

# Scaling Your Project with **MICRO-FRONTENDS**

@lucamezzalira



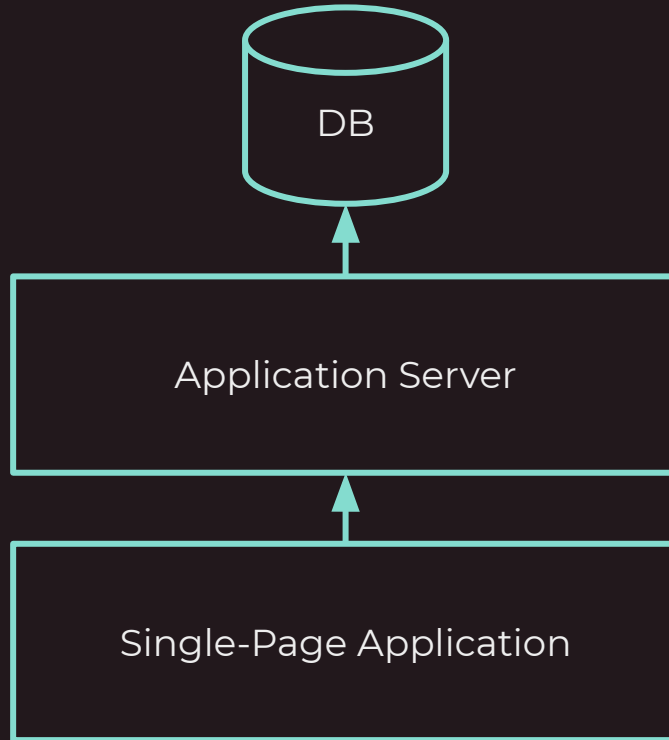
## Luca Mezzalira

VP of Architecture at DAZN

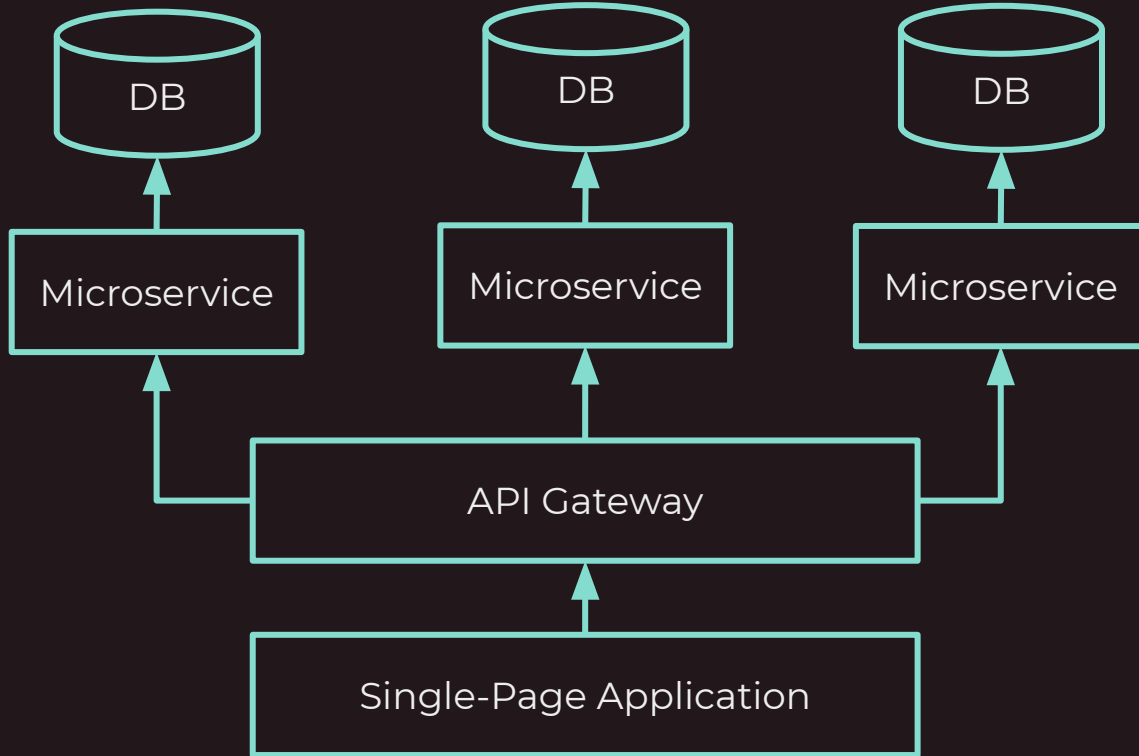
Google Developer Expert

London JavaScript Community Manager

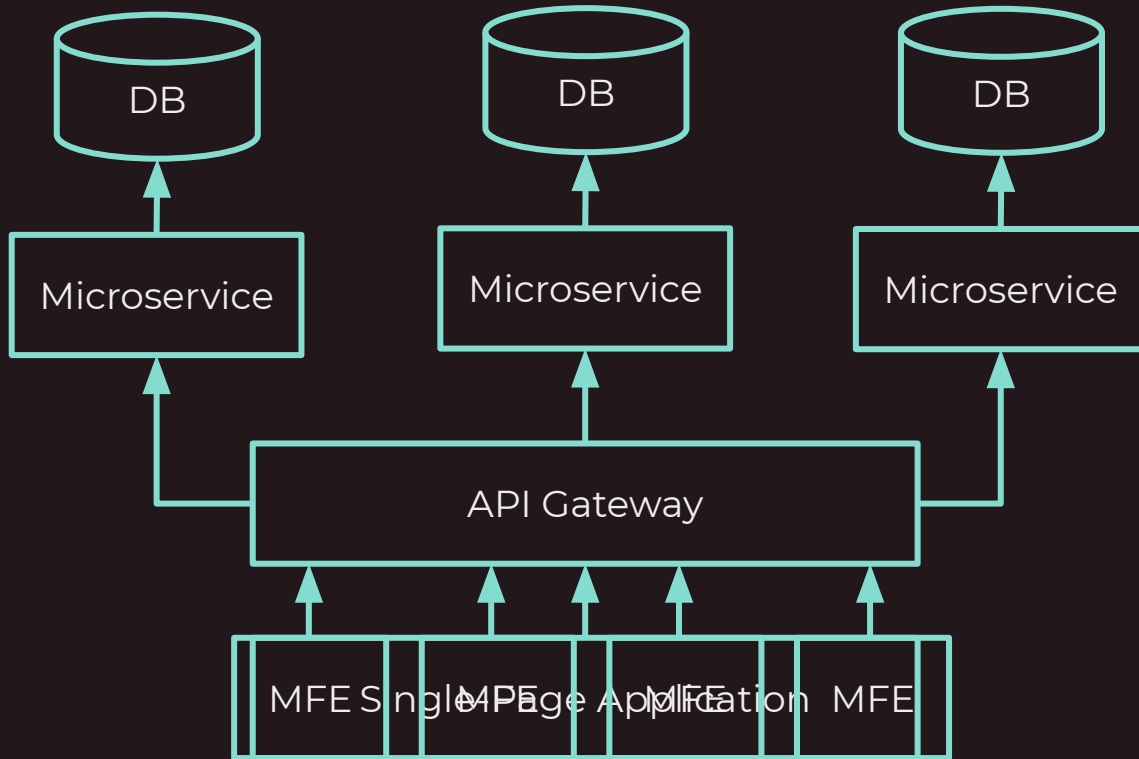
# Architecture evolution



# Architecture evolution



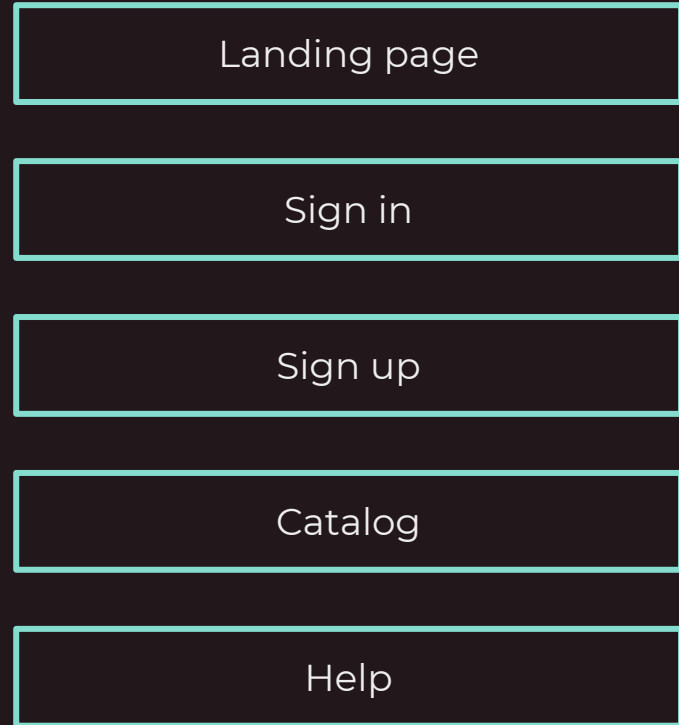
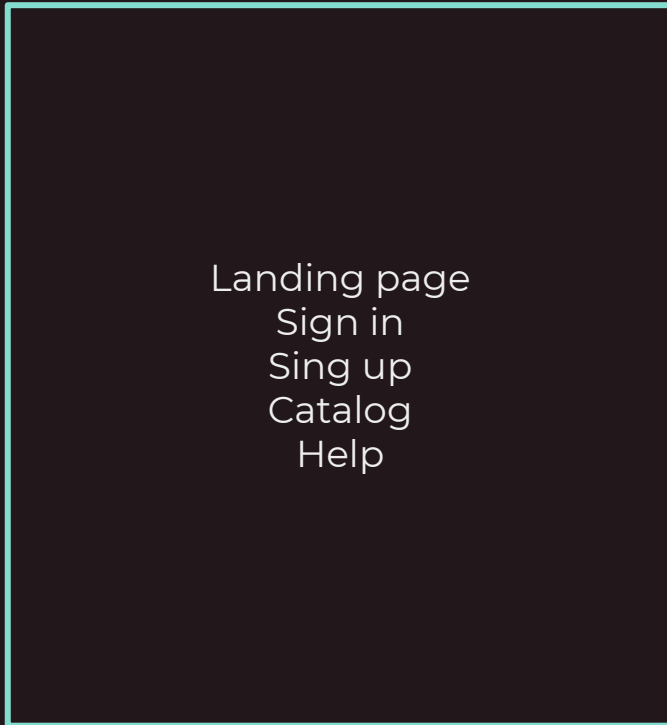
# Architecture evolution



# MICRO-FRONTENDS DEFINITION

**“Micro-frontends are the technical representation of a business subdomain, they allow independent implementations with the same or different technology choices. Finally they should avoid sharing logic with other subdomains and they are own by a single team”**

# What is a micro-frontend?





# MICRO-FRONTENDS PRINCIPLES

**Model around  
business domain**

**Culture of  
automation**

**Hide  
implementation  
details**

**Decentralisation**

**Deploy  
independently**

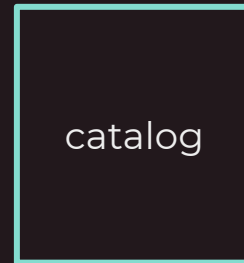
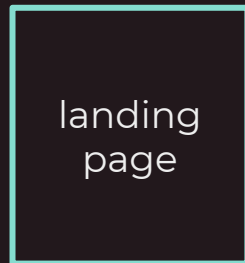
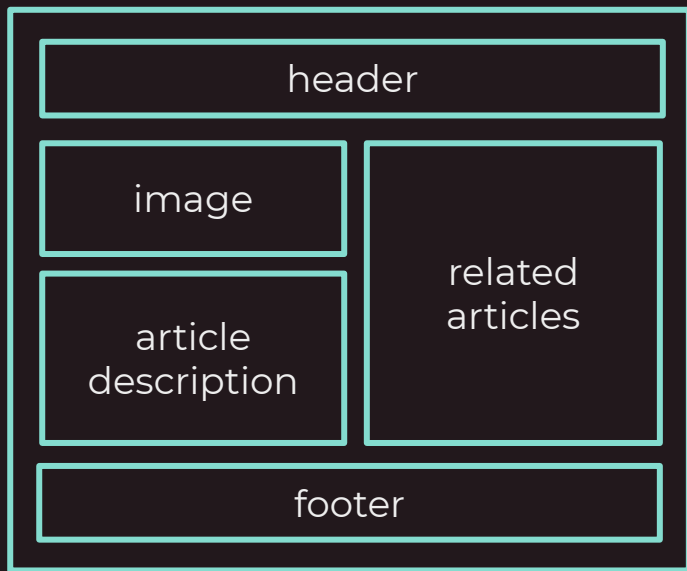
**Isolate failure**

# MICRO-FRONTENDS DECISIONS FRAMEWORK

# Key micro-frontends decisions

1. Define
2. Compose
3. Route
4. Communicate

# Define a micro-frontends



# Horizontal VS Vertical split

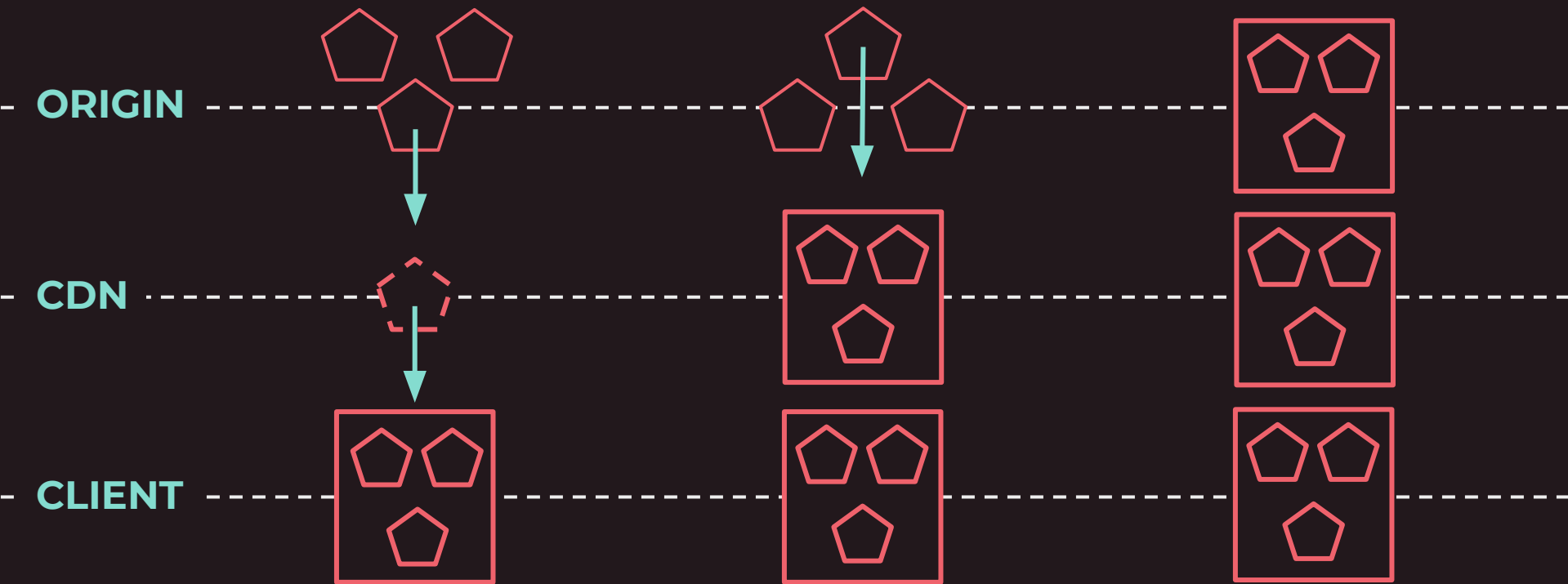


1. Up front investment
2. Teams structure
3. Great for SEO
4. Testing challenges
5. Scalability challenges
6. Dependency management

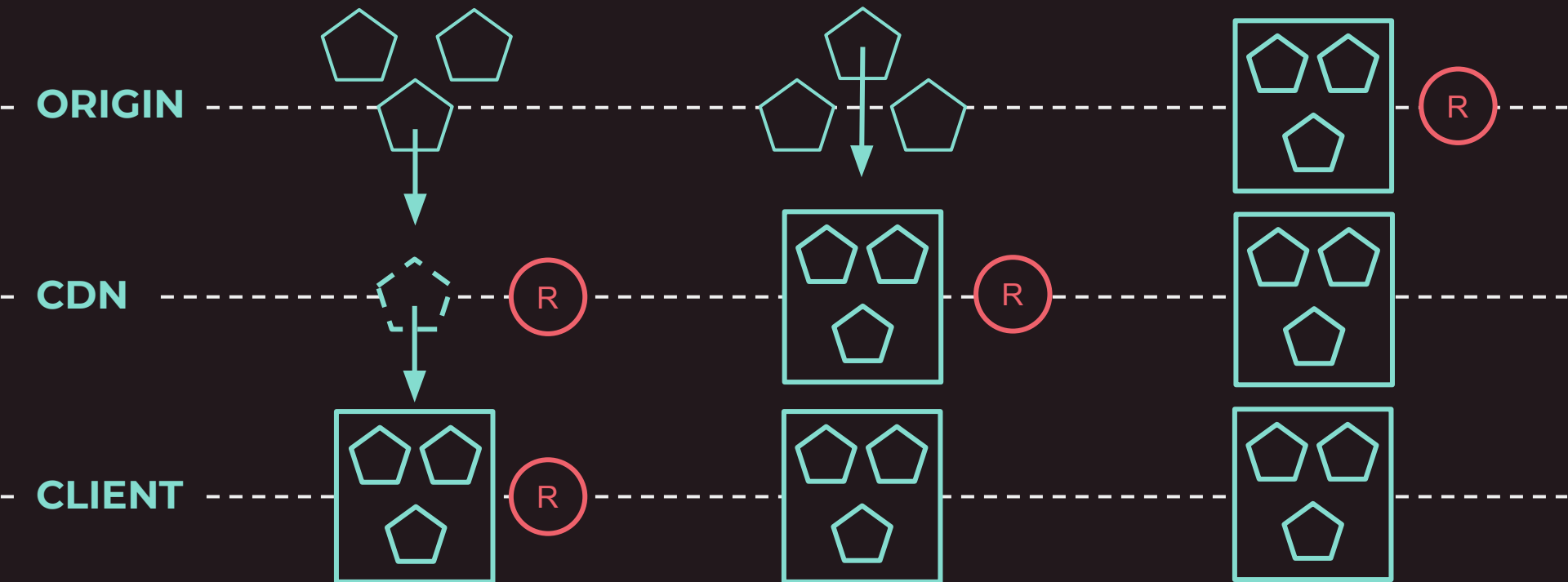


1. Traditional development
2. Embracing JavaScript ecosystem
3. Dynamic Rendering for SEO

# Compose micro-frontends



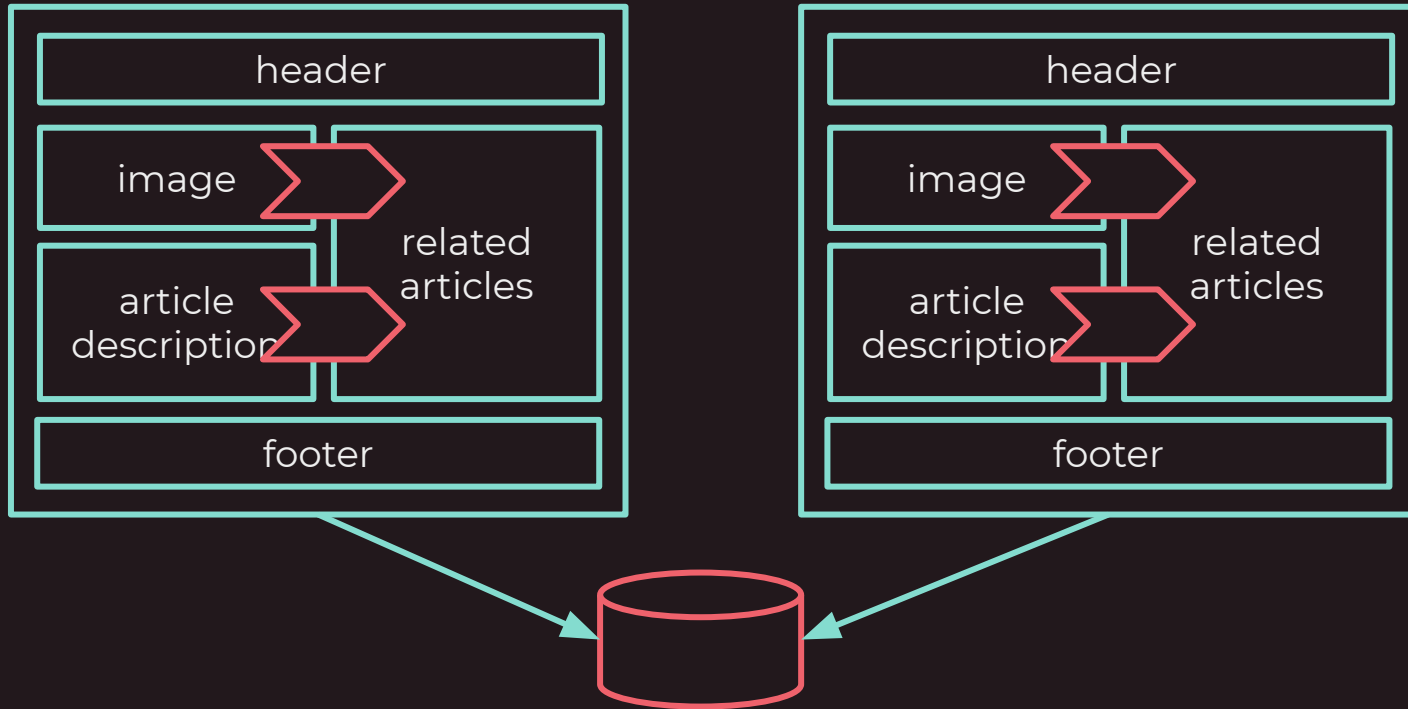
# Route micro-frontends





# Micro-frontends communication

mysite.com/section?id=123



**THERE IS NO  
RIGHT OR WRONG  
BUT ONLY  
THE RIGHT APPROACH  
BASED ON THE CONTEXT**

**MICRO-FRONTENDS @DAZN**

Premier League | Old Trafford | 16:00 Uhr, 14. Mqy 2018

# MAN UNITED - LIVERPOOL

WAS LÄUFT

**LIVE**



**MAN UNITED - LIVERPOOL**  
Premier League | 16:00

**LIVE**



**FALCONS @ SEAHAWKS**  
NFL | 15:30

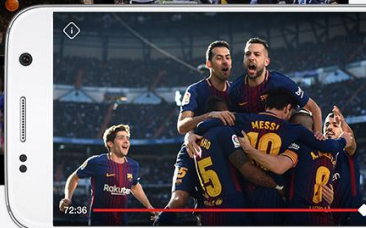
DAZN PICKS



SCHEDULE

MAY

1	2	3	4	5	6	7	8
HEUTE	MO	DI	MI	DO	FR	SA	SO
<b>LIVE</b> MAN UNITED - LIVERPOOL Premier League   16:00				<b>LIVE</b> FALCONS @ SEAHAWKS NFL   15:30			
<b>LIVE</b> REAL MADRID - BARCELONA La Liga Santander				<b>LIVE</b> MONACO - PSG Ligue 1   18:30			
<b>LIVE</b> KNICKS @ CAVALIERS NBA   19:00							



# Micro-Frontend @ DAZN

HTML

App.js

Vendor.js

CSS

# DAZN implementation



BOOTSTRAP

1. Application startup
2. I/O operations
3. Micro-Frontends lifecycle
4. Communication between Micro-Frontends

# DAZN implementation

1. A Micro-Frontend represents a business domain
2. A Micro-Frontend is autonomous
3. One Micro-Frontend loaded per time
4. No sharing between micro-frontends (\*)
5. Technology agnostic

(\*) with some exceptions

# How bootstrap works



1. Call Startup service
2. Understand user status
3. Load and Mount a Micro-Frontend

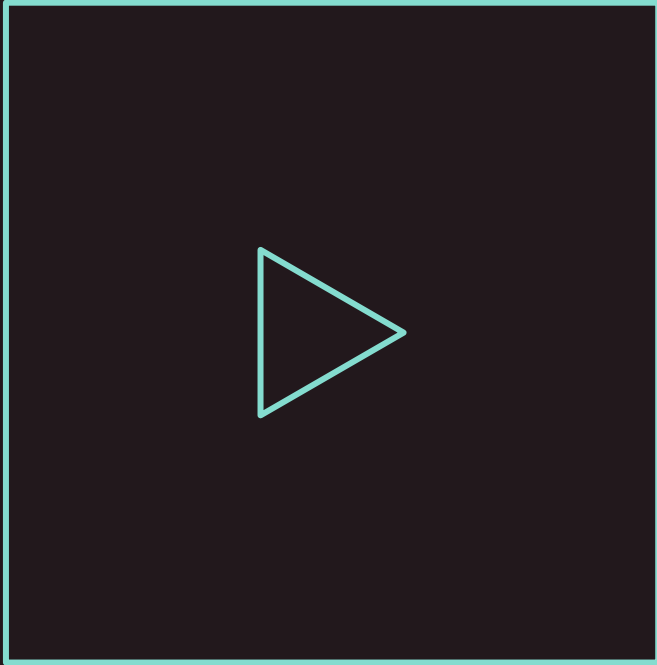




# DAZN routing

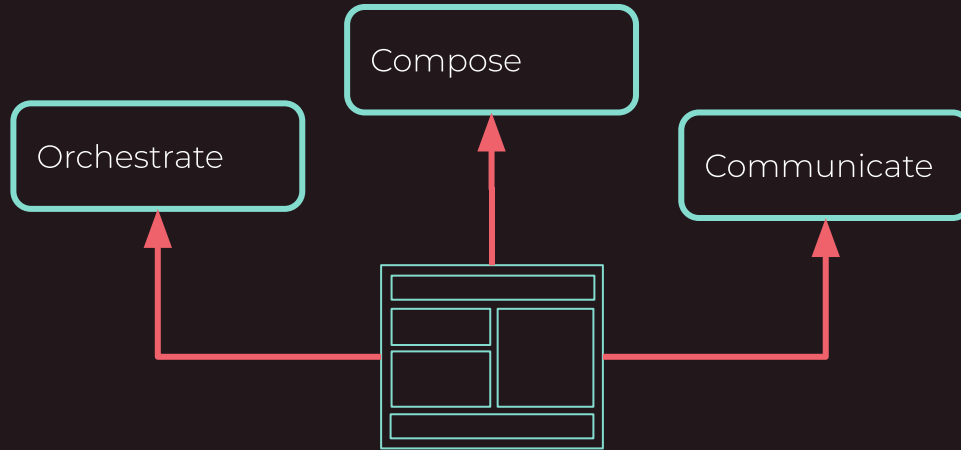


# Components



1. Development time integration
2. APIs first
3. Own by a single team

# What we have learnt...





# Useful links

## Resources



[bit.ly/386DNbx](https://bit.ly/386DNbx)

## Webinar



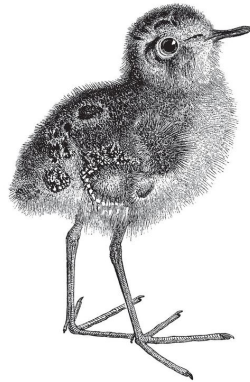
[bit.ly/2v79e70](https://bit.ly/2v79e70)

[buildingmicrofrontends.com](http://buildingmicrofrontends.com)

O'REILLY®

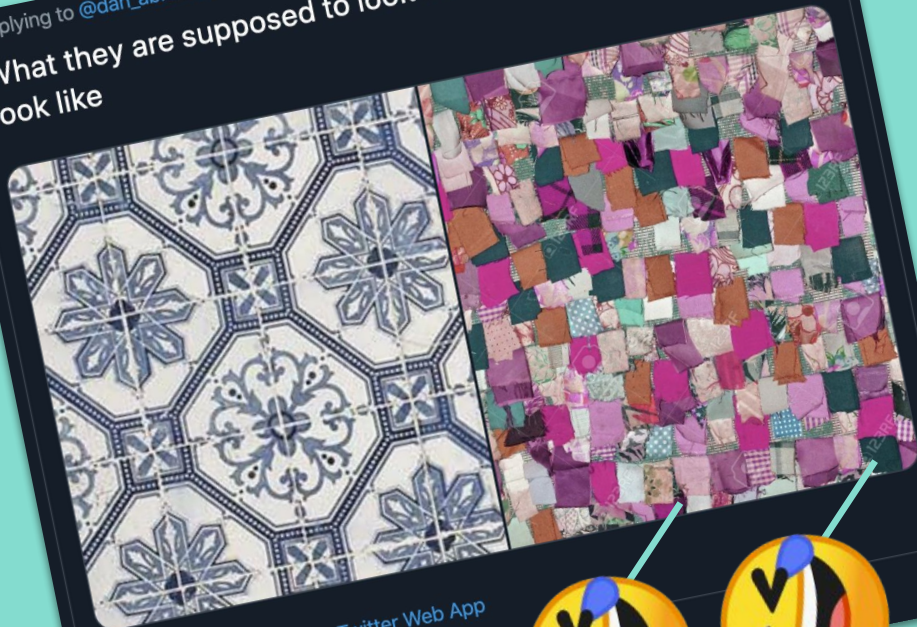
# Building Micro-Frontends

Scaling Teams and Projects  
Empowering Developers



Luca Mezzalana

Replying to @dan\_abramov  
What they are supposed to look like / What they actually look like



9:02 AM · May 26, 2019 · Twitter Web App

2 Retweets 50 Likes



# THANK YOU

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