

Agile Testing

Principles and Best Practices

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- Masters & Ph.D. from National University of Singapore
- **Interests:** Kathakali, Traveling, Photography, Cooking
- <http://ganeshniyer.com>



GANESHNIYER

- Rich QA experience; worked on most of the Progress Products
- Developed several automation frameworks and test approaches
- **Interests:** Painting, Cooking, Sand Art (Rangoli)



SailuPindiprolu



- Masters in Artificial Intelligence from University of Hyderabad
- Working on Rollbase – OpenEdge Integration for last two years
- **Interests:** Dance, Traveling, Surfing



KiranAngara

Agenda

The
Software
Saga

Challenges
in Testing
with Agile

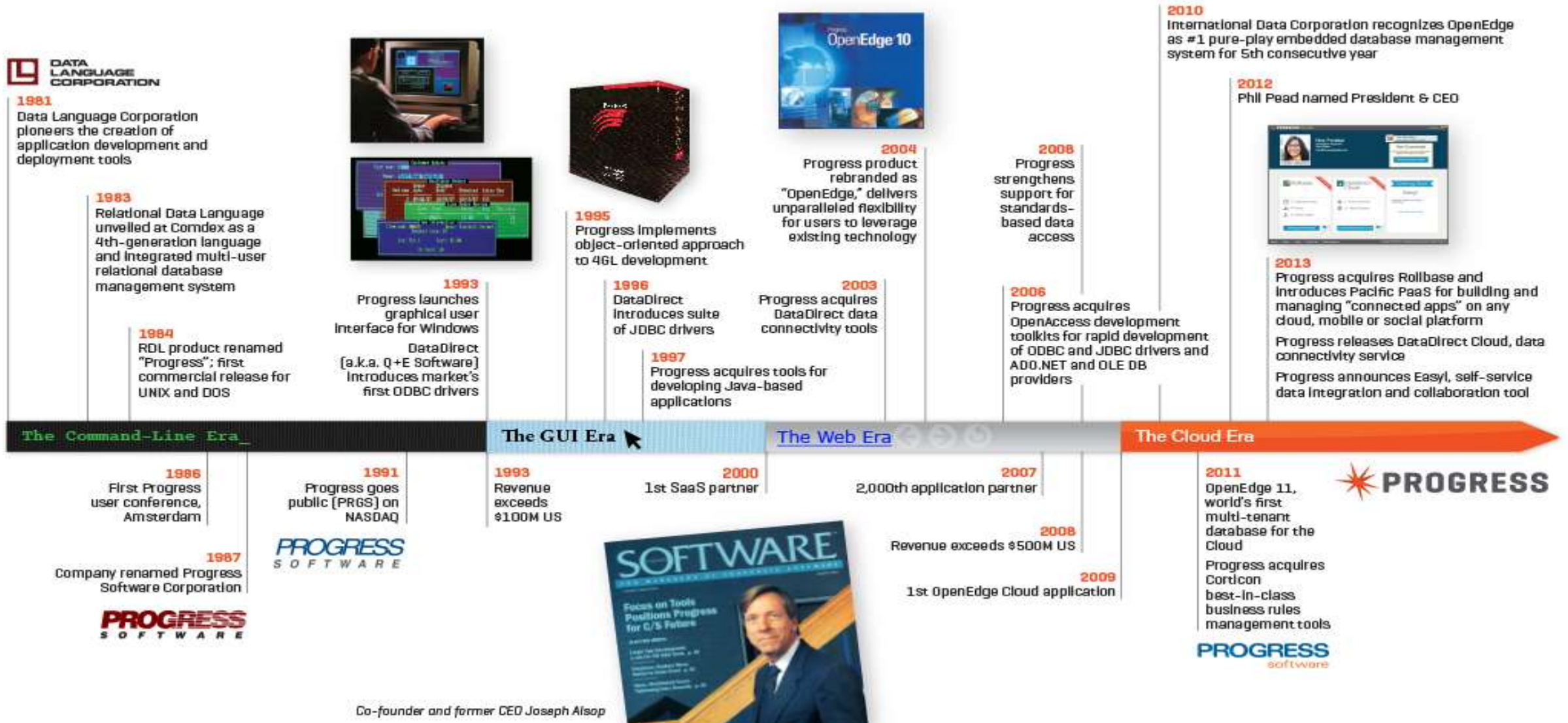
Some Best
Practices

CI and
Automation
are Key

Some
automation
approaches

Conclusions

Our Evolution in Application Development



 **PROGRESS** DataDirect Cloud™

 **PROGRESS** Rollbase®



A  **PROGRESS COMPANY**



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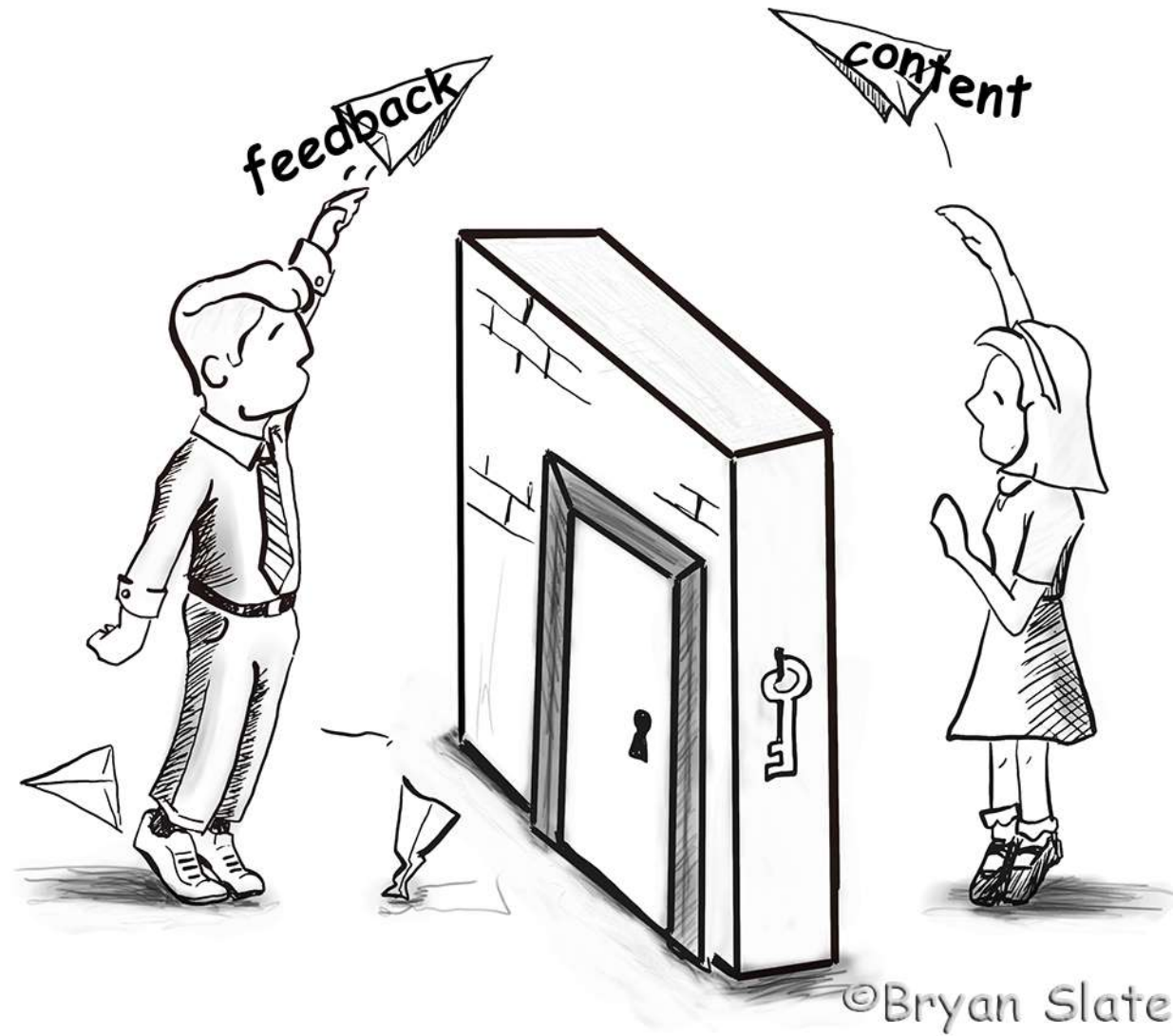
Cloud

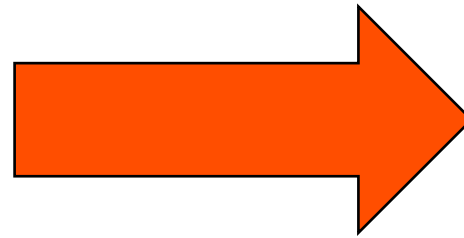
Command-line / GUI → Cloud and Mobile

 **PROGRESS** OpenEdge®

 **PROGRESS** DataDirect®

Agile world!





7 Key factors for Agile Testing success

Source:

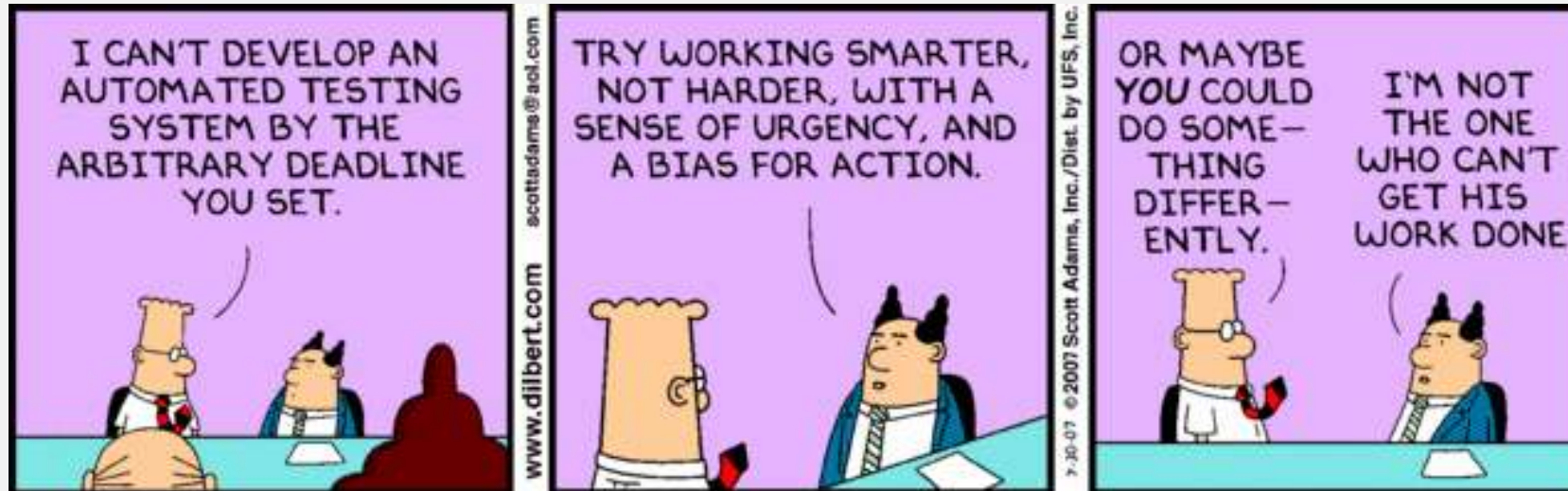
Agile Testing: A Practical Guide for Testers and Agile Teams,
Lisa Crispin , Janet Gregory, 2009



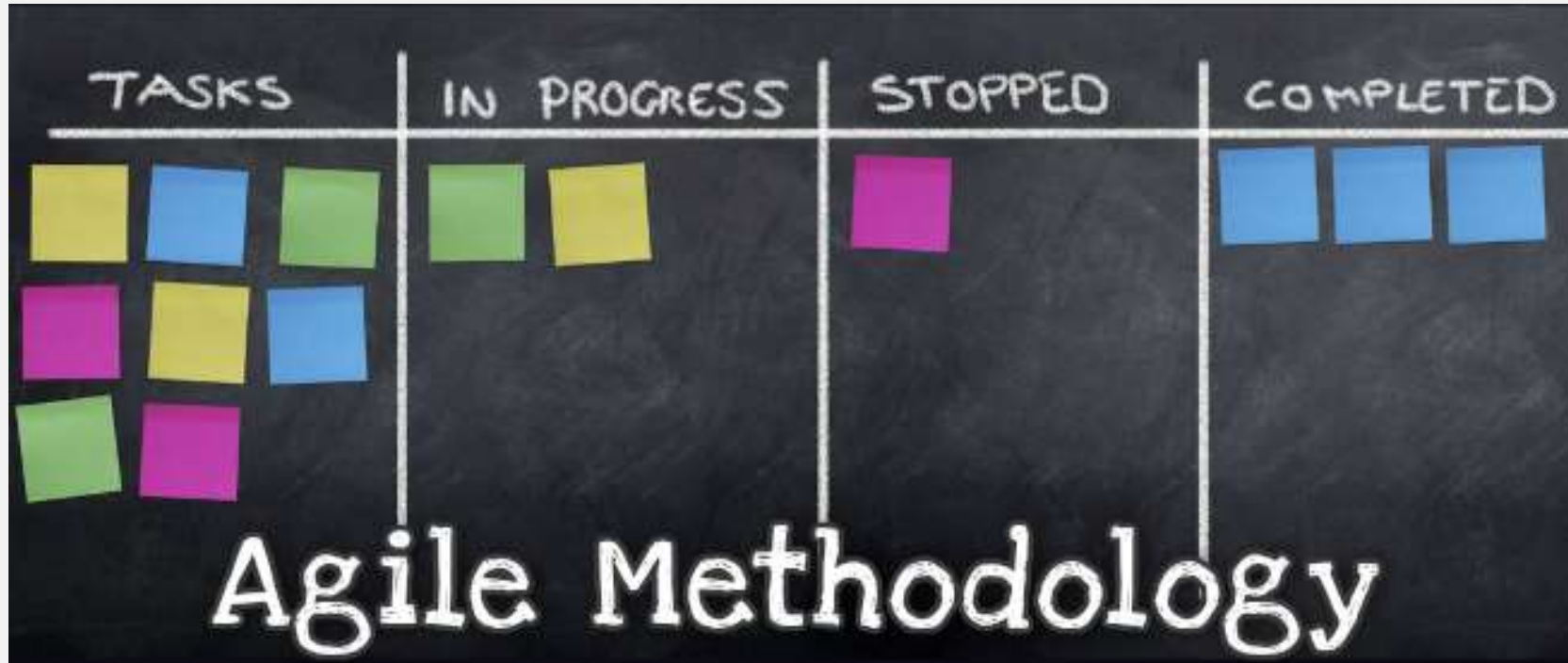
Whole Team



Automation



Agile Practices



Mindset Change



Provide Feedback



Collaborate with Customers



Big Picture View



VS.



Test Challenges with Agile Methodology



Frequently changing requirements

- *Thanks to Agile* → Changes can happen at any point of time during release cycle
- Requirements and Test Cases developed in parallel or test first strategy



Frequent releases

- *Progress DataDirect Cloud released new features every 9 days in 2015**
- Testing needs to happen Early and Often, Everyone needs to Test



Understanding and testing real world behavior

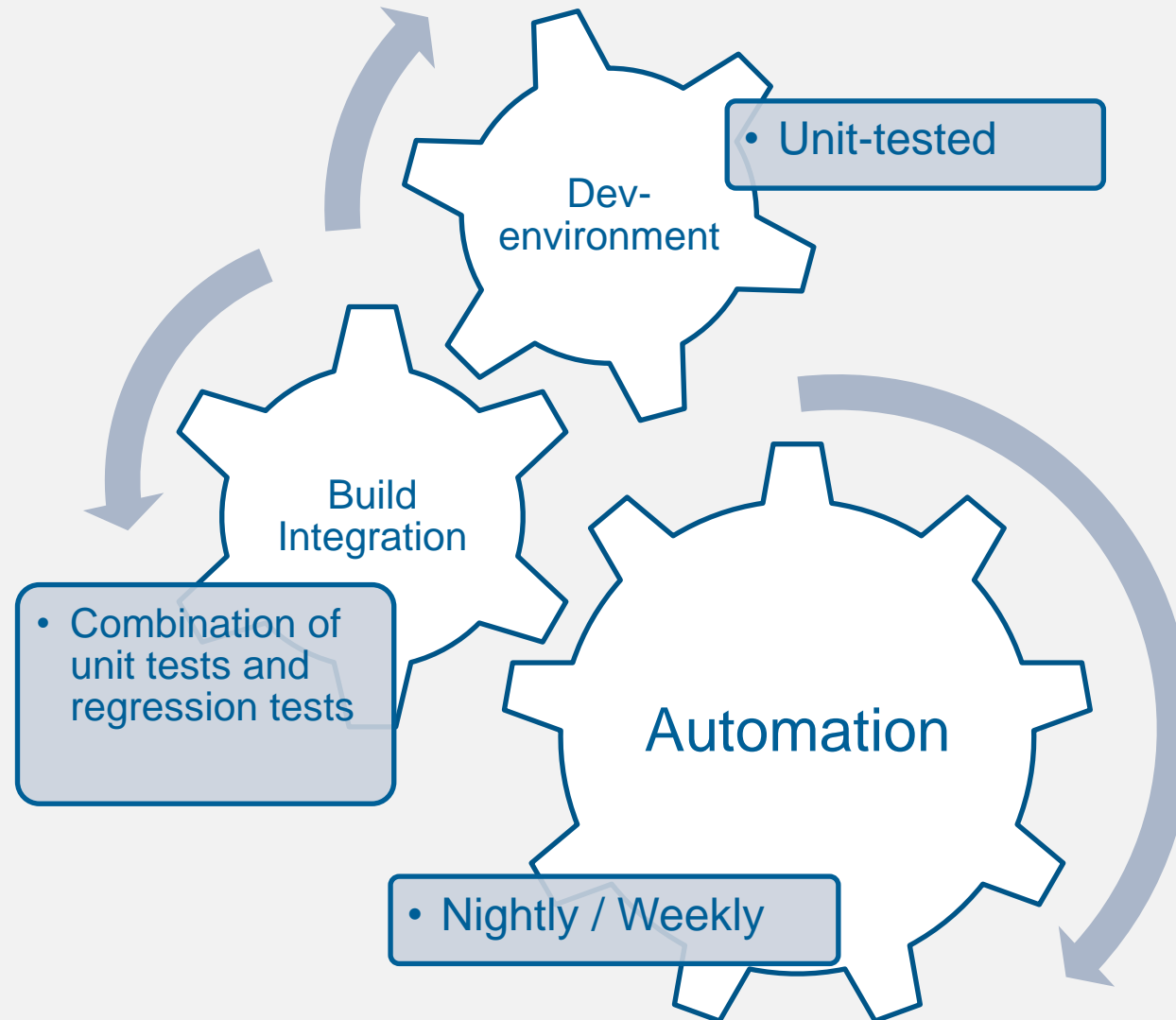
- *How customers see the product behavior after a release?*
- *No SRS-level waterfall documents to drive testing plan*



Multiple environments & differences for test and production systems

- *3rd party systems integrated to the product*
- *Raises a requirement for GoLive Testing* → **But in minimal time**

Continuous Integration & Automation are Key in Agile



Best Practices

That help us to solve many of these issues



24 x 7 Testing

What is 24x7?

- Running a set of test cases continuously 24 x 7
- Simulates real time customer behavior

How 24x7?

- A few parallel threads accessing the product
- Tests consisting of regression (or it's subset) tests

Why 24 x 7?

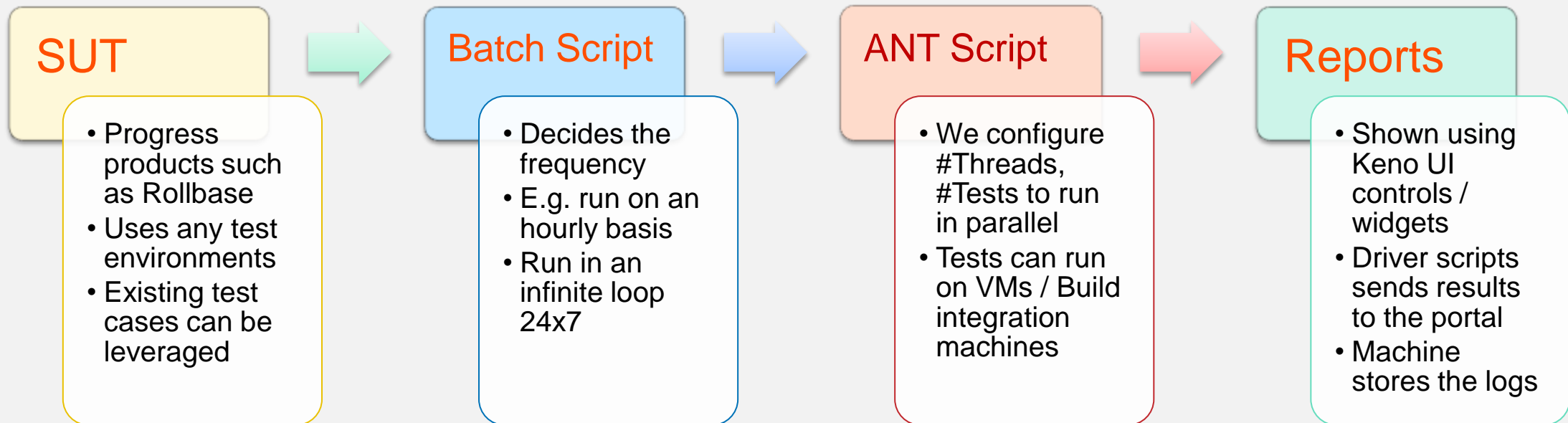
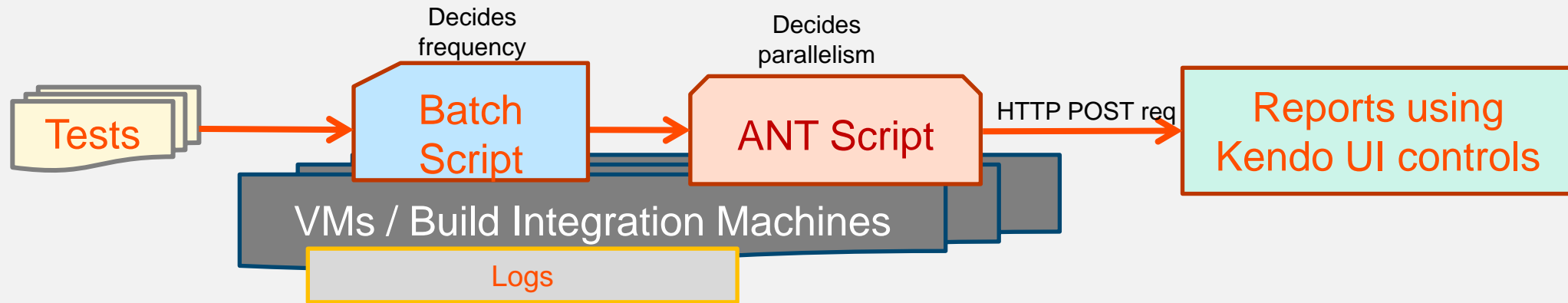
- Many things can't be caught by regular functional testing
- Error handling and retries
- Product can be made more resilient and robust

Performance issues with web sessions over a time

Memory leaks that grow over a time

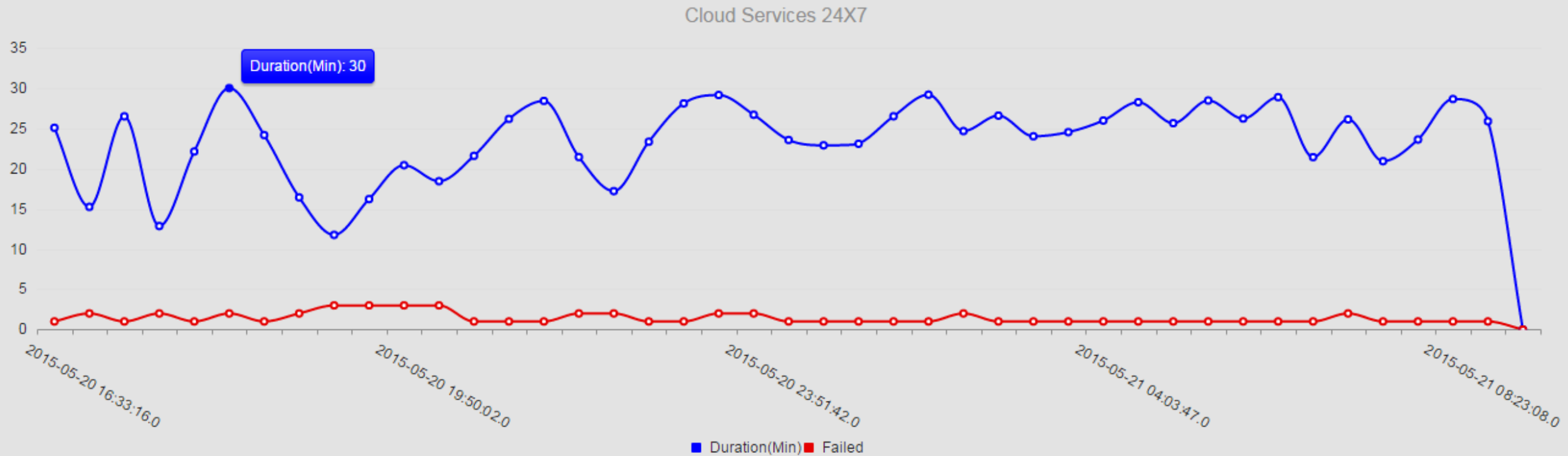
Understanding and testing real world behavior

24 x 7 Testing



24 x 7 Testing – Sample report

Cloud Services



Same Sprint Automation

A story is marked as done only when it is automated

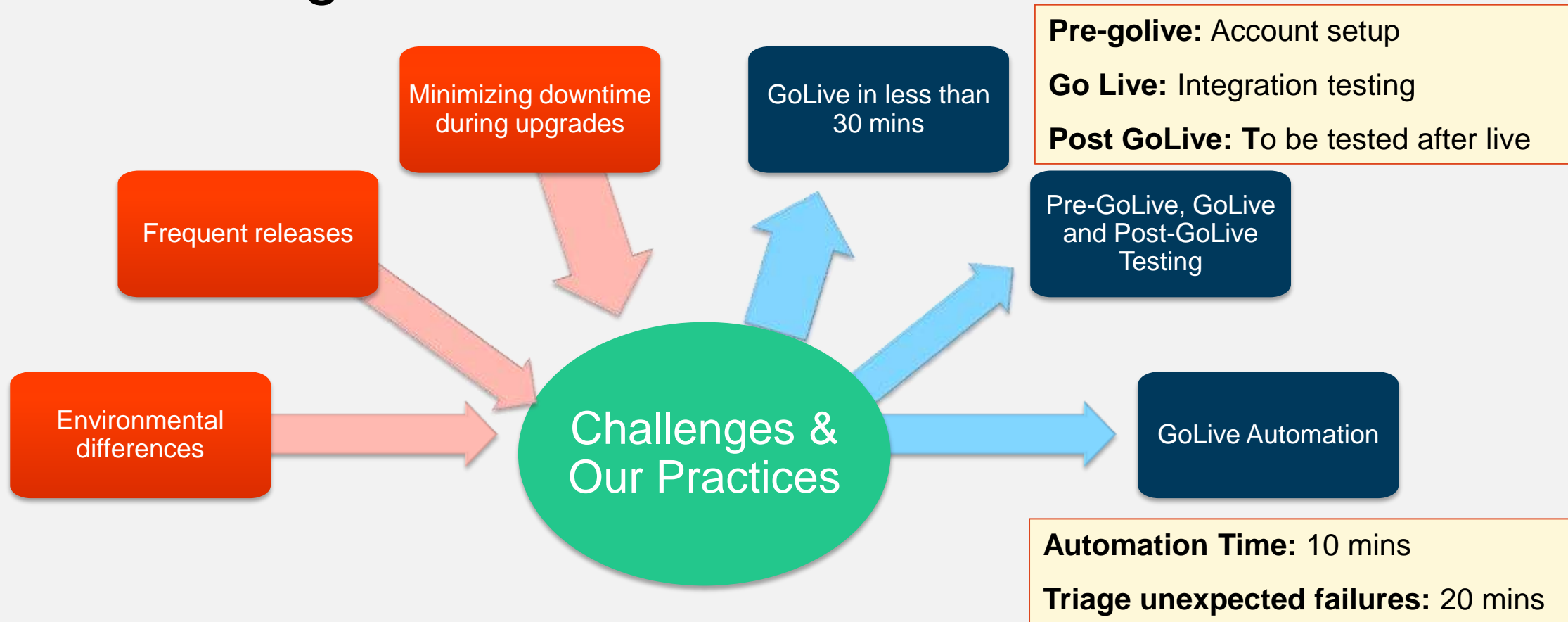
Helps to take into account automation efforts as part of sprint planning itself

Results in updated automation scripts at any point of time



**Prepared for frequent releases;
Requirement changes are up-to-date in automation**

GoLive Testing



**Environmental differences are tested;
Frequent releases can be handled**

Other practices

- Normally done more at the last sprints
- Examples include Auto fill issues

Exploratory Testing



- Catch before they find
- Let them see what they get

Customer Scenarios Testing

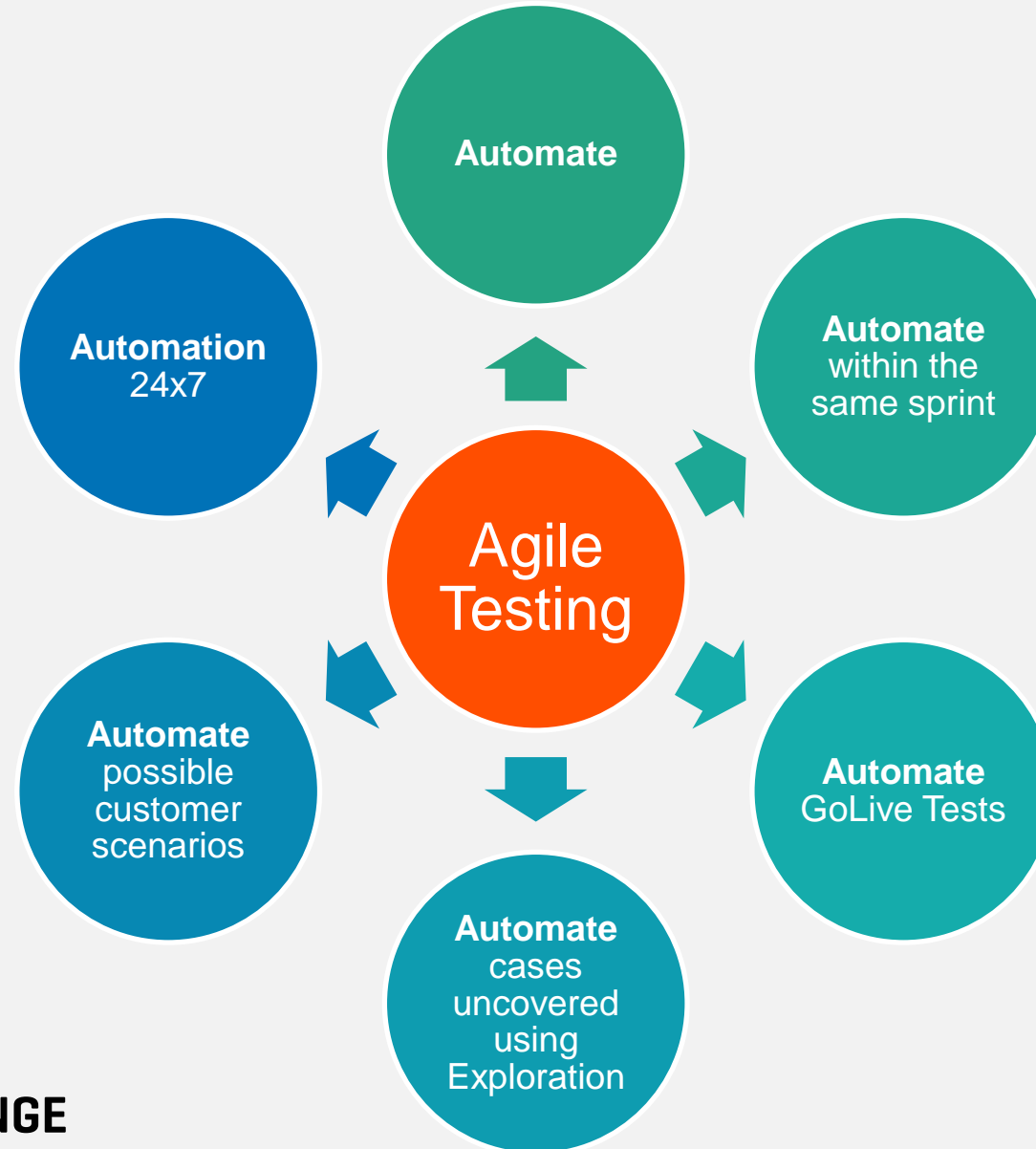


- Different from typical A/B Testing
- We interpret as “Choose what to test and what not to test”

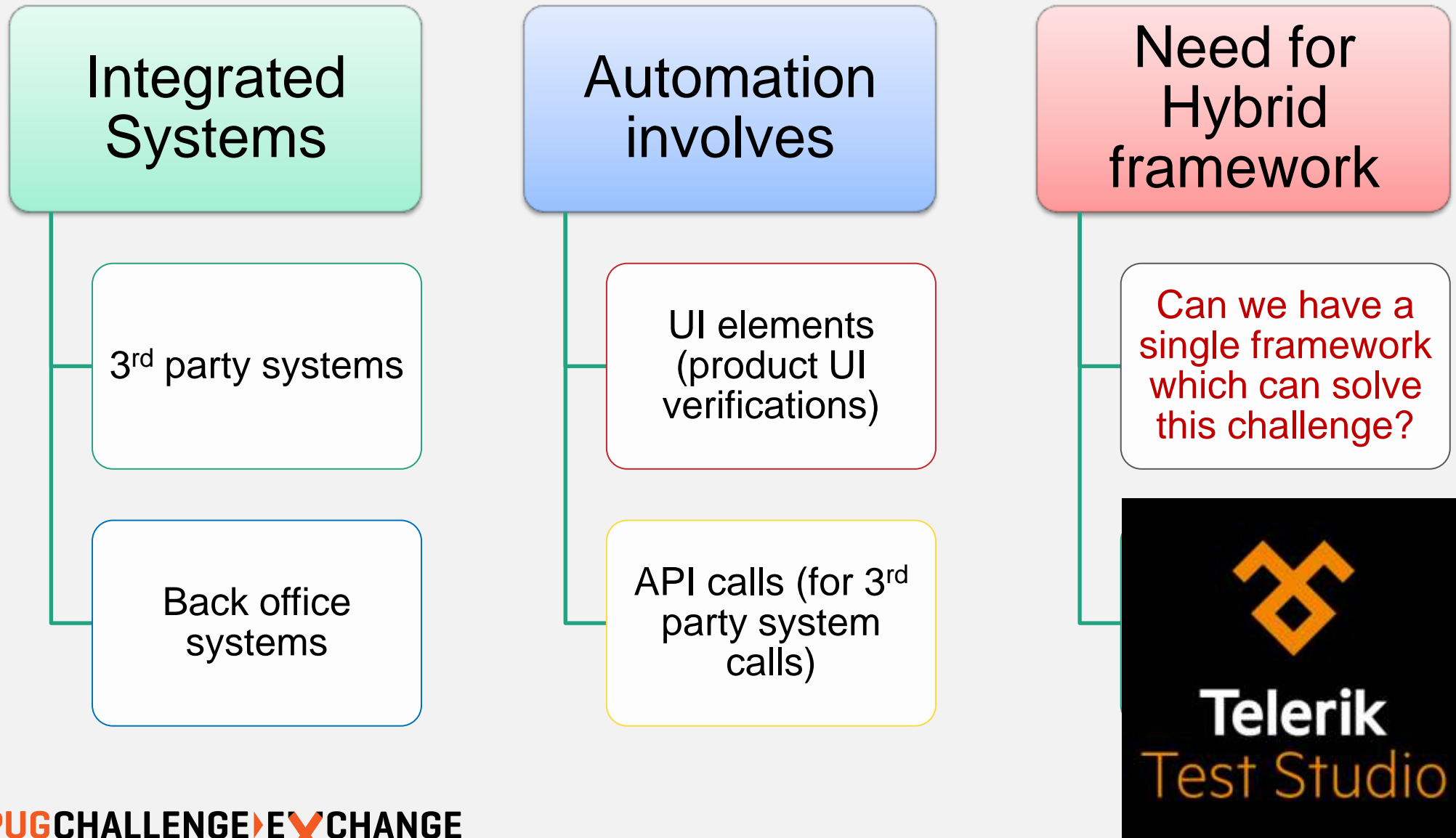
A/B Testing



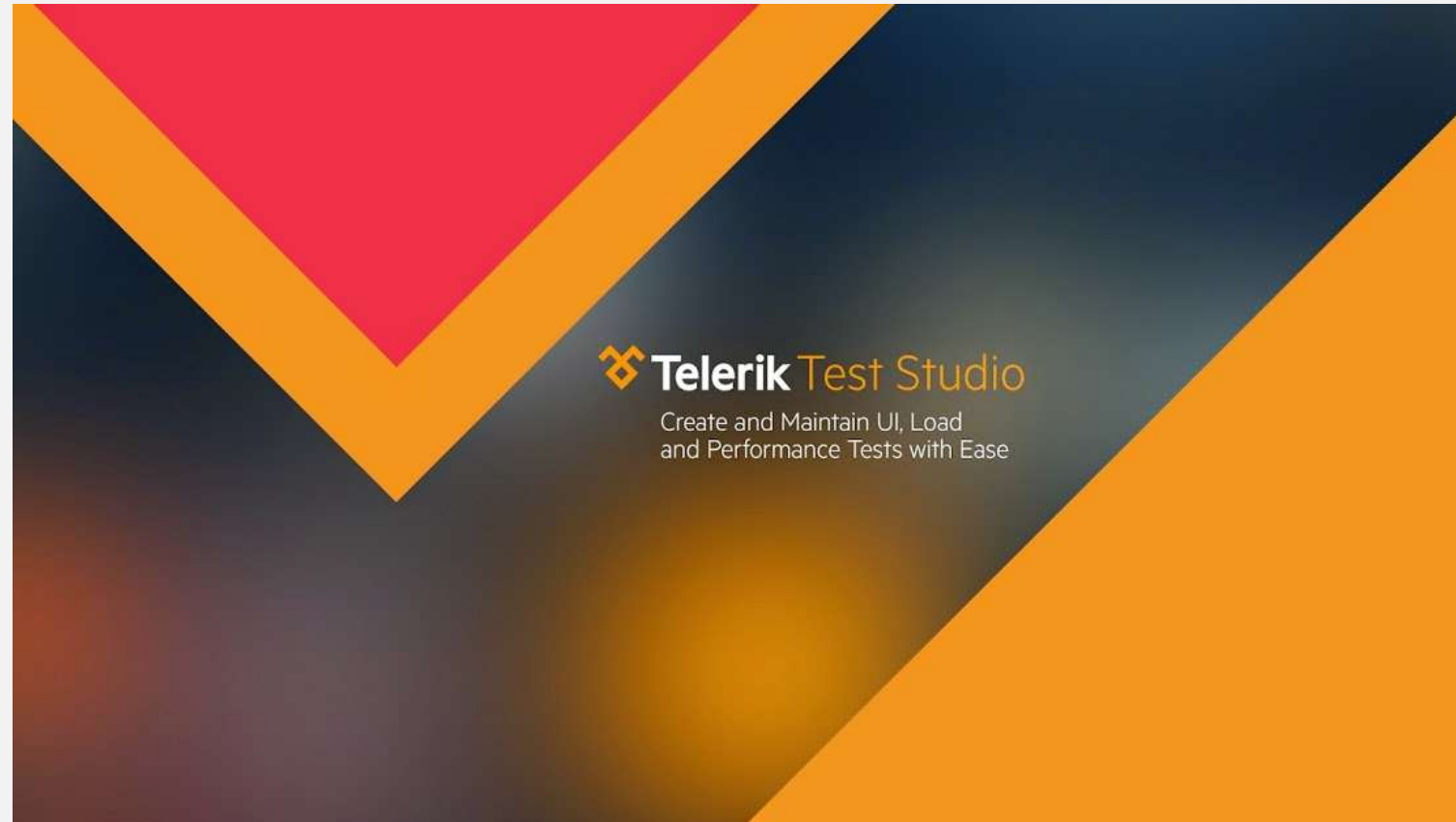
Agile Testing Mantra = Automate, Automate and Automate



Automation challenges and approaches – Case Study



Telerik Test Studio – A Brief Overview



Successful Agile Testing with Telerik Test Studio

Support to work in Agile environment

- Out of the box screenshots, failure reports etc
 - Helps Documentation team
 - Logging bug in a single mouse click
- TFS – Continuous Integration in place

Code maintenance

- Agile → Frequent releases and frequently changing requirements
 - Write and maintain functional test cases
 - Run your Load & Performance tests with same functional scripts

Hybrid support

- Automating UI/APIs
 - Works well even for complex test scenarios – Key for Agile

Various test types and the Mechanics

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Business-Facing

Automated & Manual

Automated & Manual

Functional Tests

Examples

Story Tests

Prototypes

Simulations



Exploratory Tests

Scenarios

Usability Testing

Doc. Testing

UAT / E2E

Alpha / Beta



LEAD



Supporting The Team

Critique Product

Unit Tests

Component Tests



Performance & Load Testing

Security Testing

“ility” Testing

24 x 7 Testing



Automated

Tools

Technology-Facing



Programmer



Test Engineer



Tech. Writer



Product Manager

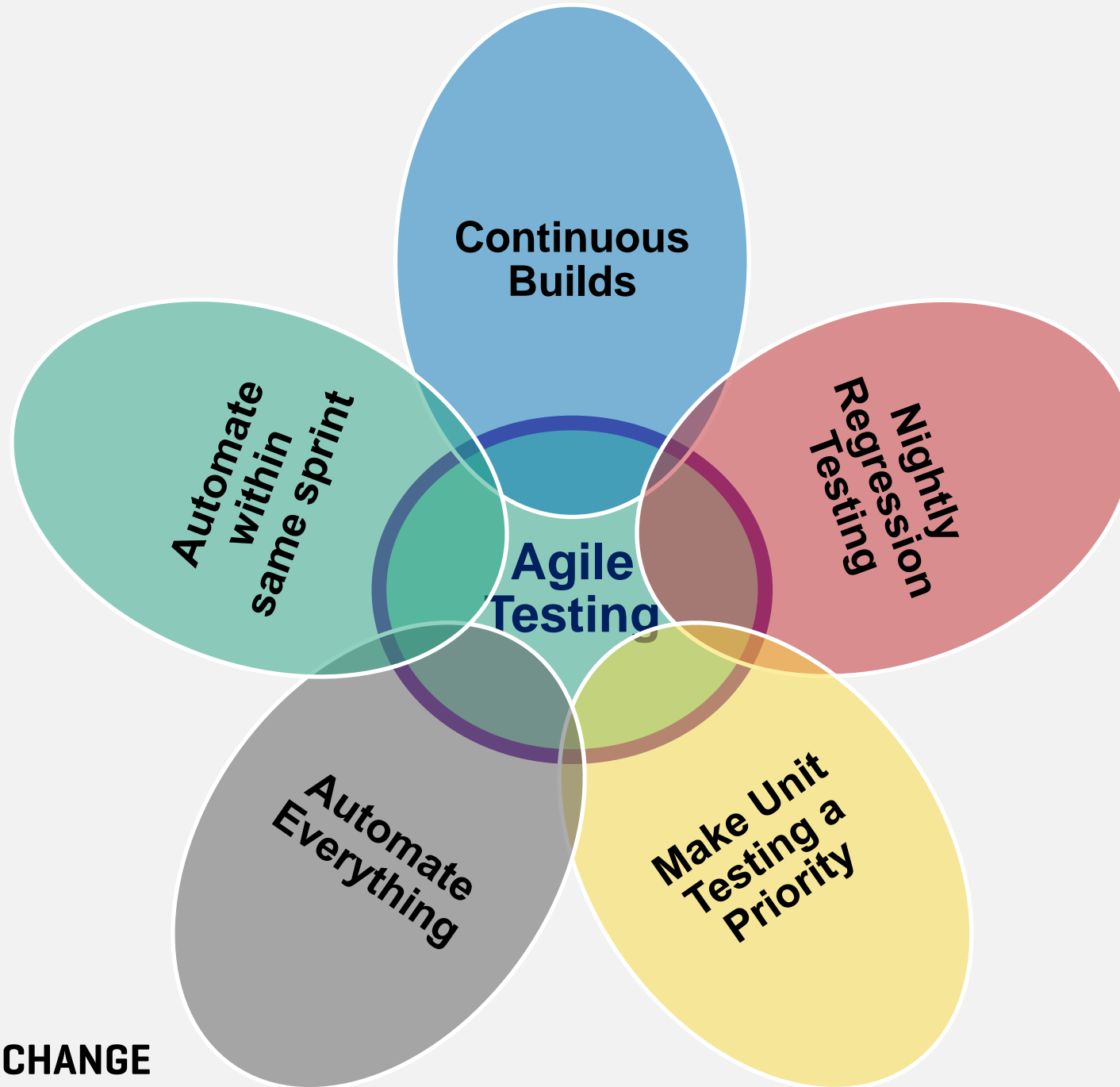


Product Architect



Engg. Lead

Conclusion



KEY FOR SUCCESS
=
CUSTOMER FEEDBACK

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Alamy A6AETE



Feedback Time

SESSION EVALUATION

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Please take a moment to give us your feedback on the overall value of this session.

SESSION: **Agile Testing**

Speaker(s): **Dr Ganesh Iyer, Sailaja, Kiran**

1 = Poor to 5 = Excellent

Value/usefulness of information presented	1	2	3	4	5
Preparation/Knowledge of speaker(s)	1	2	3	4	5
Use of Examples	1	2	3	4	5
Retention of Interest	1	2	3	4	5
Handling of Questions	1	2	3	4	5
Handouts/Audio Visual materials	1	2	3	4	5

Comments: _____

Please leave completed evaluation form at the Registration Desk. Thank You!

session

Agile Testing: Principles and Best Practices



Provide Session Feedback



Who: Dr. Ganesh Iyer
KiranKumar Angara
Sailaja Pindiprolu

When: 06/09/15 8:30 am

Where: Westford South

Code: 238



Show More Info

With Agile software development methodology followed by most companies in the recent past, software development focus has been changed to deliver faster releases. This also affect the way we test within the



Sessions



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16:45 @ Concord today