



Techno Brain and EITPA

WELCOME



Program Agenda

- Introduction to Software Testing
- The QAI Engagement
- The TBL Value addition





SOFTWARE TESTING



Definition

- Software Testing is the process of validating and verifying the software developed meets the
 - Business and Technical requirements
 - Performs or works as expected





Scope of Testing

- Verification – Software meets the Technical specifications
- Validation – Software meets the business requirements
- Defect finding – variance in between the expected and actual result





Testing questions

- Does it really work as expected
- Does it meet the users requirements
- Is it what the users expect
- Is it compatible with other systems
- How does it perform
- How does it scale
- Is it ready to release





Testing helps

- Save time and money by identifying defects early
- Avoid or reduce development downtime
- Provide better customer service by building a better application
- Know that we've satisfied our users' requirements
- Build a list of desired modifications and enhancements for later versions
- Identify and catalog reusable modules and components
- Identify areas where programmers and developers need training





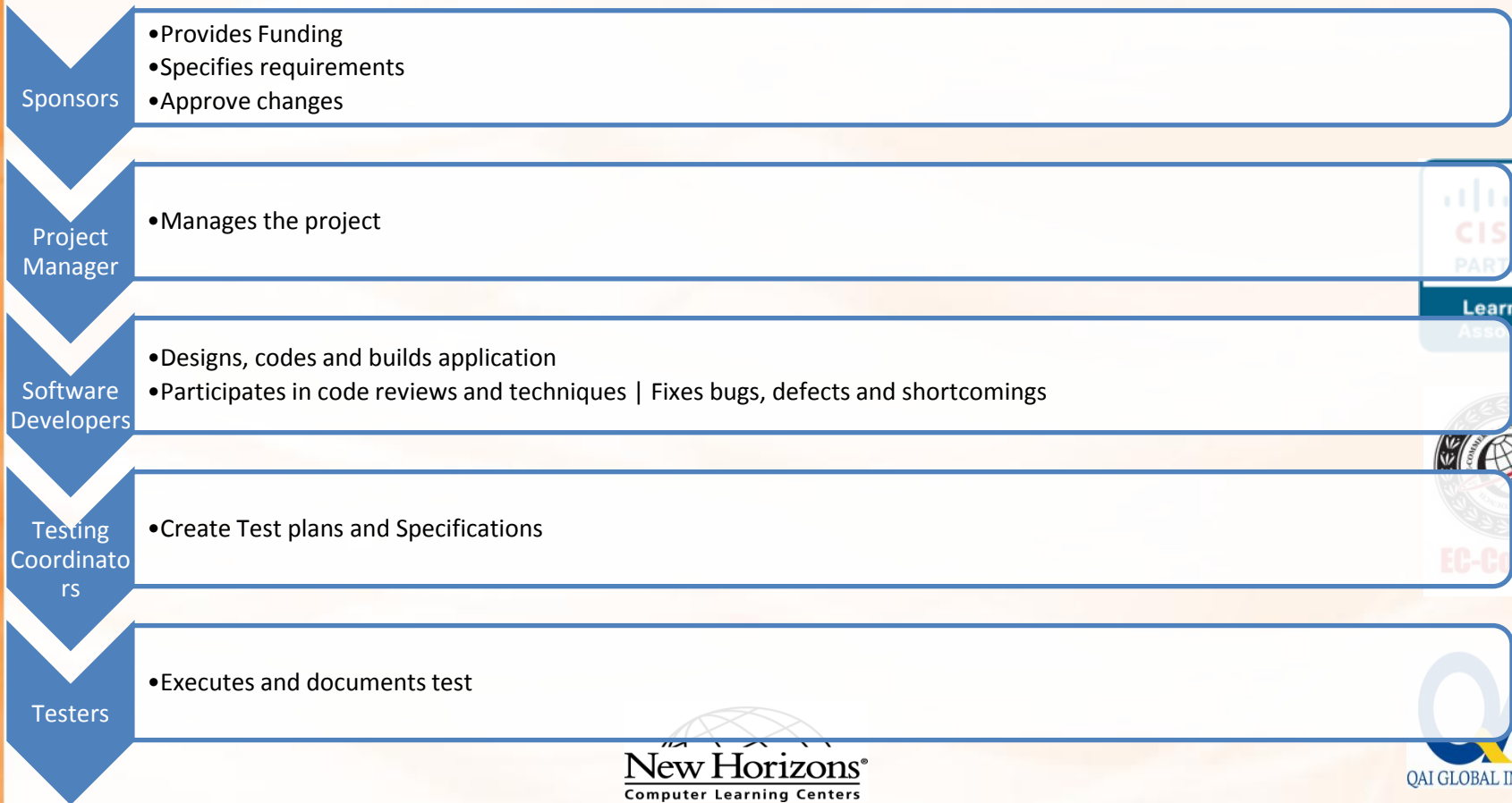
What do we test

- Core functionality
- Application capabilities on common usage situations
- Other factors
 - Business requirements
 - Functional design and Technical design requirements
 - Regulatory requirements
 - Programmer code and Corporate standards
 - Systems administration standards and restrictions
 - Professional or trade association best practices
 - Hardware configuration
 - Cultural issues and language differences





Key Players and Roles





TYPES OF TESTING



Testing Types

- Functional Testing – Validating an application
- Performance Testing - Scalability
- Black and White box
- Regression and Unit
- And other different types





SDLC

METHODOLOGIES



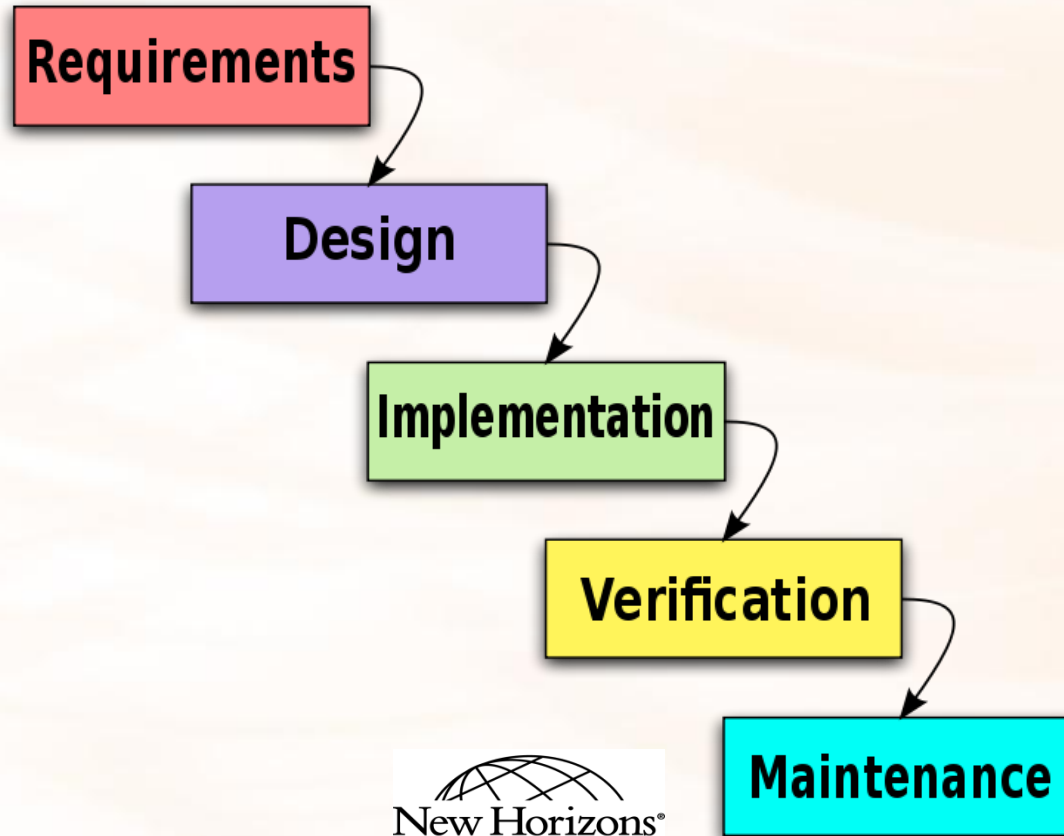
SDLC Methodologies

- Waterfall
- V – Models
- Iterative and Incremental
- Agile , Scrum
- XP





Waterfall





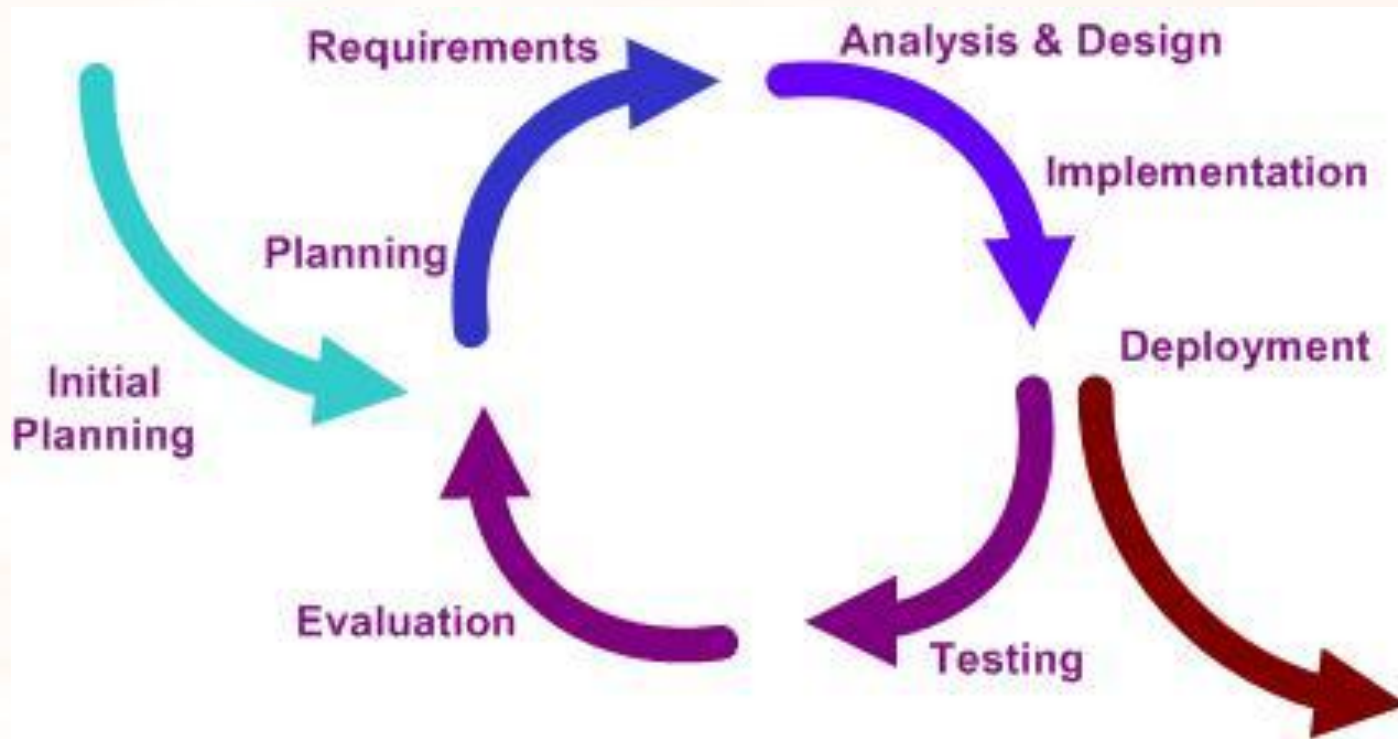
V Model

Phase	Guiding Document	Test Type
Development	Technical	Unit
System and Integration	Functional	System testing Integration Testing
User Acceptance	Business Requirements	User Acceptance
Implementation	Business Case	Product Verification
Regression Test applies everywhere		



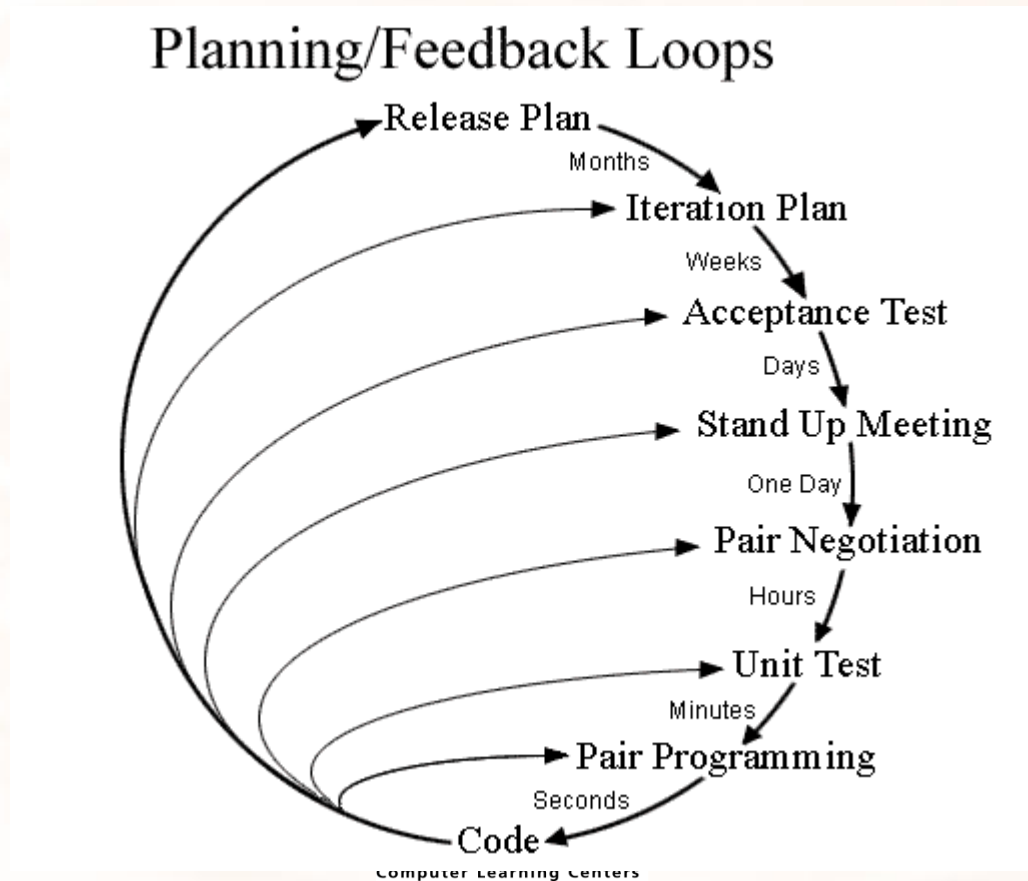


Iterative and Incremental



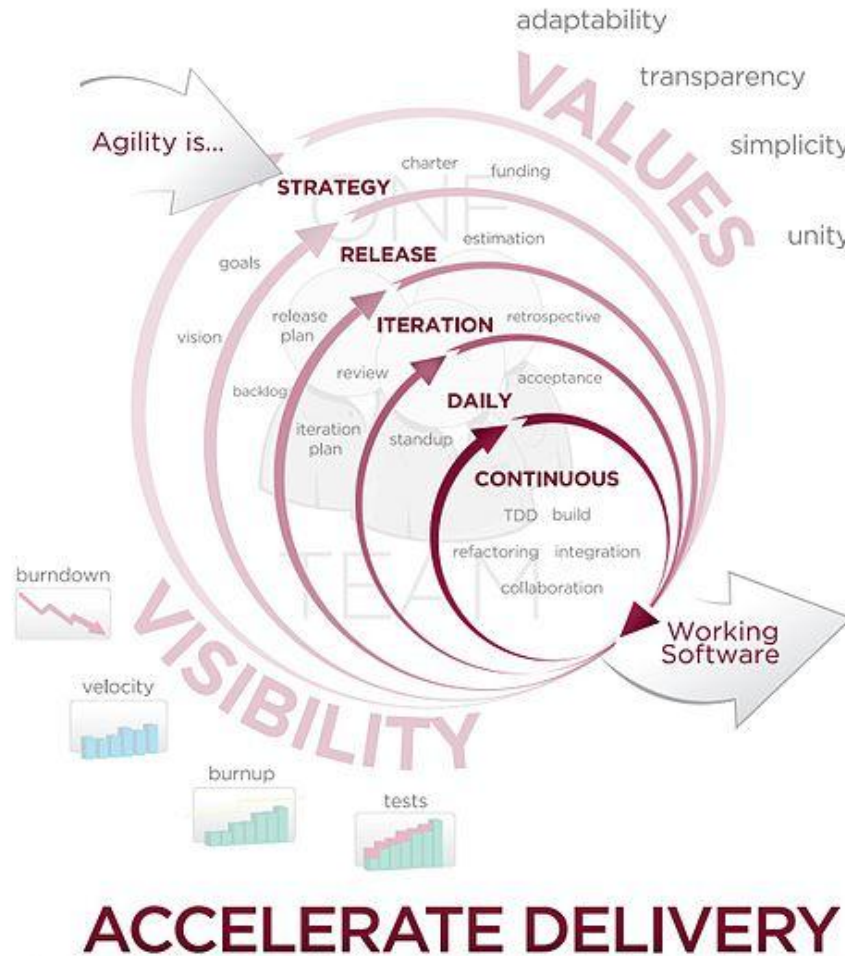


XP – Extreme Programming





AGILE DEVELOPMENT





Testing tools

- QA Testing
- Load testing
- Performance Testing
- Unit Testing
- Software testing
 - Open Source tools
 - Vendor tools





HOW DOES QAI HELPS



TBL Value Addition

- [3 About TBL EITIPA 8th July at Addis.pptx](#)





Quality Management

- [4 QualityManagement Addis.pptx](#)

