We will be starting the webinar shortly, please stand by…
*All phones will be automatically on mute until the Q&A.*

*Webinar Starts at 2:00 PM Eastern Time Zone*
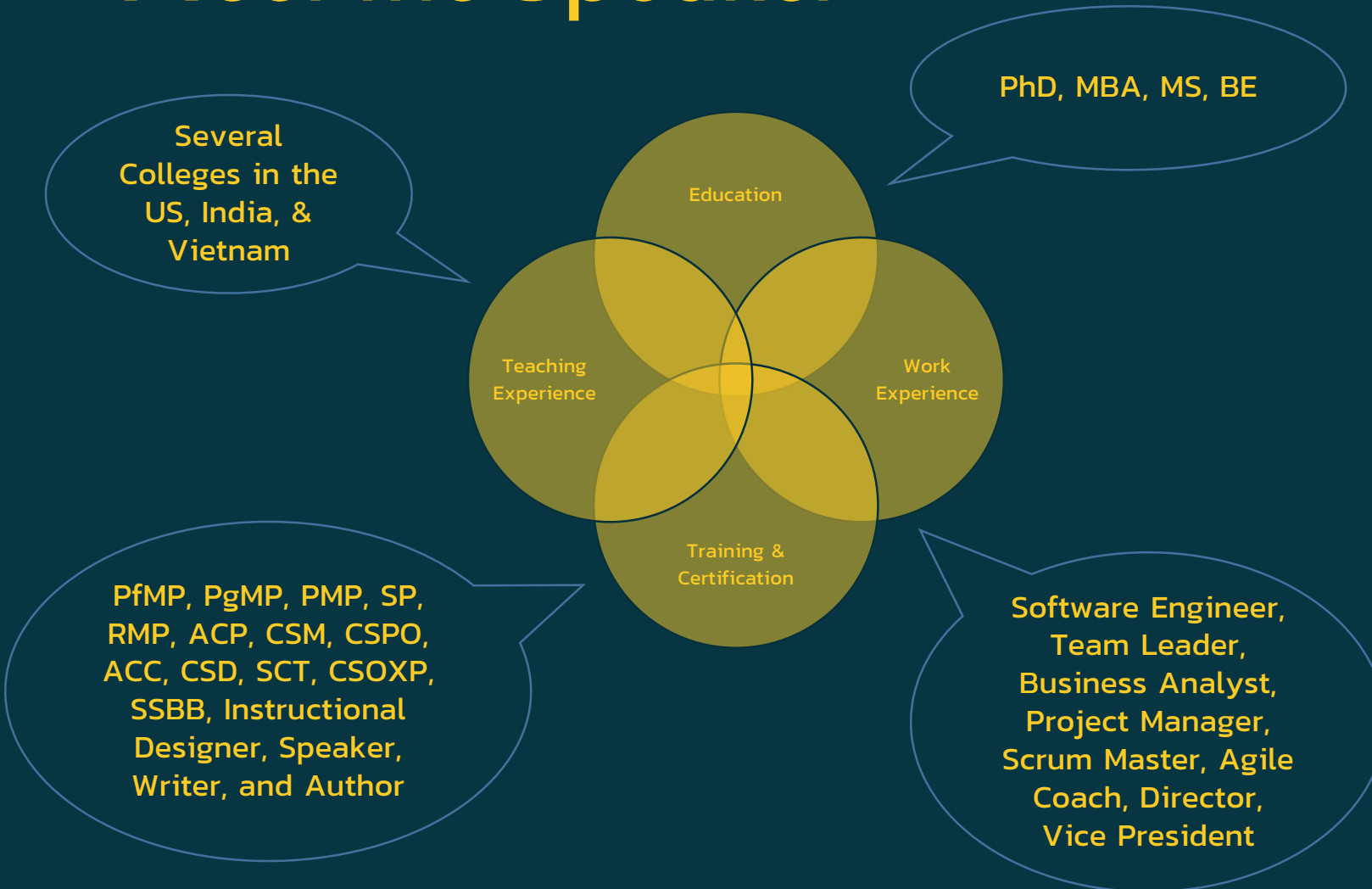
# Five principles for Managing application lifecycle with SpiraTeam®

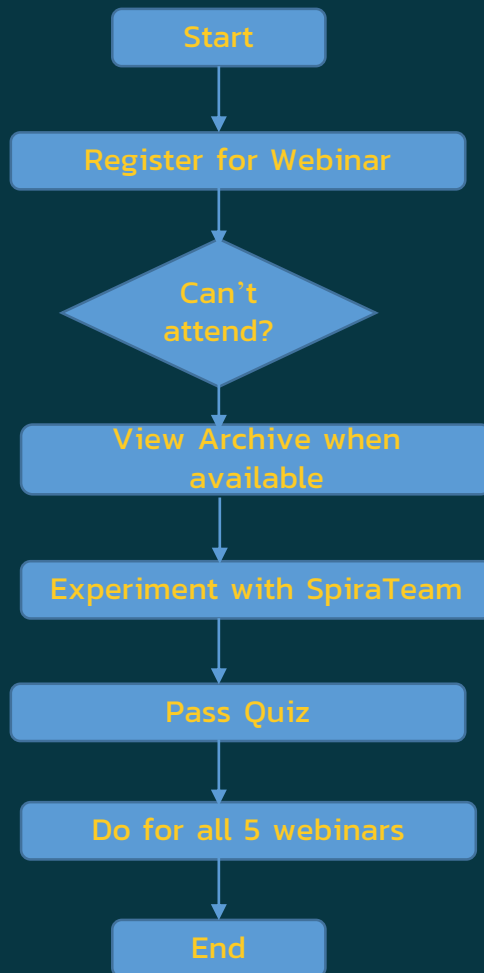## Journey into Agile with Inflectra

### By: Sriram Rajagopalan

SR

SRIRAM RAJAGOPALAN

*inflectra*®

# Meet the Speaker

Several Colleges in the US, India, & Vietnam

PhD, MBA, MS, BE

Education

Teaching Experience

Work Experience

Training & Certification

PfMP, PgMP, PMP, SP, RMP, ACP, CSM, CSPO, ACC, CSD, SCT, CSOXP, SSBB, Instructional Designer, Speaker, Writer, and Author

Software Engineer, Team Leader, Business Analyst, Project Manager, Scrum Master, Agile Coach, Director, Vice President

**Dr. Sriram Rajagopalan**
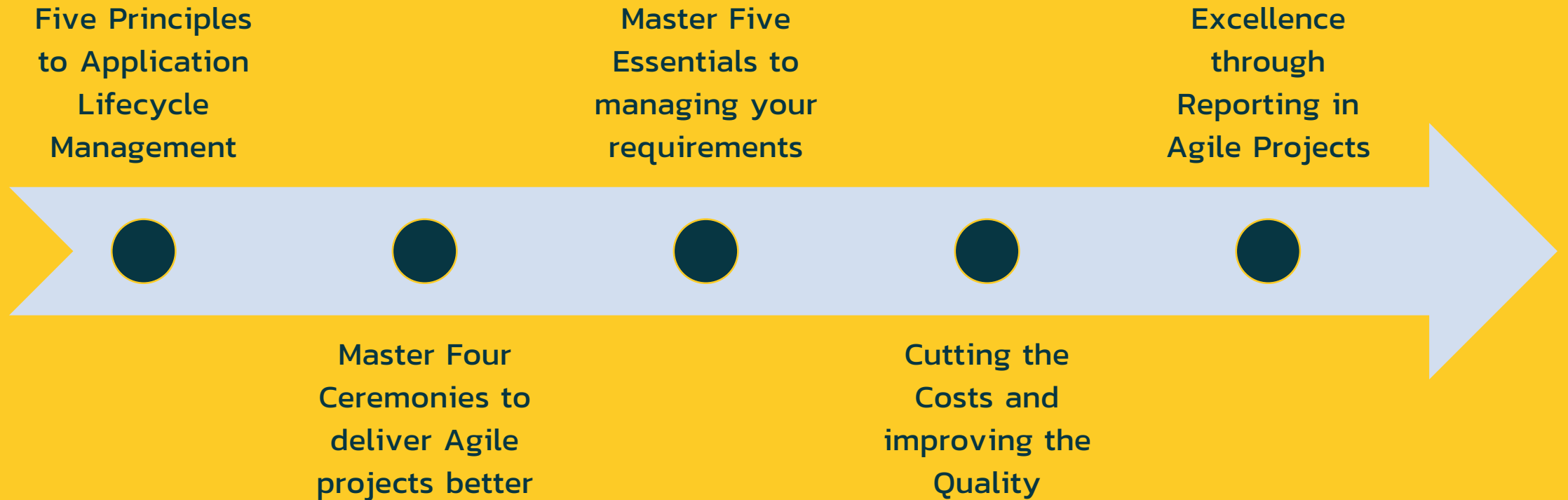
*SRIRAM RAJAGOPALAN*

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# Introduction

- Today's webinar is part of the 5-part series on "Journey into Agile with Inflectra"

- Each webinar is 1-hour long. We will reserve time at the end for questions

- The webinars introduce the concept using a tool

- There is some expectation on your part to setup access with the SpiraTeam®

- The completion certificate is based on specific requirements and passing a certification quiz

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# Agile By Inflectra Certificate Course

Start

Register for Webinar

Can't attend?

View Archive when available

Experiment with SpiraTeam

Pass Quiz

Do for all 5 webinars

End

JOURNEY INTO AGILE WITH INFLECTRA

# 2019

WEBINAR CERTIFICATE COURSE

FREQUENTLY ASKED QUESTIONS

http://www.inflectra.com/Ideas/Entry/agile-by-inflectra-faqs-certificate-course-771.aspx

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# Journey into Agile with Inflectra

**Five Principles to Application Lifecycle Management**

**Master Five Essentials to managing your requirements**

**Excellence through Reporting in Agile Projects**

**Master Four Ceremonies to deliver Agile projects better**

**Cutting the Costs and improving the Quality**

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# Getting Grounded

Project Managers / Scrum Masters

Business Analysts / Product Managers / Product Owners

Architects / Designers / Developers / Testers

Operations / Service Delivery
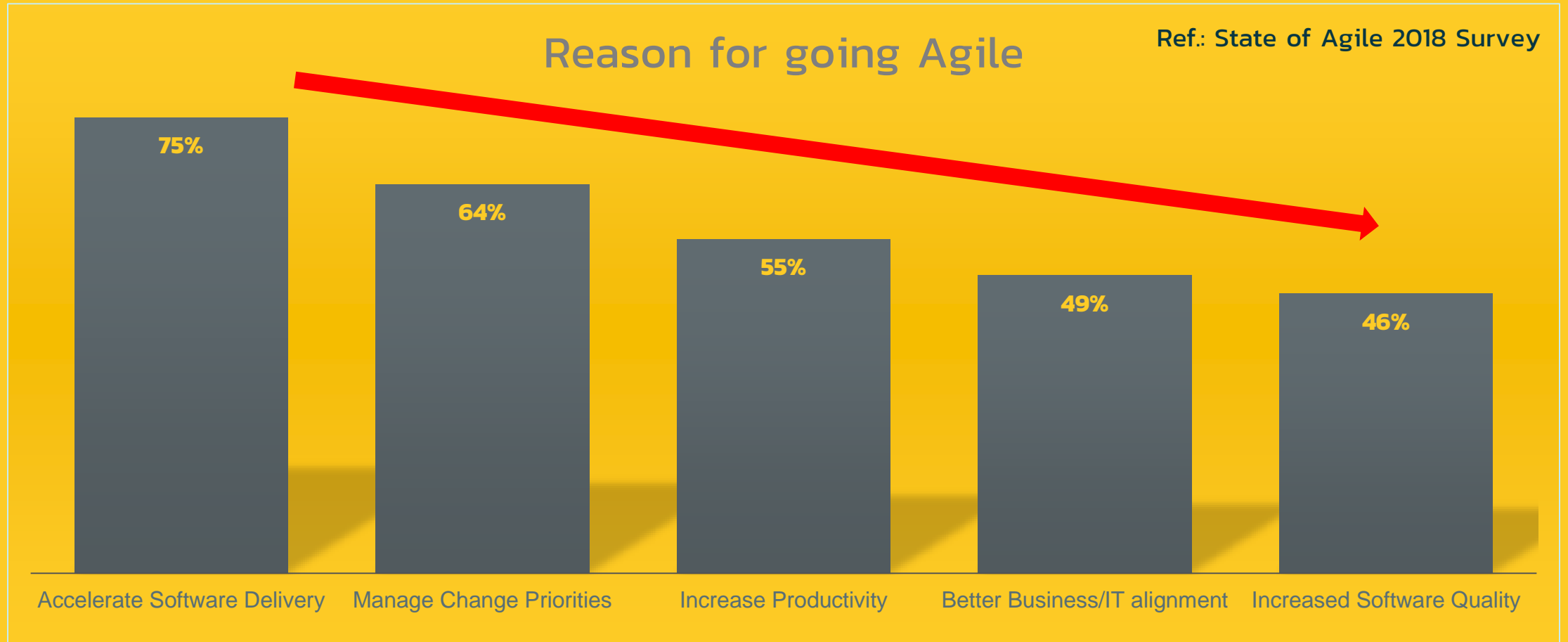
Program Managers / Portfolio Managers

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# Challenge to Application Lifecycle
## What's the impact of each group's preference to their preferred tool?

- Impact
    - Requirements are in different places
    - Tasks are ambiguous
    - Test cases are incomplete
- Result
    - Single central source of truth is lost
    - Customer dissatisfactions increase
    - Total Cost of Ownership goes up

WAIT! HAMMER NO!

QUIET NAIL.

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# Is Agile a Panacea?



Reason for going Agile

- 75% — Accelerate Software Delivery
- 64% — Manage Change Priorities
- 55% — Increase Productivity
- 49% — Better Business/IT alignment
- 46% — Increased Software Quality

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# Application Lifecycle Management is

| Project Management Phases | Product Management Phases | Software Development Lifecycle |
|---|---|---|
| • *Initiation* <br> • *Planning* <br> • *Execution* <br> • *Monitoring & Control* <br> • *Closure* | • *Discovery* <br> • *Define* <br> • *Design* <br> • *Construction* <br> • *Marketing* <br> • *Training* <br> • *Launch* | • *Analysis* <br> • *Design* <br> • *Build* <br> • *Test* <br> • *Deploy* |

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# 5 Principles of Application Lifecycle Management

*STAGE approach is coined by Dr. Sriram Rajagopalan*

Services     Traceability     Auditability     Governance     Engineering

**NOTE**
- That these are principles that apply to any framework
- They are not sequential phases
- They apply to all business units in an organization

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# What does Governance involve?

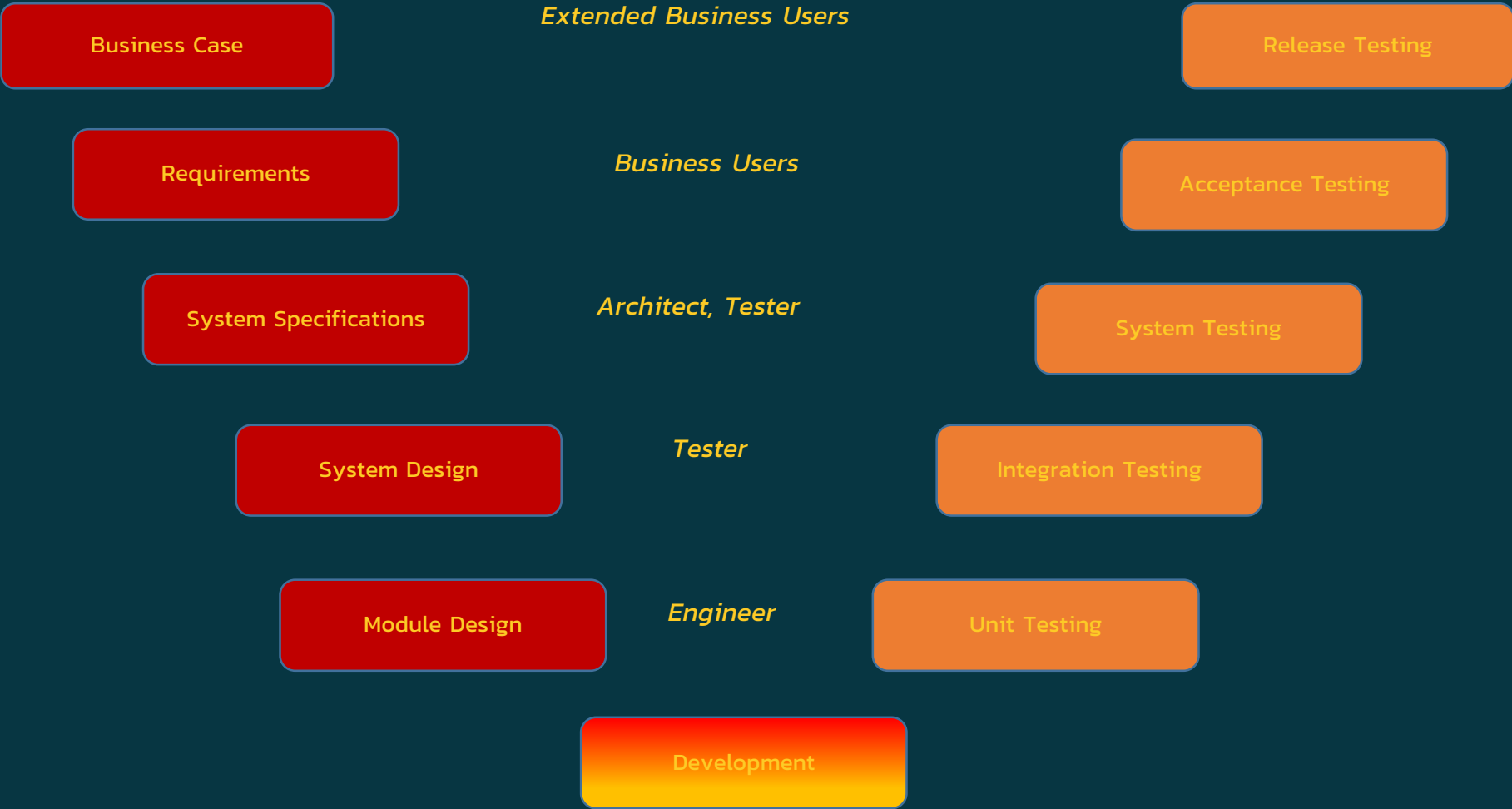| | |
|---|---|
| **Strategic Benefits** | • *What does the customer want?* |
| **Coordinated Planning** | • *How do we prioritize and deliver value?* |
| **Complex Interdependencies** | • *Managing dependencies and risks to delivery* |
| **Deliverable Integration** | • *Continuously build, adjust, and deliver* |
| **Optimized Pace** | • *Sustain Operations along with delivery of new functionality* |

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# What does Traceability mean?

- Degree of relationship between two or more software components
- Traceability is a one-way flow. It should be bidirectional
- Traceability goes across all project artifacts
- Traceability spans across test and production environments
- Traceability promotes transition planning, succession planning, change impact analysis, test optimization, product component reuse.

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# V-Model of Traceability

Business Case

Extended Business Users

Release Testing

Requirements

Business Users

Acceptance Testing

System Specifications

Architect, Tester

System Testing

System Design

Tester

Integration Testing

Module Design

Engineer

Unit Testing

Development

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# Challenges to Engineering

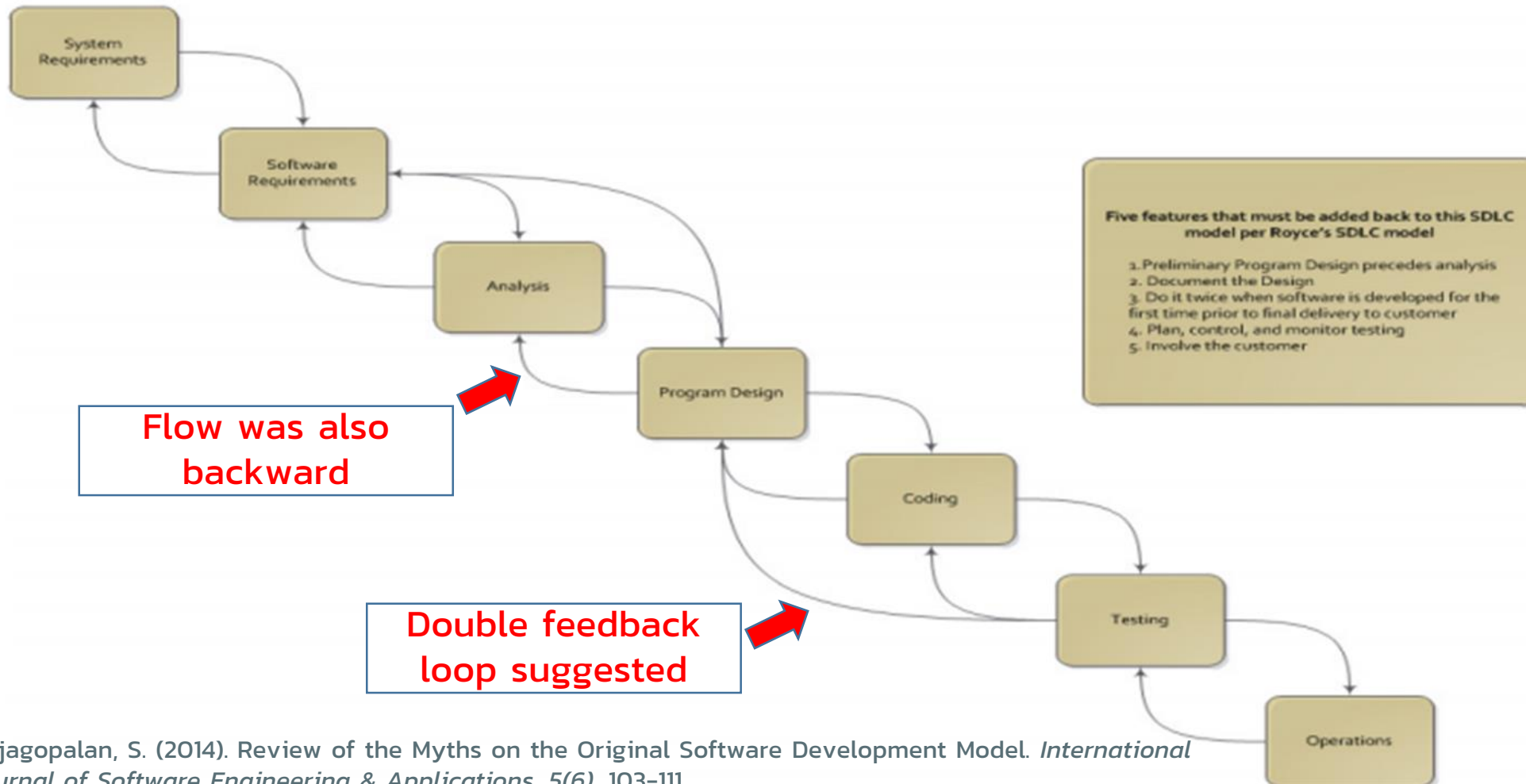## Mixing of framework due to inadequate exposure

- Product development framework (agile)
- Plan driven approach to project management (PMBOK, Prince2)
- Software development framework (SDLC often known as waterfall)

## SDLC myths lead to the use/non-use/abuse of a tool

- SDLC involves linear approach to software development
- Big Upfront Requirements gathering
- Gathering requirements upfront saves cost
- Project Management is not part of software development
- High degree of Software Development needed before initiating any work
- Customers sees work after ALL work is developed and tested
- Testers need not be involved early in requirements stage

Royce, W. (1970). Managing the development of large software systems. Proceedings of IEEE, WESCOM, 1–9.

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# Challenges to Engineering



Five features that must be added back to this SDLC model per Royce's SDLC model

1. Preliminary Program Design precedes analysis
2. Document the Design
3. Do it twice when software is developed for the first time prior to final delivery to customer
4. Plan, control, and monitor testing
5. Involve the customer

System Requirements → Software Requirements → Analysis → Program Design → Coding → Testing → Operations

**Flow was also backward**

**Double feedback loop suggested**

Rajagopalan, S. (2014). Review of the Myths on the Original Software Development Model. *International Journal of Software Engineering & Applications, 5(6)*, 103–111.

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# Application Lifecycle tool supports

**Source code Management**

**Version Control**

**Quality Control & Quality Assurance**

**Manual and Automated Testing**

**Deployment Support**

Why ALM tool is not "Development" but "Engineering" interface?

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# What does Auditability involve?

Compliance needed for both procedures and process

Auditors look for evidences of what, how, who, and when

Rollout deployment impacting the cost of quality

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# Audit 101 Needs

## Process Audit

- *Ensures proactive controls in place*
- *Evaluates competencies and capabilities to deliver outputs*
- *Reviews integrity of results as they are achieved*
- *Incorporates measures and metrics to assess effectiveness and efficiency*

## Procedure Audit

- *Conforms what tasks are being performed*
- *Establishes standard operating agreement for following processes*
- *Verifies decision making authority on work package delivered*
- *Ensures training and documentation is in place to perform the task*

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# What does Services (Operations) involve?

When delivering software, think of the following:

- Can customer service field the request from the customers and end-users?
- Can Service Operations sustain the application in the production environment?

Some of these operations work involve

- Event Management
- Incident Management
- Application Management
- Access Management

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# Demo Time

- Let us explore basic features how SpiraTeam® provides a one-stop interface to application lifecycle management

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# Summary

**An application lifecycle management should support 5 principles**

- *Governance*
- *Traceability*
- *Development*
- *Auditability*
- *Operations*

**Specific features should support framework agnostic business processes**

- *Requirements Management*
- *Estimation & Planning*
- *Source code and Version control management*
- *Quality Control & Quality Assurance*
- *Deployment*
- *Collaboration*
- *Transition and succession planning*

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# Q & A

- Please feel free to ask questions

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# Next Steps:

1. Take the post-webinar quiz (link in email)
2. Register for the 2nd webinar of the series!

Thank you for watching!

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