



# Platform Engineering XXL

Dirk Lehmann (he/him), SAP  
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Public



# About Me



With SAP since 2001



Implemented the first daily delivery process at SAP (2014)



Current job: Solution Manager for internal development platform



SAP Contact person for german language user group (DSAG) for the topic “DevOps”



Co-Organizer DevOpsDays Zurich (12.-13.04. 2025 – Winterthur, CH)  
<https://devopsdays.ch>



Conference speaker  
<https://doergn.github.io/>



1 Wife, 2 Kids



[@doergn@mastodon.social](https://@doergn@mastodon.social)

Public



# SAP Facts



Founded 1972



Enterprise software solutions

- Tailored for 26 industries
- Offered in 180 countries (in 30+ languages)



105.328 employees worldwide (30.06.2023)

- 36.100 (34.2%) employees in Research and Development (30.06.2023)



Programming languages

- ABAP (Advanced Business Application Programming)
  - Own proprietary language and technology stack in (mainly) core ERP suite
- Non-ABAP
  - Java ~30%
  - JavaScript ~15%



Delivery channels

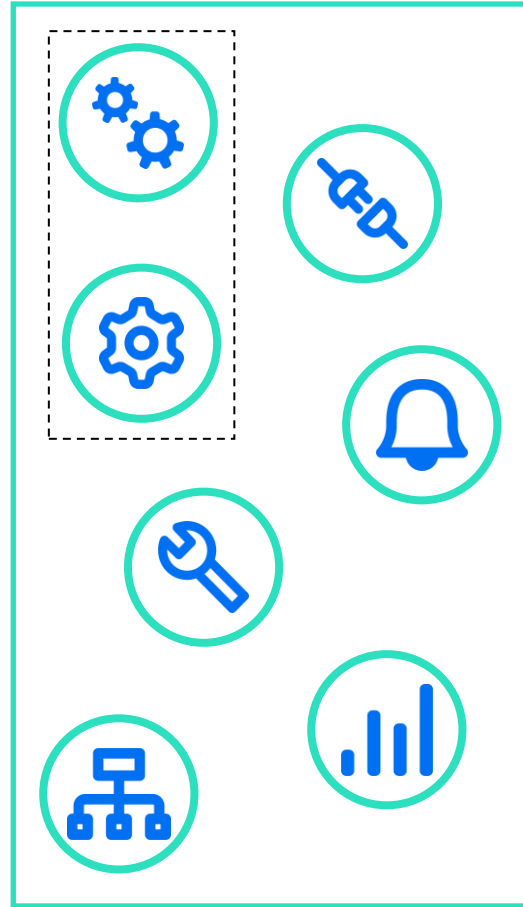
- On premise, Cloud, Hybrid, Mobile
- Multi-Cloud Strategy (Hyperscalers + own 52 Data Centers)

```
1 CLASS zbp_generate_bookings_xxx DEFINITION
2 PUBLIC
3 FINAL
4 CREATE PUBLIC .
5
6 PUBLIC SECTION.
7     INTERFACES if_oo_adt_classrun.
8 PROTECTED SECTION.
9 PRIVATE SECTION.
10
11
12
13 CLASS zbp_generate_bookings_xxx IMPLEMENTATION.
14
15     METHOD if_oo_adt_classrun~main.
16         DATA:it_bookings TYPE TABLE OF ztbooking_xxx.
17
18         * read current timestamp
19         GET TIME STAMP FIELD DATA(zv_tsl).
20         * fill internal table (itab)
21         it_bookings = VALUE #(
22             ( booking = '1' customername = 'Buchholm' numberofp
23               country = 'Germany' dateofbooking = '20180213125959' da
24             ( booking = '2' customername = 'Jeremias' numberofp
25               country = 'USA' dateofbooking = '20180313125959' da
26             ).
27
28         * Delete the possible entries in the database table - in c
29         DELETE FROM ztbooking_xxx.
30         * insert the new table entries
31         INSERT ztbooking_xxx FROM TABLE @it_bookings.
32
33         * check the result
34         SELECT * FROM ztbooking_xxx INTO TABLE @it_bookings.
35         out->write( sy-dbcnt ).
36         out->write( 'data inserted successfully!' ).
37
38     ENDMETHOD.
39
40 ENDCLASS.
```

# The Situation of a Development Team



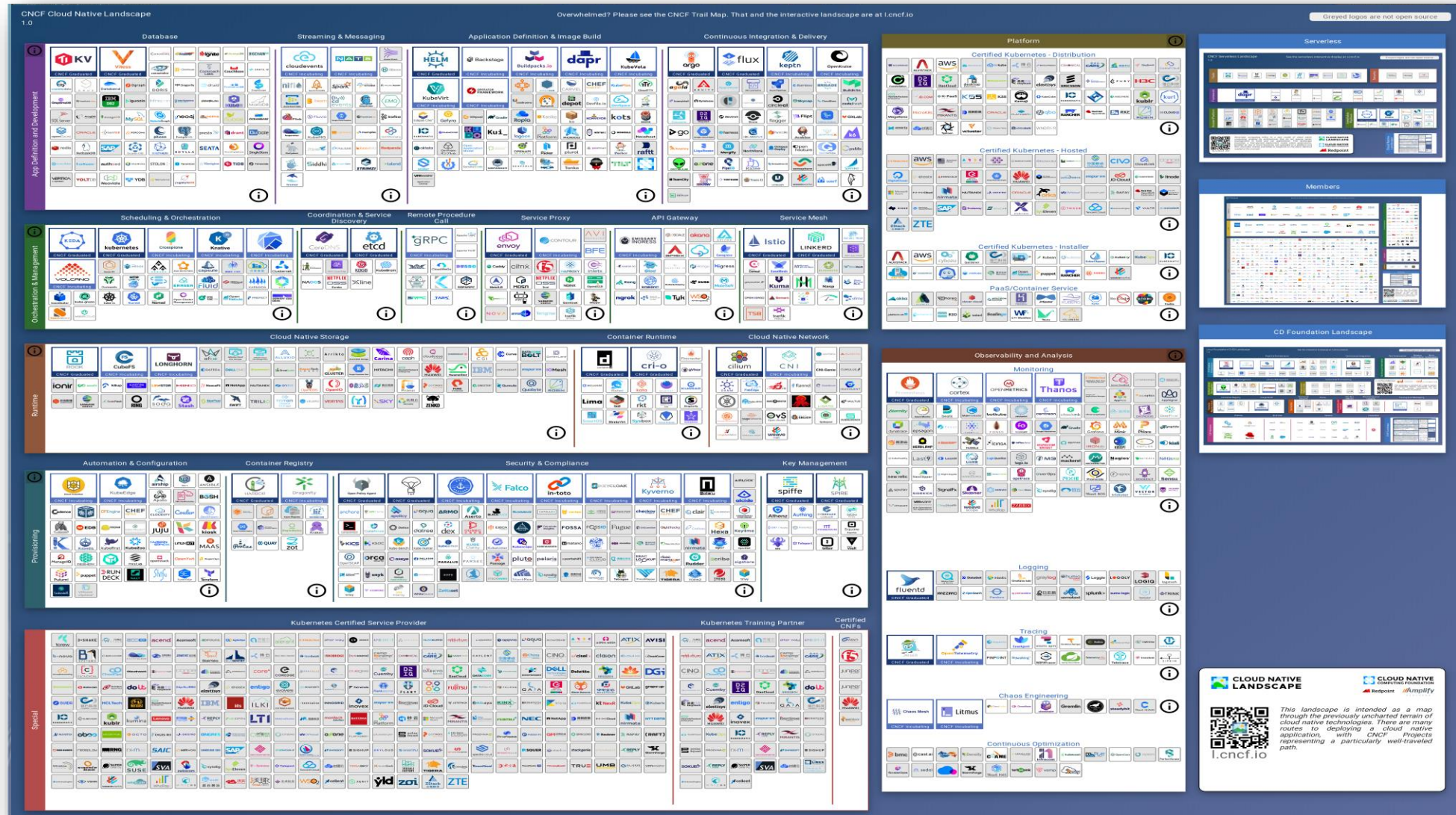
Development  
Team



Tools



# Normal Tools. Just Innocent Tools.

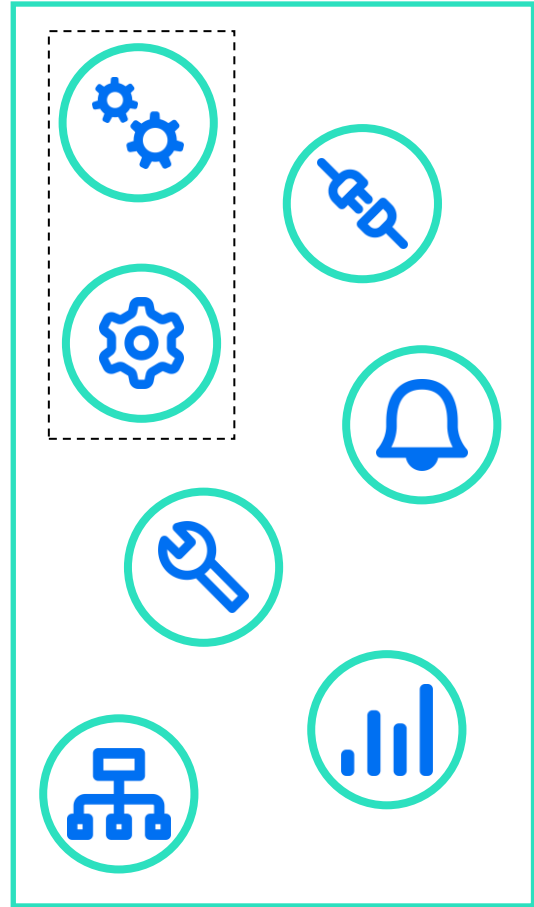


Source: Cloud Native Computing Foundation, [CNCF Landscape](https://l.cncf.io), Oct. 2020

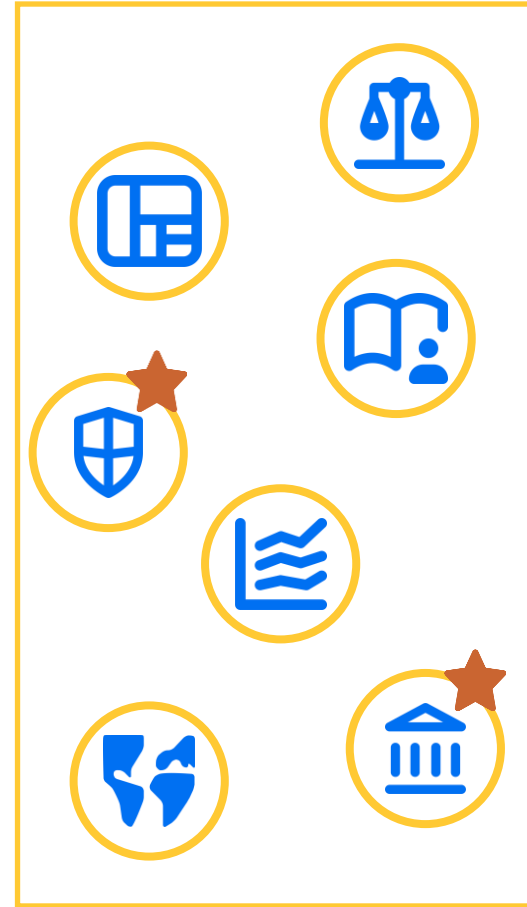
# The Situation of a Development Team



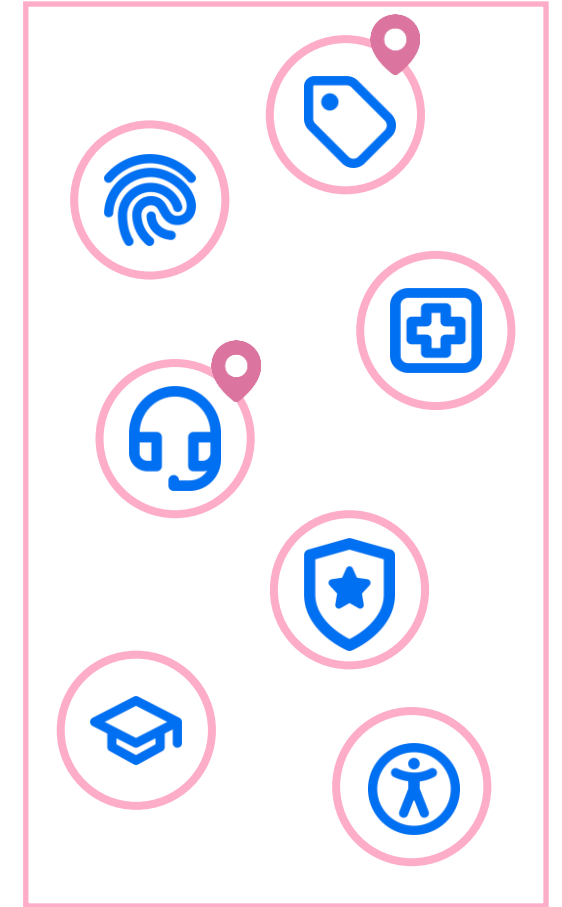
Development  
Team



Tools



Processes

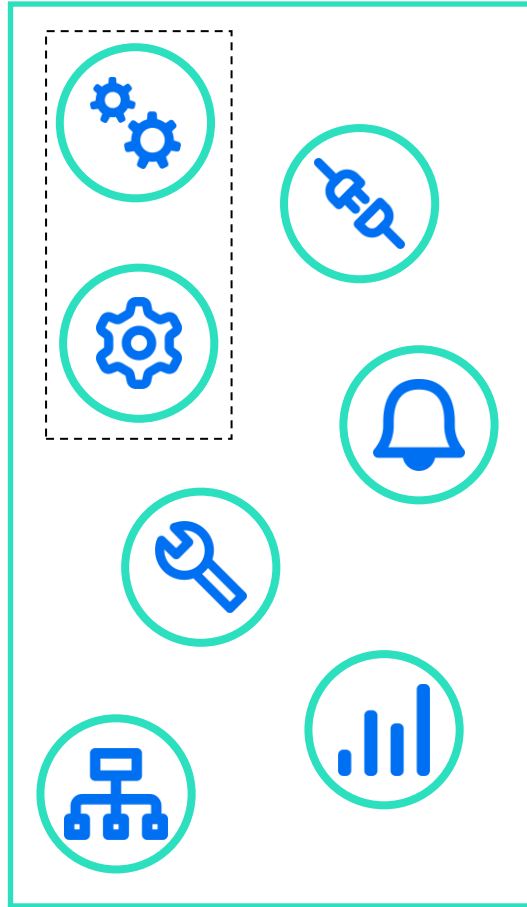


Guidelines

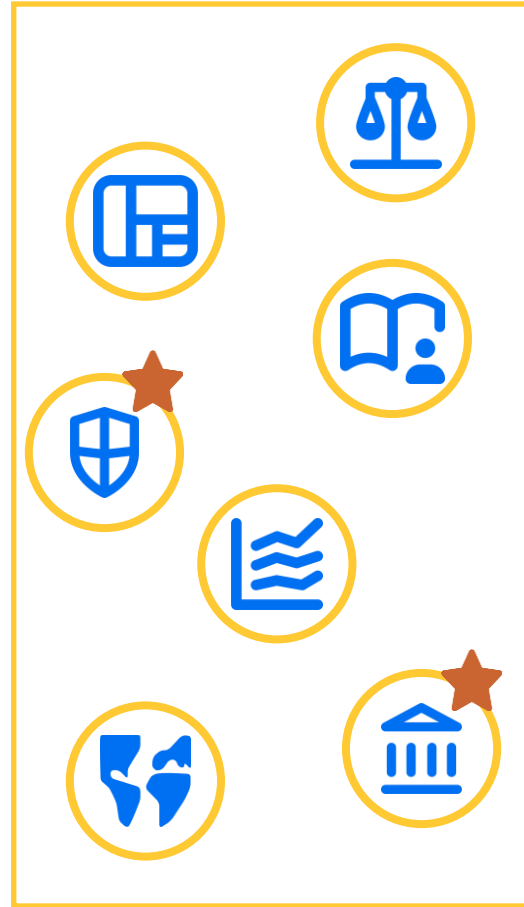
# The Situation of a Development Team



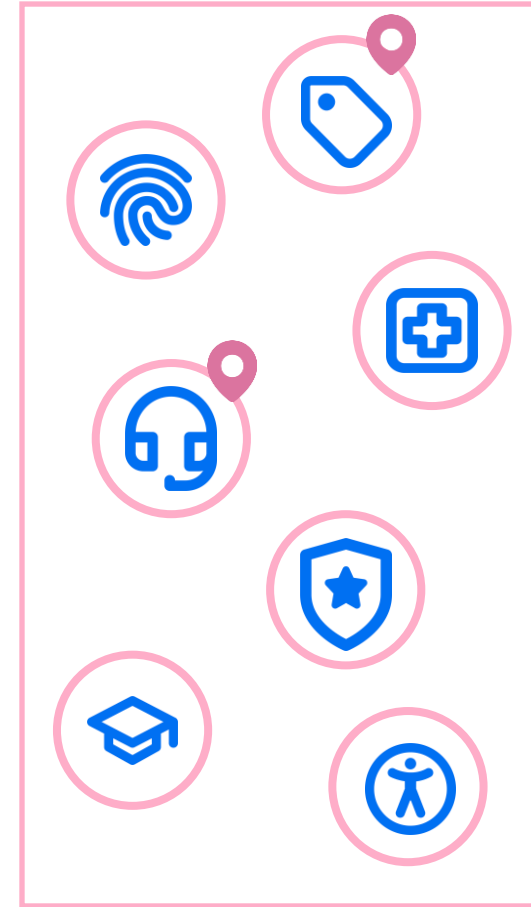
Development Team



Tools

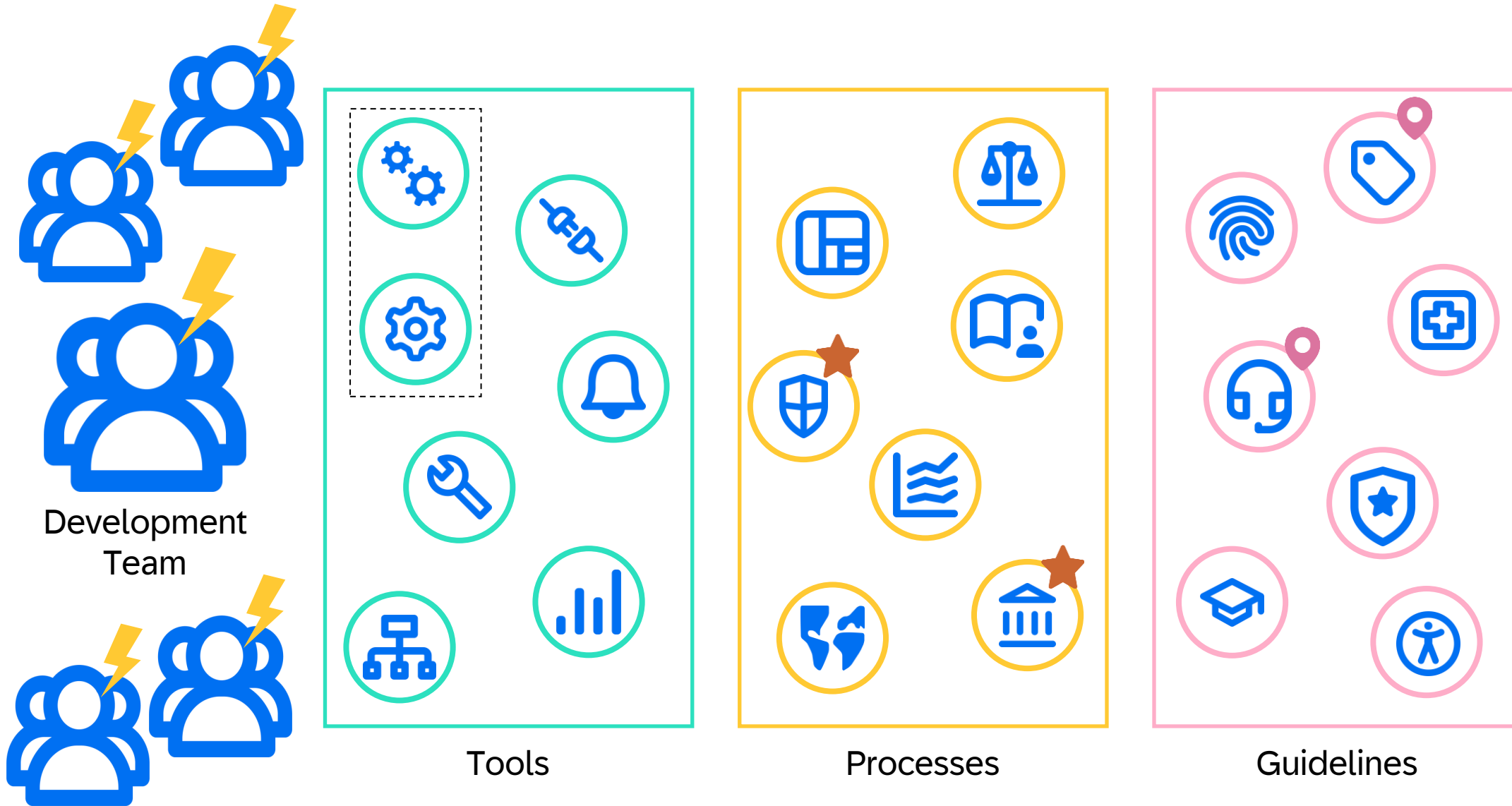


Processes



Guidelines

# The Situation of a Development Team



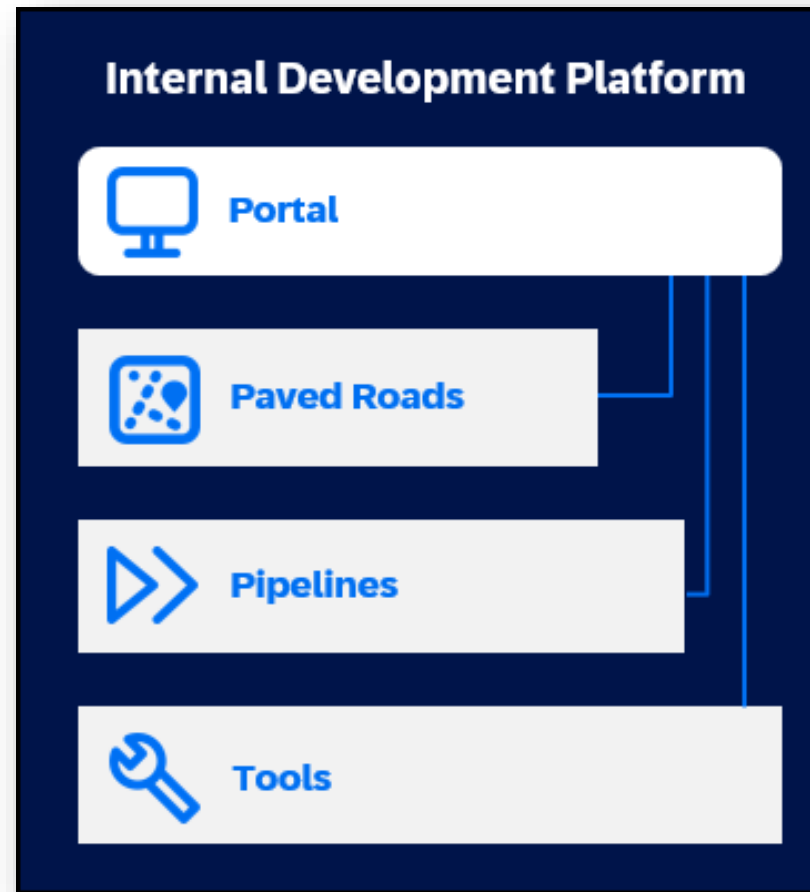


**Hyperspace**

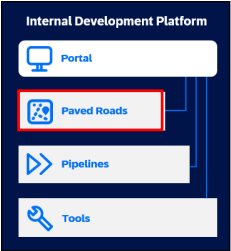
**SAP's Internal Development Platform**



# SAP's Internal Development Platform

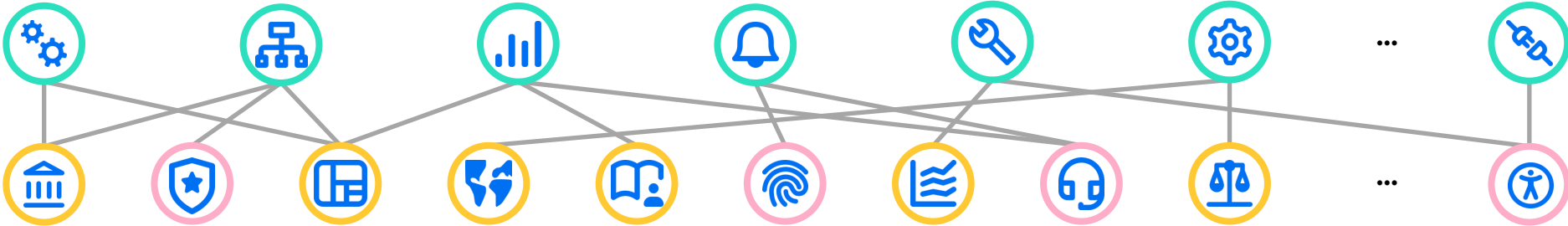


# Paved Roads

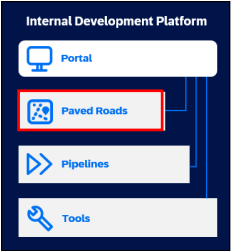


Tools

Processes & Guidelines



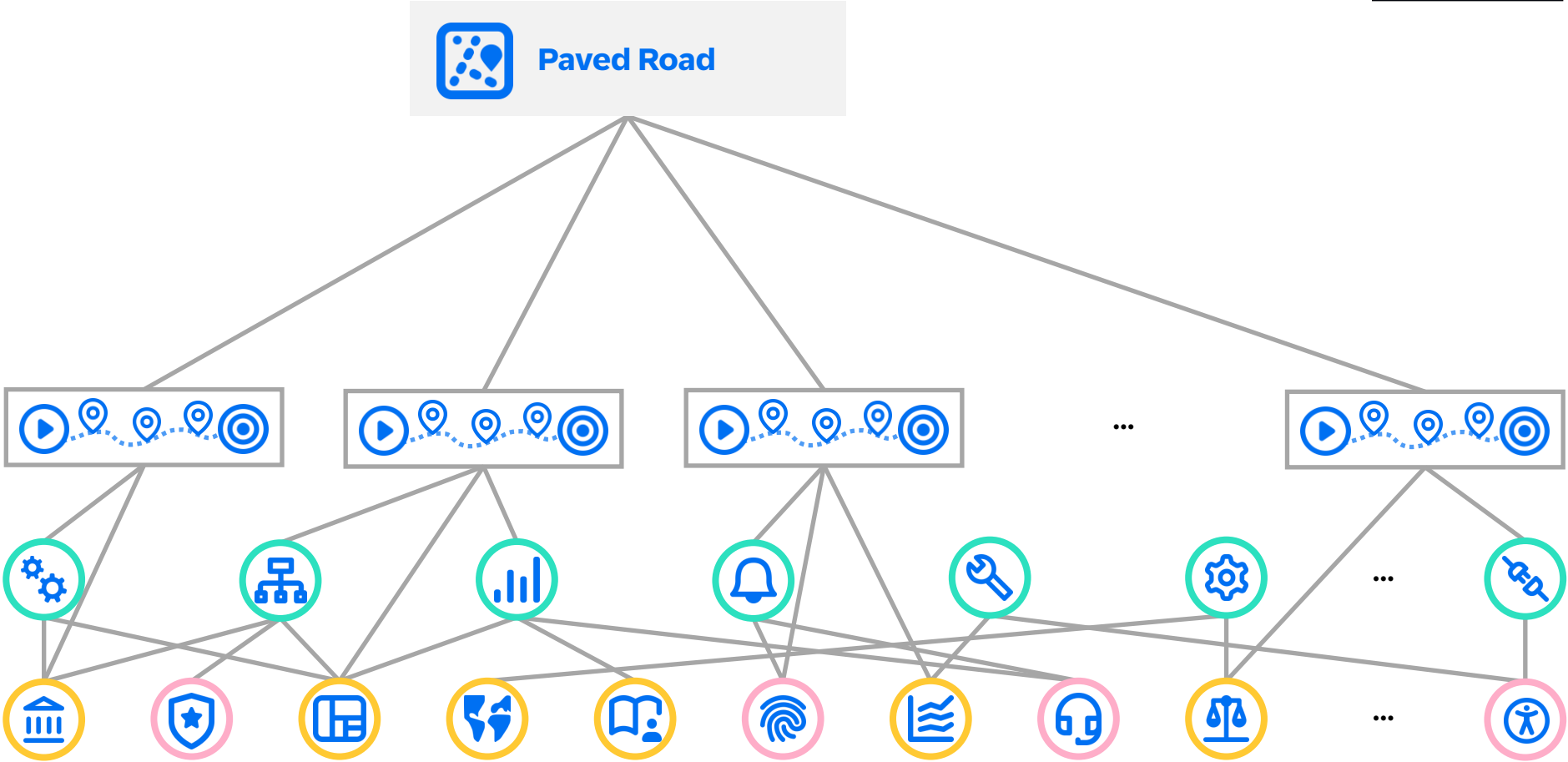
# Paved Roads



Development  
Procedures

Tools

Processes & Guidelines



# Learnings from SAP's Internal Development Platform (so far)



## Put responsibility into one organization

Distributed setting causes lot of (unnecessary) friction



## Paved Roads / Golden Paths are your friend

Help to get systemic view



## It's a marathon

It takes times to change status quo



## There is no greenfield

Start with an inventory of what exists, what stays, what needs to be dropped.



## Requires proper staffing

Dedicated people to work on the platform.

Inner source won't solve the problem



Source: [LinkedIn post by Matthew Skelton](#), Sep. 2023



## Trust

Reliability and ability to execute is key



# Learnings from SAP's Internal Development Platform (so far)



## Share a vision

For customers and platform team members



## KPI reporting is difficult

Which KPI indicates platform success?

### Vision of Hyperspace – Engineer POV

Scene 01



Timur gets disrupted by an urgent incident. He was actually finishing his day. Now he has to do a nightshift.

Scene 02



The day after, Timur meets his friend Paul for an after-work drink. Timur has to vent his frustration.

Scene 03



Paul explains what his life looks like since he uses Hyperspace. He can track all his changes and gets notified immediately if something went wrong.

Scene 04



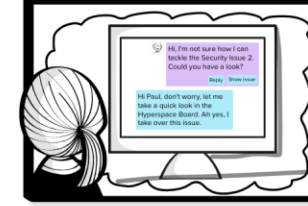
Paul has an overview of all tasks related to this change sorted by relevance. He even gets recommendations how to tackle them.

Scene 05



In case Paul don't know how to resolve an issue, he can easily request help from an Expert.

Scene 06



The security expert Ema gets notified. And takes over Pauls issue.

Scene 07



Paul explains how his life changed to the good. Timur gains hope and can't wait to discuss Hyperspace with his teammates.

# Thank you.

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