



# Remote Mob Programming

Thomas Much

 @thmuch

17.06.2021

**Softwareentwickler**

**Technical Agile Coach**



Mob Programming  
seit 2016

Remote Mob Programming  
seit 2020

... auf den Schultern von Riesen ...

 @thmuch



# Mob Programming

A Whole Team Approach



By Woody Zuill and Kevin Meadows



# The Mob Programming Guidebook



# MOB PROGRAMMING GUIDEBOOK

MAARET PYHÄJÄRVI

# Technical Agile Coaching with the Samman method

By Emily Bache  
Foreword by Kent Beck



i & Llewellyn Falco

Jochen Christ  
Simon Harrer  
Martin Huber

# Remote Mob Programming

At home, but not alone

INNOQ

Foreword by Mark Pearl

The Pragmatic Programmers

Pragmatic exPress

# Code with the Wisdom of the Crowd

Get Better Together with Mob Programming

Mark Pearl  
edited by  
Tammy Coron





**Marcus Hammarberg**  
@marcusoftnet

#MobProgramming gets another well deserved shoutout and excellent quick intro by @lisihocke #agrs2018

This is the most important improvement I've seen the last couple of years.

Please get hold of me if you want to  
Especially if you think it's ineffective

[Tweet übersetzen](#)

11:33 vorm. · 20. Sep. 2018 · [Twitter for iPhone](#)



**Allen Holub**  
@allenholub

4/6 I've had a lot of experience with mob programming. I've introduced it to many teams, run workshops, seen its impact. It's one of the most significant improvements that a team can adopt. Most of the teams I've worked with love it, though not all.

[Tweet übersetzen](#)

12:24 vorm. · 23. Aug. 2019 · [Little Pork Chop](#)

**XP PragProg**

**Agile Scrum**

**Software Craft**

**IT-Kanban**

**~ 20 Jahre alt**

**User Stories**

**Pair Programming**

**Refactoring TDD Iterations**

**Continuous Integration**

# Mob Programming

~2011 eher nebenbei entstanden

**Seit 2014 weltweit diskutiert & eingesetzt**

(ältere Ideen haben sich nicht durchgesetzt)



Woody Zuill

<https://woodyzuill.com/>

<https://twitter.com/woodyzuill>

# Mob Programming

„Mobbing“ 🤔🤨

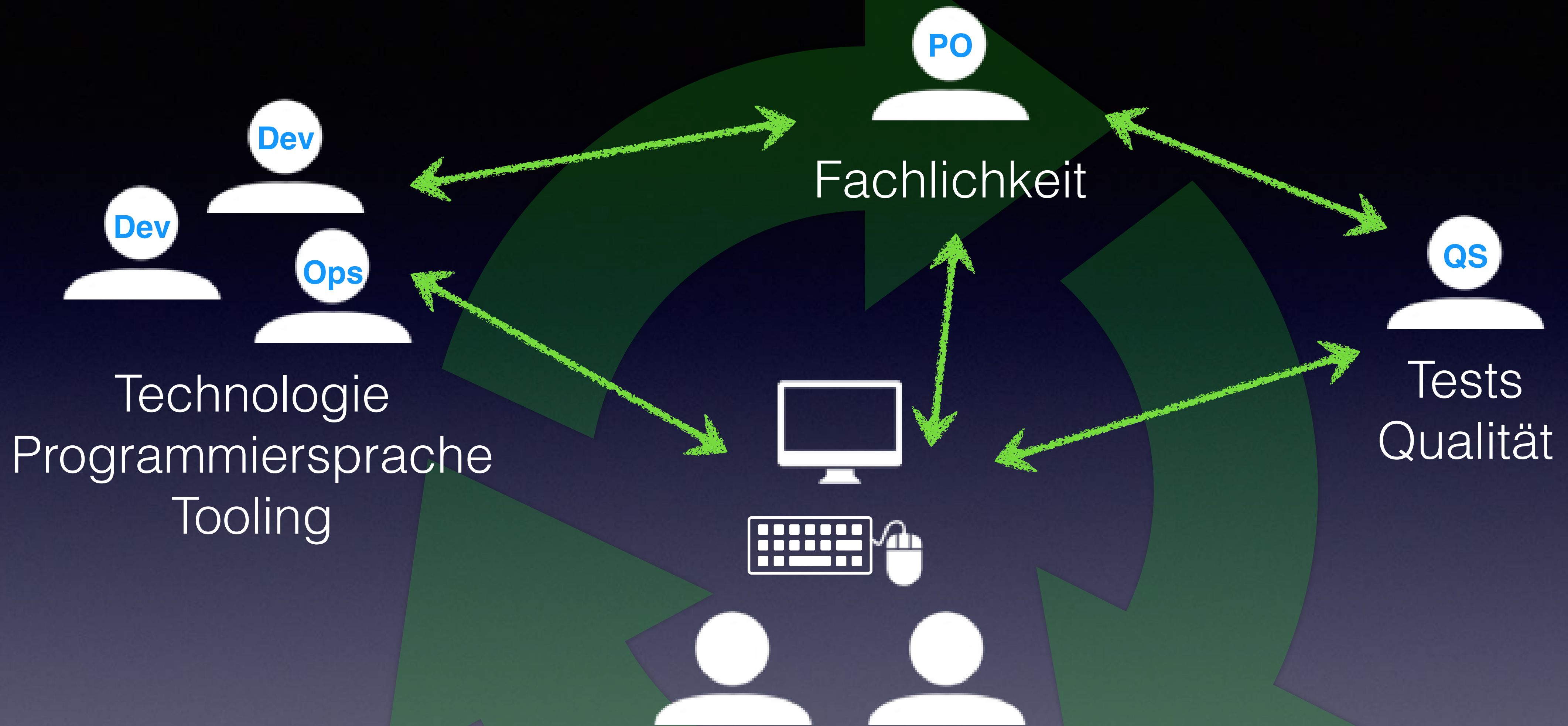
Group Programming  
**(Whole) Team Programming**

Ensemble Programming\*

„Mobsen“\*\* 😊

\*) <https://visible-quality.blogspot.com/2020/05/five-years-of-mob-testing-hello-to.html>

\*\*\*) Credit: Team „Transformers“ @ OTTO



"**All the brilliant minds** working together on the same thing, at the same time, in the same space, ~~and at the same computer.~~"

virtual

– Woody Zuill



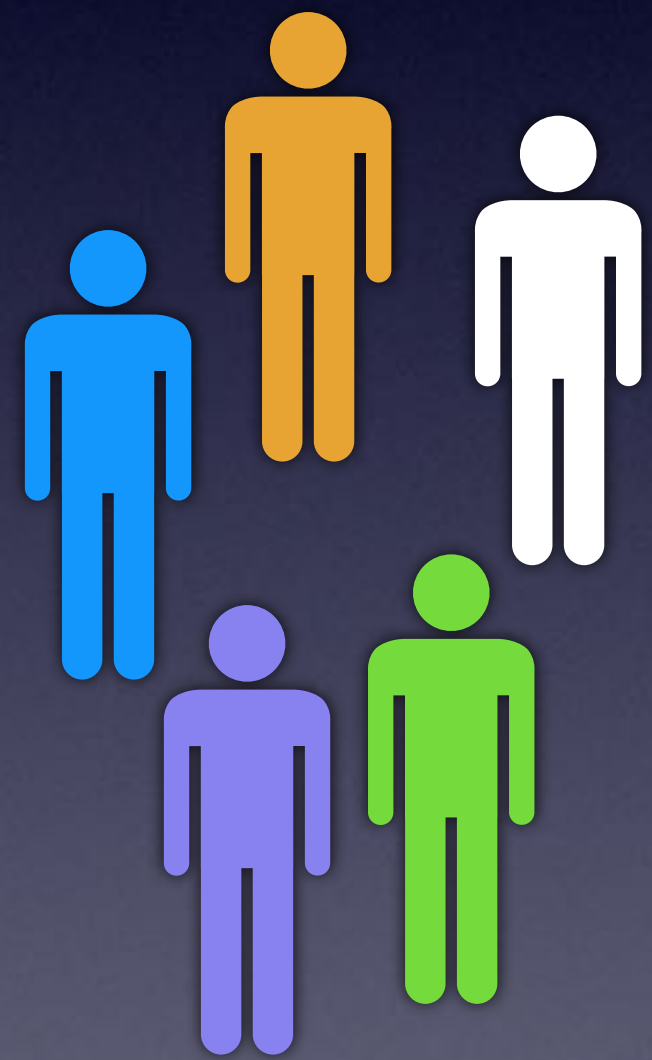
Wie arbeitet Dein Team? (Ist das ein Problem?)

Wie funktioniert (Remote) Mob Programming?

**Warum** funktioniert das (& sorgt nebenbei für Team-Building)?

Wie arbeitet Dein Team?

# Sind wir ein Team?



**Ein** 5er-Team

# Oder eher mehrere „Teams“?



Fünf Teams von Einzelnen

# Oder eher mehrere „Teams“?



Fünf Teams von Einzelnen

# 5 Devs für 1 (EINE) Aufgabe???

*Wofür optimiert das Management?*

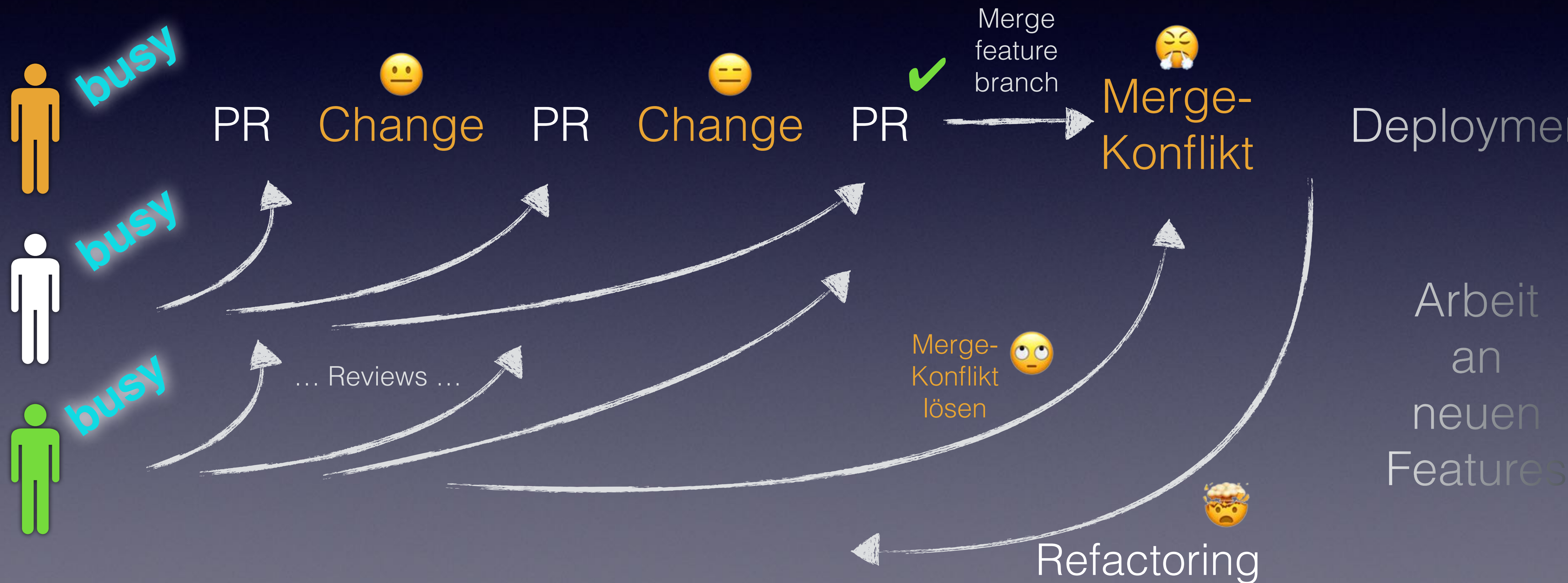
Wichtigstes Feature benutzbar zum Kunden ausliefern?

*oder*

Alle Entwickler möglichst gut auslasten / beschäftigen?

(Kleiner Hinweis: Genau das bekommt Ihr dann auch.)

# Warten, warten, warten ...

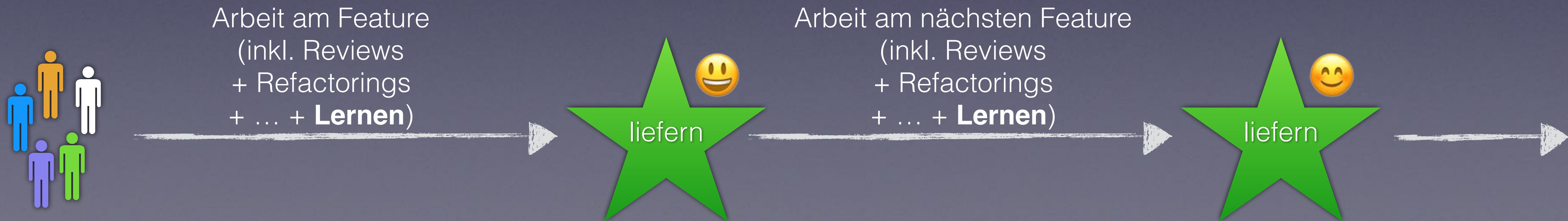


# Flow

Kontinuierlich Wertvolles an unsere Kunden ausliefern

Anzahl der erledigten Dinge maximieren

Verschwendung minimieren





# Aber die Geschwindigkeit!

„~~busy~~“ sein → Zeug ~~raushauen~~

„If you need to be fast, **slow down**“

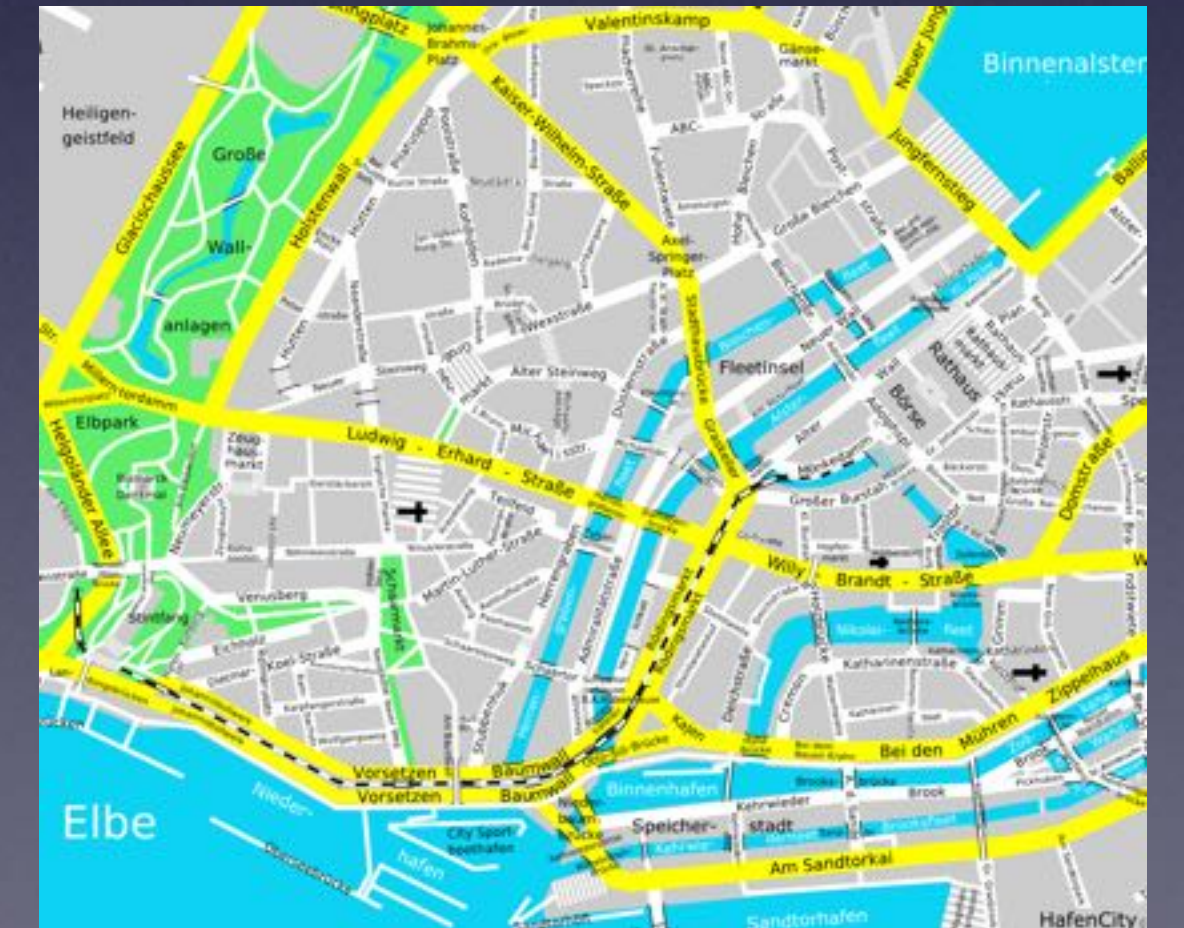


**Seid** nicht langsam.  
Aber vermeidet Hektik.

# Wie funktioniert (Remote) Mob Programming?

Wichtig:  
Es gibt kein „Richtig“  
oder „Falsch“!

# Driver & Navigator



# Driver-Observer Anti-Pattern



Worker

Watcher

# Aufmerksamkeit & Kreativität

## Rollenwechsel!

**Tastaturwechsel nach fester Timebox  
(alle 5-10 Min. / remote 10-15)**

*Timer App, z.B.*

\* <http://mobster.cc/>

\* <https://cuckoo.team/>

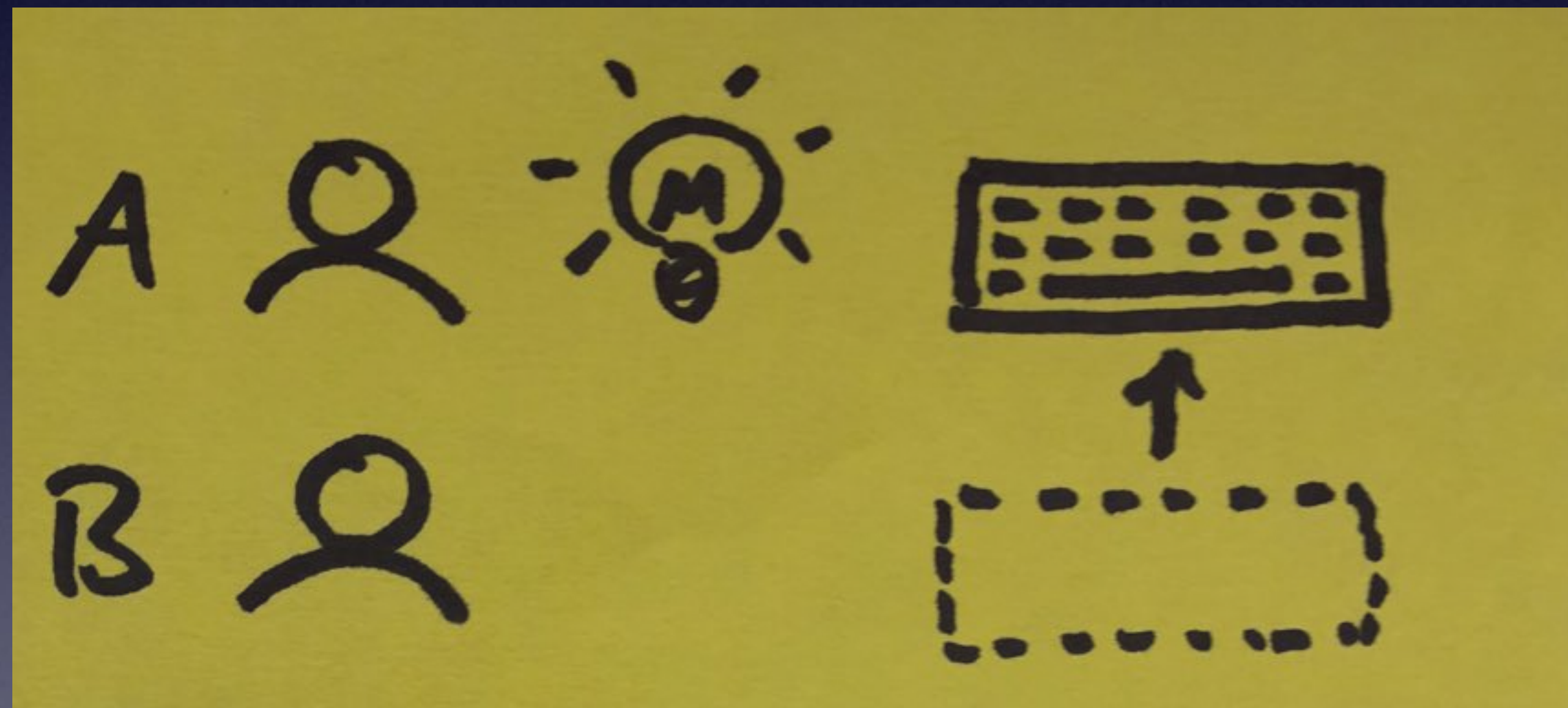
\* <https://mobti.me/>

oder *Smartphone-Timer*



# Strong Style Navigation!

„klassisch“



„Strong Style“ beim  
Mob Programming



@LlewellynFalco

# „All the brilliant minds“

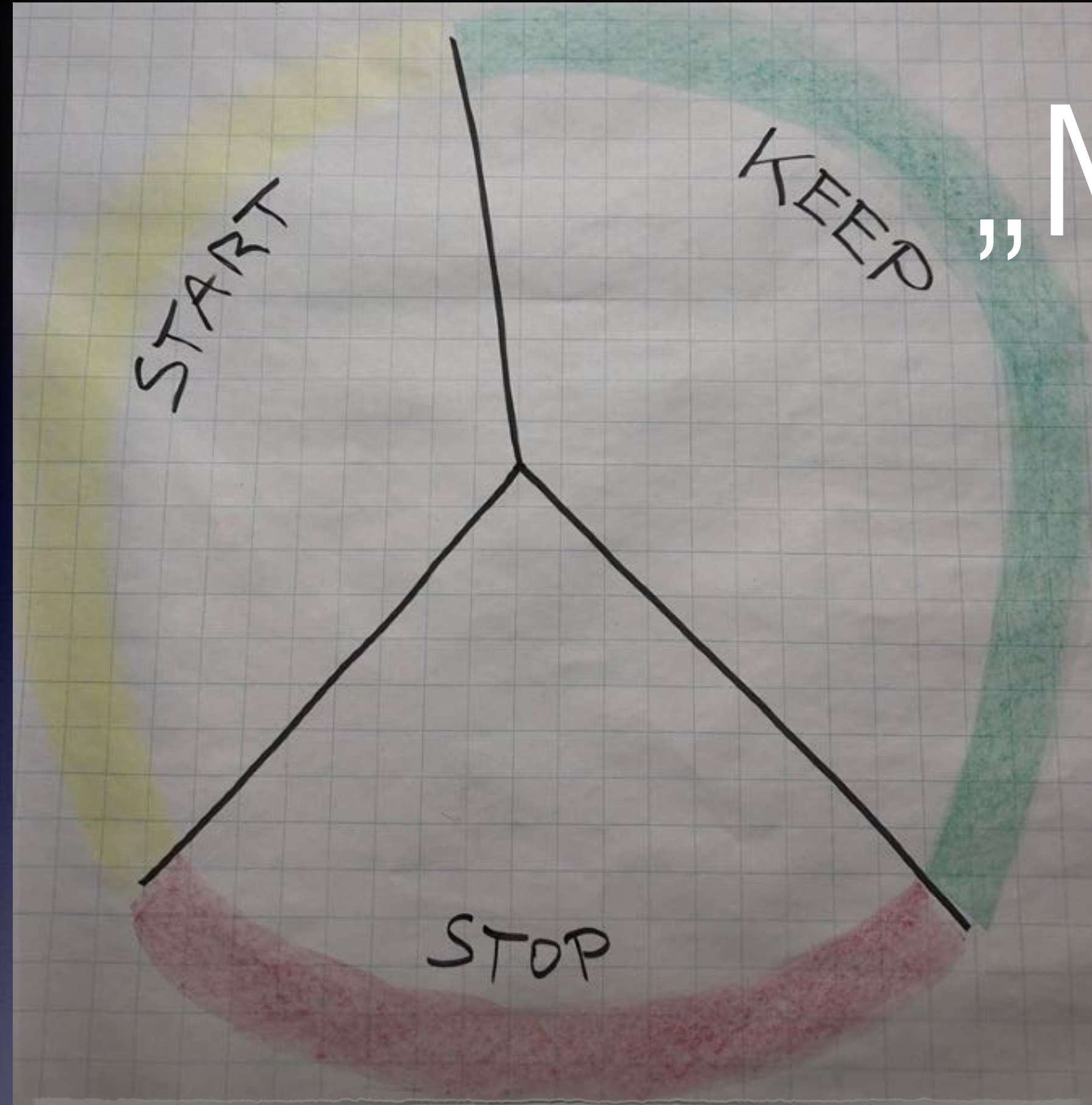
**Rollenübergreifend!**

**Tastaturwechsel nach fester Timebox  
(alle 5-10 Min. / remote 10-15)**

Die **wichtigste** Aufgabe  
zügig und gut fertig bekommen.

Lernen, **dieselbe** (Domänen-)  
**Sprache** zu sprechen.





# „Mini-Retros“

Title, Topic, Subject (Participants?) etc.

KEEP

START

STOP

Next steps for tomorrow / for next session:

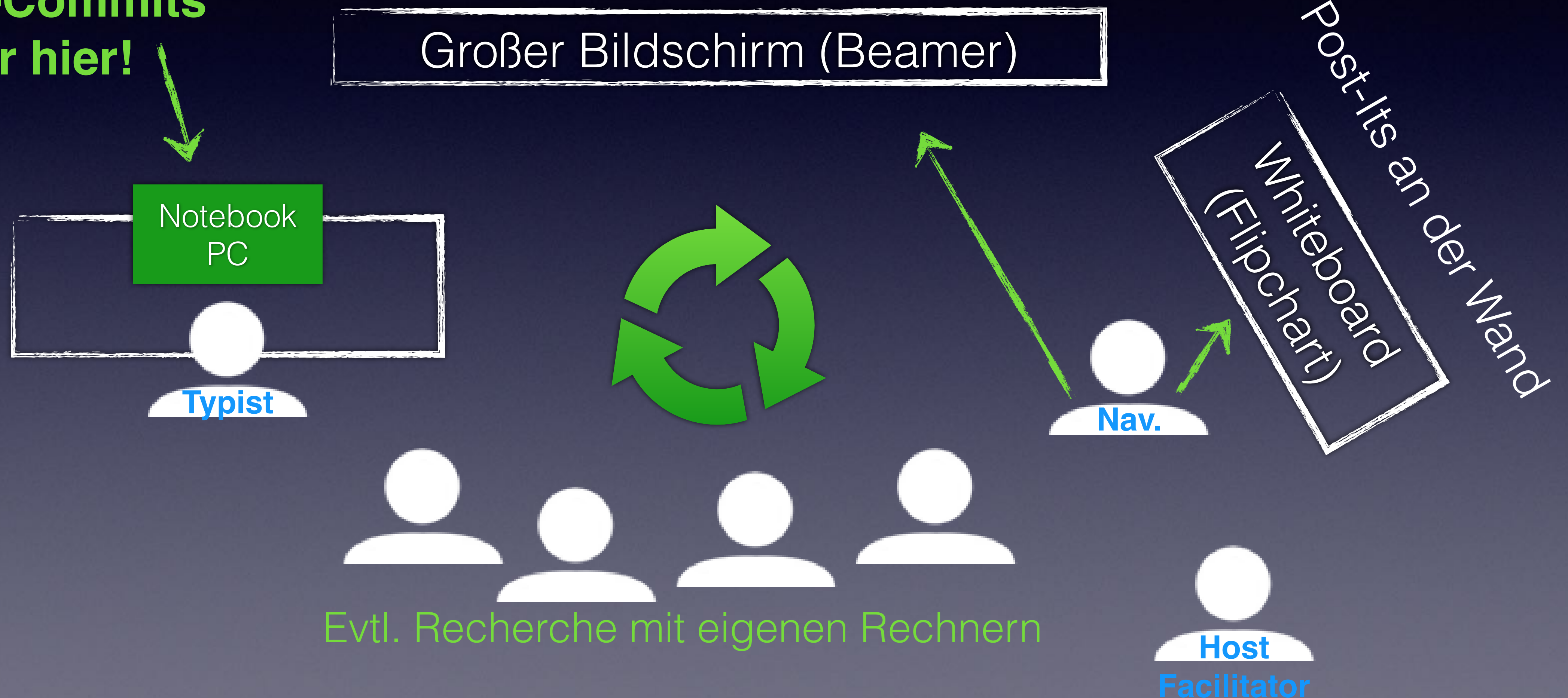
Fokus auf "Keep" & "Start" ⇒ **"Turn up the good"**

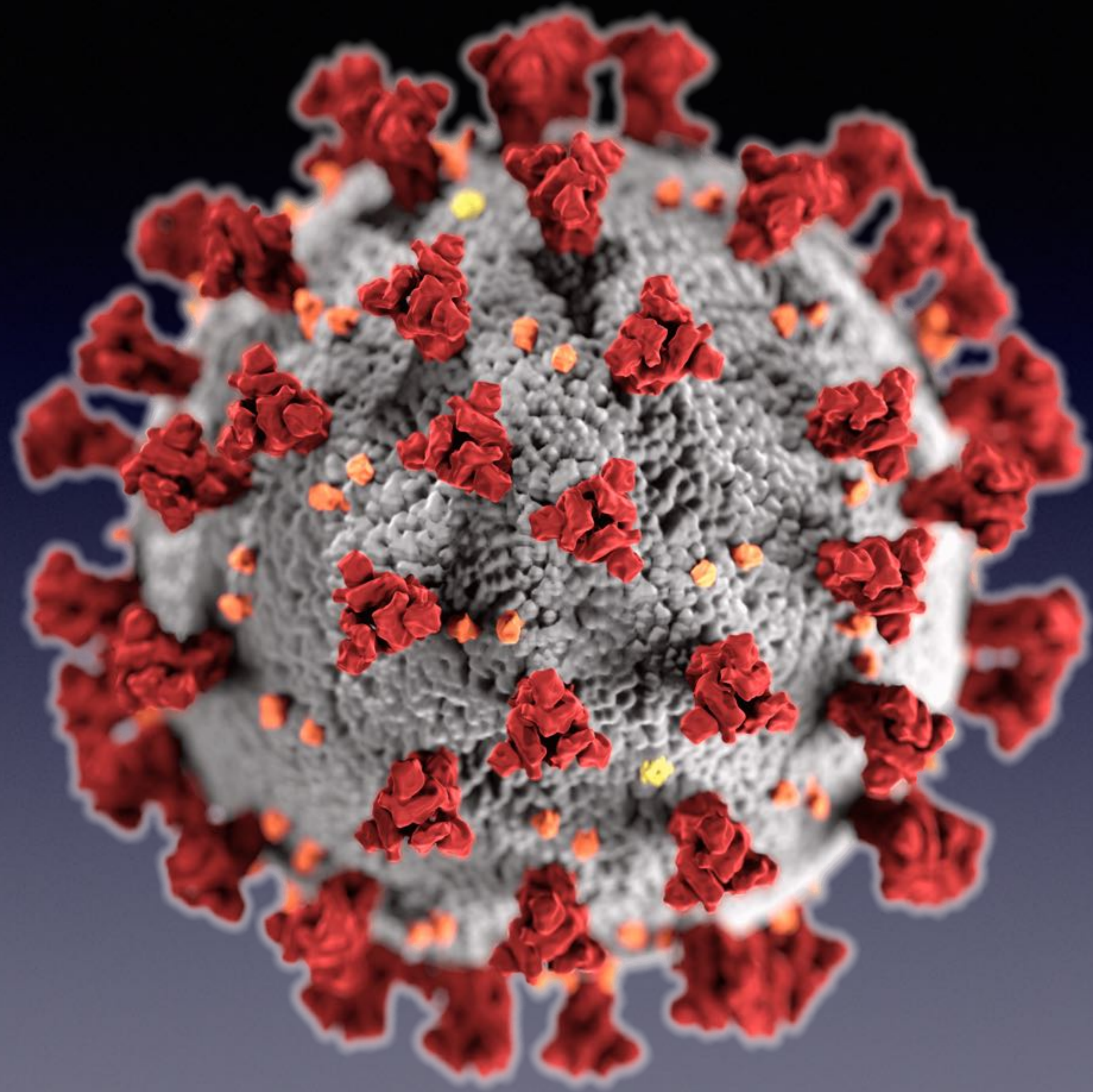
Kurzen, knappen "Check-In" für nächste Session schreiben



# Typist, Navigator & Rest vom Mob

Code-Commits  
nur hier!





<https://phil.cdc.gov/Details.aspx?pid=23312>



# Remote Mob Programming

Remote Everybody  
Camera Always On  
Regular On-Site Meetings  
Small Team  
Same Time  
Typist and the Rest of the Mob  
Screen Sharing  
10 Minute Intervals  
Git Handover  
Group Decisions  
Constant Momentum  
Learn from the Team  
Trust  
Save the Planet  
Dine with your Family



<https://www.remotemobprogramming.org>

# Remote Mob Programming

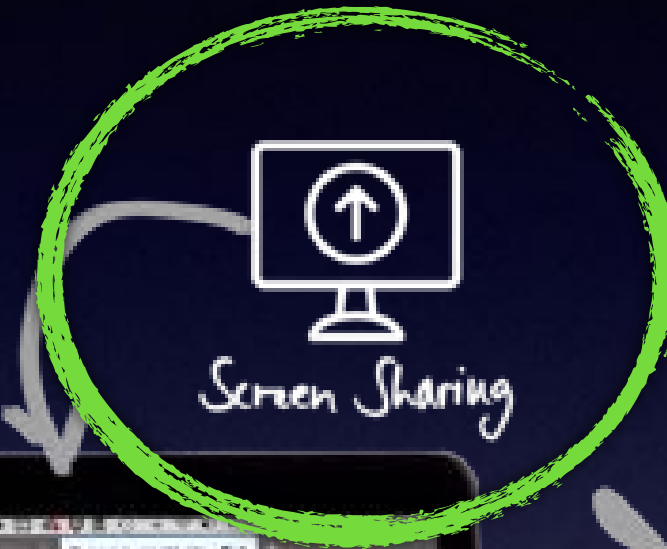
Anders als „normale“ verteilte Teams!

(GitLab) Remote Manifesto ↔ Remote Mob Programming

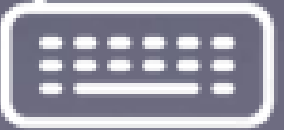
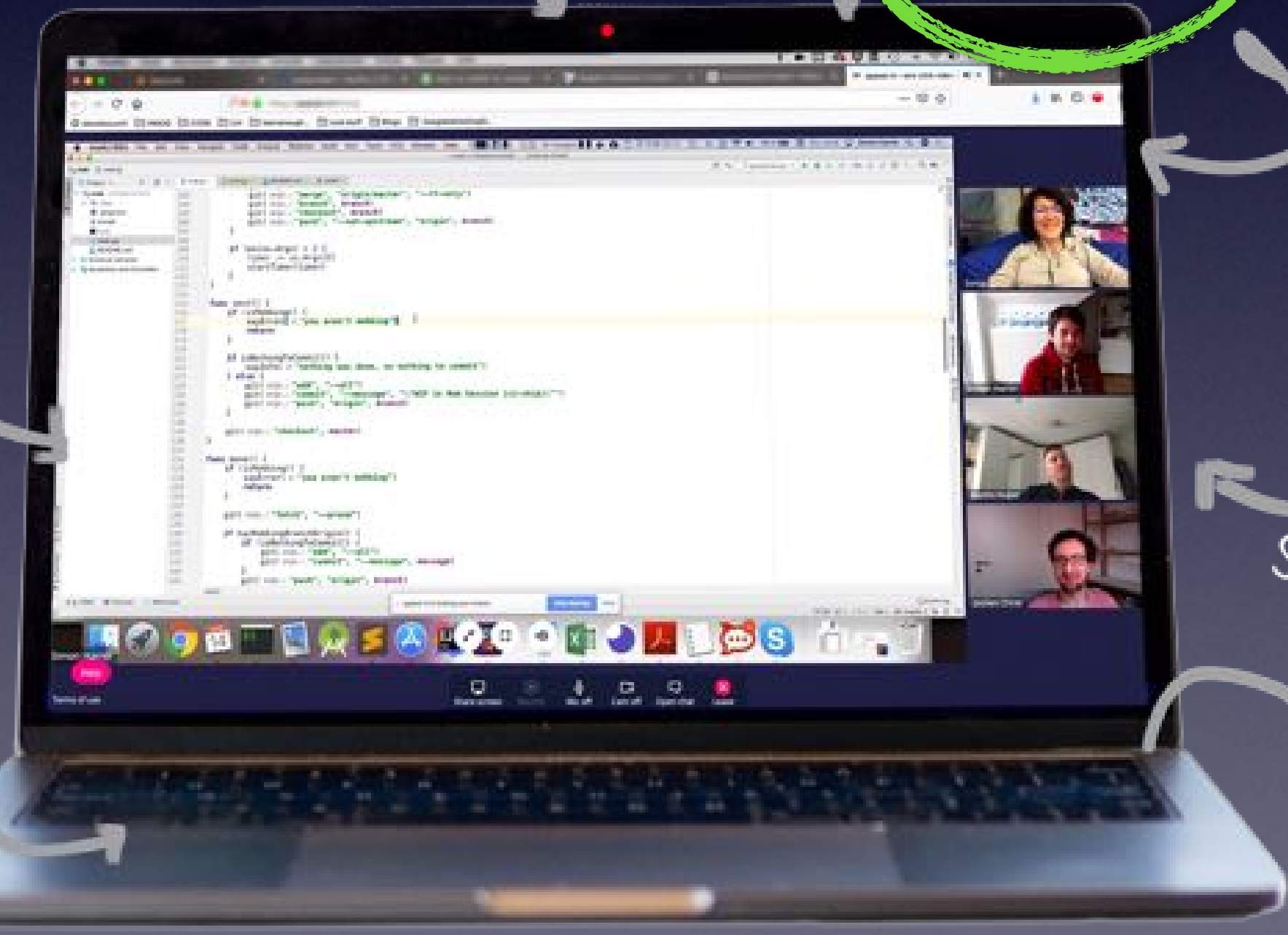
„Asynchrone Kommunikation  
*mehr als*  
synchrone Kommunikation.“

„zeitgleich“

# Wir sehen uns!



10 Minutes Intervals



Typist and the Rest of the Mob

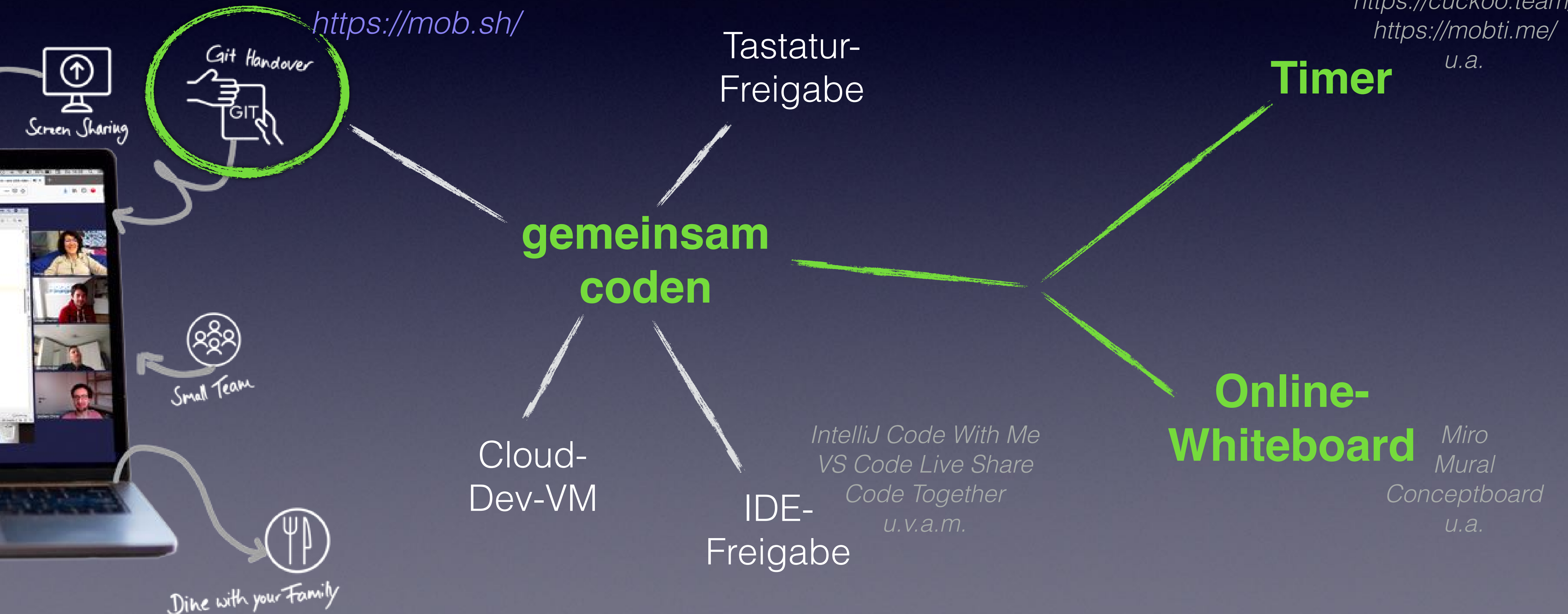


# Wir entwickeln zusammen!



<https://mob.sh/>

<https://cuckoo.team/>  
<https://mobti.me/>  
u.a.



# Wo kann ich mithelfen (oder lernen)?

The screenshot shows a Microsoft Teams chat interface. On the left, there is a sidebar with navigation options: 'Aktivität', 'Chat', 'Teams', and 'Dateien'. The main chat area is titled 'T - Mob Sessions' and contains several messages:

- A pinned message: 'Angeheftet'.
- A message: 'PD T - Mob Sessions' with 2 participants.
- A message: 'PD Ihre Teams' with 3 dots.
- A message: 'T - Mob Sessions' with 2 participants.
- A message: '10 ausgeblendete Kanäle'.

The chat history shows the following messages:

- 'PDN-1100 Initiales Deployment gestartet' with 2 answers and a meeting link '2 MeetUps'.
- 'Besprechung beendet: 37 Min. 59 Sek.' with an 'Antworten' button.
- 'PDN-1146 - Kafka SSL beendet: 28 Sek.' with 42 answers and a meeting link.
- 'Besprechung beendet: 2 Min. 52 Sek.' with an 'Antworten' button.
- A separator line: 'Zuletzt gelesen'.
- 'weitermachen mit durchstich' with a duration of 01:02:23 and a 'Teilnehmen' button.
- 'durchstich arteria->cp->xpdp->pdn testen gestartet' with 8 answers and an 'Antworten' button.
- 'PRMRY-1987' with a duration of 13:13 and a 'Teilnehmen' button.
- 'PRMRY-1987 gestartet' with an 'Antworten' button.

At the bottom, there is a button labeled 'Neue Unterhaltung'.



Egal ob remote oder vor Ort ...

*Es wird 2er-„Mobs“ geben ...*

**Euer Pair Programming wird besser**

durch das (Aus-)Üben von Mob Programming!

"Pair Programming is like going on a date.  
Mobbing is like having dinner with friends.  
Different dynamic."



Allen Holub  
@allenholub

Antwort an @BillyGarnet und @mcflyDev

I see Mob Programming as an improvement over Pair Programming. They're both useful, of course, but I've seen Mob Programming be successful in places where Pairing didn't work. Pair Programming is like going on a date. Mobbing is like having dinner with friends. Different dynamic.

6:34 nachm. · 11. Mai 2020 · TweetDeck

# „Driver“ oder „Typist“?

**Pair Programming – Driver sein kann stressig sein**

1:1

Zu großer Unterschied in Wissen & Können?

**Mob Programming – Entspannen an der Tastatur**

Abwarten, zurücklehnen & die anderen denken lassen

(Quelltext-)Protokoll mitschreiben

# Informations-Asymmetrie vermeiden!

einer remote → alle remote



**John Cutler**  
@johncutlefish



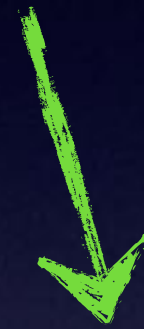
A mixed remote / non-remote team is like dialing in to have dinner with a group of friends in a restaurant.

[Tweet übersetzen](#)

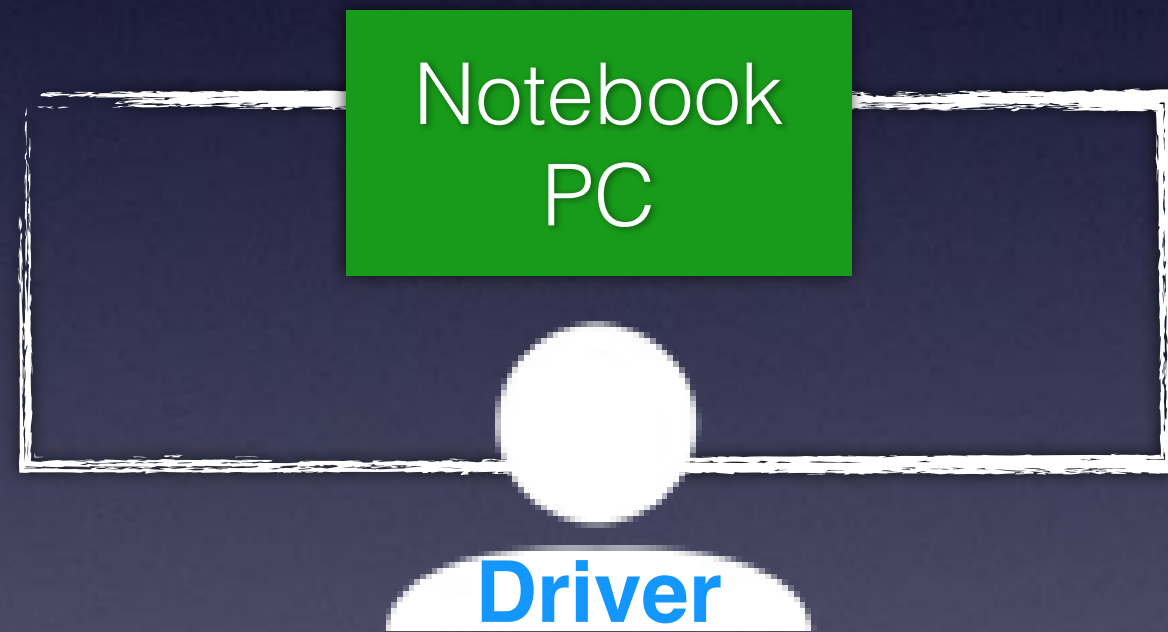
21:02 · 28.05.21 · [Twitter Web App](#)

# Mob Testing

Anwendung  
(App)  
bedienen



Großer Bildschirm (Beamer)



Exploratives Testen  
etc.



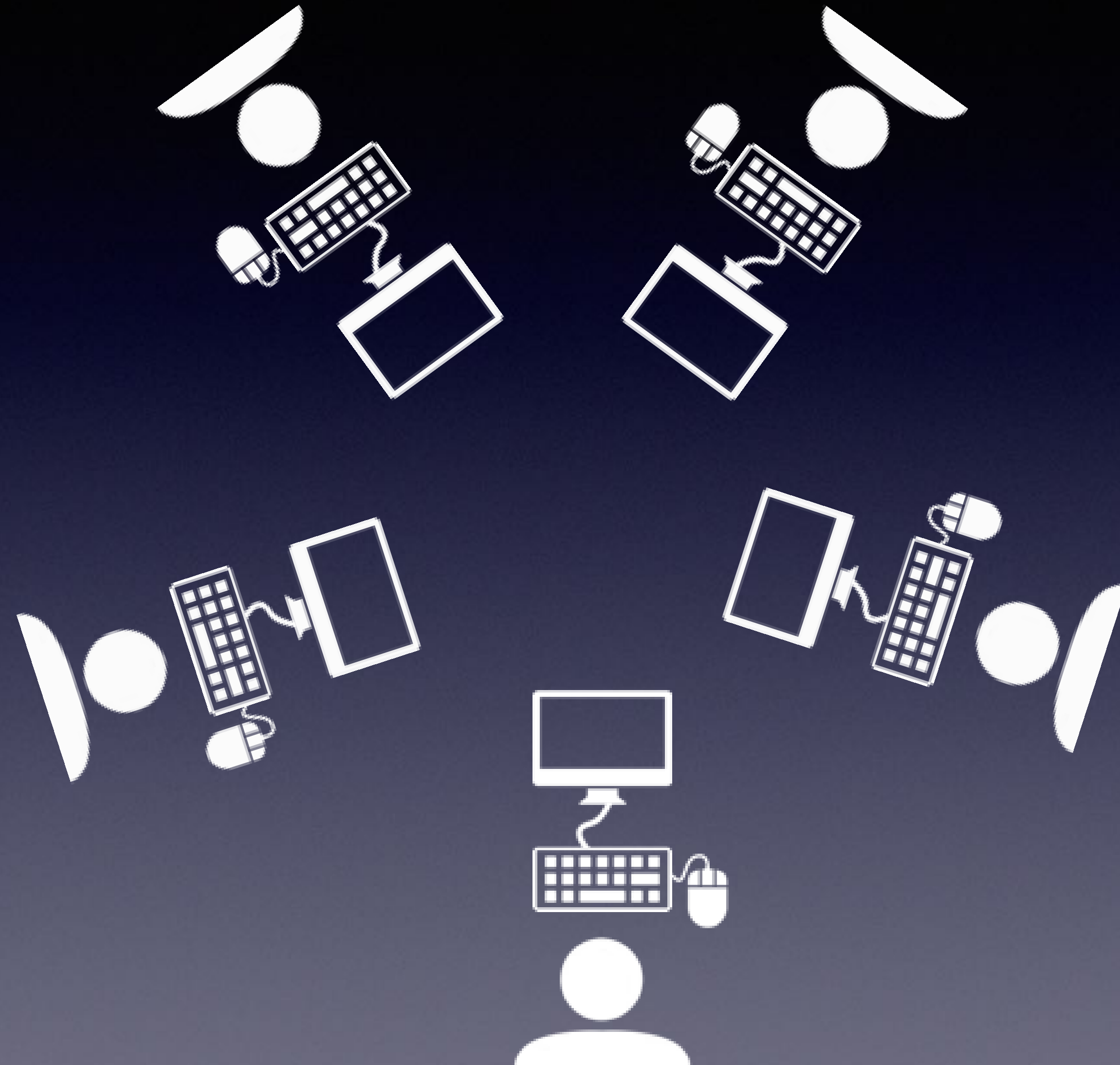
Testprotokoll  
etc.



**Warum** funktioniert  
(Remote) Mob Programming?



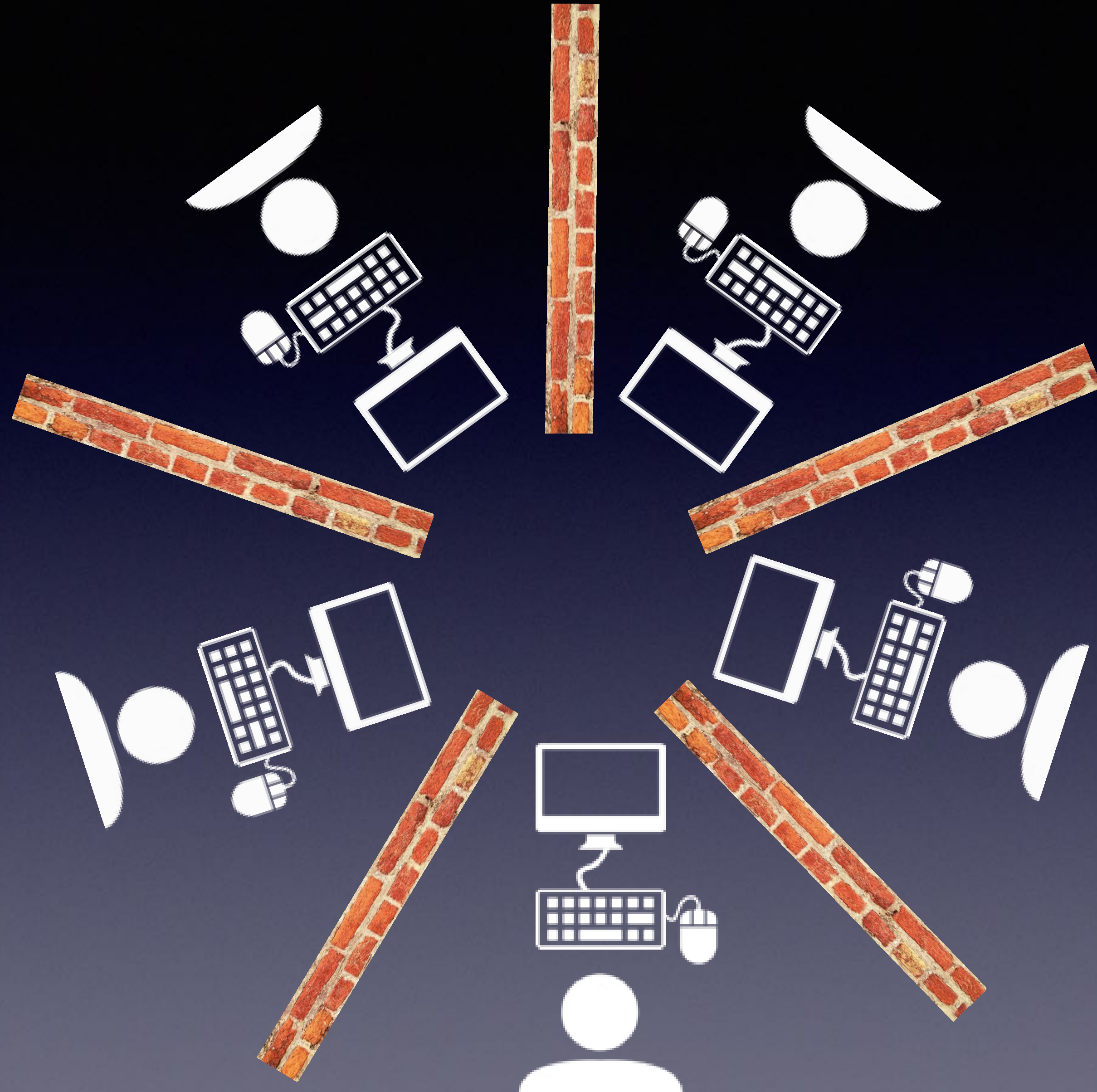
# In Eurem Büro



**Ein** Team?

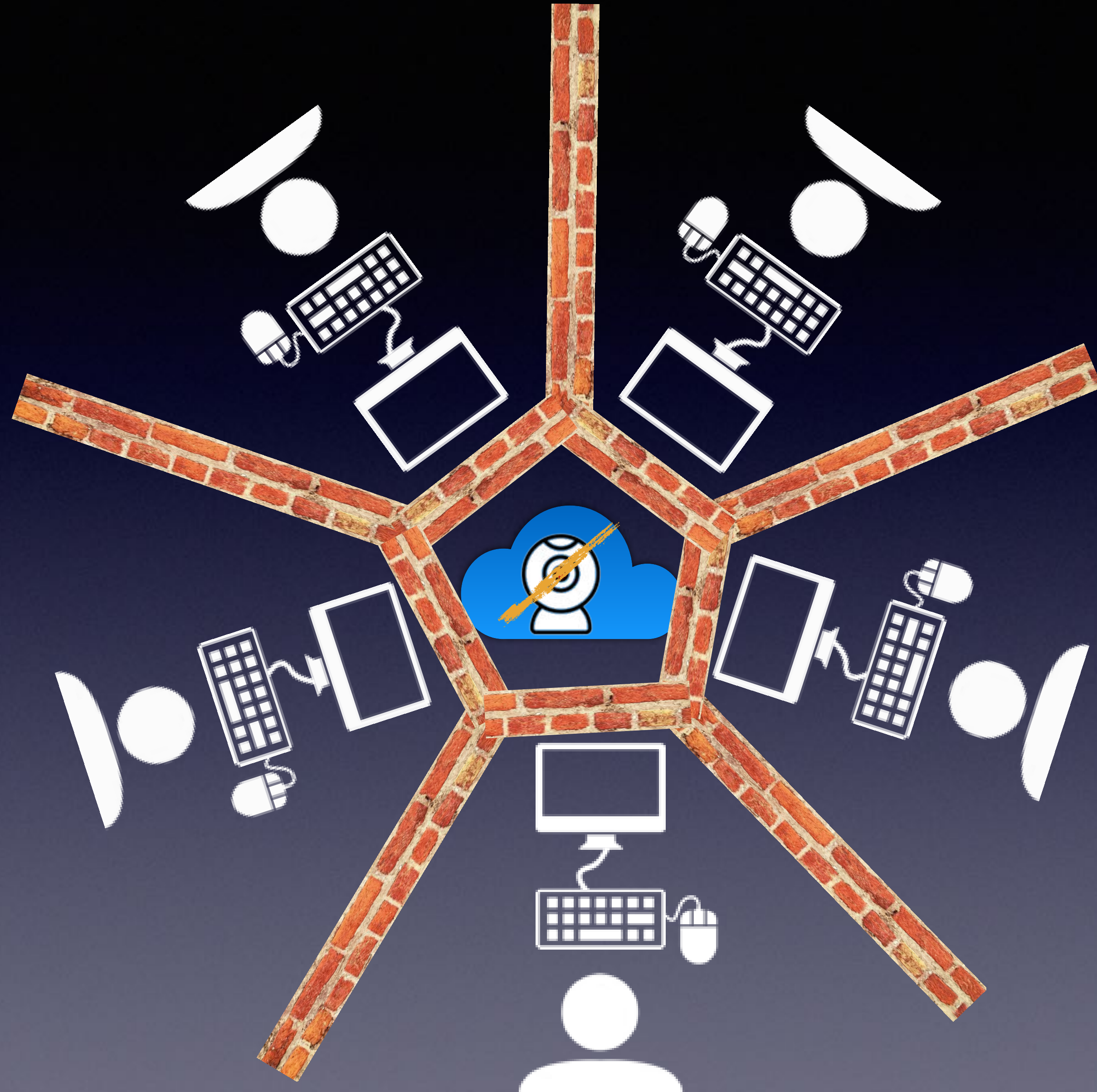


# In Eurem Büro



"Teams" Einzelner?

# Home-office



Abtauchen  
hinter dem  
Bildschirm...

# Remote? Nicht das Problem.

Anwesenheit vor Ort *keine Voraussetzung* für Team-Zusammenhalt!

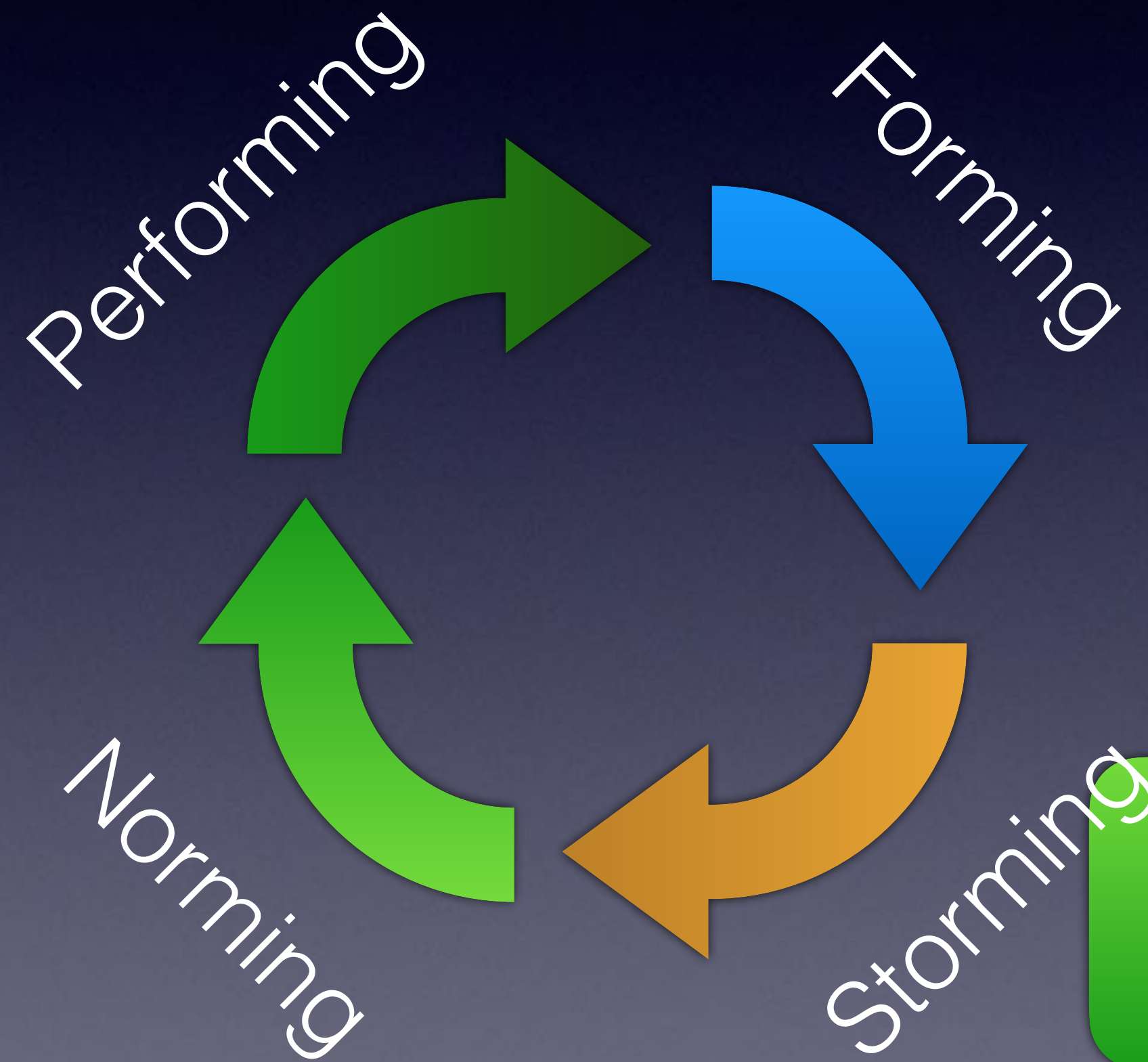
Wir brauchen:

**Gemeinsame Werte**

**Vertrauen**

**Die anderen regelmäßig sehen**

# Phasen der Gruppenentwicklung



**Kann man nicht.**

Oft vermieden...

Konflikte müssen  
geklärt werden

# Phasen der Gruppenentwicklung



# Stabile Teams?

Teams sind **unveränderlich**

**Veränderung passiert**

Neues Team, neues Forming/Storming/...

# Mob Programming

Kürzere Phasen,  
weil regelmäßig  
durchlaufen!



# Optimieren für Veränderung

~~Widerstand gegen Veränderung?~~

**Widerstandsfähigkeit\***  
gegenüber Veränderungen!

\*) Resilienz



# Wissensverteilung?

Dokumentation.

**Nachträglich.**

"Show & tell"

Erstaunlich  
schwierig...

# Collaborate?

## Co-**Author**, Co-Create!

Team muss den Lösungsweg verstehen

(nicht nur das Ergebnis)

„Warum ist Code *nicht* da?“

# Mob Programming

macht implizites (stilles)

Wissen & Können

**sichtbar**

*Anderen beim Denken zuschauen.*

*Beobachten. Erleben. Selber machen.*

Jemand anderes  
fragt „meine“ Frage  
(die ich nicht  
formuliert bekomme)

Wissen **und Können**

*Know how*

# 100% Mob Programming?

*Geht! Aber definitiv kein Muss.*

*(wie beim Pair Programming)*

Hilfsmittel, Werkzeug

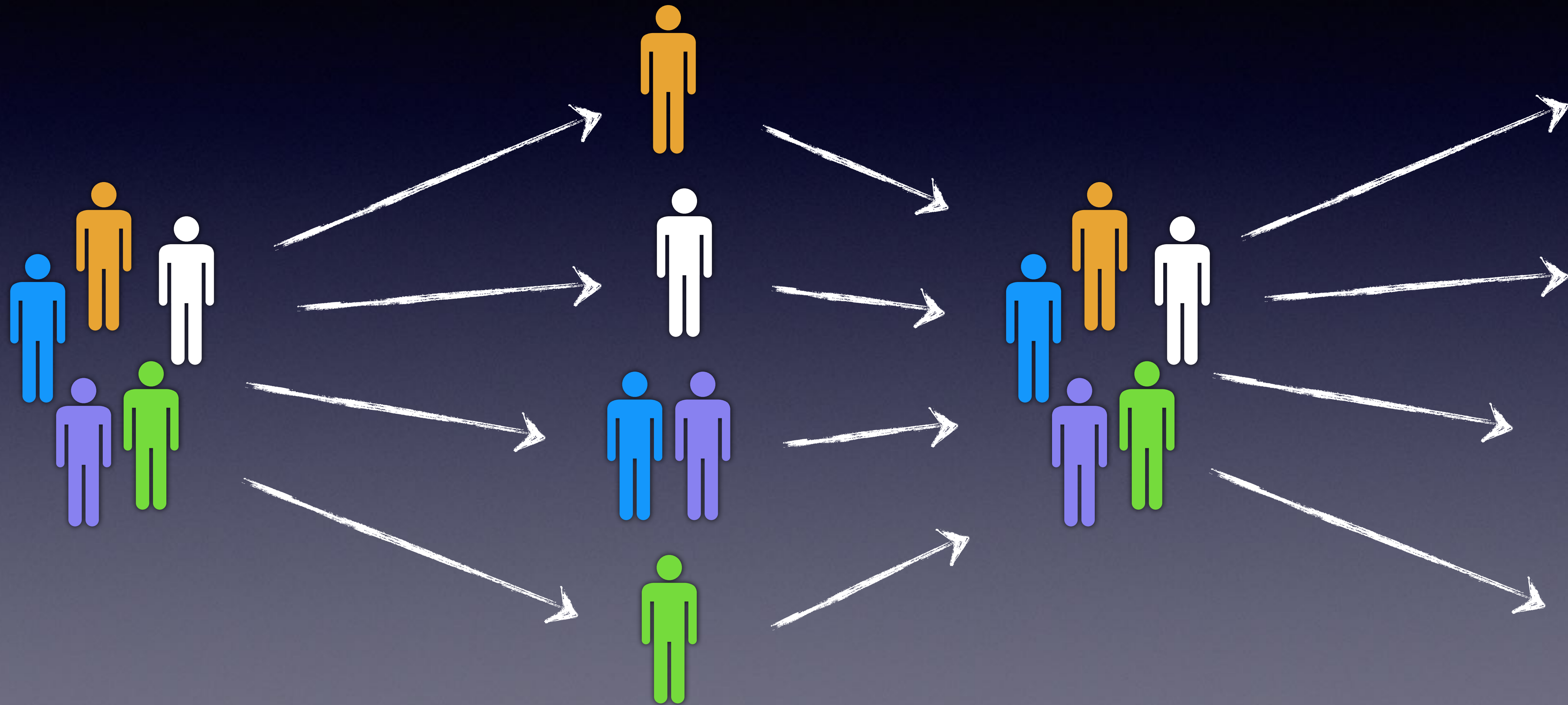
# 100% für die wichtigste Aufgabe

... aber nicht zwingend 100% Anwesenheit jedes Einzelnen!

## **Dynamischer Mob: Kommen und gehen**

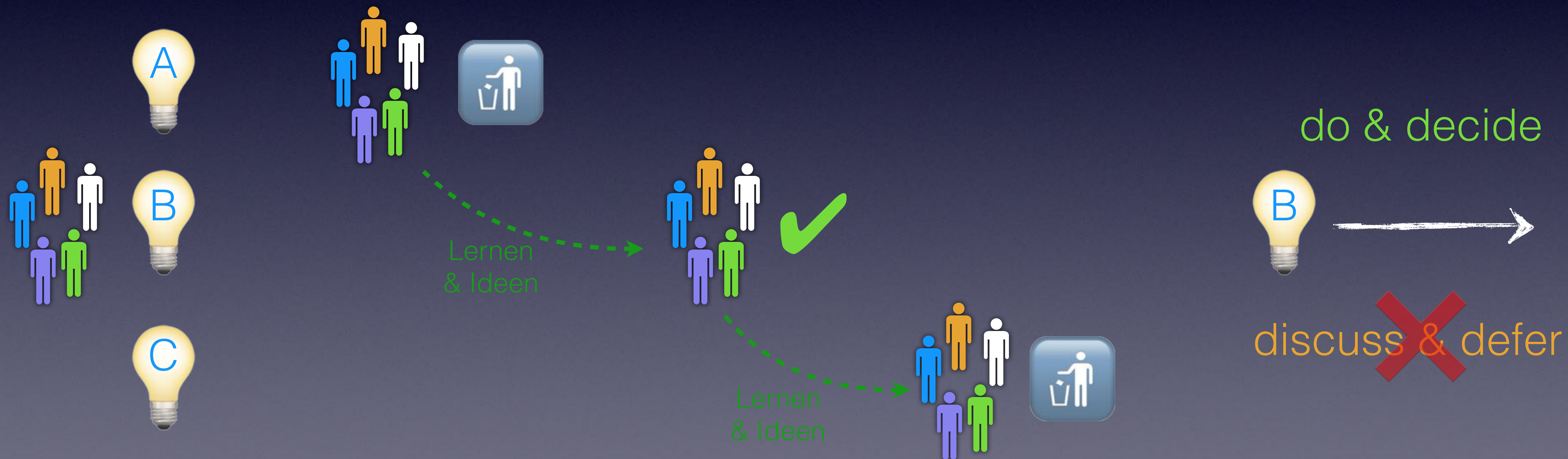


# Zusammen starten!



# Team-Entscheidungen

Mehr als eine Idee? *Probiert alle aus!*





# Anders als Meetings!

Am Ende haben wir

**lauffähigen**, getesteten, **verstandenen Code**.

Das **motiviert** uns Entwickler:innen 😊  
& macht unsere Kund:innen **glücklich** 😊

“If you want to go **fast**, go **alone**.

If you want to go **far**, go **together**.”

– Sprichwort



# Mob Mentality Show

755 subscribers

SUBSCRIBE

HOME

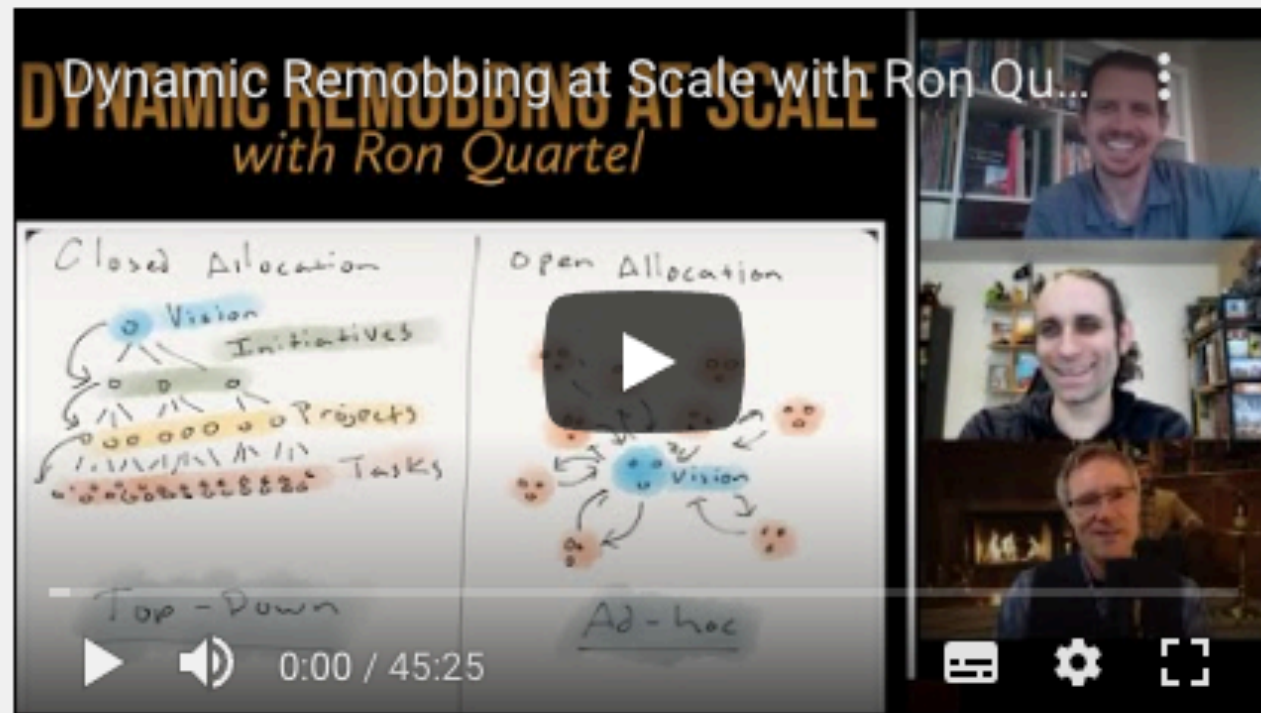
VIDEOS

PLAYLISTS

CHANNELS

DISCUSSION

ABOUT



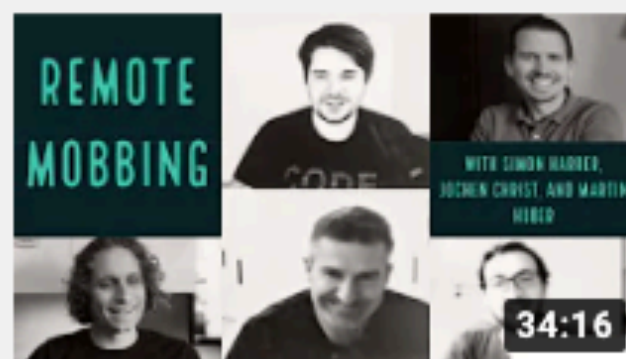
## Dynamic Remobbing at Scale with Ron Quartel

34 views • 18 hours ago

Chris Lucian and Austin Chadwick discuss all things #agile and product development from a #MobProgramming perspective. Imagine a team of 30-150 people that turned up the dial on self-organization to the max. Instead of favoring top-down closed allocation, they embraced open-allocation and autonomy. Now also imagine that many of these people happen to love #PairProgramming and #MobProgramming. What would their

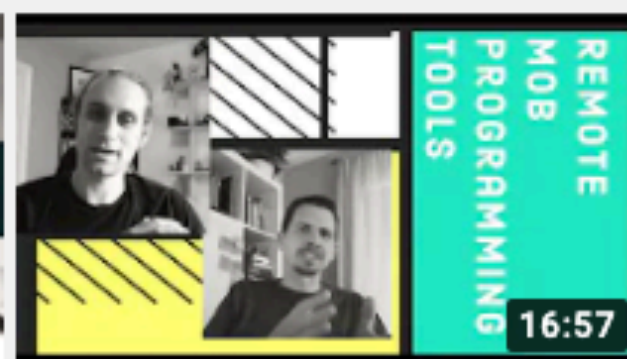
READ MORE

### Remote Mob Programming ▶ PLAY ALL



Remote Mobbing with Simon Harrer, Jochen Christ, and...

Mob Mentality Show



Remote Mob Programming Tools

Mob Mentality Show



Remote Mob Programming Etiquette

Mob Mentality Show



Remote Collaborative Coding with Lynn Langit

Mob Mentality Show



Unexpectedly Working Remote with Jason Weiman...

Mob Mentality Show

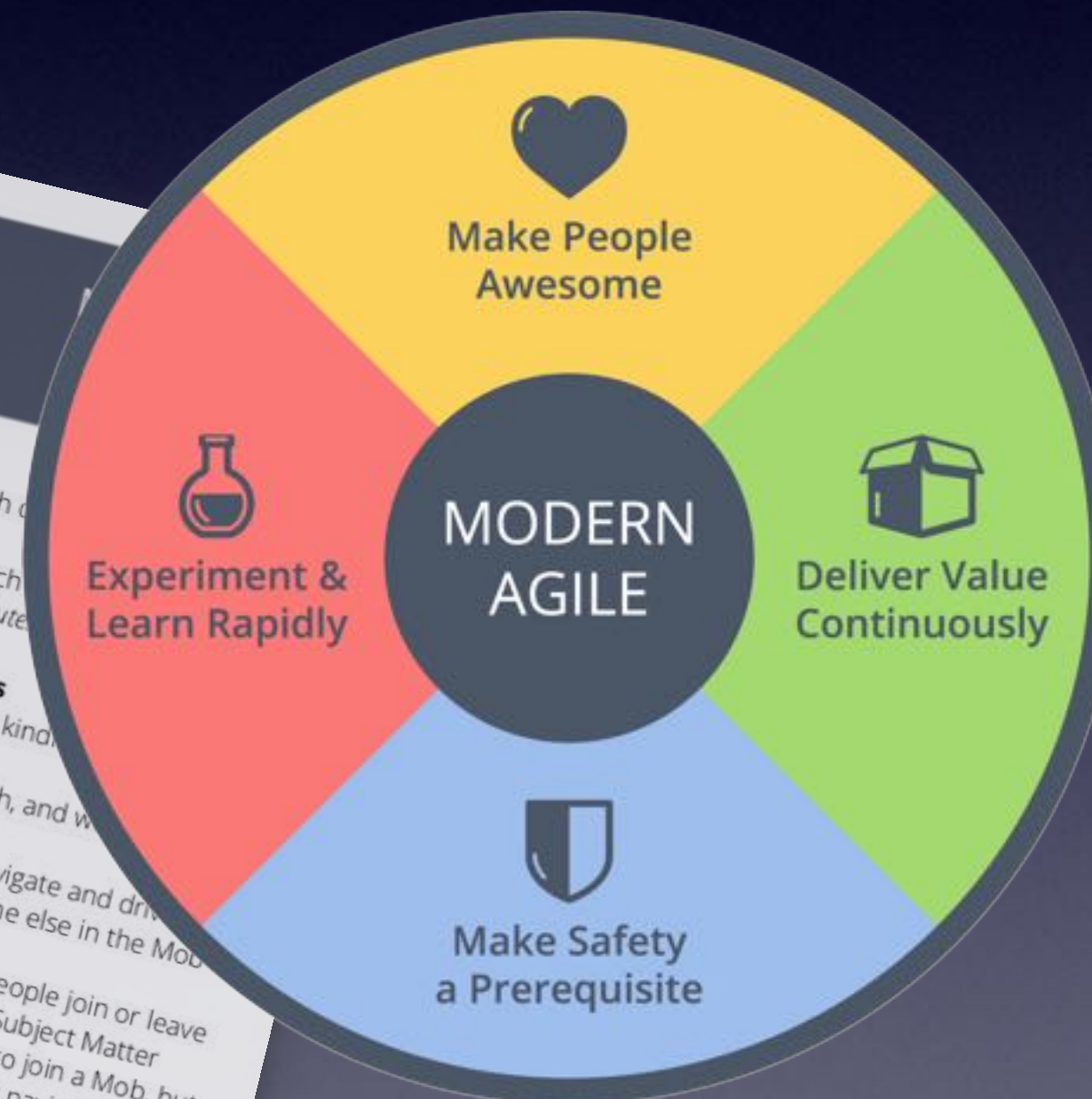
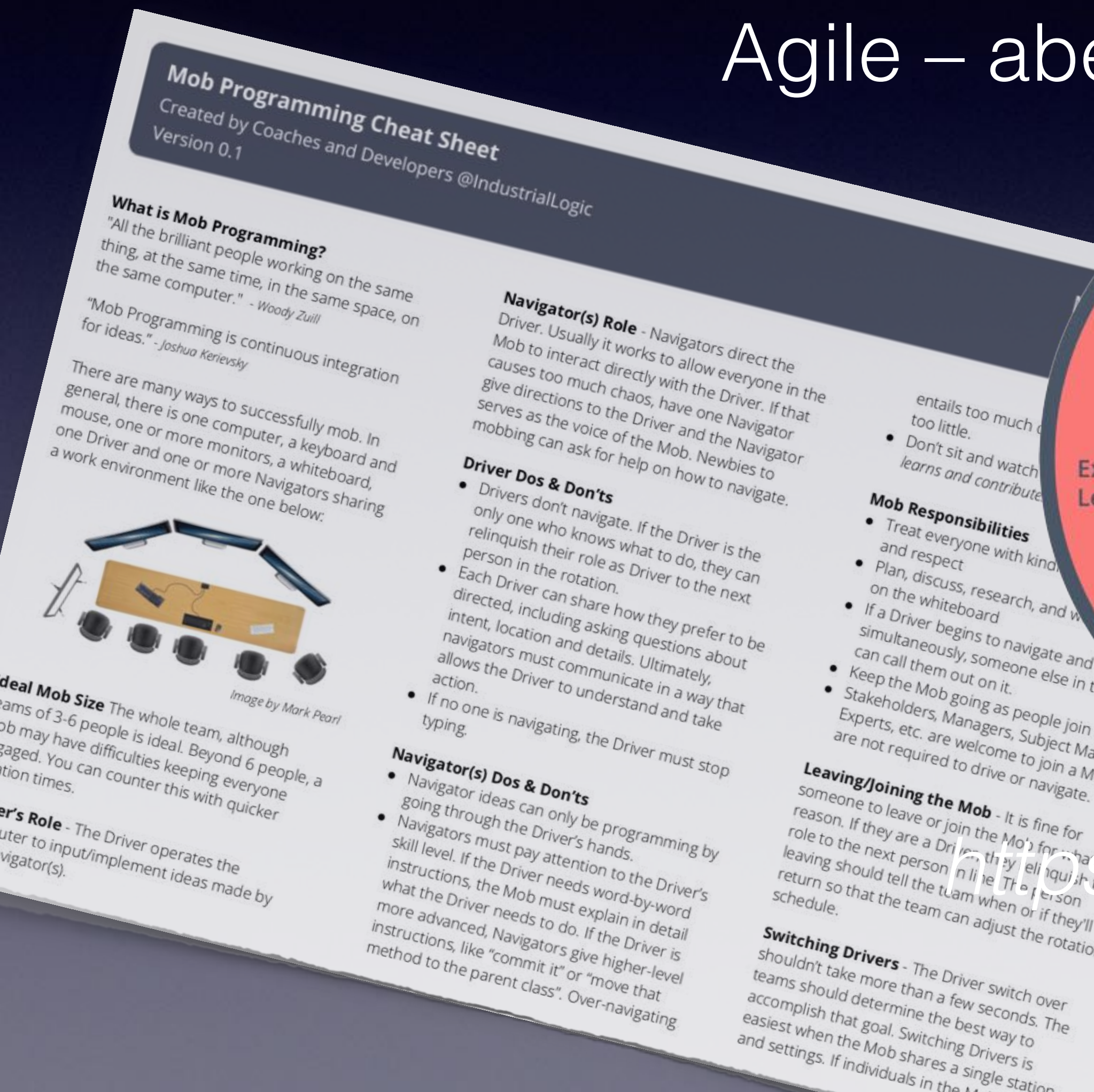


A Remote UI/UX Mobbing Story with Damien Klinnert

Mob Mentality Show

# Modern Agile

Agile – aber so, dass es funktioniert.



#MobProgramming

#NoEstimates

#NoProjects

#ModernAgile

<https://modernagile.org/>

# Mob Programming



**Fragen?**

Pair

Programming

Coaching

XP

Remote

Modern Agile

Strong Style Navigation

TDD

Know-How-  
Transfer

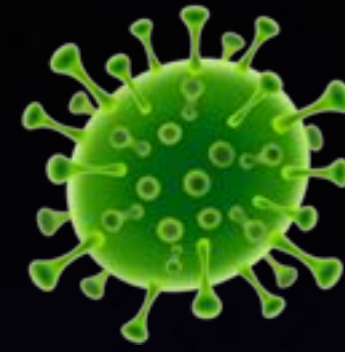
Pausen machen

Lesbarkeit

Einfachheit

Geschwindigkeit

Collective Product Ownership



# Vielen Dank!

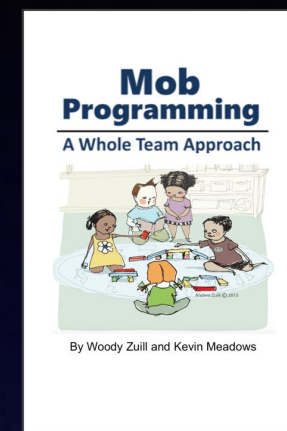
"We are uncovering better ways of developing software by doing it and helping others do it." \*

thomas@muchsoft.com

 @thmuch

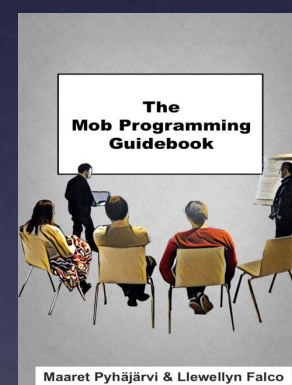
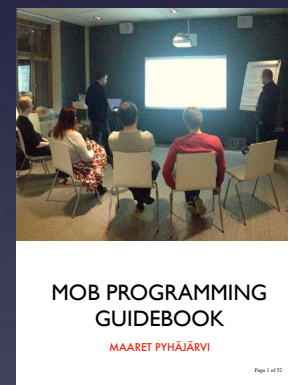
\*) <https://agilemanifesto.org/>

# Weitere Informationen



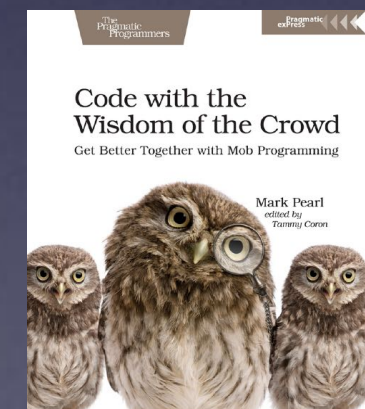
<https://mobprogramming.org/>  
<https://leanpub.com/mobprogramming>

<https://www.remotemobprogramming.org/>  
<https://leanpub.com/remotemobprogramming>

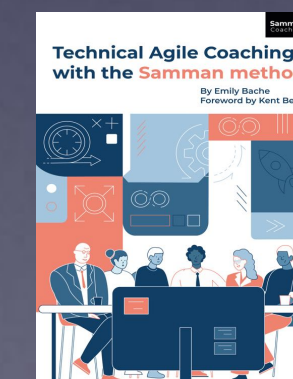


<https://mobprogrammingguidebook.xyz/>  
<http://www.mobprogrammingguidebook.com/>

<https://pragprog.com/book/mpmob/code-with-the-wisdom-of-the-crowd>



<https://leanpub.com/techagilecoach>



<https://www.chrislucian.com/p/companies-that-are-mob-programming.html>  
<https://trello.com/b/1IfMkCOh/software-profession-resources>

# Code-Sharing

## **Git Handover**

<https://mob.sh/>

IntelliJ Plug-in: <https://plugins.jetbrains.com/plugin/14266-mob>

## **IDE Sharing**

<https://www.jetbrains.com/de-de/code-with-me/>

<https://visualstudio.microsoft.com/services/live-share/>

<https://www.codetogether.com/>

<https://duckly.com/>

<https://git.live/>

<https://codeshare.io/>

<https://gitpod.io/>

<https://theia-ide.org/>

<https://aws.amazon.com/de/cloud9/>

## **Cloud Dev VM**

<https://claremacrae.co.uk/blog/2020/12/virtual-machines-for-online-mobbing-and-training>



# Online-Whiteboards

Miro

*<https://miro.com/>*

Mural

*<https://www.mural.co/>*

Conceptboard

*<https://conceptboard.com/>*

Microsoft Teams Whiteboard

*[diagrams.net](https://diagrams.net/) / [draw.io](https://draw.io/)*

*[excalidraw.com](https://excalidraw.com/)*

# Mob-Timer

<https://cuckoo.team/>

<https://mobti.me/>

<https://agility.jahed.dev/>

<http://mobtimer.zoeetrope.com/>

<https://mobtimer.com/>

<https://saschamz.github.io/mobtimer/>

<https://github.com/MobProgramming/MobTimer.Python>

<https://github.com/pluralsight/mob-timer>

<http://mobster.cc/>

*Am Code herumprobieren*

Als Mob **experimentieren**

*Selbstverständlichkeiten erfragen*

**Angstfreie** Kommunikation

*Schnell viel Code ist **nicht das Ziel!***

**Entspannen** an der Tastatur

**Einfache, kleine Schritte** anstreben

*Komplexität kommt früh genug*

# Mob Programming

"It's about getting the **BEST** (not the **most**) from your team."

– Llewellyn Falco

"**All the brilliant minds** working on the same thing,  
at the same time, in the same space, and at the same computer."

– Woody Zuill

"Continuous Integration of Ideas"

– Joshua Kerievsky