

## Project management methods

### 1. Waterfall

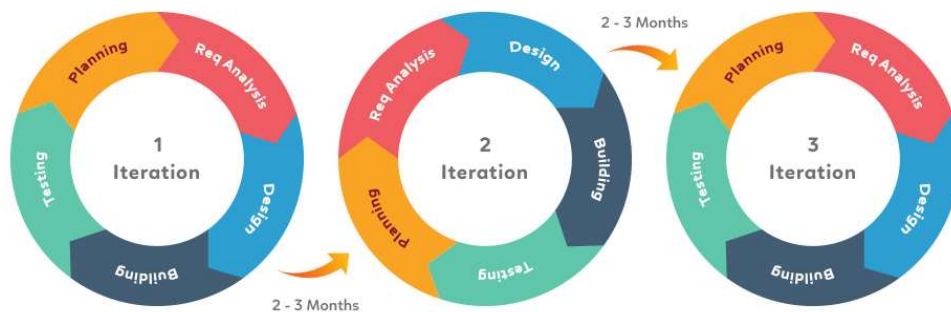
One of the simplest strategies to implement (for short projects), linear and sequential.

- list tasks sequentially and check them
- task cannot be initiated until the previous one is complete
- you cannot return to a previous task (done is done)
- tasks must include every step that needs be accomplished and arranged in a logical order

### 2. Agile

A common project management methodology based on fast, continuous improvement.

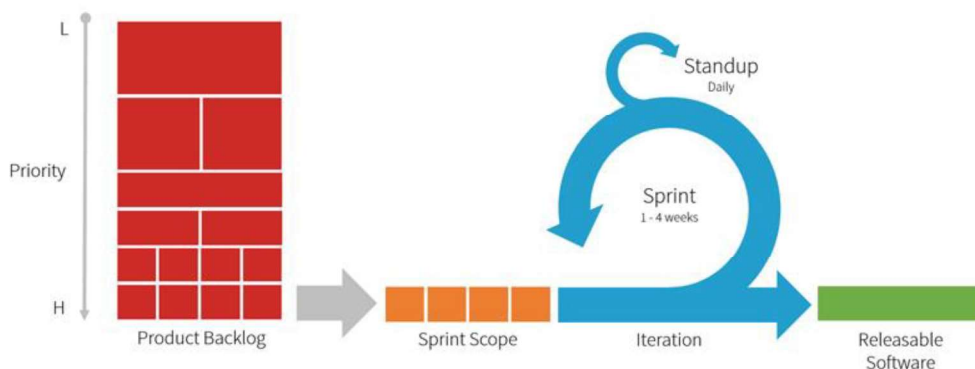
- uses sprints, short project cycles, to continually release enhancements,
- flexibility allows for last-minute changes → higher quality deliverable
- for project teams that need flexibility and speed



### 3. Scrum

Works within the Agile framework to provide a specific set of rules for project management.

- processes for identifying tasks, resources, completion dates...
- fast delivery, with rapid feedback cycles
- need close collaboration (daily stand-up meetings to report on progress)
- each sprint must produce a usable product



#### **4. Critical Path (CPM)**

Step-by-step method for projects that have tasks which are dependent on one another.

- outlines the critical and non-critical activities
- calculates which tasks have the longest and shortest time to accomplish
- results in a faster completion time
- commonly used by scientists and manufacturers

#### **5. PERT (Program Evaluation and Review Technique)**

Often used in combination with the Critical Path method.

- useful for businesses who plan to expand in the near future
- differentiate events, and measure the progress of tasks being completed
- create realistic timelines and budgets

#### **6. Critical Chain (CCM)**

Extends CPM strategy with the factor of resource availability.

- hierarchy of activities based on access to resources
- add buffers to the “task chain” to account for resource scarcity and protect the schedule
- better for teams who need to prioritize tasks by resource renewability

#### **7. PRINCE2 (PRojects IN Controlled Environments)**

Standard methodology of the U.K. government, but has been implemented by other companies.

- consistent processes, controlled stages, properly allocated resources, regular progress reviews, alignment with business justifications
- for larger organizations, where extensive documentation is required

#### **9. Lean**

Another form of Agile project management that targets how to do more with less.

- divide projects into smaller tasks for individual execution
- adds streamlined workflows to each part of the project
- emphasis on standardized processes to maximize efficiency