

# 4 Managing Projects

## - How to Manage Projects Successfully?

### Content:

1. Motivation & Basics
2. Agile vs Traditional Project Management
3. Agile with KANBAN
4. Agile with SCRUM
5. Agile Culture at Spotify
6. Summary

# McKinsey Workshop: Agile Lego City @ FAU

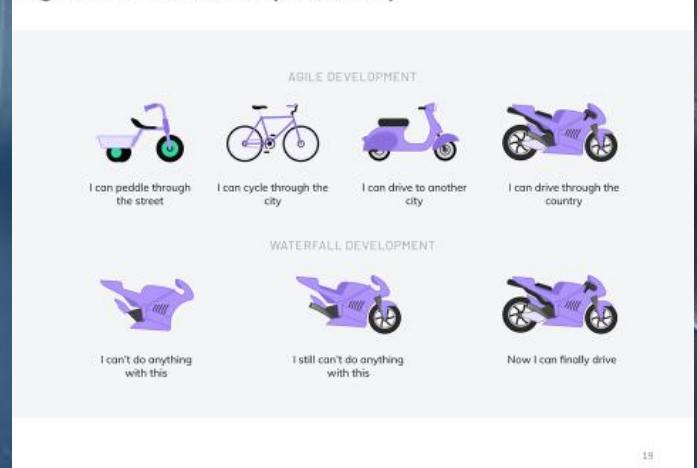


# 4 Managing Projects

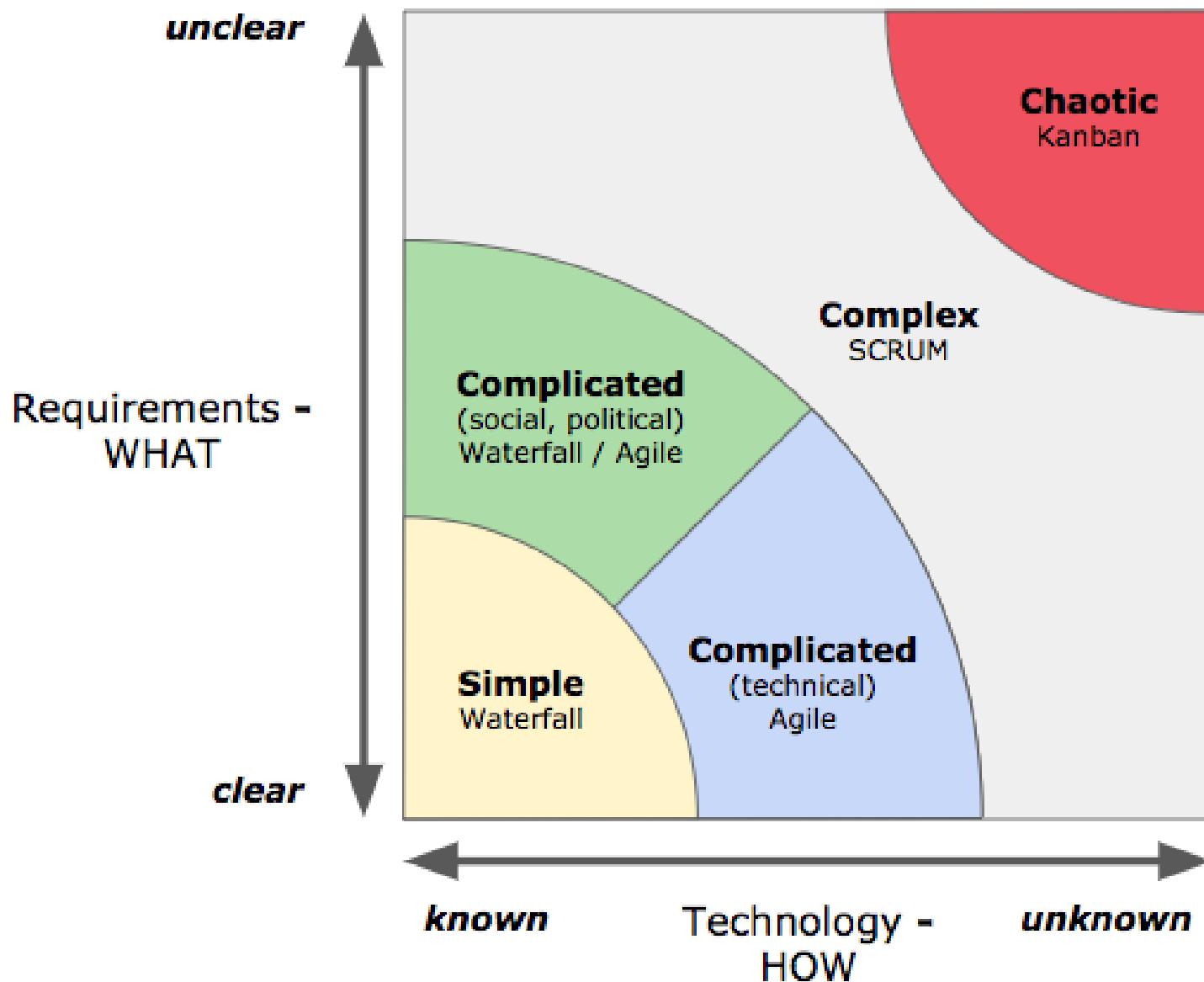
- How to Manage Projects Successfully?  
(2) Agile vs Traditional Project Management



## Agile vs Traditional (Waterfall)



# When to use Waterfall, Agile, Scrum or Kanban?



# 4 Managing Projects

- How to Manage Projects Successfully?  
(3) Agile Project Management with **KANBAN**



Personal KANBAN Board - Example

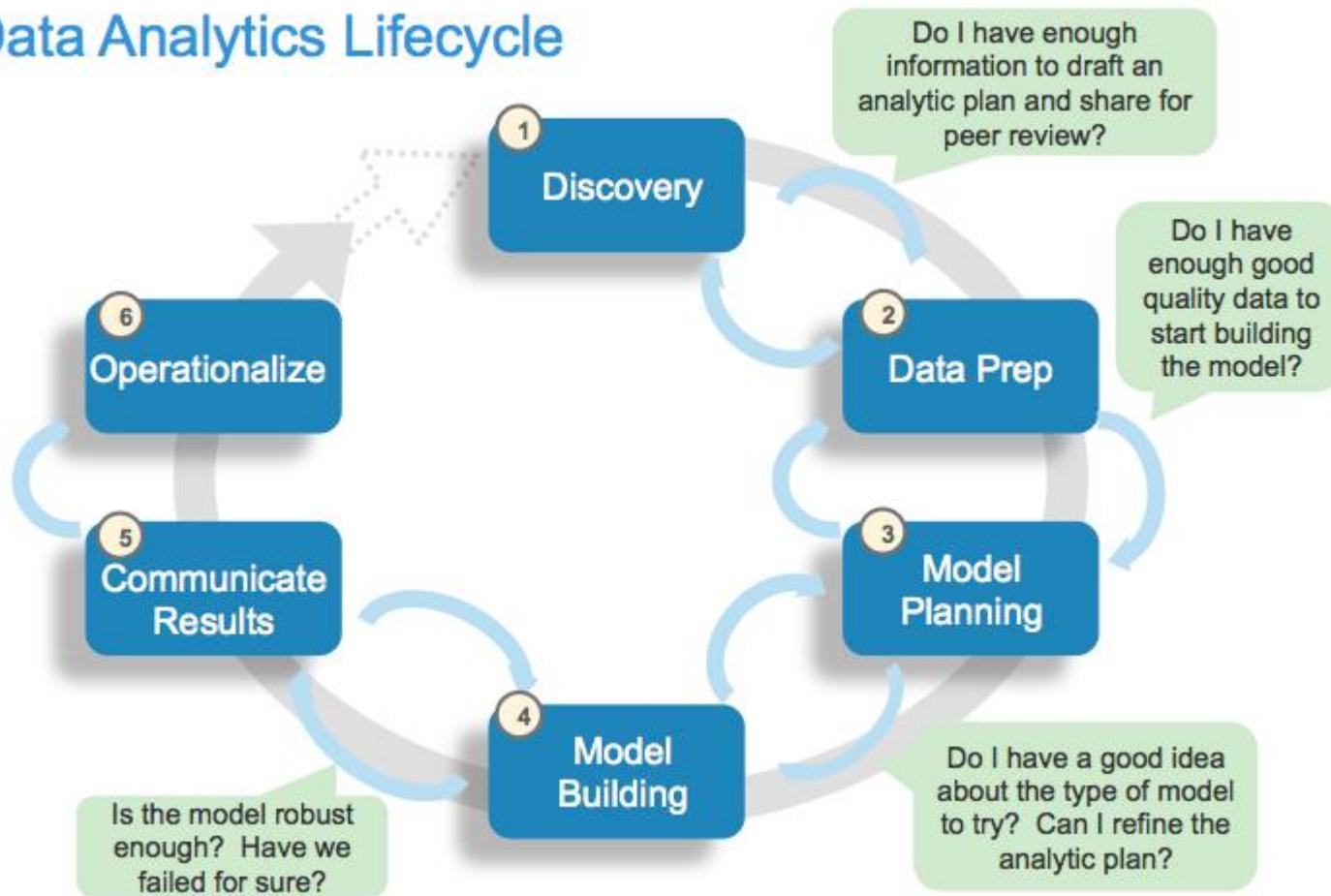


Team KANBAN Board - Example

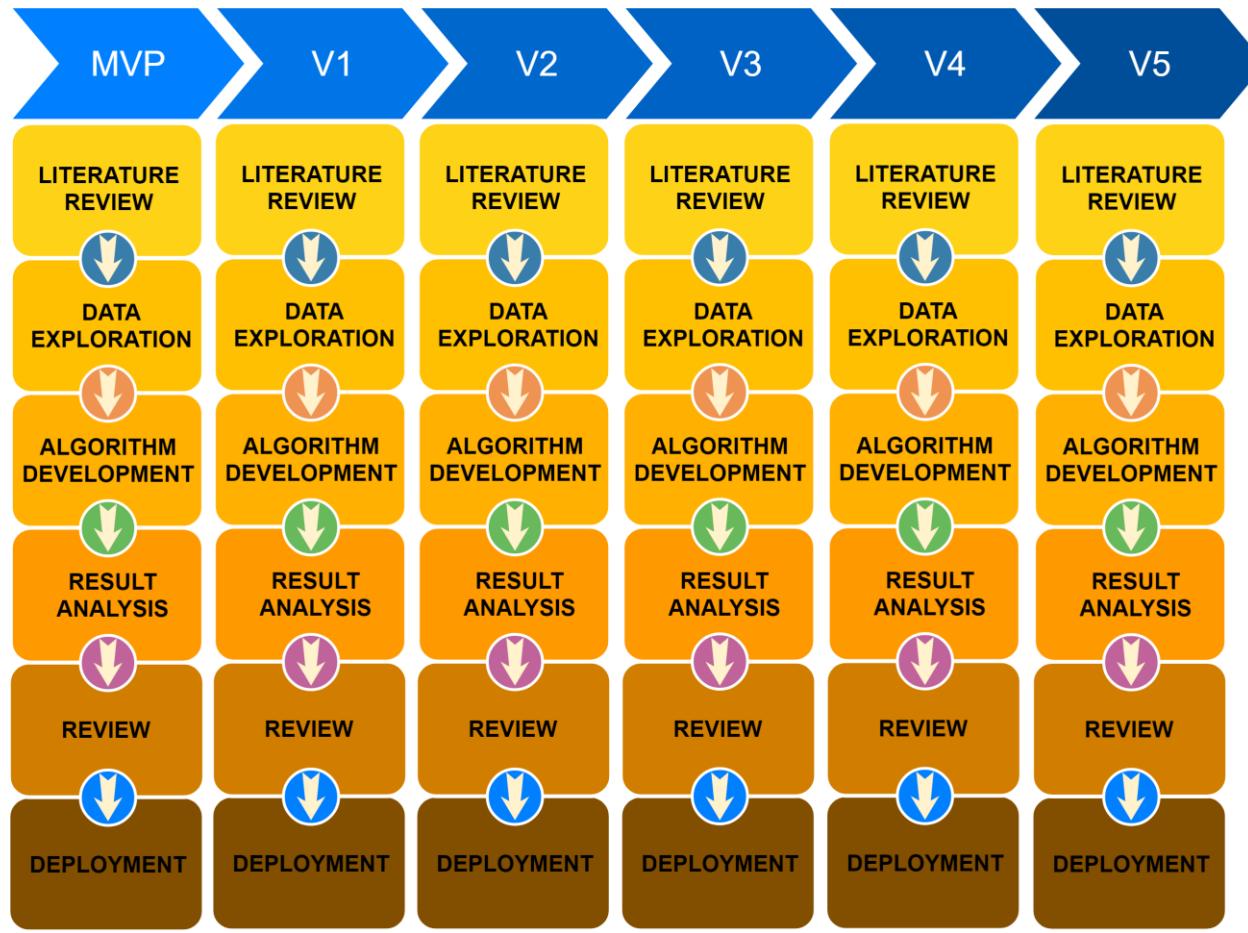


# Agile Data Science: Applying Kanban in the Analytics Life Cycle

## Data Analytics Lifecycle

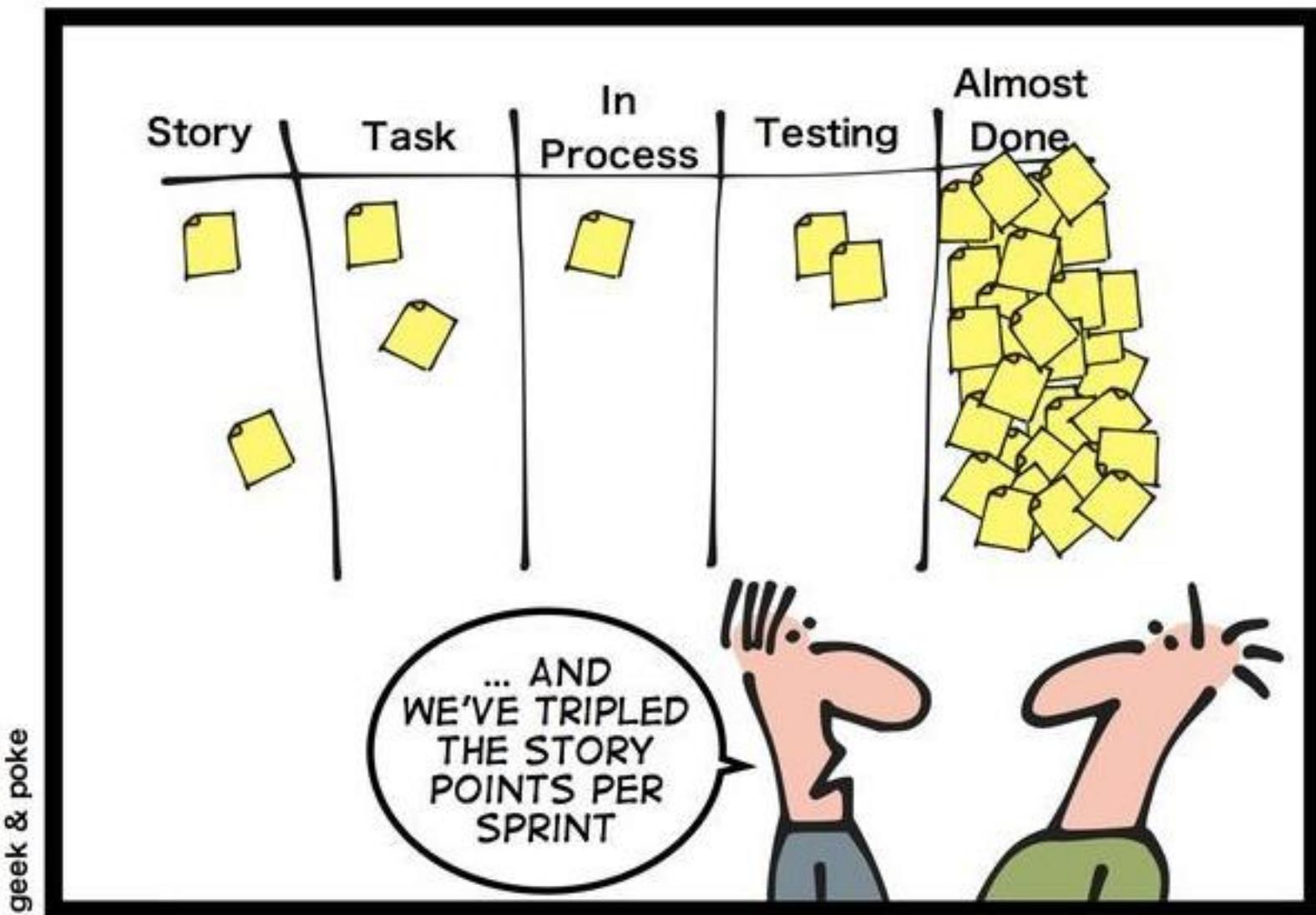


# Agile Data Science: Applying Kanban in the Analytics Life Cycle



Tari

# A Problem in Agile Project Management



DOAD

# 4 Managing Projects

- How to Manage Projects Successfully?  
(4) Agile Project Management with **SCRUM**



there are three artifacts or documents

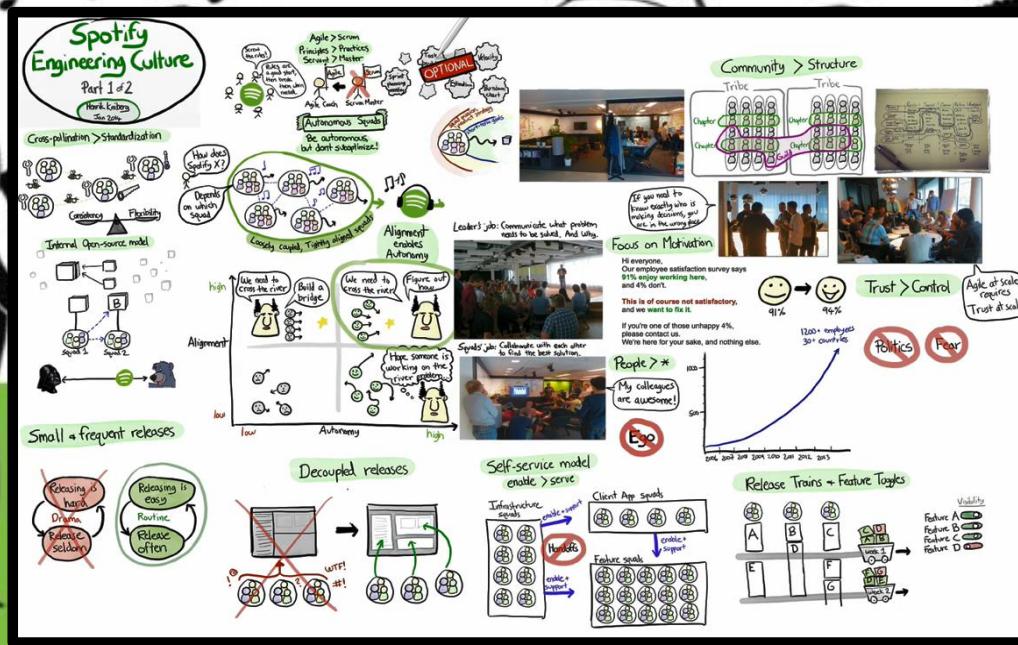


there are three ceremonies that make up

# 4 Managing Projects

- How to Manage Projects Successfully?  
(5) Agile Culture at Spotify

## Agile at Spotify

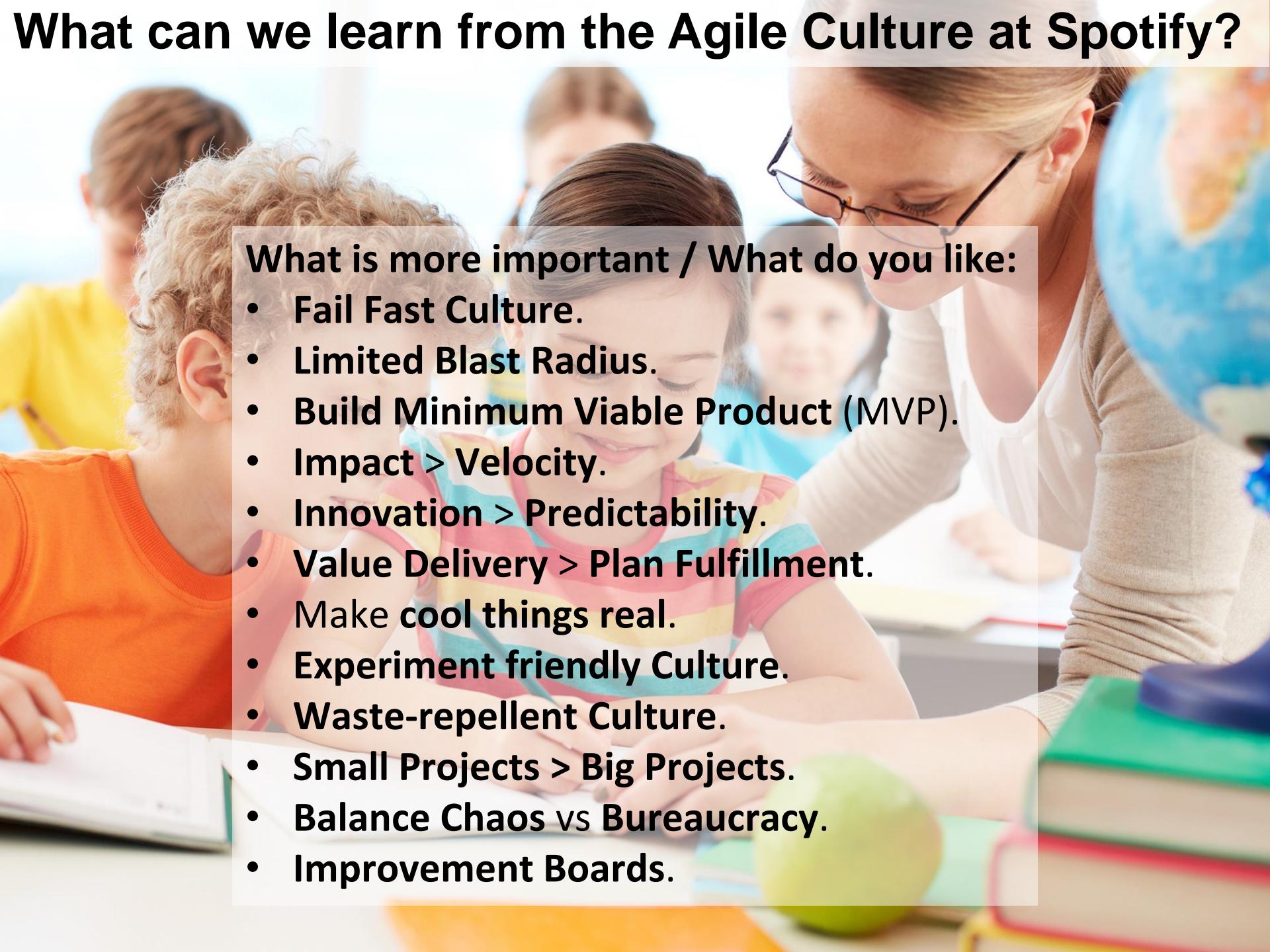


# What can we learn from the Agile Culture at Spotify?

**What is more important / What do you like:**

- Agile > Scrum.
- Principles > Practices.
- Autonomous Squad > Scrum Team.
- High Autonomy, High Alignment.
- Standardization < Cross-Polination.
- Motivation > Leadership
- Community > Structure.
- Squads, Tribes, Chapters (Roles), Guilds (Interests).
- Frequent Releases in Release Trains.
- Self Service: Enable > Serve.
- Trust > Control.

# What can we learn from the Agile Culture at Spotify?



**What is more important / What do you like:**

- Fail Fast Culture.
- Limited Blast Radius.
- Build Minimum Viable Product (MVP).
- Impact > Velocity.
- Innovation > Predictability.
- Value Delivery > Plan Fulfillment.
- Make cool things real.
- Experiment friendly Culture.
- Waste-repellent Culture.
- Small Projects > Big Projects.
- Balance Chaos vs Bureaucracy.
- Improvement Boards.

# 4 Managing Projects

- How to Manage Projects Successfully?  
**(6) Summary**

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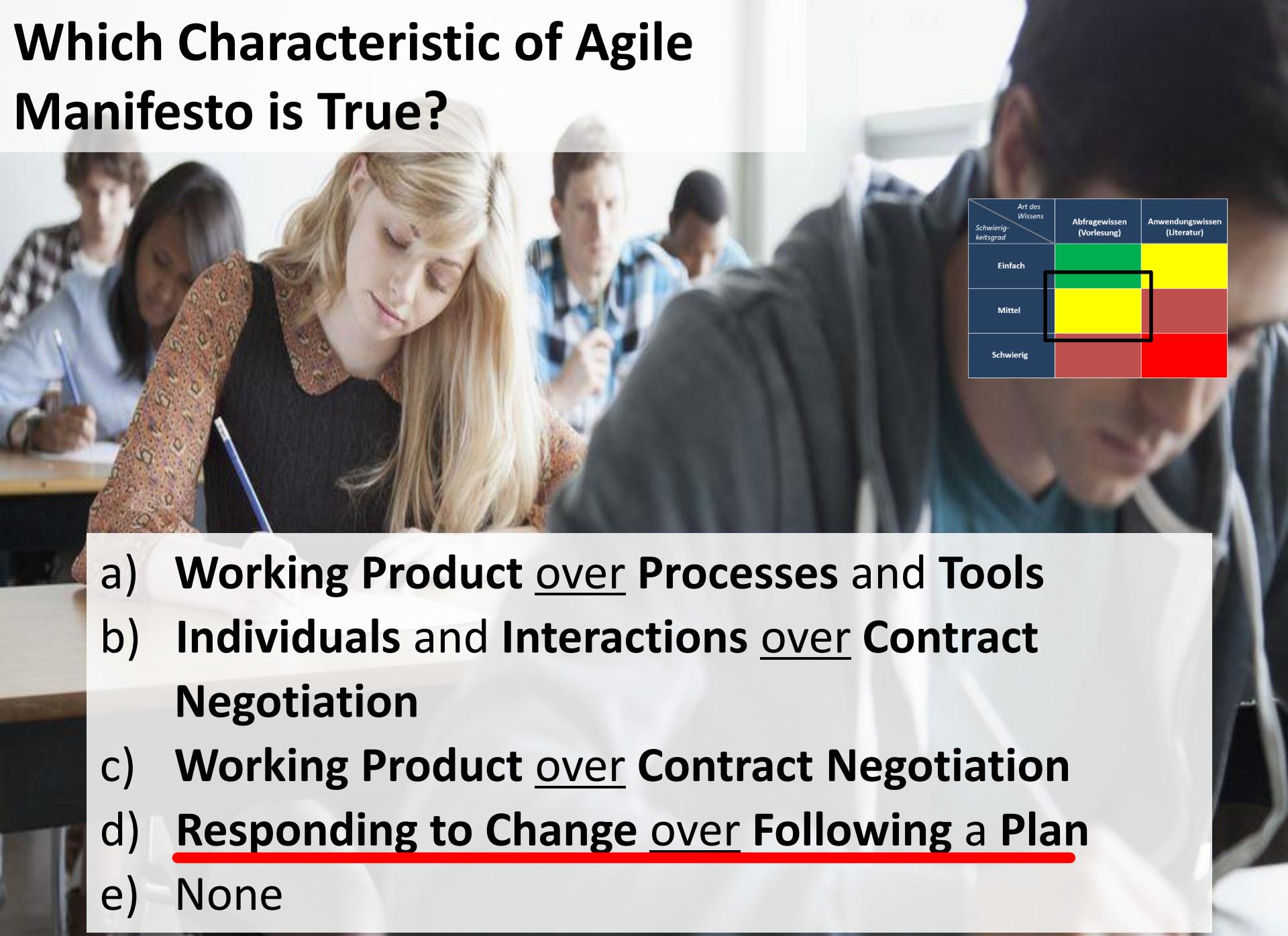
- 
- Zentrale **Grundlagen** des Projektmanagements.
  - **Gemeinsamkeiten** und **Unterschiede** von **Agiles** vs **Traditionelles** Projektmanagement.
  - **Agiles** Projektmanagement mit **KANBAN** und **SCRUM**.
  - Wie Sie **studentische Projekte** besser planen können.

# Was trifft Nicht auf Agiles PM zu?

Art des Wissens	Abfragewissen (Vorlesung)	Anwendungswissen (Literatur)
Schwierigkeitsgrad		
Einfach	Green	Yellow
Mittel	Yellow	Red
Schwierig	Red	Red

- a) **Projektmanager legt Prozesse fest und wählt Methoden aus**
- b) Team muss **selbstorganisiert** sein
- c) Vorgaben müssen **konsequent angewendet** und **umgesetzt** werden
- d) Rahmenwerk mit **wenigen Vorgaben**
- e) Product Owner verantwortet Inhalte, Scrum Master die Organisation

# Which Characteristic of Agile Manifesto is True?



Schwierigkeitsgrad	Art des Wissens	Abfragewissen (Vorlesung)	Anwendungswissen (Literatur)
Einfach		Green	Yellow
Mittel		Yellow	Red
Schwierig		Red	Red

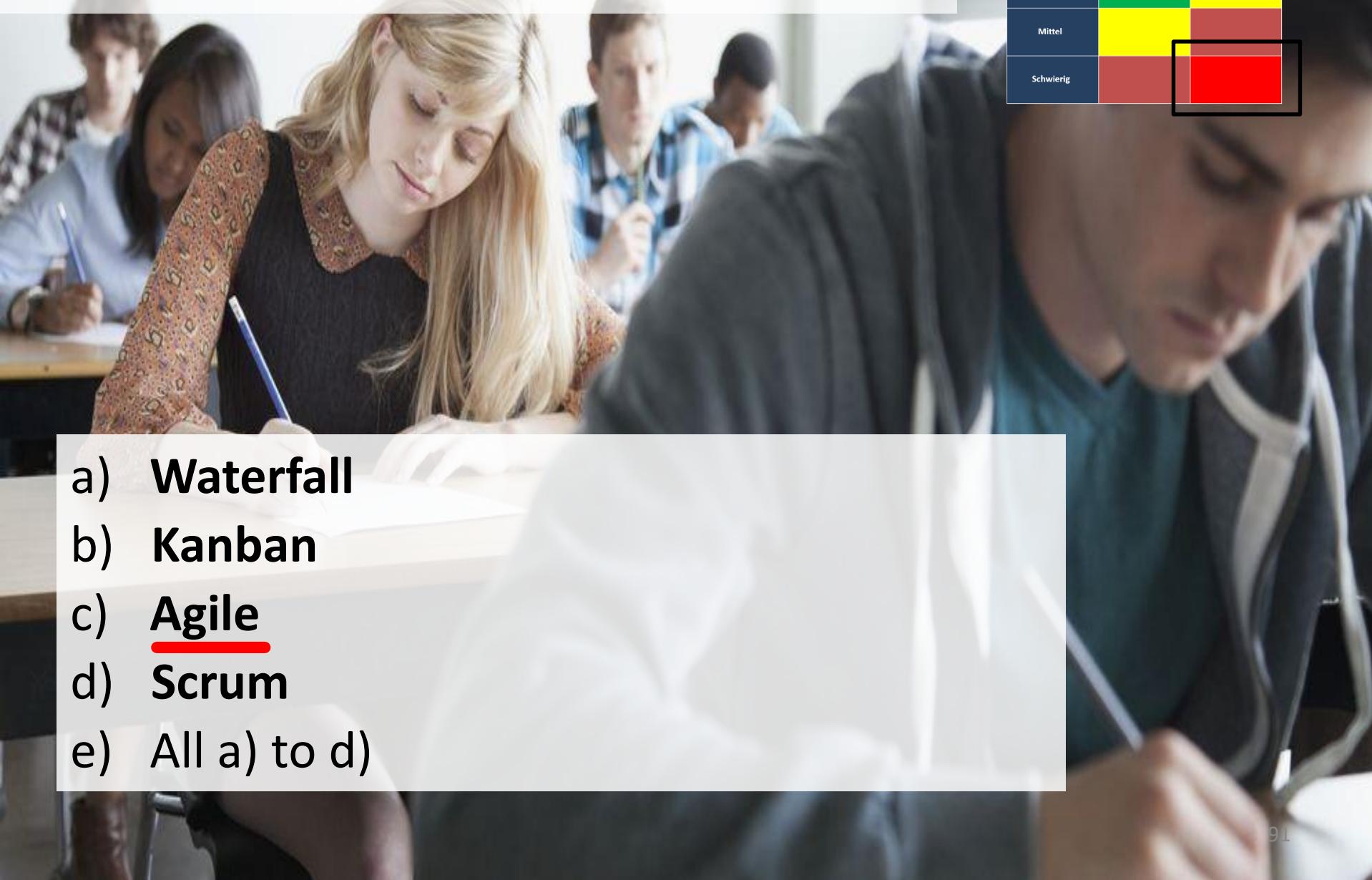
- a) Working Product over Processes and Tools
- b) Individuals and Interactions over Contract Negotiation
- c) Working Product over Contract Negotiation
- d) Responding to Change over Following a Plan
- e) None

# Which Principle does Not belong to the Agile Manifesto?

Schwierigkeitsgrad	Art des Wissens	Ablfragewissen (Vorlesung)	Anwendungswissen (Literatur)
Einfach			
Mittel			
Schwierig			

- a) **Business people and customers must work together daily throughout the project**
- b) Deliver working software frequently
- c) Working software is the primary measure of progress.
- d) Welcome changing requirements
- e) None

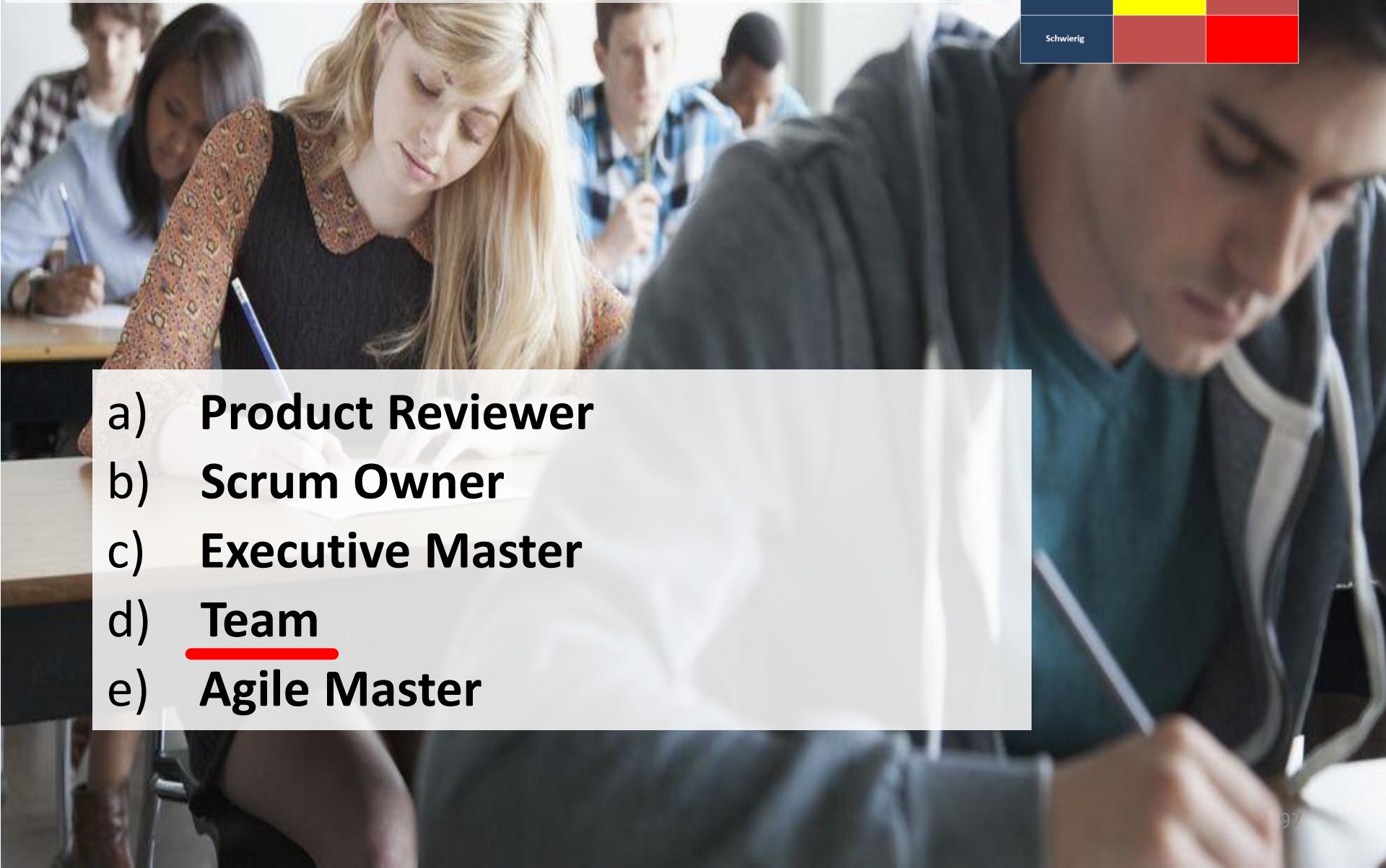
# Which Method should we use when there is a Complicated Technology?



Schwierigkeitsgrad	Art des Wissens	Ablfragewissen (Vorlesung)	Anwendungswissen (Literatur)
Einfach		Green	Yellow
Mittel		Yellow	Red
Schwierig		Red	Red

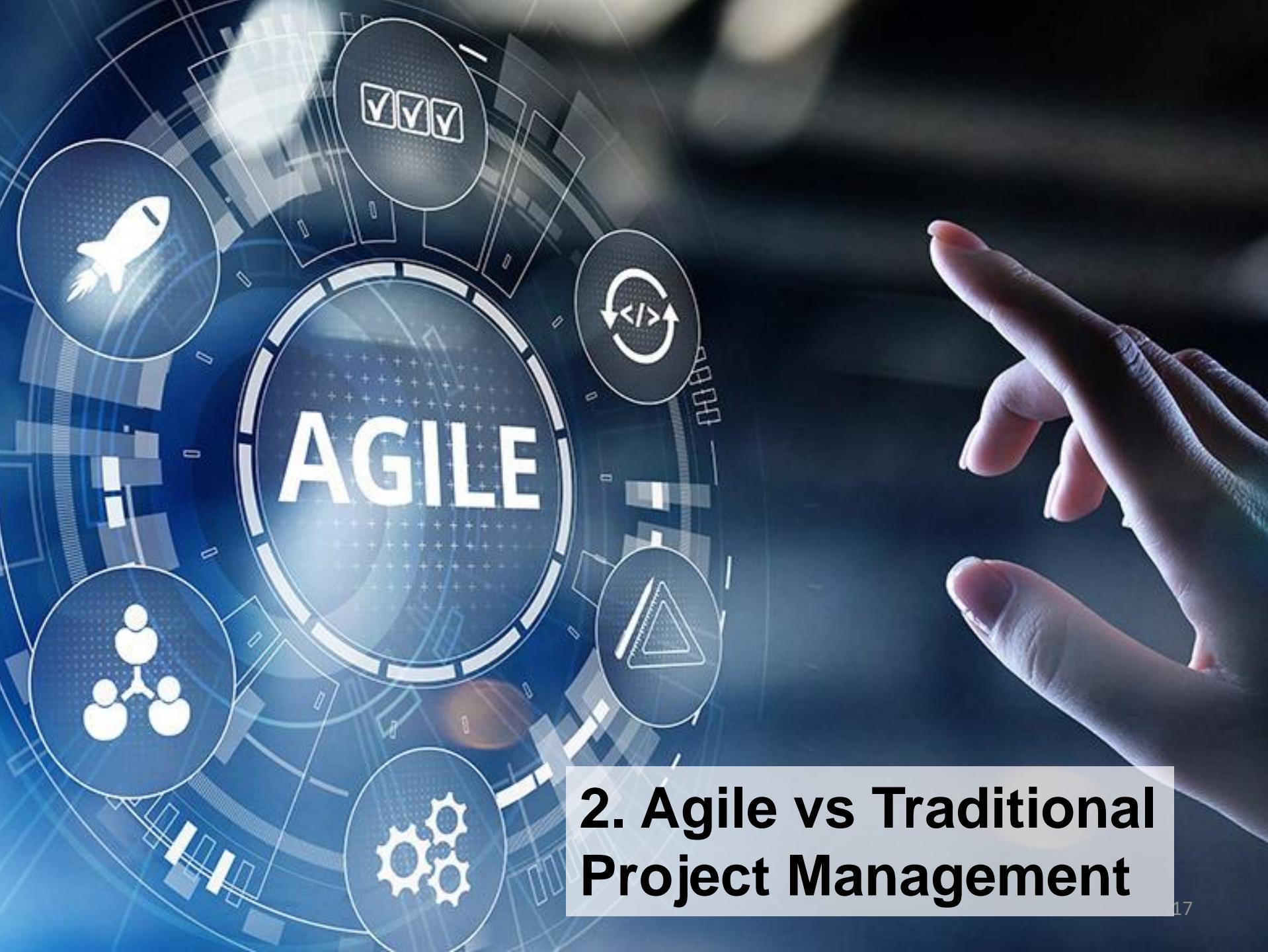
- a) Waterfall
- b) Kanban
- c) Agile
- d) Scrum
- e) All a) to d)

# Select a Role which belongs to the Scrum Model?



Schwierigkeitsgrad	Art des Wissens	Abfragewissen (Fachwissen)	Anwendungswissen (Literatur)
Einfach	Green	Yellow	Red
Mittel	Yellow	Yellow	Red
Schwierig	Red	Red	Red

- a) Product Reviewer
- b) Scrum Owner
- c) Executive Master
- d) Team
- e) Agile Master



## 2. Agile vs Traditional Project Management

# Whats the Difference between Agile & Traditional?



# Agile vs Traditional (Waterfall)

AGILE DEVELOPMENT



I can peddle through  
the street



I can cycle through the  
city



I can drive to another  
city

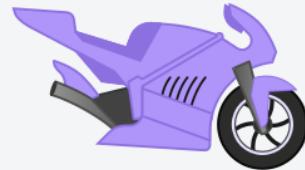


I can drive through the  
country

WATERFALL DEVELOPMENT



I can't do anything  
with this

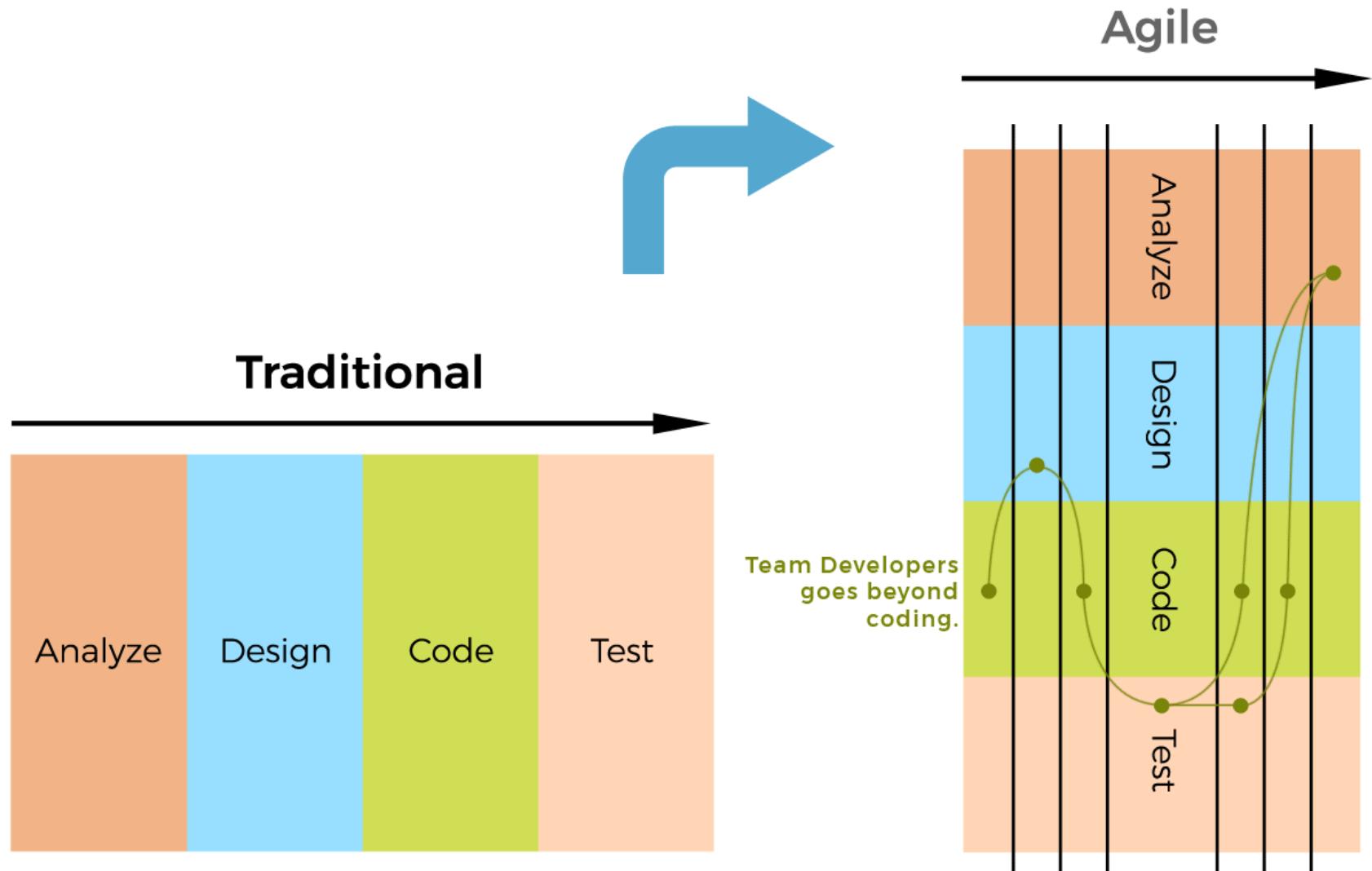


I still can't do anything  
with this



Now I can finally drive

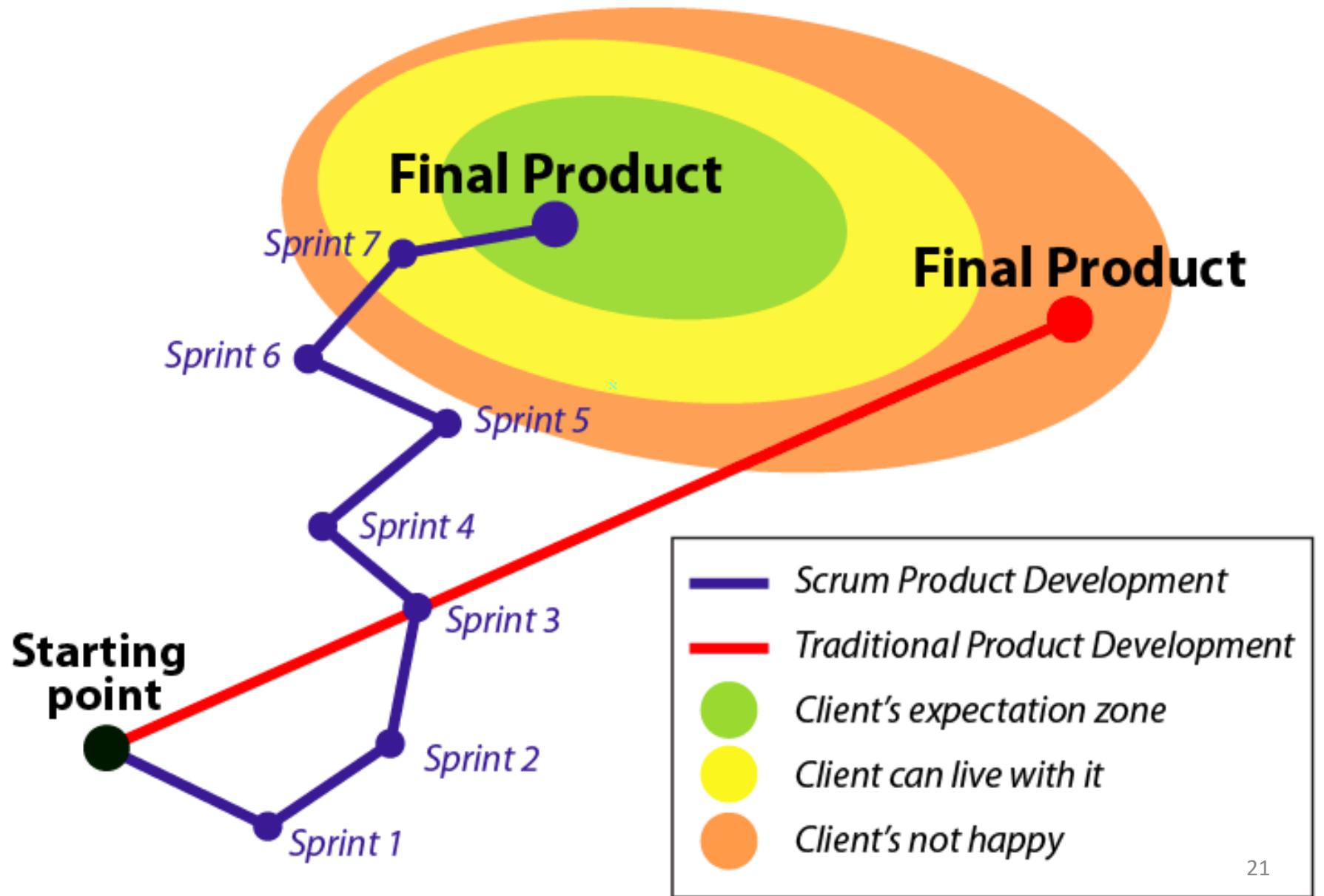
# Agile vs Traditional Project Management



Once a stage is finished, the next stage begins.

Teams reiterate between vertical lines.

# Agile (SCRUM) vs Traditional Product Development



# The Standish Group, CHAOS Report

## PROJECT SUCCESS RATES AGILE VS WATERFALL



WWW.VITALITYCHICAGO.COM

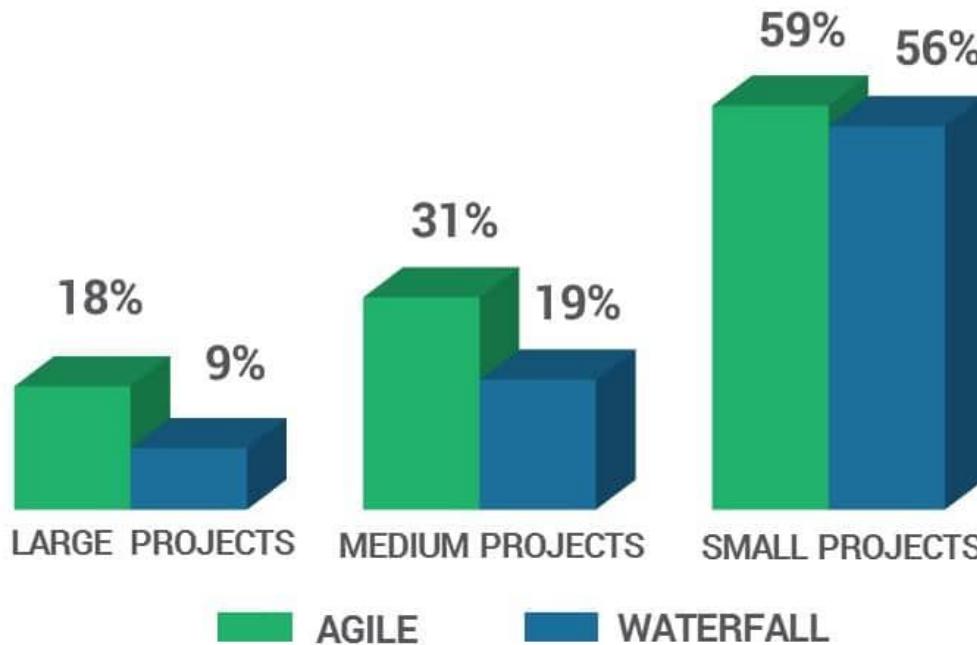
Agile Project Success Rates are 2X Higher than Traditional Projects (2019)

[vitalitychicago.com/blog/agile-projects-are-more-successful-traditional-projects](https://vitalitychicago.com/blog/agile-projects-are-more-successful-traditional-projects)

# The Standish Group, CHAOS Report

## PROJECT SUCCESS RATES BY PROJECT SIZE **AGILE VS WATERFALL**

FOR LARGE PROJECTS, AGILE APPROACHES ARE 2X MORE LIKELY TO SUCCEED



Source: Standish Group, Chaos Studies 2013-2017

WWW.VITALITYCHICAGO.COM

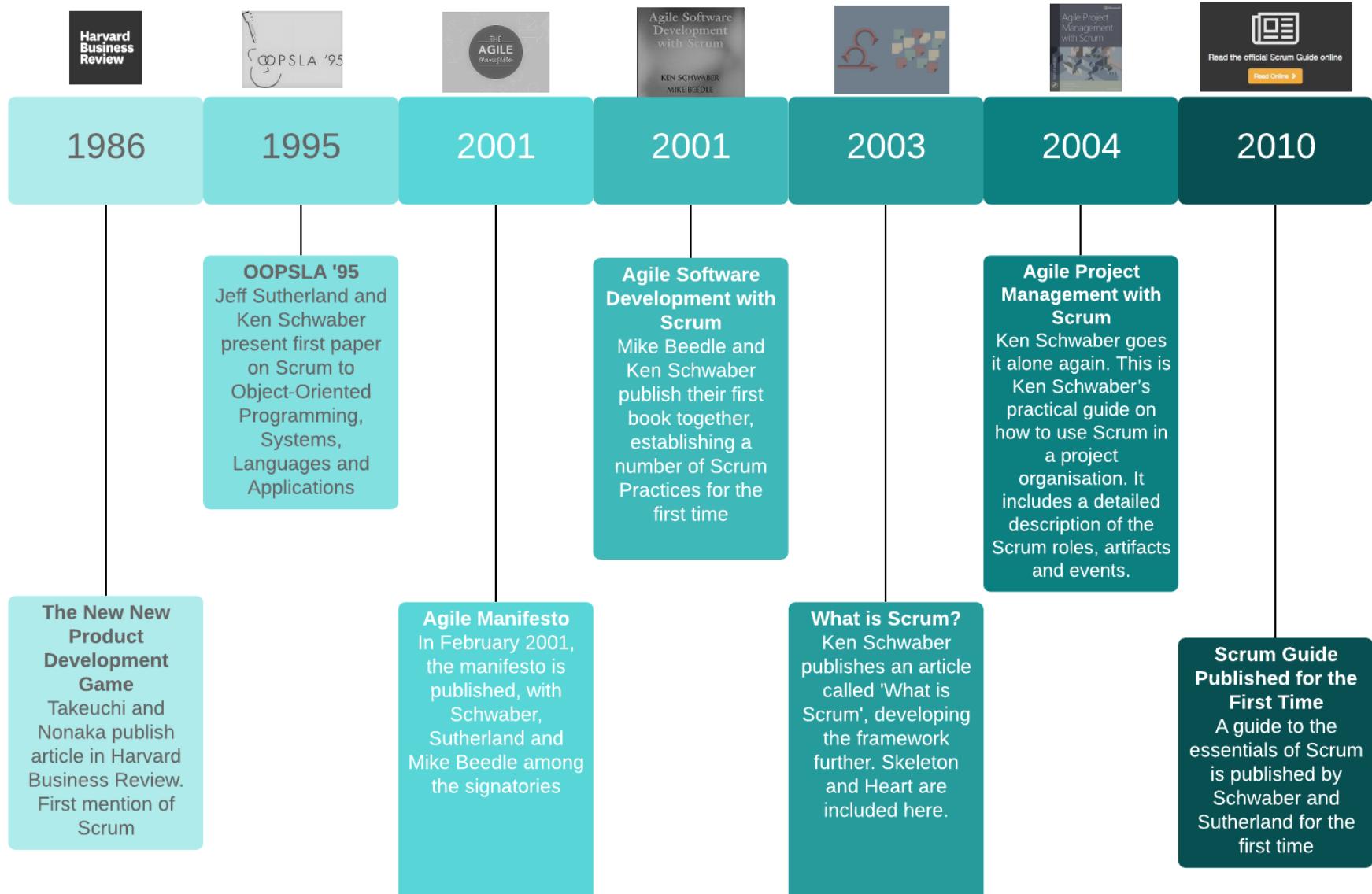
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# Scrum & Agile Software Development: A History

## Schwaber and Sutherland's Scrum Timeline

Paddy Corry, Serious Scrum



**Das Manifest für Agile (Software)Entwicklung, 2001**  
beschreibt die **wesentlichen Eigenschaften** des  
**agilen Projektmanagements**

# The Agile Manifesto

<b>Individuals and interactions</b>	over	Processes and Tools
<b>Working Product</b>	over	Comprehensive Documentation
<b>Customer Collaboration</b>	over	Contract Negotiation
<b>Responding to change</b>	over	Following a plan

*That is, while there is value in the items on the right, we value the items on the left more.*

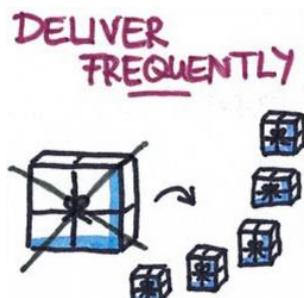
# 12 Prinzipien hinter dem Agilen Manifest 2001 (1/4)



- Our highest **priority** is to **satisfy the customer** through **early and continuous delivery** of **valuable software**.



- Welcome **changing requirements**, even **late in development**. Agile processes harness **change** for the **customer's competitive advantage**.



- Deliver **working software frequently**, from a couple of **weeks** to a couple of **months**, with a preference to the **shorter timescale**.

# 12 Prinzipien hinter dem Agilen Manifest 2001 (2/4)

WORK  
TOGETHER



- Business people and developers must **work together daily throughout the project**.

TRUST &  
SUPPORT



- Build **projects** around **motivated individuals**. Give them the **environment** and **support** they need, and **trust** them to get the **job** done.

FACE-TO-FACE  
CONVERSATION



- The **most efficient** and **effective** method of conveying **information** to and within a **development team** is **face-to-face conversation**.

# 12 Prinzipien hinter dem Agilen Manifest 2001 (3/4)



- **Working software** is the **primary measure of progress**.



- Agile processes promote **sustainable development**. The **sponsors**, **developers**, and **users** should be able to **maintain a constant pace indefinitely**.



- **Continuous attention to technical excellence and good design enhances agility**.

# 12 Prinzipien hinter dem Agilen Manifest 2001 (4/4)

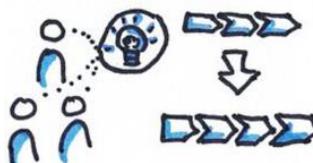
KEEP IT SIMPLE

$$\frac{[(27/3)/3]}{1+1} - 1 =$$

SELFORGANIZING TEAMS



REFLECT & ADJUST

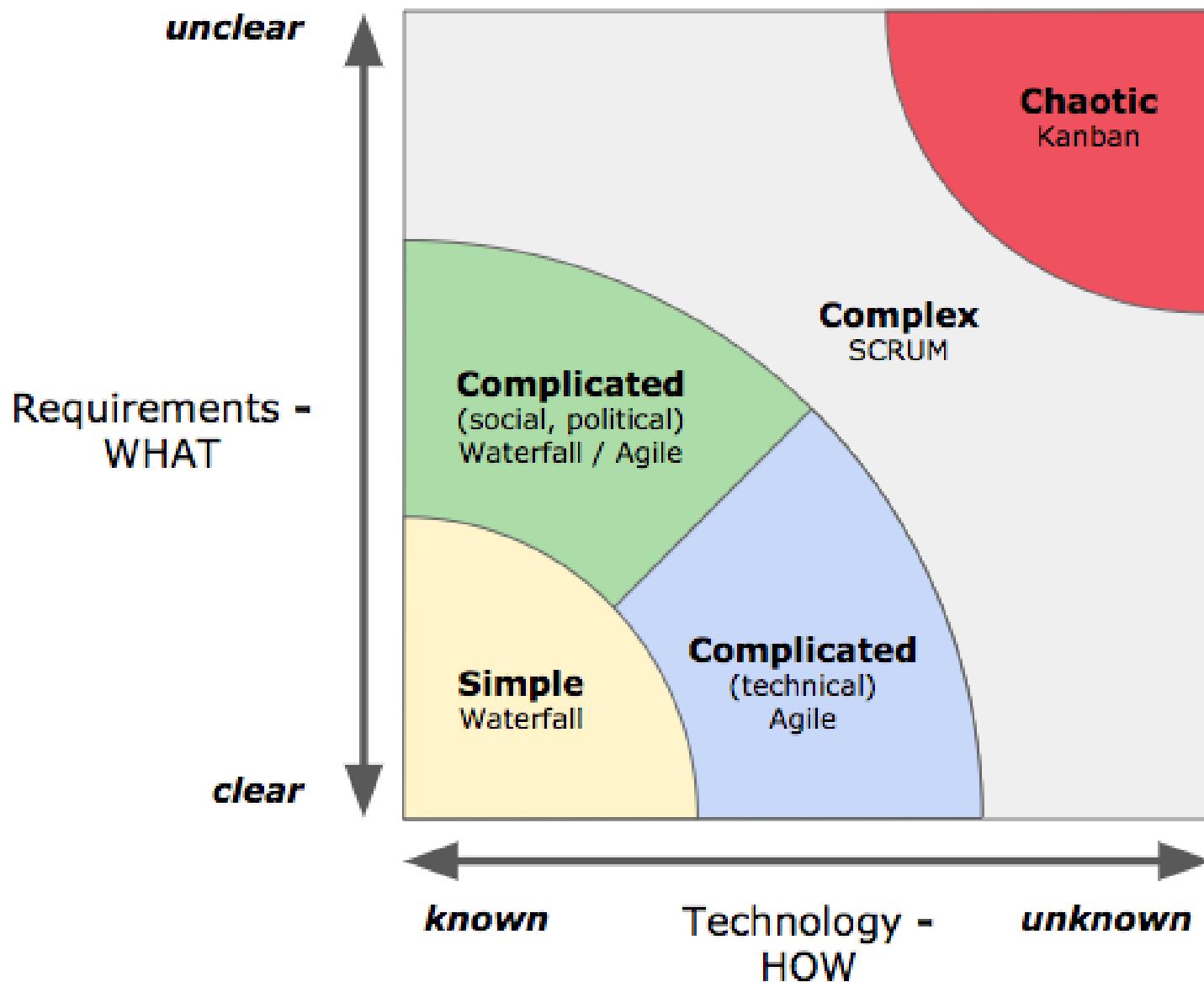


- **Simplicity**--the art of **maximizing the amount of work not done**--is **essential**.
- The **best architectures, requirements, and designs** emerge from **self-organizing teams**.
- At **regular intervals**, the **team reflects** on how to become **more effective**, then tunes and **adjusts** its behavior accordingly.

# Companies Need Teams With An Agile Mindset

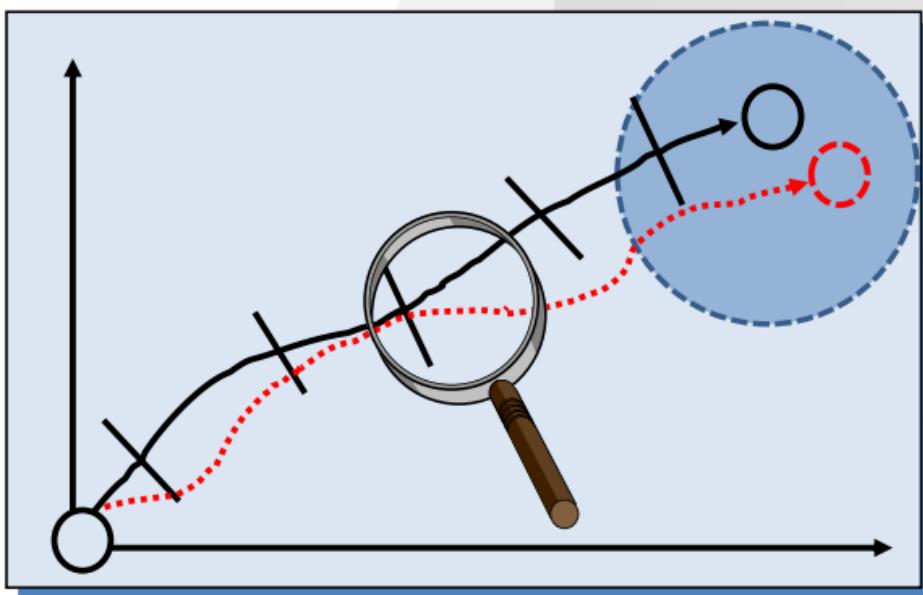


# When to use Waterfall, Agile, Scrum or Kanban?

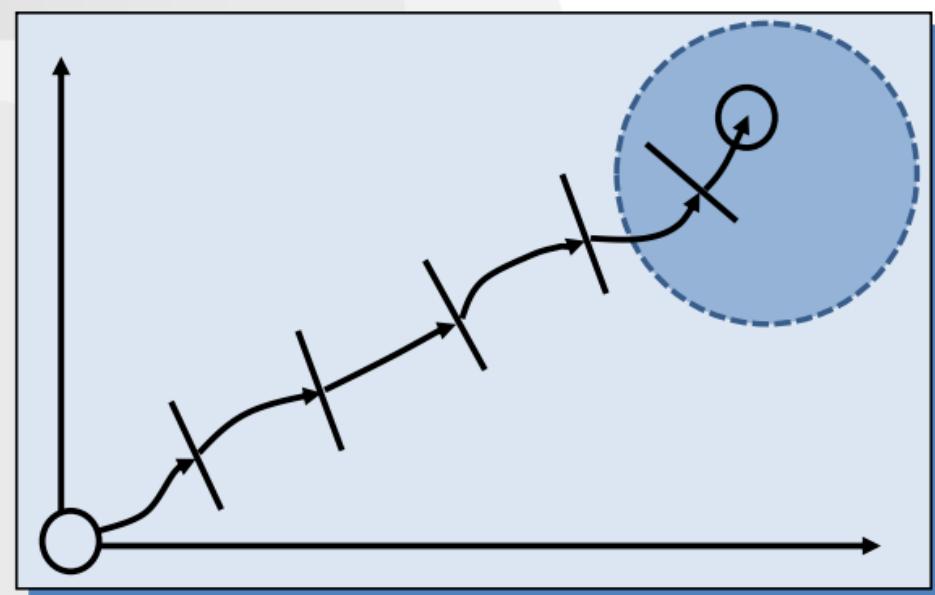


# Klassisches und agiles Projektmanagement (PM) haben unterschiedliche Ansätze mit Stärken und Schwächen

Klassisches PM



Agiles PM



**Man verirrt sich nie so leicht,  
als wenn man glaubt den Weg zu kennen.**  
(Chinesisches Sprichwort)

**Wir wissen zwar nicht wo wir hinwollen,  
aber wir werden uns trotzdem beeilen.**  
(Quelle unbekannt)



### 3. Agile Project Management with KANBAN

# **Michael Amberg**

## **Todays Content:**

- 1. Motivation & Basics**
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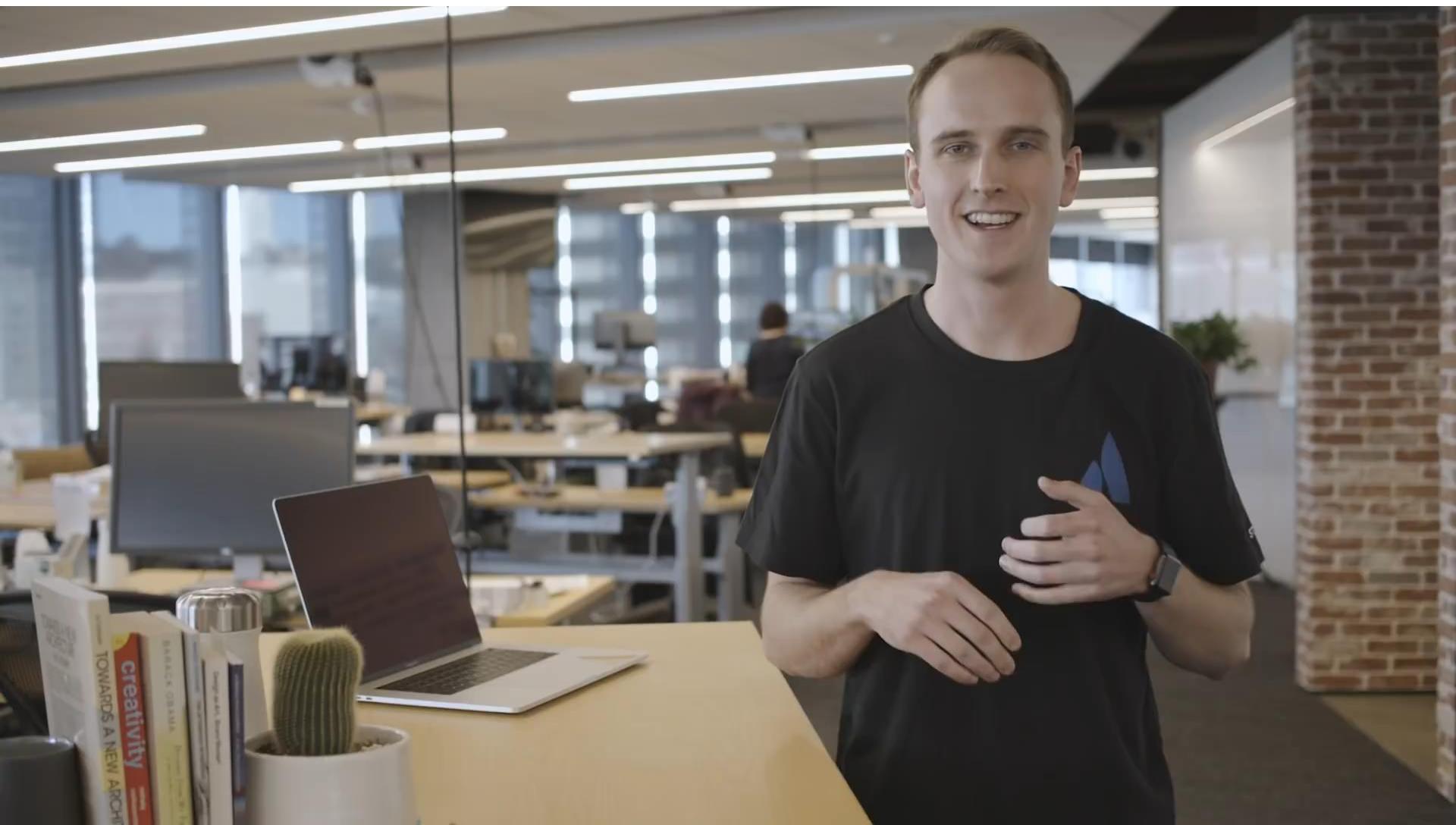


# KANBAN – Visualize Your Work



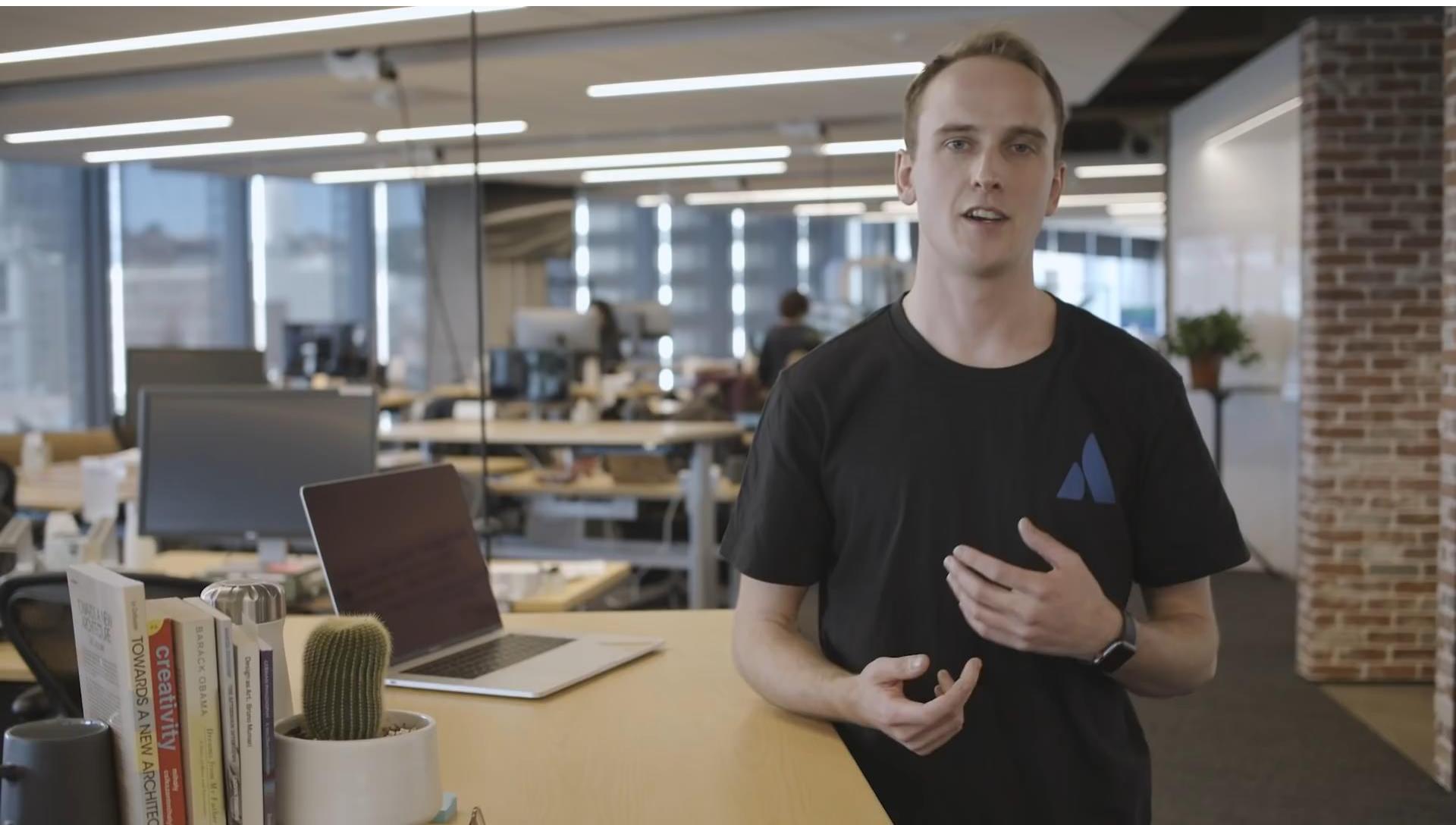
What is Kanban? - Agile Coach (2019)  
[www.youtube.com/watch?v=iVaFVa7HYj4](https://www.youtube.com/watch?v=iVaFVa7HYj4)

# KANBAN Board – A Project Management Tool



What is a Kanban Board? - Agile Coach (2019)  
[www.youtube.com/watch?v=Bcid33tgq8A](https://www.youtube.com/watch?v=Bcid33tgq8A)

# KANBAN – Work In Progress Limit (WIP-Limit)



Kanban WIP limits - Agile Coach (2019)  
[www.youtube.com/watch?v=zEJn6eQO6FE](https://www.youtube.com/watch?v=zEJn6eQO6FE)



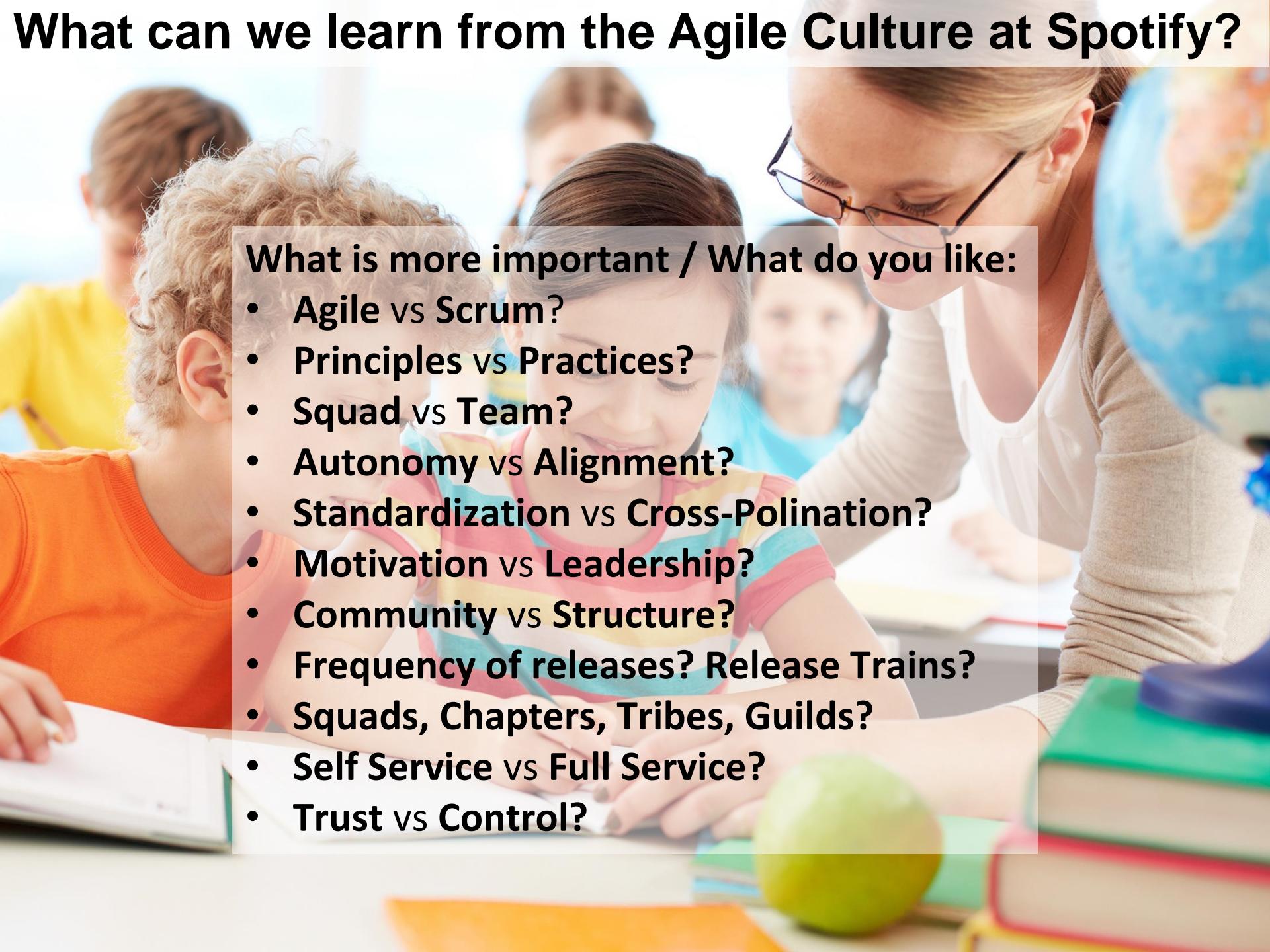
## 4. Agile Project Management with SCRUM

# Agile at Spotify



**5. Agile Culture  
at Spotify**

# What can we learn from the Agile Culture at Spotify?



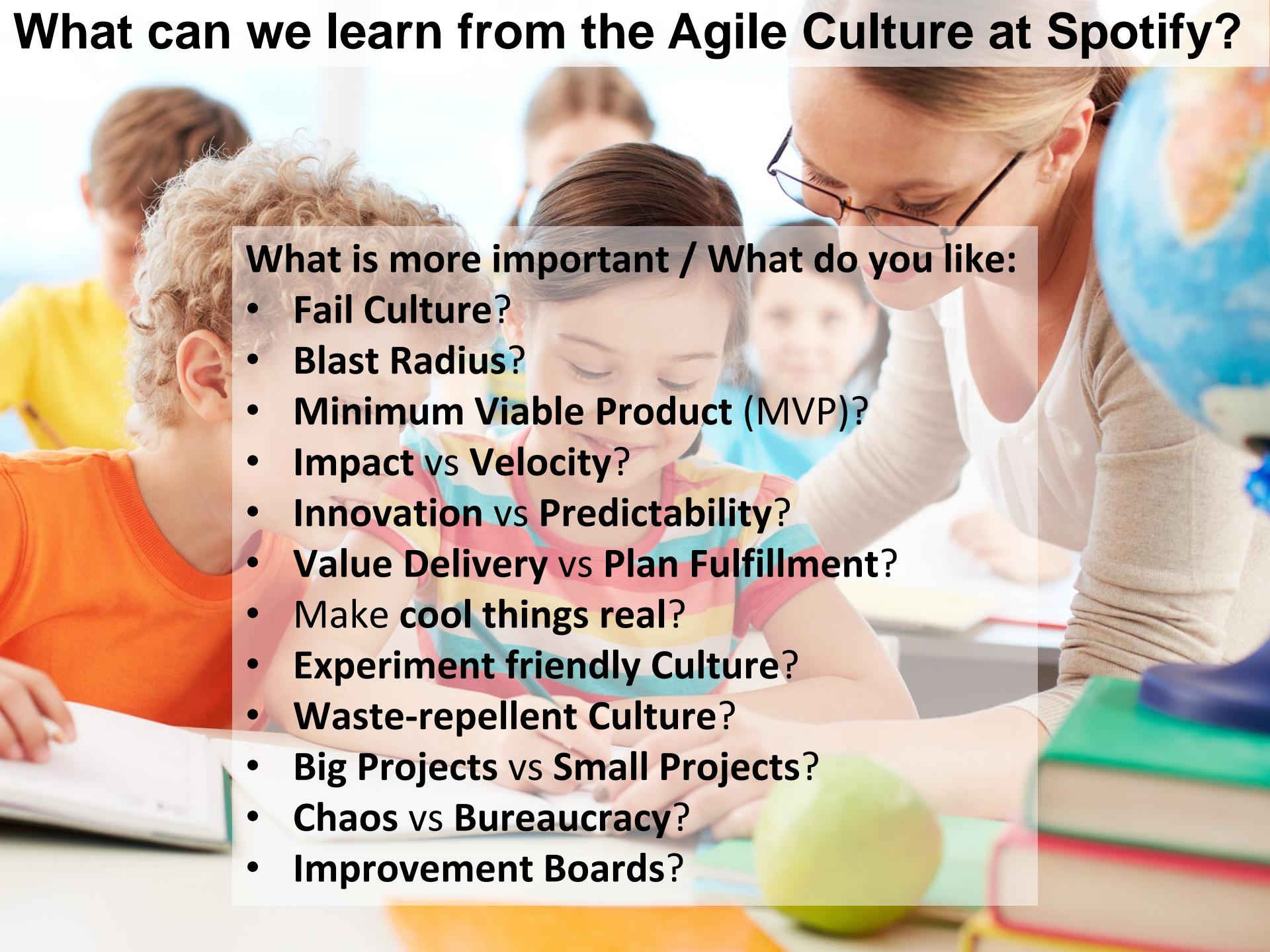
**What is more important / What do you like:**

- Agile vs Scrum?
- Principles vs Practices?
- Squad vs Team?
- Autonomy vs Alignment?
- Standardization vs Cross-Polination?
- Motivation vs Leadership?
- Community vs Structure?
- Frequency of releases? Release Trains?
- Squads, Chapters, Tribes, Guilds?
- Self Service vs Full Service?
- Trust vs Control?

# Agile Culture at Spotify - Part 1



# What can we learn from the Agile Culture at Spotify?



**What is more important / What do you like:**

- Fail Culture?
- Blast Radius?
- Minimum Viable Product (MVP)?
- Impact vs Velocity?
- Innovation vs Predictability?
- Value Delivery vs Plan Fulfillment?
- Make cool things real?
- Experiment friendly Culture?
- Waste-repellent Culture?
- Big Projects vs Small Projects?
- Chaos vs Bureaucracy?
- Improvement Boards?

# Agile Culture at Spotify - Part 2

