# Achieve Technical Excellence In A Software Organisation

Berne, 10 March 2021 Raoul Adler



## Why Does Technical Excellence Matters?

"...because all of its stuff we are talking about (digital transformation and all the rest of it) doesn't really make any difference unless you can actually deliver technology, get it into production and get things moving." – Martin Fowler



Do the right thing



Do it effective and efficient



Do it in high quality



### Correlations

Return on Assets



Organizational Performance



IT Performance

~ profits



how successfully a group with a particular purpose perform a function



See next slides...



## Aspects of IT Performance

3 particular measures:

Deployment Frequency

the frequency of deployments

Deployment Lead Time

time from code commit to working in prod

Cycle Time

Mean Time To Recover

how long it will take to get a failed piece of code running again



# Cylce Time

Deployment Frequency



Deployment Lead Time

- The time it takes from the idea to the running software in production
- The possibility to gain early information
- Crucial measure



### **Recover Fast**

Mean Time To Recover (MTTR)



Mean Time Between Failures (MTBF)

- By putting stuff into production it is more important that you can realize that something is going wrong and fix it (MTTR) than to prevent the failures in the first place (MTBF)
- Today most of the organization put a lot of effort in trying to prevent that things go wrong



## Continuous Delivery

Version Control

Test Automation

Continuous
Integration

Deployment
Automation

- It is the ability to build software in such a way that you are always able to put the current state of your software into production
- It is a key point to reduce cycle time



## Team Setup

#### **Small**

### Relatively long living

keep teams together

#### **Business Oriented**

- there must be business connectivity
- every team member should have a pass through the customer

#### **Autonomous**

- a team should have everything it needs to deliver software to the business
- ownership from UI to database
- connection to their users



### **Trust**

Learning > Blame

Ask for Help Without Fear

No Toxic People

Share Knowledge

Integrity
(No Hidden Agenda)

Home for the evening



## **Excellence On Department Level**

Software
Development
Department

Short

Cycles

- Understands Business
- Responsible for the software teams
- Responsible for the codebase

- Some Technical Know-How
- Responsible for the direction of travel
- Ideas, Vision



### Conclusion

- Software development teams and the business must work together
- Both must understand each other
- Develop in short cycles
- Take care of the health of the team
- Apply agile processes over the entire organisation
- Try to do a better job than the others
- Have fun



### References

https://www.youtube.com/watch?v=Avs70dZ3VIk



