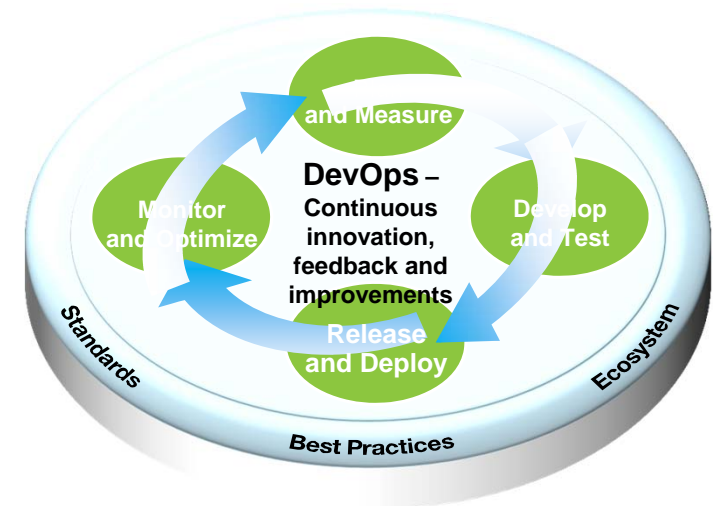




## The New Era of Integrated Software Delivery with DevOps

Sujatha (Suj) Perepa  
Software IT Architect  
IBM



# Agenda

- What is DevOps?
- DevOps capabilities and its automation benefits
- DevOps adoption roadmaps
- DevOps influence on solution architectures
- DevOps Roles and responsibilities
- Implementing DevOps for Cloud, Mobile & Social technologies

# What is DevOps

## **Collaborative Development**

Foster productive collaboration with deeper lifecycle integrations

“No hassle” collaborative development capabilities on the cloud for continuous delivery

## **Continuous Testing**

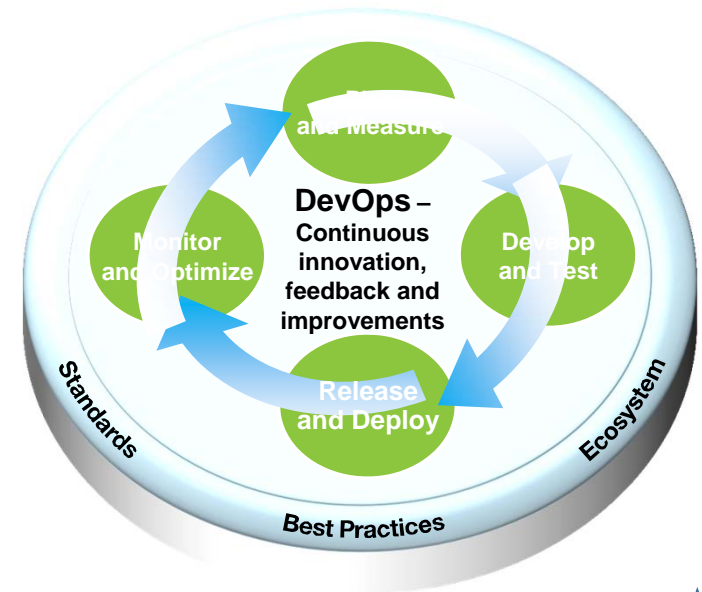
Enhanced integrations and capabilities to synchronize software testing with deployment and operations

## **Continuous Release and Deployment**

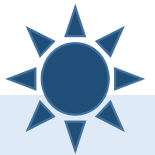
Greater delivery speed and frequency for complex applications

## **Continuous Monitoring**

Capabilities to improve service quality by monitoring application performance

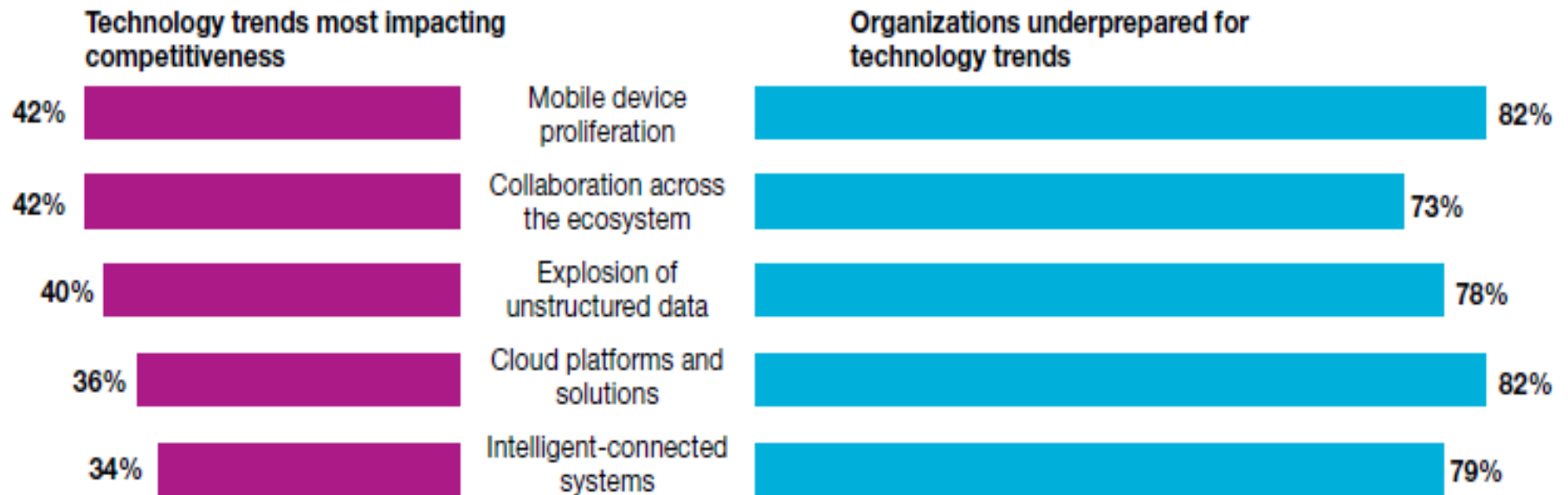


- Agile development approach
- It spans the entire lifecycle, includes business planning and creation to delivery and feedback.
- Enable continuous delivery of software-driven processes and innovation



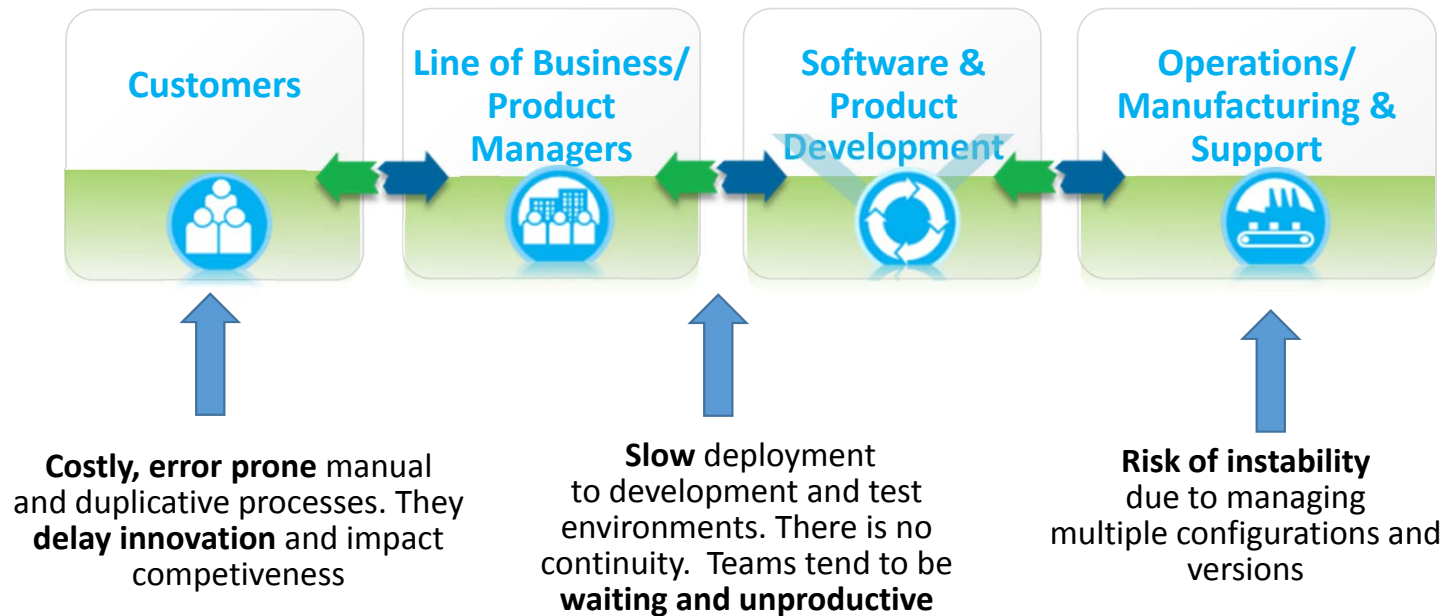
# Why do we need a DevOps?

Top technology trends are impacting how organizations operate

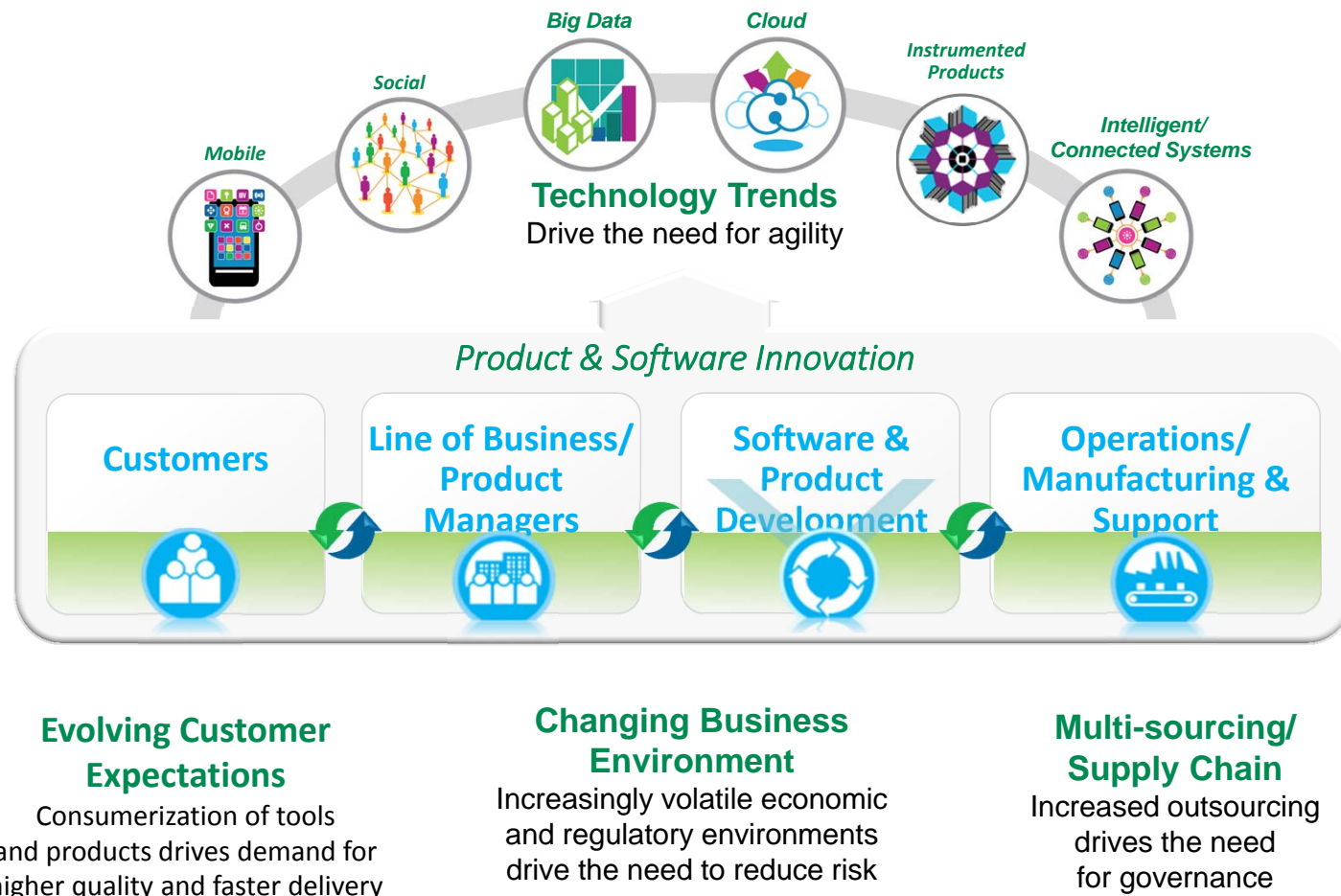


Note: Survey respondents were allowed up to three selections.  
Source: IBM Institute for Business Value.

# Traditional Lifecycle development - challenges



# Emerging technologies need a new development lifecycle

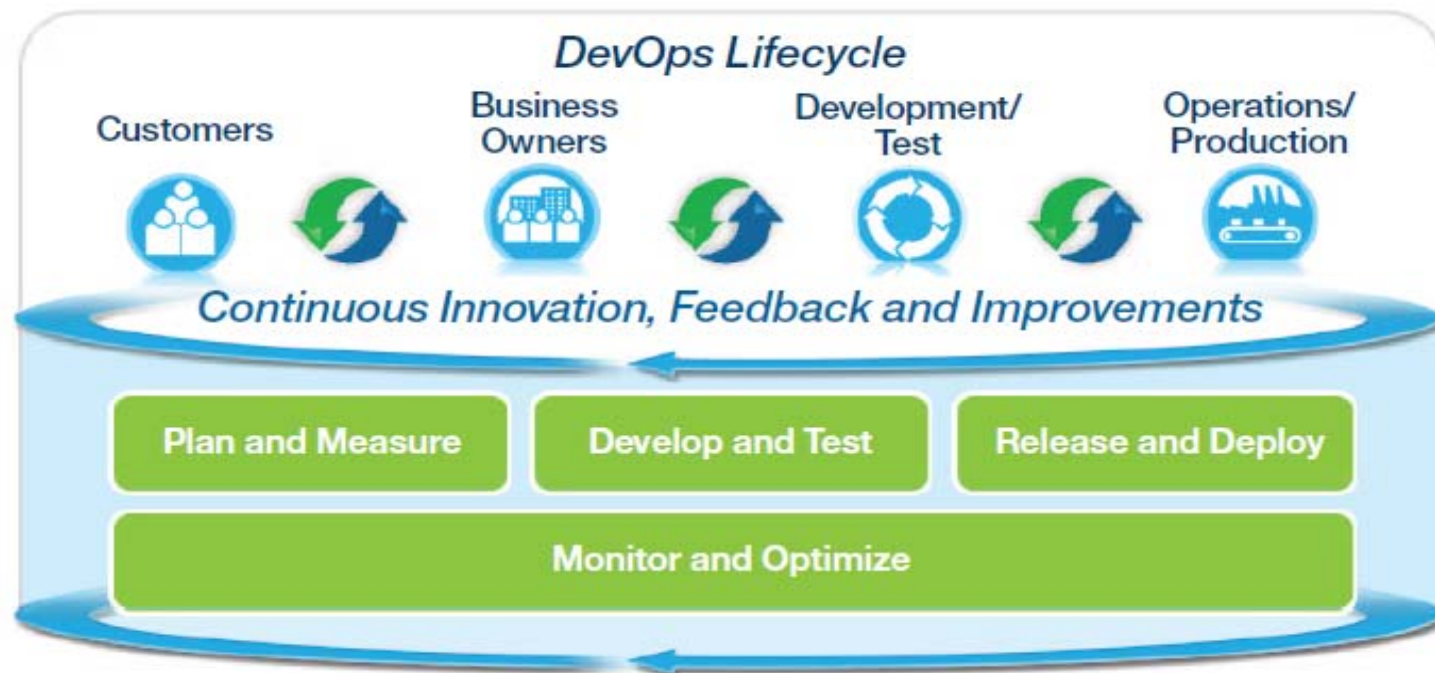


DevOps Lifecycle delivers ...

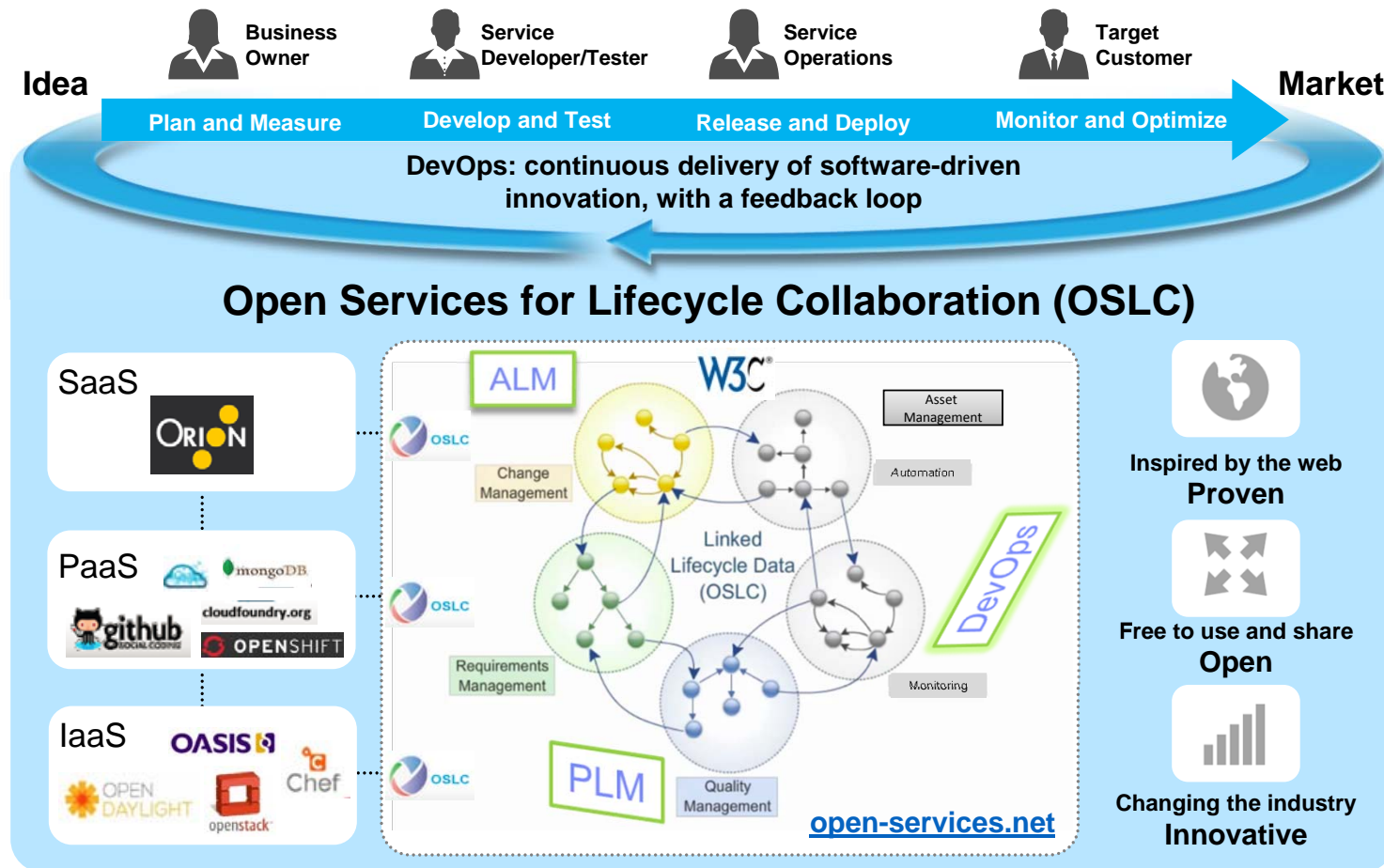
**Accelerate software delivery**

**Reduce time to customer feedback**

**Balance speed, cost, quality and risk**



# DevOps ecosystem and standards





How do we DevOps ? 😊

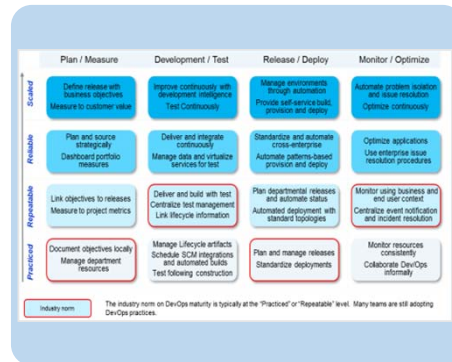
- Adoption roadmaps
- Maturity models

# Prescription for DevOps adoption

Identify key pain points in the delivery process



Assess current capabilities using the DevOps maturity model



Produce heat maps of capability gaps and areas of improvement to determine priority

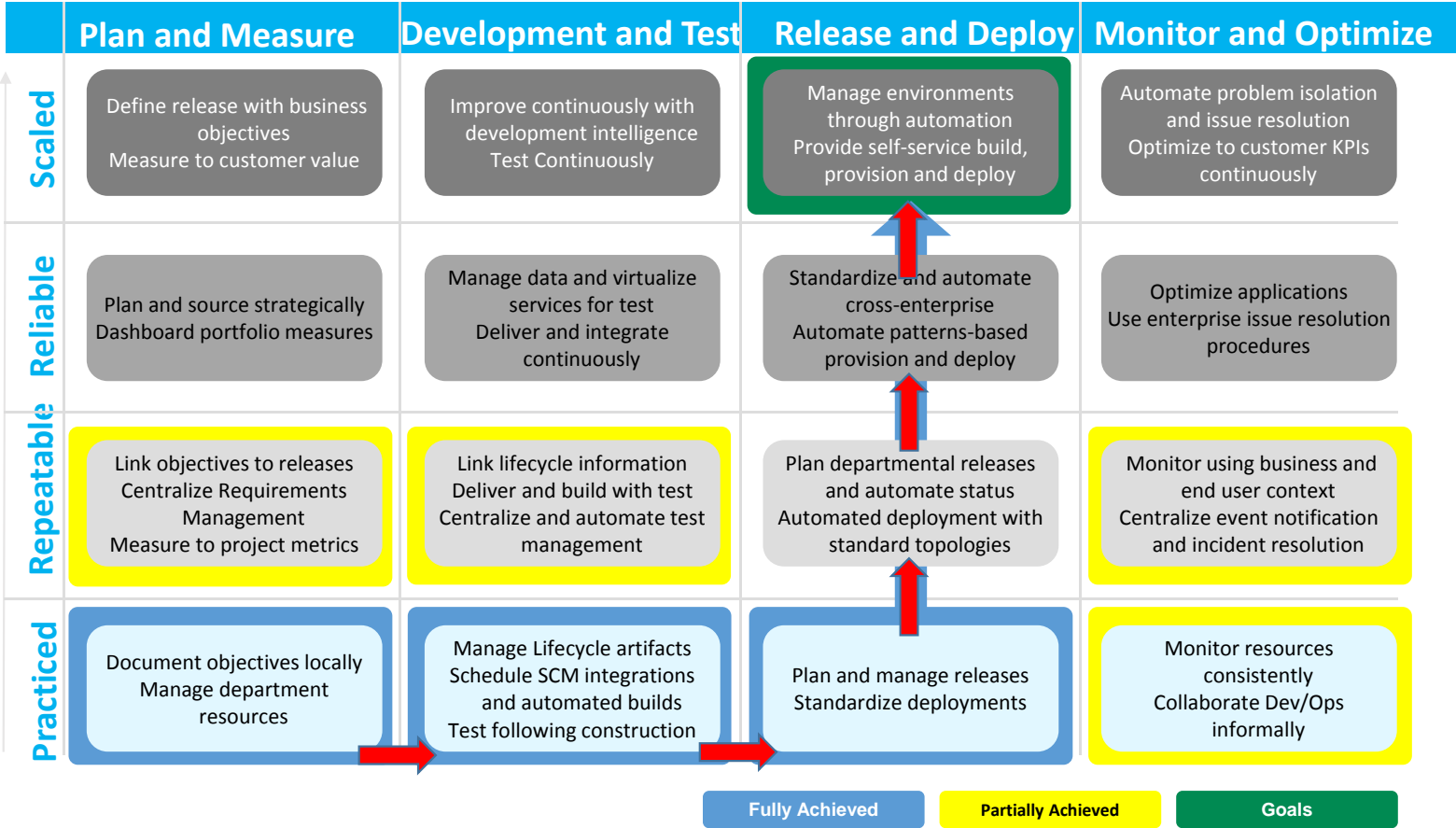


Establish a roadmap with milestones and execution timelines



A maturity model approach

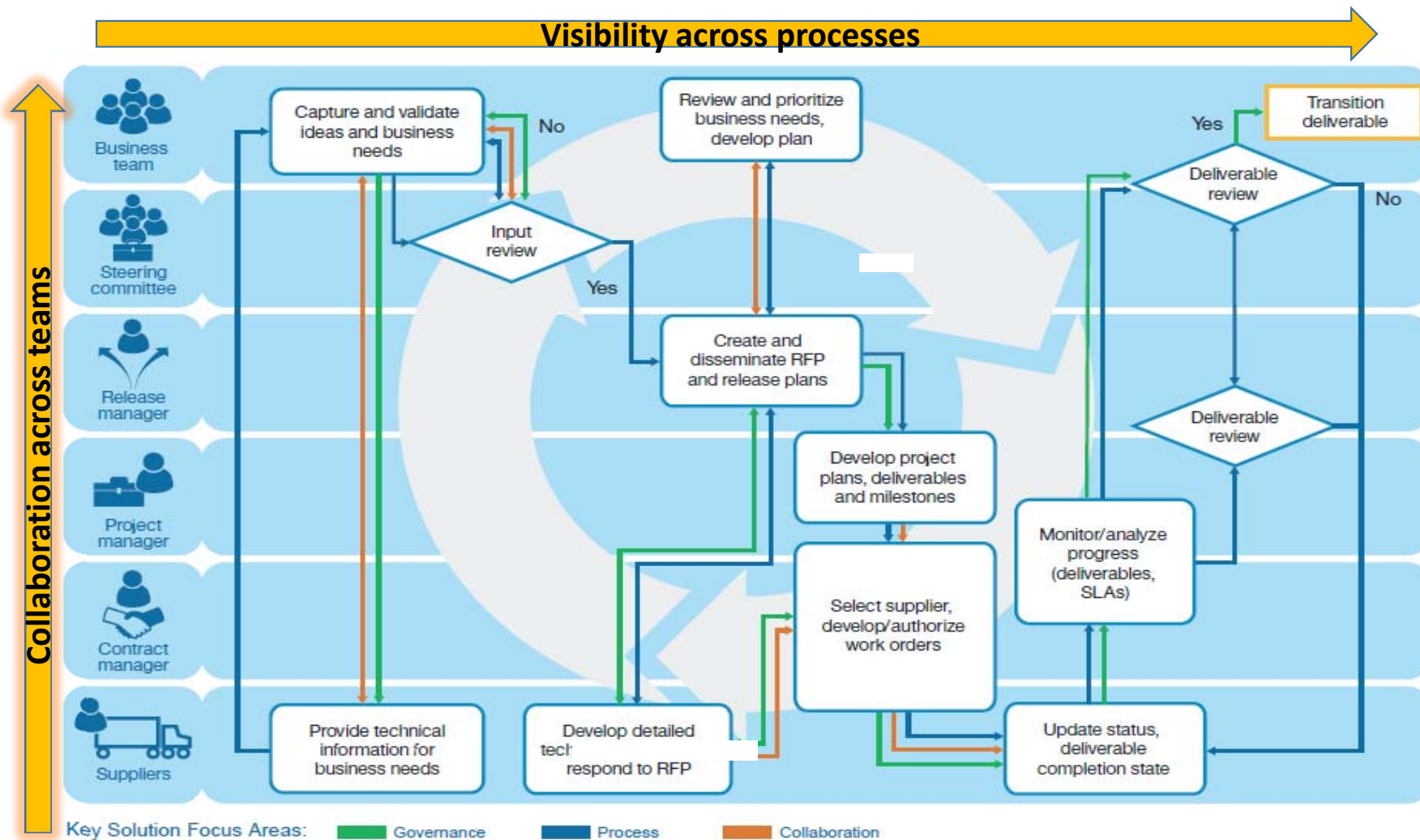
# DevOps maturity model: sample



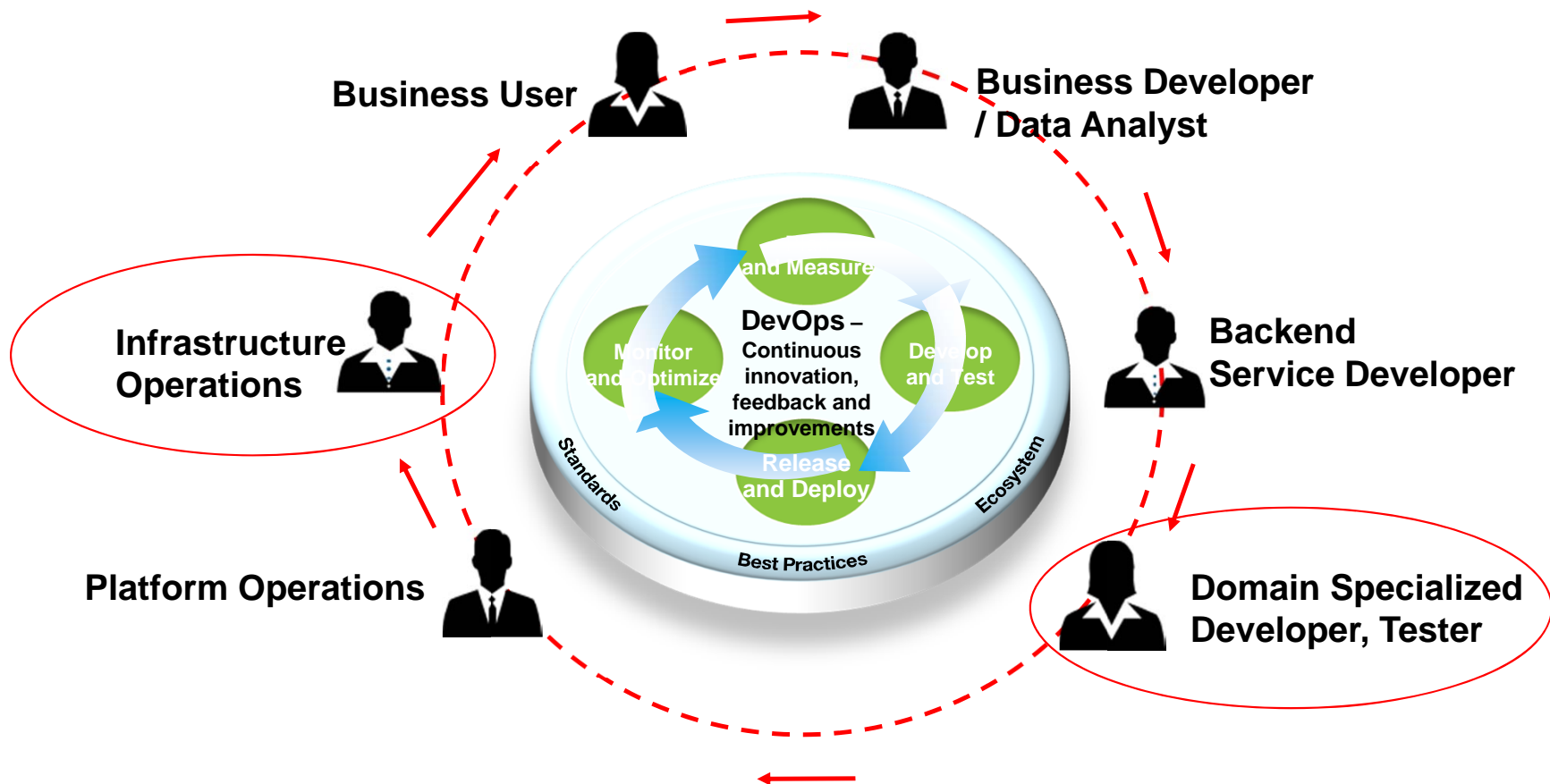
# How is DevOps influences software engineering & architect roles

- Manage projects effectively through open, standards-based platforms
- Address requirements for the organizations, vendors and teams (not just for components)
- Increase project visibility through traceability,
- Common reporting and analytics across the lifecycle
- Improve quality and reduce development costs with collaboration
- Establish asset reuse across organizations, vendors and teams

# DevOps influences software engineering & architect roles

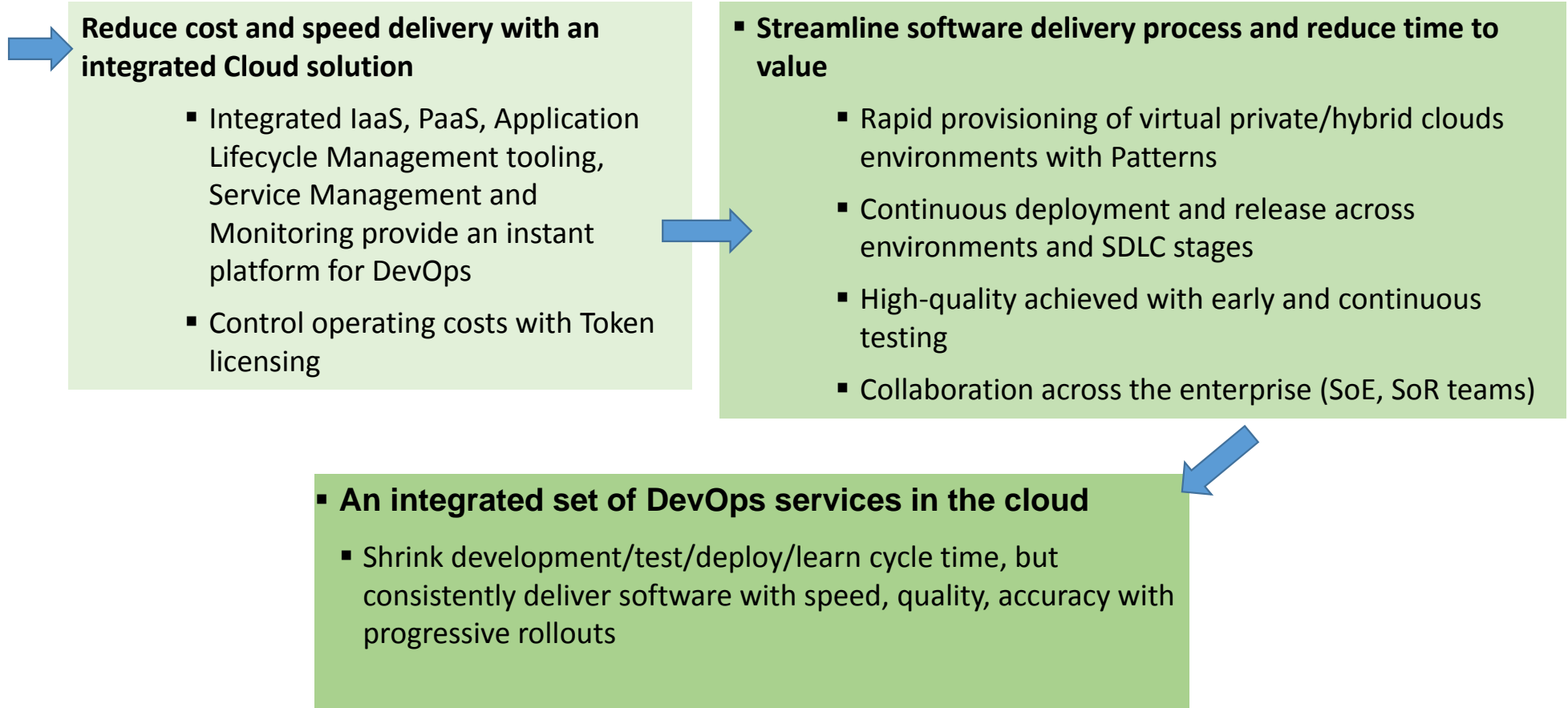


# DevOps – other Roles and responsibilities



Implementing DevOps for the new millennium  
(Cloud, Mobile & Social technologies etc.)

# DevOps solutions for Cloud





# DevOps solutions for Mobile systems

## → Quality Management for Systems of Engagement

- Automate testing for native & hybrid mobile apps
- Virtualize middle-tier and back-end services and systems
- Assess and manage quality, Extend application with automated testing

## → Continuous Delivery for Mobile Applications

- Reduce response time to feedback
- Continuously build, test and deploy, align to overall DevOps
- Adopt agile practices
- Collaborate across the organization

## → Extend Enterprise Apps to Mobile

- Collaborate across front-end & back-end teams
- Leverage service virtualization during development and test
- Drive service optimization

# DevOps is for your Enterprise

- DevOps solution addresses culture, process and tools integration across the software delivery lifecycle,
- spanning distributed and mainframe environments.
- Develop and test mainframe applications faster with higher quality
  - Automated, traceable code review, and code coverage for COBOL and PL/I
- Collaboration and governance across lifecycle

reduces time to customer feedback

reduces risk and cost

unifies process

increases quality

Common tools across end to end lifecycle

Thank you !