

# Micro-frontends five years after

@\_maxgallo

In 2019 I was on this stage with Luca Mezzalira to introduce DAZN approach to Micro-frontends

<https://bit.ly/talk-max-luca>

## MICROFRONTENDS MANIFESTO



Independent implementation,  
avoiding sharing logic



Modelled around  
a Business Domain



Own by a single team



# Hi I'm Max



**Principal Engineer @ DAZN**



**twitter: @\_maxgallo**

**web: maxgallo.io**

# Agenda

 **Once Upon a Time**

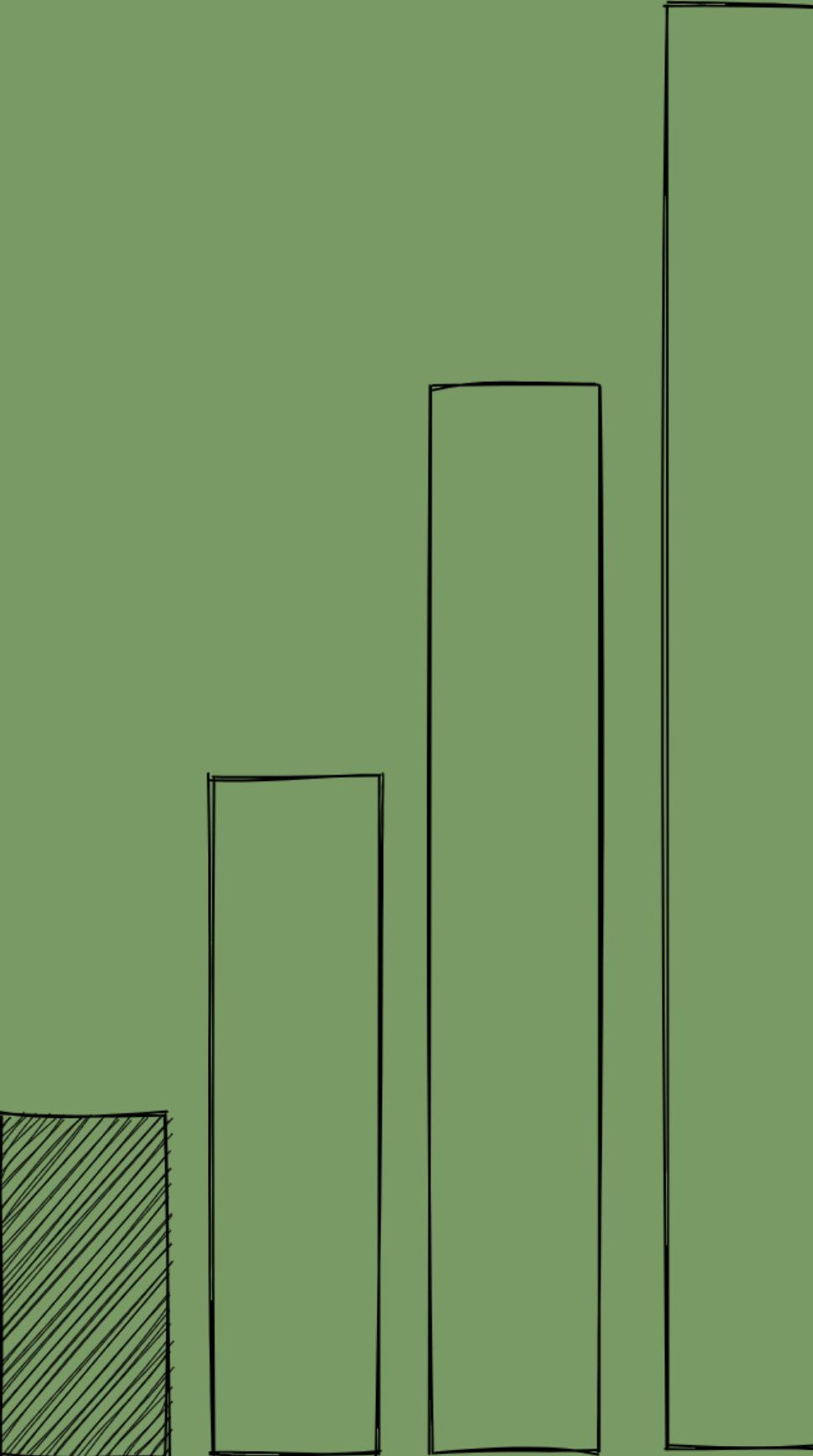
 **Domain Boundaries Evolution**

 **Beyond Team Autonomy**

 **Sharing Code**

# Once Upon a Time

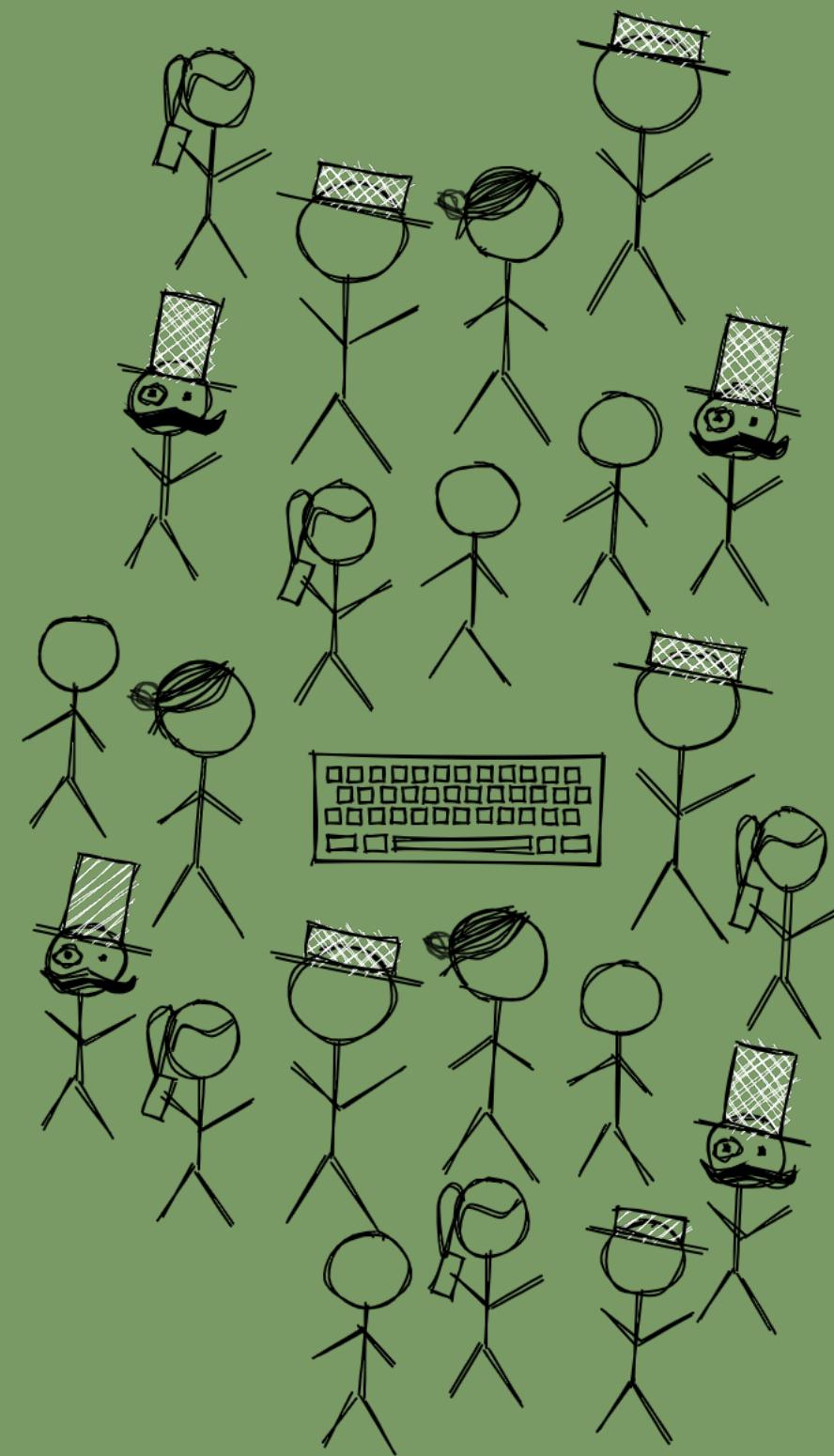
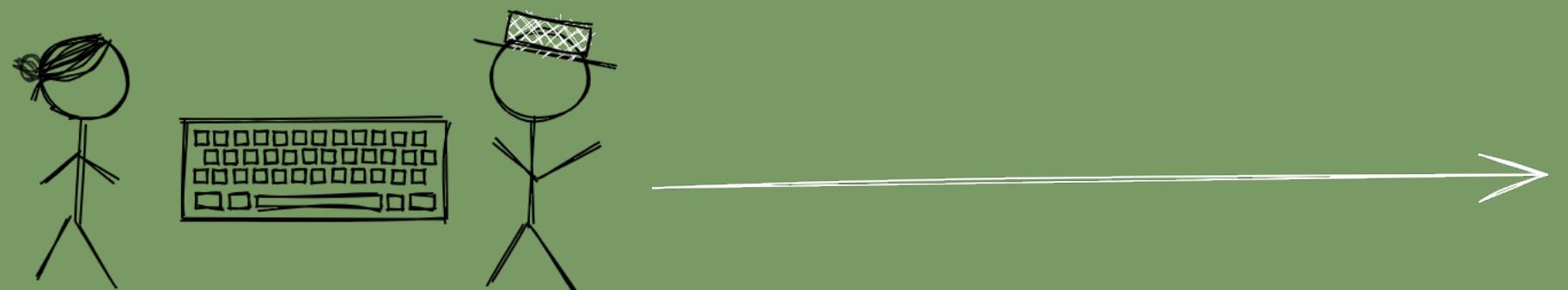
Part 1 of 4



**Once Upon a Time, there  
was a Live Sport  
Streaming Company  
called DAZN**



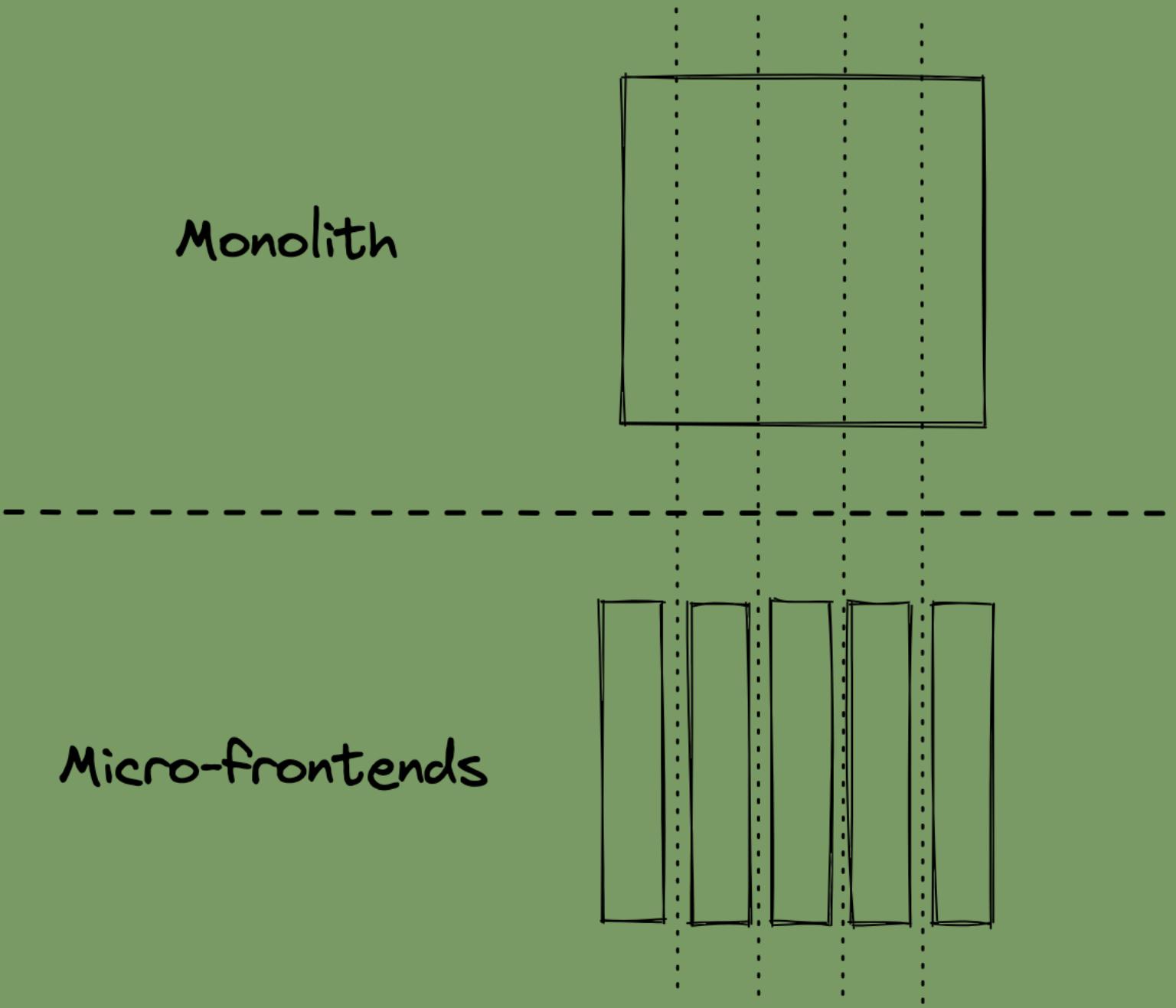
# DAZN Engineering department was growing exponentially



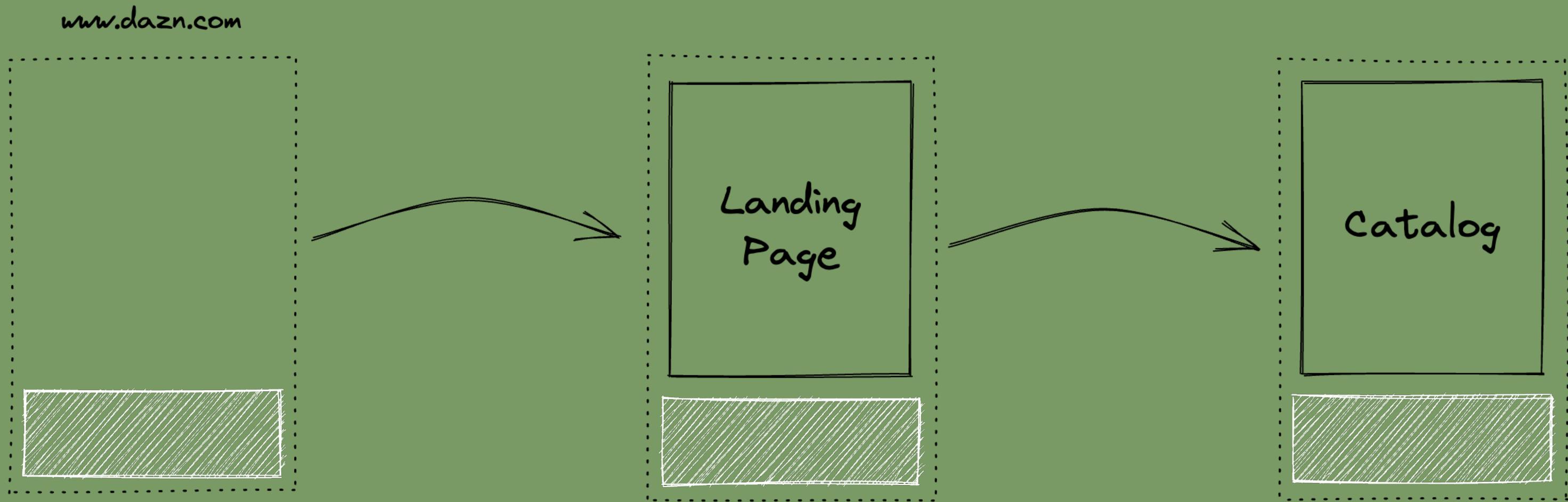
To sustain our teams  
growth plans so we  
introduced Micro-  
frontends

Monolith

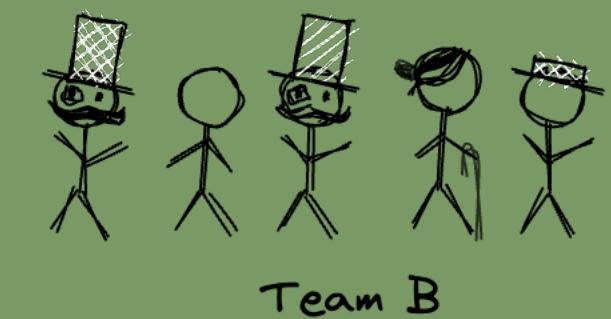
Micro-frontends



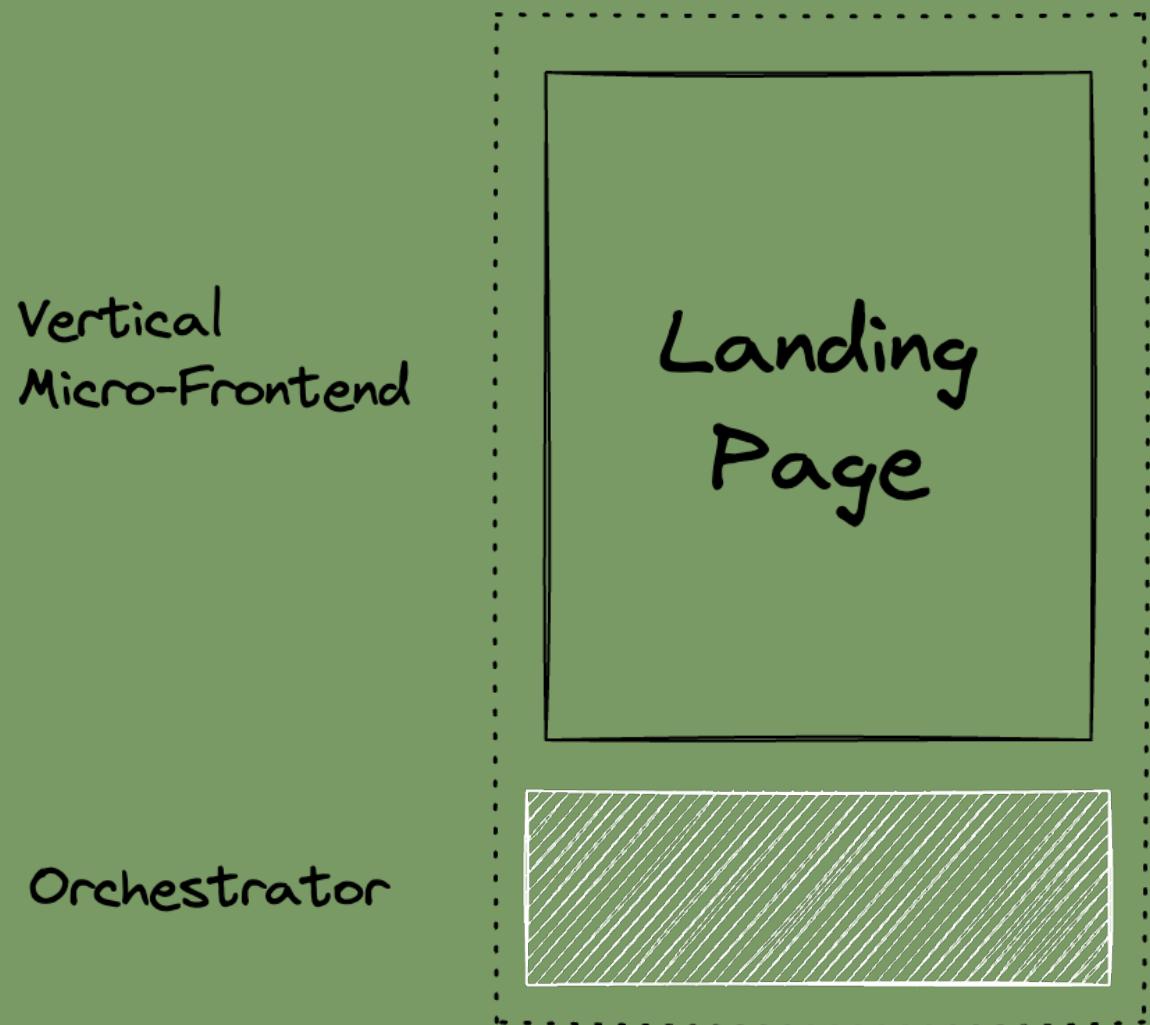
# DAZN Composition



Client-side  
Orchestrator  
always in page



# DAZN Micro-Frontends MANIFESTO

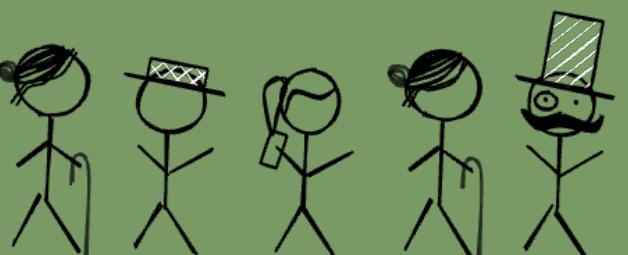


Modelled around a  
Business Subdomain

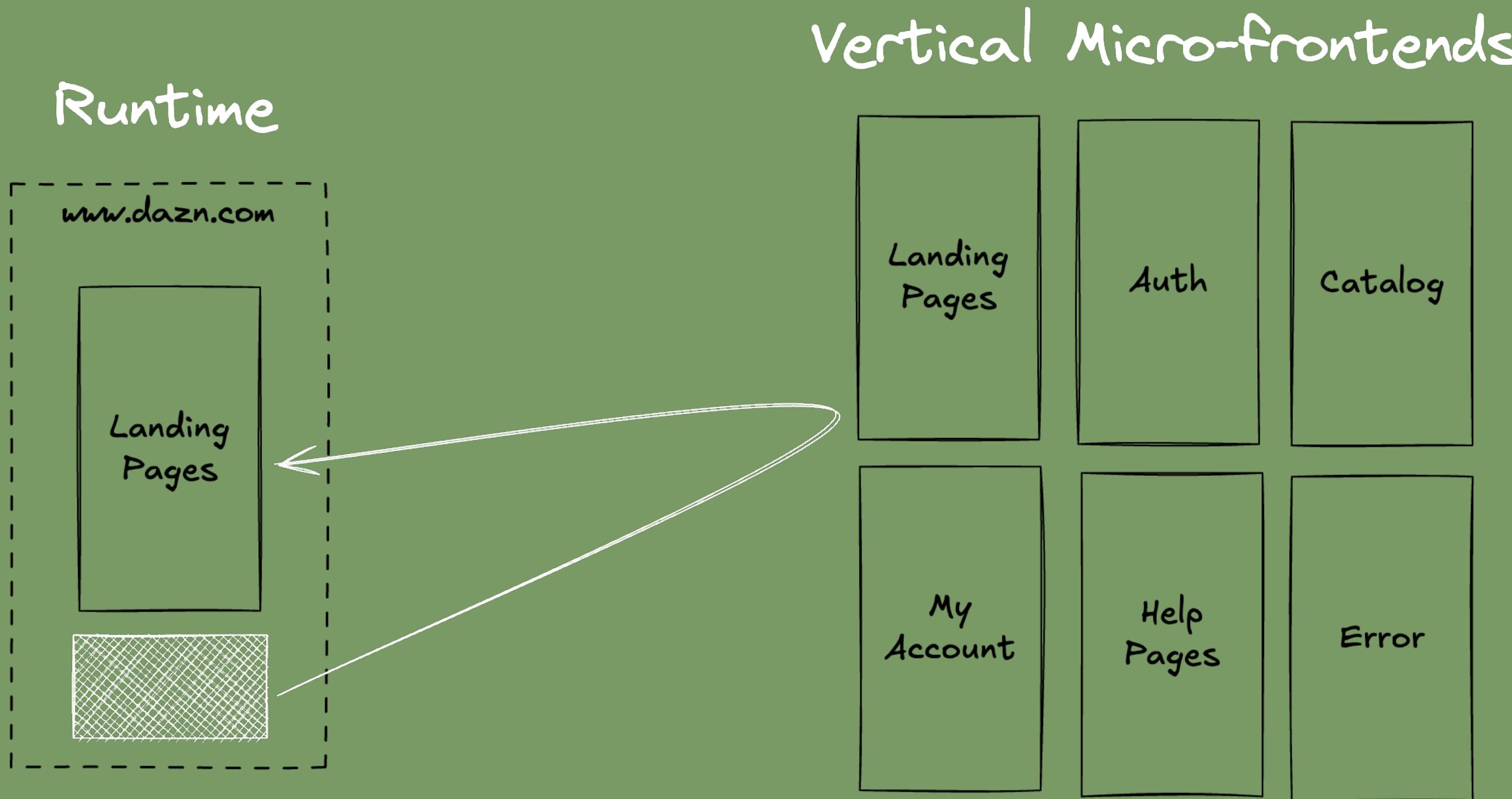
**Independent  
implementation**

**Owned by a single team**

**Entire view (Vertical  
Micro-Frontends)**



# 2019 Frontend Architecture



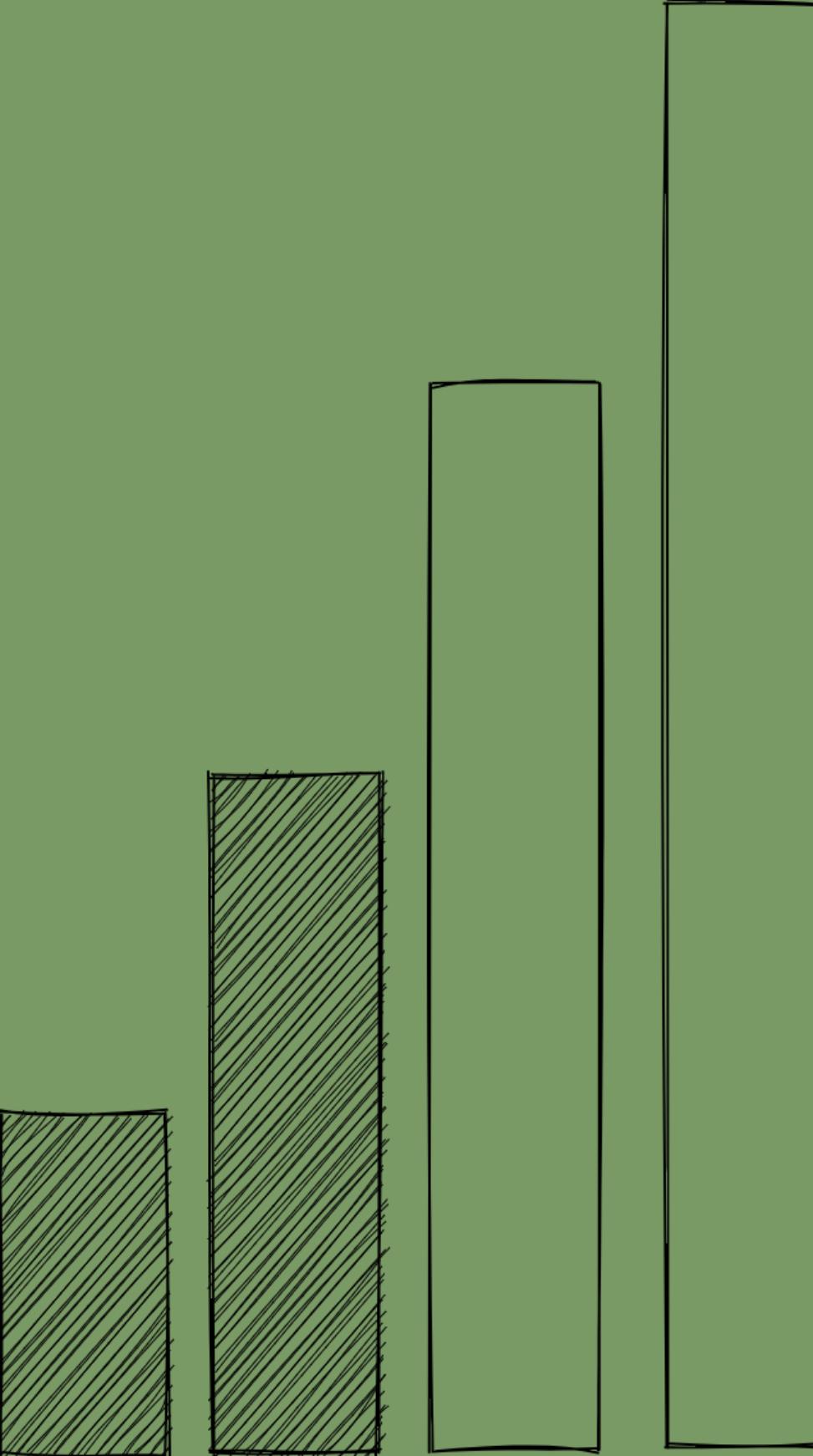
...and they lived happily ever after

...and they lived happily ever after

No more! 

# Domain Boundaries Evolution

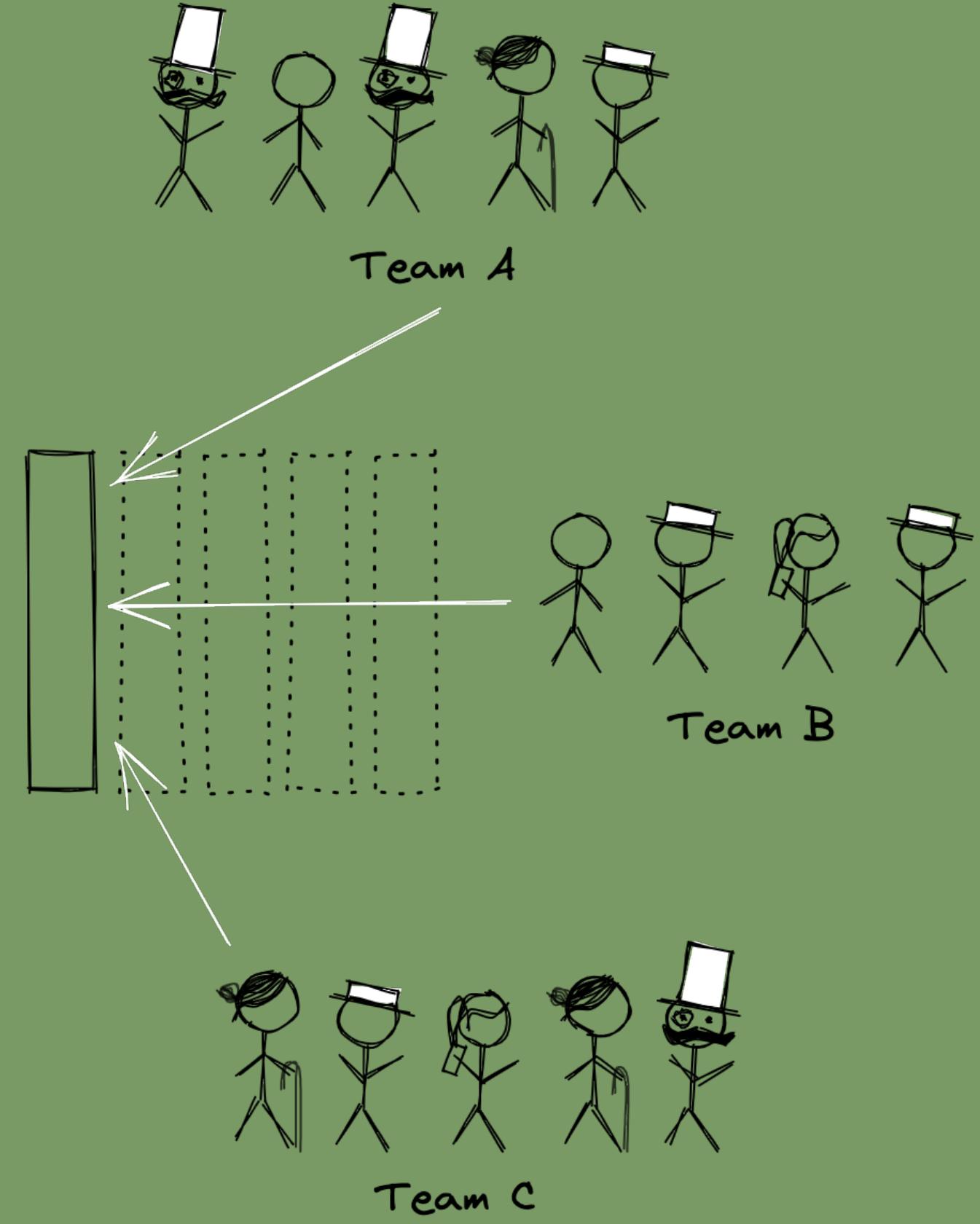
Part 2 of 4



# **It's not easy to define Domain Boundaries**

# Some vertical Micro-frontends were too big for a single team

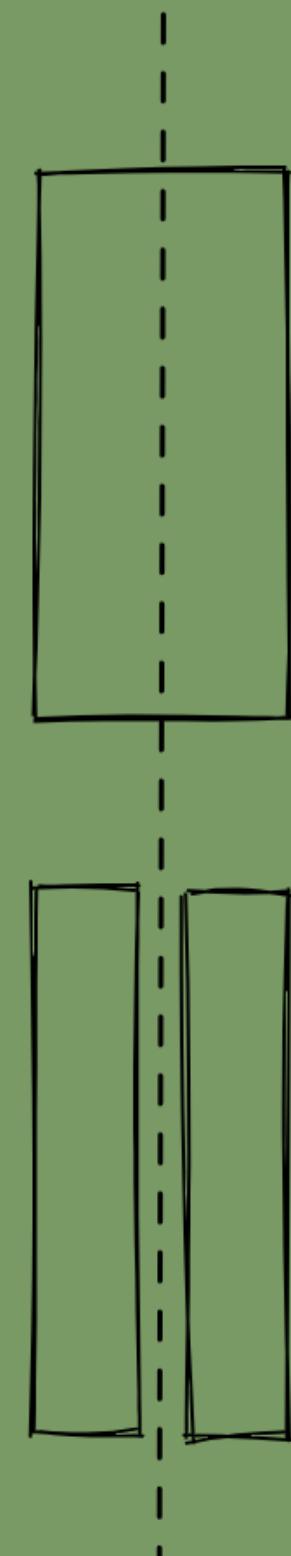
Micro-frontends



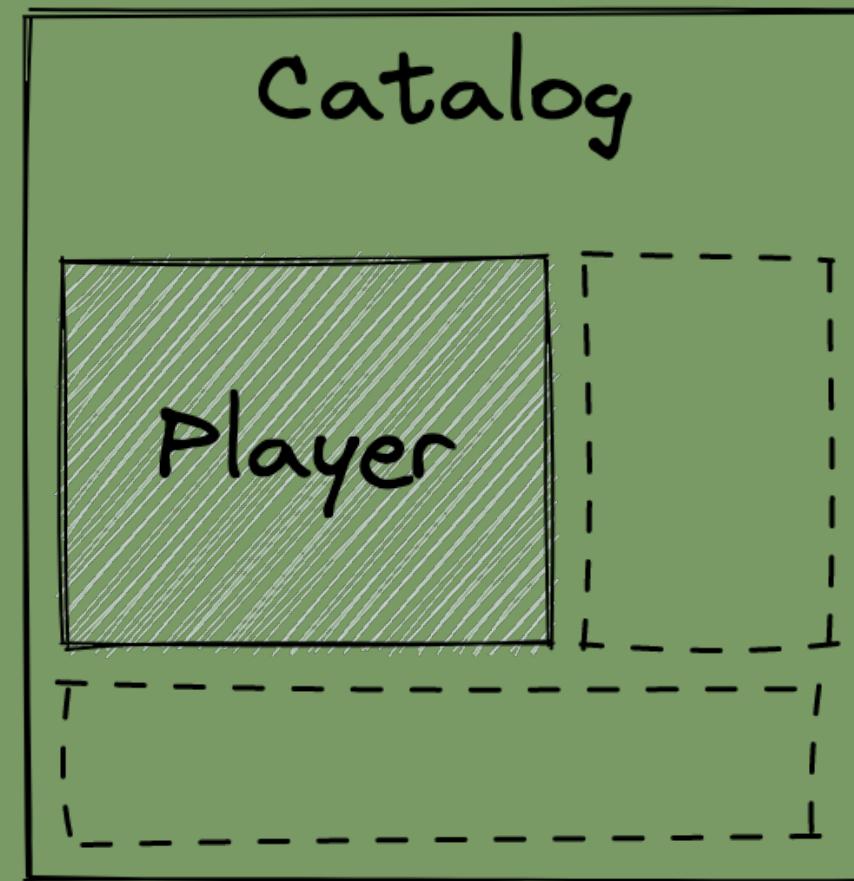
**Our business  
subdomains are not  
immutable so we re-  
defined their boundaries**

Micro-frontend

Two  
Micro-frontends



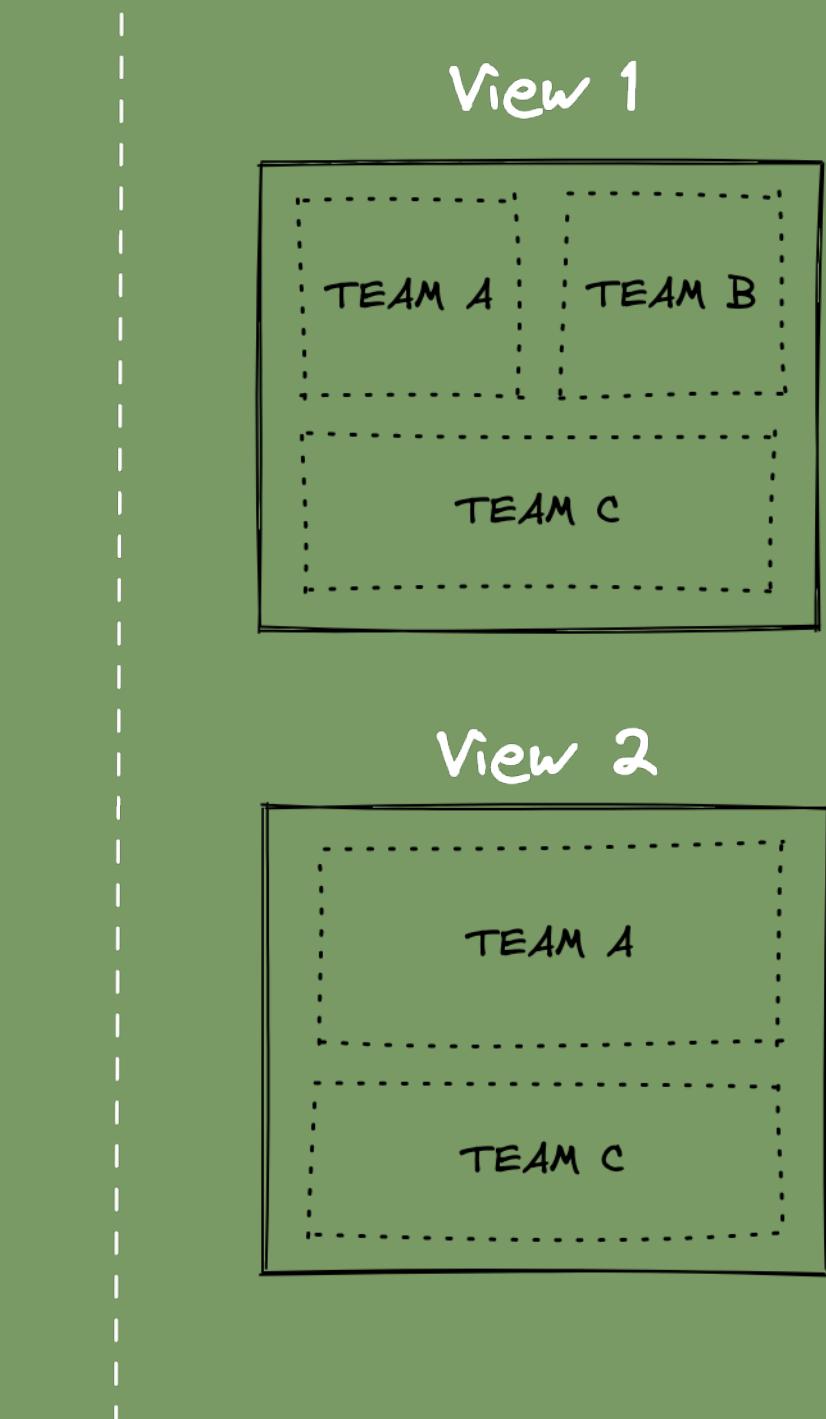
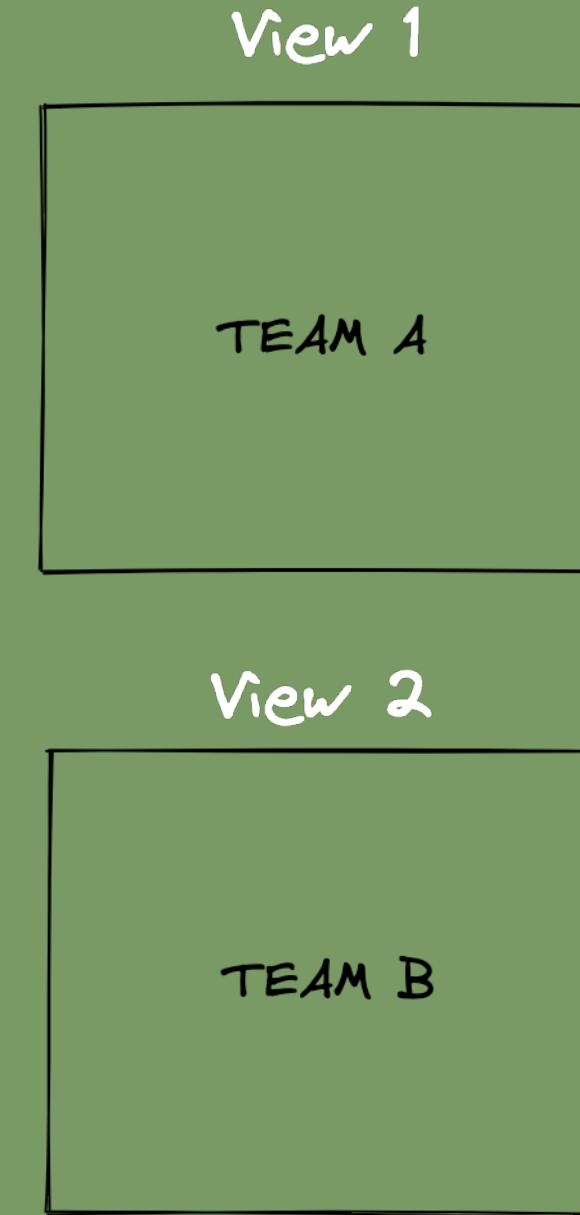
**A Subdomain did contain  
a complex subsystem<sup>1</sup>  
that was not considered  
a Micro-frontend**



Example of  
Micro-frontend

<sup>1</sup>From "Team Topologies"

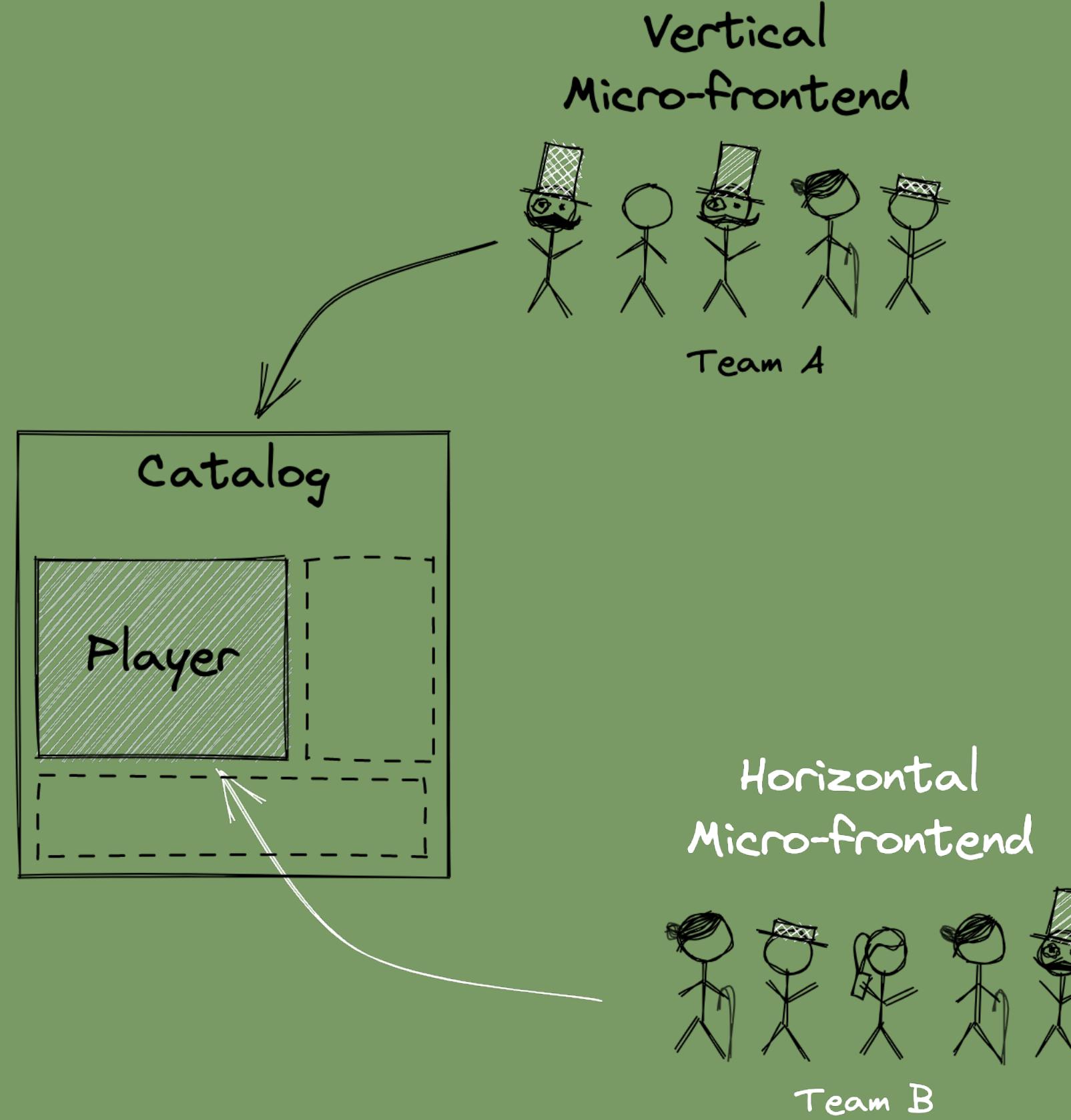
# Micro-frontends Vertical & Horizontal<sup>2</sup> split



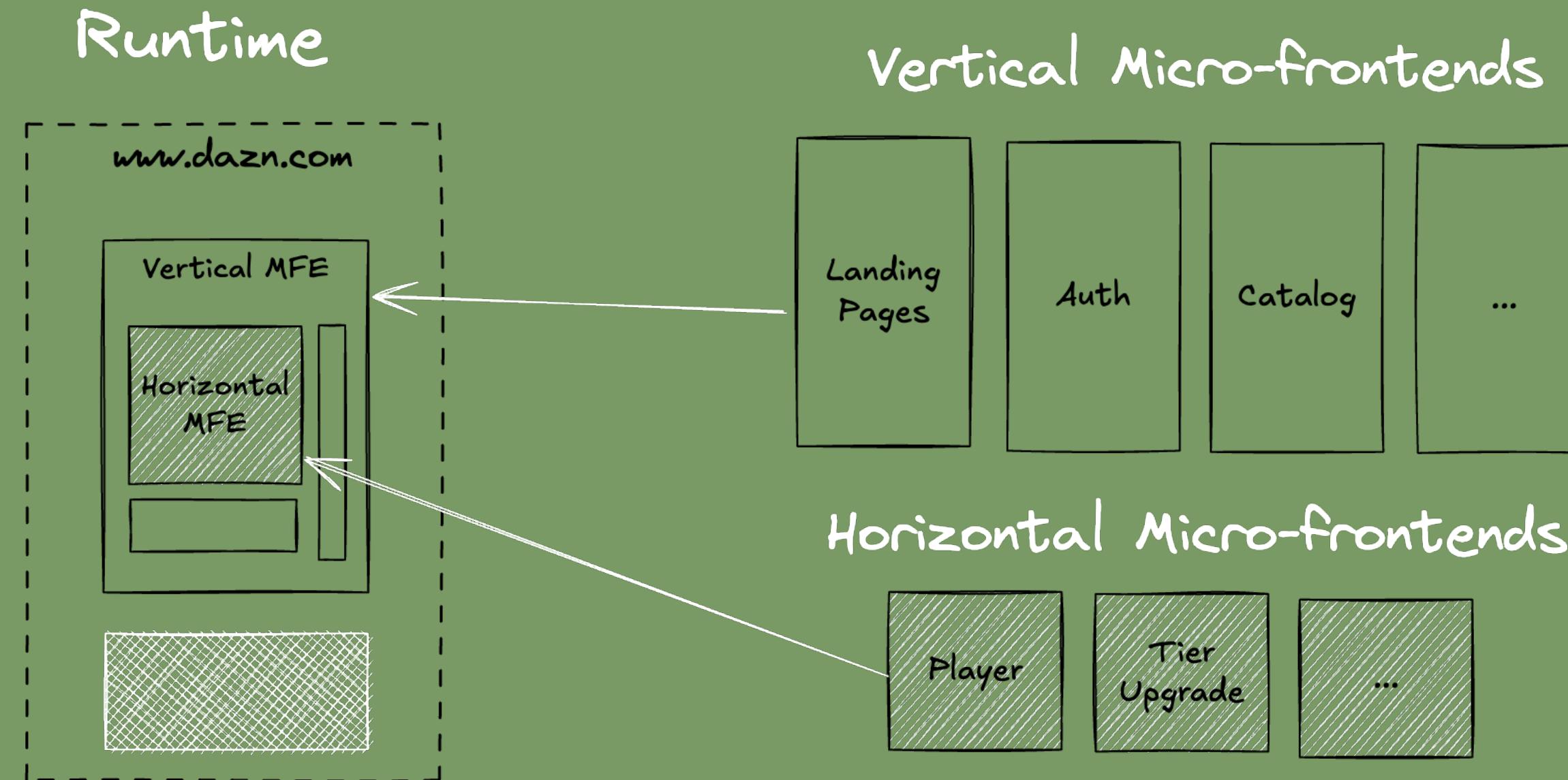
Horizontal  
Micro-Frontends

# Deep Dive into Horizontal Micro-frontends in DAZN

- 👉 SystemJS
- 👉 Relationship with host
- 👉 Autonomy in non-breaking changes

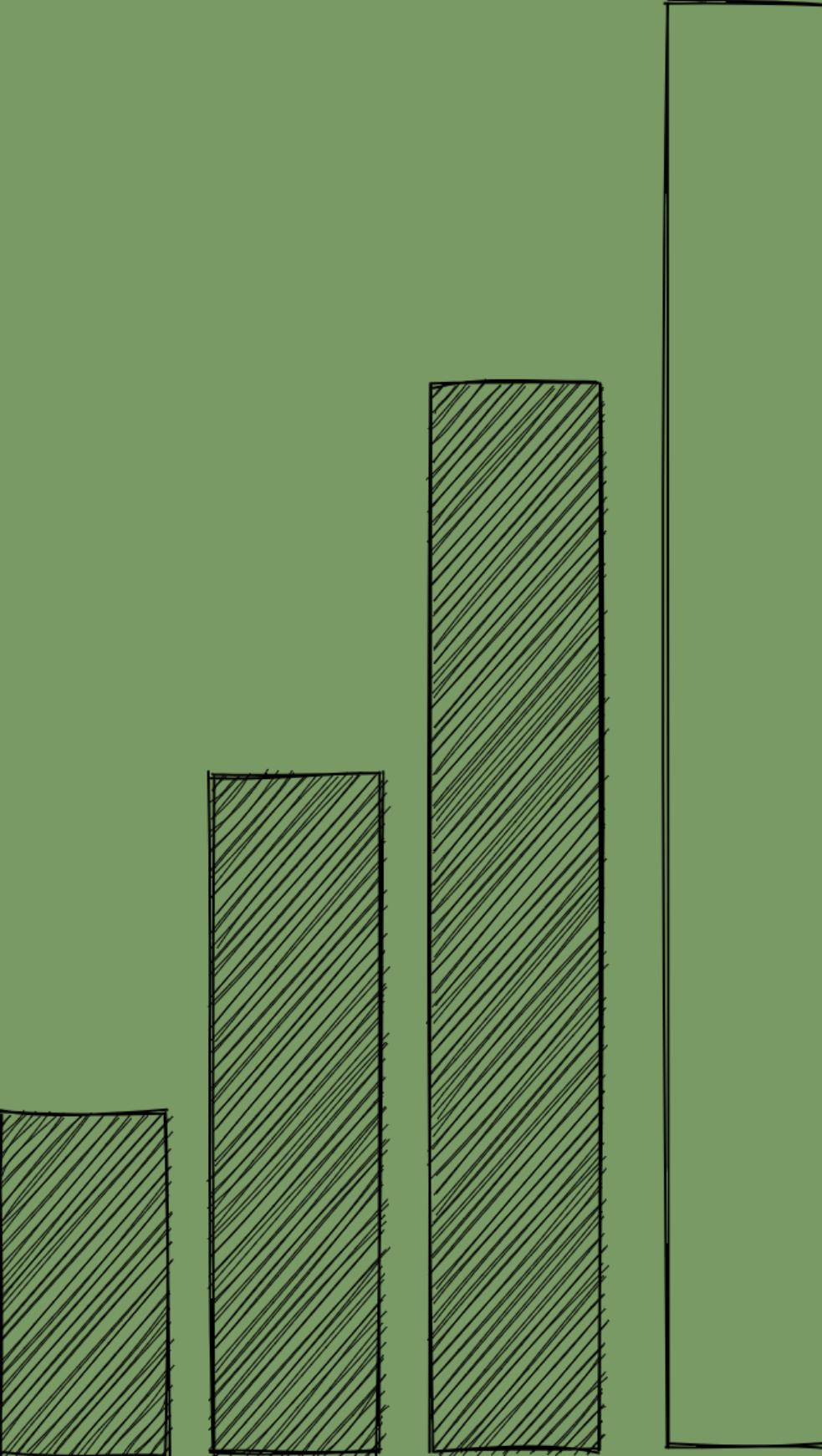


# 2024 Frontend Architecture

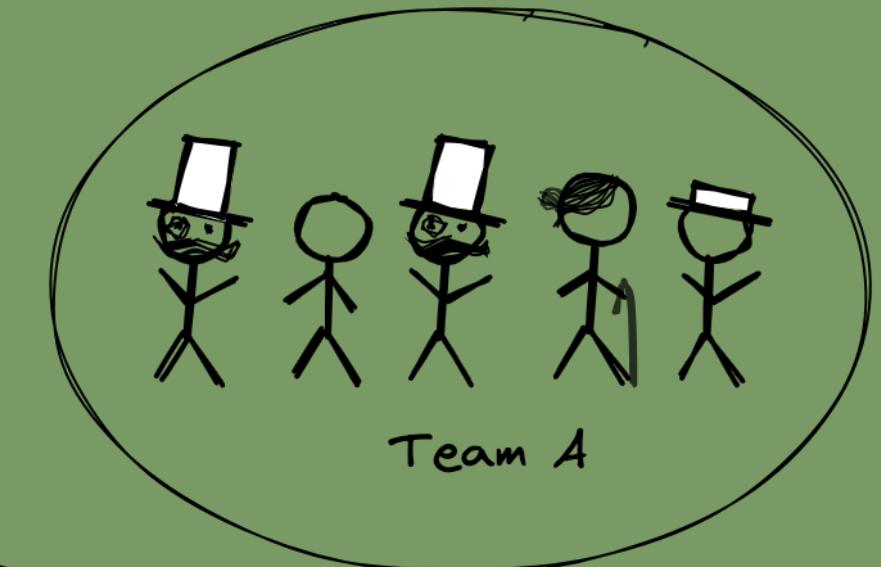


# Beyond Team Autonomy

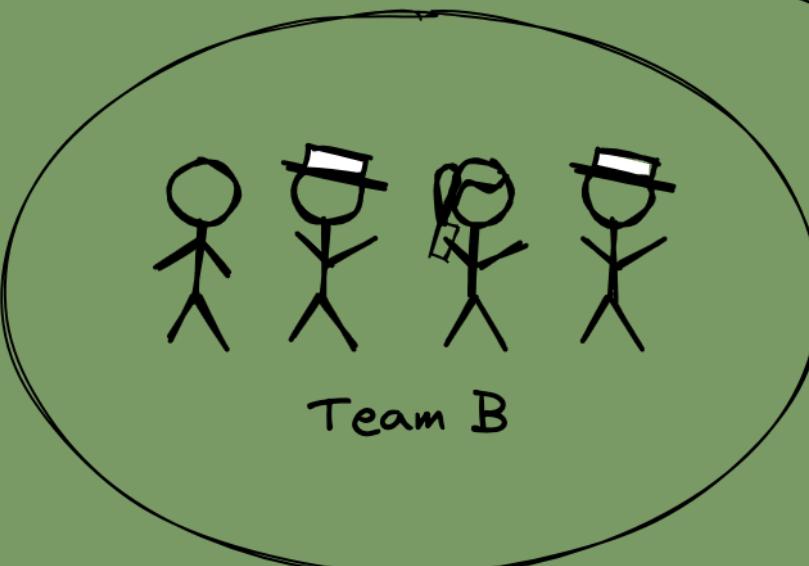
Part 3 of 4



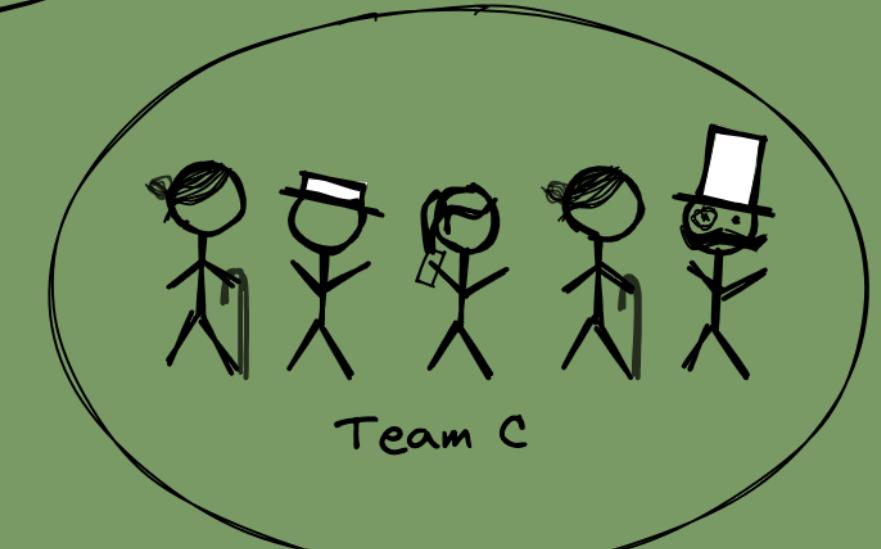
# Very autonomous Teams are at risk to create silos



Team A



Team B



Team C

# Share Knowledge across Teams

- 👉 **Frontend Guilds**
- 👉 **Internal Meetups**
- 👉 **Principals & Architects**

**Favor local decisions  
but have a plan for  
global decisions**

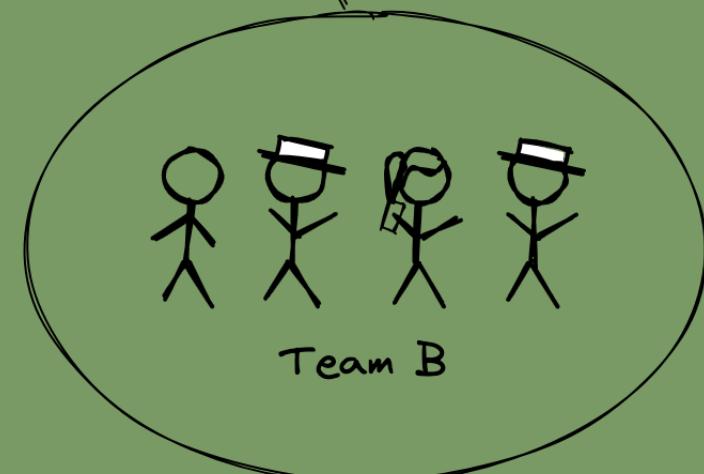
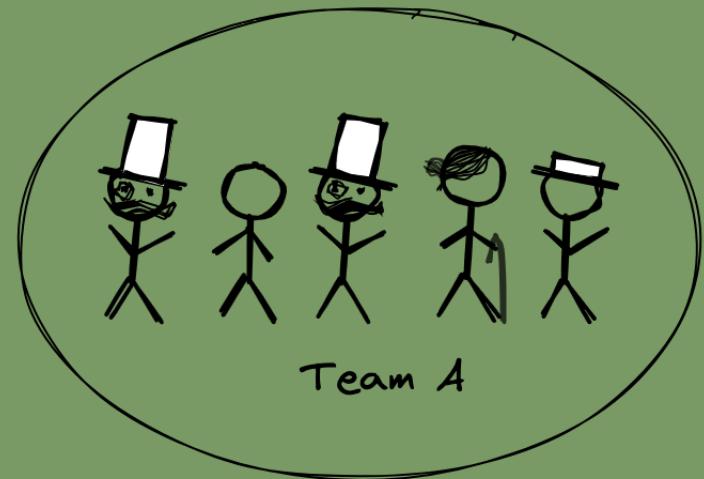
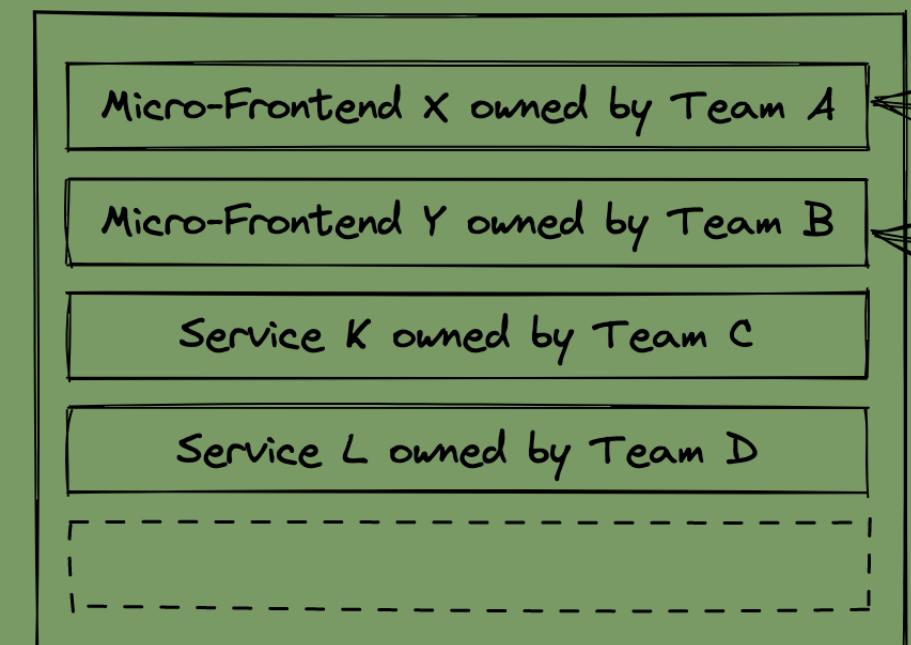
 **Request For Comments  
(aka RFC)**

 **Architecture Decision  
Records (aka ADR)**

# Enable Discovery beyond Teams

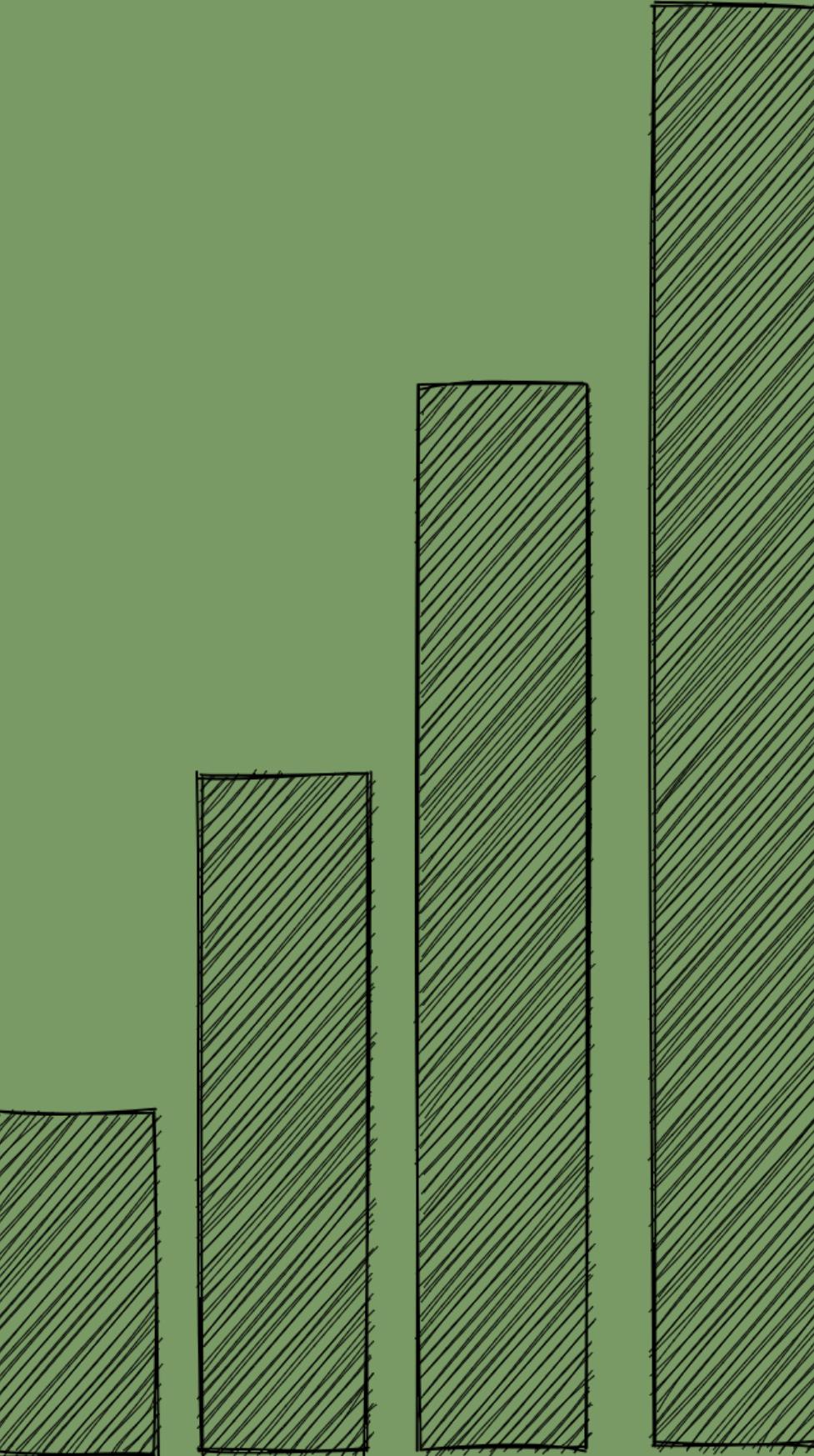


**Backstage (Spotify)**

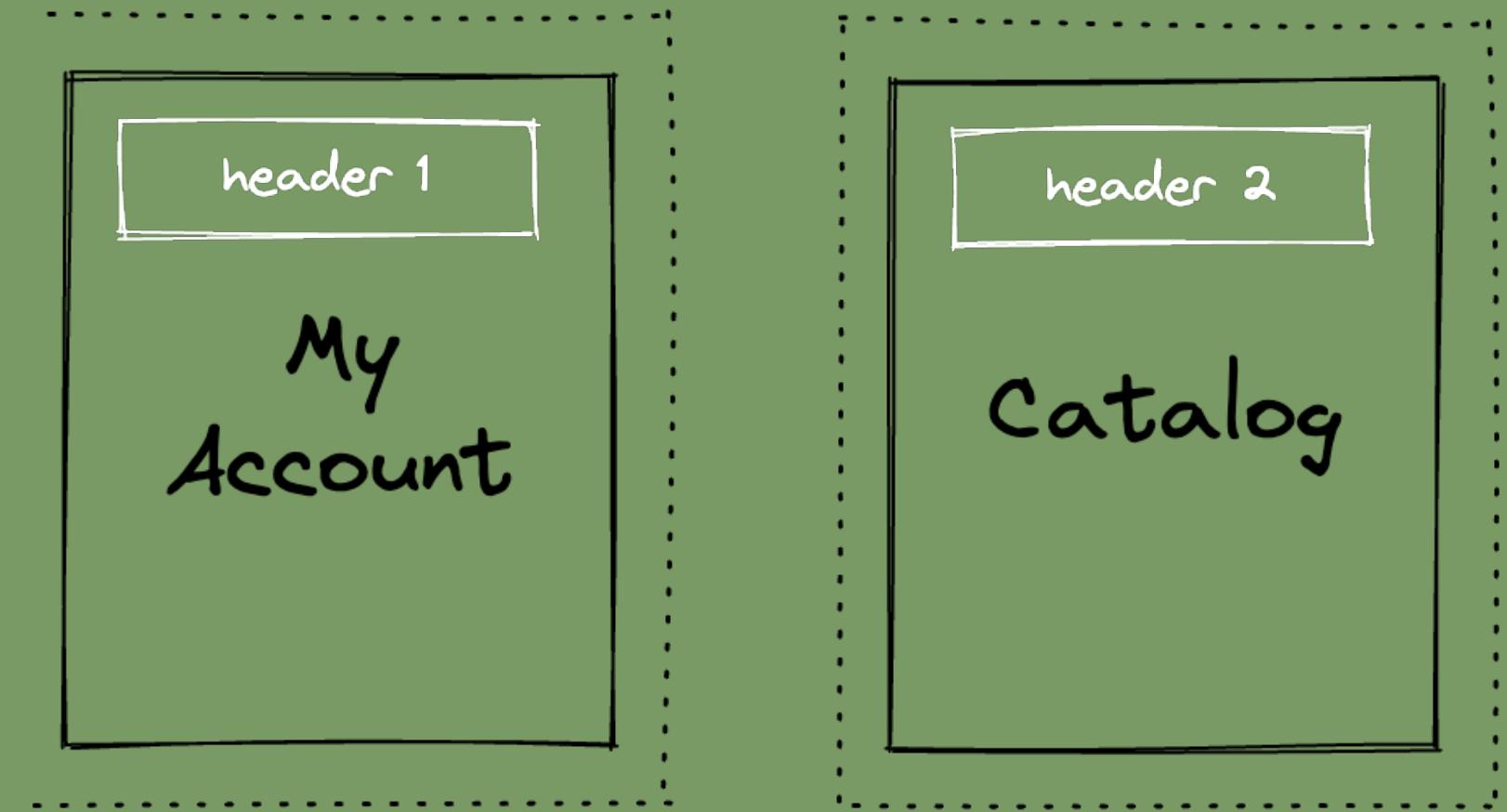


# Sharing Code

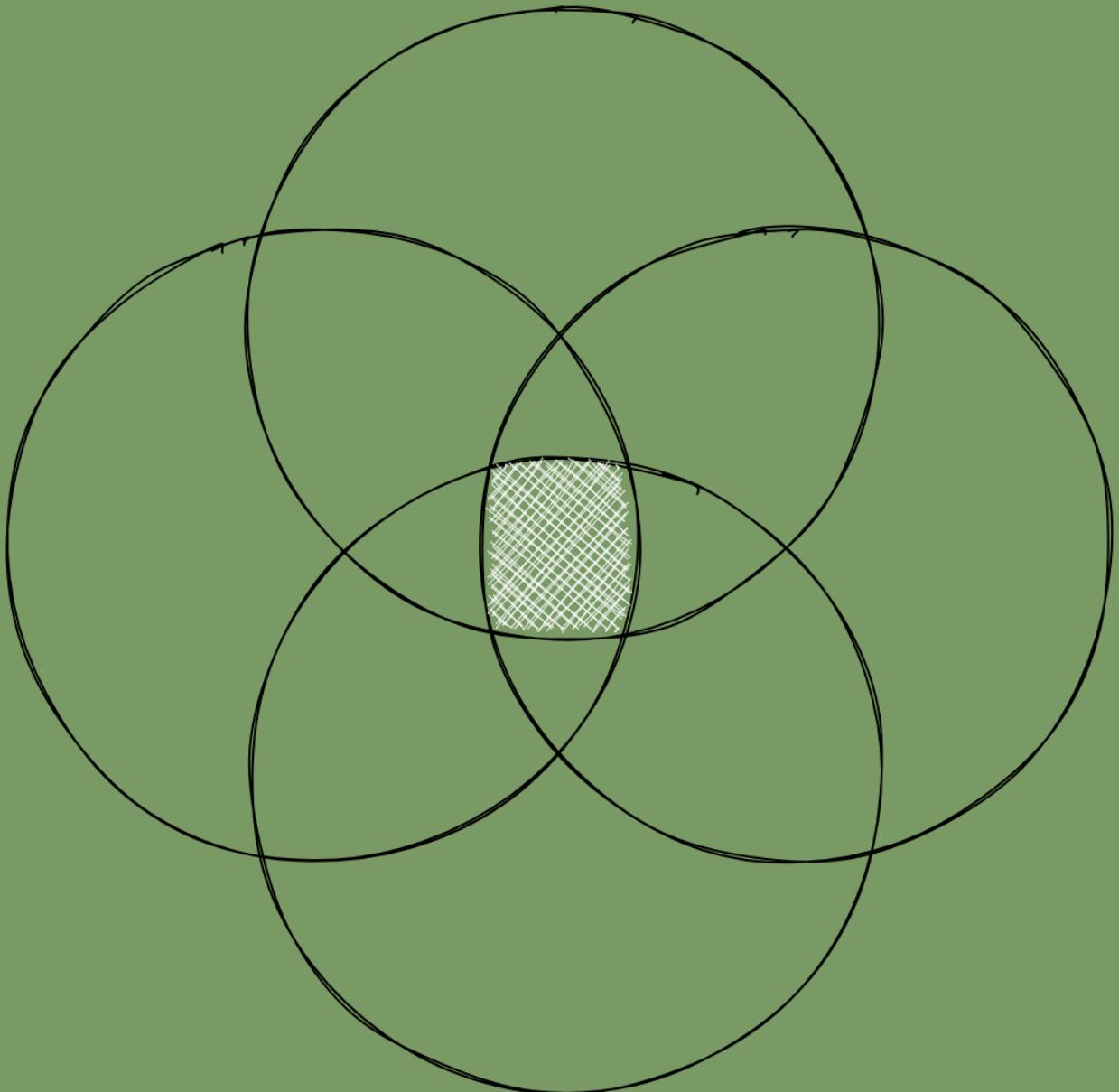
Part 4 of 4



To favor teams  
independence, we  
duplicated by design



**Not a single visual  
component has been  
shared across all the  
Micro-frontends, yet**



**In DAZN, we're sharing  
some components to  
reflect company  
priorities**

@\_maxgallo

# What are we sharing and why

## Payments

Critical component

# What are we sharing and why

## Payments

Critical component

## Analytics

Risks of Fragmentation

# What are we sharing and why

## Payments

Critical component

## Analytics

Risks of Fragmentation

## Experiments

Hard to provide autonomy

# takeaways

- 👉 Your business subdomains are **not immutable**
- 👉 Share as a **solution** not as a **goal**
- 👉 It's always about **people**

@\_maxgallo

# thank you

**[github.com/maxgallo/talk-micro-frontends-five-years-after](https://github.com/maxgallo/talk-micro-frontends-five-years-after)**

@\_maxgallo