

RECCE

²
MQ





RECOE

The company **mateco**

YOUR BETTER WAY UP

RENTAL & SALES

Aerial platforms, forklifts & earthmoving equipment
More than 150 locations
Approx. 40.000 units



The project

Started in 2017

Running software in couple of months

First go-live 2020

Onboarding new company every 3 months



The project

80% process alignment between compan

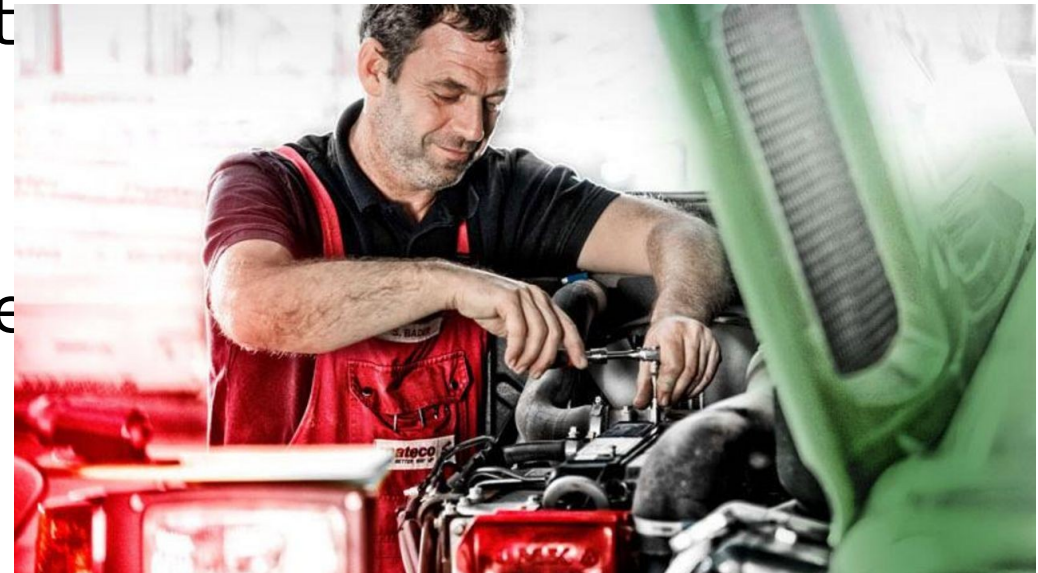
1% cost efficiency gain YOY

11% profitable growth YOY (after rollouts)



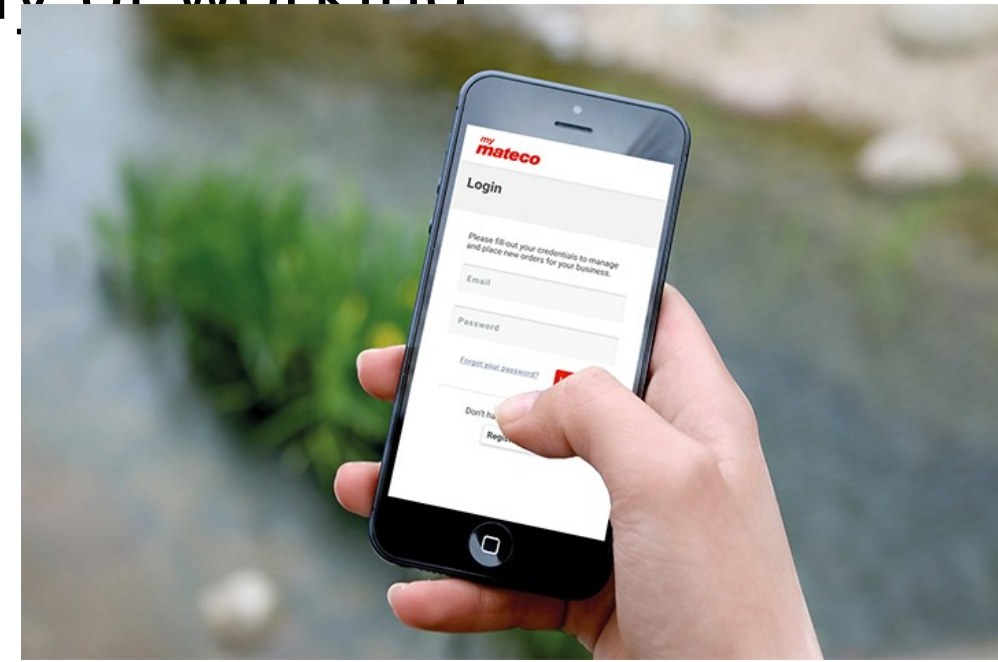
The Service department

- Goal : keep the fleet up and running so that we can deliver the machine that the customer want
- Blue collar workers
- Repairing machines
- Checking machines before deliver



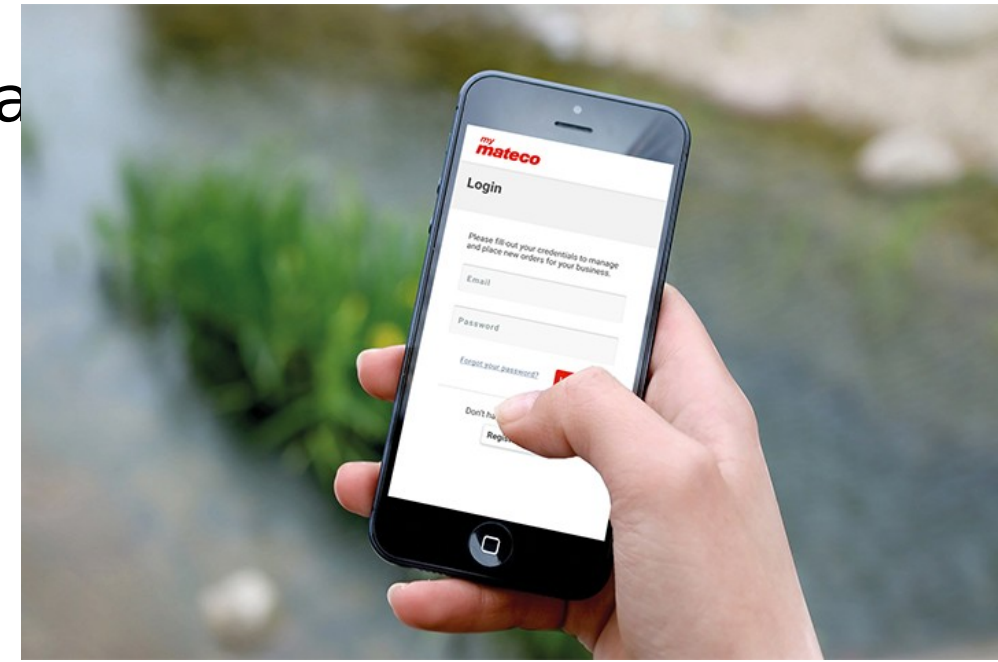
From a greenfield to a running application

- The goal was to make the service department leaner as it was currently outdated on the way of working
- Started off with nothing
- We selected some business users

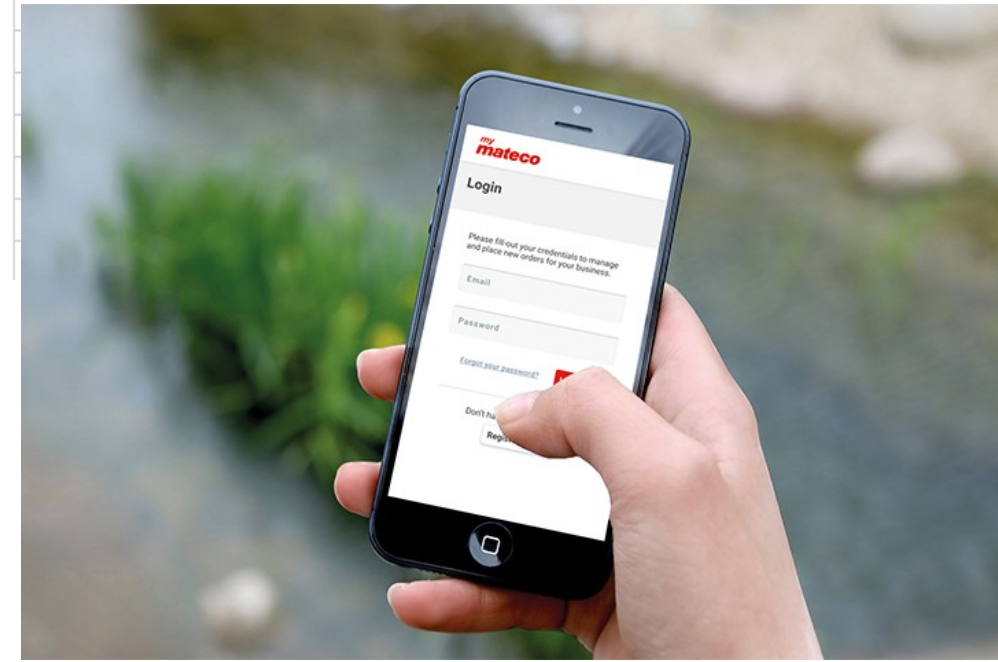
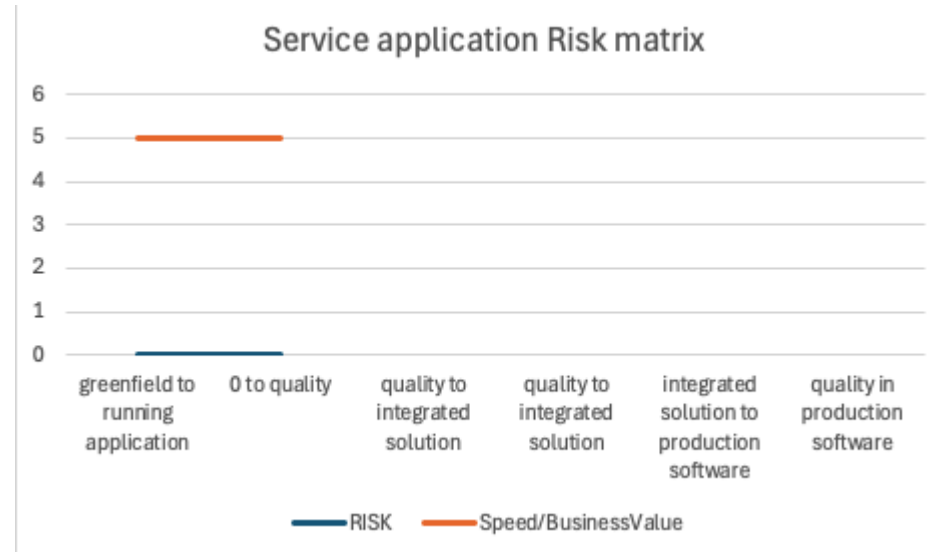


From a greenfield to a running application

- A metric drives our feature to implement
- Thinking of a good metric
 - What was the greatest loss in the department – walking !!
 - Saving marathons on 1 single site



From a greenfield to a running application

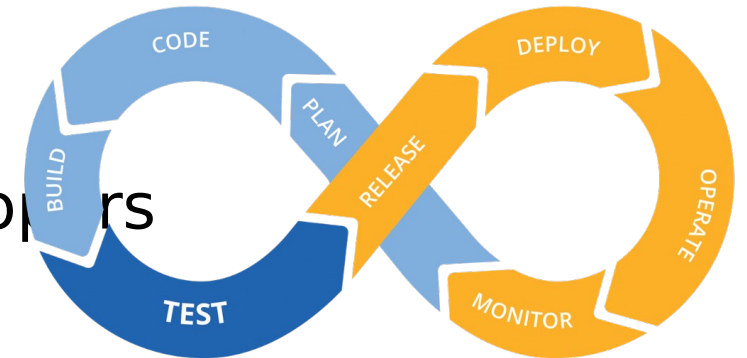


From 0 to quality

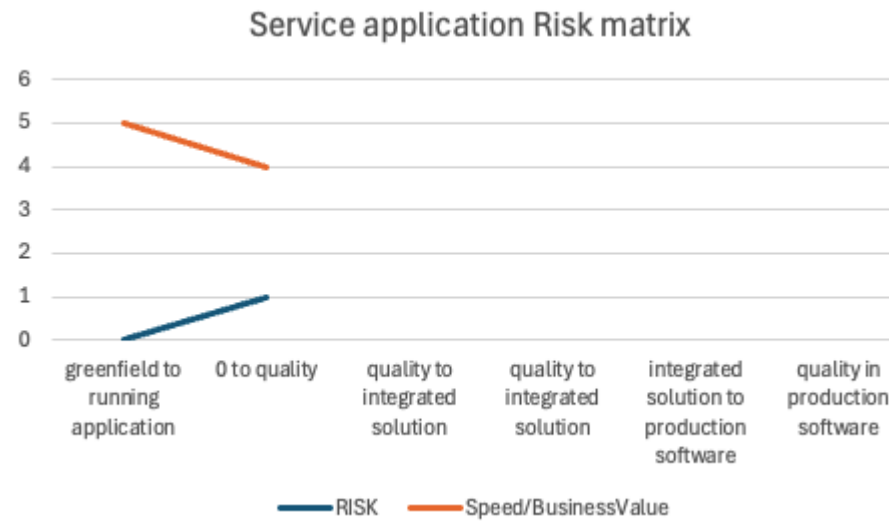
- Seperate SCRUM teams with one goal in mind get to a minimum viable product (MVP) in production
 - 7 teams with 7 different business units attached
 - Different approaches to quality
- No quality gates on organisational level
 - We all did our seperate thing
 - Some had QA profiles others had business users
 - Some tested on a dev machine others tested in production

From 0 to quality

- Developers release functionalities on a daily/hourly base – concrete we had CI/CD until production
- QA must cope with the speed of the developers
- Collaboration on the effort was the way to go
 - Testing became an integral part of developing solutions (shift left testing earlier in the software development lifecycle)
 - Validation was immediately done with end users after deployment

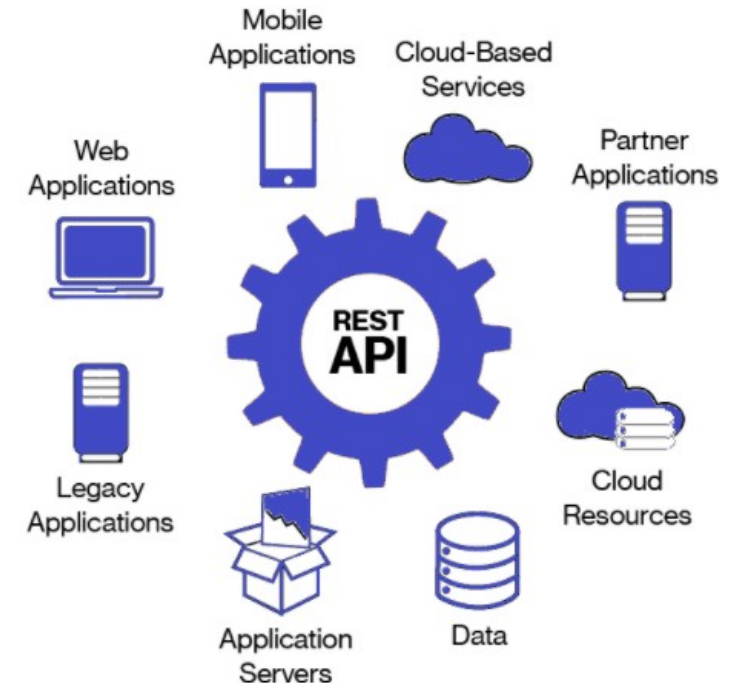


From 0 to quality

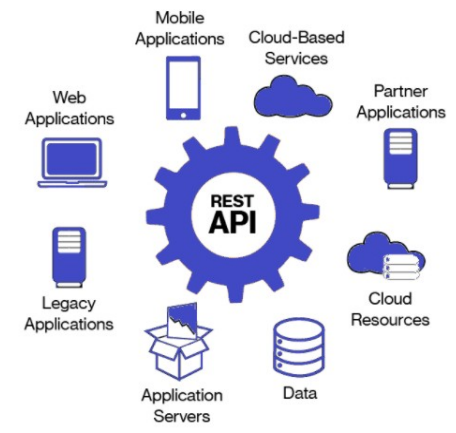
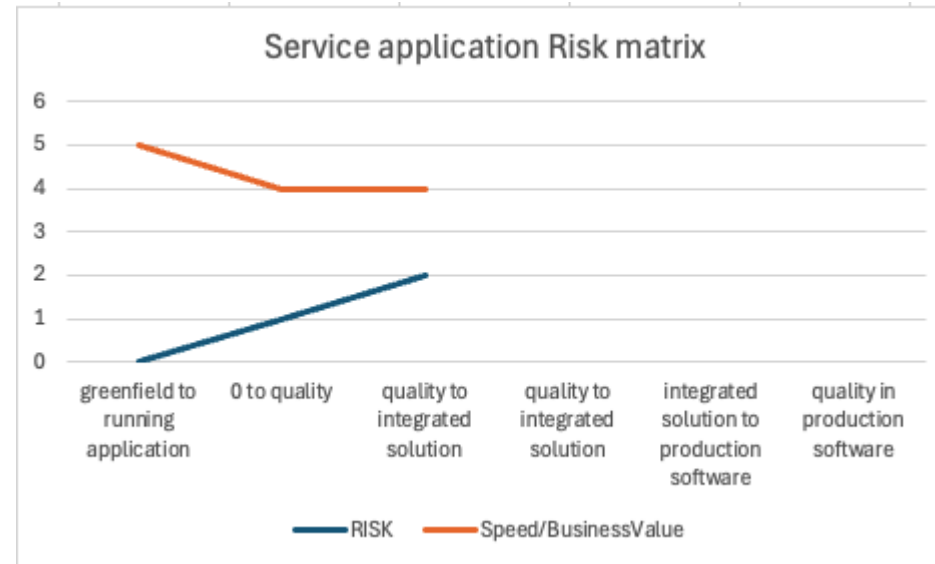


From basic quality to integrated solution

- Landscape of 15 stand-alone solutions that needed to talk to each other
- Communication thru API endpoints
 - We needed contracts so started using pact

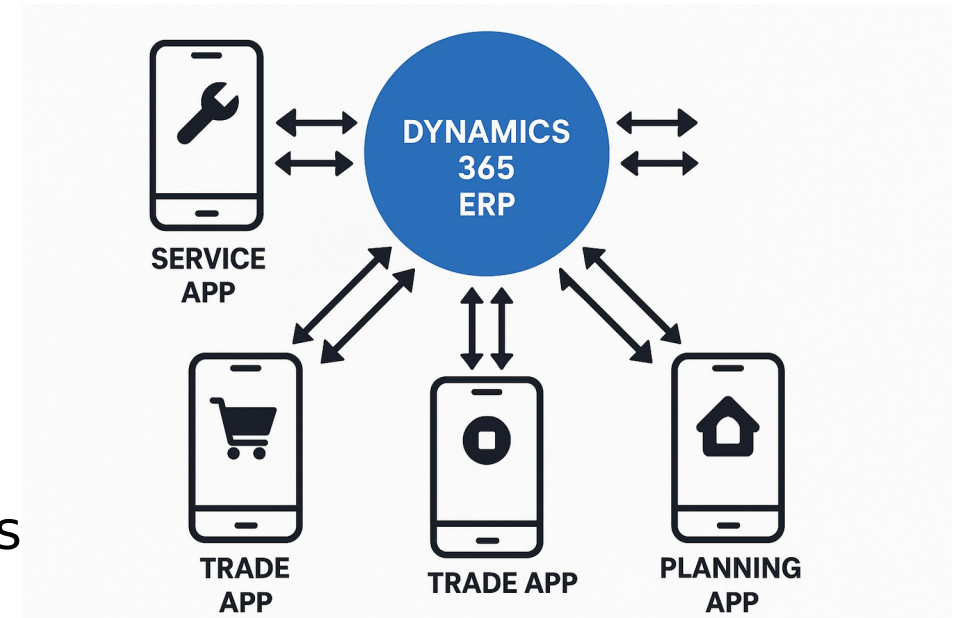


From basic quality to integrated solution

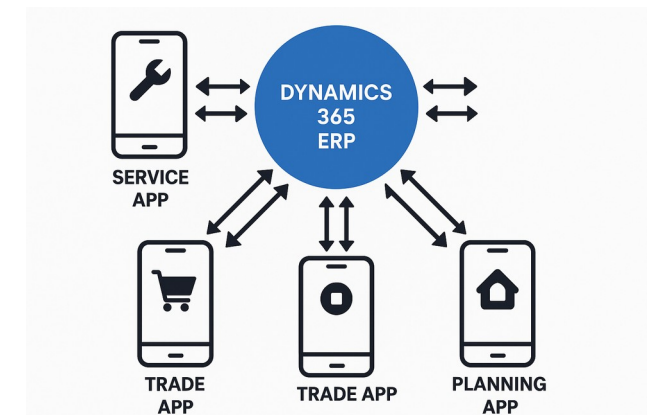
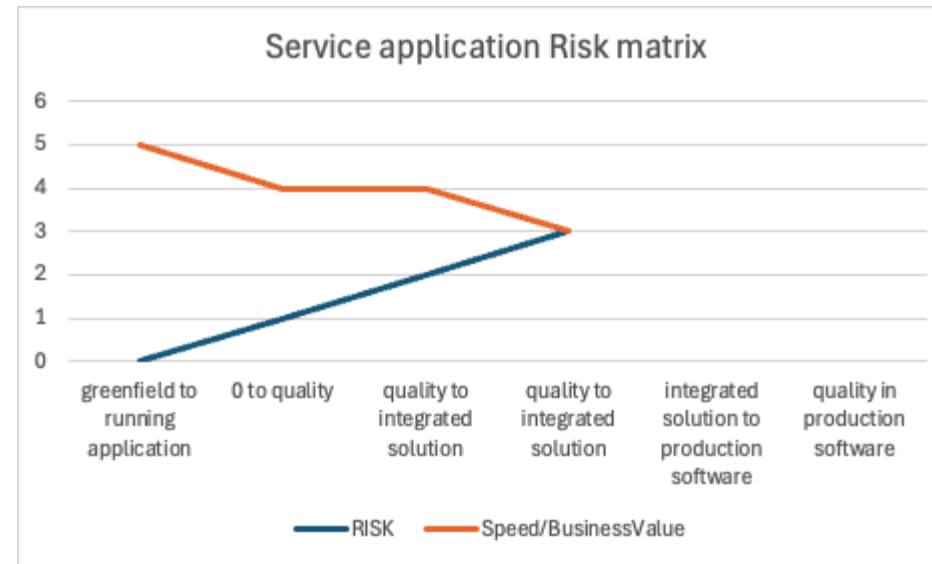


From basic quality to integrated solution

- Landscape of 15 solutions + ERP system as a central point of information
- https endpoints slowed us down
 - this is a reply and respond system
- Use a fire and forget system
 - Implementation of kafka avro messages



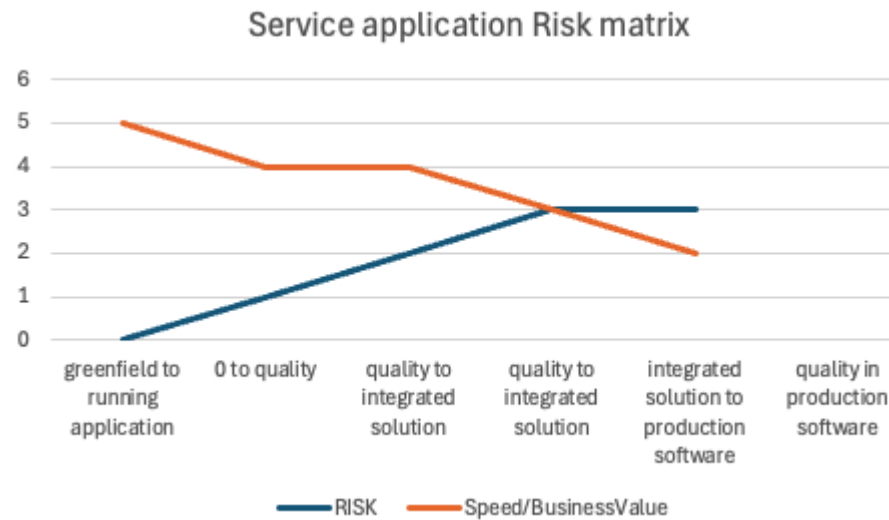
From basic quality to integrated solution



From integrated solution to production software

- Multiple styles of testing were introduced
 - Functional system testing by support organisation
 - Focussed on E2E functional testing
- UAT done by the first operational company that was selected to go live (CZ)
 - Multiple user acceptance test (UAT) rounds were organised to keep in line with the agile development cycle
- Technical contract testing by integration team
 - To guarantee data integrity

From integrated solution to production software



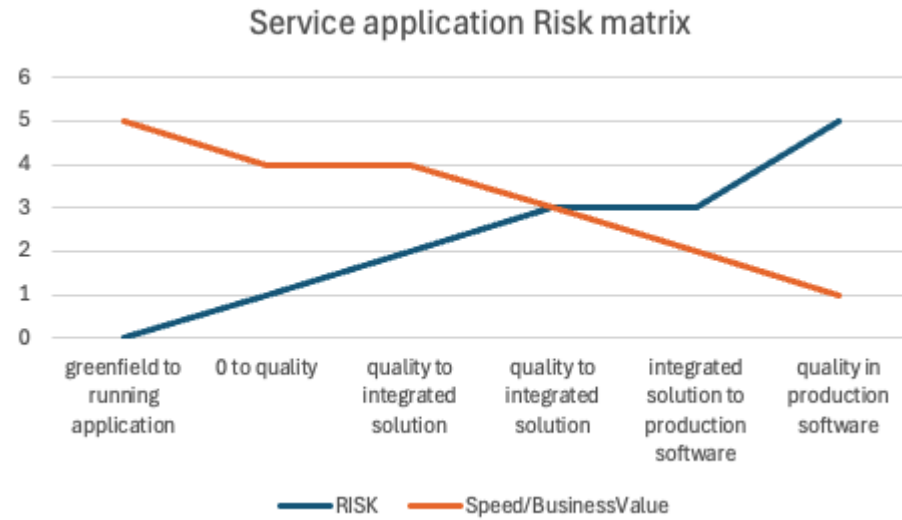
Ensuring quality in production system

- The challenge : agile development vs running production software
- Introducing a staging environment : pre-production
 - The intent of this was to slow down the development organisation so that end users have the time to verify the new deployment

Ensuring quality in production system

- Microservices landscape leads to procedures
 - For example, the service application stack consisted of +/- 30 microservices + ERP
- Need for formal release procedure to guarantee running production environment
- Need for formal planning ☾ SAFe was introduced this means planning on a bigger scale between teams

Ensuring quality in production system



What's there to remember

Quality assurance is not a process which is written in stone - always be critical towards it and adapt as needed

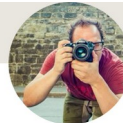
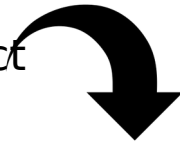
Delivery speed is not the holy grail -- we went from delivering multiple times per day to production to a monthly release cycle

Business value is what we are asked to deliver but never forget what is already there +

The worst thing that can happen in a change trajectory is instability for the end user

Thank you for the attention

Want to connect



Matthias Six

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