

Agile Requirements And Testing For Continuous Software Delivery

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October 14, 2014.

Agenda

- ▶ Modern Application Delivery needs speed@quality
- ▶ How Agile development trends address the needs. Do they?
- ▶ 3 priorities to focus on

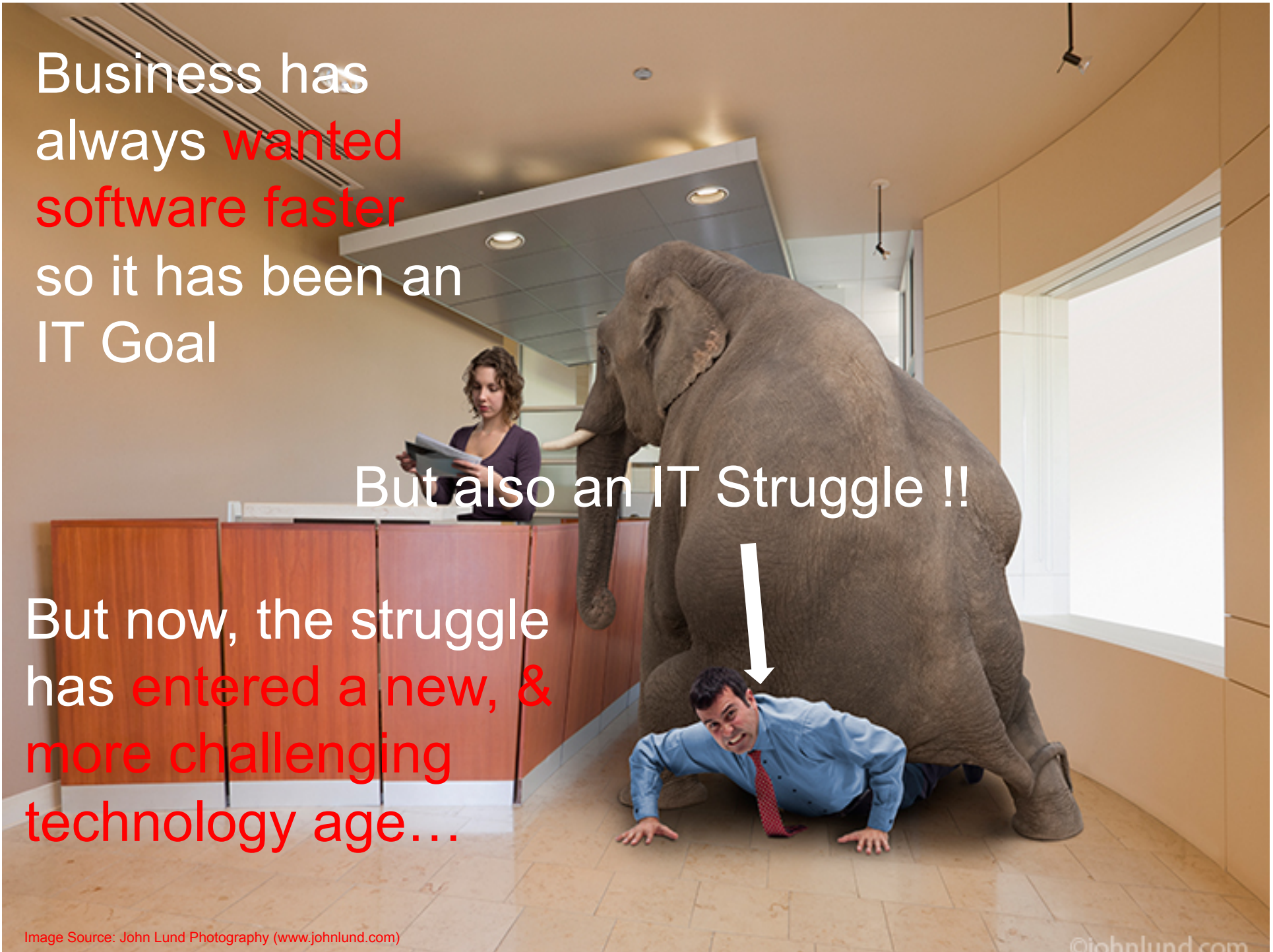
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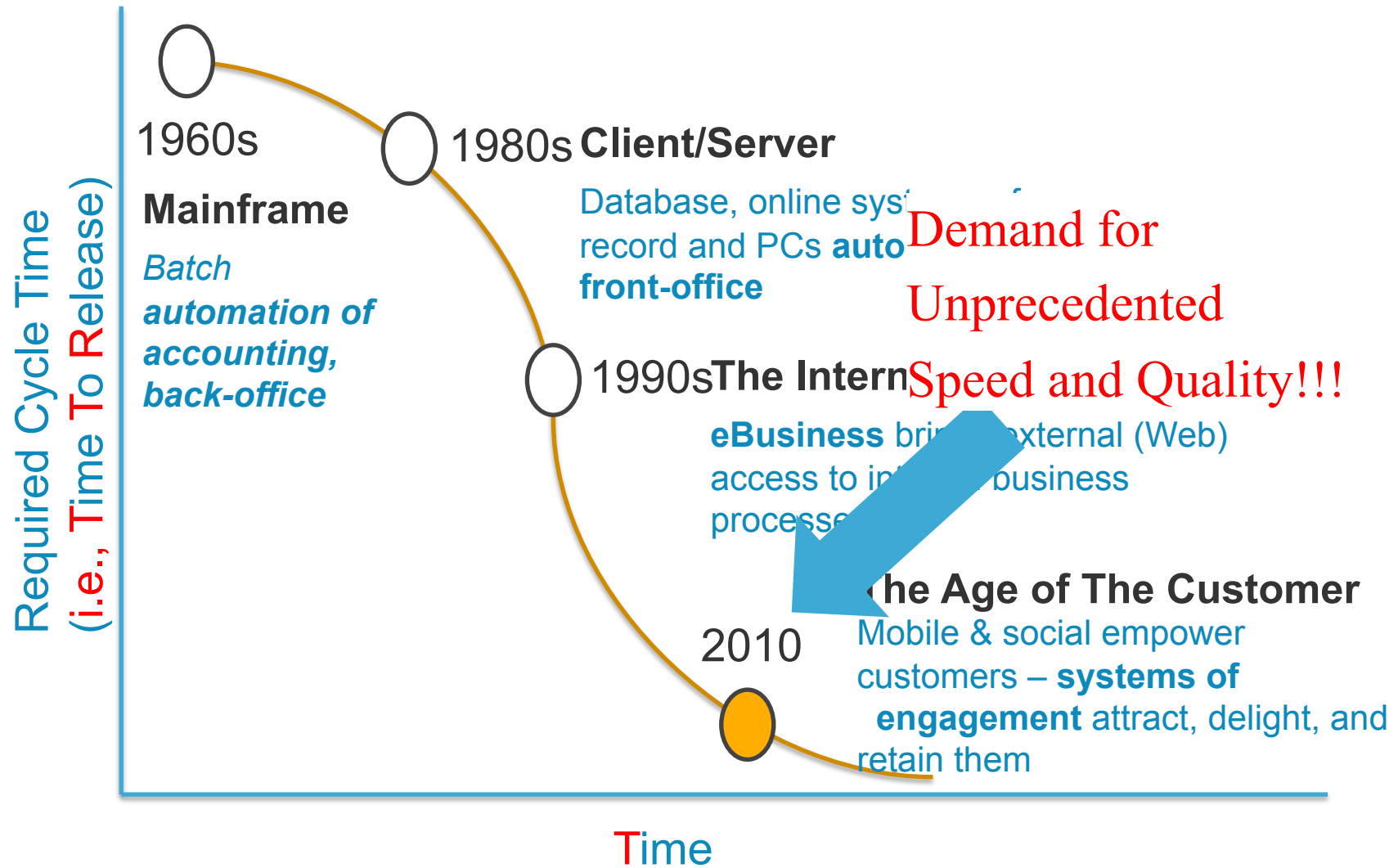
Business has
always **wanted**
software faster
so it has been an
IT Goal

But also an IT Struggle !!

But now, the struggle
has **entered a new, &**
more challenging
technology age...



The Age Of The Customer (AoC)



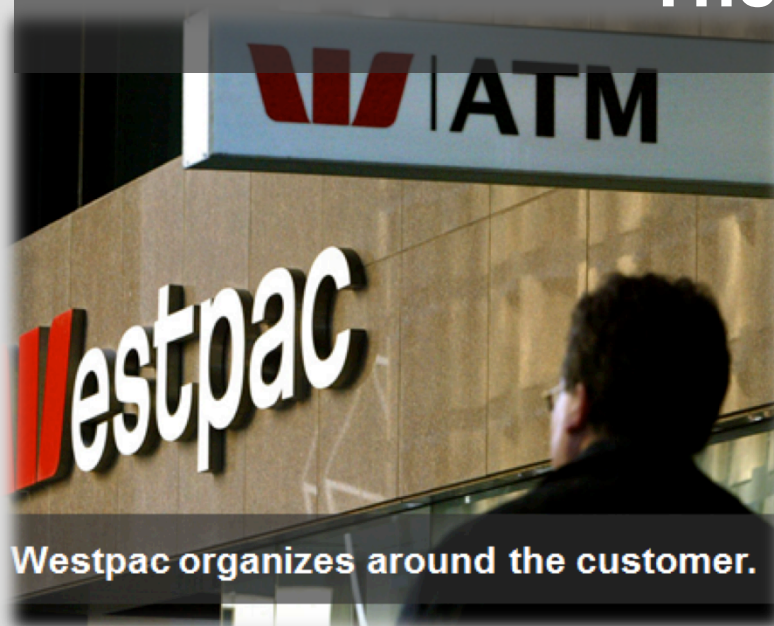


Attention Assist
Pause vor 03:20 h

Attention Assist
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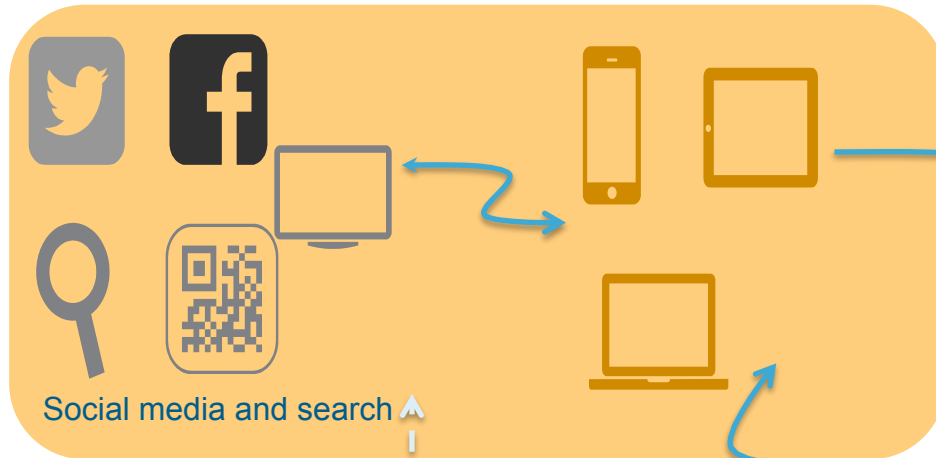
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In The AoC Modern Applications Will Rule The World.



What Are Modern Applications ?

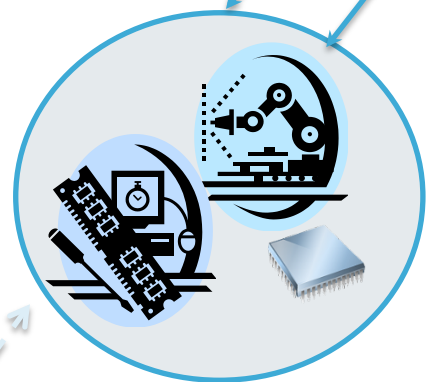
Systems of Engagement (SOE)



- Mobile, web, and smart devices
- Frequent changes
- Unknown requirements
- Delivered frequently

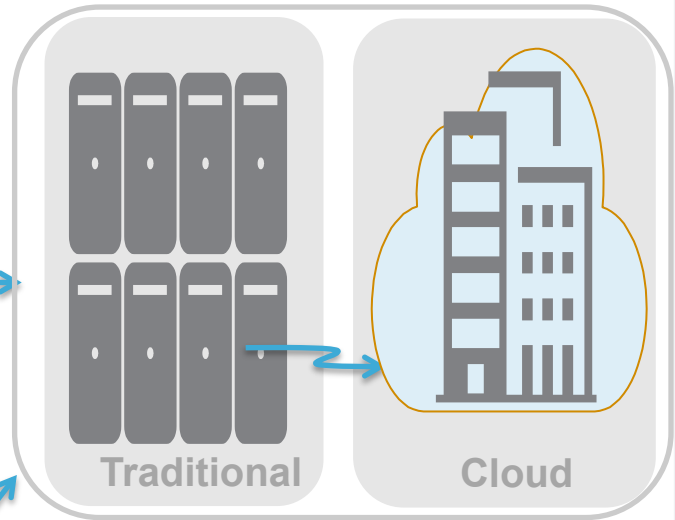
- Embedded, smart sensors
- Consumption changes
- Delivered infrequently

Systems of Automation (SOA)

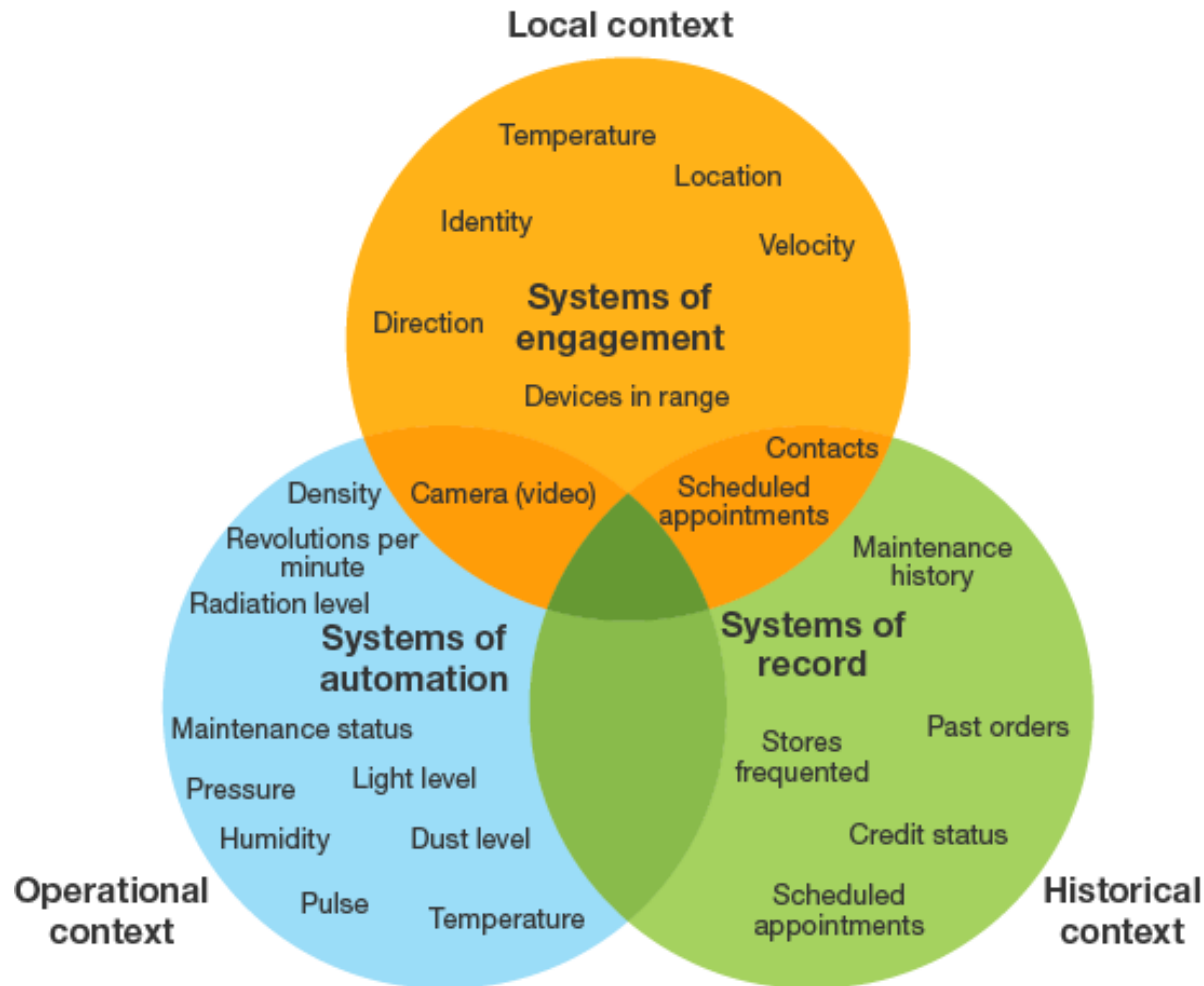


Systems of Record (SOR)

- Stable requirements
- Highly transactional
- Less change
- Delivered infrequently

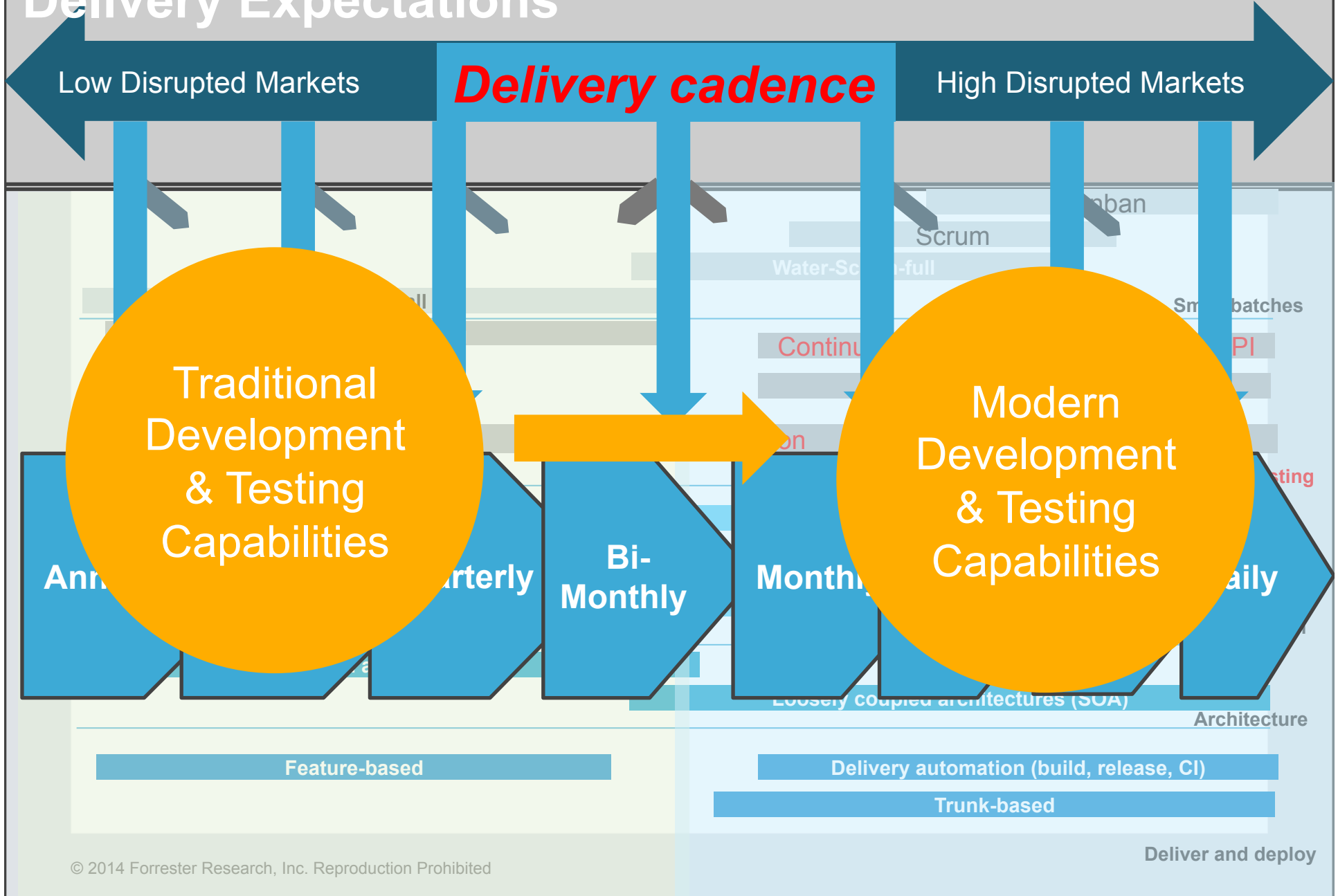


Modern Applications Carry Much Context And Combine Local, Historical And Operational Data



February 2014 “Systems Of Automation Will Enrich Customer Engagement”

Modern Applications Amplify Business Driven Delivery Expectations



Enterprises Have To Operate Like A Software Company To Deliver Modern Applications

User experience becomes an absolute requirement, not a nice-to-have.

A tsunami of releases requires agile processes and new application architecture.

When software is your business, TM has to deliver:

- Five 9's availability and reliability.
- Five to 50 releases per year.
- Ease of use: Constituents figure out the app in less than a minute.

Transform to a software engineering group to change the operational mindset.

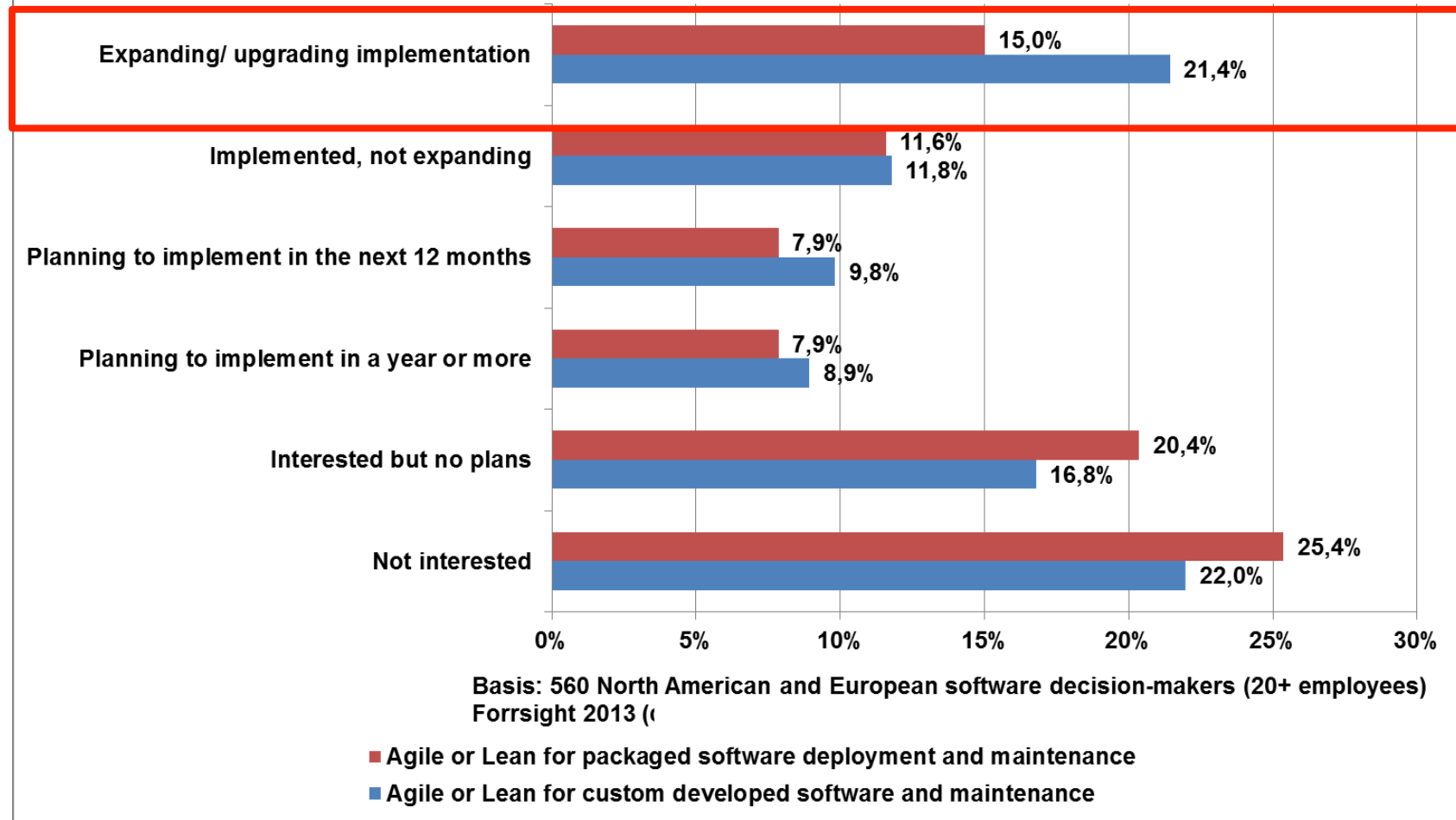
Refactor back-end architectures and applications.

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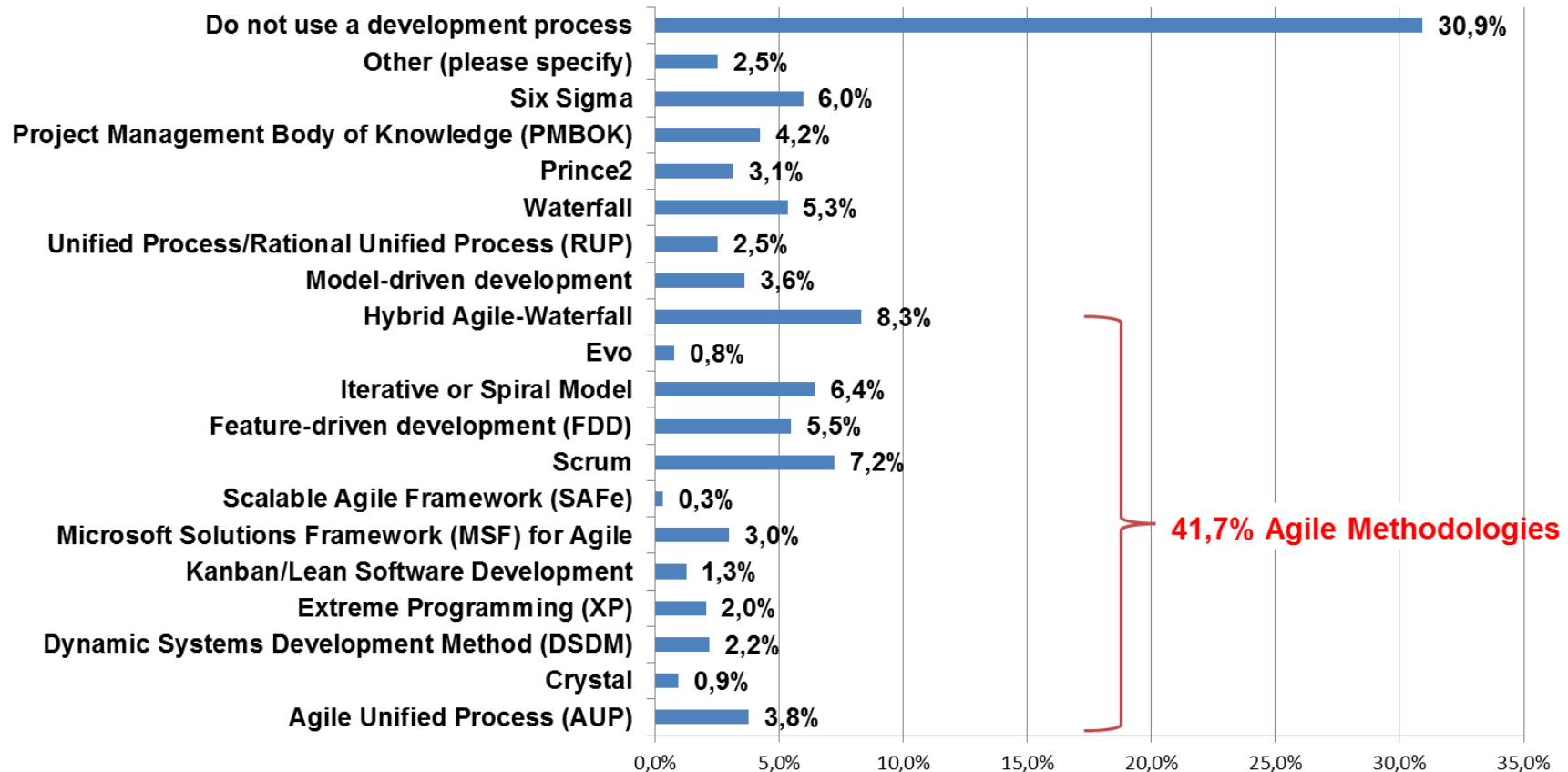
The Demand For Agile In Software Development And Maintenance Is High

What are your firm's plans to adopt Agile or Lean for software development and maintenance?



Agile Methodology Adoption Is Growing

Which methodology most closely reflects the development processes that you currently use?



Base: 637 Global software developers who work for a software company; as a game developer; in technology services; or in internal IT

Foorester CONSUMER TECHNOGRAPHICS® 2014



Agile
upstream

DevOps



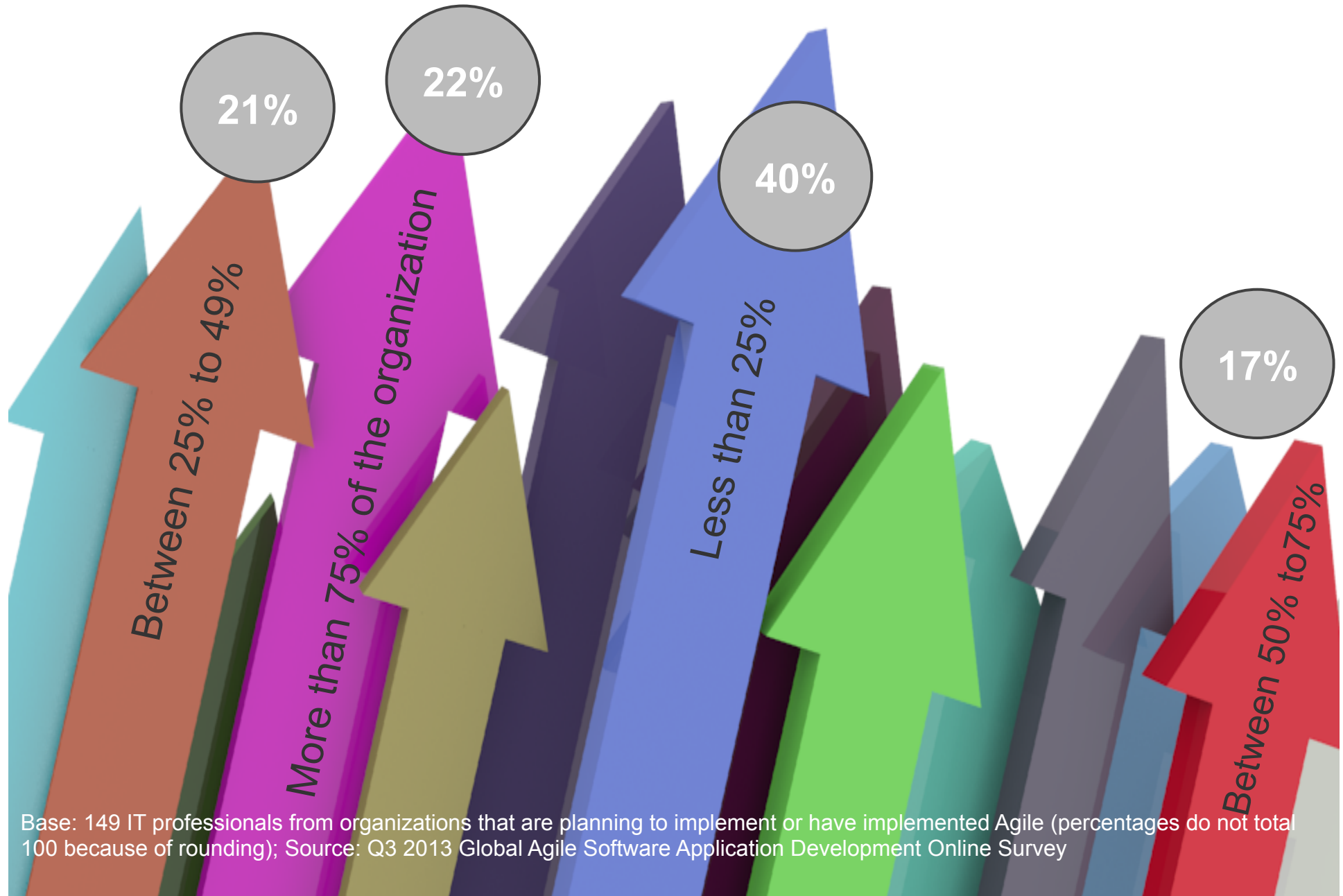
Agile
downstream

32%* 13%†

*Do standup, burndown/burnup, and short iterations; product owner; and constant feedback.

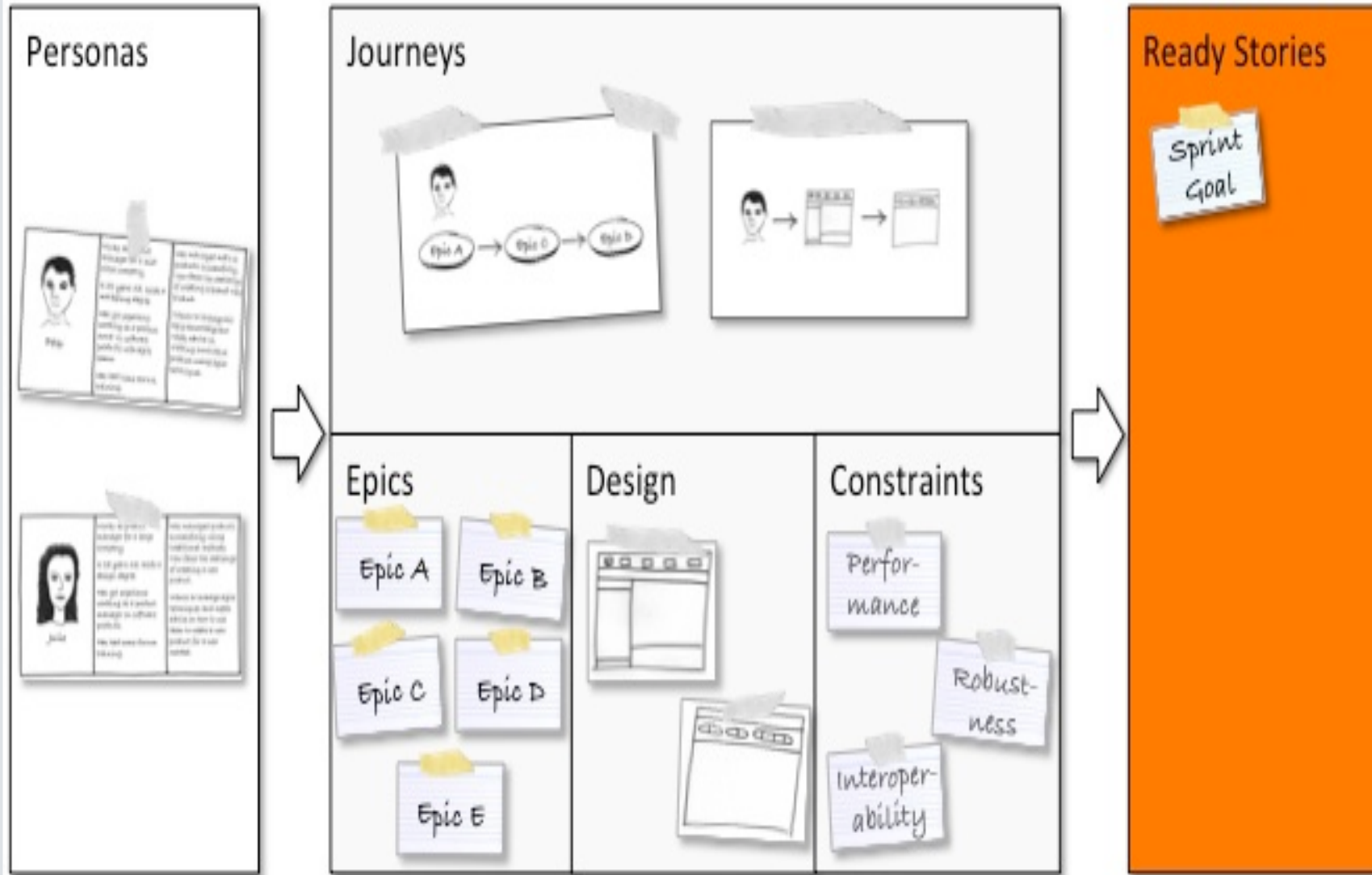
†Do upstream plus continuous integration, continuous delivery, and test-driven development.

Scaling Agile Is Hard, But Possible

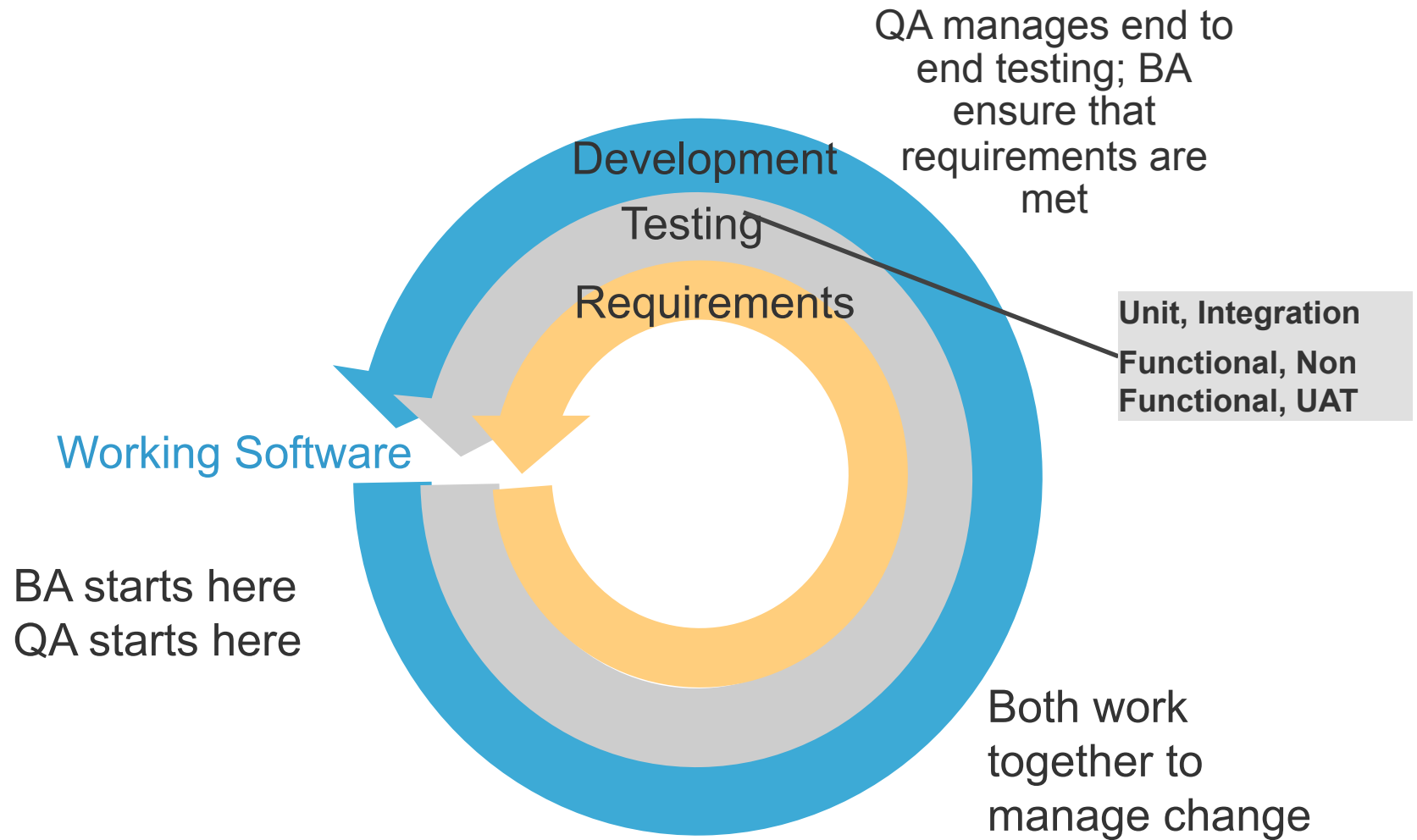


Base: 149 IT professionals from organizations that are planning to implement or have implemented Agile (percentages do not total 100 because of rounding); Source: Q3 2013 Global Agile Software Application Development Online Survey

New Ways Of Representing Requirements Are Spreading



Testing “Shifting Left” For Earlier Quality Requirements & Bug Fixing



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#1. Modernize Delivery End To End

Modern applications require modern delivery capabilities.

Agile and Lean play a big role in modern application delivery...

And modern management techniques are *a must* !

The Success Of Modern Application Delivery Is Largely Dependent On Good PRODUCT OWNERS!

- Their focus is product strategy, marketing, and Minimum viable Products (MvP)
- They manage their products across their entire lifetime.
- They manage requirements from a product-specific and longer-term perspective.
- They prioritize user stories backlog!



Role changes based on project/product complexity and scope

Effective Teams Need Business Technology Leadership: Business Analysts

As a Partner Player

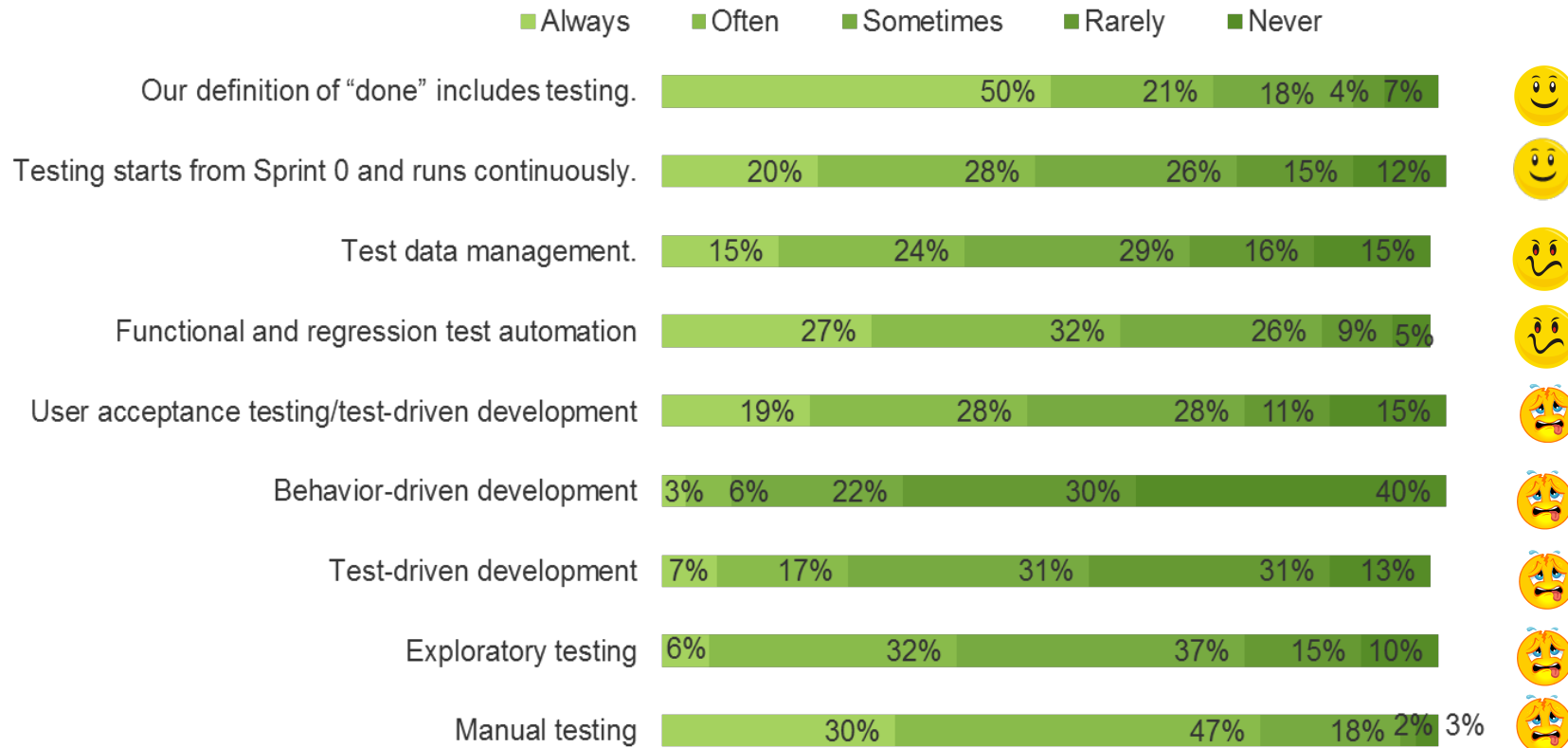


Business/systems analyst

- ▶ Key resources for large projects
 - Someone must understand the problem and stakeholders.
- ▶ Not a documenter or scribe
 - Consultant, negotiator, leader
 - Empowered to make decisions about the business
- ▶ Takes strong stewardship on business value
 - Drives projects to deliver business value
 - Can play dual role of product owner support

#2. Improve **Y**our Agile **T**esting **P**ractices

“How often does your organization execute the following test practices?”

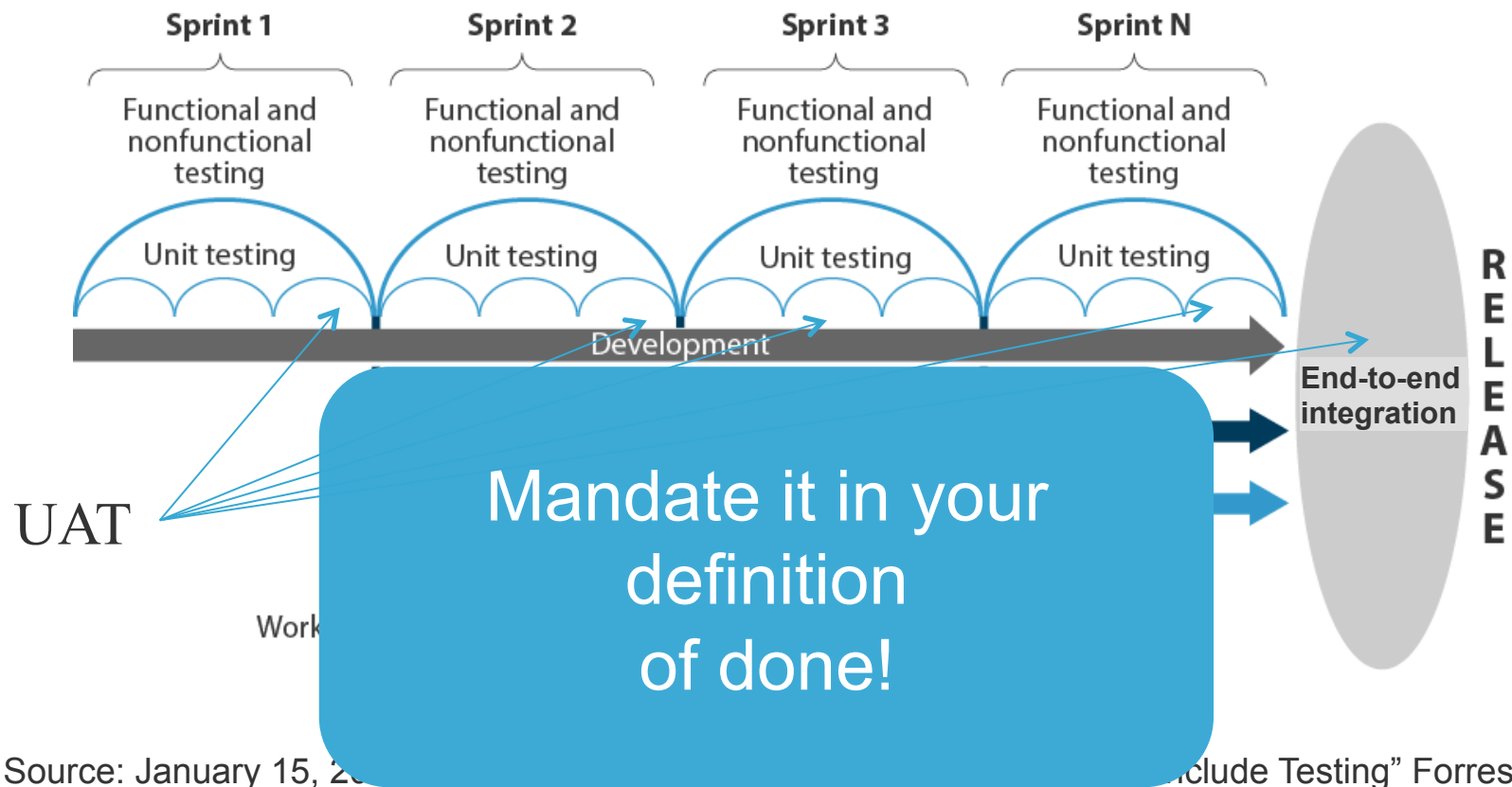


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Focus On Automation Testing Where Possible

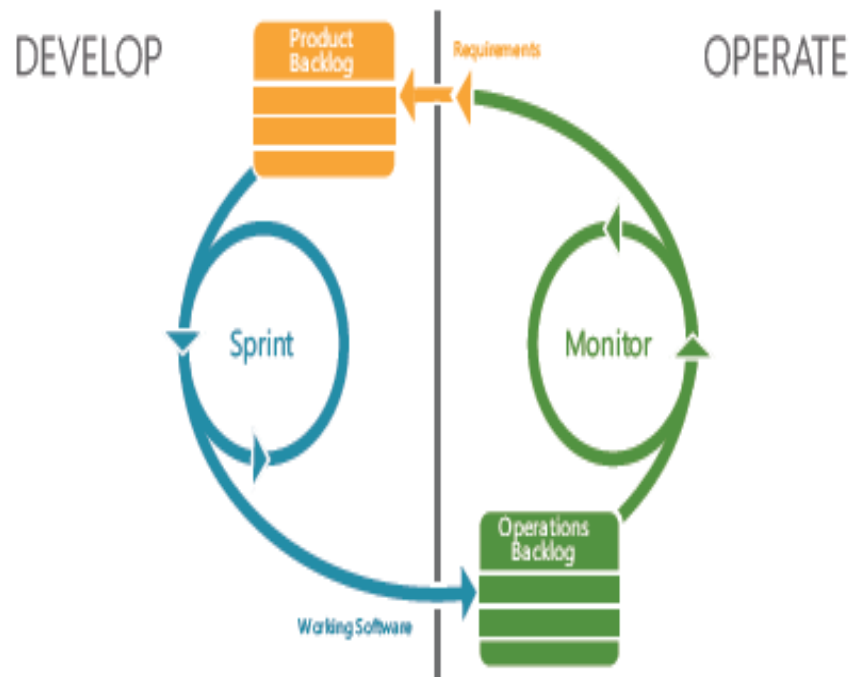
- Less focus on GUI automation
- Automation beyond the GUI
 - API automation
 - Services/Process automation
- Better design and reuse
- SDLC to develop automation tests
- A growing task for developers
- Standardize environments
- Automate provisioning
- Put configurations under version control and use automation tools to deploy them
- Virtualize and create on demand
- Implement CI and Gate check ins and auto-revert if tests fail

Test **C**ontinuously, **E**arly, **A**nd **R**apidly . . .



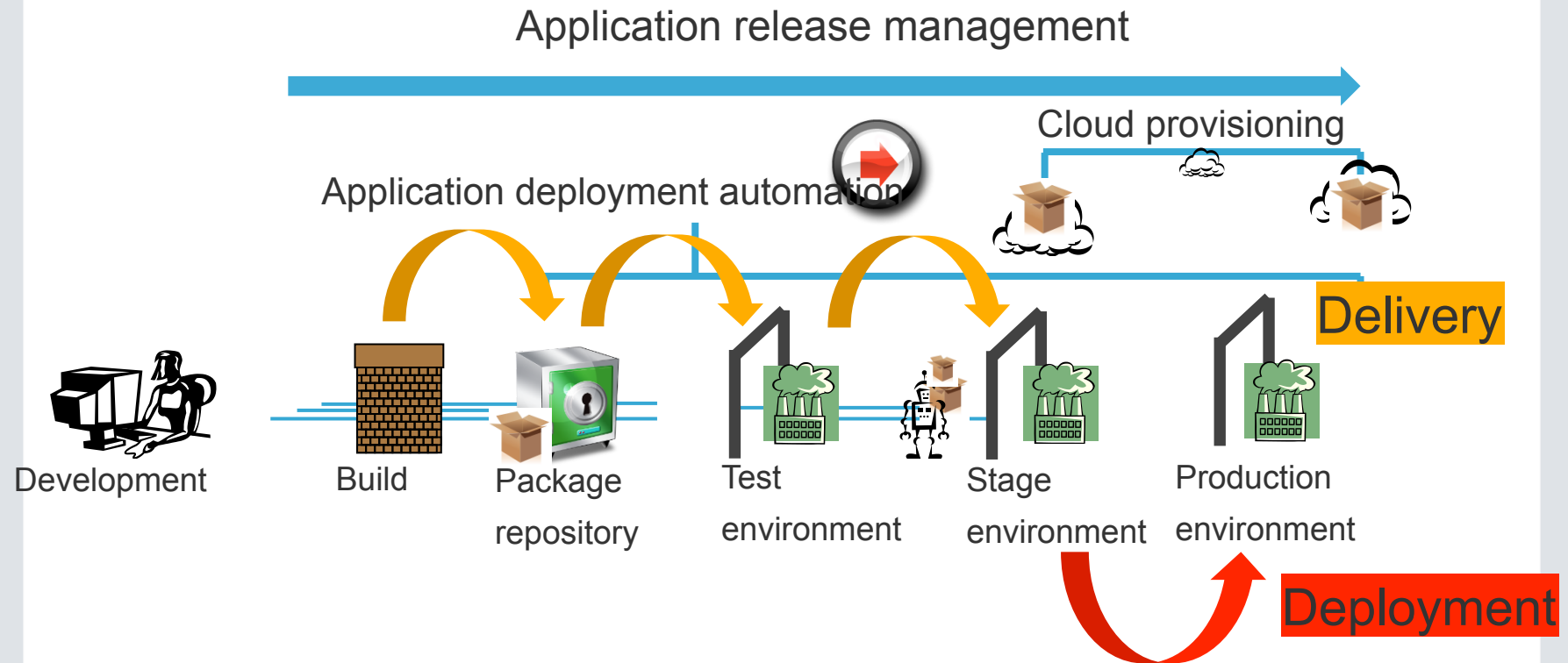
Source: January 15, 2014, "Include Testing" Forrester report

3. Focus On The Downstream & Tear Down Between Development & IT Operations



- Shared goals
 - Operations and development connected on business goals
- One lifecycle, one process
 - Everyone involved in releasing business value
 - Streamline release process
- Tooling that integrates
 - Huge opportunities for process automation

Optimize And Automate The Delivery Pipeline



Source: Forrester adaptation of SVT for dummies

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Thank you

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Read The Following Forrester Reports To Go Deeper On How To Scale Agile

- ▶ July 9, 2014, “Self-Assess Your Modern Application Delivery Capabilities”
- ▶ March 4, 2014, “Modern Application Delivery Drives Digital Business Success”
- ▶ February 5, 2014, “How Can You Scale Your Agile Adoption?”
- ▶ January 27, 2014, “The Forrester Wave™: Service Virtualization And Testing Solutions, Q1 2014”
- ▶ January 15, 2013, “Consistent Performance In Agile Teams Must Include Testing”
- ▶ April 10, 2014, Developing Modern Applications With Agile Outsourcing: Part One: Best Practices For Successful Partnerships
- ▶ May 18, 2014, Developing Modern Applications With Agile Outsourcing: Part Two: The Key Contractual Prerequisites For Agile Outsourcing Relationships