# Engineering Processes

1. company KOA

a) waterfall model:

1. Requirement Gathering and analysis

↳ All possible requirements of the system to be developed are captured in this place and documented in a requirement specification document

2. System Design

↳ The requirement specifications from the first place are studied in this phase and the system design is prepared.

3. Implementation

↳ The system will be developed in small programs called units. Input from system design is very important for this step.

4. Verification and Testing

↳ The units which were developed in the implementation phase are tested each on their own and then integrated into a system.

5. Maintenance

↳ If there are some problems with the system, they will be fixed. Better versions of the system will be released as updates.

b) V-model

↳ The V-model adds for every stage in the development cycle an associated testing phase.

Pros of the V-model:

1. Uncomplicated Use: The framework is highly uncomplicated.

↳ this makes the V-Model extrem rigid and hard to use for a process with a lot of content.

2. Time saver: Testing during the processes makes the search for problems in the end faster and easier.

↳ good for complex processes, but takes a lot more time for easy and short processes.

3. Proactive errors-tracking: Testing during the process helps fixing bugs and other system errors to be removed fast and efficient.

↳ good for complex processes, but takes a lot more time for easy and short processes

⇒ The V-model is good for a big and complex process which takes time. Because of that is is very expensive but also very efficient.

# Scrum

a) Size of developer team

- Shouldn't be more than 7 people (self-organizing group)

b) Complexity of the project

- To determine the complexity of a project, the following attributes have to be considered:

1. Duration schedule
2. Cost of project
3. Risk of project
4. Technology readiness
5. Visibility
6. Autorization bodys

c) Known requirements

The main requirement will be determined before the first sprint, but after every sprint small requirements can be added.

d) Change of requirements

- After every sprints requirements can be added

e) Time to Market

- The system can be published when the stakeholders are satisfied.

f) Knowledge of IT (customer)

- The Customer is inside the development process, which can be adjusted so the customer can understand everything. (Normally you need a lot of knowledge)

g) Average number of Iteration

- It varies from project to project, Sprints are usually 2 to 4 weeks long. The number of iteration can be very high.