WORKING METHODOLOGIES

Scrum, AGILE, Waterfall

TAMID GROUP

Scrum is simple. It is the opposite of a big collection of interwoven mandatory components. Scrum is not a methodology. Scrum implements the scientific method of empiricism. Scrum replaces a programmed algorithmic approach with a heuristic one,

SCRUM PROCESS IN REAL WORLD

1

Product Backlog

Product owner creates a product backlog

2

Plan

Scrum team conducts a sprint planning session

3

Sprint Backlog

Team creates a sprint backlog and plans its implementation

4

Duration

Team decides a time duration for every sprint

5

Standup

Team gets together every day for a brief Scrum meeting

6

Guidance

Certified Scrum master guides the team and keeps them focused and motivated

7

Review

Stakeholders and the product owner conduct a review at the end of each sprint

PROS AND CONS

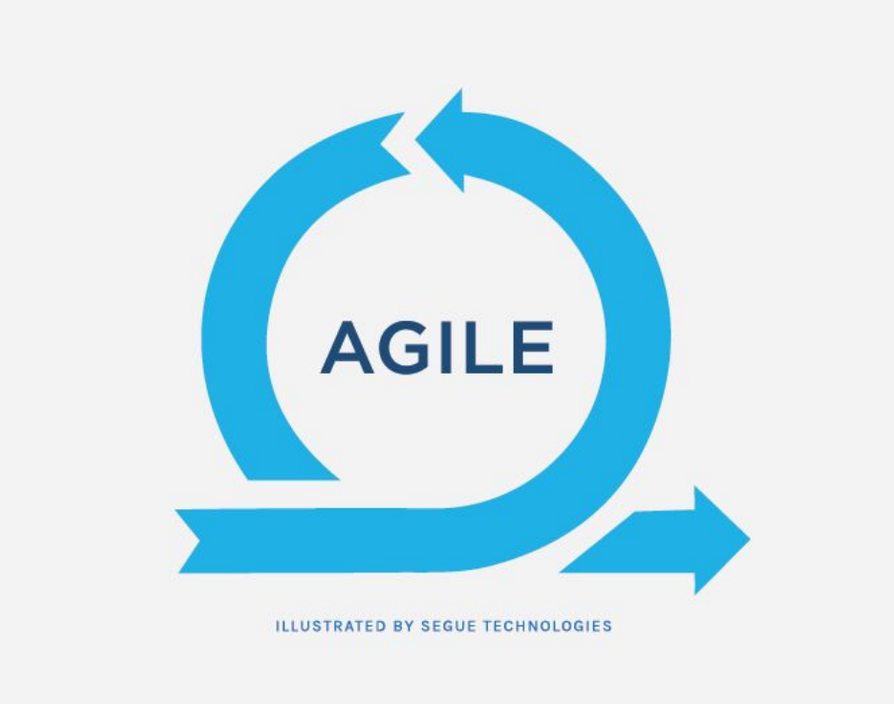
PROS

- Scrum can help teams complete project deliverables quickly and efficiently
- Large projects are divided into easily manageable sprints
- Developments are coded and tested during the sprint review
- Works well for fast-moving development projects
- Scrum, being agile, adopts feedback from customers and stakeholders

CONS

- Scrum often leads to scope creep, due to the lack of a definite end-date
- The chances of project failure are high if individuals aren't very committed or cooperative
- Adopting the Scrum framework in large teams is challenging
- Daily meetings sometimes frustrate team members
- If any team member leaves in the middle of a project, it can have a huge negative impact on the project

AGILE



Agile is a process by which a team can manage a project by breaking it up into several stages and involving constant collaboration with stakeholders and continuous improvement and iteration at every stage.

AGILE PROCESS IN REAL WORLD

1

Scope

Team scopes out and prioritizes projects

2

Requirements

Work with stakeholders to determine requirements

3

Iteration

Developers begin work on their first iteration of the project, with the goal of having a working product to launch at the end of the sprint

4

Release

Test, address any defects, finalize the system, and release the iteration into production

5

Support

Your team should keep the system running smoothly and show users how to use it

6

Retirement

You remove the system release from production, typically when you want to replace a system with a new release

PROS AND CONS

PROS

- Emphasis on responding to change and focus on working on projects that matter when they matter
- Accepts the fact we don't know everything about a project when we first start
- Need for rapid iteration and cyclical, comprehensive reviews as work is completed
- Provides the business as a whole more flexibility in when product should be delivered to end users
- Less up-front work; focuses us on defining and prioritizing problems to solve

CONS

- Most people don't understand what it means to be Agile. As a result, they make unsupported assumptions about what it means.
- Flexibility of Agile as a philosophy can lead to teams engaging in bad behaviors, and "blaming" the resulting outcomes on Agile itself
- Not every corporate culture is "ready" for the changes Agile requires
- Lack of predictability inherent in Agile approaches
- Changing to a more Agile approach requires a strong level of discipline in leveraging automated and human testing as part of each work interval

WATERFALL

Waterfall refers to a sequential model for planning, building, and delivering new products and features Each phase has specific activities that must be documented and approved before the next phase can begin.

WATERFALL PROCESS IN REAL WORLD

1

Req. Analysis

Customer requirements are captured in a roadmap and product requirements document

2

Design

Details any requirements needed to complete the project

3

Implementation

Source code is developed based on the requirements. The system is commonly built and tested in small units

4

Testing

The new product or feature is fully tested to make sure it meets the specified requirements

5

Deployment

Once the system is fully functional and passes the acceptance criteria, it is deployed into a production environment and made available to customers

6

Maintenance

Focuses on keeping the system running smoothly

PROS AND CONS

PROS

- Everyone gets up to speed quickly
  - Since technical documentation is a necessary part of the initial requirements phase, this means that everyone understands the objectives
- Timescales are kept
  - The phased development cycle enforces discipline.
- No financial surprises
  - Costs can be estimated with a fairly high degree of accuracy once the requirements have been defined.
- Testing is made easy
  - Test scenarios are already detailed in the functional specification of the requirements phase, which makes the testing process easier and more transparent
- The outcome is crystal clear
  - Even before the software development starts, the design is hammered out in detail which makes the needs and the outcome clear to everyone.

CONS

- Needs can be difficult to define
  - Clients may find it challenging to conceptualise their needs in terms of a functional specification during the requirements phase.
- Potential lack of flexibility
  - Changes due to business plans or market influences may not have been taken into account when planning is all done up front.
- Longer delivery time
  - Projects may take longer to deliver, compared to using an iterative methodology such as Agile.

SOURCES

- Scrum Project Management Pros and Cons
- The Stages of the Agile Software Development Life Cycle
- The Pros and Cons of Agile Product Development
- What is waterfall?
- Pros and Cons of Waterfall Software Development