

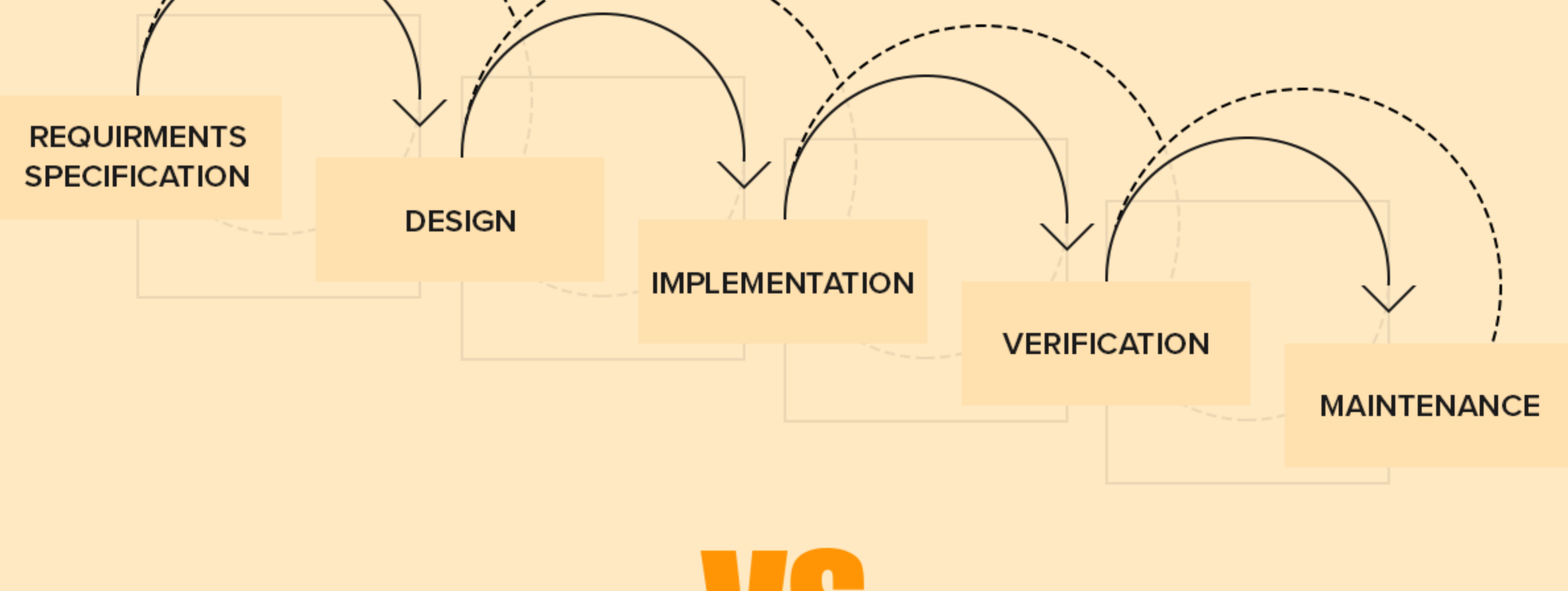
Agile Project Management

Back in 2001, a group of 17 software engineers suggested a lightweight and team-oriented approach to product development that was documented in the Manifesto for **Agile Software Development**. It suggested four fundamental values:

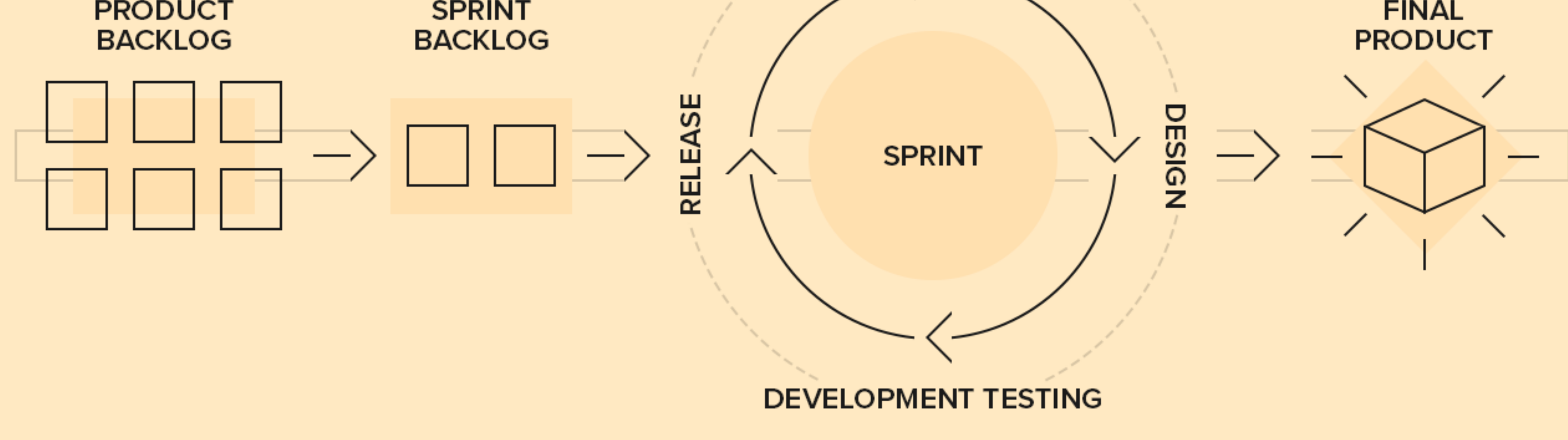


Today, **Agile** in one way or another is used in **94 percent** of organizations.

Waterfall Model



VS



Agile Development Cycle

Agile methods

There are multiple popular agile methods

Scrum

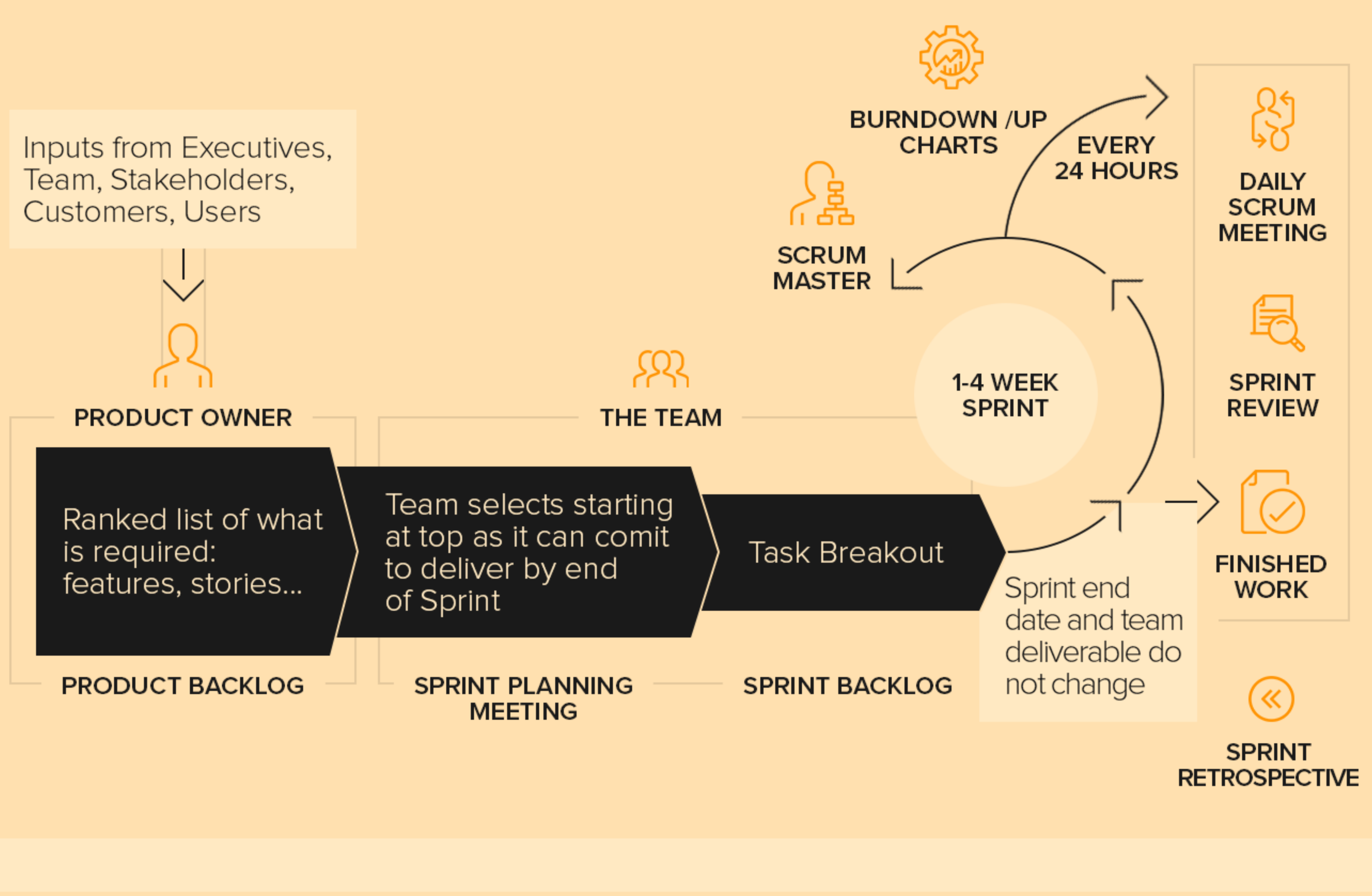
Release early, learn from feedback, and improve

Scrum Features

- Product increments every 1 to 4 weeks
- Clear progress tracking and scheduling
- Early launch to learn from feedback

Best Use

- Long-term and complex projects
- Development from scratch
- The list of high priority requirements is available



Kanban

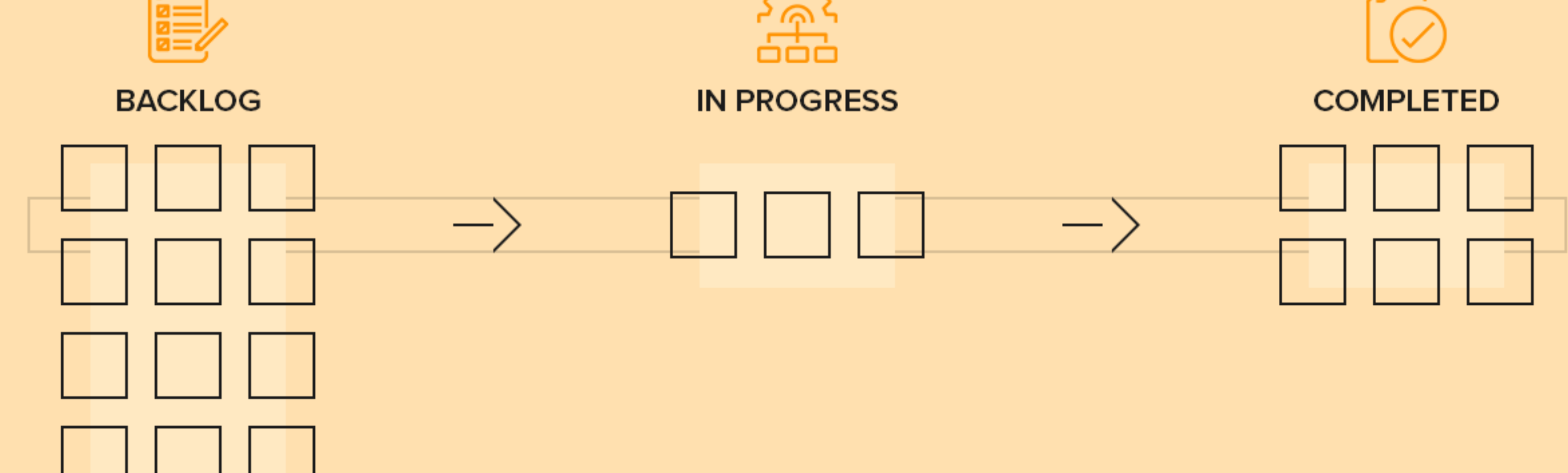
Rapid turnaround, effective effort allocation, and transparency

Kanban Features

- Multiple releases per day or per week
- Continuous flow without any waste
- Maximum flexibility

Best Use

- Frequently changing priorities
- Unscheduled improvements for mature projects
- Product support



Lean

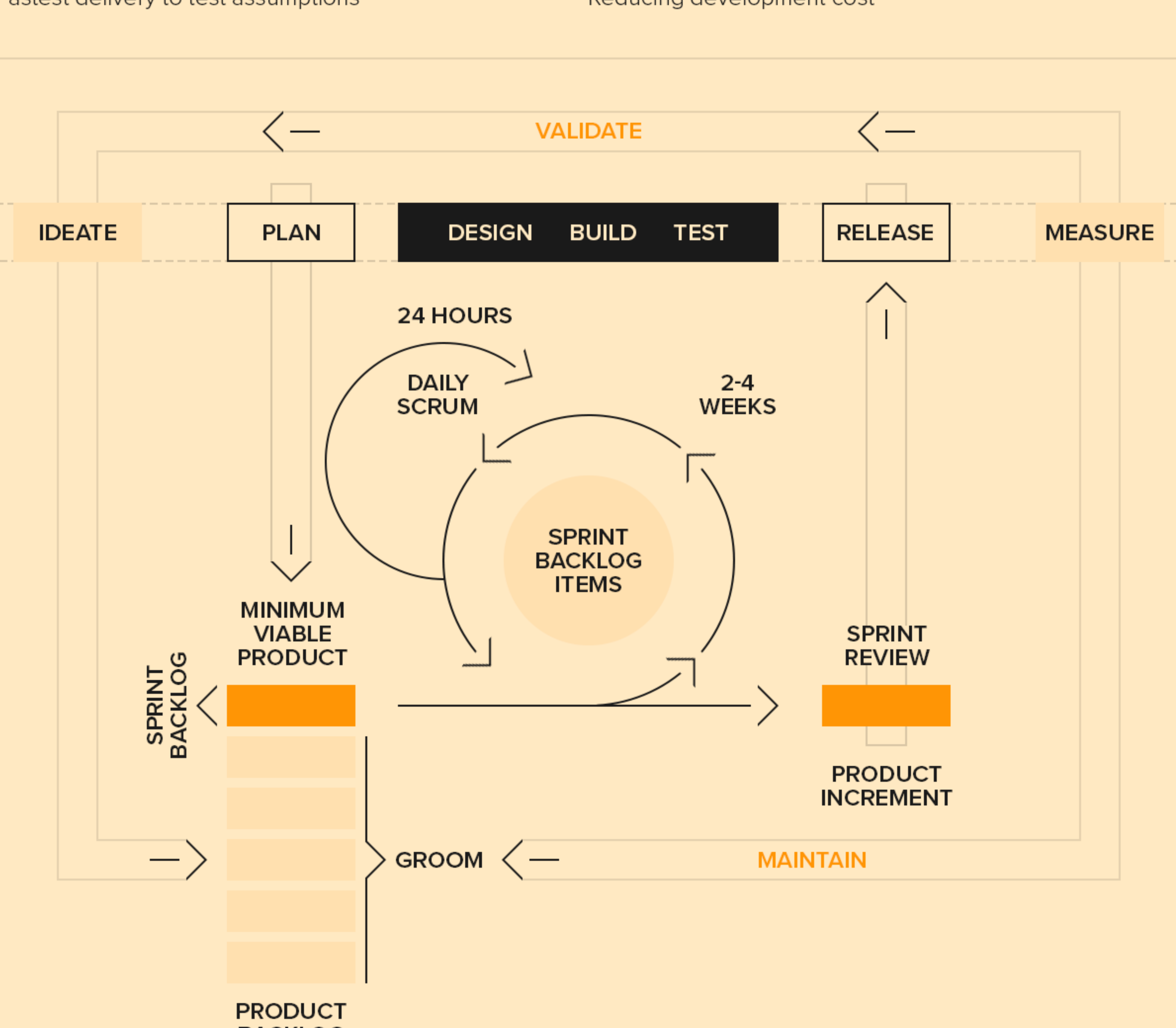
Eliminate waste, focus on core features, and test early

Lean Features

- Iterative development
- No waste, only critical features
- Fastest delivery to test assumptions

Best Use

- Building MVP (minimum viable product) or PoC (proof-of-concept)
- Receiving ongoing feedback from stakeholders and end-users
- Reducing development cost



Extreme Programming

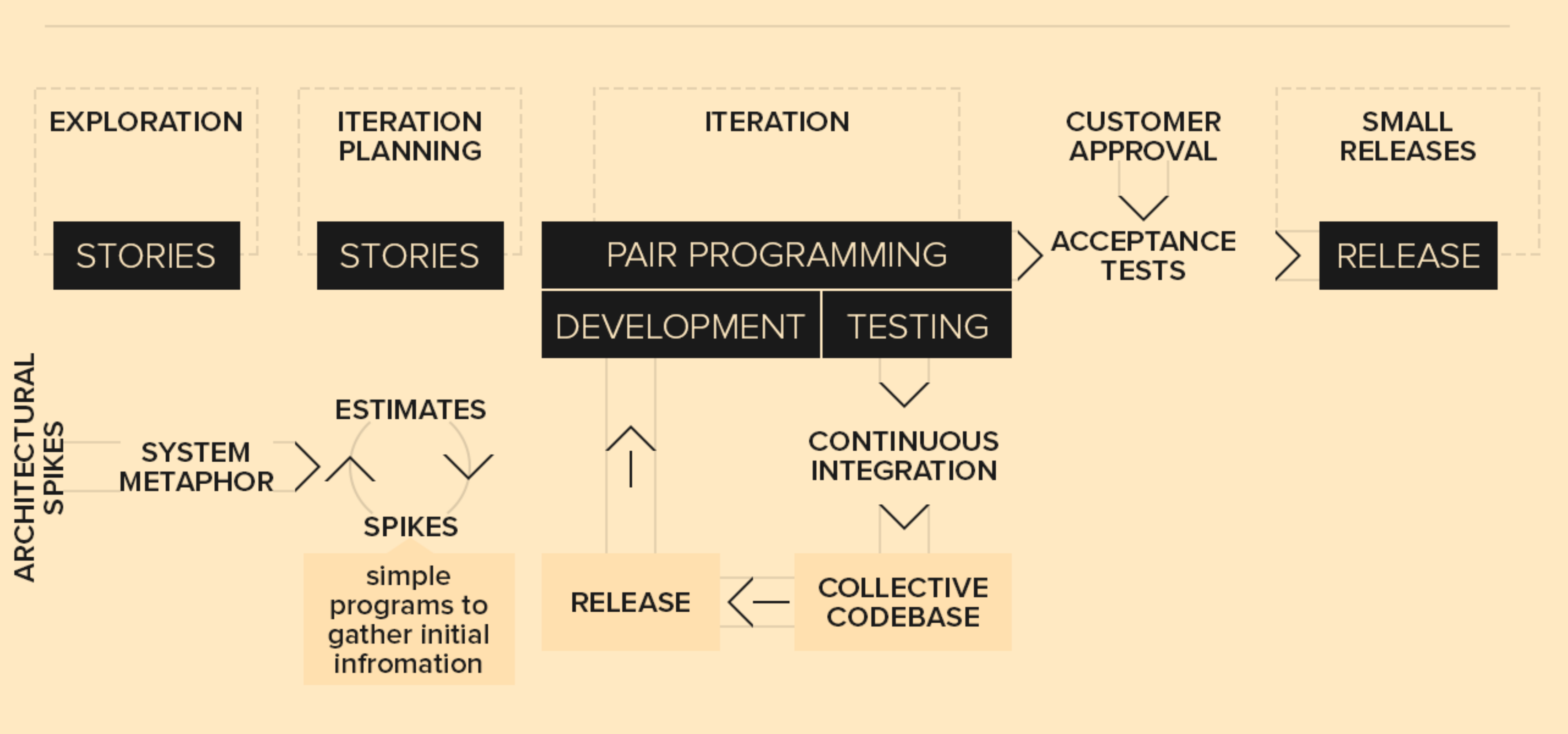
Increase the quality of code, automate testing, and get constant feedback

XP Features

- Emphasizing tech aspects of development (test-driven development, continuous integration, pair programming)
- Constant feedback on software components
- Code commits several times a day

Best Use

- Development from scratch
- Constantly changing requirements
- Strict timeframes



Bimodal Development

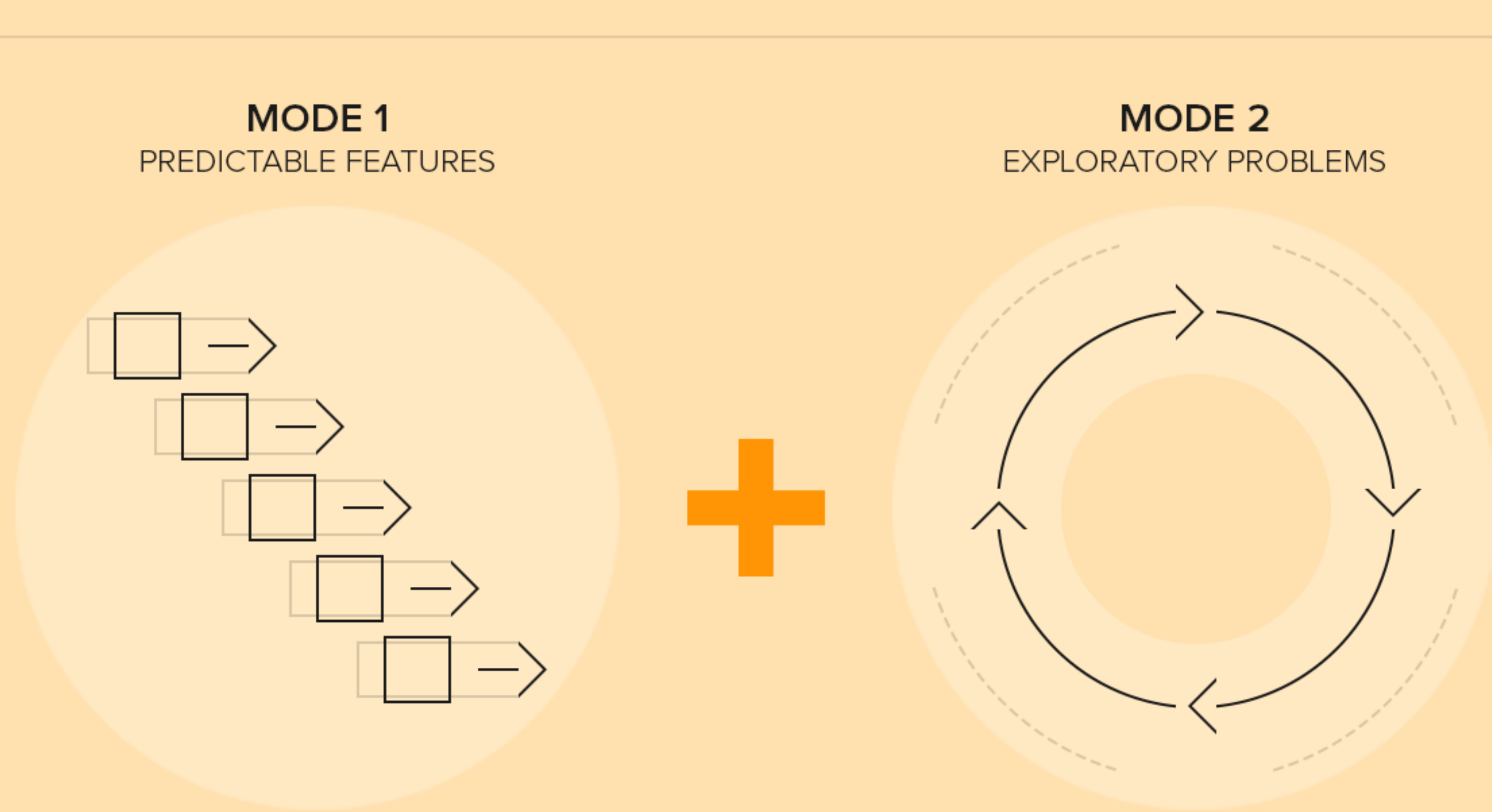
Maintain existing software, delivering innovations in parallel

Bimodal Features

- Combination of Waterfall and Agile with two teams involved
- Waterfall is used for predictable features
- Agile is used for exploratory problems

Best Use

- Combination of long- and short-term projects
- Maintaining infrastructure and innovating
- Digital transformation projects



Hybrid

Have clear deadlines and fixed budget with iterative development and testing

Hybrid Features

- Forecasted budget, fixed deadline, requirements, and design specifications
- Rapid software development and testing
- Regular feedback collection

Best Use

- Hardware and software operations for product delivery
- Back-end and front-end development within one product
- Strict project timeline and budget

