



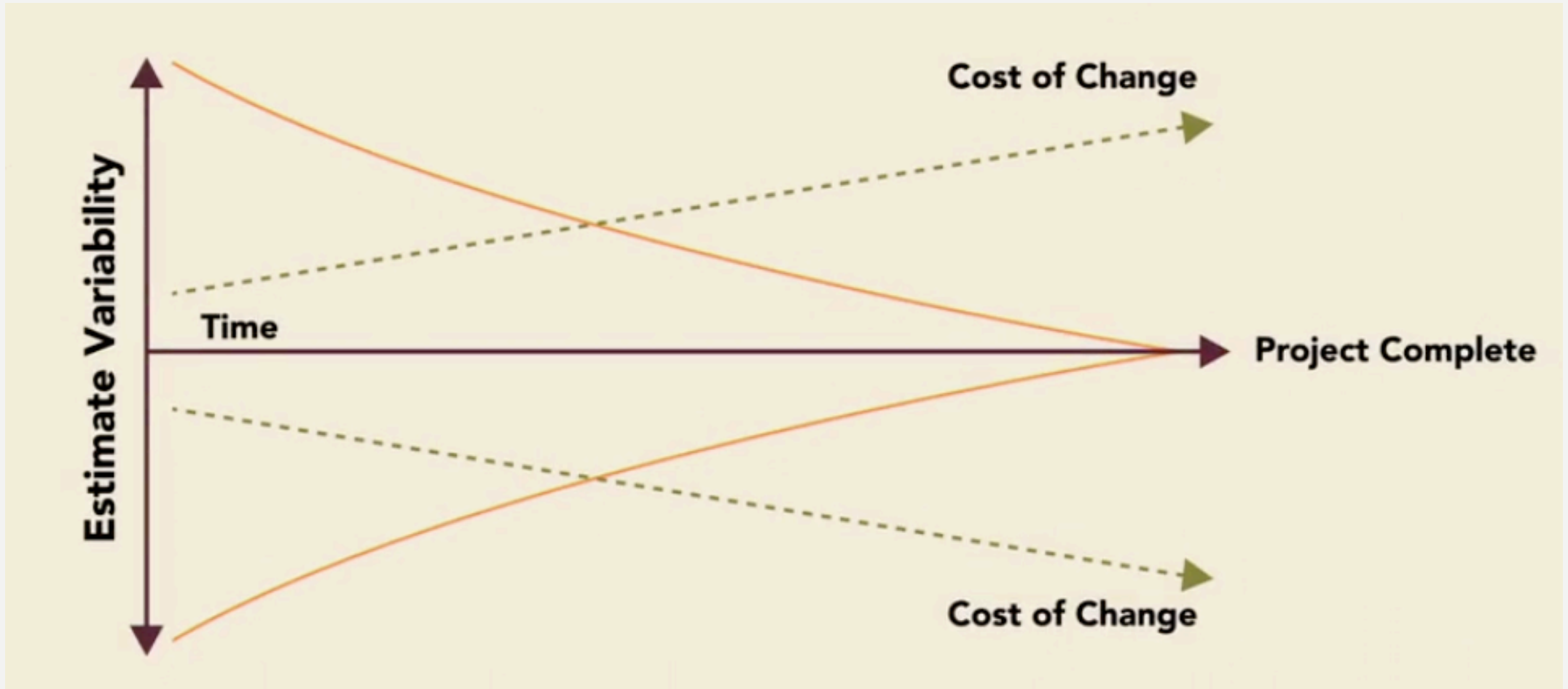
AGILE

DEVELOPMENT PRACTICES

TRADITIONAL PLANNING

1. Plan the project
2. Execute the project
3. Test the project

THE CONE OF UNCERTAINTY



THE AGILE MANIFESTO

We are uncovering better ways of developing software by doing it and helping others do it.
Through this work we have come to value...

- Individuals and interactions
- Working software
- Customer collaboration
- Responding to change

vs.

- Processes and tools
- Comprehensive documentation
- Contract negotiation
- Following a plan

12 AGILE PRINCIPLES

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

THE COST OF MULTITASKING

Agile Principle

3

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the *shorter timescale*.

Sprints

AVOID WORK HAND-OFFS

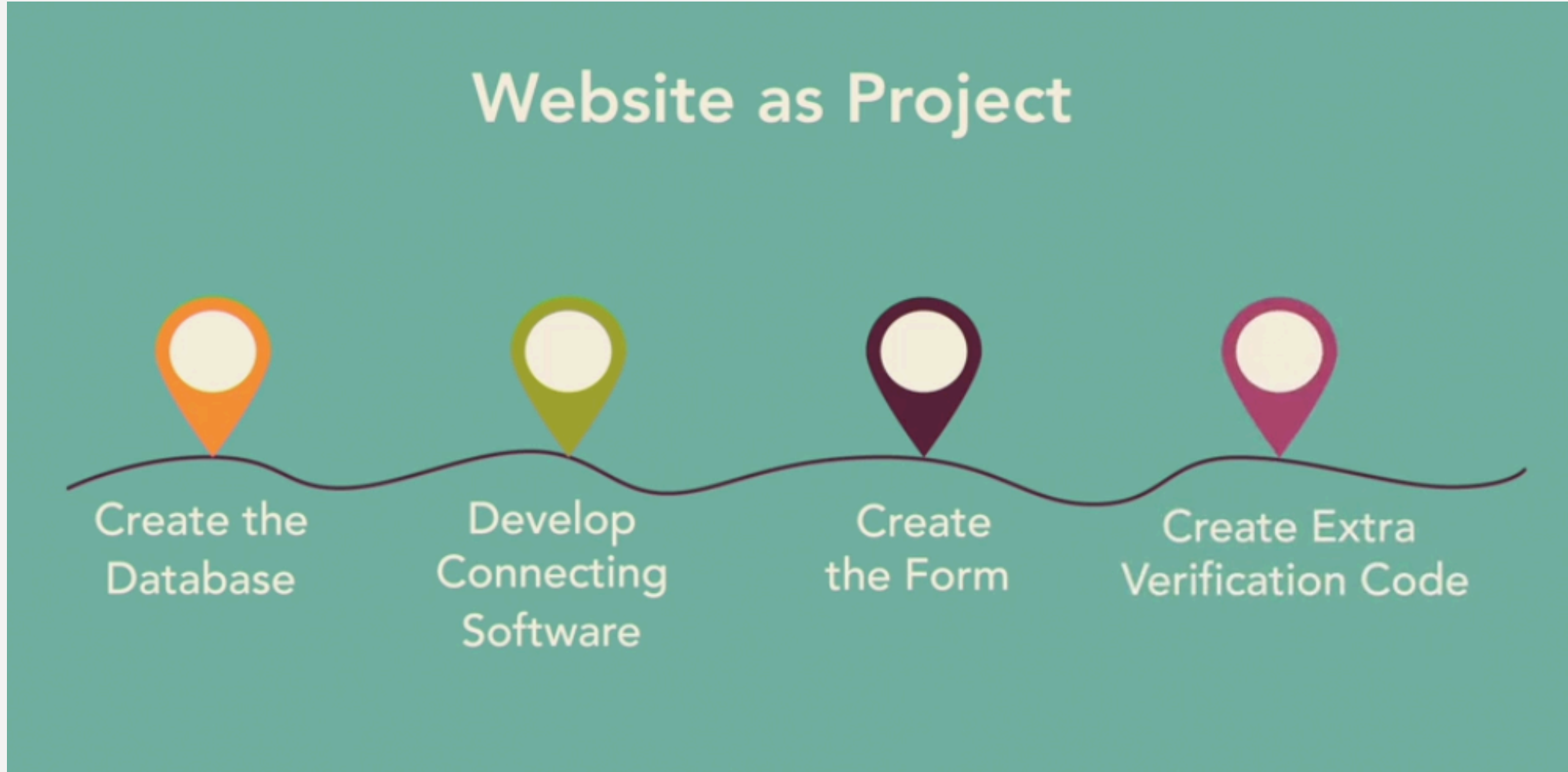
Handoffs

Finishing work on a task and then giving to another person or department for processing

SPRINT

A timeboxed iteration of work intended to deliver a shippable portion of a product in a shorter time scale

AVOID "POWERPOINT" SOFTWARE



Only show the customer *working software!*

INSPECT AND ADAPT

Agile Principle 2

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

"Embracing change"

Extreme programming

"Inspecting and adapting"

Scrum

COMMIT TO SPRINTS

Sprint Planning Meeting

- First day of sprint
- Planning all sprint work
- Less than two hours (professionally)



Sprint Review

- Last day of sprint
- Feedback
- Less than two hours (professionally)

Sprint Elements

- Sprint planning meetings
- Analysis in daily scrums
- Deployment and sprint reviews
- Process improvement

POPULAR AGILE FRAMEWORKS

Scrum: the most popular Agile framework

Empirical process control framework

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Extreme Programming: for software development

- User stories
- Continuous integration
- Test-driven development

COMMON ROLES ON THE TEAM

The Product Owner

- Product owner should have *authority* to make real-time decisions

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The Scrum Master

- Trainer or coach
- Administrative worker
- Bulldozer and Shield
- Conflict negotiator