

Scrum-Agile Model vs. Waterfall Model

The Scrum-Agile Team

Product Owner – accountable for the management, optimization, and presentation of the Product Backlog

Scrum Master – accountable for ensuring Scrum is understood and executed

Developer – accountable for developing and building a usable increment for each Sprint

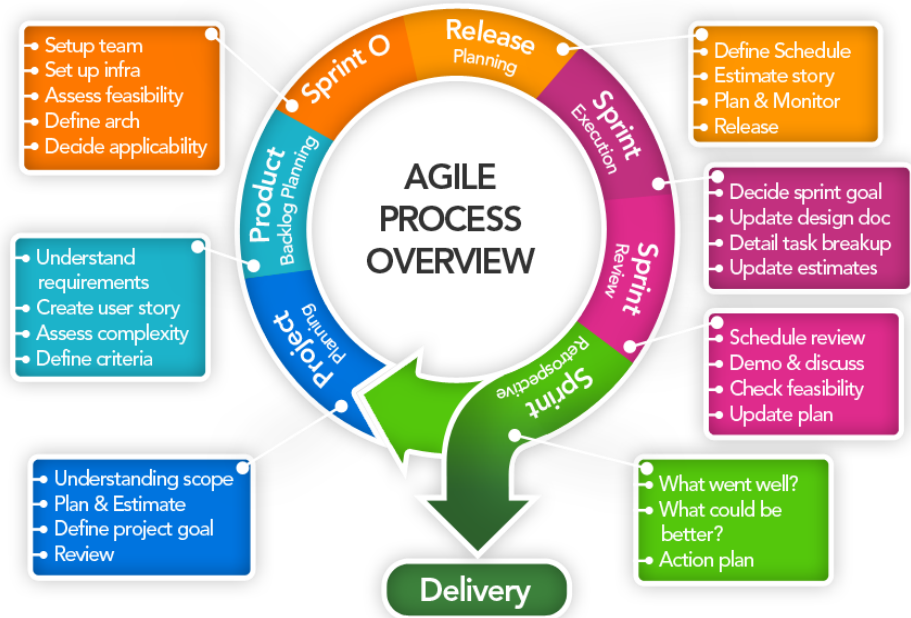
Tester – accountable for developing and testing a usable increment for each Sprint

Agile Model Software Development Life Cycle

Dynamic Phases

- Planning
- Requirement Analysis
- Design
- Coding
- Unit Testing
- Acceptance Testing

Multiple iterations until the project meets its definition of done.



Waterfall Model

Software Development Life Cycle

6 Phases of the Software Development Life Cycle



* Each phase must be completed before the next phase can begin.

- Sequential Phases
- Requirement Analysis
- System Design
- Implementation
- Integration and Testing
- Deployment of system
- Maintenance

Waterfall vs Scrum-Agile

Waterfall

- Requirement Analysis and Design done once in the beginning
- Phases are sequential and done one at a time
- Less interaction with client
- No unexpected changes or updates
- Clearly defined milestones
- Individuals specialize in specific work
- May have periods of time when individuals may not have work available
- High level of risk and uncertainty

Scrum-Agile

- Requirement Analysis and Design done throughout the entire project
- Phases are done incrementally and repeated throughout project
- Feature driven development
- Multiple meetings with client throughout project
- Changes are encouraged and expected
- Dynamic, Cross-functional team
- Team members work and help each other throughout the project
- Failure is encouraged, consequences are minimal due to short incremental phases

Waterfall or Scrum-Agile?

Factors to consider:

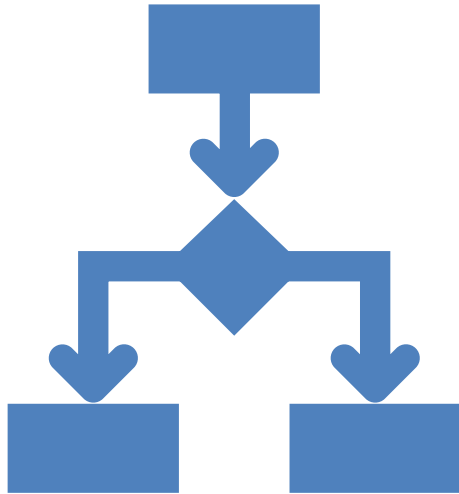
- Size of project
- Size of team
- Size of product backlog
- Complexity of project
- How defined is the project/product?

Waterfall:

- Small Projects
- Project's requirements are stable and well defined
- Projects with minimal variable factors

Scrum-Agile:

- Large projects with high risk of change
- Projects with many features
- Projects with one product owner, product backlog, one team



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