

# 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

# 4 Managing Projects

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



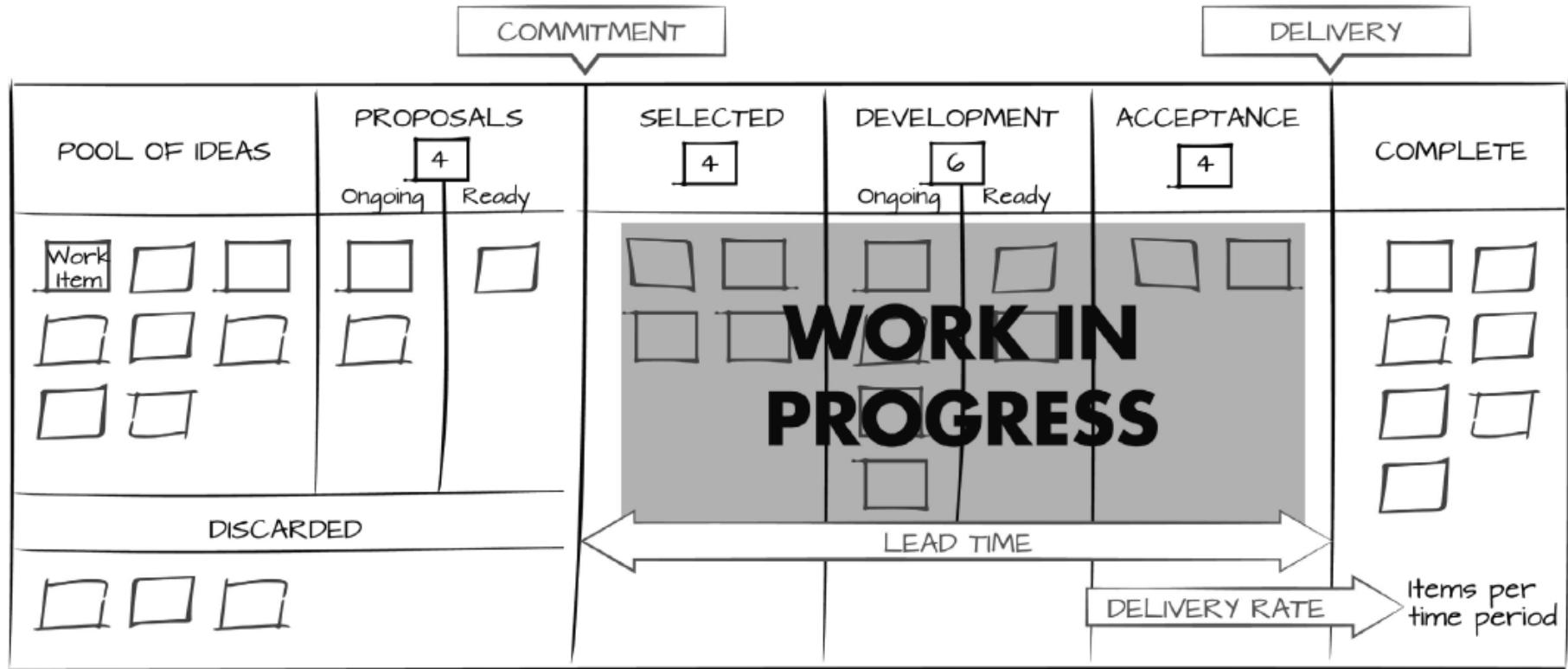
Personal KANBAN Board - Example



Team KANBAN Board - Example



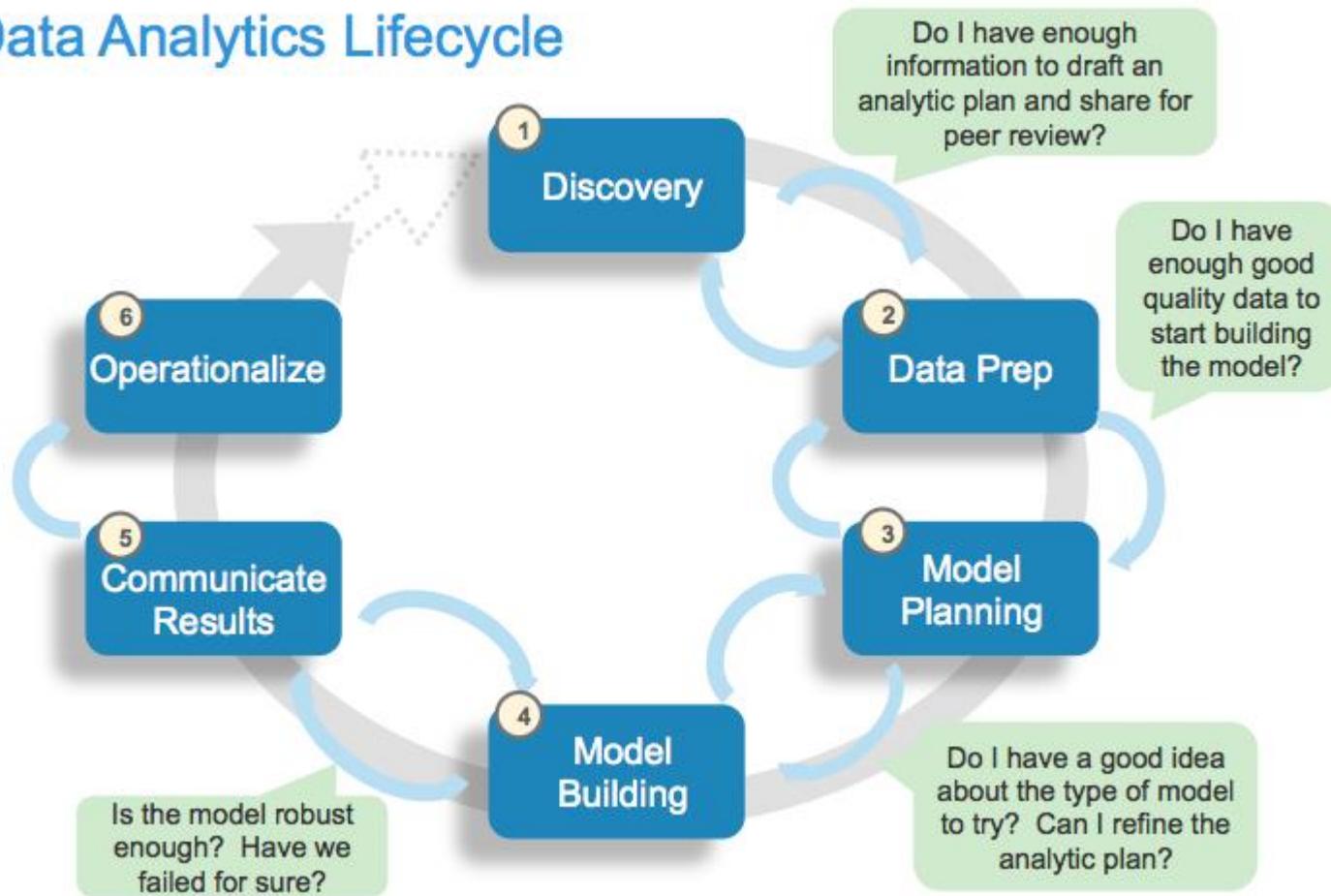
# Overview of KANBAN Board



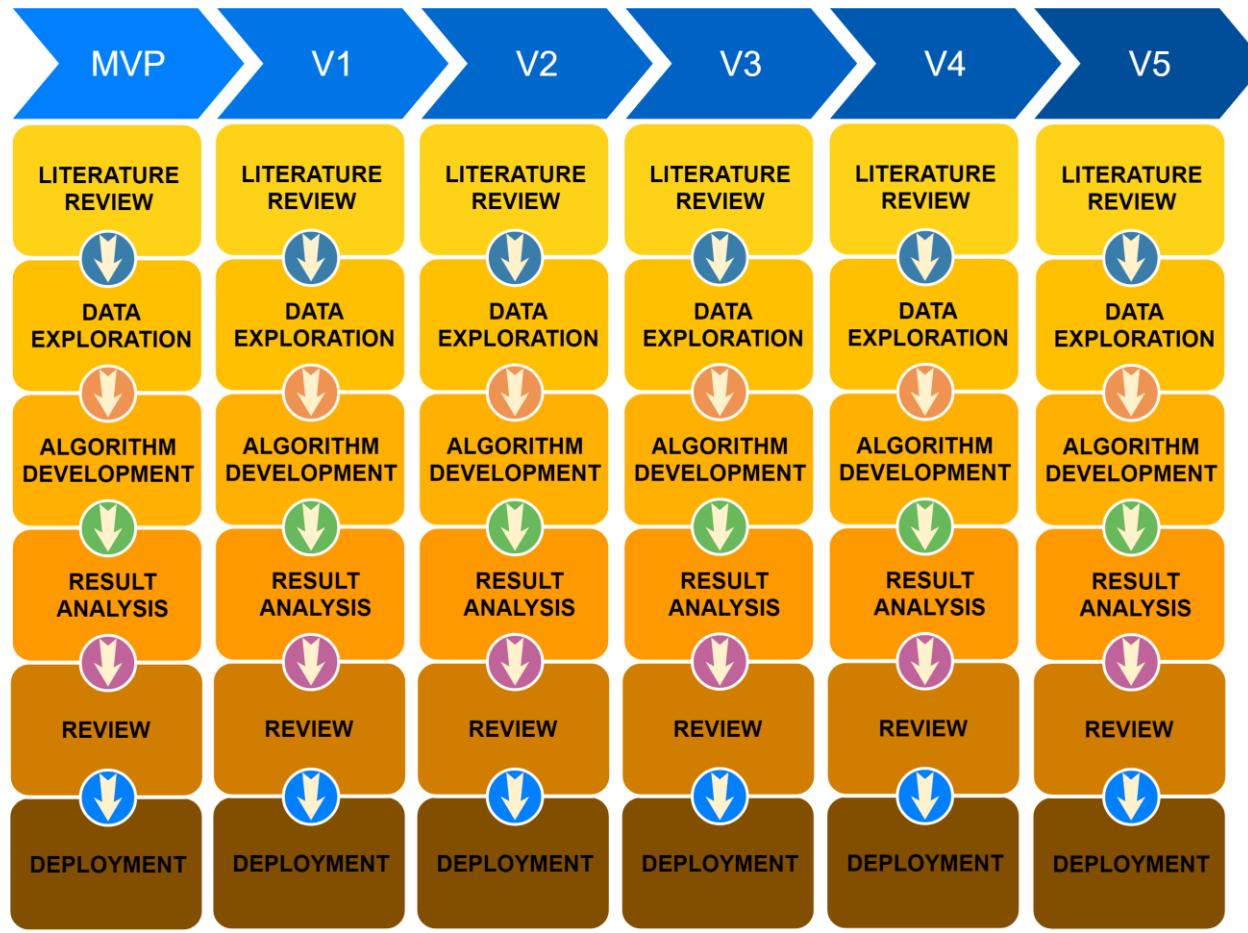
Zentrale Begriffe: Kanban **Method**, **Board**, **Columns**, **Cards**, **Workflow**, **Work in Progress (WIP)**, **WIP-Limits**, **Backlog**, **Commitment Point**, **Delivery Point**, **Lead Time**, **Kanban Tools**

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

## Data Analytics Lifecycle



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



Tari



# SCRUM vs KANBAN

# Scrum and Kanban

A comparison of Agile methodologies

	Scrum	Kanban
Origin	Software development	Lean manufacturing
Ideology	Solve complex problems while delivering valuable products	Use visuals to improve work flows and processes
Practices	Sprint planning Sprint Daily scrum Sprint review Sprint retrospective	Visualize the flow of work Limit work in progress Manage flow Make process policies explicit Implement feedback loops Improve, experiment
Roles	Product Owner Scrum Master Development Team	No formal roles
Metrics	Velocity	Cycle time Throughput

# Differences Between Kanban and Scrum

Kanban	Scrum
Roles are fluid. Project manager optional.	Roles are predefined. Scrum master required.
Tasks are shared by everyone.	Tasks have assigned owners.
Timelines evolve on an as-needed basis.	Timelines are timeboxed into sprints.
Changes can be made mid-stream, allowing for iterations before completion of a project.	Changes can only be made upon completion of a sprint.
Productivity is measured by the cycle time of the complete project.	Productivity is measured by the number of story points completed in each sprint.

# 4 Managing Projects

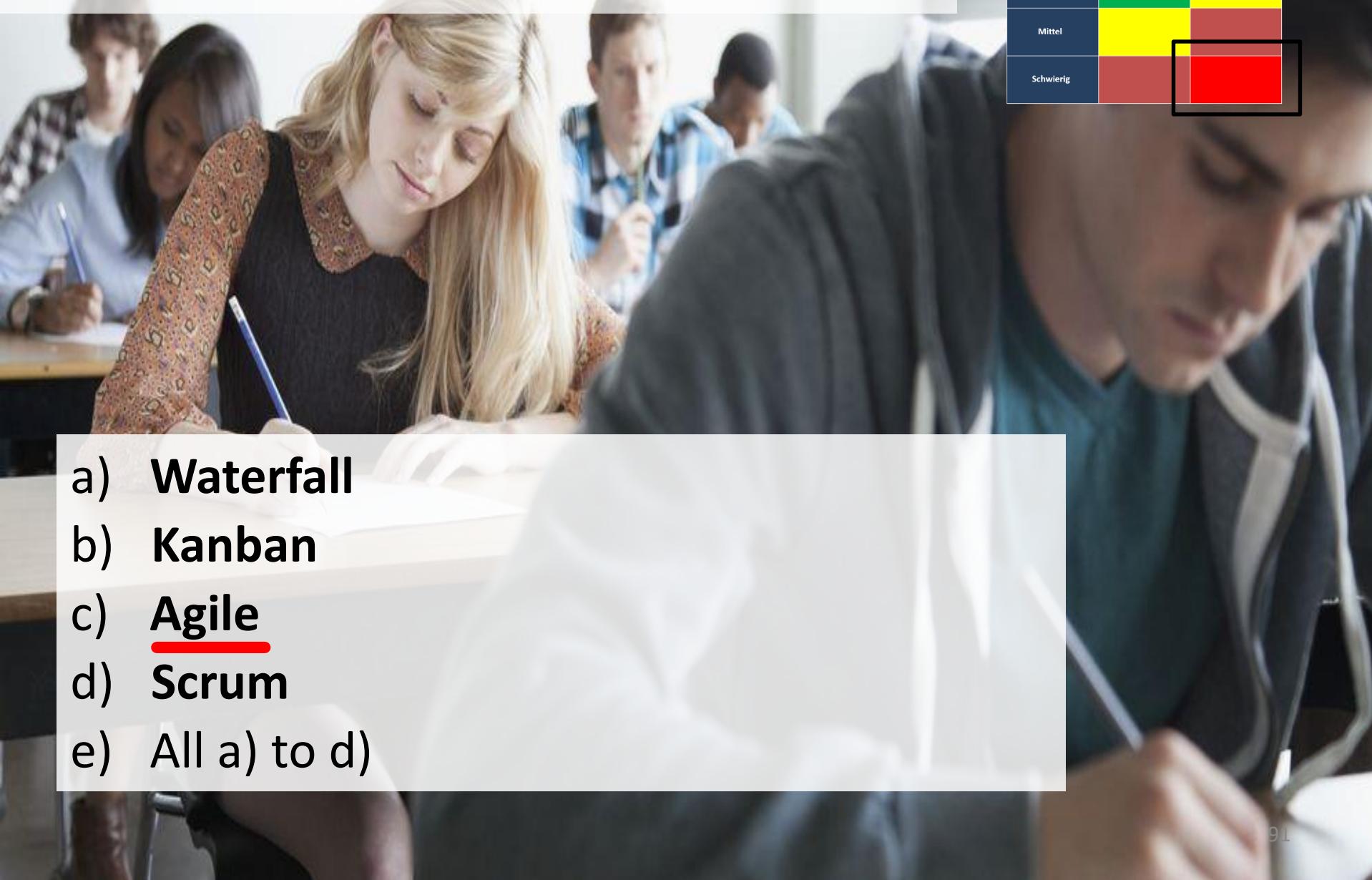
- How to Manage Projects Successfully?  
**(6) Summary**

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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.

# 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)

# Which Statement about the Elements of a Kanban Board is Wrong?

Schwierigkeitsgrad	Art des Wissens	Abfragewissen (Vorlesung)	Anwendungswissen (Literatur)
Einfach	grün	gelb	
Mittel	gelb	rot	
Schwierig	rot	rot	rot

- a) **Commitment point** is the **moment** when a team picks up a project.
- b) **Work-in-product limit** sets the maximum **number of columns** on the **Kanban board**.
- c) **Columns** represent a **specific activity**.
- d) **Columns together compose a workflow**.
- e) **Delivery point** is the **end** of a **workflow**.

# **Michael Amberg**

## **Todays Content:**

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

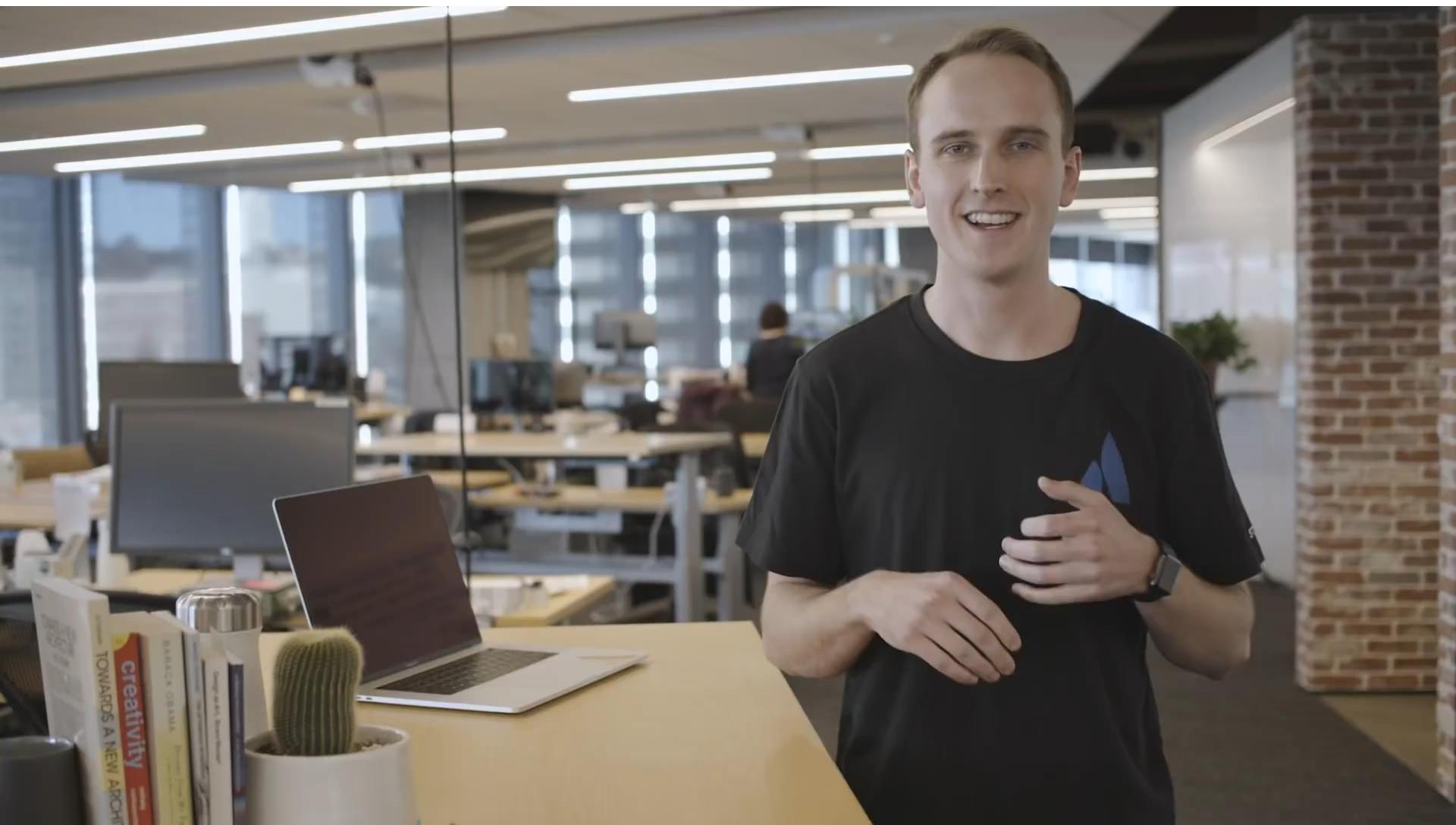


# KANBAN – Visualize Your Work



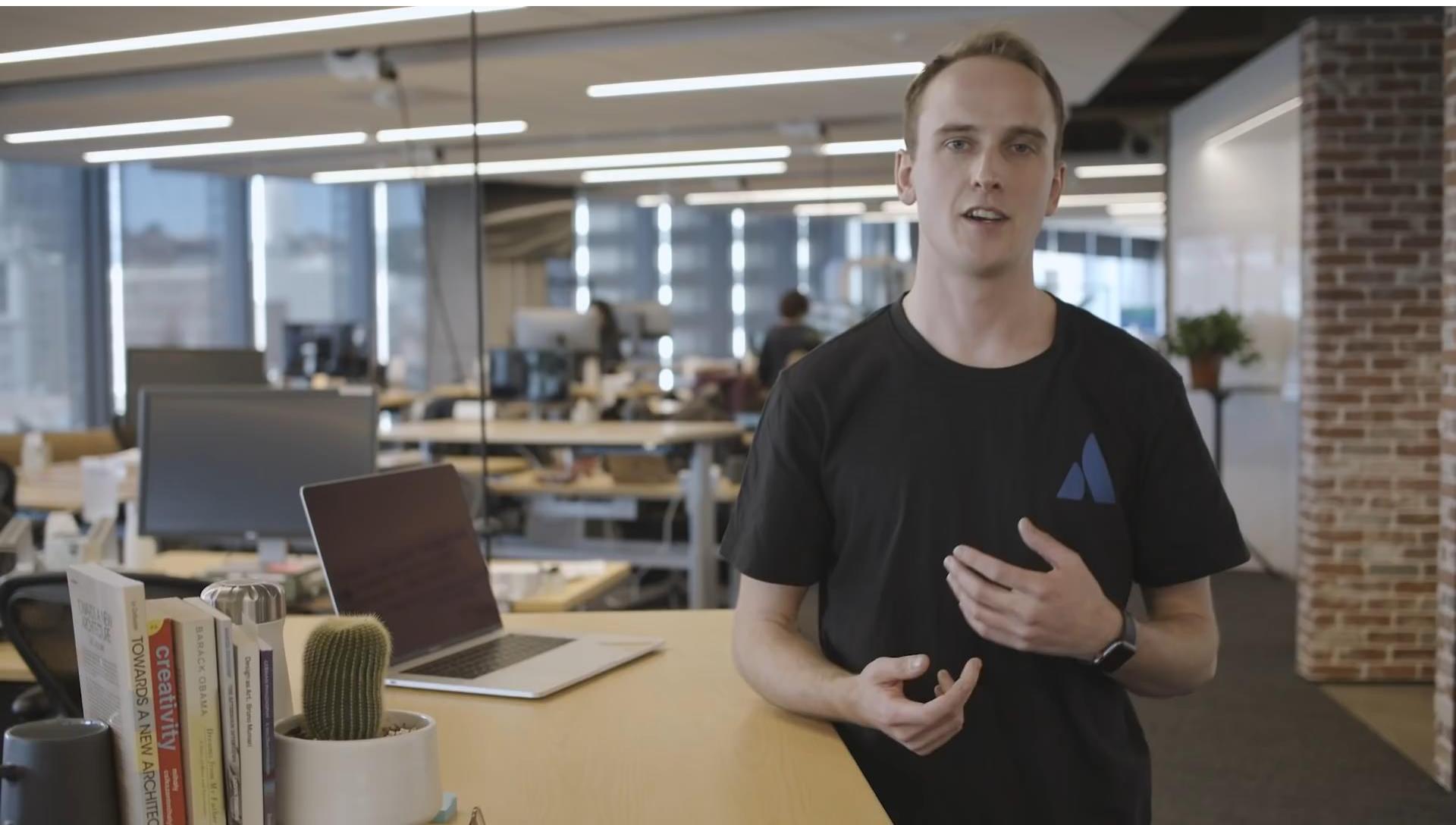
What is Kanban? - Agile Coach (2019)  
[www.youtube.com/watch?v=iVaFVa7HYj4](https://www.youtube.com/watch?v=iVaFVa7HYj4)

# KANBAN Board – A Project Management Tool



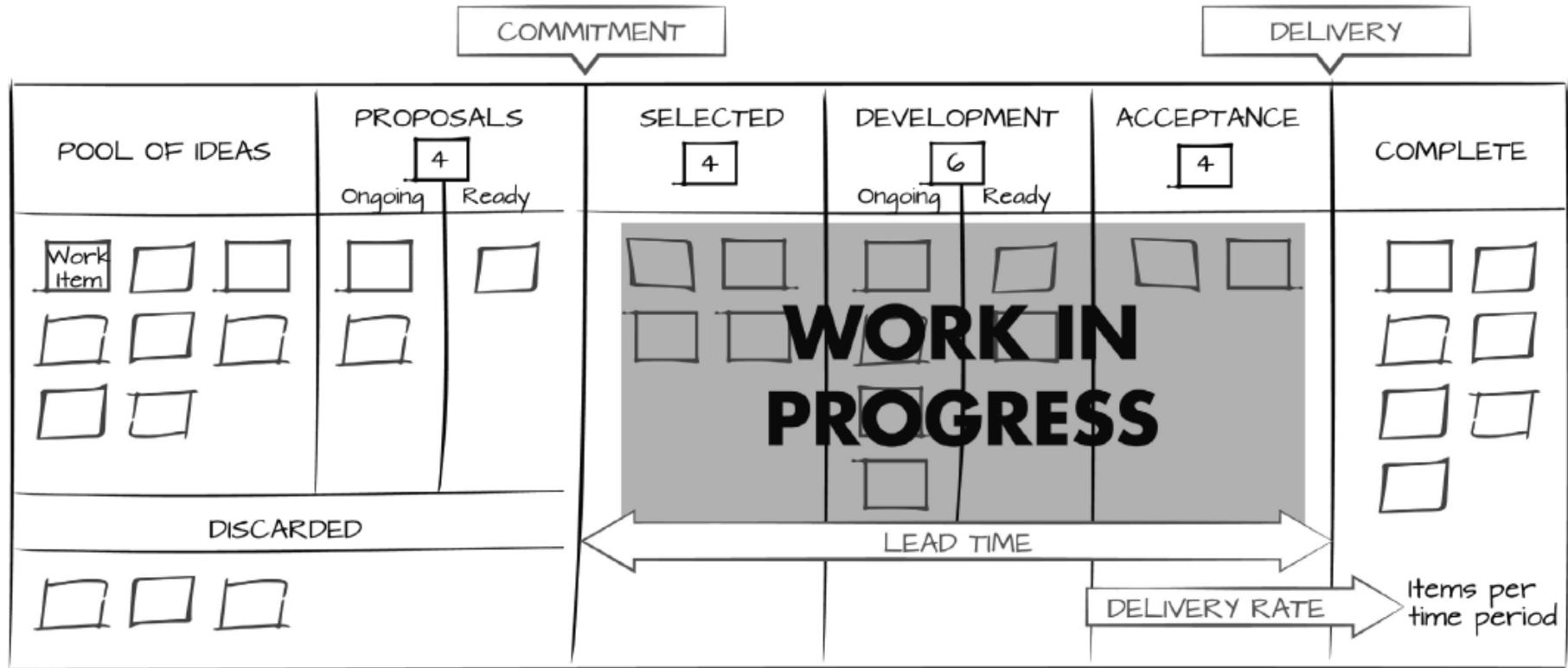
What is a Kanban Board? - Agile Coach (2019)  
[www.youtube.com/watch?v=Bcid33tgq8A](https://www.youtube.com/watch?v=Bcid33tgq8A)

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



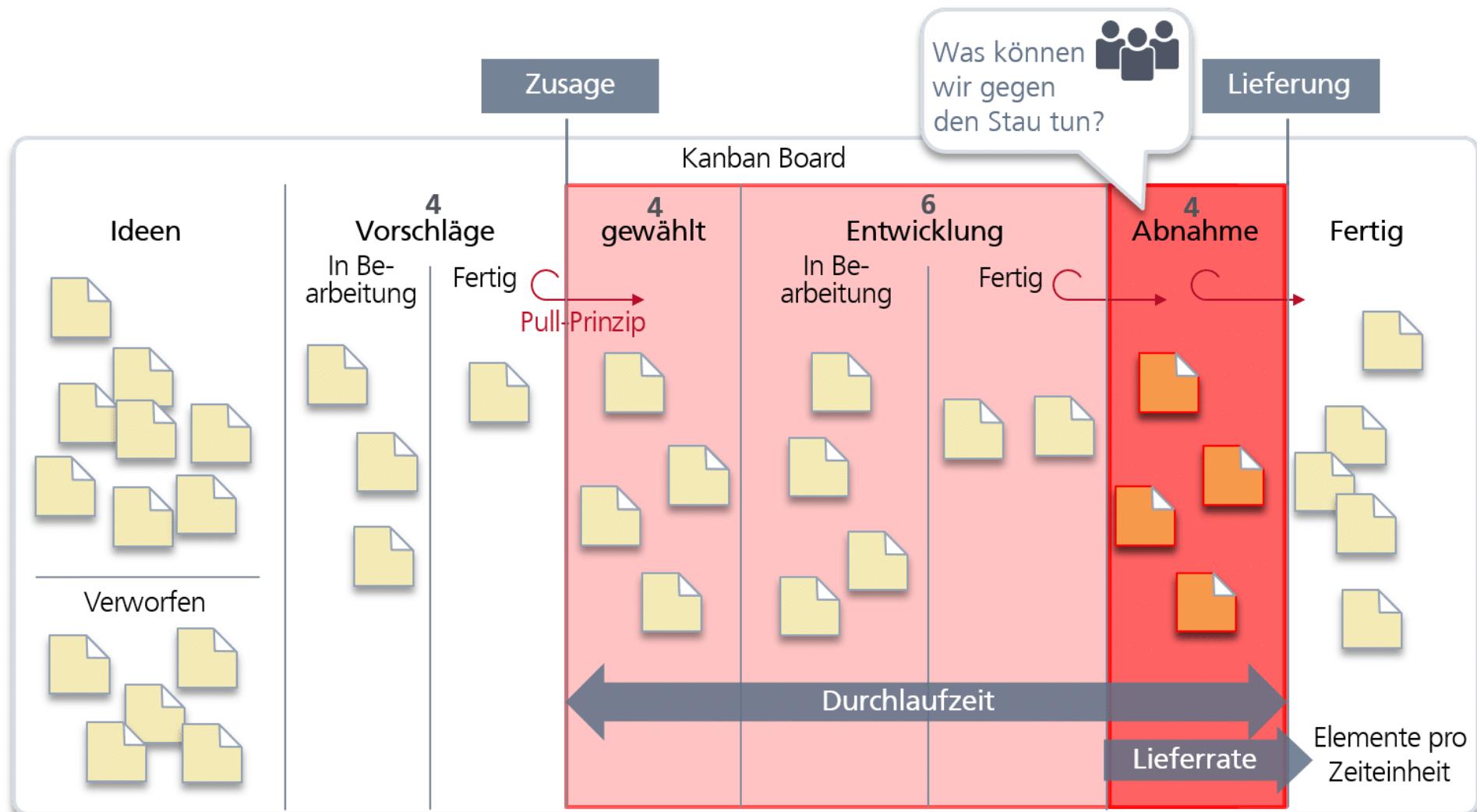
Kanban WIP limits - Agile Coach (2019)  
[www.youtube.com/watch?v=zEJn6eQO6FE](https://www.youtube.com/watch?v=zEJn6eQO6FE)

# Overview of KANBAN Board



Zentrale Begriffe: Kanban **Method**, **Board**, **Columns**, **Cards**, **Workflow**, **Work in Progress (WIP)**, **WIP-Limits**, **Backlog**, **Commitment Point**, **Delivery Point**, **Lead Time**, **Kanban Tools**

# KANBAN Board im Überblick



# Personal KANBAN Board - Example



# Team KANBAN Board - Example



# Wikipedia gibt einen sehr guten Überblick

The screenshot shows a web browser window with the URL [de.wikipedia.org/wiki/Kanban\\_\(Softwareentwicklung\)](https://de.wikipedia.org/wiki/Kanban_(Softwareentwicklung)). The page title is "Kanban (Softwareentwicklung)". The main content area describes Kanban as a method in software development where the number of parallel tasks is limited to achieve shorter lead times and identify bottlenecks. A sidebar on the left contains links to various Wikipedia categories and tools.

**Inhaltsverzeichnis [Verbergen]**

- 1 Wurzeln und Geschichte
- 2 Kanban-Prinzipien und -Praktiken
  - 2.1 Grundprinzipien
  - 2.2 Kernpraktiken
- 3 Kanban Flight Levels – Wie passt Kanban ins Unternehmen?
- 4 Verhältnis zu anderen Vorgehensweisen in der Softwareentwicklung
  - 4.1 Wasserfall
  - 4.2 Scrum
    - 4.2.1 Gemeinsamkeiten von Kanban und Scrum
    - 4.2.2 Unterschiede zwischen Kanban und Scrum
- 5 Kaizen
- 6 Value, Flow und Waste Elimination
- 7 Priorisierung
- 8 Service Level Agreements (SLA)
- 9 Anwendungsbereiche
- 10 Varianzen
- 11 Tracking
- 12 Literatur
- 13 Weblinks

KANBAN helps to

Visualize.

focus. and

execute.