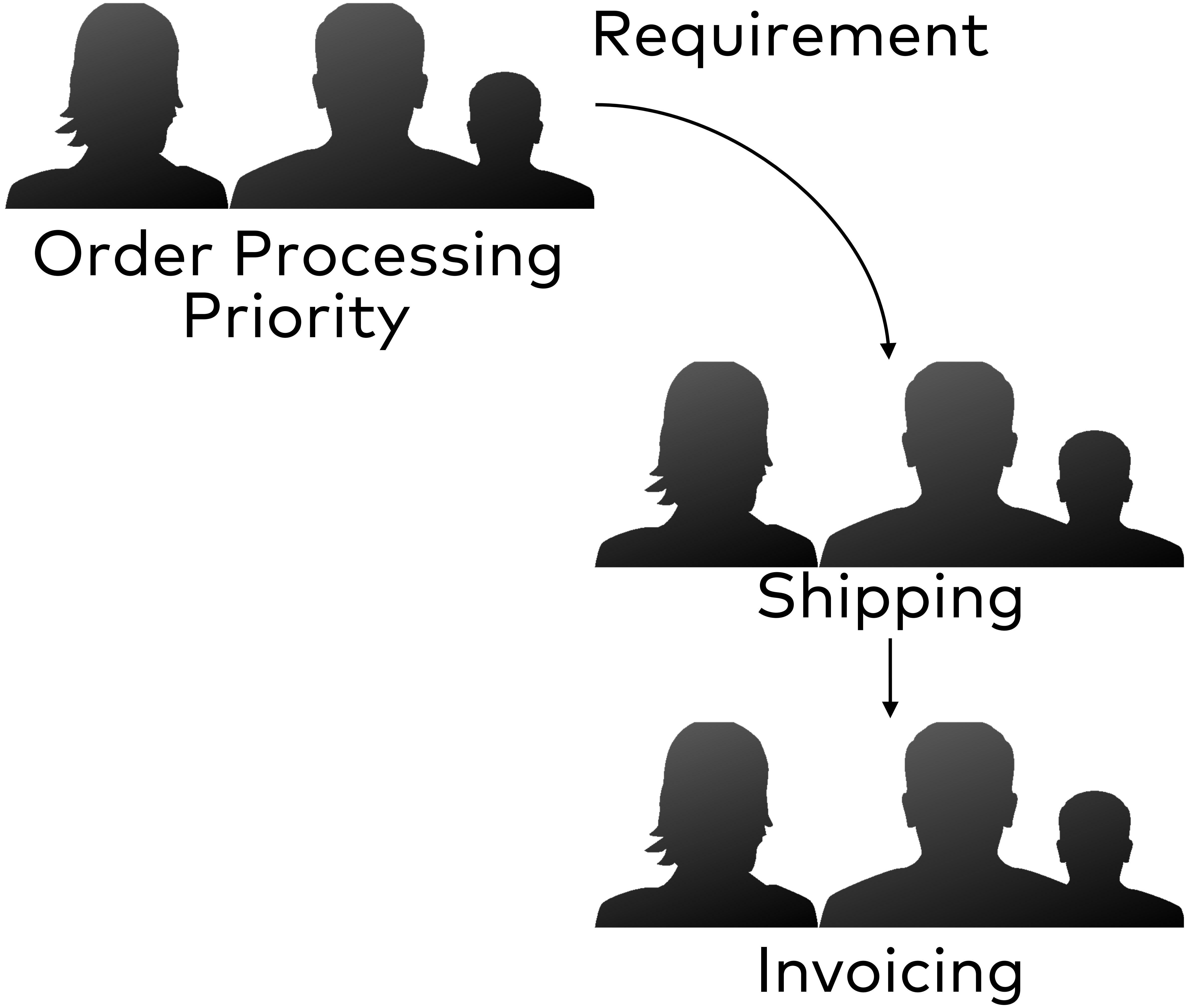
Distribute modules across teams

Organization

Distribute modules across teams



Organization: A Tool for Architecture



Requirement

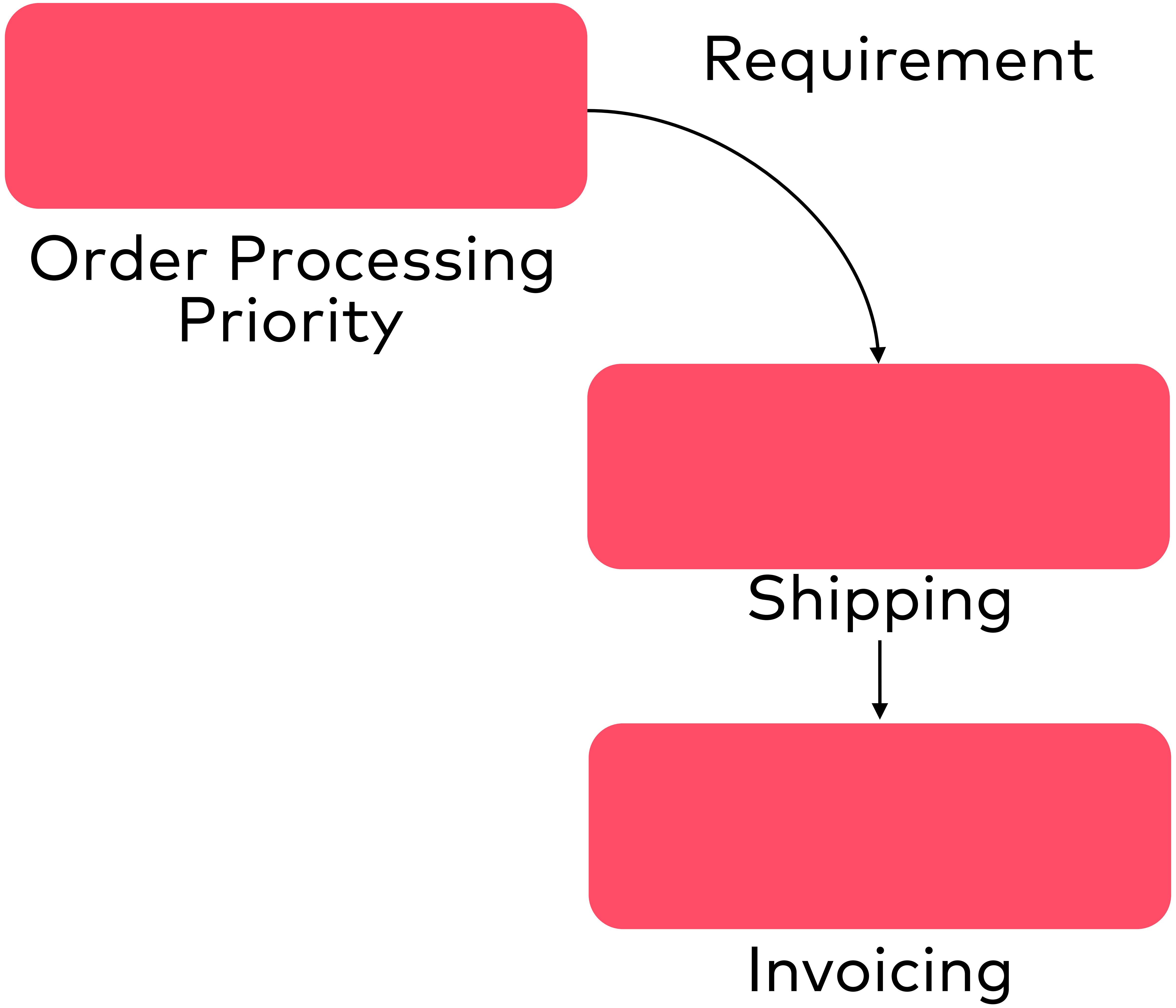
Order Processing Priority

Shipping

Invoicing

Teams will build modules

Organization: A Tool for Architecture



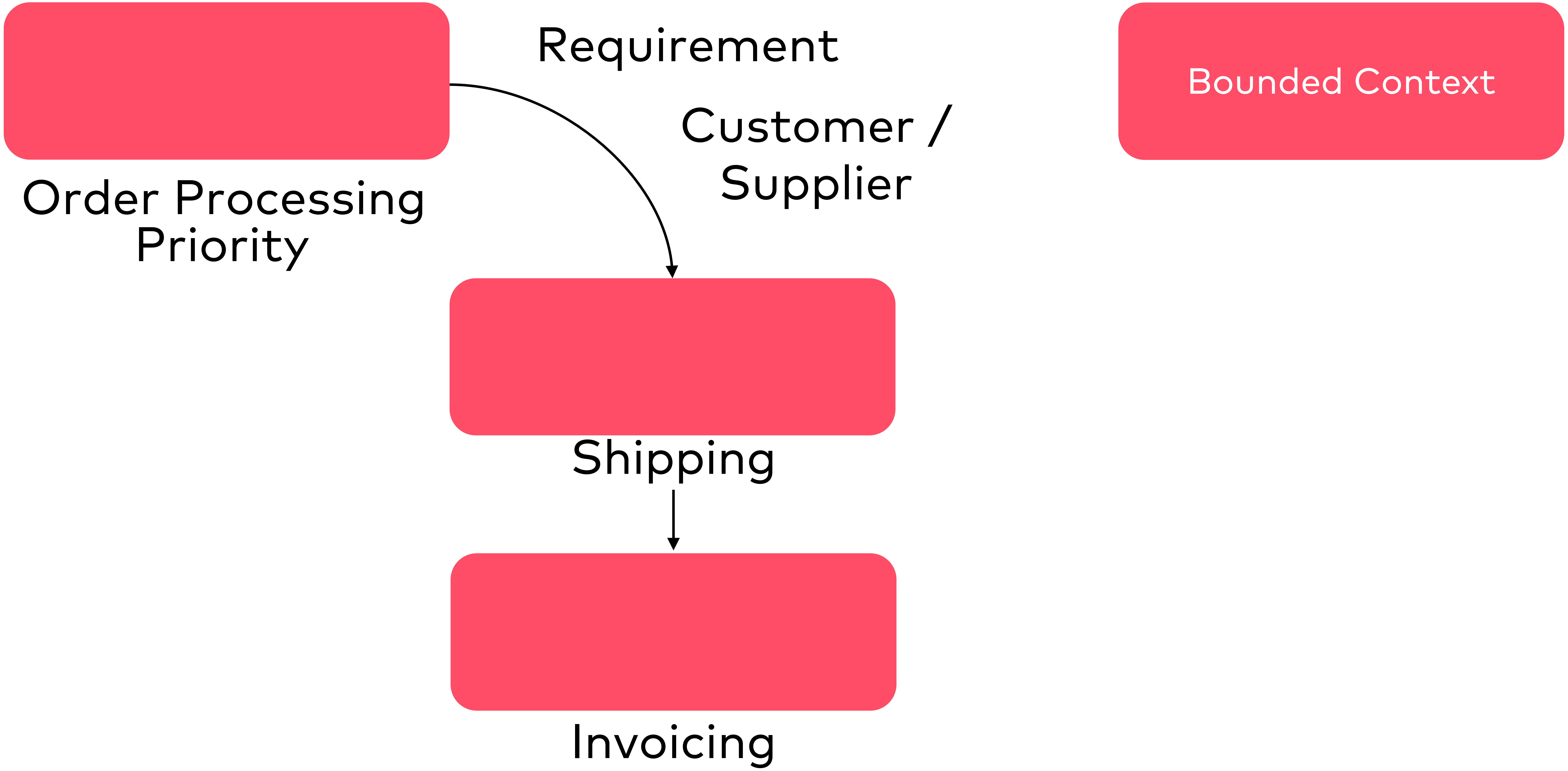
Requirement

Order Processing
Priority

Shipping

Invoicing

Organization: Domain-driven Design



Organization = Architecture

Conway's Law (1967)

Inverse Conway Maneuver

(Microservices 2012)

Domain-driven Design (2004)

Organization must be defined.

=coarse-grained architecture.

Managers work on organization.

Organization = architecture

Architects = managers?

Conway's Law

Architecture

copies

communication structures

of the organization

Actually, architecture = communication

Not necessarily manager's organization

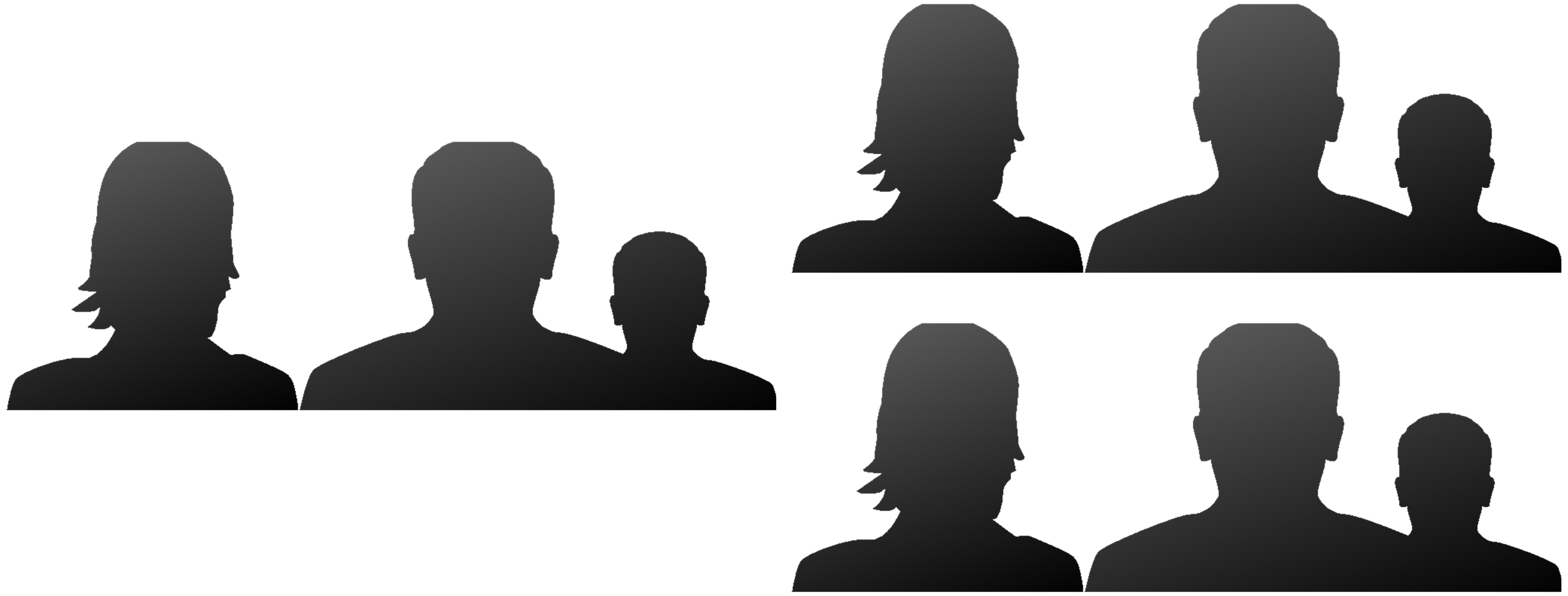
Communication: A Tool for Architecture

Make sure the right people talk to each other

e.g. about interfaces

...or other decisions

=architecture



Start or support CoPs (Community of Practice)

e.g. for frontend, architecture etc

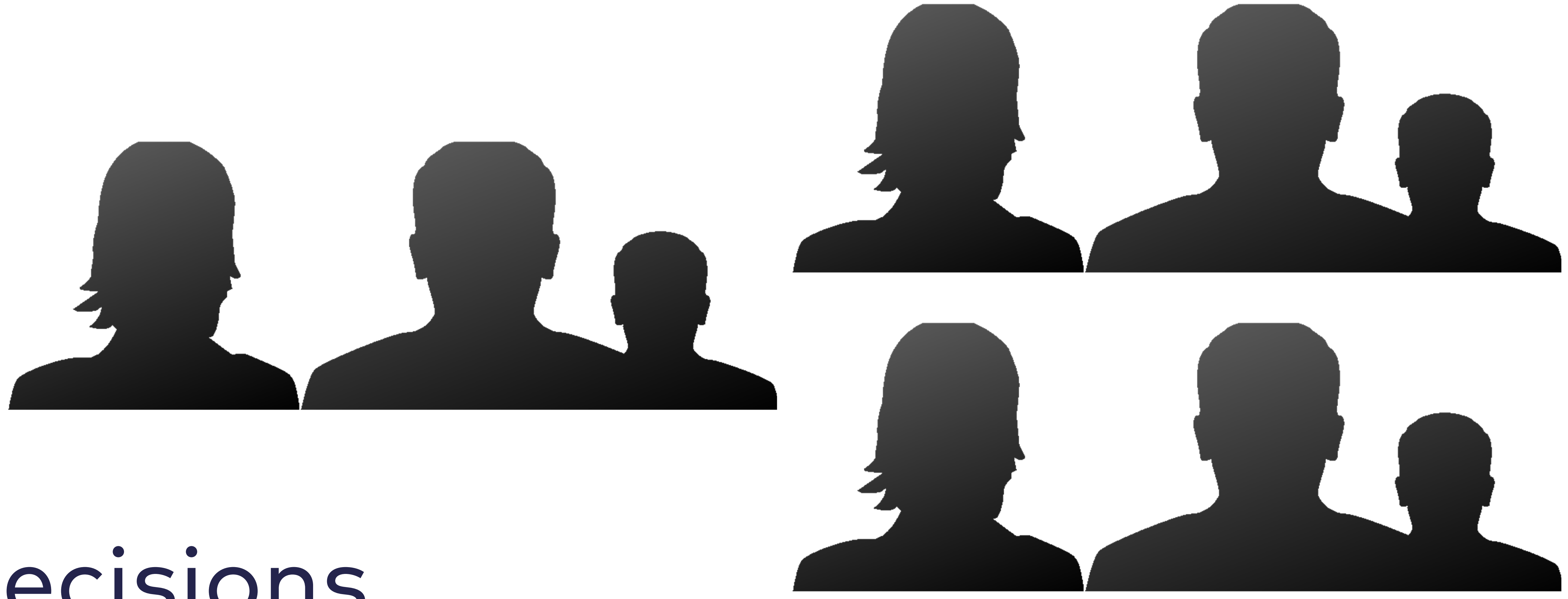
No need to be a manager for that....

Communication: A Tool for Architecture

Not necessarily content

...but communication

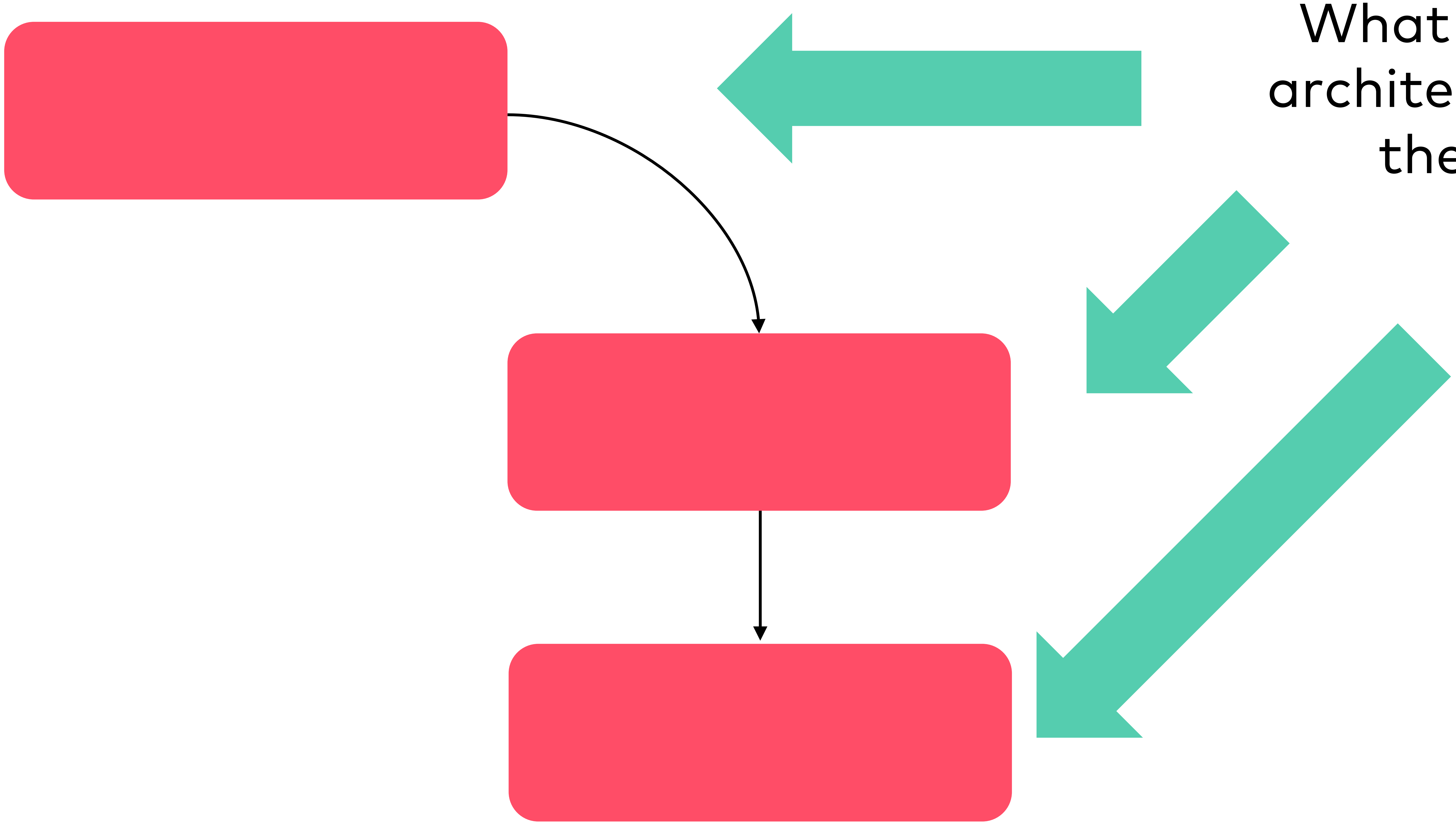
Content will follow



Architecture = coarse-grained decisions

Communication helps to understand details

...and communicate architecture decisions and challenges



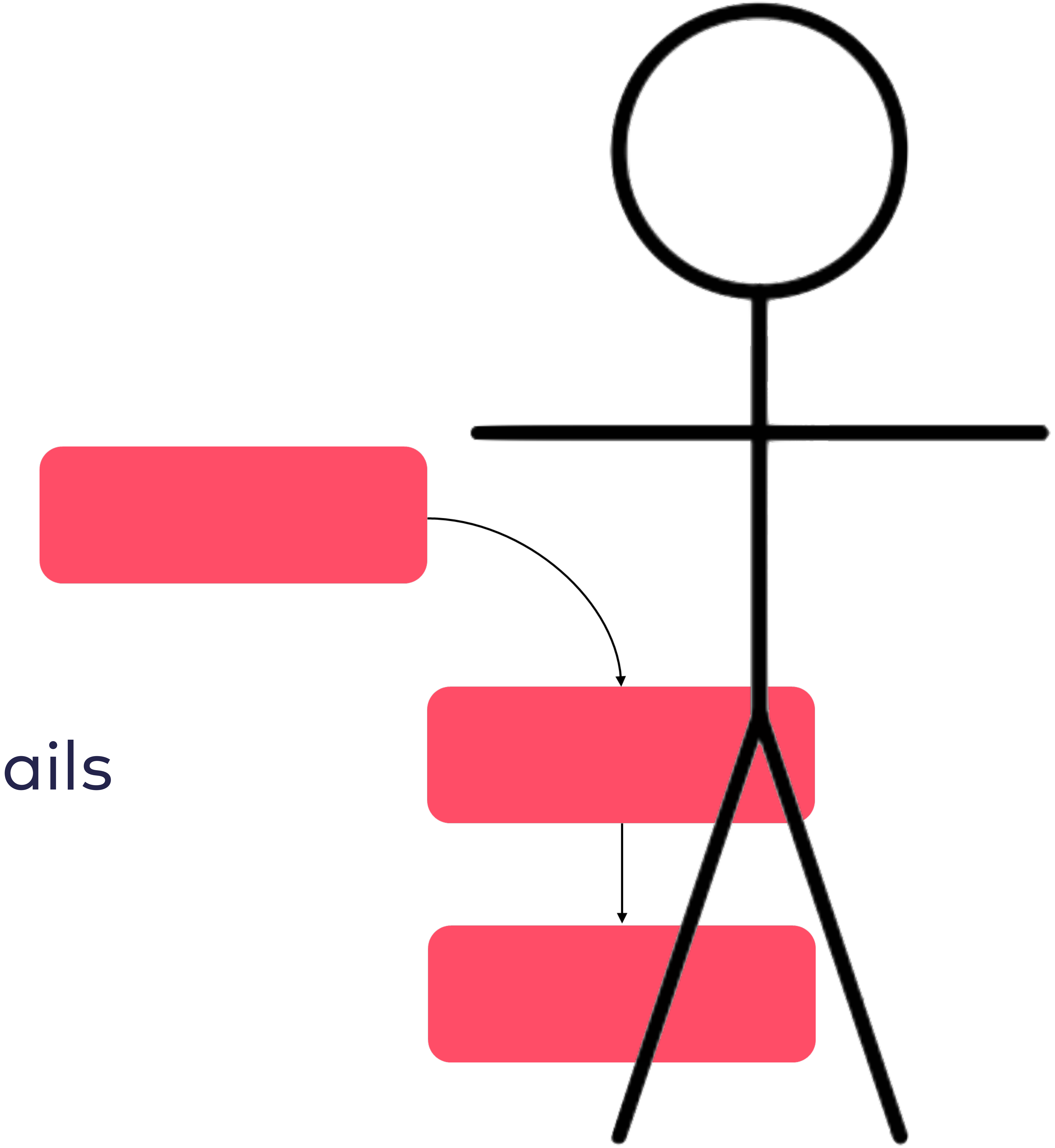
What about architecture in there?

Fine-grained Architecture

Let the architect decide everything!

Architect will be overloaded

Architect cannot possibly know all details



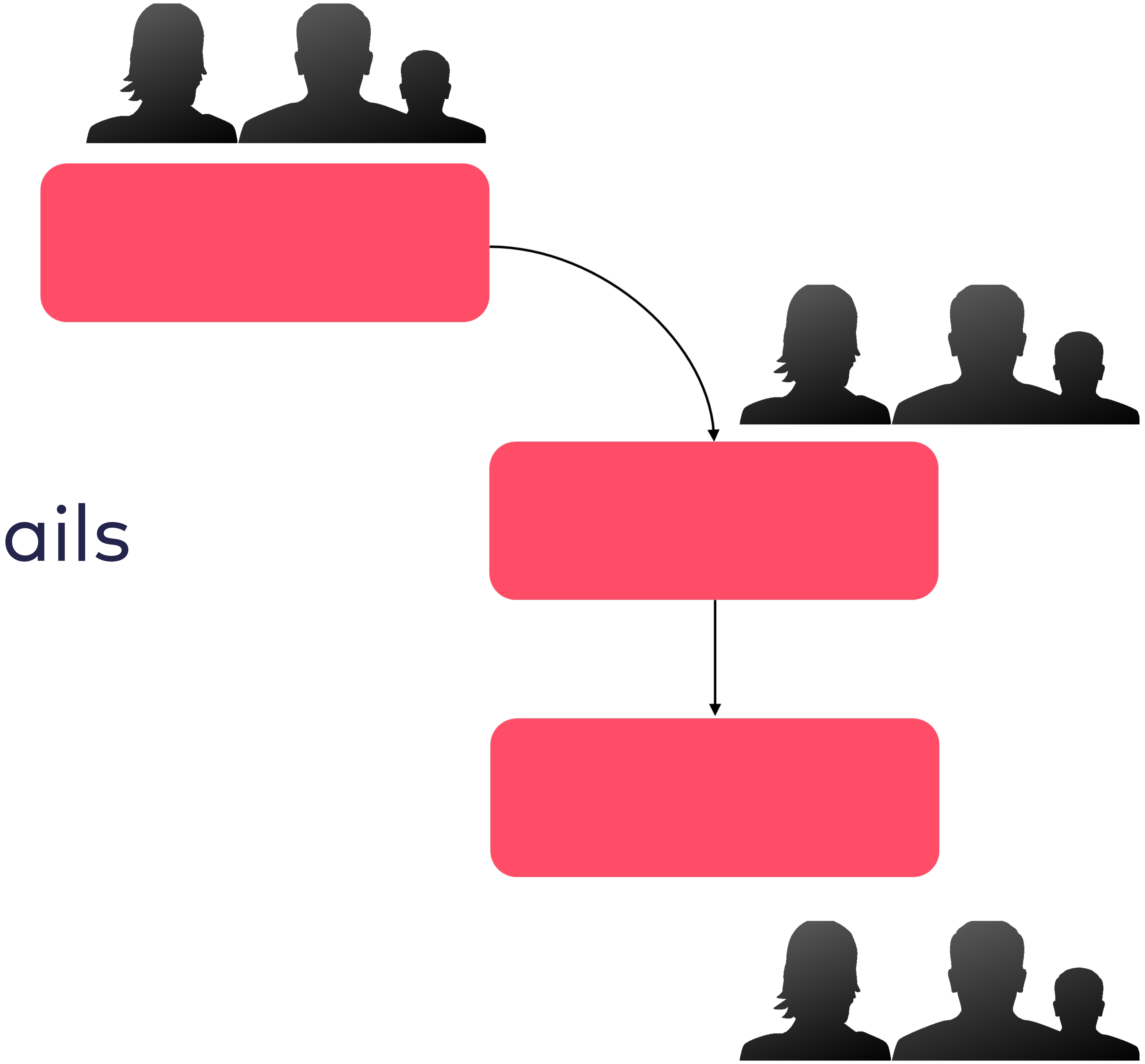
Fine-grained Architecture

Let the architect decide everything!

Architect will be overloaded

Architect cannot possibly know all details

Delegate decisions to scale!



Fine-grained Architecture & Architects

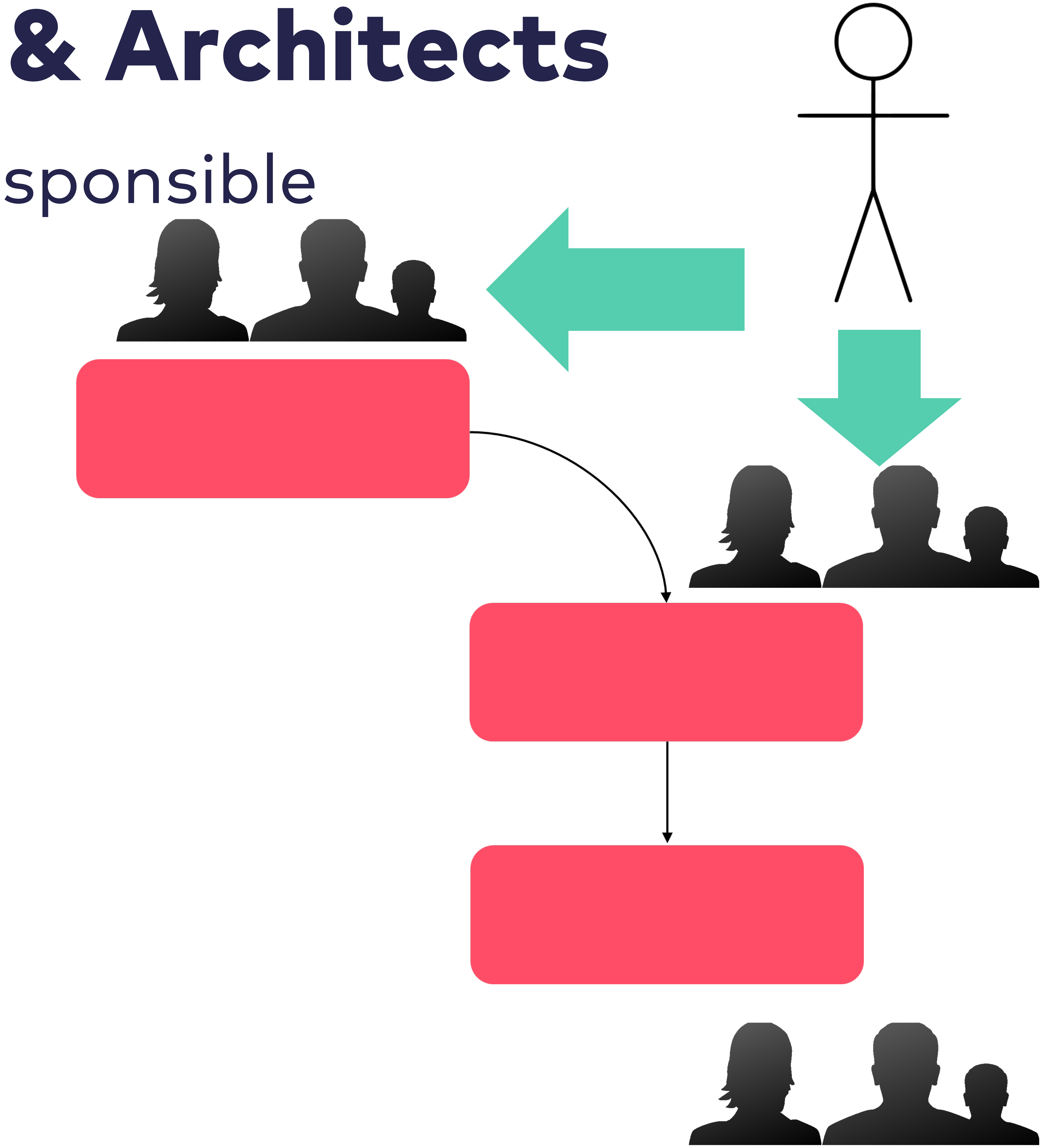
Somehow, architect should still be responsible

Despite self-organization

...and delegation.

Rules make teams think less

...even rules of thumb

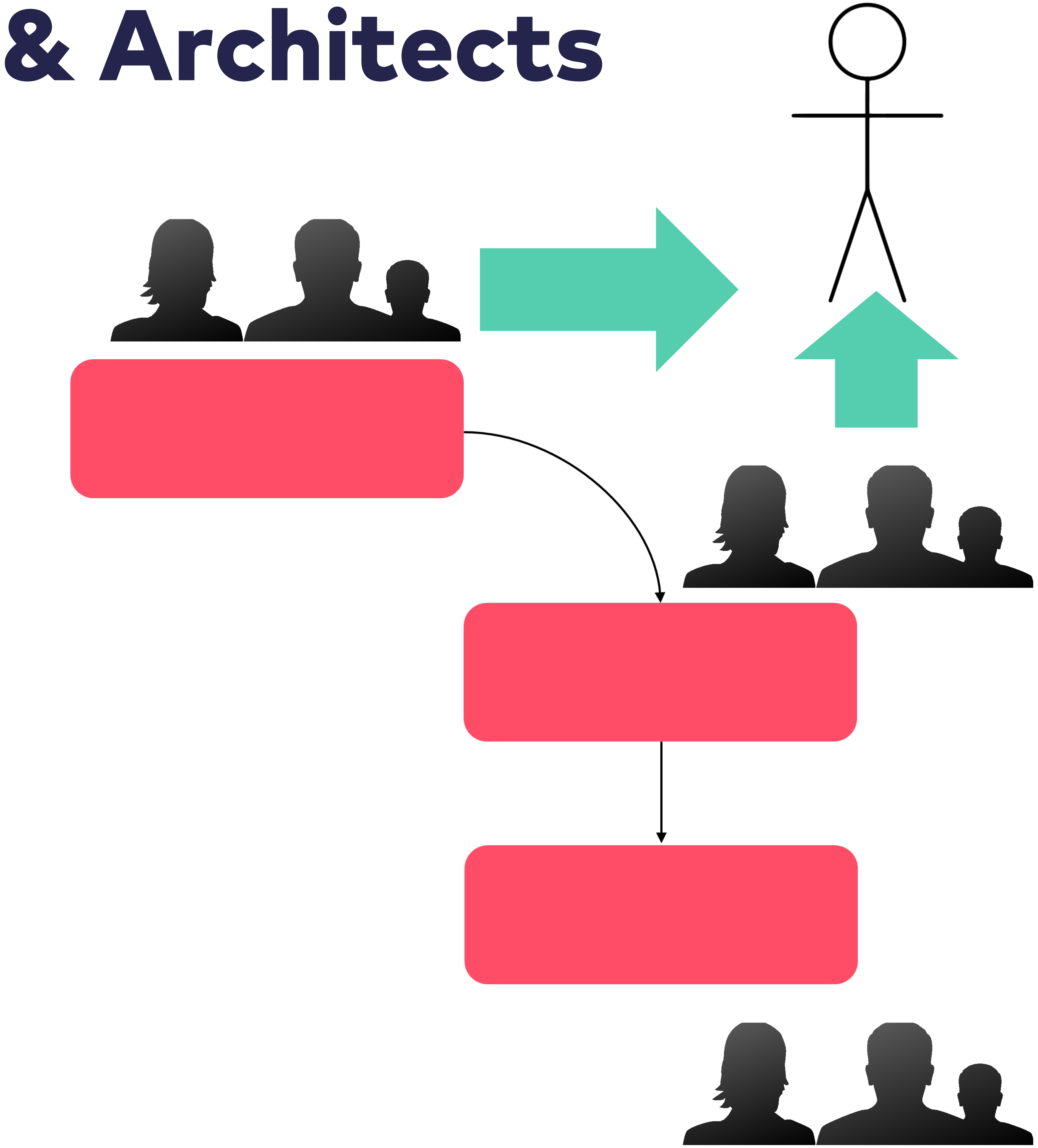


Fine-grained Architecture & Architects

Architect should influence fine-grained architecture.

i.e. behavior of the teams should be changed.

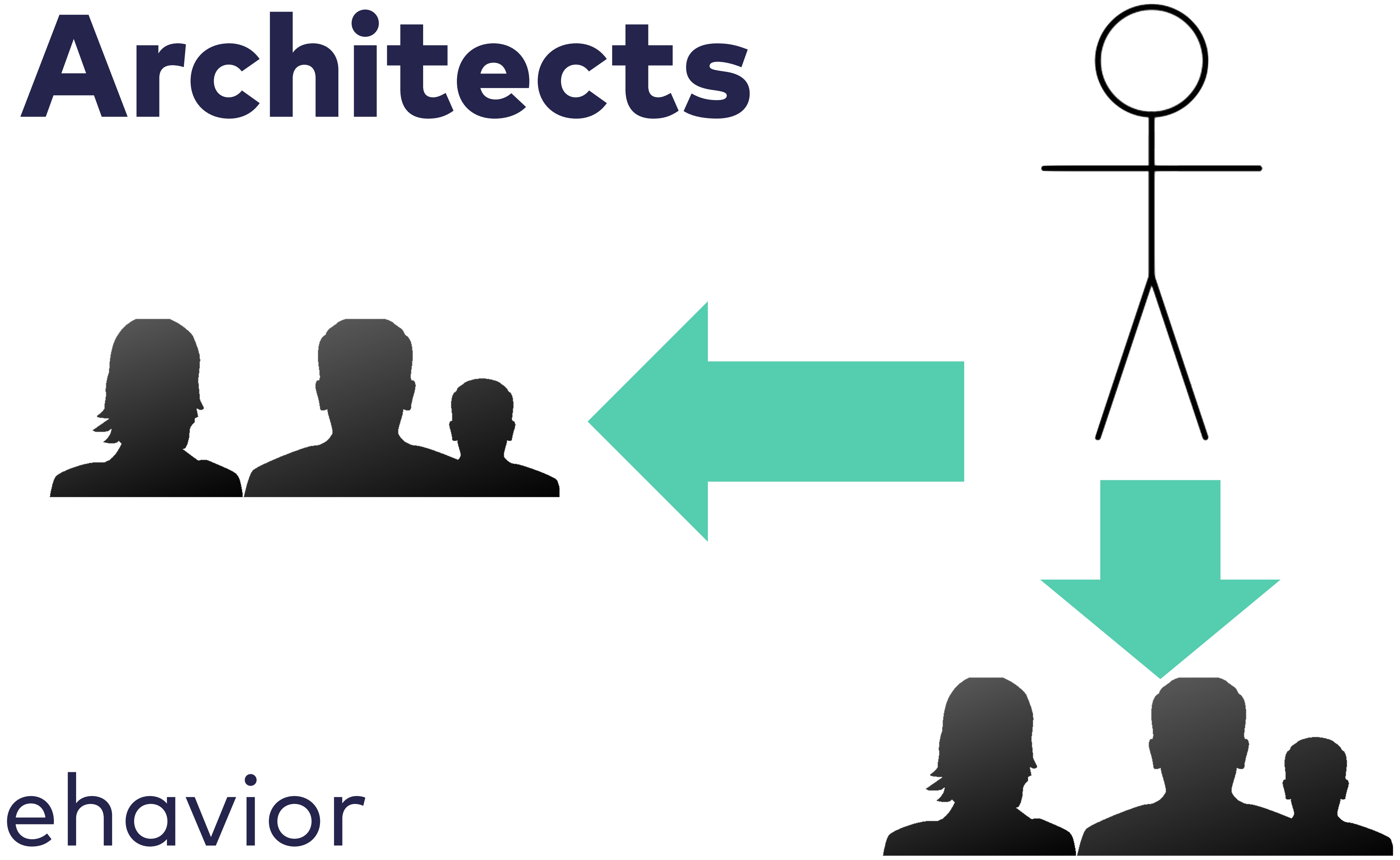
Offer consulting to teams!



Fine-grained Architecture & Architects

Customized training

For specific subjects (e.g. DDD)



Remember: Result should be changed behavior

...not knowledge

So: prioritize hands-on over theory / slides

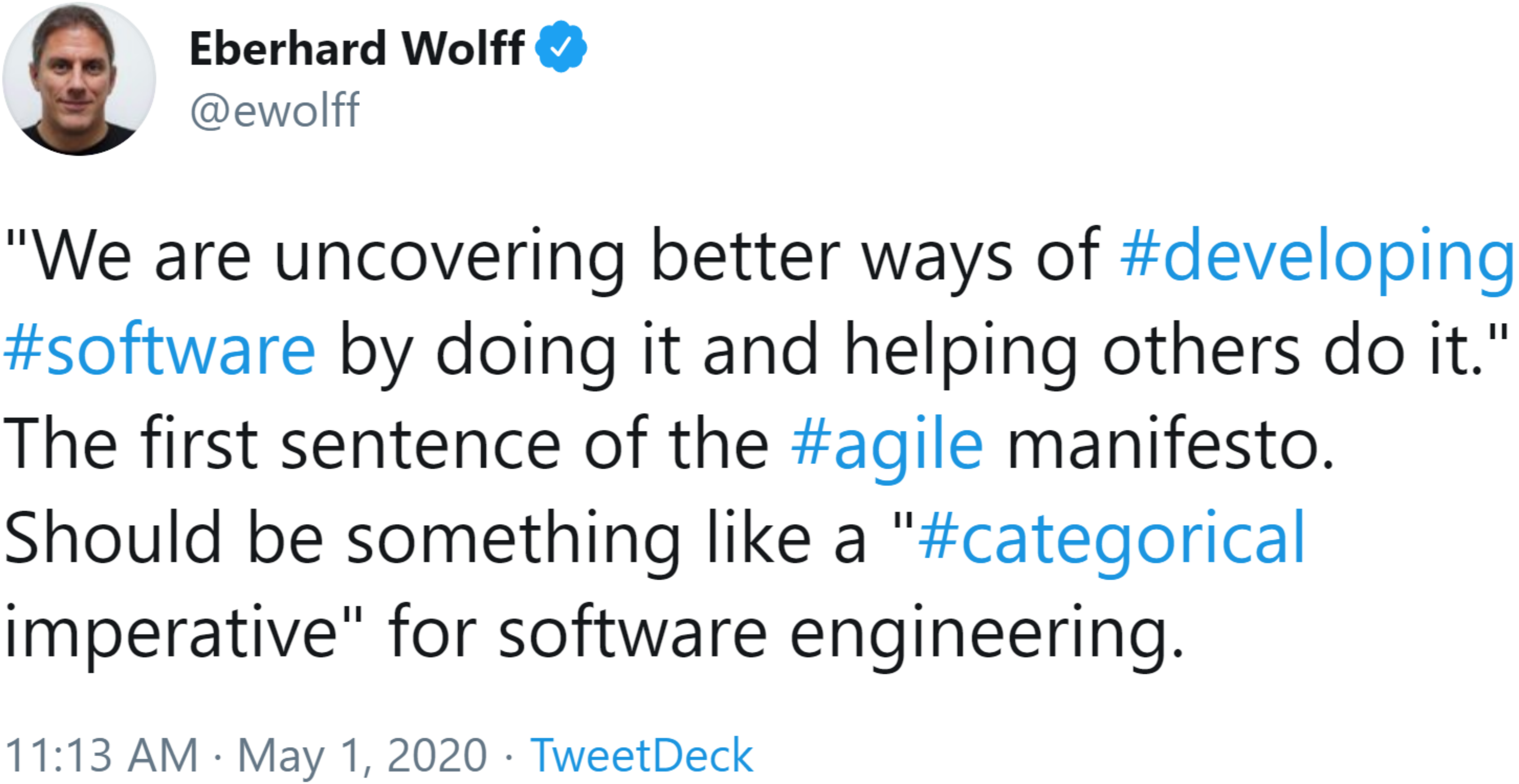
Indirect effect: Work with people, not architecture

Conclusion

Defining teams =
Defining the architecture

Establishing communication =
Supporting architecture

Training + consulting =
Fine-grained architecture



Eberhard Wolff ✓

@ewolff

"We are uncovering better ways of #developing #software by doing it and helping others do it." The first sentence of the #agile manifesto. Should be something like a "#categorical imperative" for software engineering.

11:13 AM · May 1, 2020 · TweetDeck