

Automated Testing

The Big Picture

Agenda

- Why Automated Tests?
- Testing pyramid
 - Unit Tests
 - Integration Tests
 - User Interface Tests
- Demo – Unit Testing (C#)
- Test Driven Development (TDD)
- What is TDD?
 - Starting with the test
 - Having a failing test
 - Refactoring
- Demo – TDD (C#)

Why automated tests?

- Teams can:
 - Hinder and find regression fast
 - Confidence when changing code



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 - Get immediate feedback
 - Save money

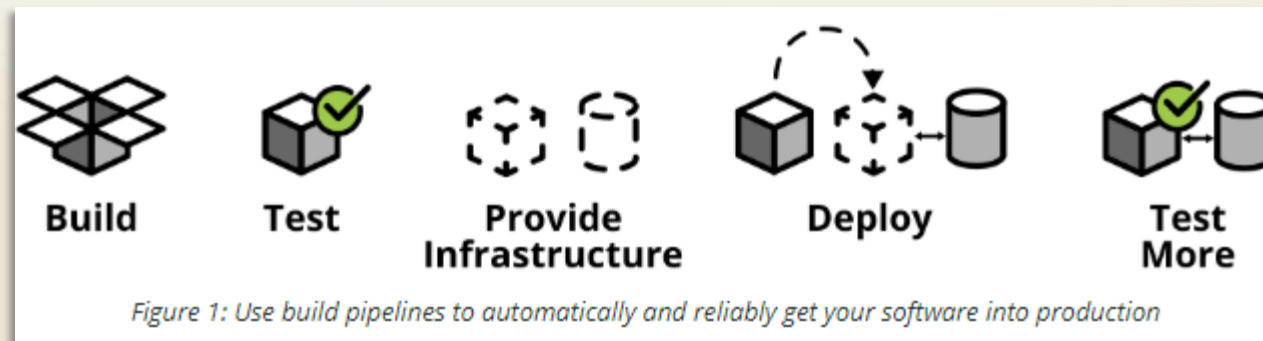


Why automated tests?

- **Teams can:**
 - Find and fix regression fast
 - Confidence when changing code
 - Get immediate feedback
 - Save money
- **Manual testing is:**
 - Inaccurate
 - Slow
 - Repetitive
 - Can become boring
 - Needed sometimes

Why automated tests?

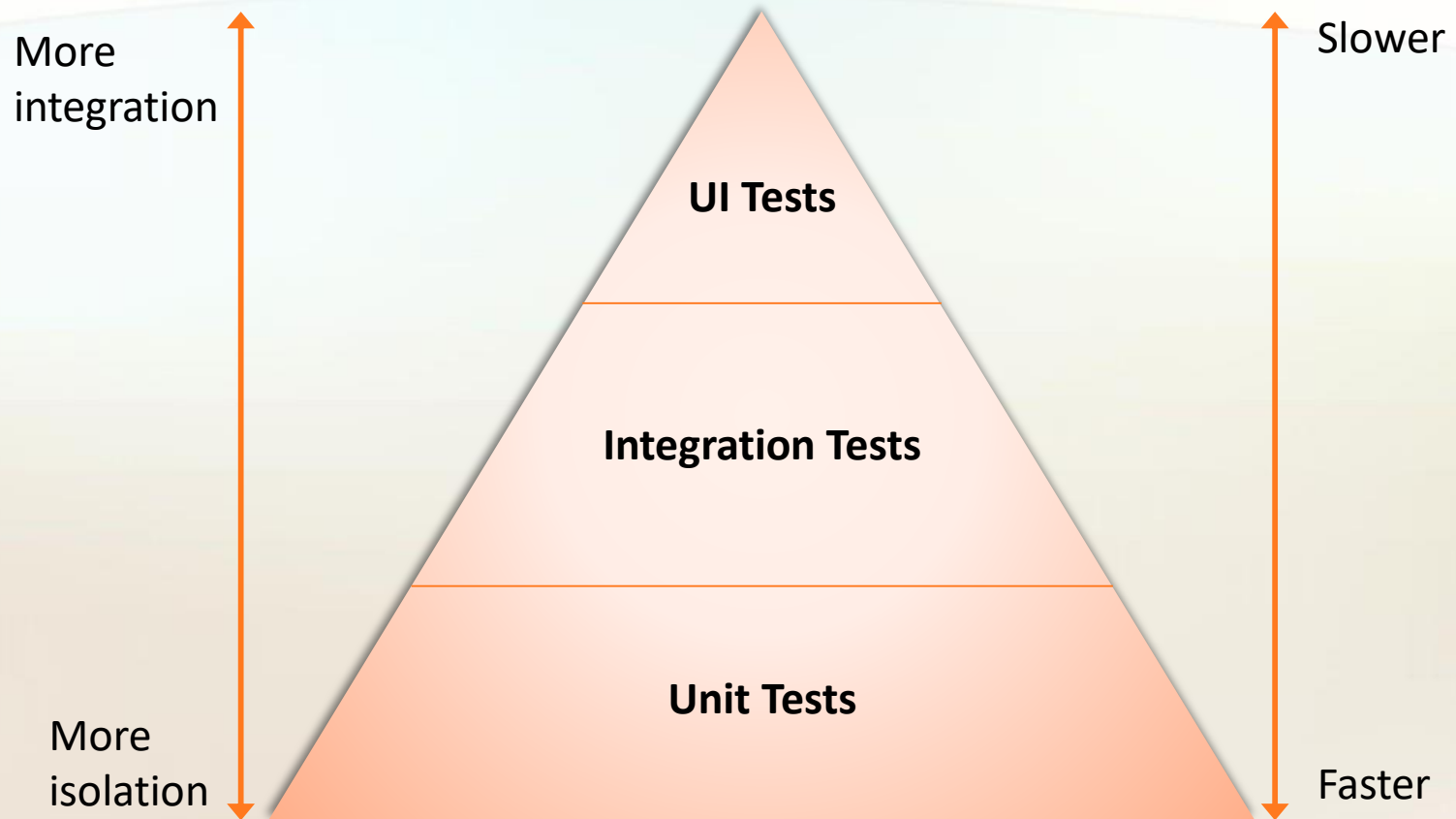
- Continuous Integration/ Continuous Deployment (CI/CD)
 - Automated build and release
 - Basically a faster way to get code into production
 - Quality assurance -> Automated Tests!



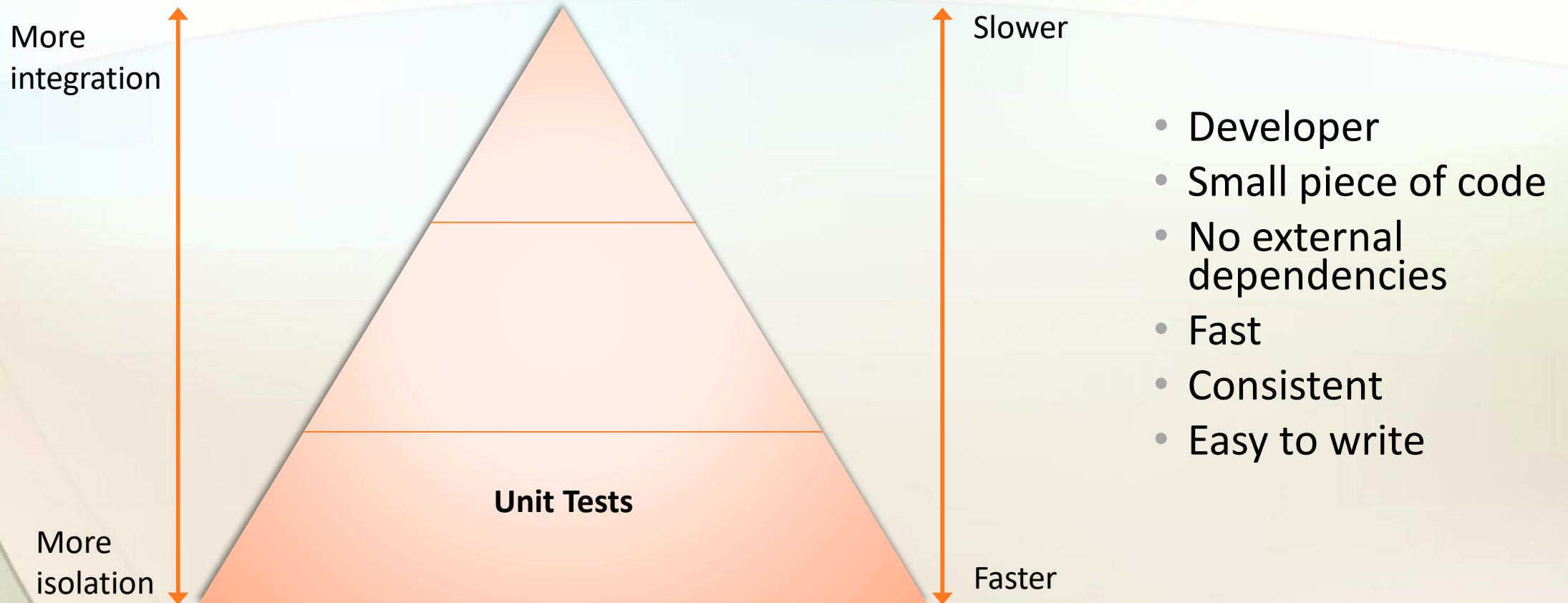
Ham Vocke. *The Practical Test Pyramid*.

Hämtad 2019-06-25. <https://martinfowler.com/articles/practical-test-pyramid.html>

Testing pyramid



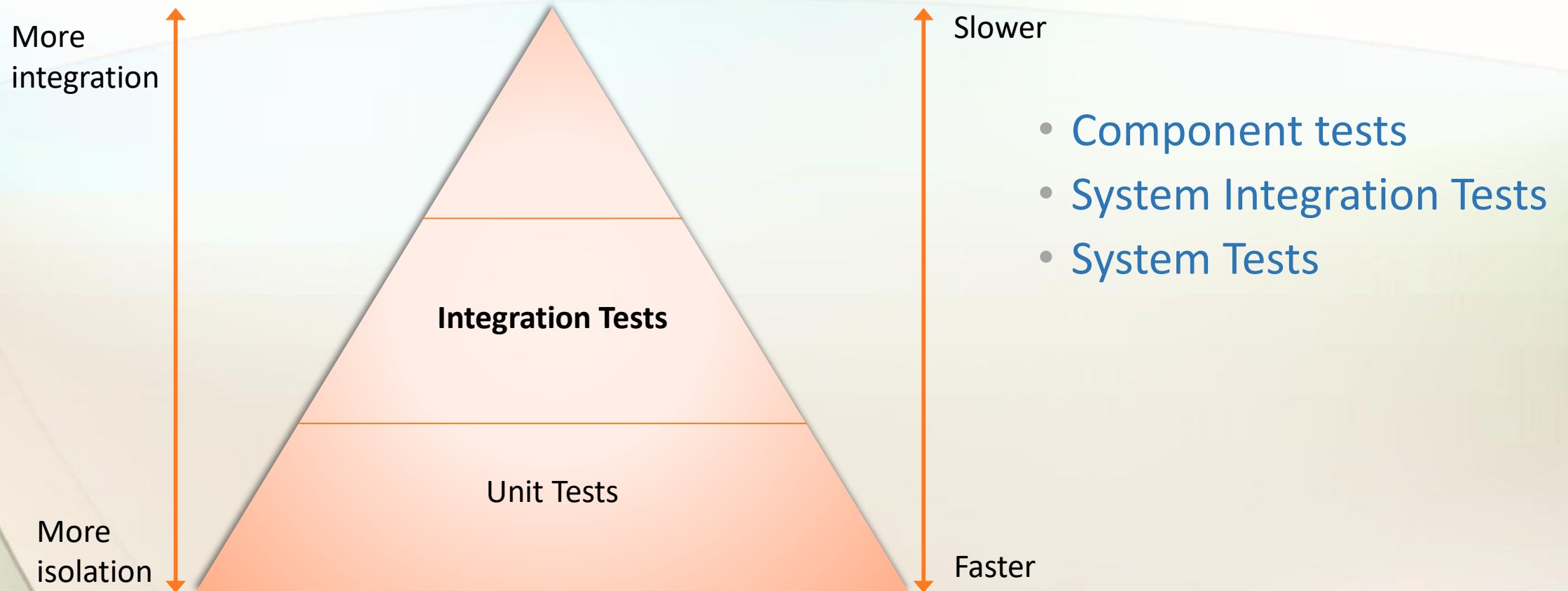
Unit Tests



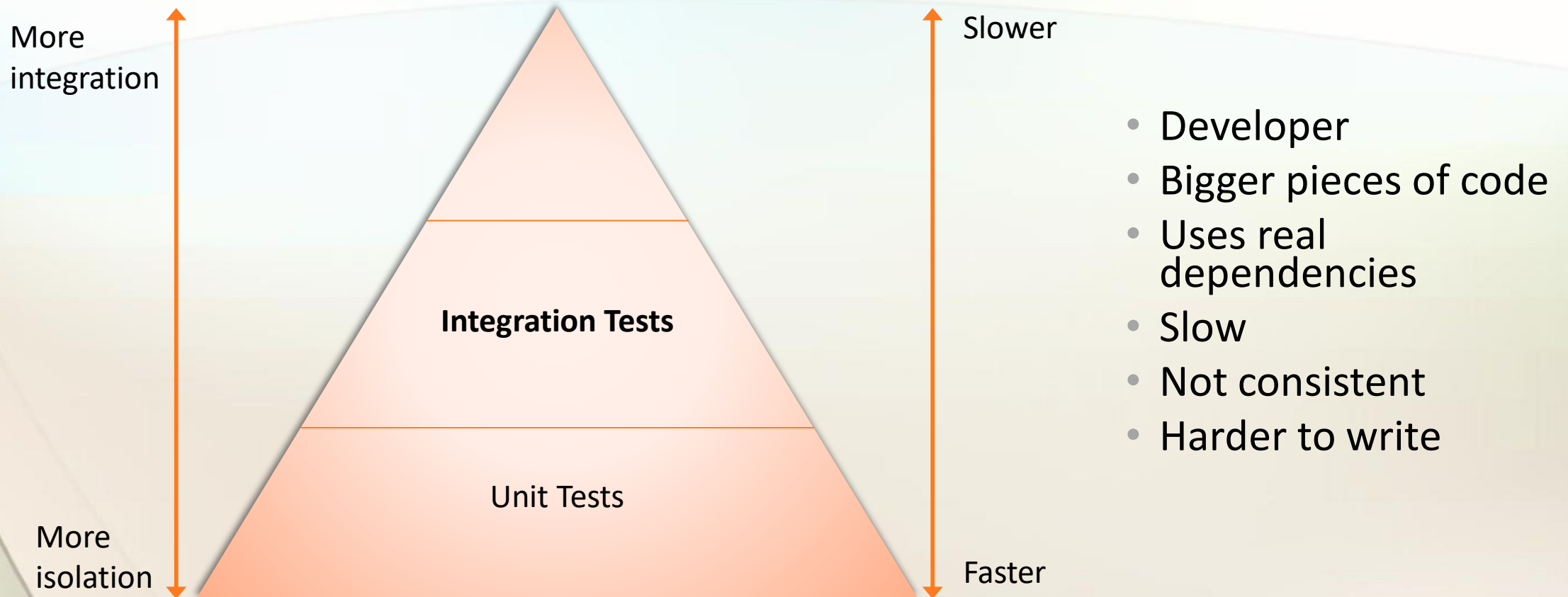
2 Unit Tests, 0 Integration Tests



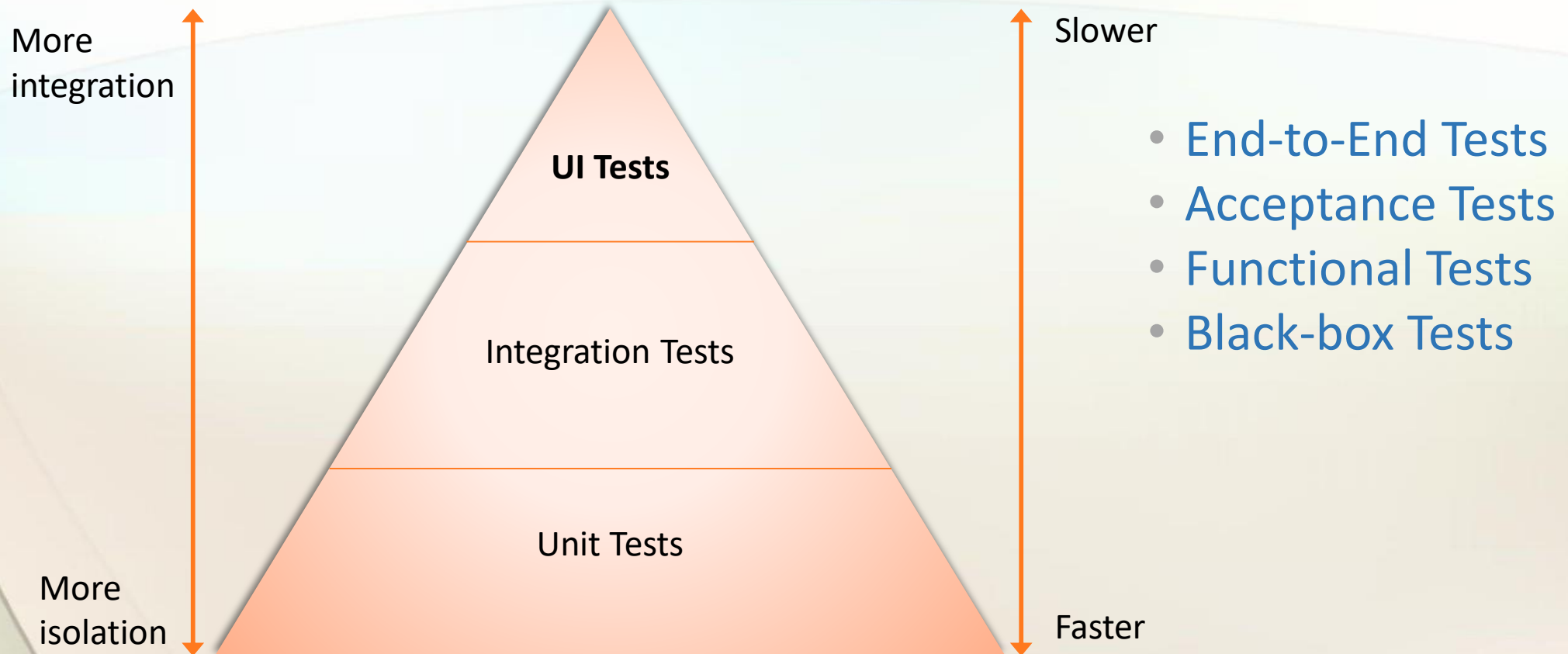
Integration Tests



Integration Tests



User Interface Tests



User Interface Tests

