e-commerce from **A** to **Z**

Xebia and *The Sting*

Background of the project

- Running legacy Hybris (*old old version*)

- Maintained by integrator which employs **30** people on the project

- Road to production > **30 days**

- **1 store** + copy pasta === **another store**

- Without being able to handle trivial load

Scope of the project

- Product discovery (core shopping)

- Content Management

- Checkout

- Integrations with external systems

Team

Consists of +- **8** developers, where half are **frontend** and the other half are **backend** developers

Xebia consultants (overtime)

Gideon de Kok (back-end), **Ruben Oostinga** (front-end), **Mike van Woudenberg** (front-end?), **Jesse van Bekkum** (back-end), **Norbert de Lange** (front-end), **Anton Lijcklama** (back-end), **Cengiz Ulusoy** (front-end / UX), **Khrystyna Svarok** (front-end), **Michael Meiers** (product owner), **Frank Visser** (back-end), **Joachim Bargsten** (back-end)[1]

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[1] missing someone? 😓

Challenges

- Build an in house e-commerce platform with **tiny** team

- For a company that wants to sell clothes from a **table** not an **iphone**

- While scaling down their marketing budget

- Without any (serious) UX expertise in-house

Project Timeline

Core Shopping Costes - march 2017 - december 2017

Core Shopping The Sting - january 2018 - may 2018

Checkout Costes - january 2018 - october 2018

Checkout The Sting - october 2018 - january 2019

Core Shopping Costes - june 2017 - december 2017

Core Shopping The Sting - january 2018 - may 2018

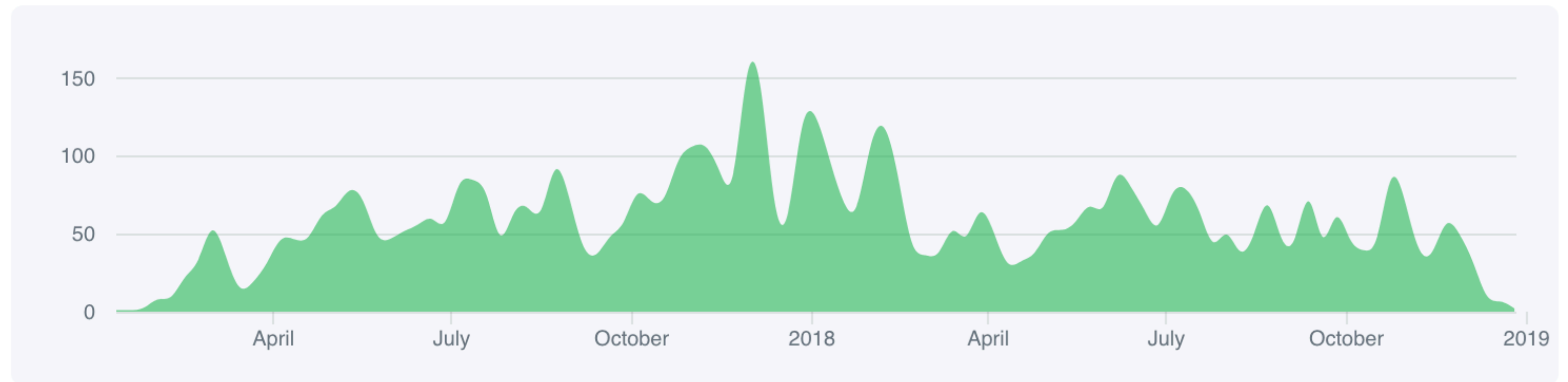*Killing Costes men* - april 2018

Redesign The Sting - june 2019

Checkout Costes - january 2018 - october 2018

Checkout The Sting - october 2018 - january 2019

Killing The Sting DE - january 2019

Timeline

Delivered

- *10.000+* **commits**

- *2000+* **pull requests**

```
-------------------------------------------------------------------------------
Language                        files          blank        comment           code
-------------------------------------------------------------------------------
Java                              389           7867            629          39355
JSX                               536           4101            395          35985
JavaScript                        321           2936            398          29870
YAML                               77            205            171           5531
-------------------------------------------------------------------------------
```

Quick Demo

± Technology Stack (backend) ±

- Java + Lagom + Play

- *SBT*

persistence
* Cassandra
* Elasticsearch
* Kafka

infra
* Google Cloud
* Kubernetes

Classic Issues

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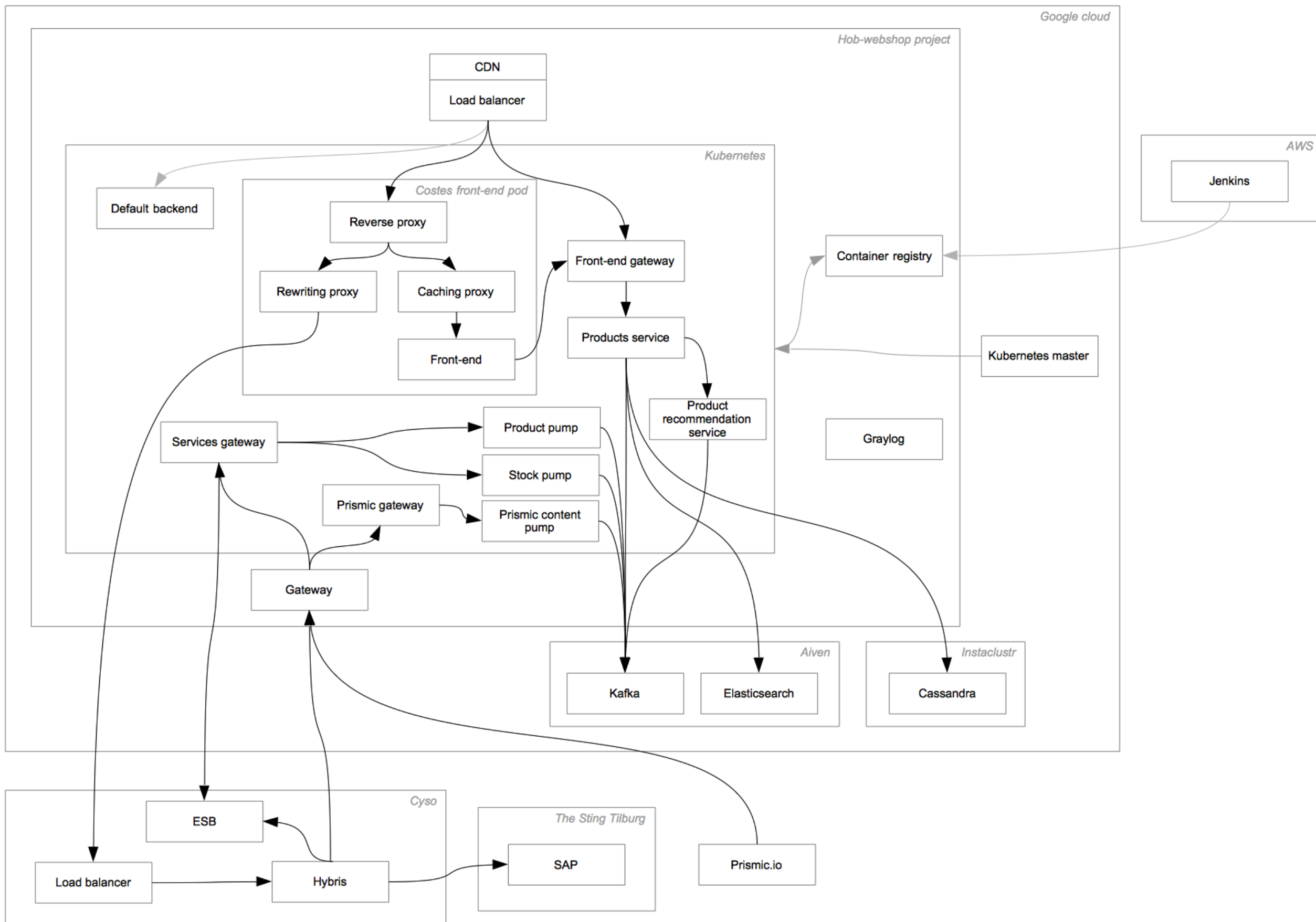
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- Building the distributed monolith 🎭

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- Choosing service boundaries 👉|👈

- Building the distributed monolith 🎭

- Keeping dependencies up-to-date 🌱

Circle CI demo

Event Sourcing demo

Chromatic demo

Architecture

Architecture

Where it shines

- Nearly no changes to out-of-scope services

- Events can easily be propagated to external services

Architecture

Where it bleeds

- **event sourcing** is hard to debug

- cassandra is not a database to read from

- Trying to generate a consistent sequence of id's

Technical victories

- **Jenkins** to **CircleCI**

- **maven** to **SBT**

- **manual** release process to a **click of a button** release

Retrospect

- 😁 Happy Customer!

- Platform that can handle traffic

- Product owners are important, don't switch them every month!

- Lagom is a cluster, which requires ops, even/especially on k8s

- Adyen will screw you at one point 💸

- Don't build integrations without documentation 📄

- **Small bang** can be smaller 🤯

The Future

- Autonomy

- Continuity

- Vision

The End