



Automating the Discovery of a Microservices Architecture in AWS



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Introduction



AGENDA

30 mins

- Zalando in a Nutshell
- How to survive “Tech Jungle”?
- LeanIX’s cloud solution

15 mins

- Q&A
- Experience exchange



zalando

ZALANDO IN NUMBERS

~ 5.4 billion EUR
revenue 2018

> 15,000
employees in
Europe

> 80%
of visits via
mobile devices

**> 300
million**

visits
per
month

**> 29
million**
active customers

> 450,000
product choices

~ 2,000
brands

17
countries

WE ARE CONSTANTLY INNOVATING TECHNOLOGY

**HOME-BREWED,
CUTTING-EDGE
& SCALABLE**

technology solutions



help our brand to
WIN ONLINE



7 international
tech locations



> 2,000

employees at

HQ

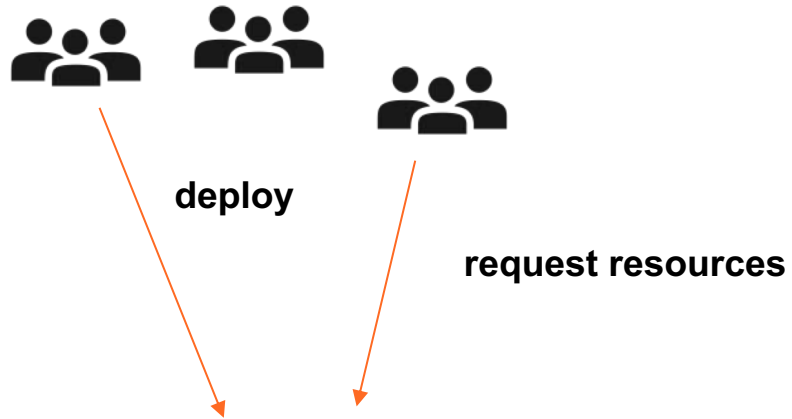
in Berlin



ZALANDO PLATFORM



THE CHALLENGE



> 50

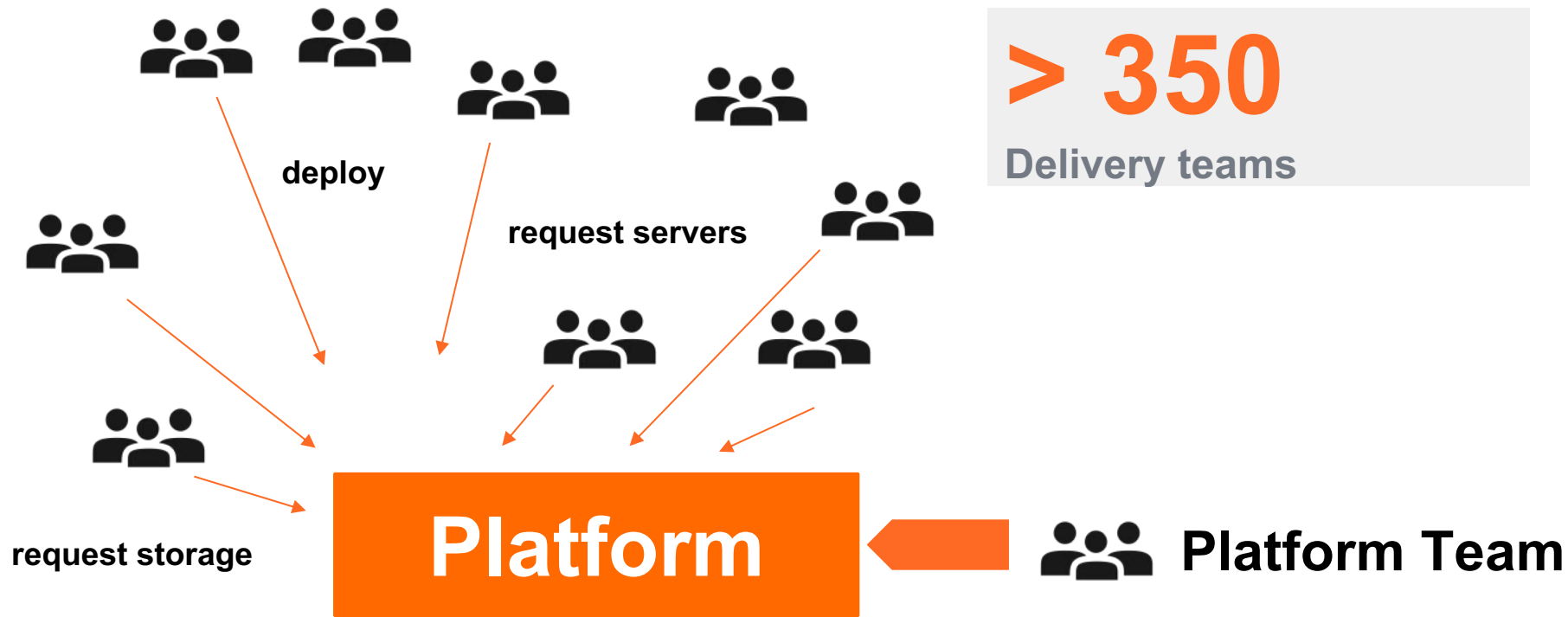
Delivery teams

Platform



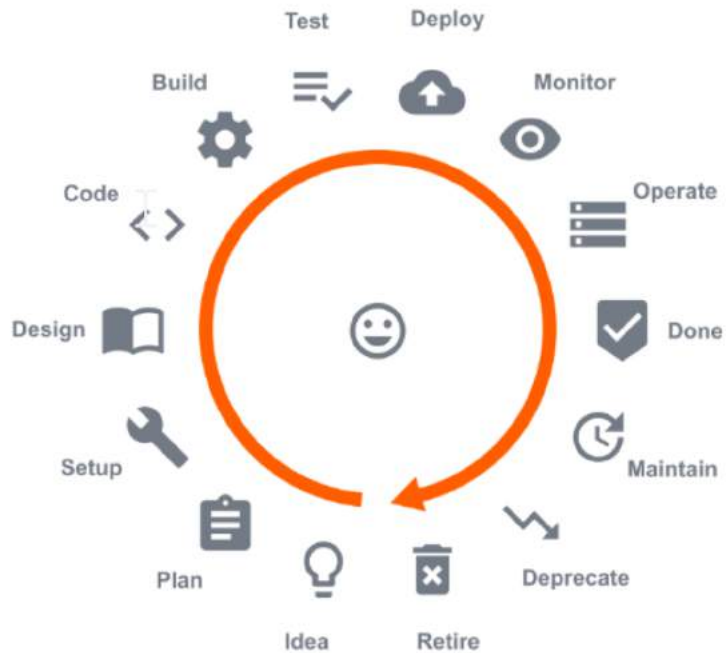
Platform Team

THE CHALLENGE





CLOUD



Software Development Lifecycle

CURRENT STATE

570 Accounts



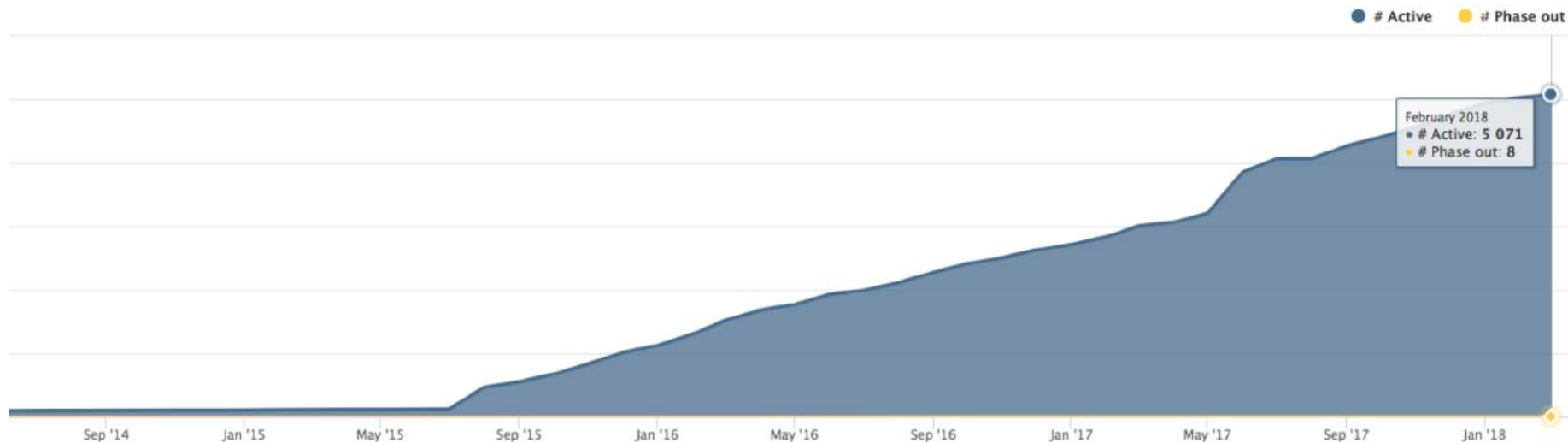
180 Clusters

APPLICATION GROWTH

500
2015

10 x

> 5000
2019





TAMING THE CHAOS:
SCREAM FOR JOY ... ?!

A hand holding a silver compass with a black face, showing cardinal and intercardinal directions. The background is a lush green forest with mountains in the distance under a clear sky.

The Challenge

- Find the IT asset owner
- Classify assets
- Identify security risks



**IT Security starts with
Visibility**

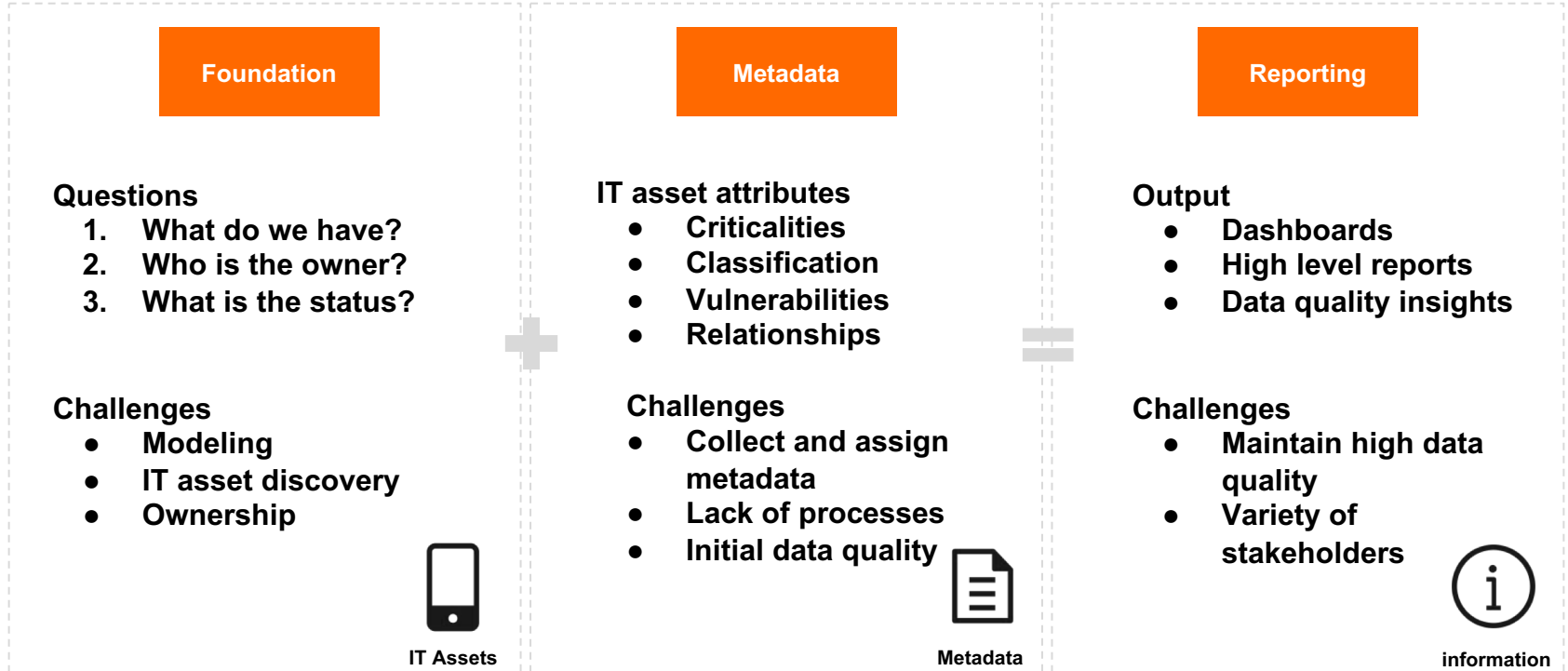




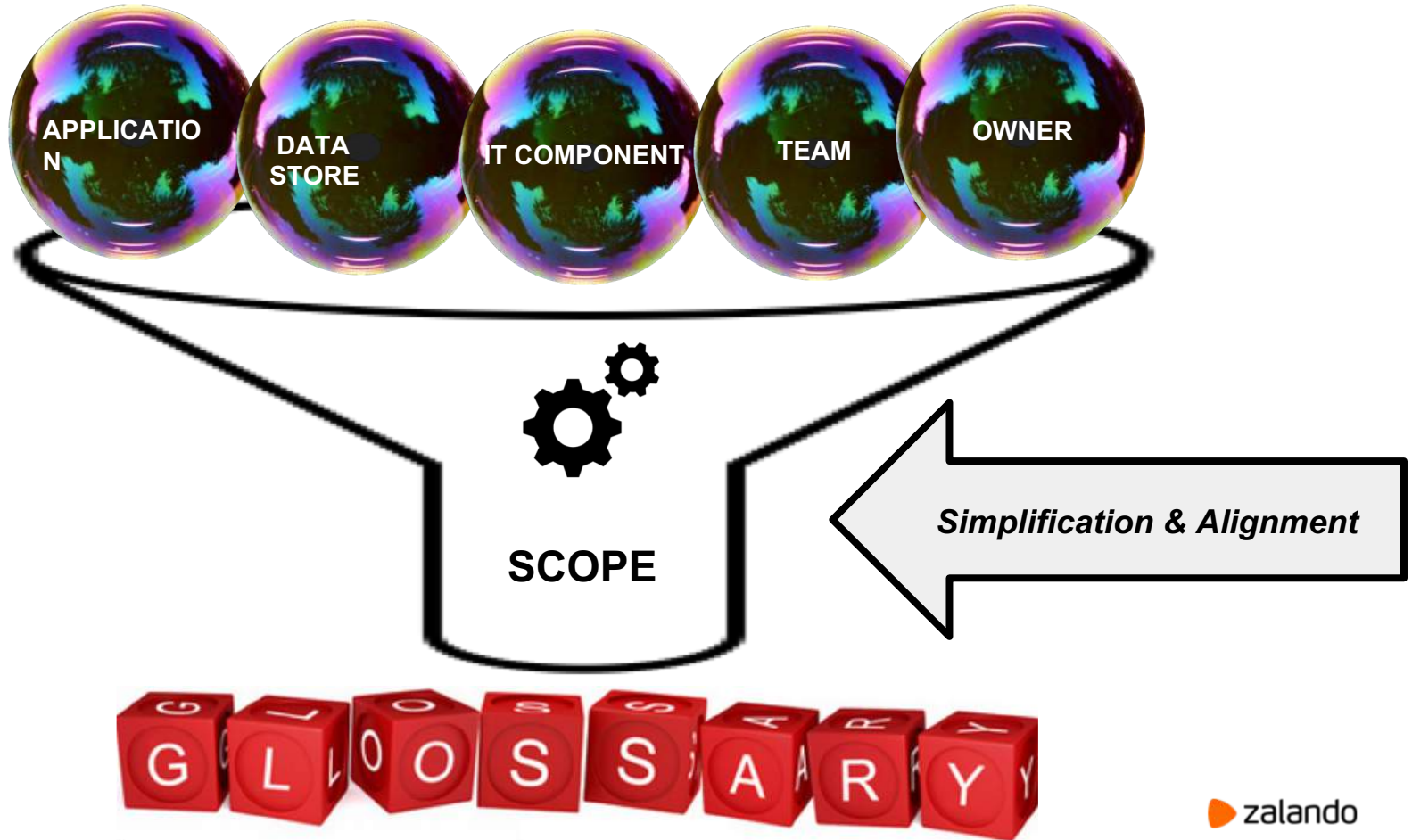
Product discovery

- Info Sec teams
- Interviews
- Identify visibility needs

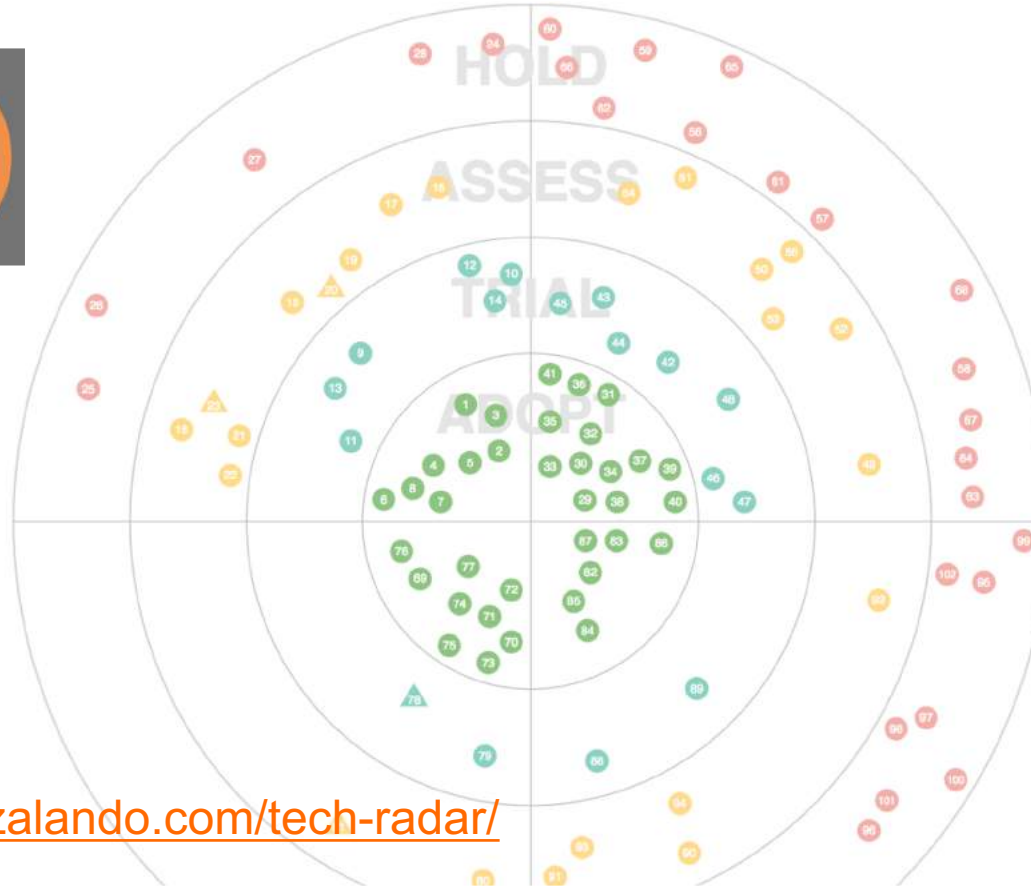
3 problem areas



KNOW YOUR TERMS



KNOW YOUR TECH STACK



Data Management

ADOPT

- 29. AWS EMR
- 30. AWS S3
- 31. AWS SNS
- 32. AWS SQS
- 33. Cassandra
- 34. Elasticsearch
- 35. etcd
- 36. Kafka
- 37. Nakadi
- 38. PostgreSQL
- 39. Redis
- 40. Solr
- 41. Spark

ASSESS

- 49. Airflow
- 50. AWS Kinesis
- 51. Consul
- 52. Google Bigtable
- 53. Hadoop
- 54. RocksDB
- 55. YARN

HOLD

- 56. ActiveMQ
- 57. Aerospike
- 58. CouchBase
- 59. Esper
- 60. HBase

TRIAL

- 42. AWS Data Pipeline
- 43. AWS DynamoDB
- 44. Flink
- 45. Google BigQuery
- 46. HDFS
- 47. KairosDB
- 48. Presto

- 61. HornetQ
- 62. Memcached
- 63. MongoDB
- 64. MySQL
- 65. Oracle DB
- 66. RabbitMQ
- 67. Riak
- 68. ZooKeeper

Languages

ADOPT

- 82. Go
- 83. Java
- 84. JavaScript
- 85. Python
- 86. Scala
- 87. Swift

ASSESS

- 90. Elm
- 91. Haskell
- 92. Kotlin
- 93. R
- 94. Rust

HOLD

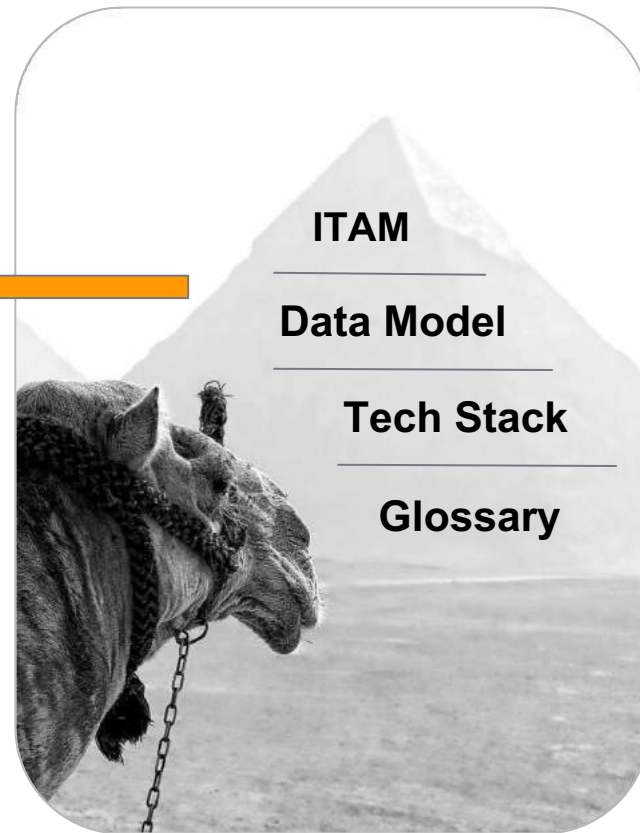
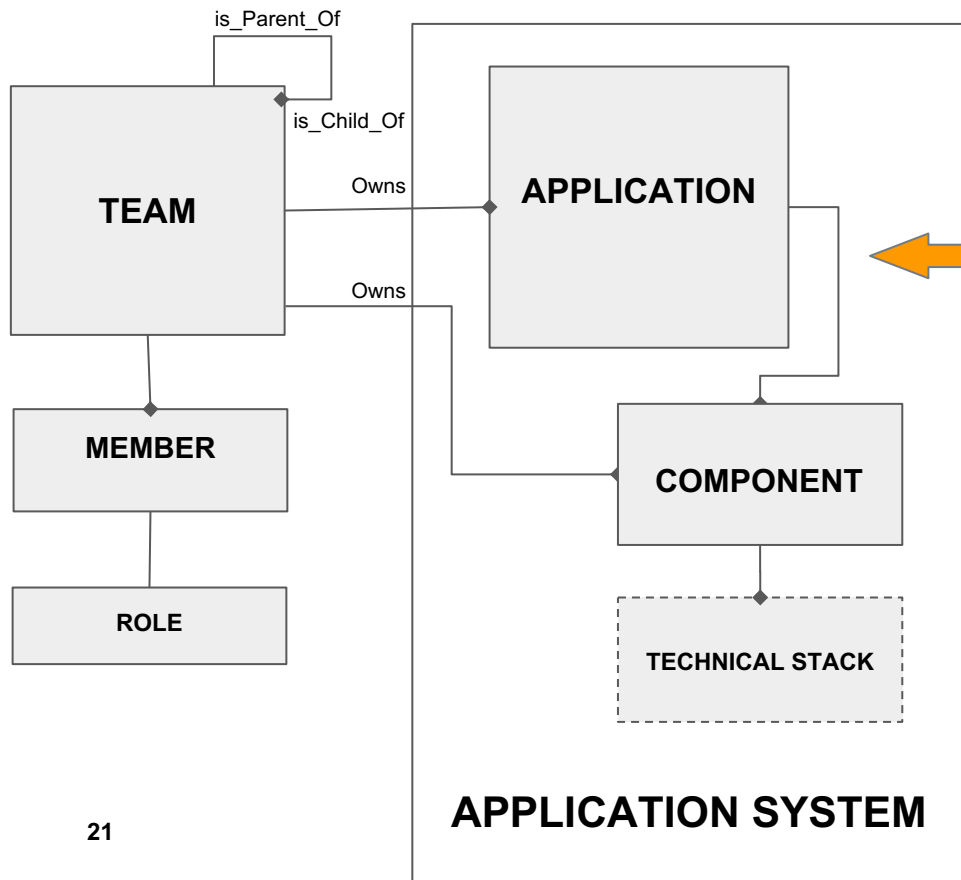
- 95. .NET languages
- 96. C languages
- 97. CoffeeScript
- 98. Erlang
- 99. Groovy
- 100. Perl
- 101. PHP
- 102. Ruby

TRIAL

- 88. Clojure
- 89. TypeScript

<https://opensource.zalando.com/tech-radar/>

KNOW YOUR ARCHITECTURE





powered by

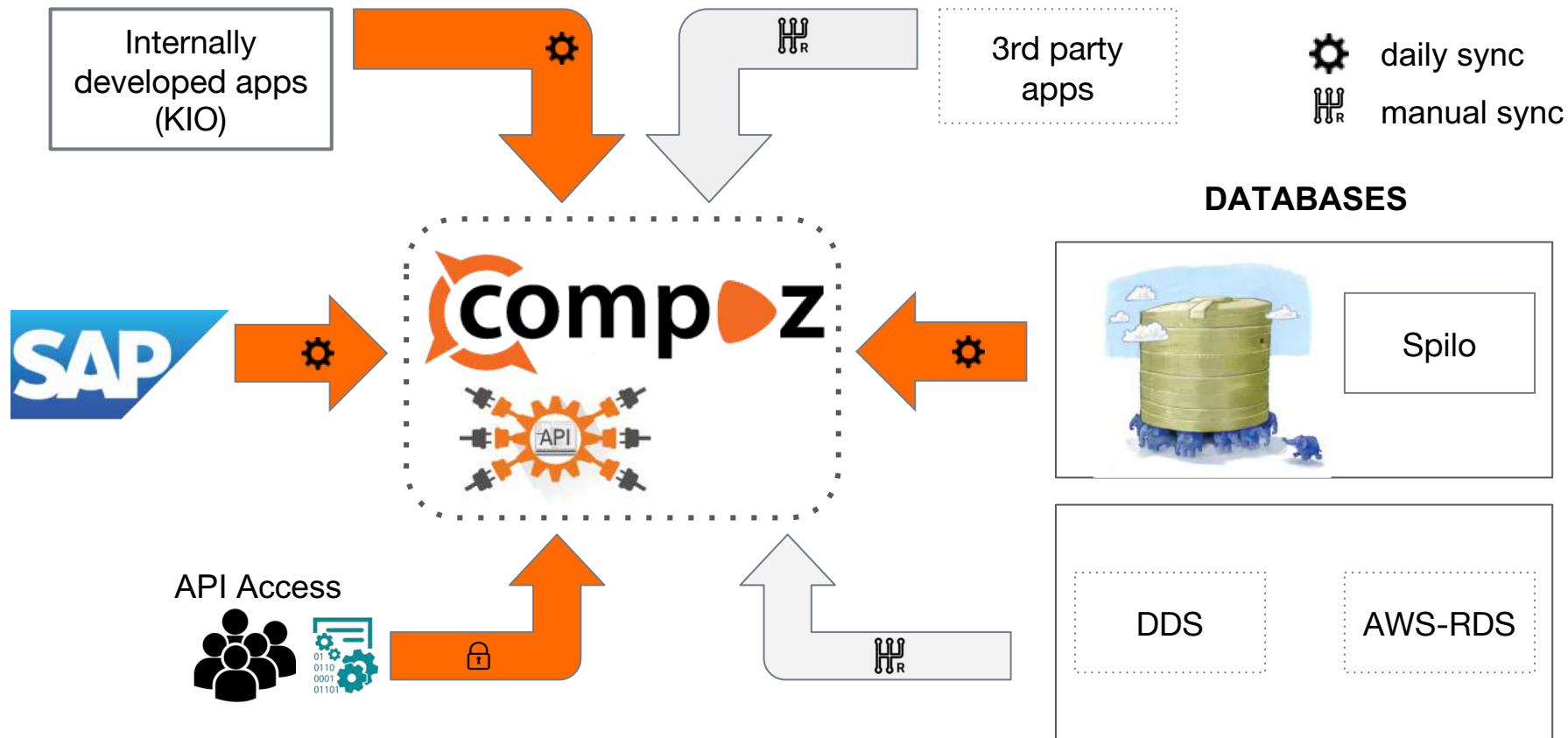




**MANUAL APPROACH
SET UP TO FAIL:**

AUTOMATION IS KEY

Current System Setup



EARLY ADOPTERS



That's not what I meant

Zalando Payments Prototype

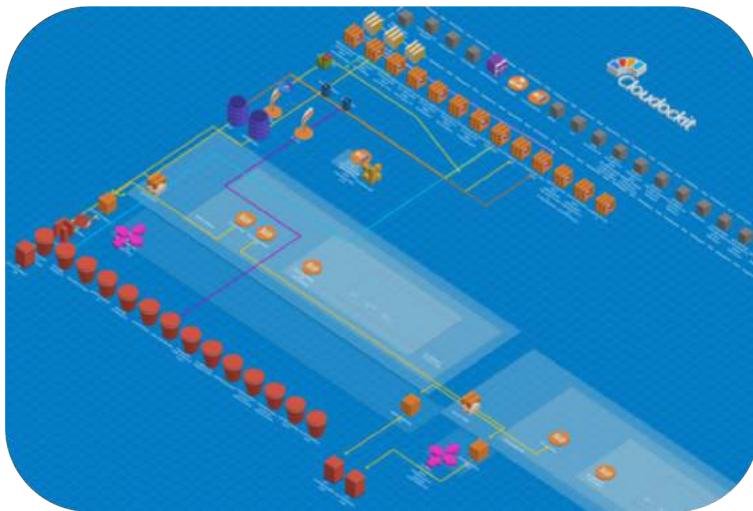
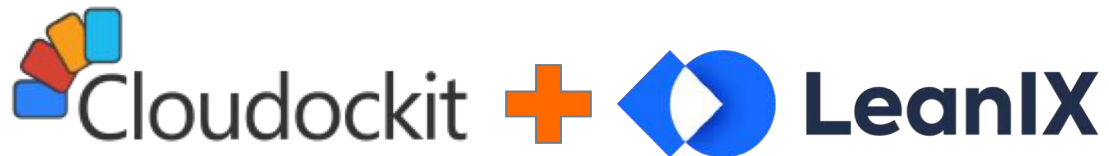


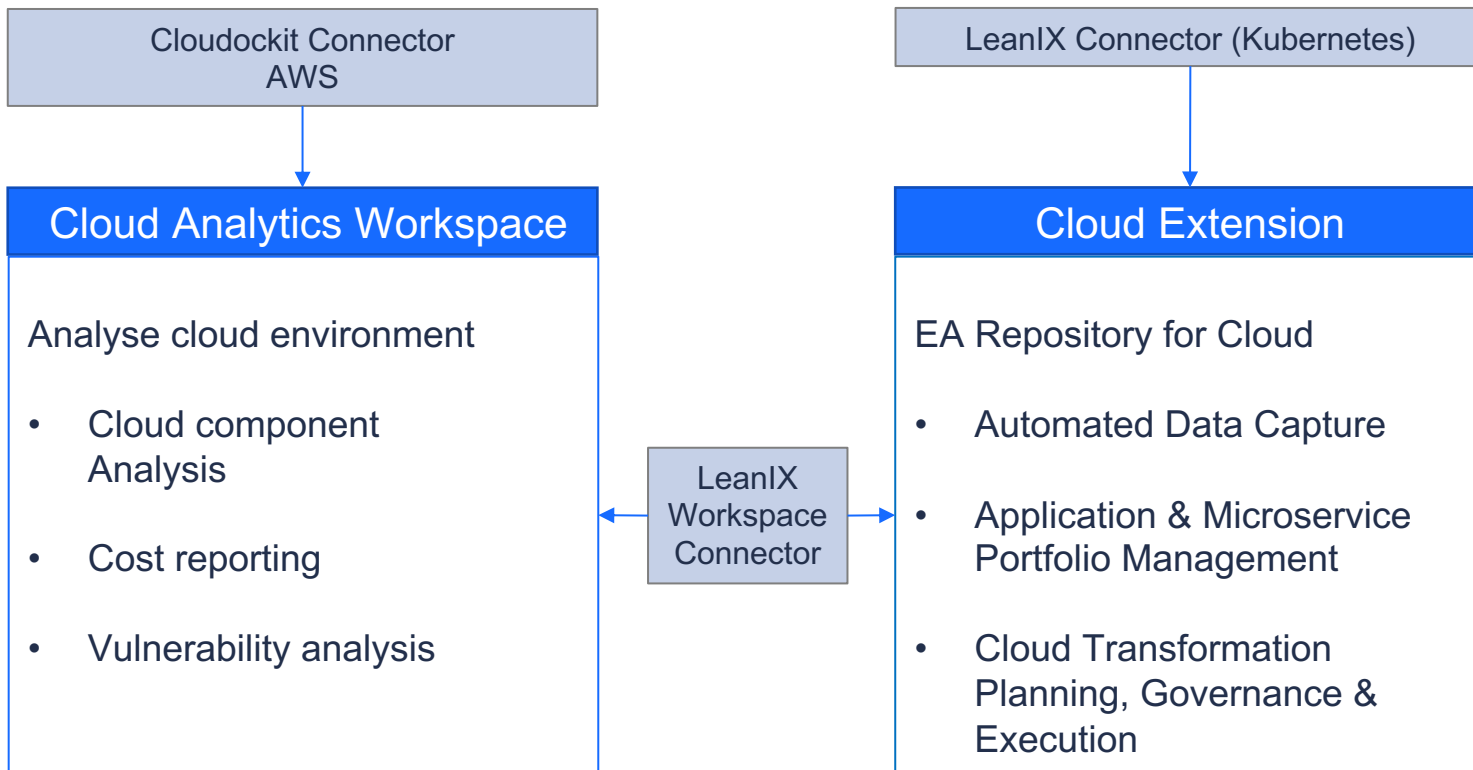
Security and Compliance in the SDLC



Process For Security and Compliance Tasks

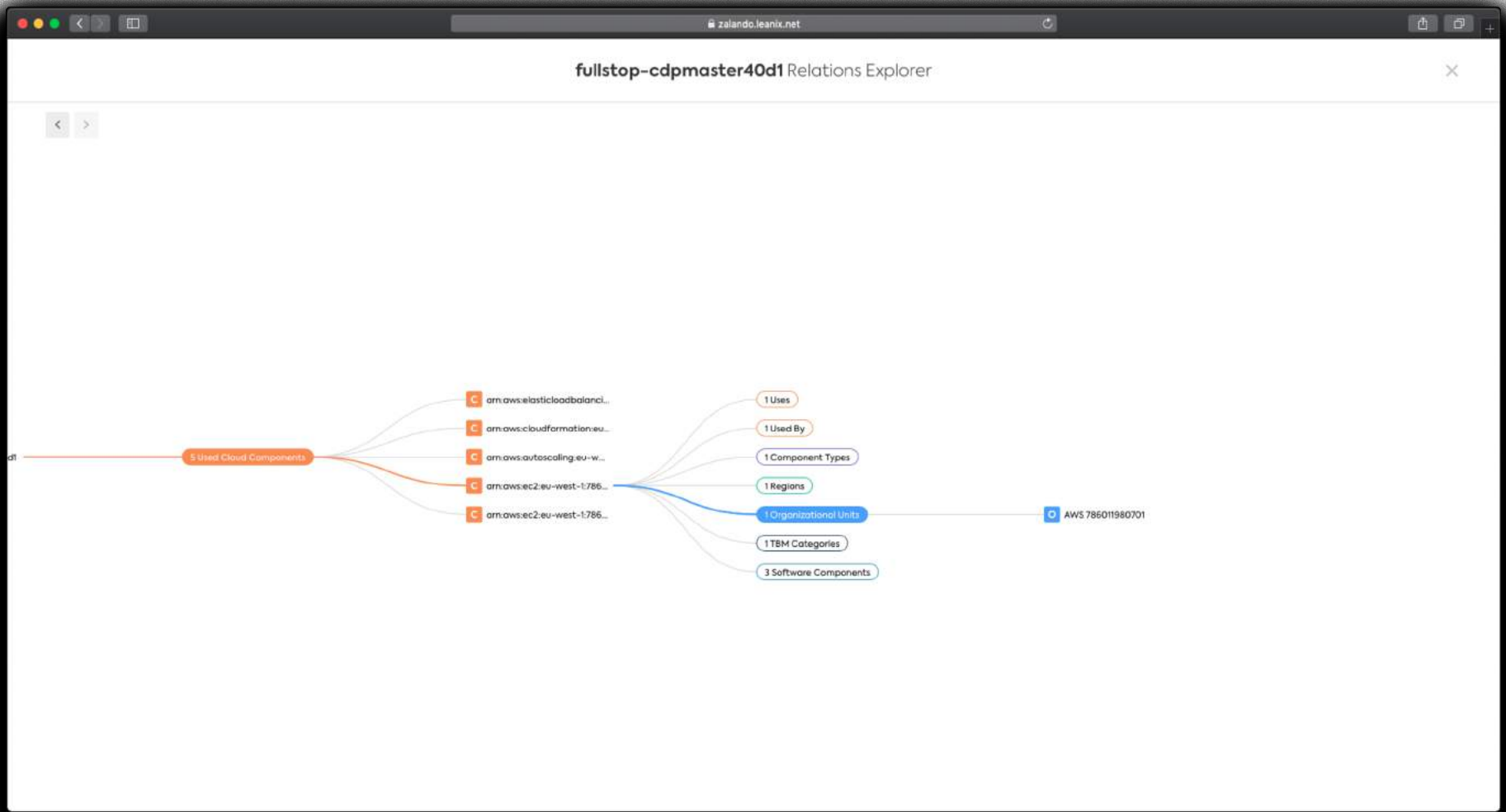
- Test and reiterate
- Optimize
- Automate





Separate Workspace

Extension for existing Workspace



NEXT STEPS



kubernetes



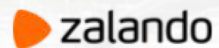
sonarqube



**Identify big resource
consumers**

An architectural rendering of a modern, multi-story building with a glass facade. The building features a prominent curved glass section on the right side, revealing interior floors with people and furniture. The left side of the building has a more solid, light-colored facade. The scene is set on a city street with trees, pedestrians, and cars. A bright orange border frames the entire image. The text "THANK YOU !!!" is centered in white, bold, sans-serif font.

THANK YOU !!!



Q & A



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