



**By  
Skill Automation**

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An introduction to



# Test Automation Preliminary

# Program

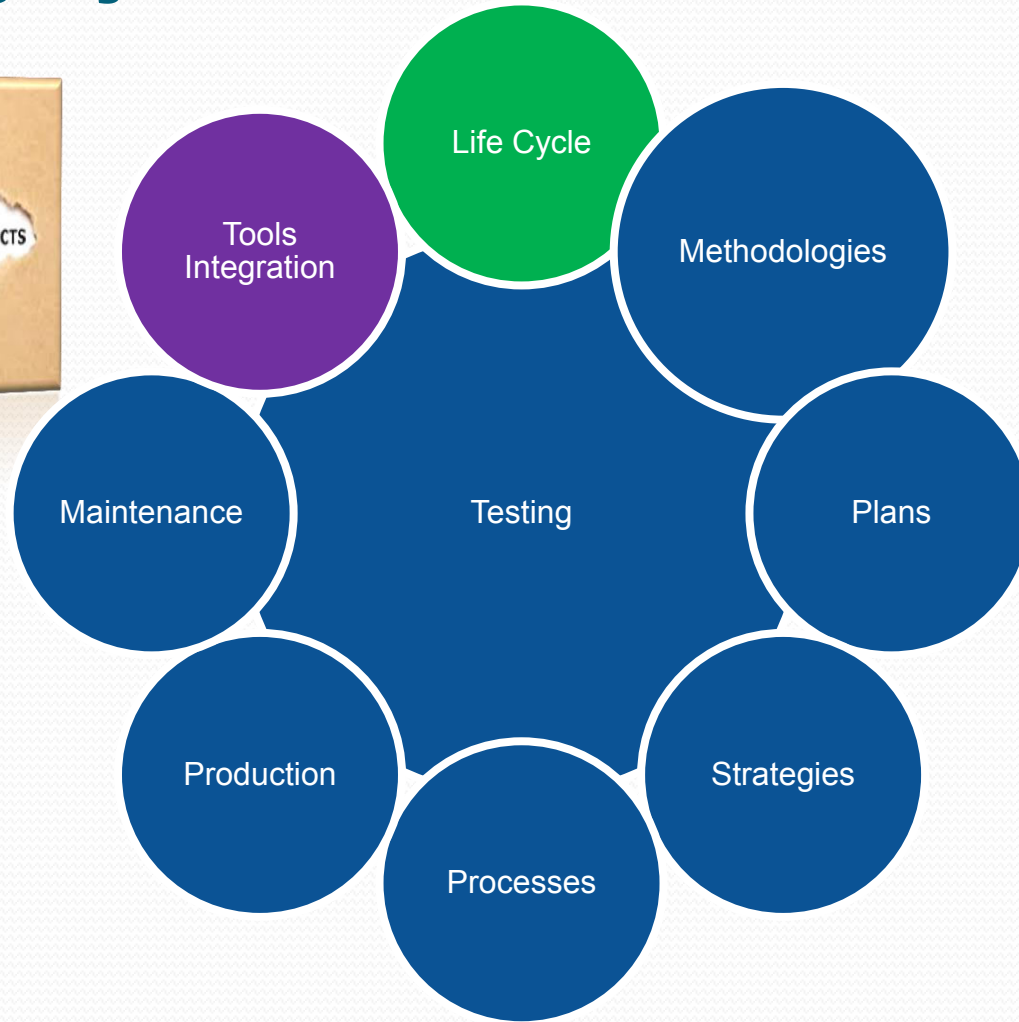


- Testing Myths
- Projects Execution
- Automation Need
- Automation Evolution
- Automation Fixtures

- Tools Stack
- Commercial Tools Architecture
- Open Source Arena
- Open Source Tools Architecture
- Test Automation Life Cycle

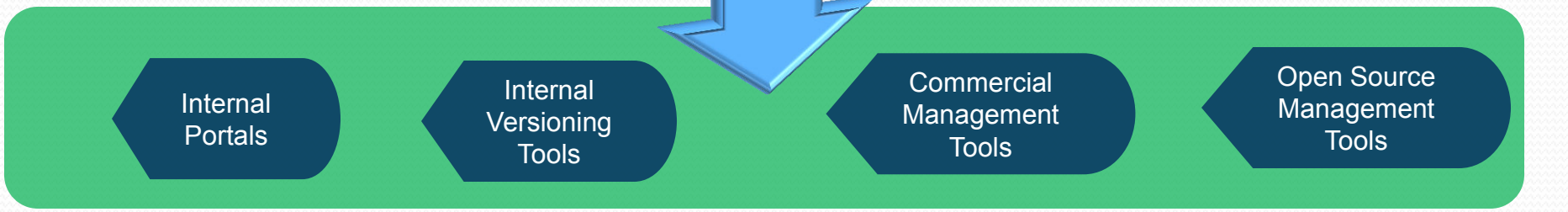


# Testing Myths



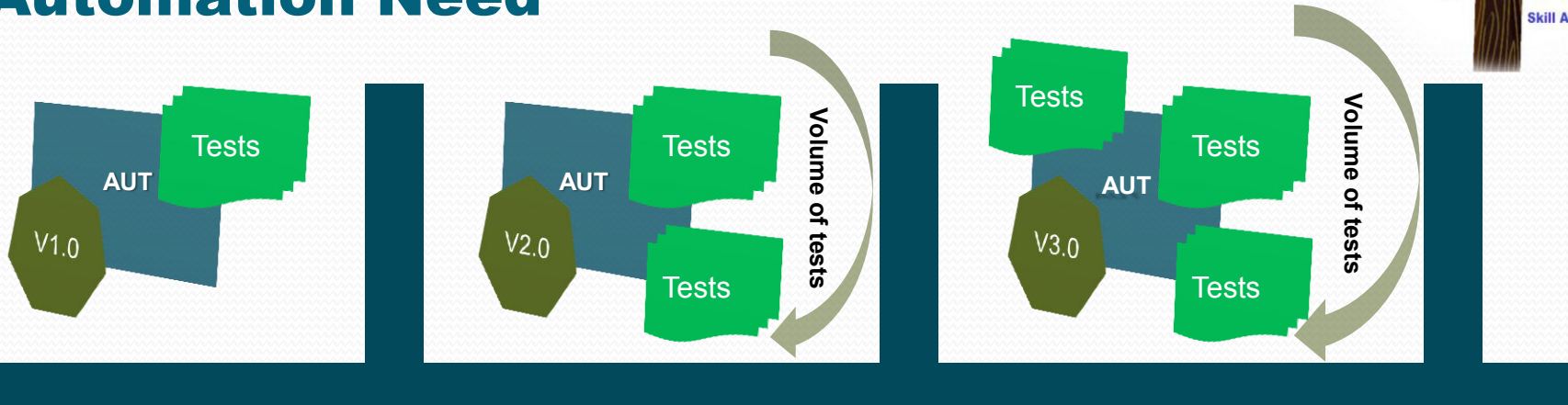


# Projects Execution





# Automation Need



- ✓ Specified timeline
- ✓ Specified resources
- ✓ Specified Test bed
- ✓ Defined Tests

**Release Goals:**  
 Delivery On time  
 Quality Tests  
 Bug free product

- Bottlenecks:**
- ✓ Shorter timeline
  - ✓ Release cycles conduction
  - ✓ Repetitive tests conduction
  - ✓ Resource dependent

- ✓ Specified timeline
- ✓ Specified resources
- ✓ Specified Test bed
- ✓ Defined Tests volume

**Release Goals:**  
 Delivery On time  
 Quality Tests  
 Bug free product

- Bottlenecks:**
- ✓ Timelines skip
  - ✓ Volume of tests
  - ✓ More Test resources
  - ✓ Defects creep to Production

- ✓ Specified timeline
- ✓ Specified resources
- ✓ Specified Test bed
- ✓ Defined Tests volume

**Release Goals:**  
 Releases Per Year  
 Patches release s Per Year

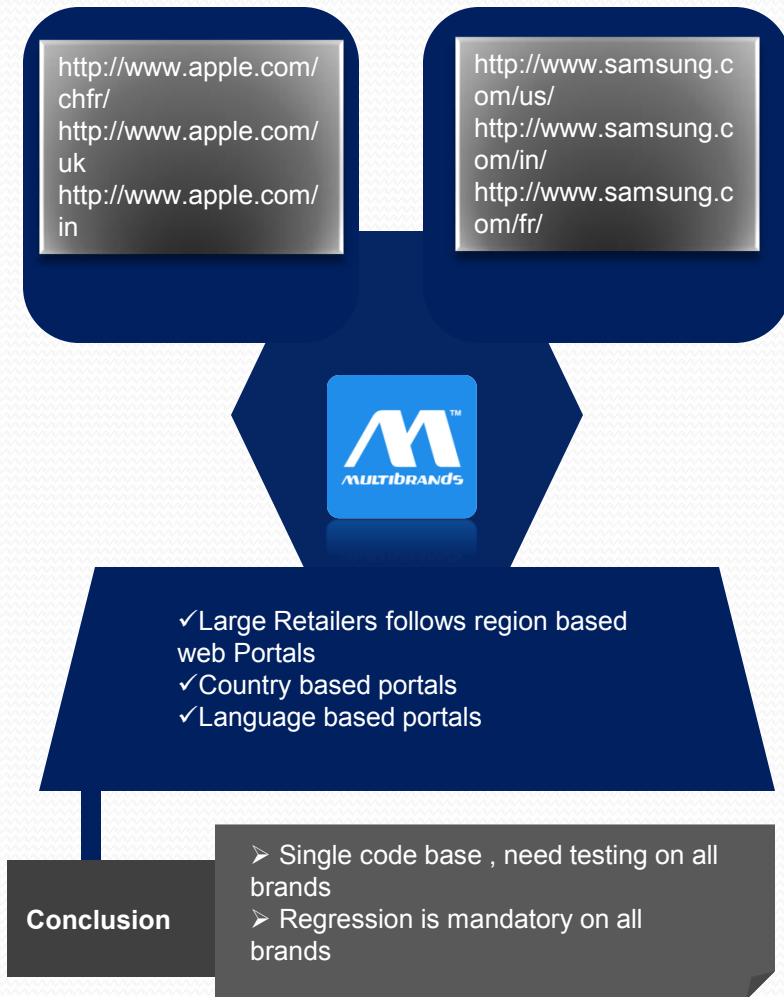
- Bottlenecks:**
- ✓ Unable to meet no.of releases / yr
  - ✓ Patch releases takes longer time

## Conclusion

- More Test cycles demand
- Regression tests demand
- One stop solution of multiple releases in a year



# Automation Need Contd ...

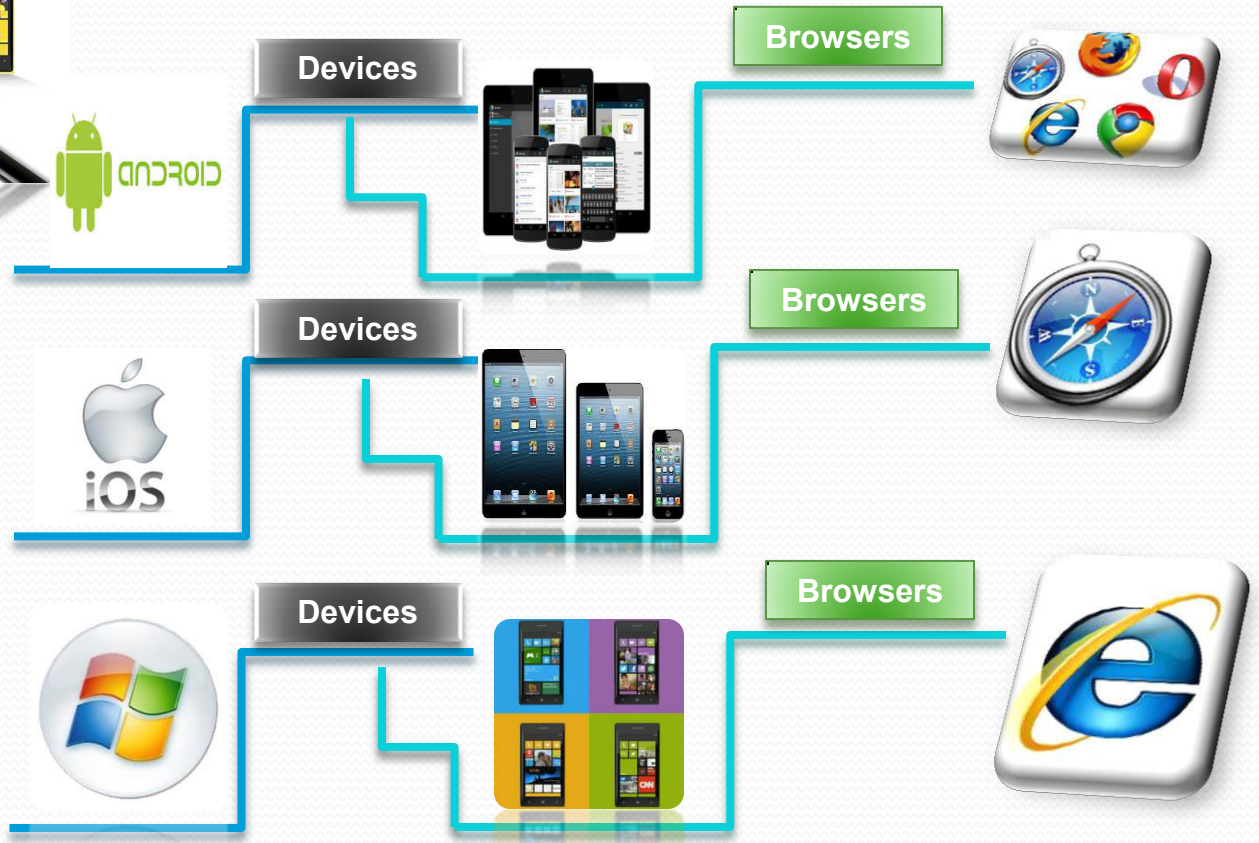




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# Automation Need Contd ...

Mobile Apps Automation



- Conclusion**
- Multi Device testing in demand
  - Multi platform testing in demand
  - Multi browser testing in demand





# Automation Need Contd ...



## Time Record Apps

- ✓ Rule based Testing depends on various combinations of data
- ✓ Week Hrs / Holiday / Leave calculations / Off hrs for Pay roll processing



## Access Privileges Testing

- ✓ Admin / Super User / Normal user depends on combinations of data
- ✓ Links Validations in the portals

Data



## DB Migration

- ✓ Source Vs Target DB Comparison
- ✓ Reports Data Comparison (Technology Change , Old to New Version)

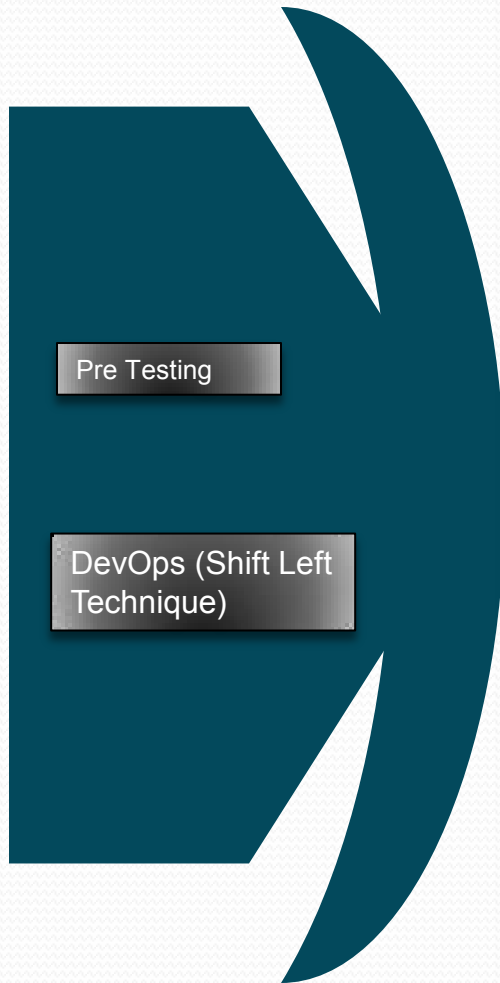


## Reports Data Validation

- ✓ Reports Data Comparison
  - Technology Change
  - Old to New Version



# Automation Need Contd ...

A green rounded rectangle containing three main elements. On the left is an icon for SOAP with two spheres (one pink, one blue) and the word "SOAP" in a yellow box. On the right is an icon for REST API with two white gears on a blue background and the text "REST" and "API". In the center is a grey box with a white border containing a list of items:

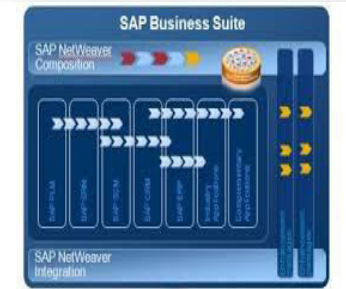
- ✓ Web Services Automation
- ✓ Multiple Web services with different combinations testing

A light blue rounded rectangle containing two smaller blue rounded rectangles. The left one contains the text "Daily Builds Testing" and the right one contains the text "Quick Smoke Tests".



# Automation Need Contd ...

High Volume Test suite  
Regression demand in patch releases  
Enhancements Testing



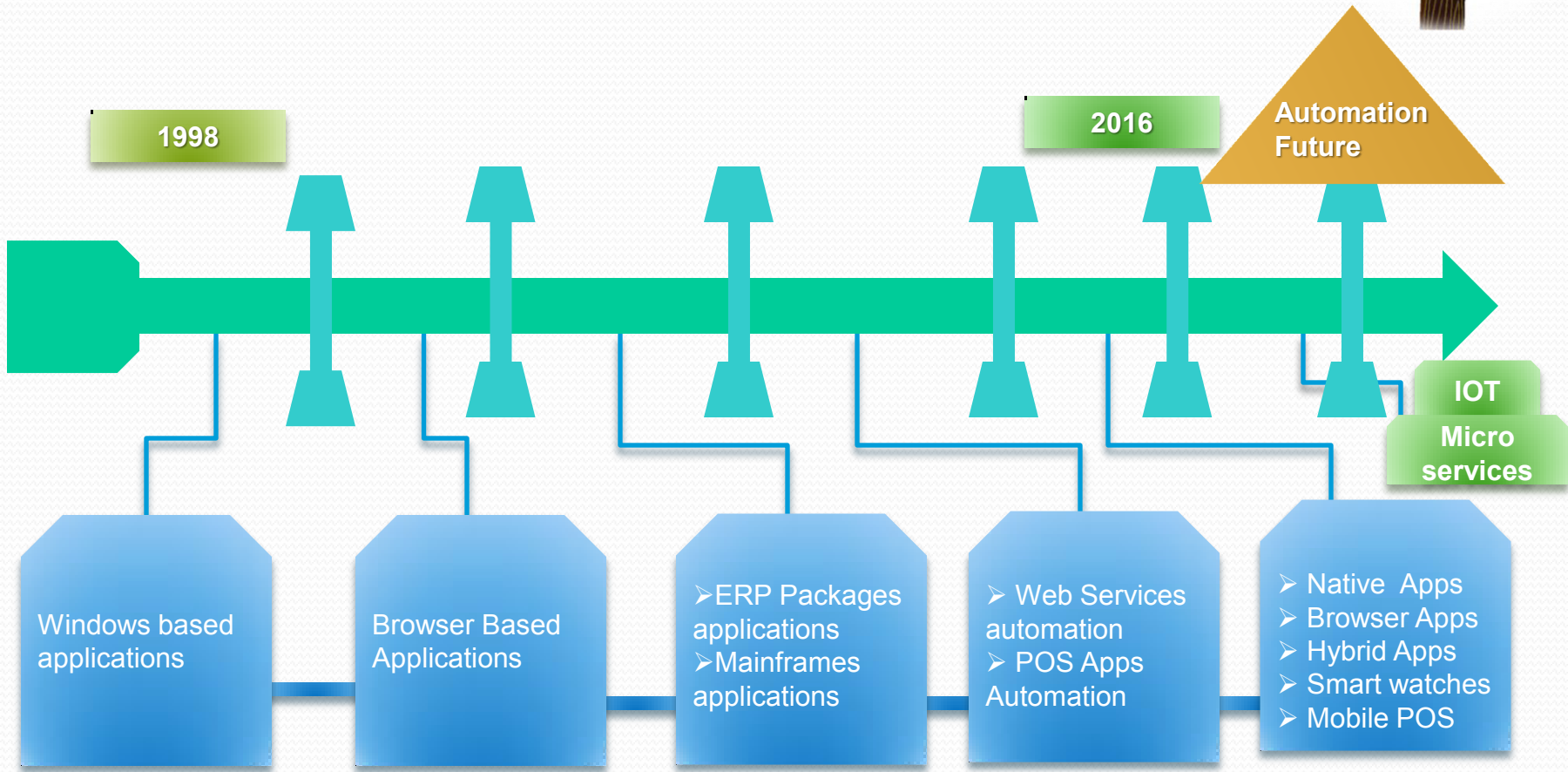


# Automation Need Contd ...



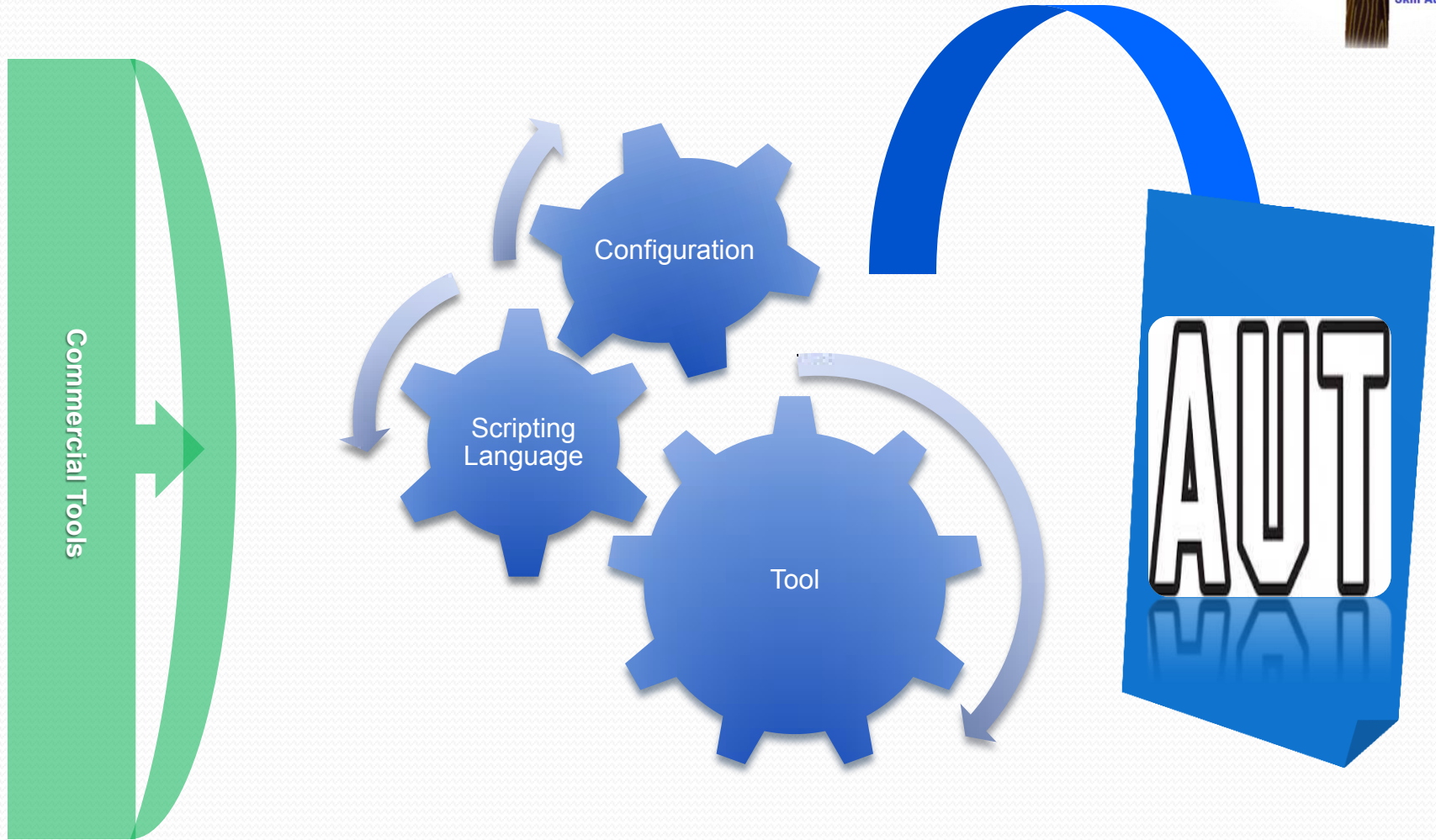


# Automation Evolution



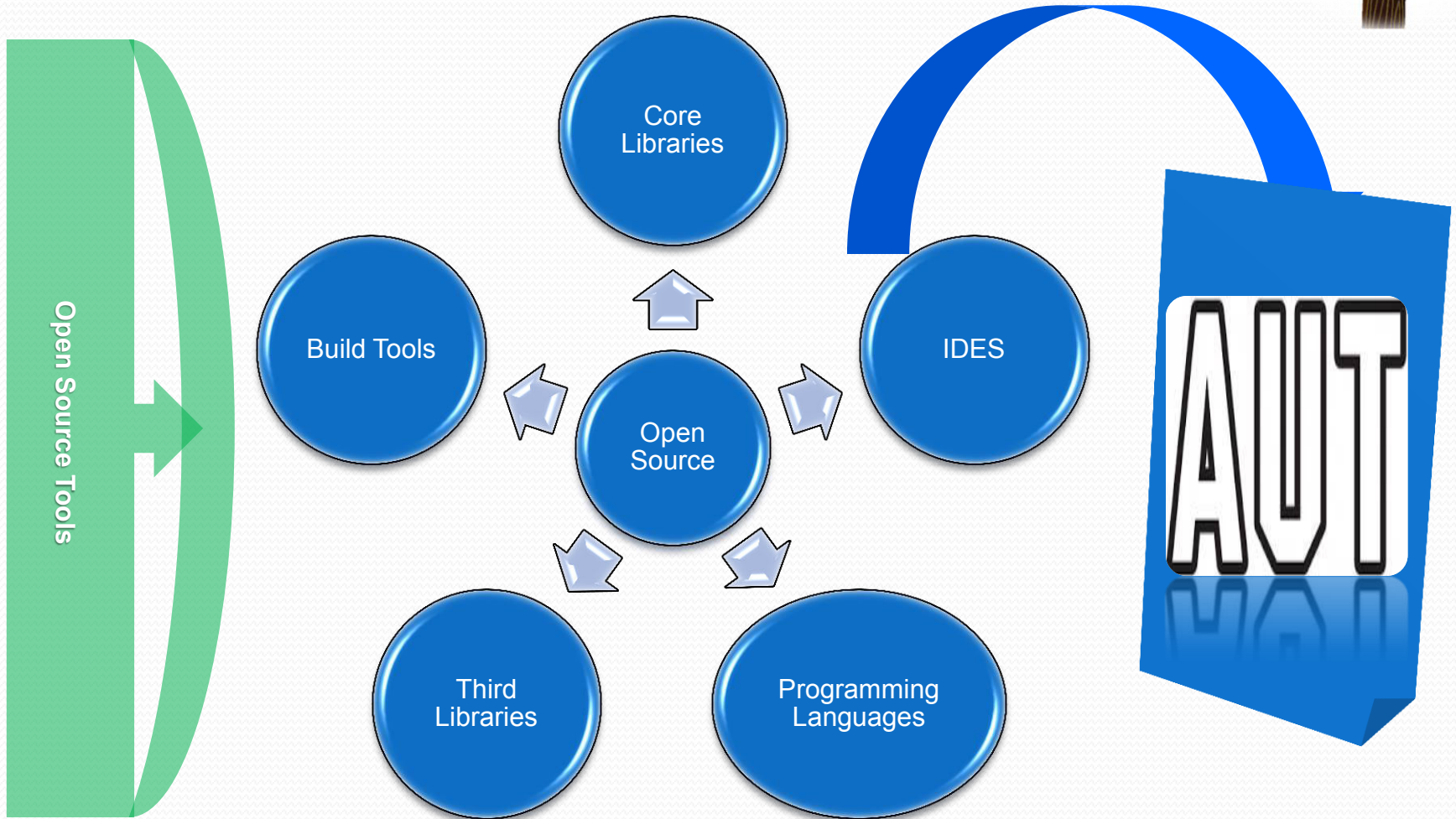


# Automation Fixtures





# Automation Fixtures





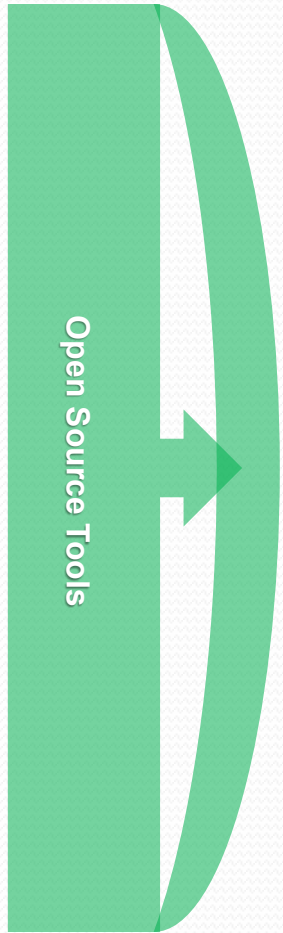
# Tools Stack





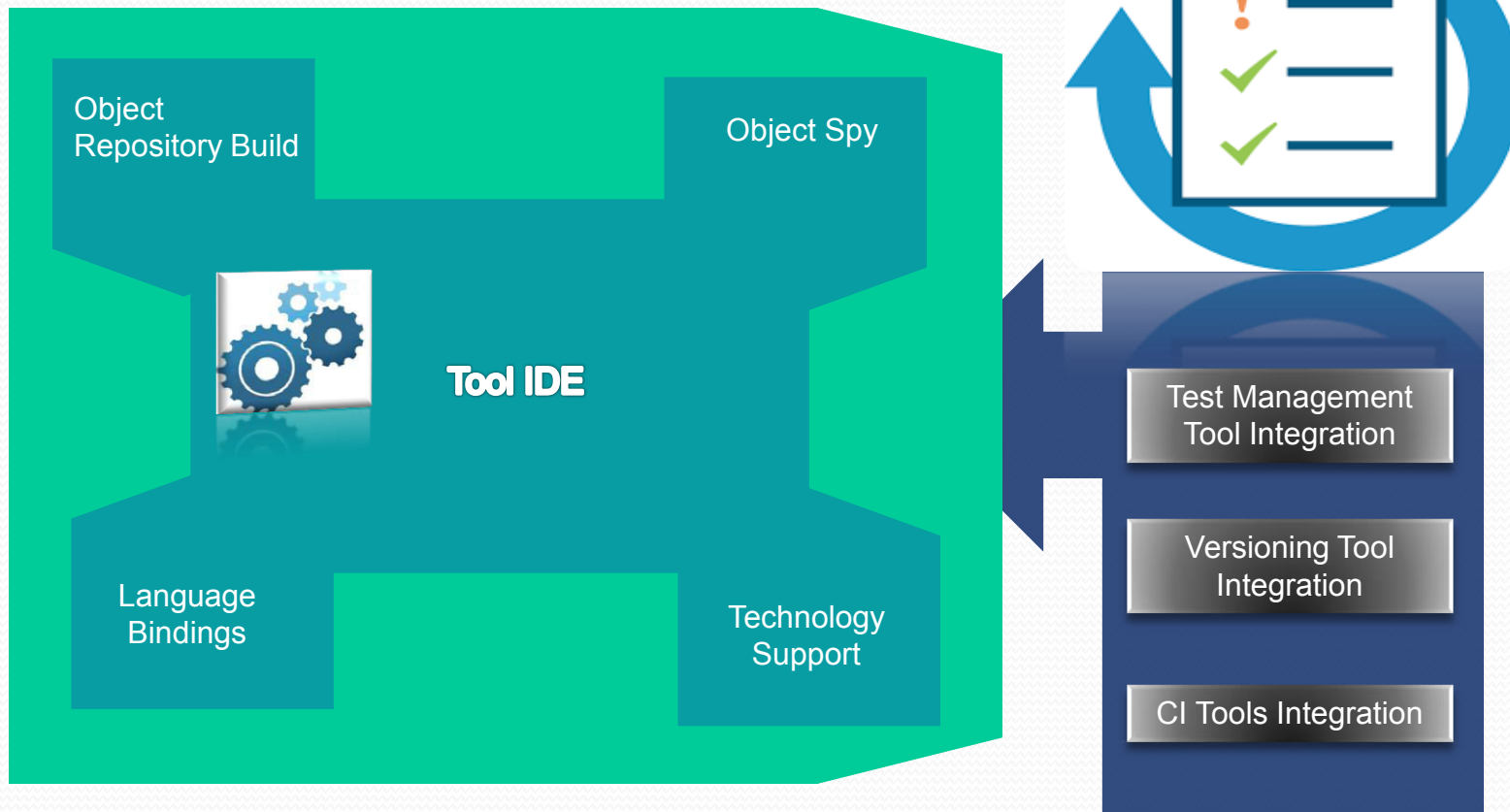


# Tools Stack Contd





# Commercial Tools Architecture





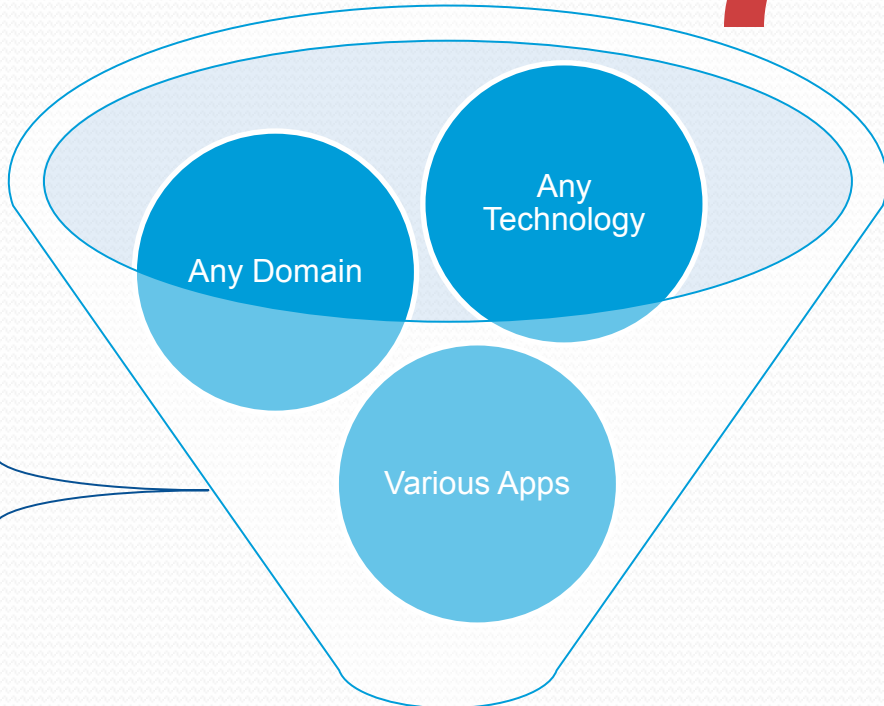
# Open Source Arena

Non Profit Organizations

Commercial Organizations provides limited feature tools

Commercial Organizations forms a group and build solutions , openly available to Global

Anyone can build solutions and make them globally available



**Solutions**

Risk Oriented

Stable versions preferable

Includes lot of research

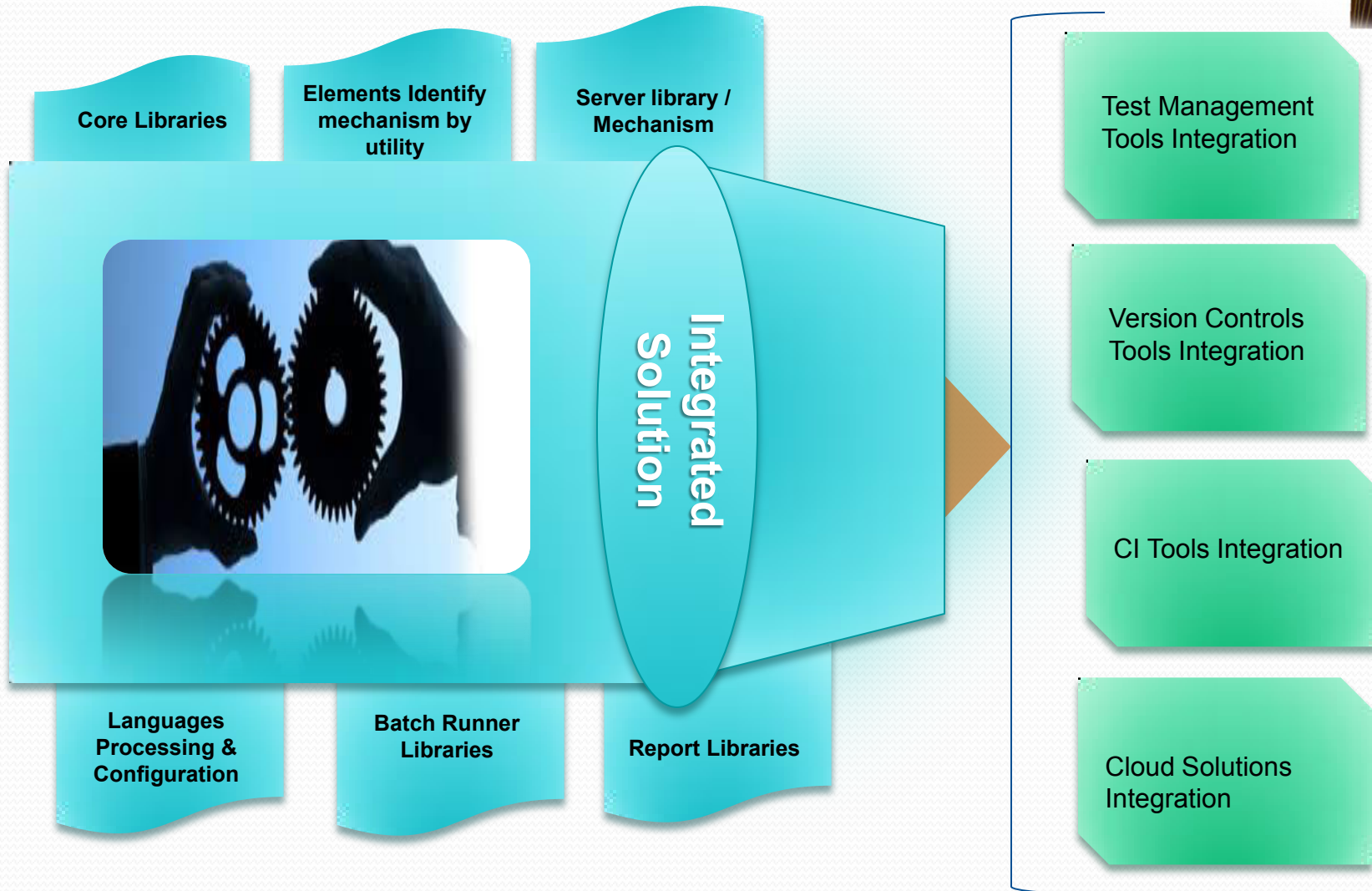
Dependent on forums in case of technical issues

Diligently implement Open source solution under expertise guidance

Multiple open solutions to form a concrete working solution



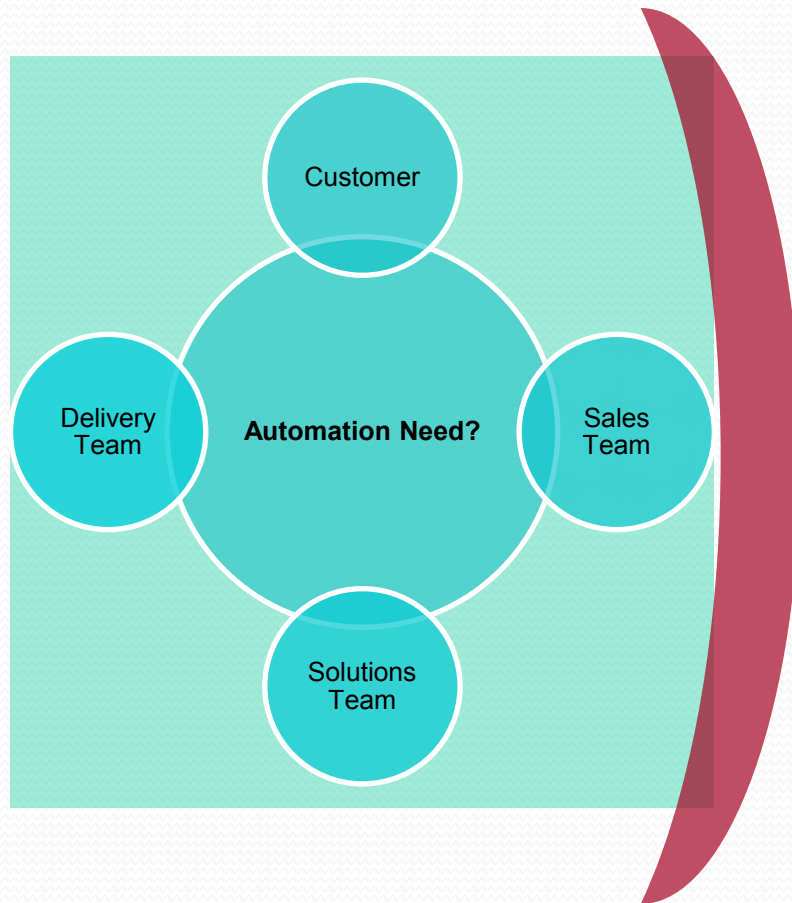
# Open Source Tools Architecture





# Test Automation Life Cycle

## - Pre-engagement



- ✓ Initial requirements from Customer to Sales team
- ✓ Sales team to Solutions & Delivery Teams for discussions
- ✓ Prepare questionnaire to gather all requirements
- ✓ Obtain response from Customer
- ✓ Submit Proposal with Road Map



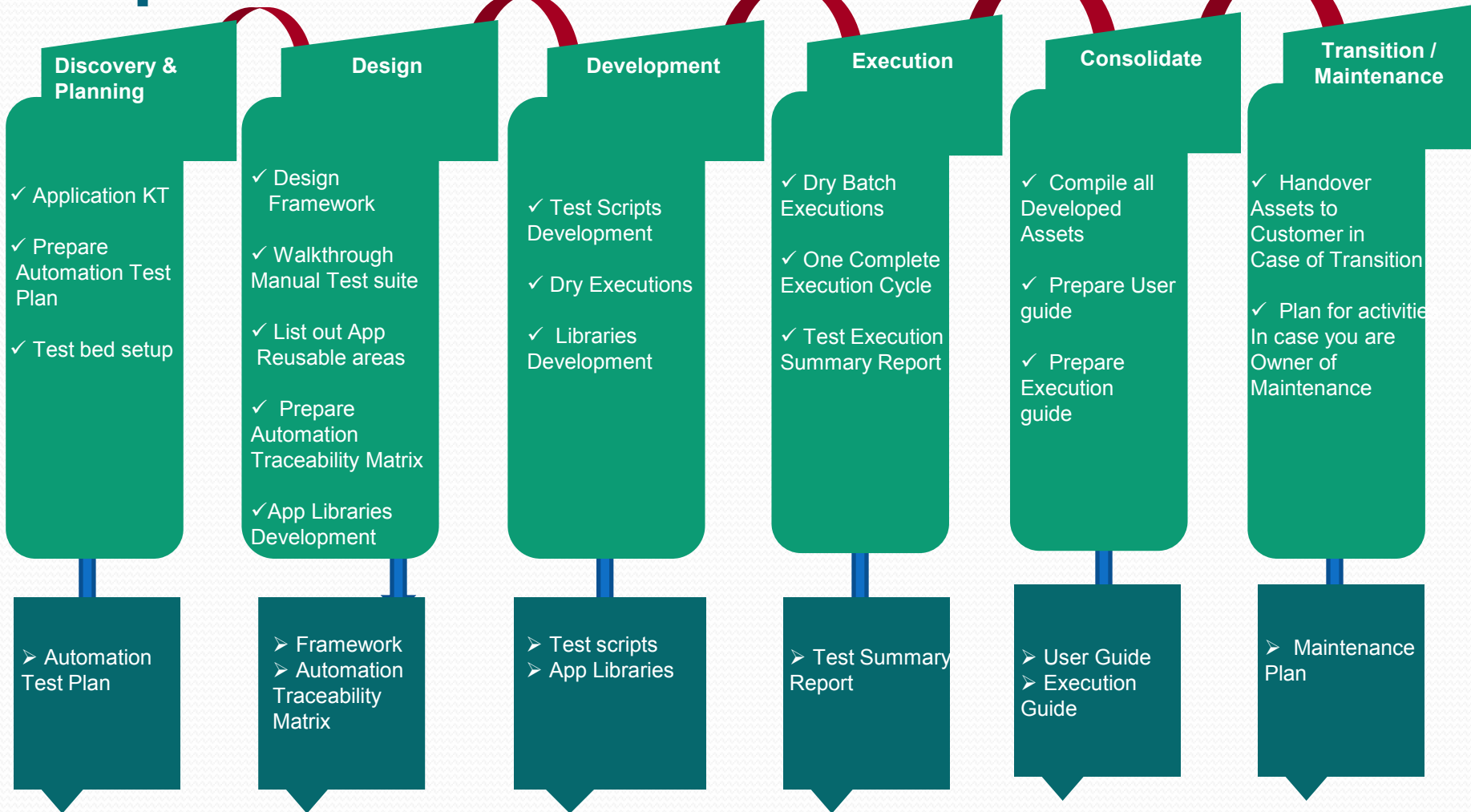
### Inception

- ✓ Tool Evaluation
- ✓ Conduct Feasibility Analysis
- ✓ Develop POC
- ✓ Determine Framework
- ✓ Determine Test Automation Approach
- ✓ Present POC & Obtain Sign off





# Test Automation Life Cycle - Implementation





 *Ready*  
**FOR TAKE OFF**



