



Reconstructing thalia.de with self-contained systems

microXchg 2018

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Thalia.de

HERZLICH
WILLKOMMEN

olino

RECHTSTIFTUNG

Thalia

■ Over **280** stores in DE, AT, CH

■ About **4.000** employees

■ Offers

(e)books / audio books

eReaders / tablets

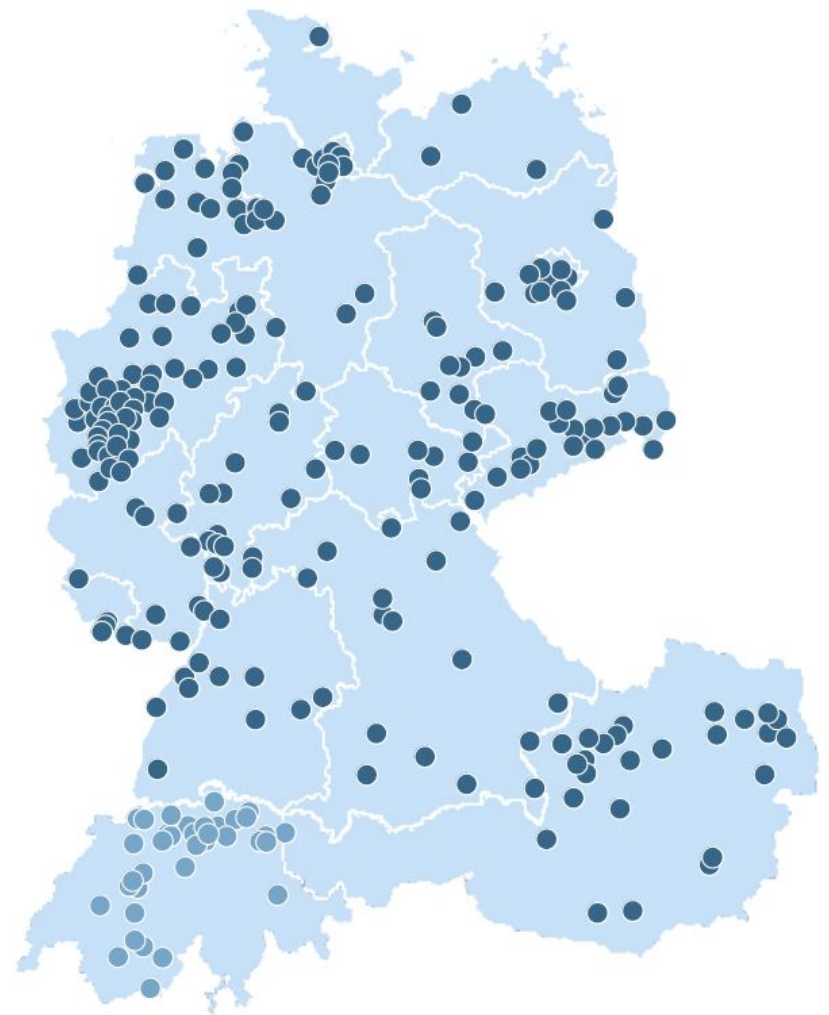
films

software

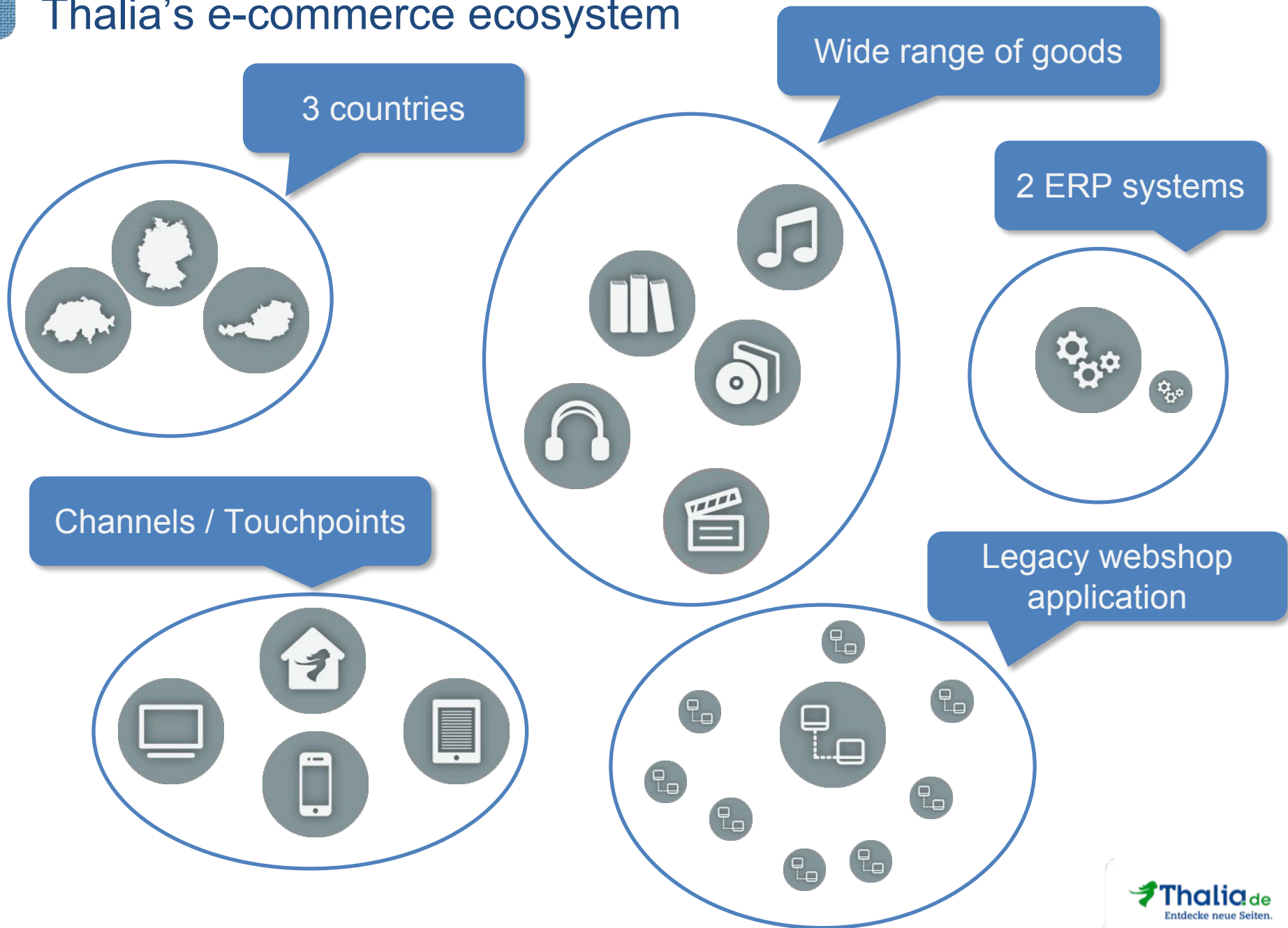
games

toys

■ **Omnichannel** services



Thalia's e-commerce ecosystem



Issues in 2016

- releases once a month only
- hardly maintainable monolithic legacy webshop
- projects instead of continuous development

⇒ We have to get faster, more flexible and innovative!

We had to
take a break

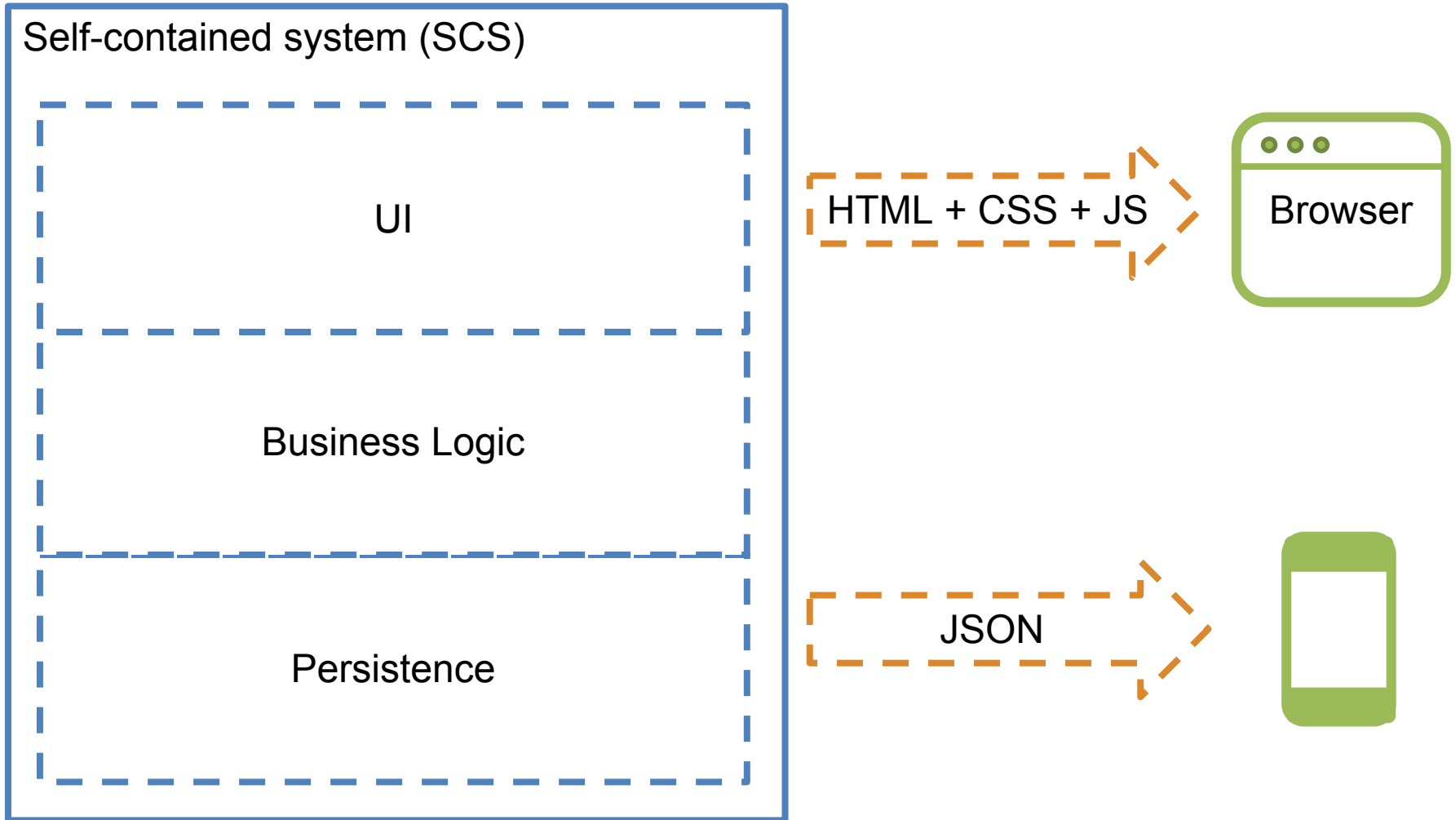
....

Approach



<https://www.flickr.com/photos/cambridgeuniversity-engineering/5389529869/>

Approach



Approach



<https://unsplash.com/photos/bq31L0jQAJU>

Approach



<https://unsplash.com/photos/AM8aXJTpd4>

Proof of concept

Steps

One POC team built
from different teams

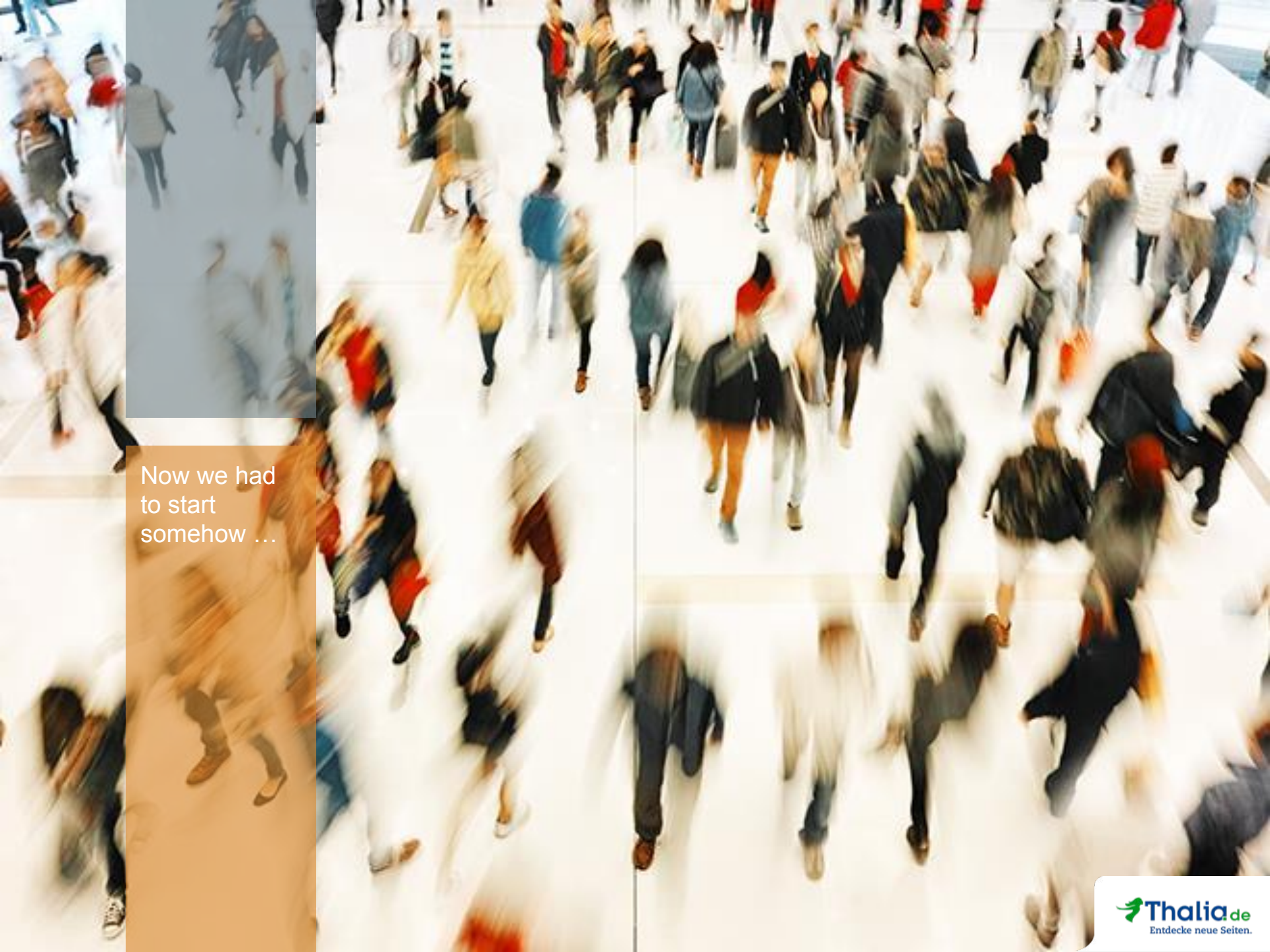
Gather key aspects



Proof of concept

Key aspects

- Faster
- More flexible
- Release subway instead of release train works
- Continuous quality assurance needed
- 1 product owner per team is needed
- We need a pattern library for a common look & feel



Now we had
to start
somehow ...

Initiation

Kickoff product teams

11/16



Initiation

General conditions

- Transfer responsibilities
- Fill roles
- Keep working on existing projects
- QA includes integration with touchpoint

Initiation

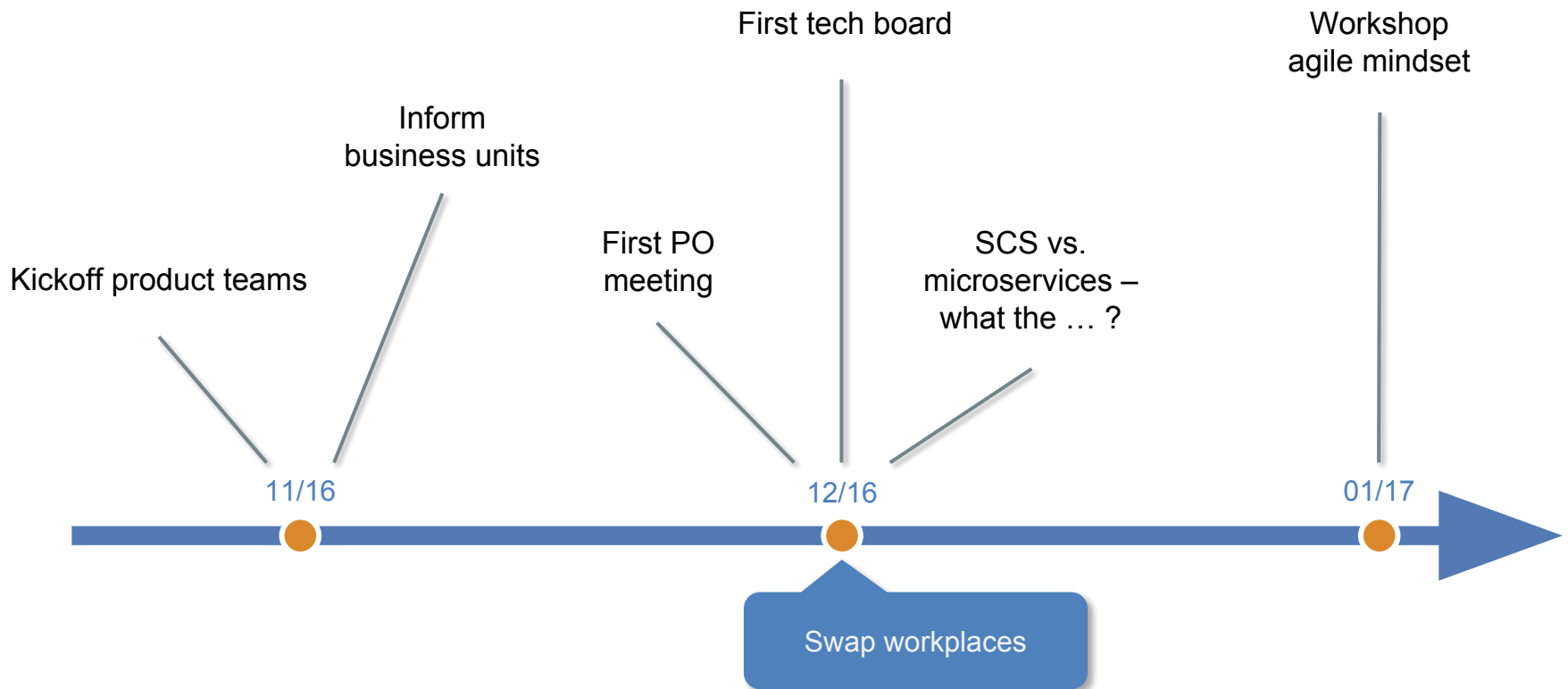
Technical conditions

- Target architecture → SCS
- Artifacts need to pass all stages successfully
- Transparent, unbounded deployments
- Development inside of monolithic system requires permit
- Monthly regression testing



Initiation

Outline next steps



Initiation

Expectations for the next 4 months

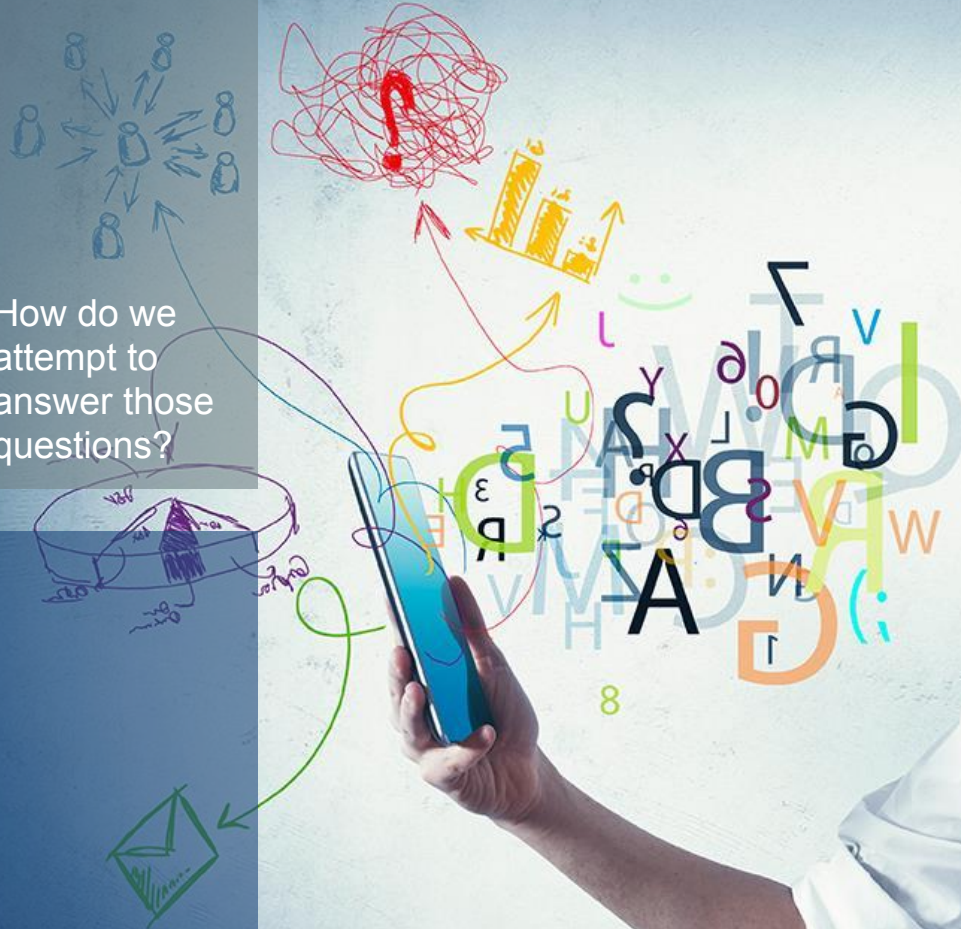
- Recurring meetings
- Product vision & placement in between other products
- Transition plan
- Business requirements

Initiation

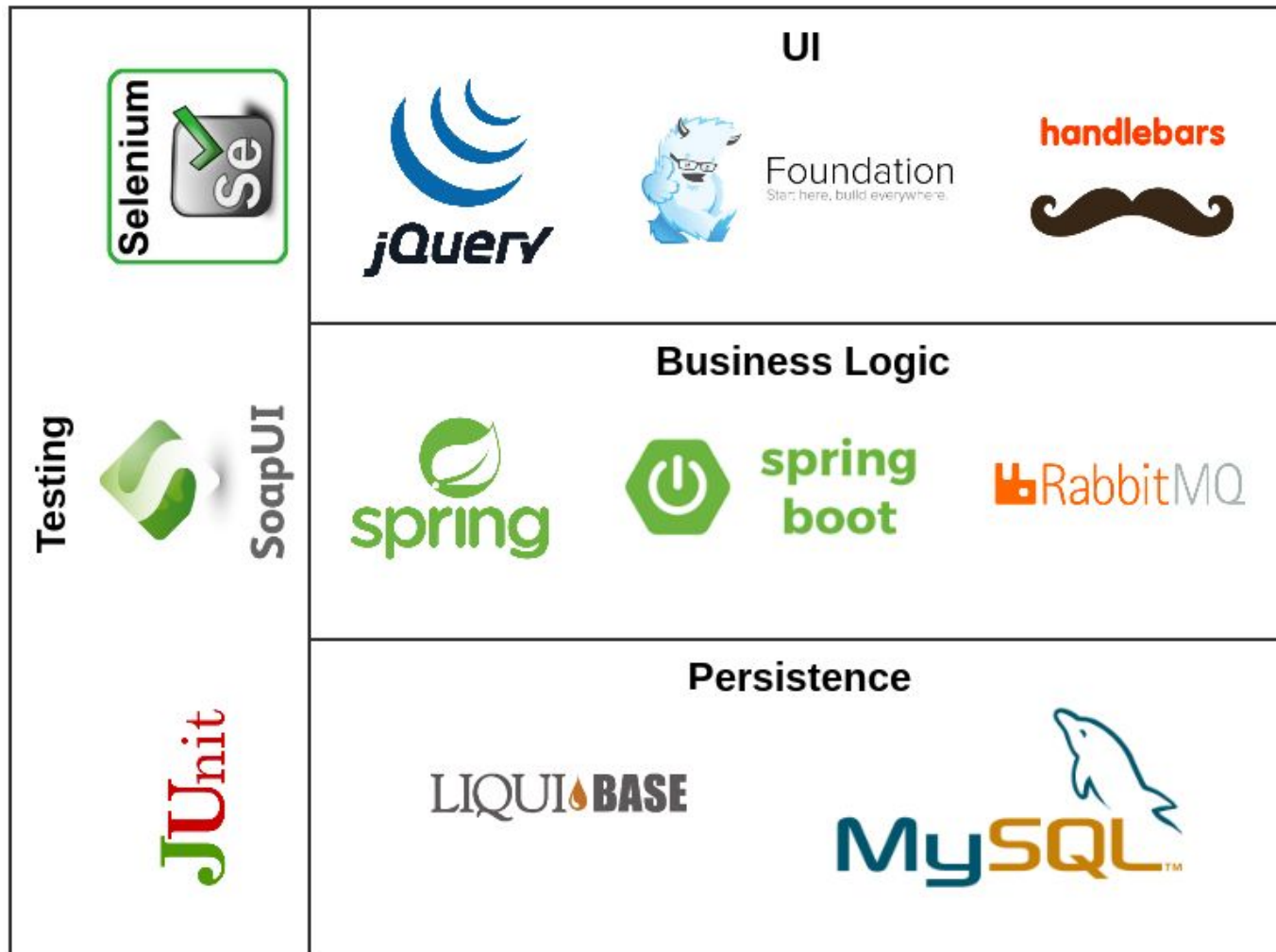
Not being mentioned explicitly so far ...

- How to SCS?
- How to integrate into a monolithic system?
- How to brownfield?
- How to become cross-functional?

How do we attempt to answer those questions?



How to SCS?



How to integrate into a monolithic system?

MEINE FILIALE: Poertgen-Herder heute bis 20:00 Uhr geöffnet

Hallo Dennis Schneider | Abmelden | Mein Konto | PAYBACK | Merkzettel




Titel, Autor, Stichwort, ISBN



Bücher eBooks eReader Hörbuch Filme Musik Spielwaren Games Geschenkkarte Schule Wohnen SALE Reisen Zeitschriften

Product details
(primary content)

Home / tofino



tolino vision 4 HD

eReader

★★★★★ (124)

tolino vision 4 HD - Der komfortabelste eBook Reader für Ihre perfekte Lesezeit.

- Water Protection by HZO - optimaler Schutz vor Wasser
- 300 ppi E Ink Carta™ Display für ein gestochen scharfes Schriftbild

weiterlesen

Trailer

mehr

Produktdetails

Verkaufsrang	2	Speicher (intern)	8 GB (davon rund 6 GB verfügbar für Ihre Inhalte, entspricht über 6.000 eBooks)
Display	E Ink Carta™ Display mit 300 ppi (Auflösung von 1448 × 1072 Pixel) mit		

Checkout (secondary content)

eReader & Zubehör

159,00 €

inkl. gesetzl. MwSt.

Sofort lieferbar

Versandkostenfrei

In den Warenkorb

Filialabholung X

Poertgen-Herder - Haus der Bücher

Salzstr. 56
48143 Münster

Aktueller Bestand:

Mindestens 2 vorrätig

Jetzt bestellen - in zwei Stunden abholen (i)

In dieser Filiale abholen

Filiale ändern

Kontakt & Öffnungszeiten

Auf meinen Merkzettel

How to integrate into a monolithic system?

■ Two ways of serving content

Primary content

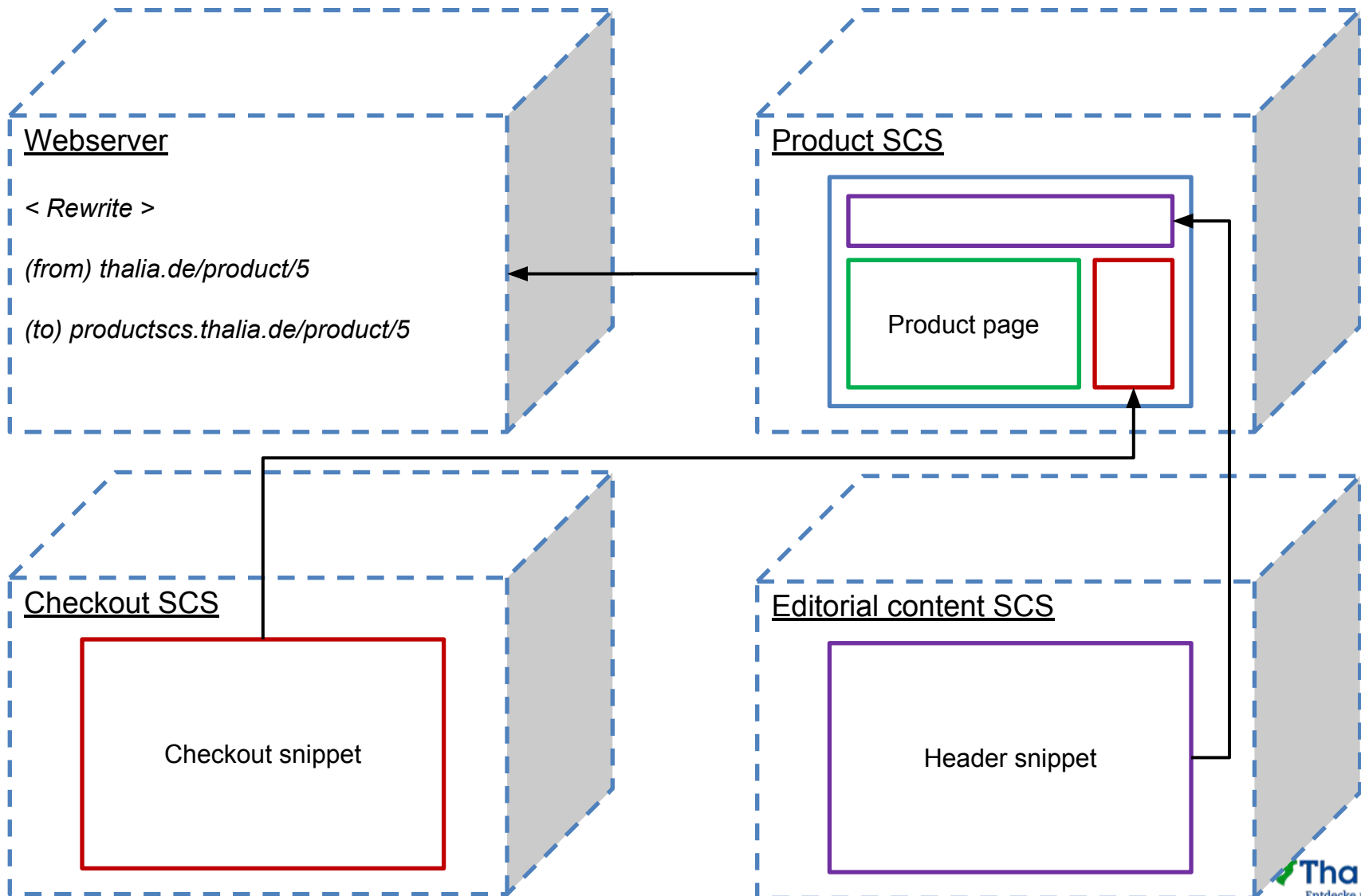
- Serves main content of the page
 - Includes secondary content & page frame (e.g. header/footer) via Ajax, SSI or ESI
-

Secondary content

- Can be included as snippet
 - Requires a certain amount of space
 - Should assume as little as possible in regard of what its parent has to serve
-

■ ... and the monolithic system?

How to integrate into a monolithic system?



How to brownfield?

■ Cut old twigs. Do greenfield.

Eliminate inefficient customer flows

Simplify efficient customer flows

Automate processes & configuration
by replacing custom code
with standard solutions



How to brownfield?

■ Little big bangs

Create development- & deployment-process for pre-productive time

Develop, build & test MVP upto testing stage

Create migration strategy for go-live

Organize & perform migration

How to brownfield?

■ Bidirectional data synchronization

Develop synchronization process

Evaluate dedicated performance & data integrity tests

Create & perform migration strategy for go-live

Develop actual business requirements in an iterative incremental way

How to brownfield?

■ What did we do?

	Login	Payment	?
Cut old twigs	✓	✓	
Little big bangs		✓	✓
Bidirectional data sync	✓		✓

How to brownfield?

Some indicators

	Data & process sovereignty is being separated	Many dependencies	MVP is discussible	Early feedback needed
Cut old twigs		⊖	⊕	
Little big bangs		⊕	⊖	⊖
Bidirectional data sync	⊕	⊕		⊕

How to become cross-functional?

How to get it started?

Agile mindset

Share
knowledge

Broaden skills

Share
responsibilities

How to become cross-functional?

IT Operations



<https://unsplash.com/photos/XFUqd0u5U7w>

How to become cross-functional?

Business Requirements



<https://unsplash.com/photos/Y9nzl9tA3Lw>

How to become cross-functional?

Quality Assurance (QA)



<https://unsplash.com/photos/WC6MJ0kRzGw>



What did we
see so far?

What's
coming next?

Summary



- Organisational & technical independency achievable through self-containment

 - well defined domains incl. borders

 - data & process sovereignty inside those borders

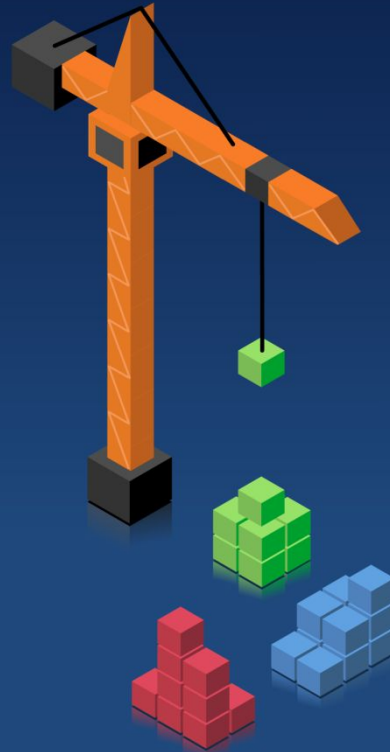
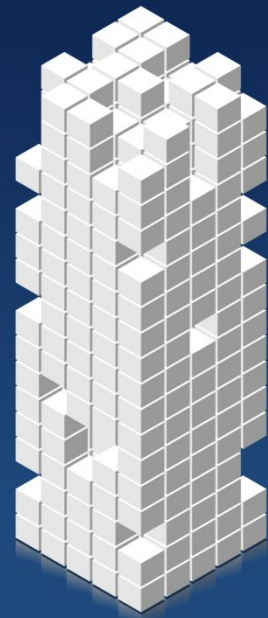
- A sample setup for being self-contained

 - full stack applications

 - build & deployment strategies for green- or brownfield

 - integration into legacy infrastructure

 - cross-functional teams



**WIR
BAUEN
UM** 

