Applying Agile Practices to Avoid Chaos in User Acceptance Testing(UAT)

A Case Study

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Contributions

- Goal – find a better way to enhance *productivity, efficiency, and time to market of the UAT team.*

- Proposed tailored framework to conduct UAT in efficiency and productively.
  - Team productivity increased.
  - Team worked more collaboratively.
  - Defect tracking and identification efficiency increased.
  - More modules released with in shorter time period.

Background

- UAT in plan driven process encounter as final stage of the process.
- This is widely used bad practice.
- High risks of failures.
- Agile practice do the testing at production-like environment at recurring time schedule.
- Very little study exists on UAT process.

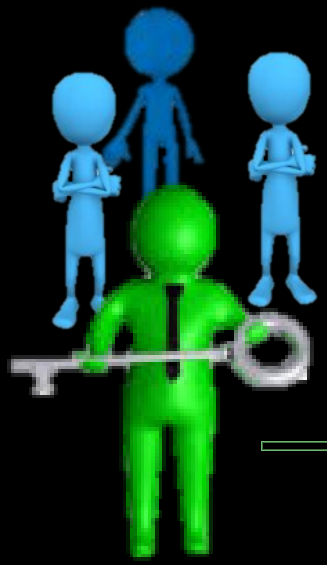
Problem statement

"What are the steps to enhance productivity, efficiency, and time to market of the UAT team with the application of Agile practices?"

Case study

Process streamline using Scrum framework

Development team



International Vendor

Functional Testing

Non Functional Testing

User Acceptance Testing

Complex- Large scale system (Revenue Management System)

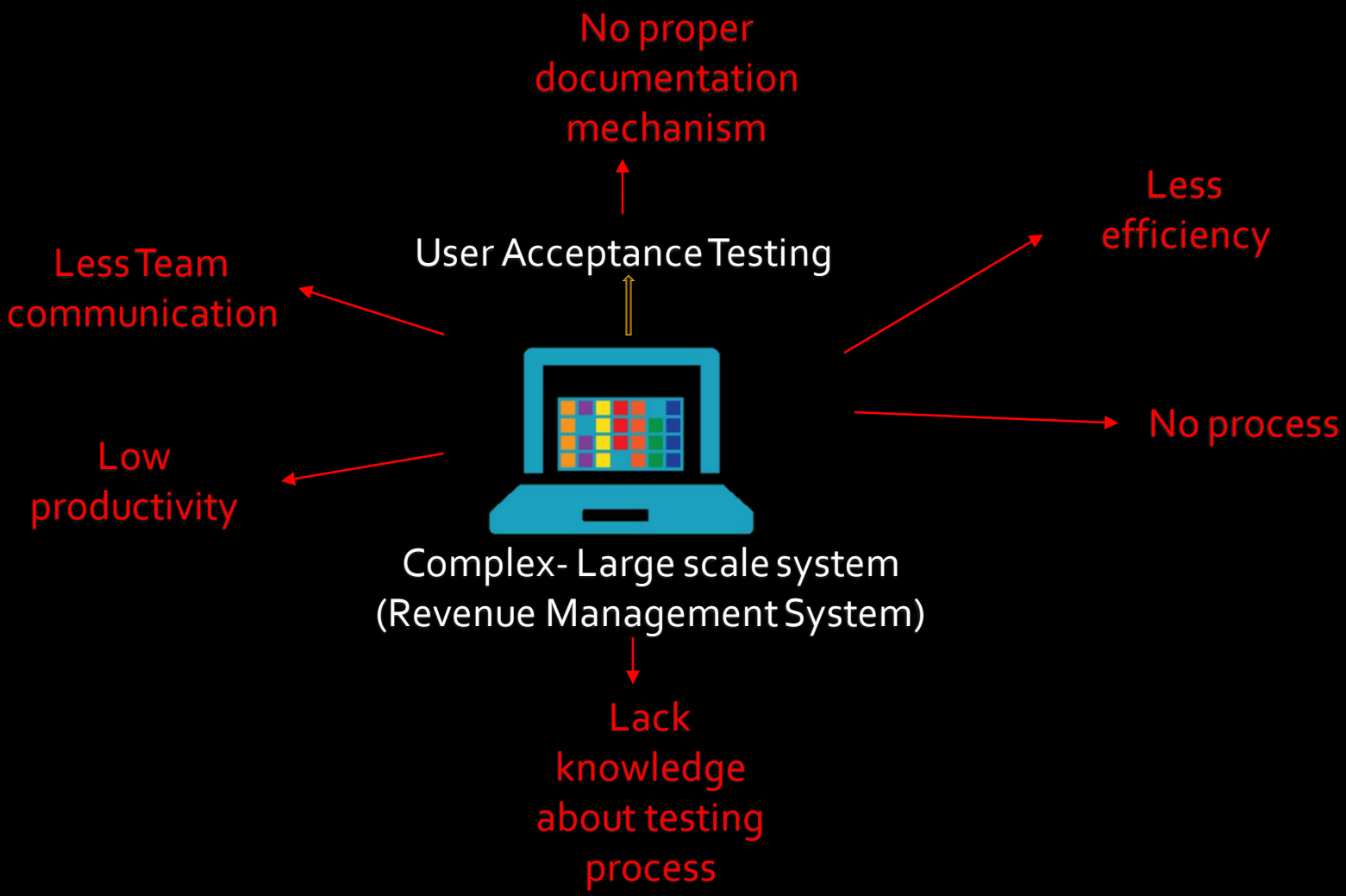
UAT team <100>

Public Institute

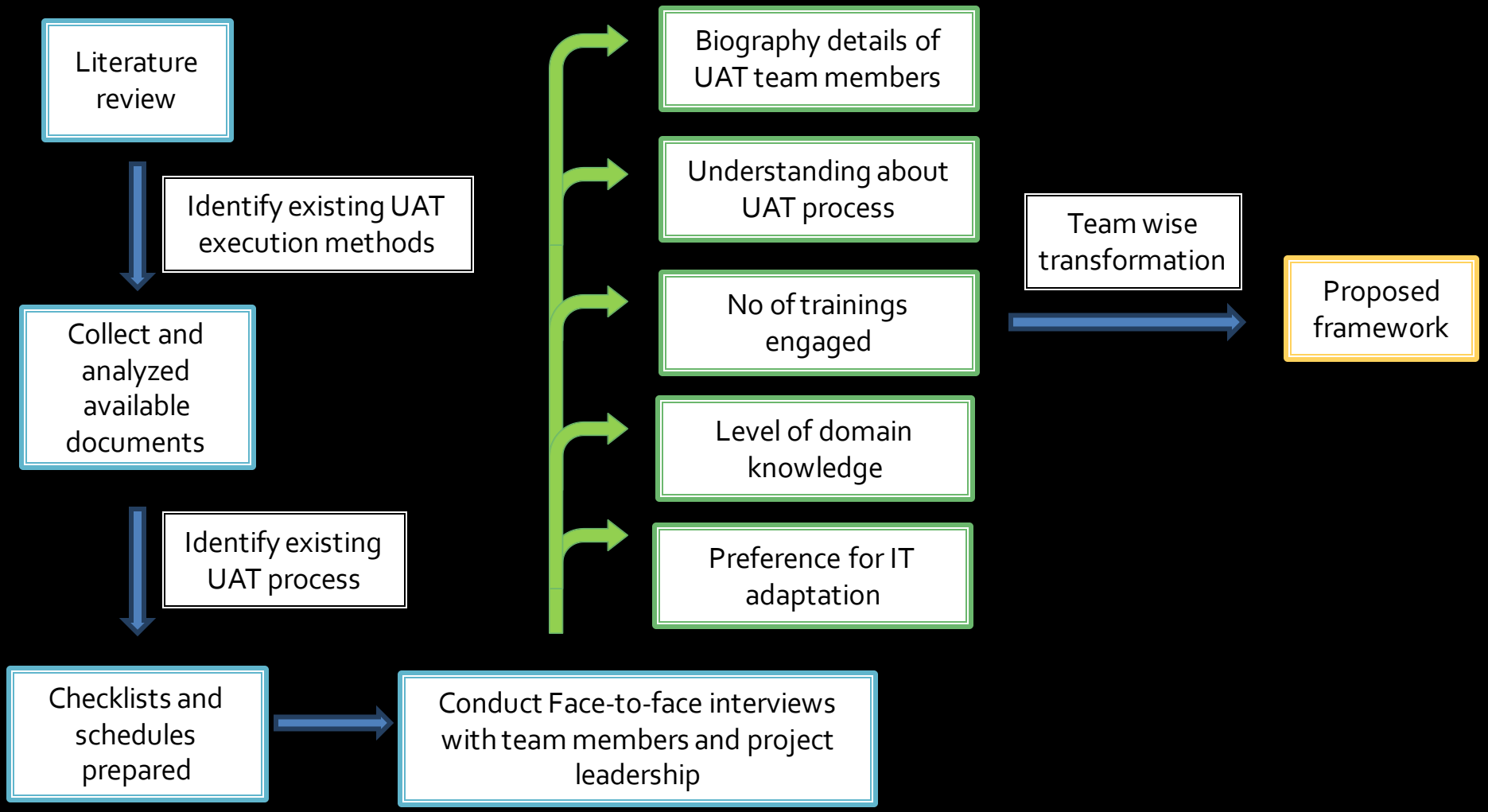
Revenue Management System

- Public web portal and a set of backend applications.
- Portal consist with three different SIT and UAT releases.
- Phase one consist with 15 modules.
- Complex and Large-scale system.
- Large no of participants join for UAT test (100).
- UAT included both the functional and non-functional testing.

Initial UAT process



Methodology

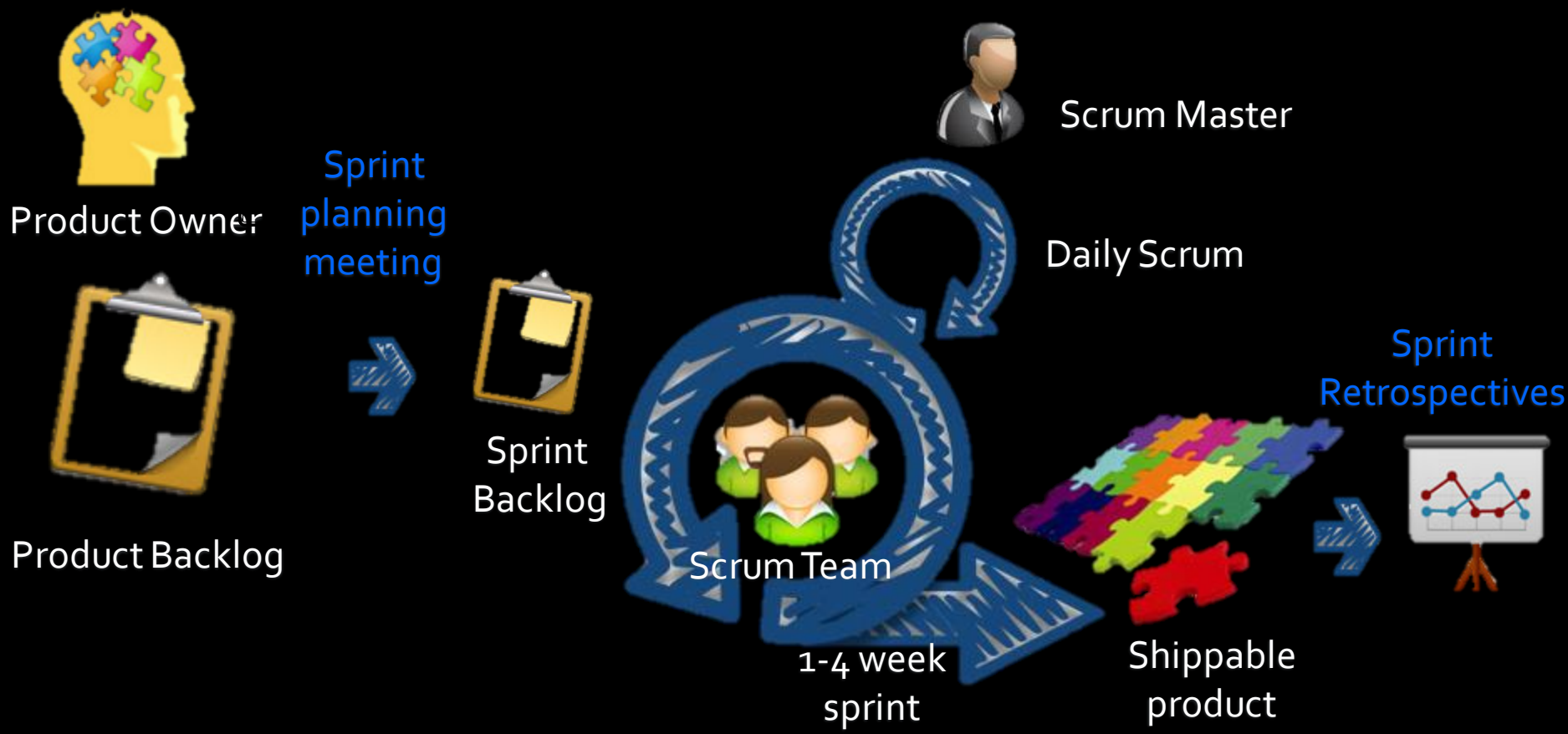


Initial UAT process Drawbacks

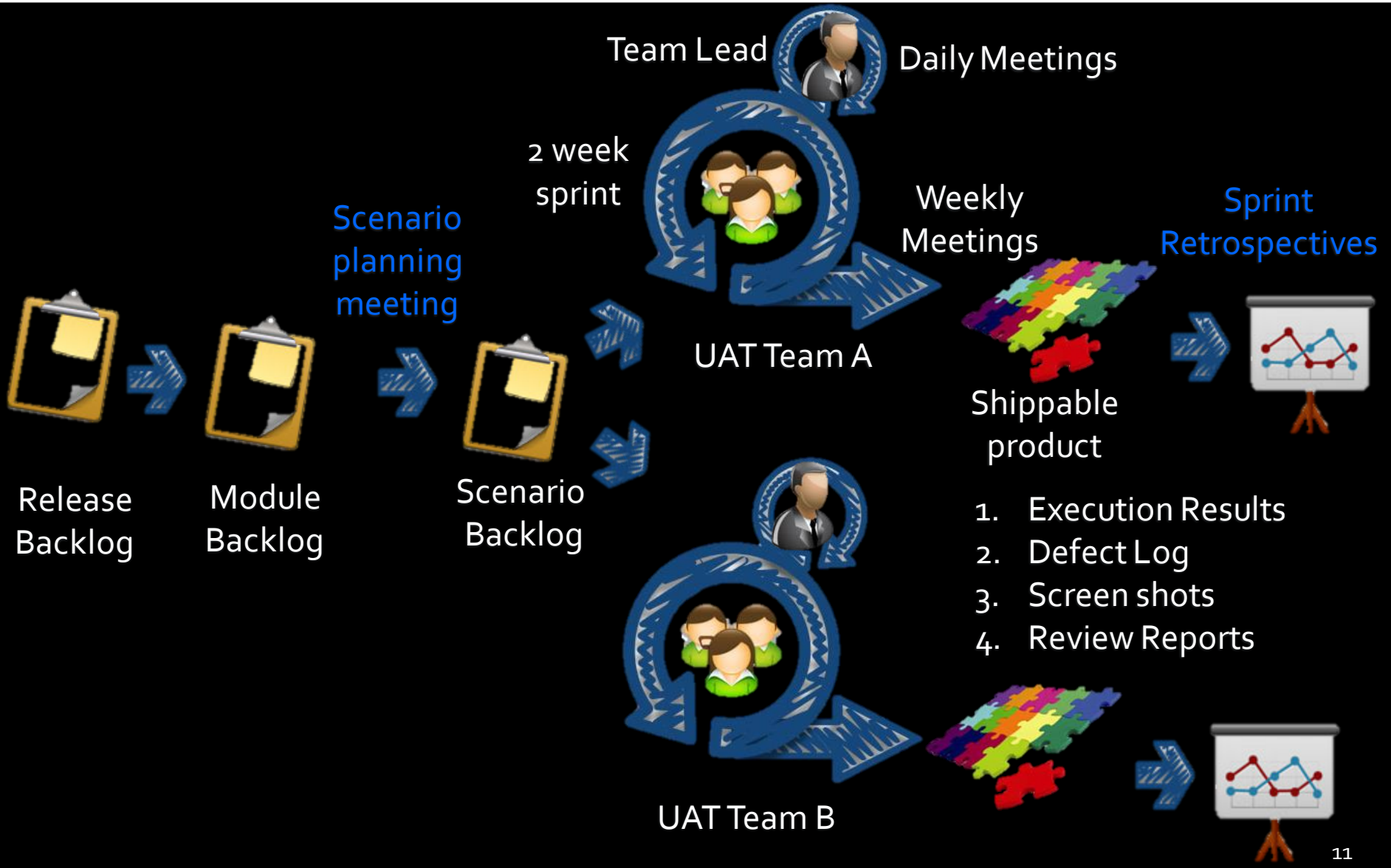
#	Observations
1	UAT team does not have an understanding about testing levels and types, defect identification, etc,.
2	UAT team is not clear about their roles and responsibilities.
3	Lack of knowledge in writing scenarios for UAT.
4	Conflict between project leadership and UAT team's objectives.
5	Lack of communication between project leadership and UAT team.
6	Lack of communication between project leadership and UAT team.

#	Observations
7	No proper communication between vendor and UAT team.
8	No proper communication between vendor and UAT team.
9	Limited presence of UAT team members at UAT premises.
10	UAT test scenarios are not get signed off by responsible body.
11	No proper documentation and naming convention practiced.
12	No proper configuration management used.
13	Lack of perception and attitude.

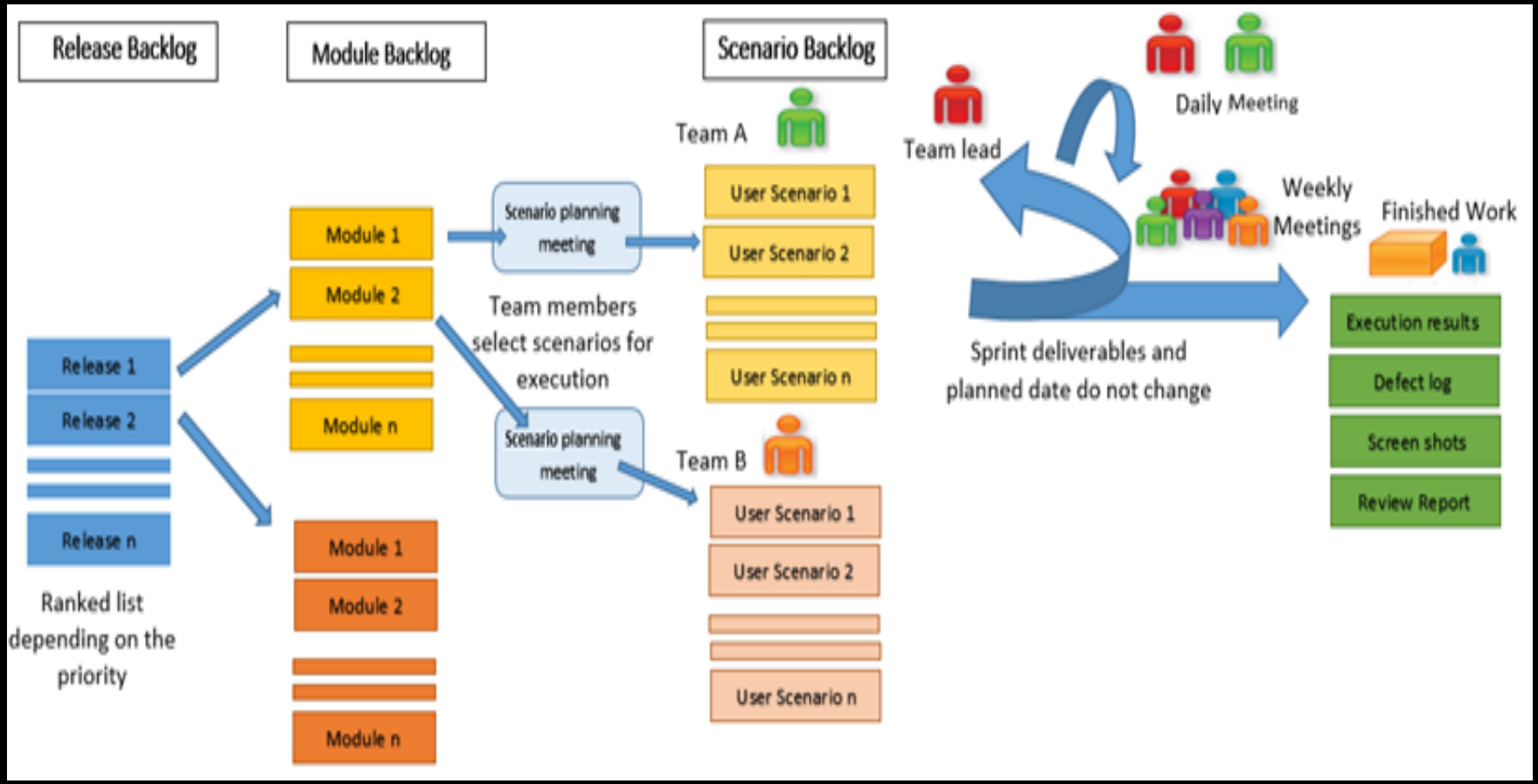
Scrum Framework



Tailored Framework for UAT

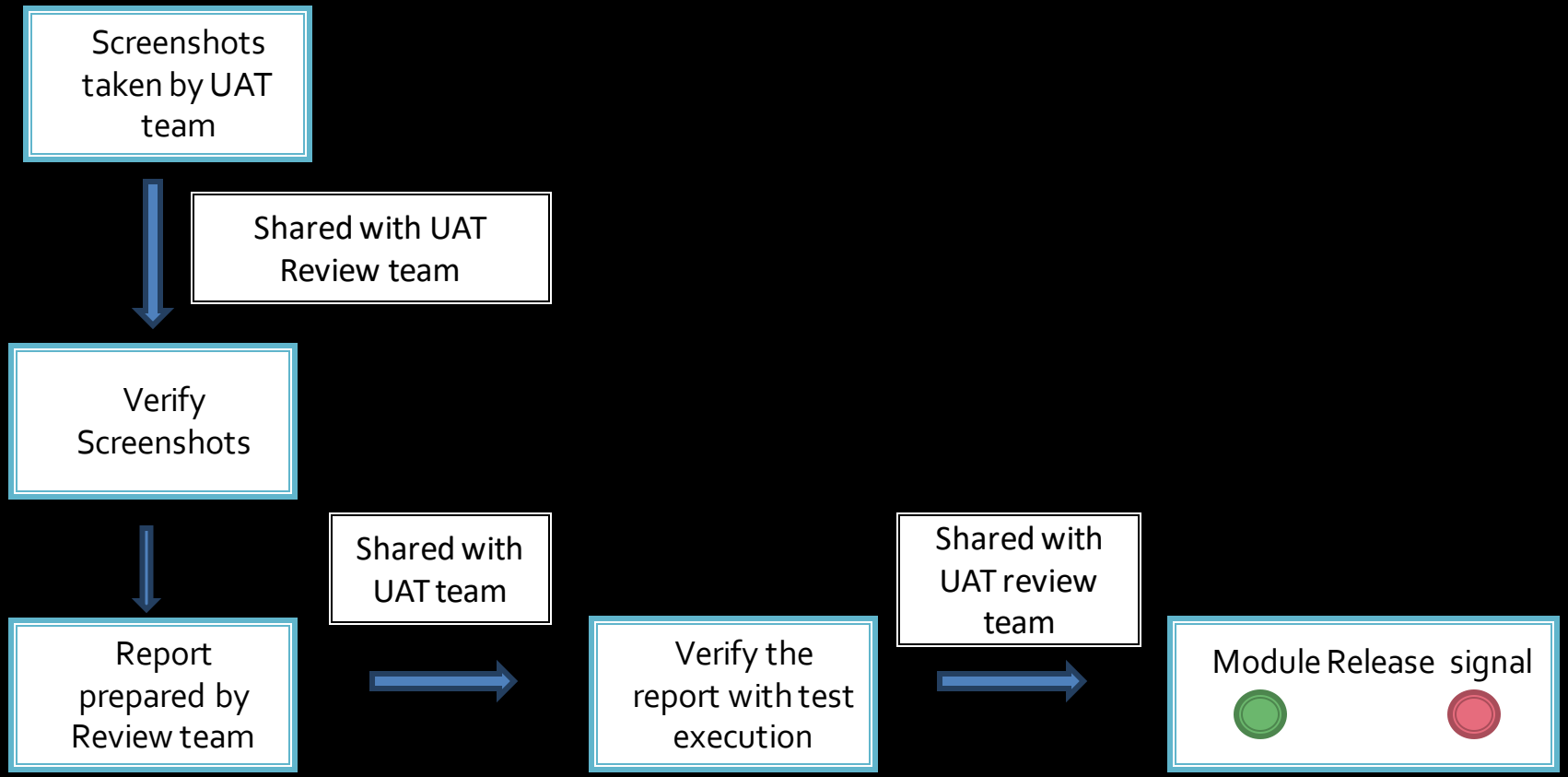


Tailored Framework for UAT



UAT review process

- UAT review process introduced to enhance the quality.



Case Study Findings

- Recurring survey conduct at the end of each sprint to measure the people perception towards tailored framework.
- Some comments received from the participants after training sessions.

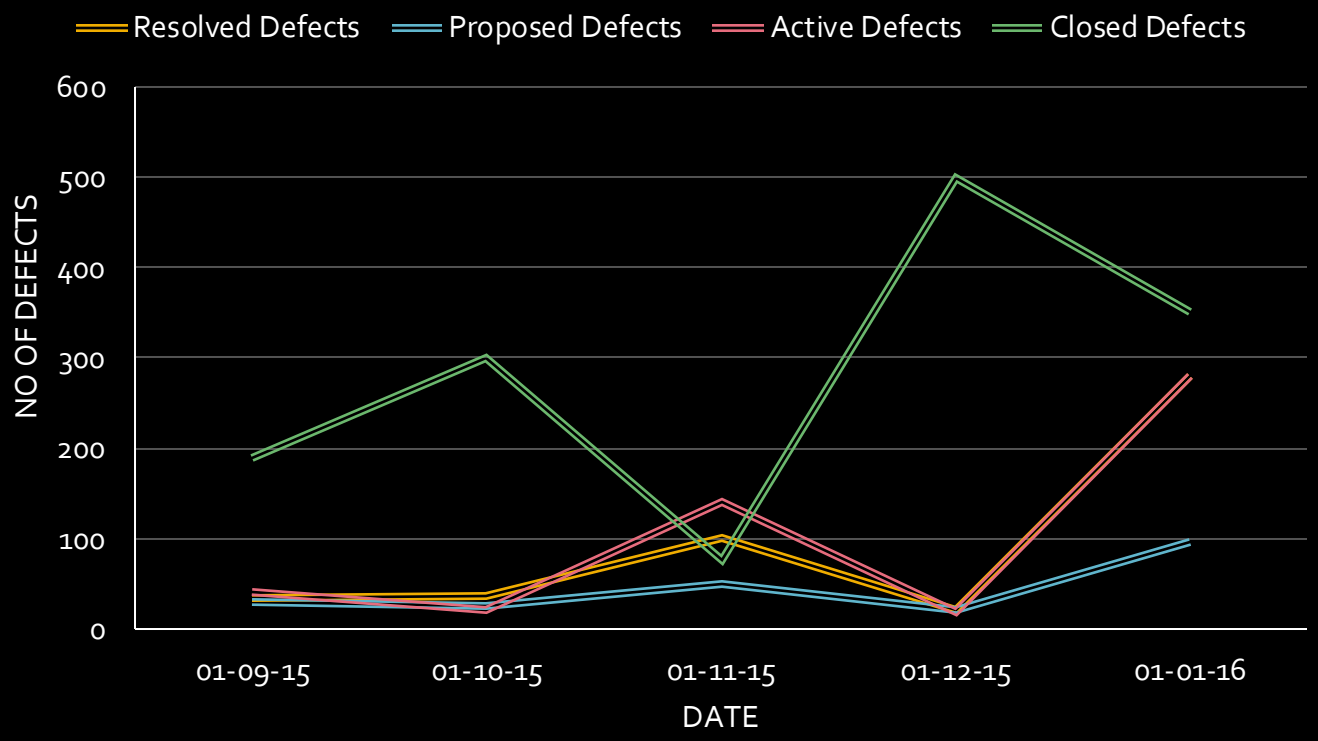
"*Now I understand how to catch a defect. We neglect some misbehaviors since we thought those should be there in the system*"

"For testing, we need to get other browsers installed as well. We have only Firefox in our machines"

- Team productivity and efficiency increased.

Case Study Findings

- Defect identification improved



Case Study Findings

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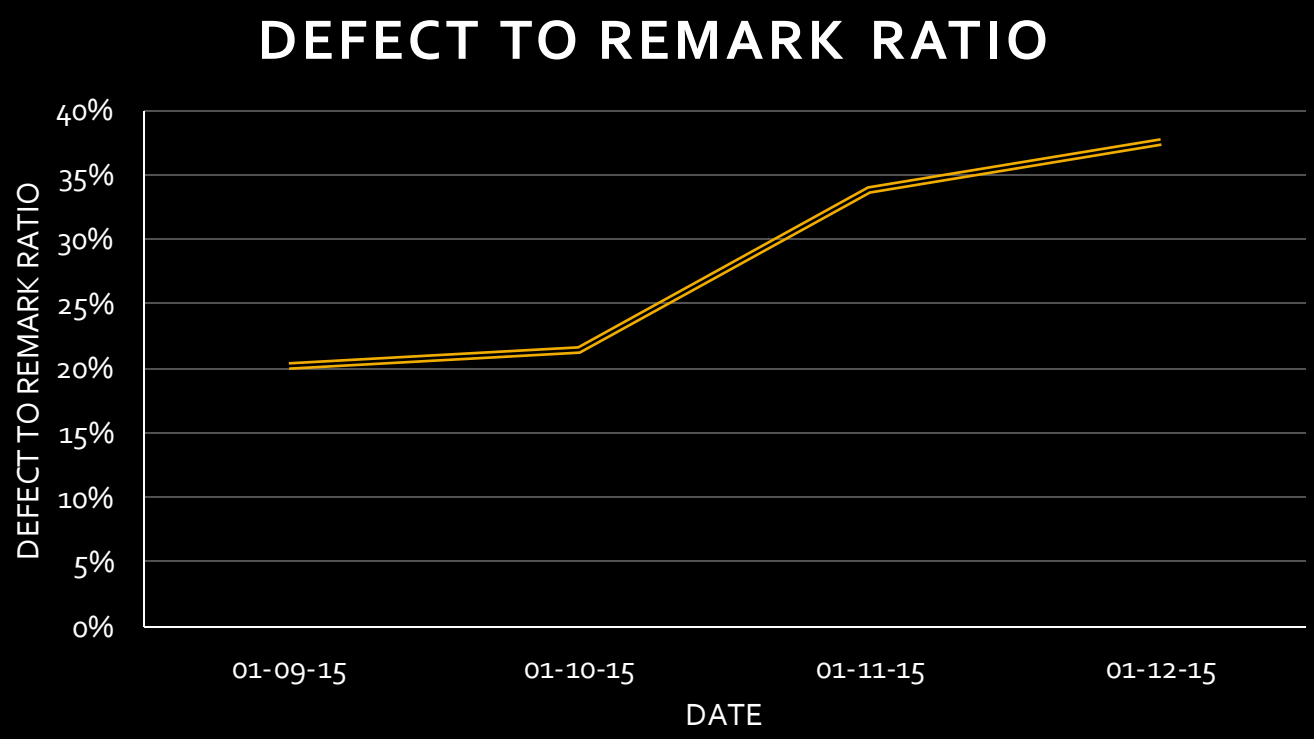

Summary

- We analyze the existing UAT process and propose a tailored framework for complex, large-scaled system.
- UAT productivity, efficiency and time to market increased with the introduction of the tailored framework.
- We experience the significant change in UAT team and it results.
- Defect to remark ratio increased with the time.
- Continuous survey results shows UAT team is happy to work within the tailored framework.

Key References

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