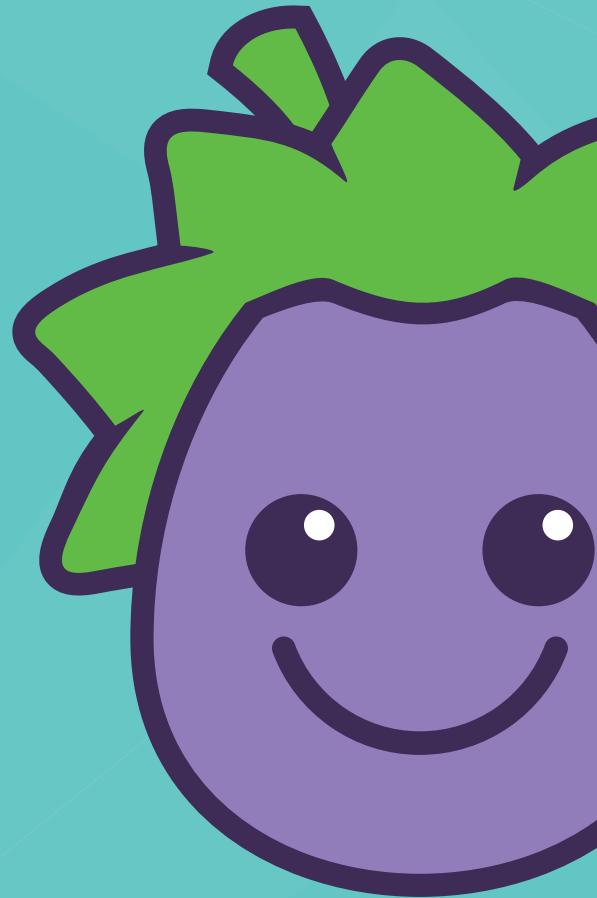


Test Automation Beyond Test Execution

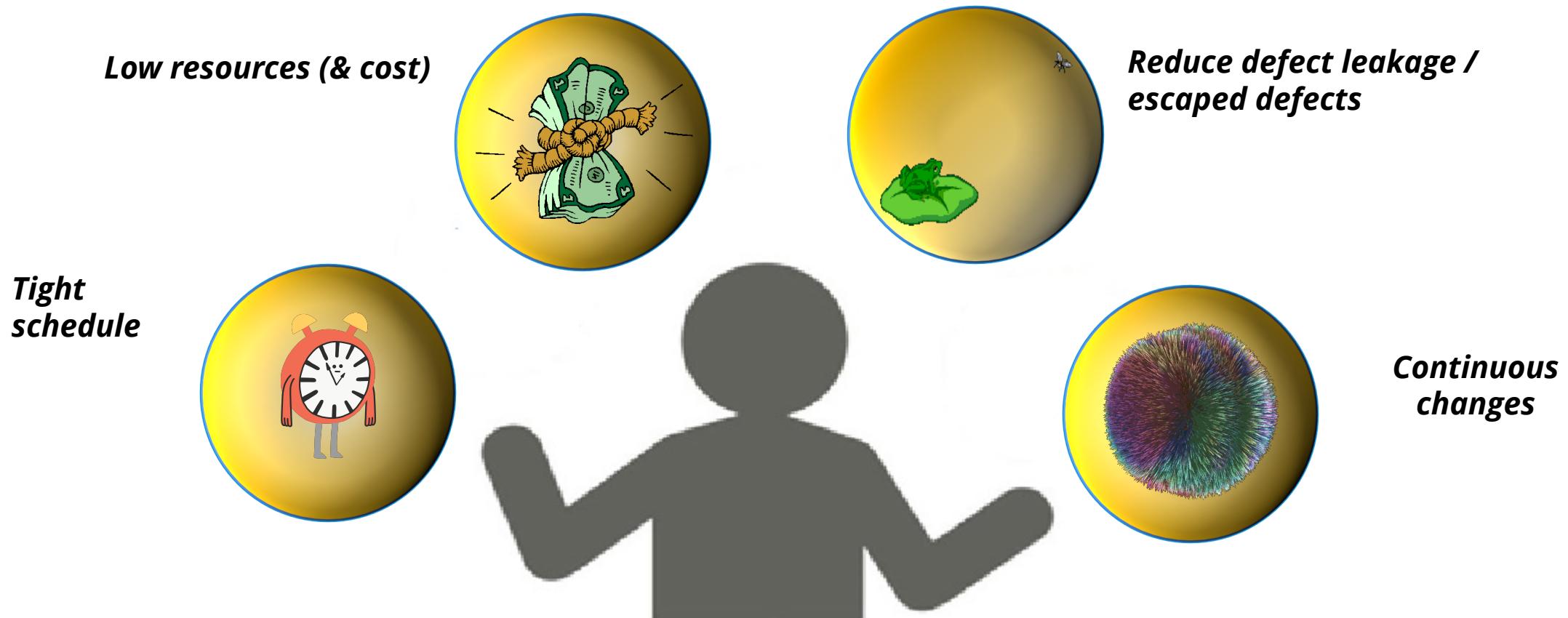
Lana Rousakovski

*Lead Solution & Test Designer, Lean Six Sigma
Master Black Belt, Cerner*



10 October 2019

Never-ending Testing Challenges

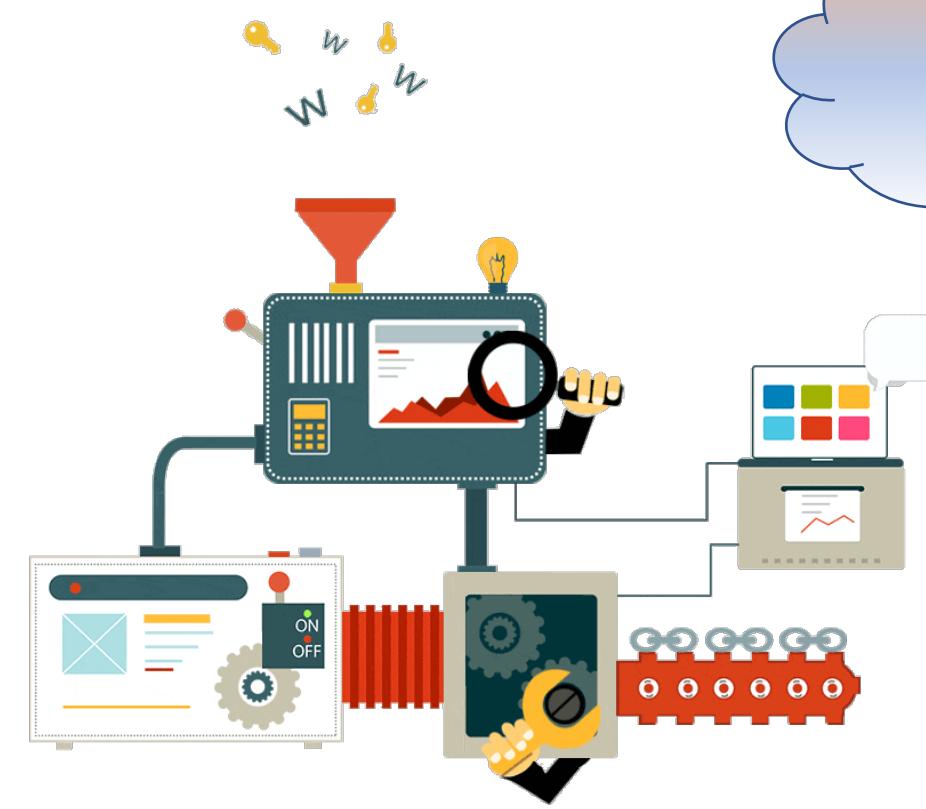


Test Automation - Solution To All?



Test Coverage
?

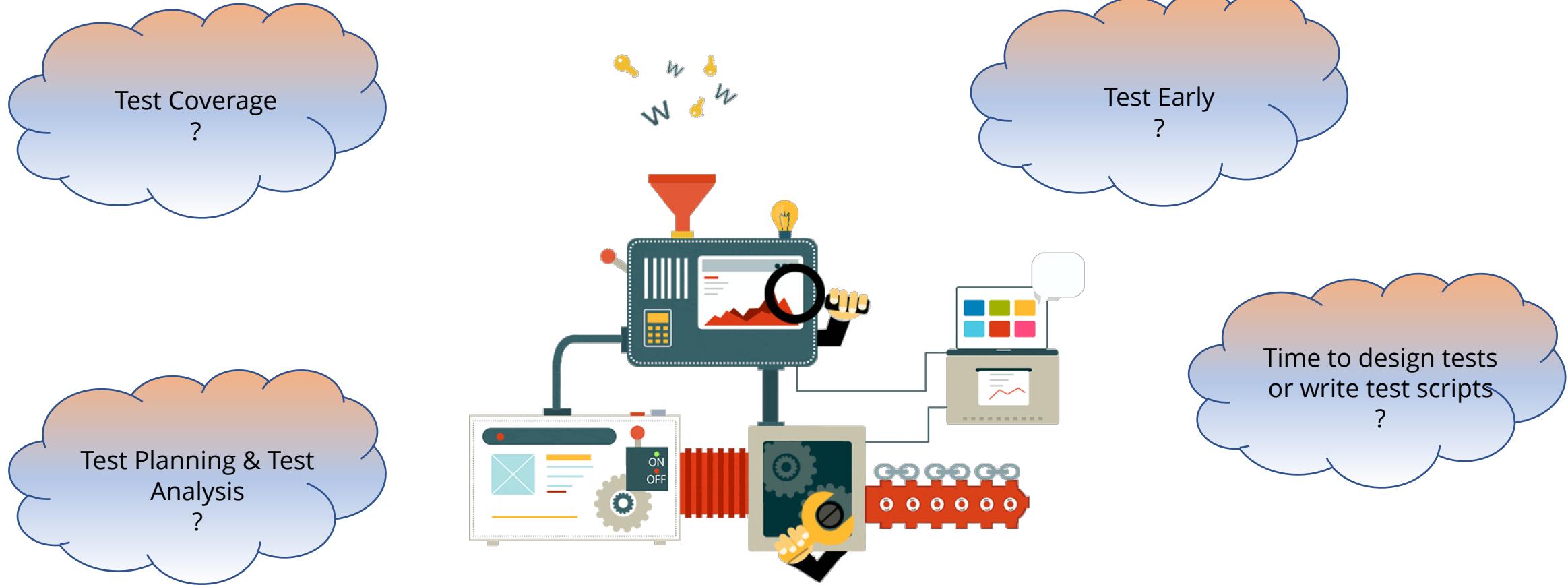
Test Planning & Test Analysis
?



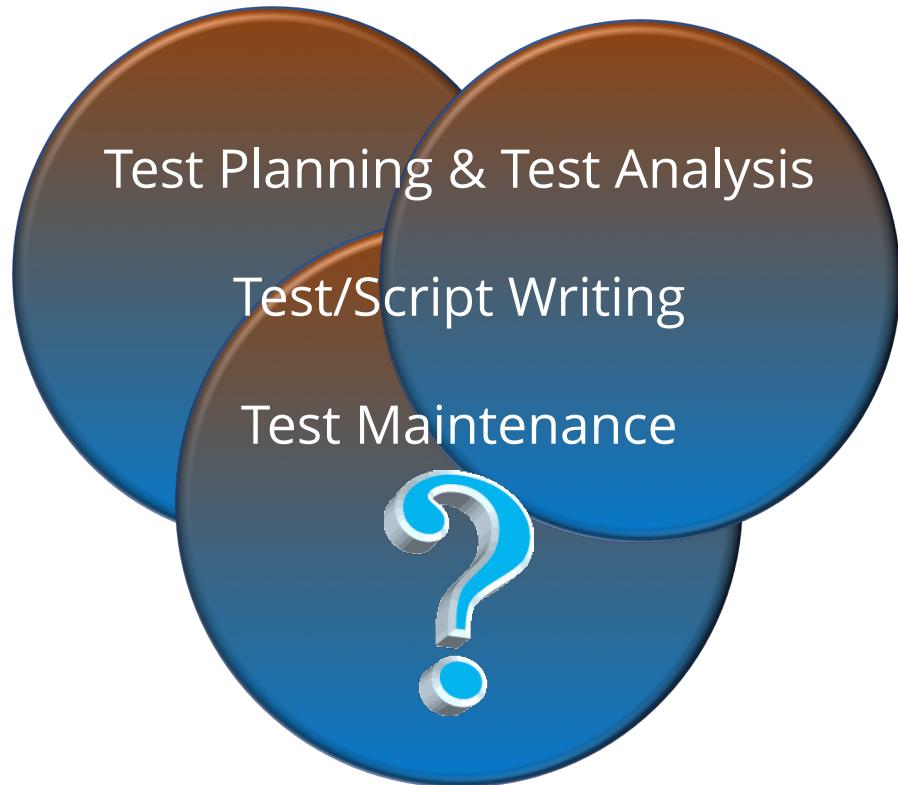
Test Early
?

Time to design tests
or write test scripts
?

Test Automation - Solution To All?



Is Test Automation All We Can do?



What Is The Secret?

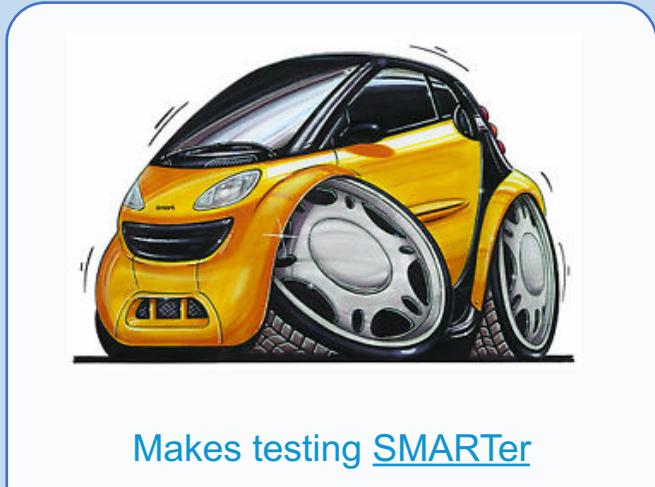
There was a software tester who had an exceptional gift for finding bugs...



Can MBT Be The Answer?



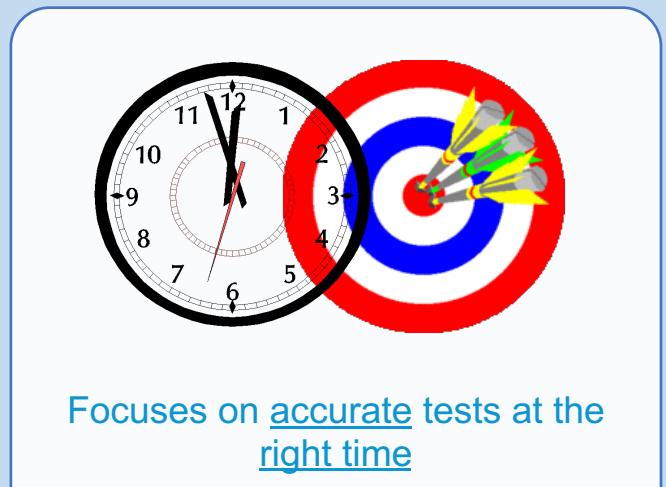
MBT



Makes testing SMARTer



Simplifies the complex process of test analysis & design



Focuses on accurate tests at the right time

MBT +
Automation

Exponentially increases coverage
with minimal additional effort



Faster test automation



Why MBT?

Automate elements of test design & test writing

plus

Visually model
system
behavior

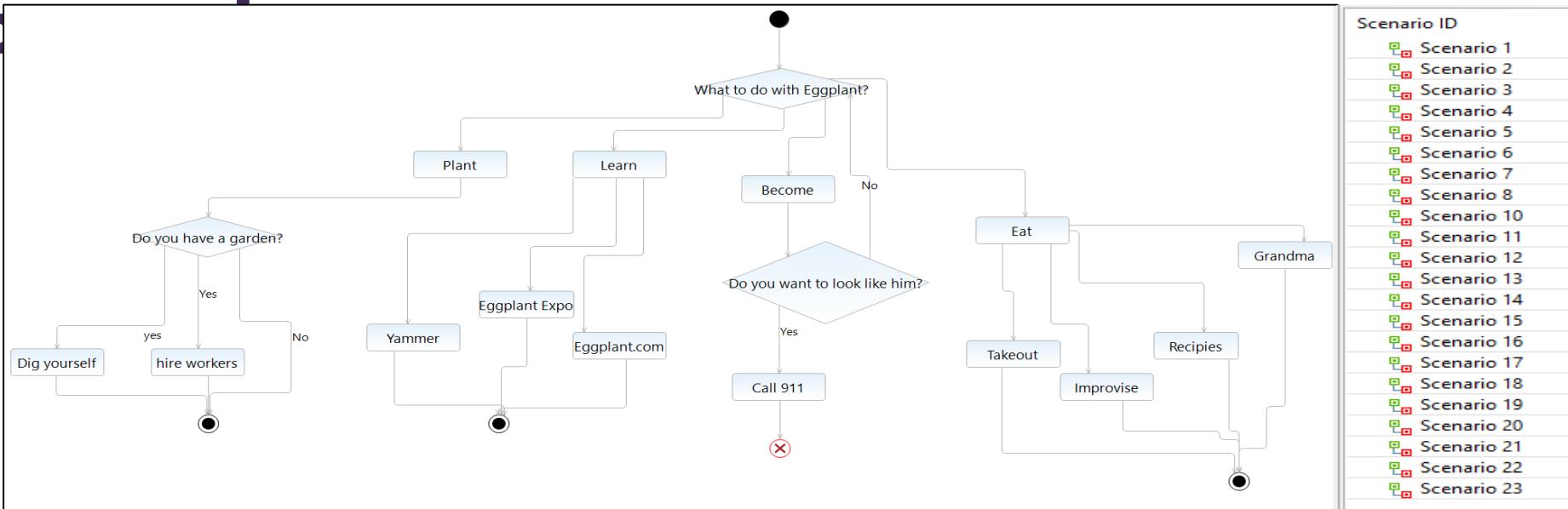
Understand all
possible
scenarios

Evaluate and
select test
coverage

Improve test coverage

Make test design process smarter, faster and earlier

Models & Apps



Coverage Type All Pairs

Coverage: States Actions Paths
47% 8/8 16/22 37/111

Model: ys037735_TestingExpoDemo | Table View | Run Report | Test Cases | Performance Tests | Coverage Report

Coverage Type Extended

Coverage: States Actions Paths
16% 8/8 16/22 43/449

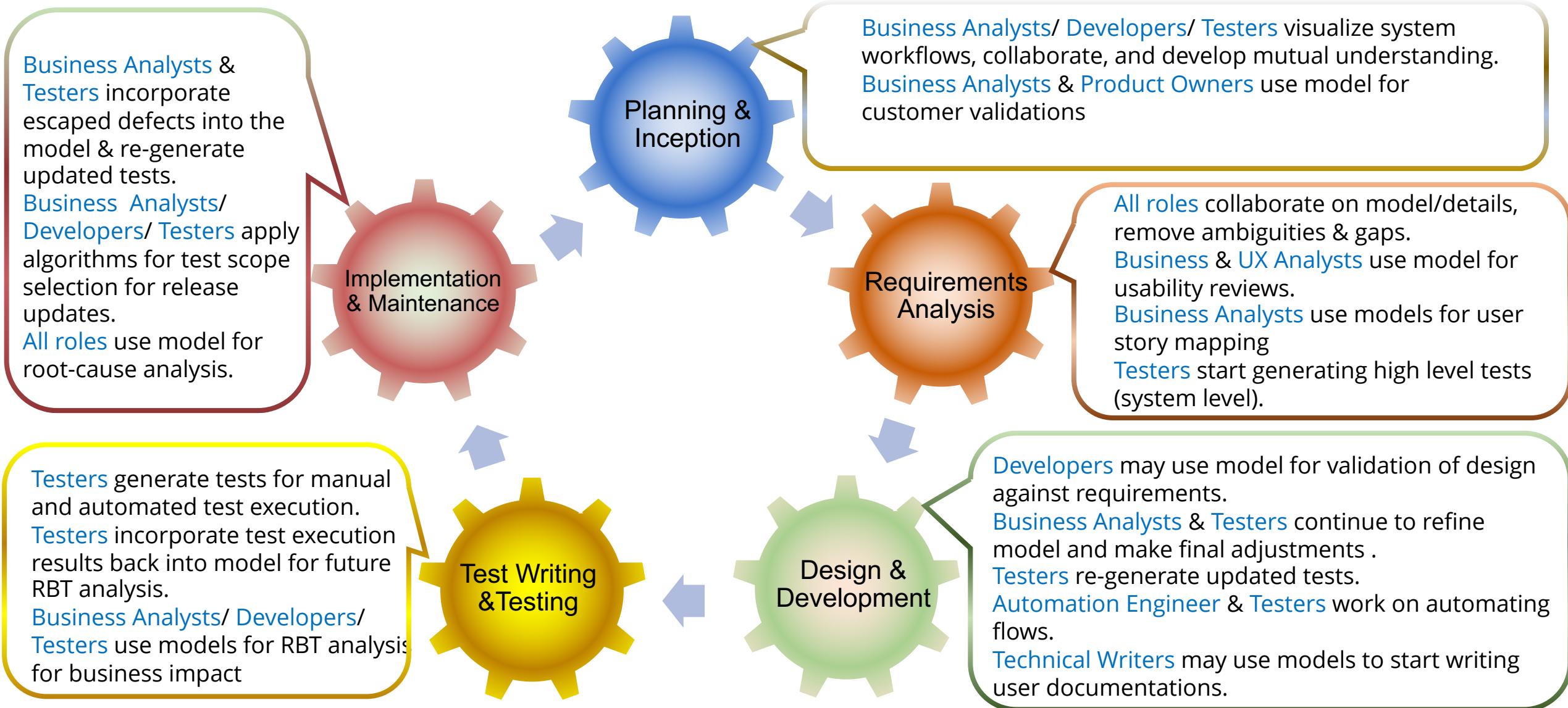
Coverage Type All Nodes

Coverage: States Actions Paths
82% 8/8 16/22 0/0

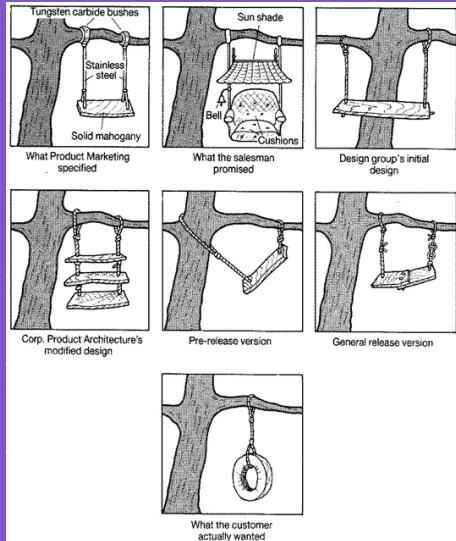
Coverage Type Full Exploratory

Coverage: States Actions Paths
4% 8/8 16/22 45/1767

MBT Framework: Testing And Beyond



Visualization, Collaboration & Communication



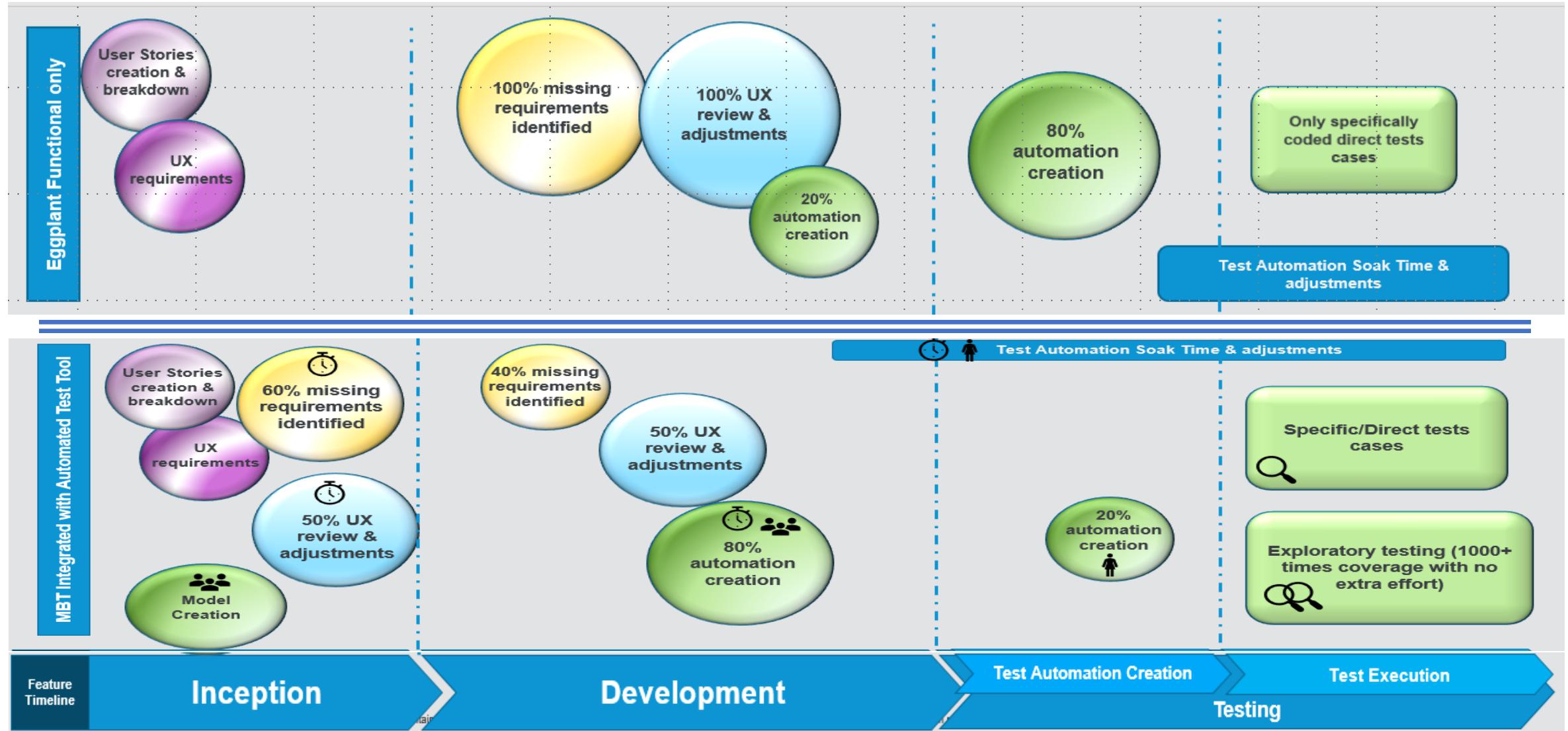
- Encourages **collaboration** across all roles – Product Owners, Business Analysts, Developers, Test Analysts
- All roles reach agreement **earlier** in the development cycle (e.g., defining user journeys)
- Shared **understanding** – visual is the key
- “Talk” to your team. Use model as a tool to **facilitate the communication**



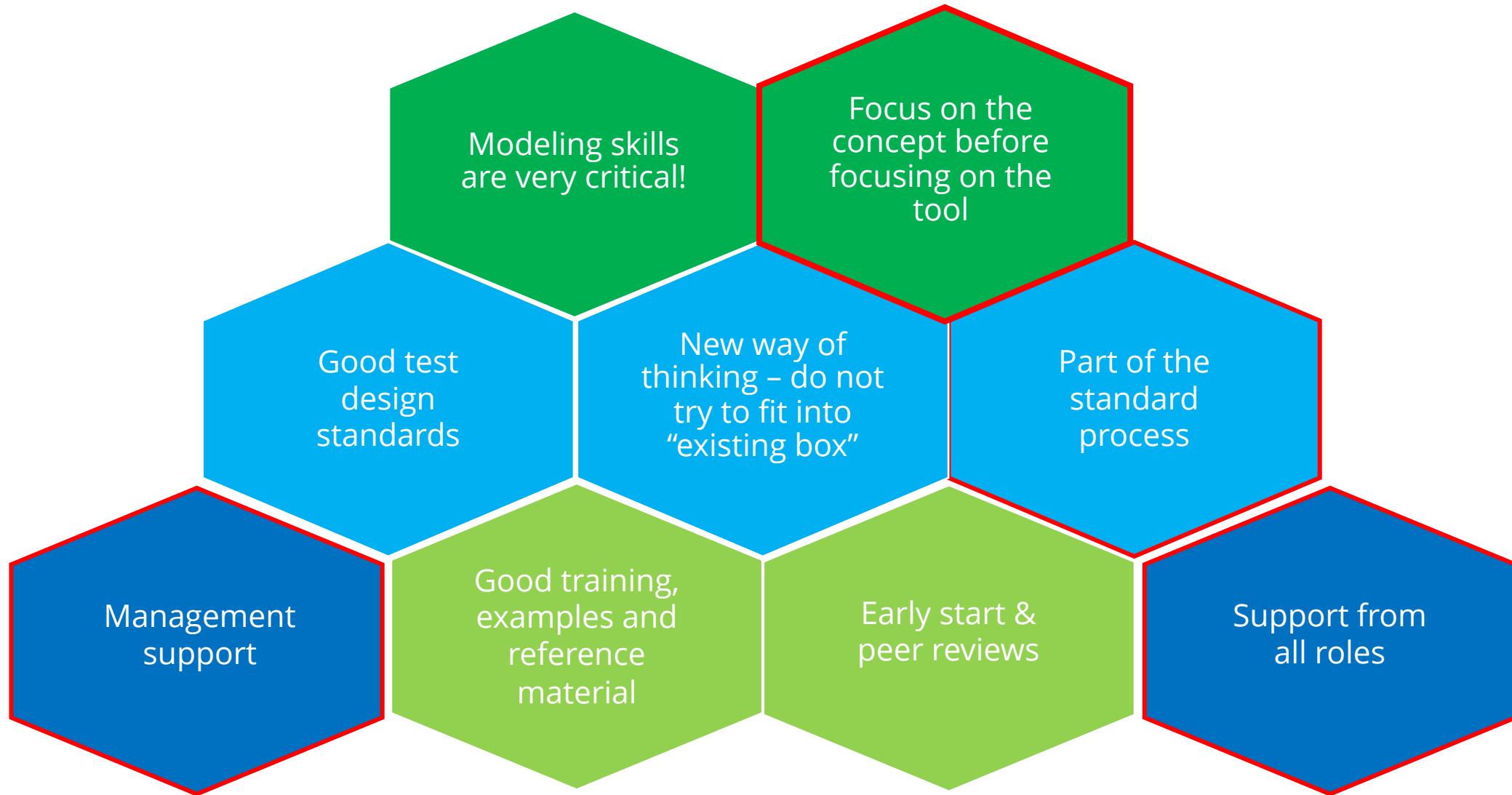
Our Experience with Industry MBT Myths

-
- Peer & team reviews
 - Part of the standard process
- A MUST: strong support from management to lead the process and tool changes in the organization.
 - Focus on the concept before focusing on the tool
 - Modeling skills are very critical
 - Support from all roles
- Adds to traditional test design techniques and practices doesn't replace them
 - Test design standards
 - Examples & reference materials
 - Stay at user level
- This is one of the major perception challenges
 - New way of thinking – do not fit into "existing box"
 - Good training, examples, reference materials
 - Drivers and experts from all roles
 - Apply Test Case generation strategies & algorithms; intelligent filtering
 - BEST: Integrate MBT framework with automated testing

From MBT to AI: Integrating MBT with Automated Testing



Success Factors



Modeling & Test Automation in Action

[Home](#) Eat Plant Learn Become

What can you do with Eggplant?



Eat it



Plant it



Learn it



Become it

Eggplant AI

eggplantai.testplant.com

File Edit Model View Account Help

Iterations 1 Agent YS037735 Release Insights

Model: ys037735_TestingExpoDemo Table View Run Report Test Cases Performance Tests Coverage Report

```

graph TD
    Initial([Initial  
Open website]) --> EatIt([Eat it  
Find recipes, Order takeout, Ask your grandma, Improvise, Back])
    EatIt --> WhatCanYouDo[What can you do with Eggplant?  
Eat, Become, Plant, Learn]
    WhatCanYouDo --> BecomeIt([Become it  
Do you really want to look like him?  
Change your mind, Call 911])
    BecomeIt --> PlantIt([Plant it  
Dig yourself, Hire workers, Back])
    PlantIt --> LearnIt([Learn it  
Eggplant.com, Yammer, Go to Eggplant Expo, Back])
    LearnIt --> Closer([Closer  
End execution, Exceptions, Failures])
    Closer --> CloseBrowser([Close browser  
Exit])
  
```

Setting up coverage in database "ttdb"
 Created test in database "ttdb" with test id 41964
 Loading tests with ids: 41962
 For static Parameter "ys037735_TestingExpoDemo::isBrowserOpened", set value to "false"
 For static Parameter "Open website::siteURL", set value to "C:/Users/z0030fvp.USMLVV1D0A/Desktop/TestingExpo2019/Demo.html"
 For static Parameter "Open website::browserExecUrl", set value to "C:\Program Files (x86)\Google\Chrome\Application\chrome.exe"
 For static Parameter "Eat::menuOptionToSelect", set value to "Eat"
 For static Parameter "Plant ::menuOptionToSelect", set value to "Plant"
 For static Parameter "Learn ::menuOptionToSelect", set value to "Learn"

Console Test ID 41964

* 0016 with my ID *

Eggplant File Edit Run Connection Control Window Help

Enter Capture Mode Start Session Show Full Size Capture Image Find Text Cursor Location (936,498) >>

Windows Server 2012 R2

Last Run: Drive Session

Run Run selection Pause Step Into Step Out Step Over

Done 1: execute string of Drive Session
 runwithnewresults "CloseBrowser",
 20190909 04:30 PM EndTestCase (Duration:"0.036", Errors:"0", Exceptions:"0", StartTime:"2019-09-09 12:30:59 -0400", Successes:"1", TestCase:"CloseBrowser.script", Warnings:"0")
 20190909 04:30 PM SUCCESS Execution Time 0:00:00 CloseBrowser.script

12:35 PM 9/9/2019 ENG

Questions?



thank
you

The graphic features the words "thank" and "you" in a bold, rounded font. The "thank" part is in pink and purple, while "you" is in blue. Each letter has a thick black outline and a slight shadow. Five yellow star-shaped balloons with black outlines and orange/pink striped tails are floating around the letters. One star is positioned above the "t" in "thank", two are to the left of the "a" in "thank", one is to the right of the "n" in "thank", and two are below the "u" in "you". A small green heart is located near the bottom right of the "you" letter.