

# ***Global Trends in Software Testing***

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***(Part 1 of 2)***

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# Scope

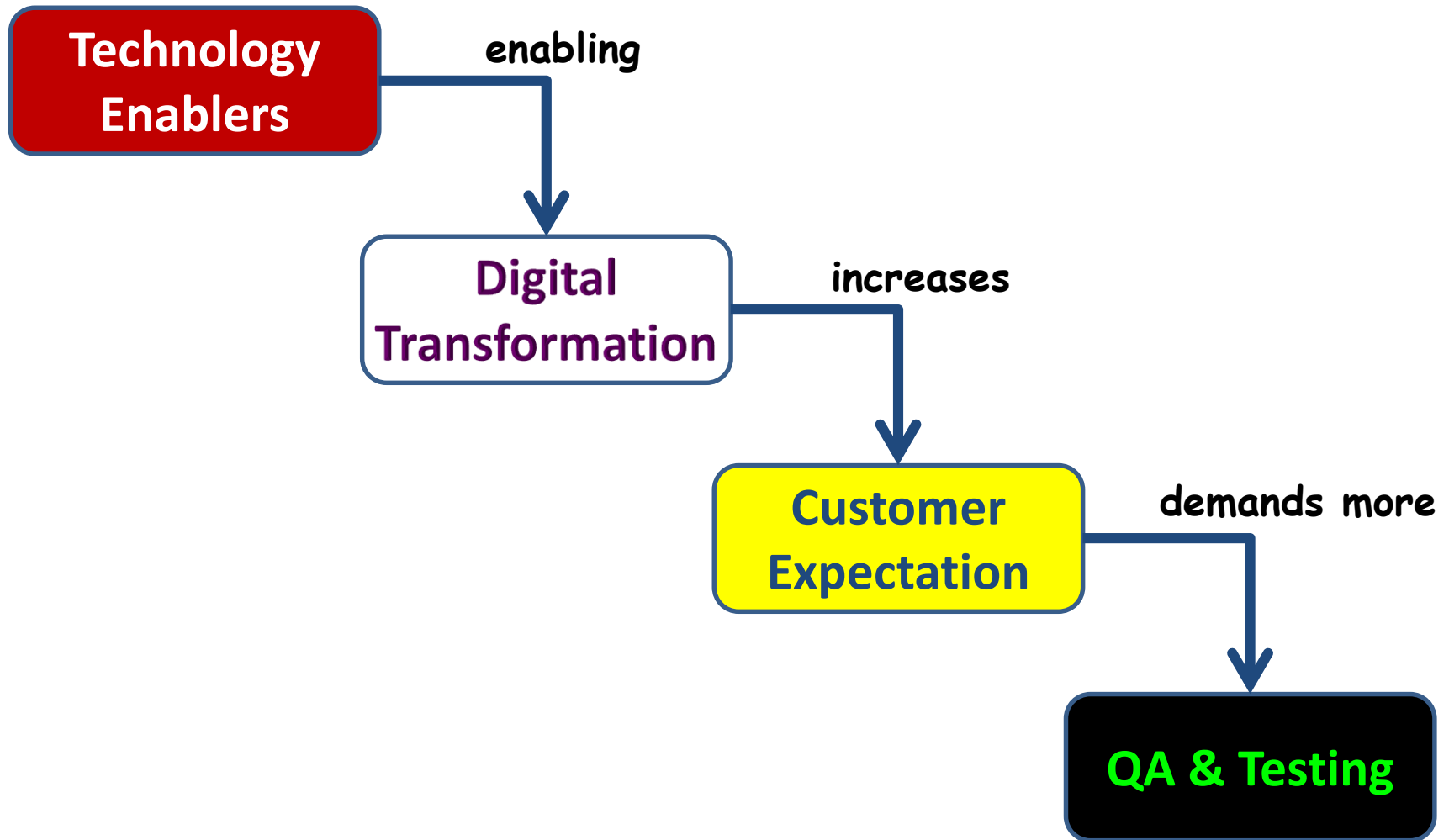
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- **Digital Disruption      &      Technology Enablers**
- **Testing Budgets      &      Testing Centres of Excellence**
- **Mobile      &      Crowd Testing**

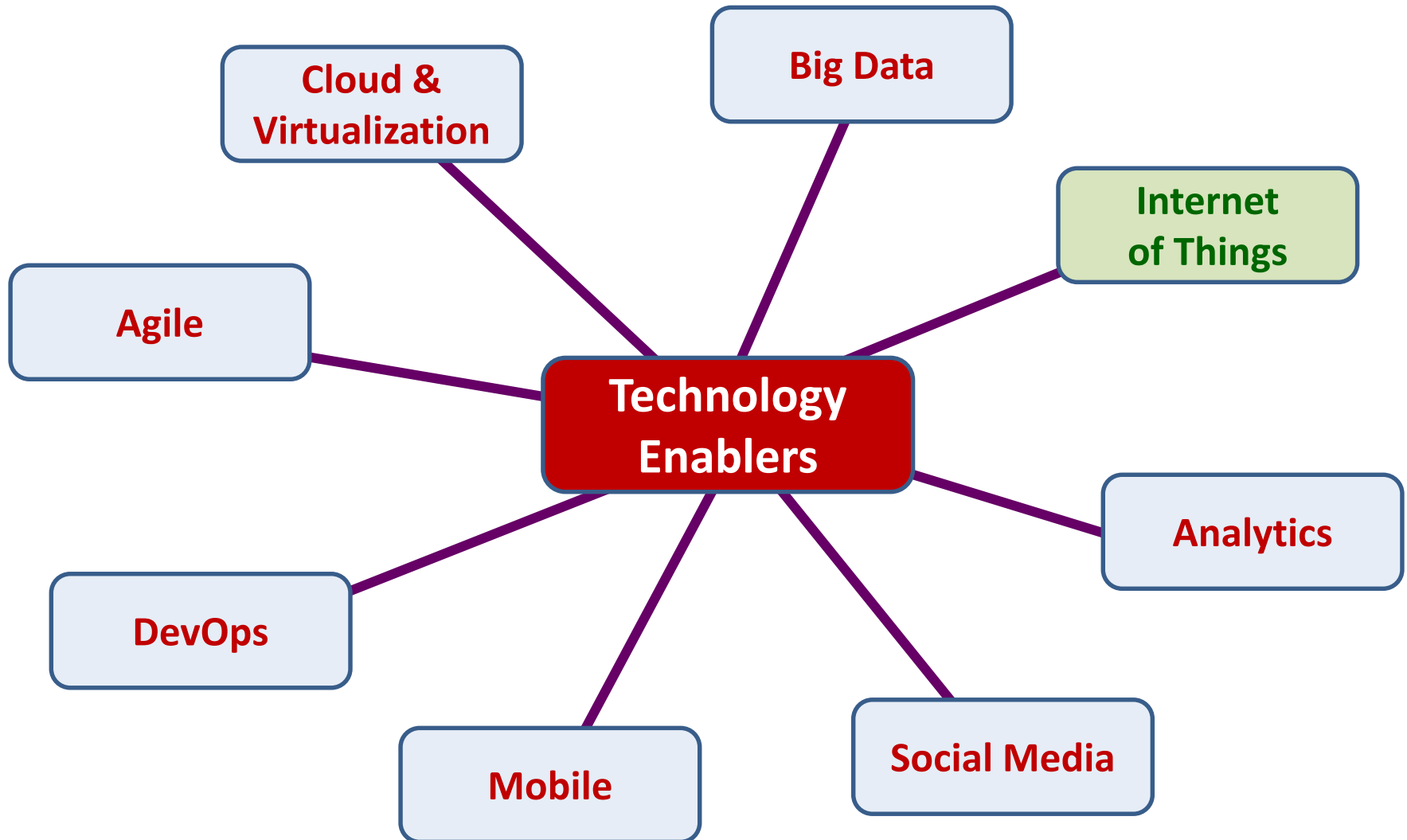
**See Part 2 for the following topics**

- **Big Data      &      Fuzz Testing**
- **Cloud      &      Chaos Monkeys**
- **Virtualization      &      Containers**
- **Social Media      &      A/B Testing**
- **Agile      &      Continuous Integration**

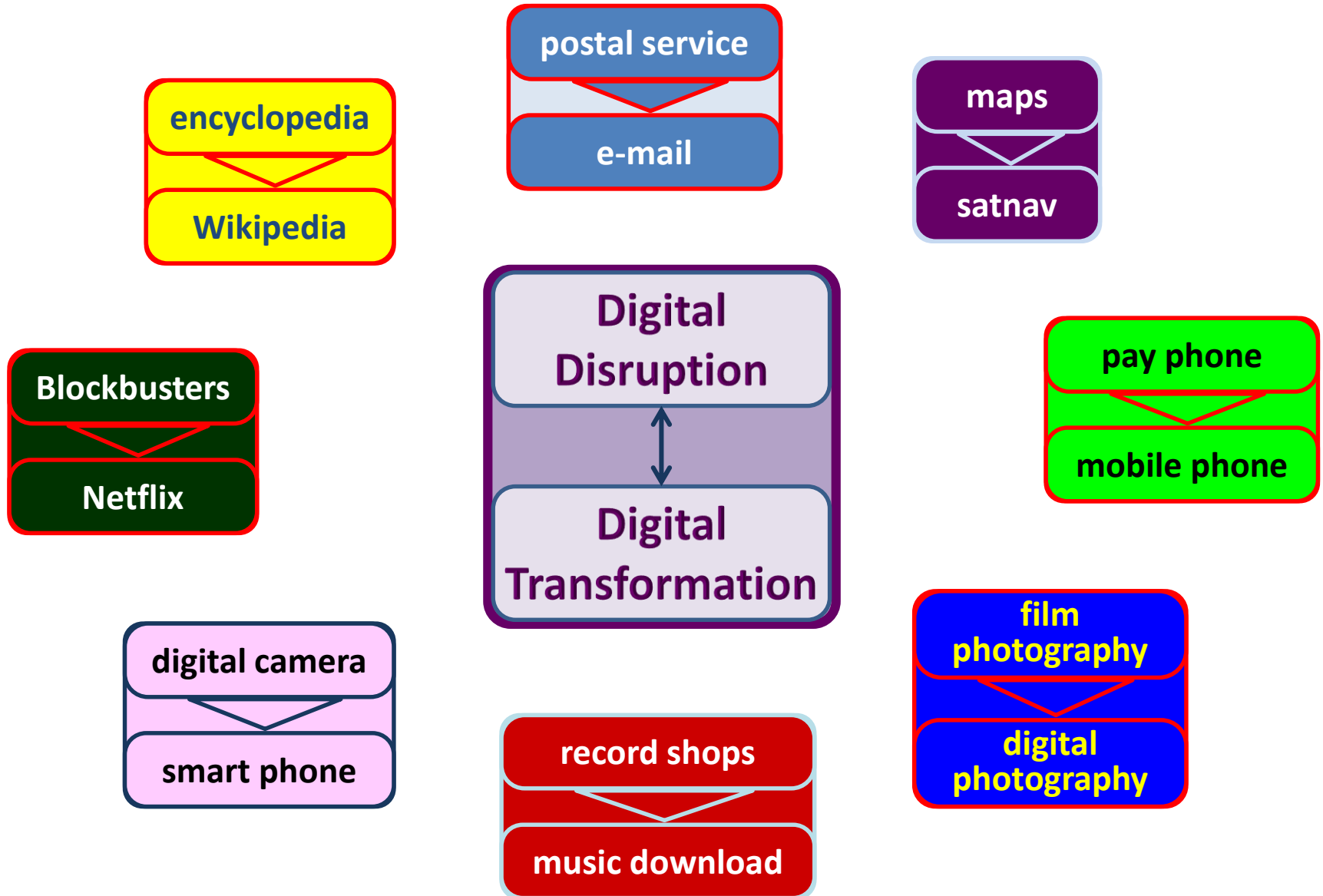
# The Changing Landscape



# Technology Enablers



# Digital Disruption - Examples



# Accelerating - Digital Transformation



PayU**biz**



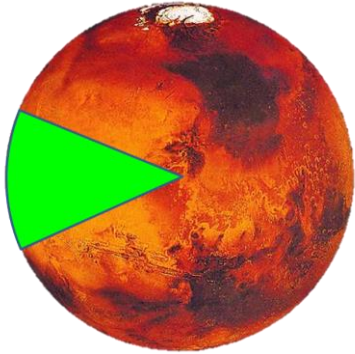
- 41% of all first time product and service purchases are through digital channels



**PayPal**

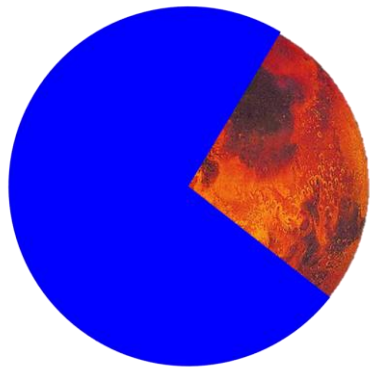
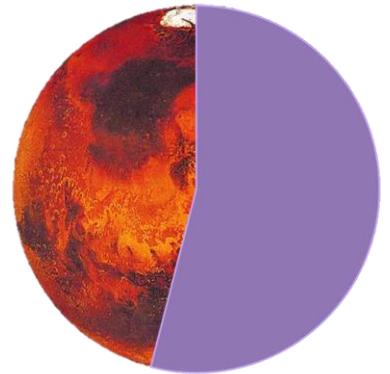
- 3.17 Billion internet users
- 4.8 Billion mobile phone users

# Digital Transformation - Recognition



87% of companies feel digital transformation is a competitive opportunity

46% of organizations are investing in digital skills

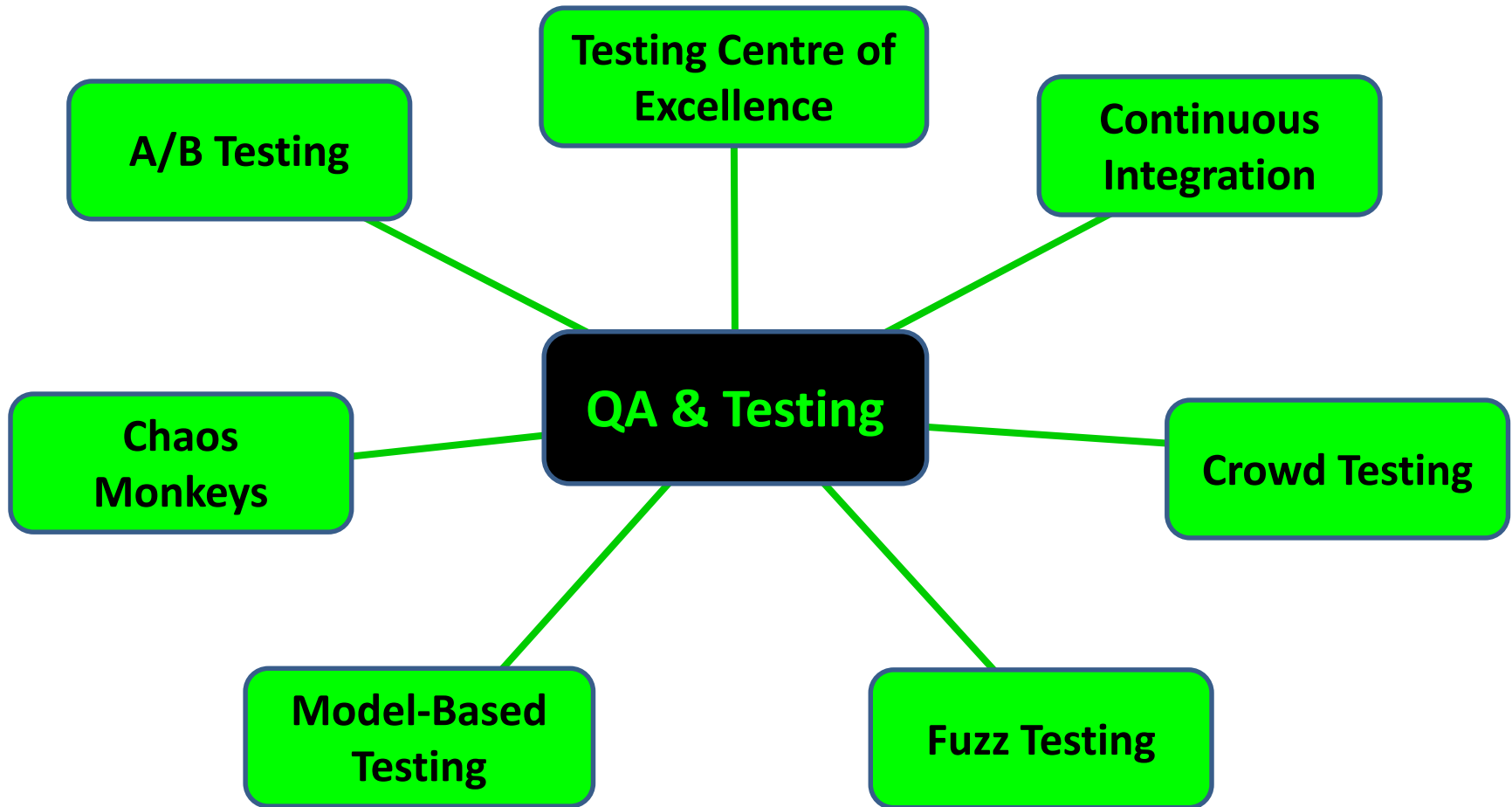


27% of executives rate management of digital disruption as a matter of survival

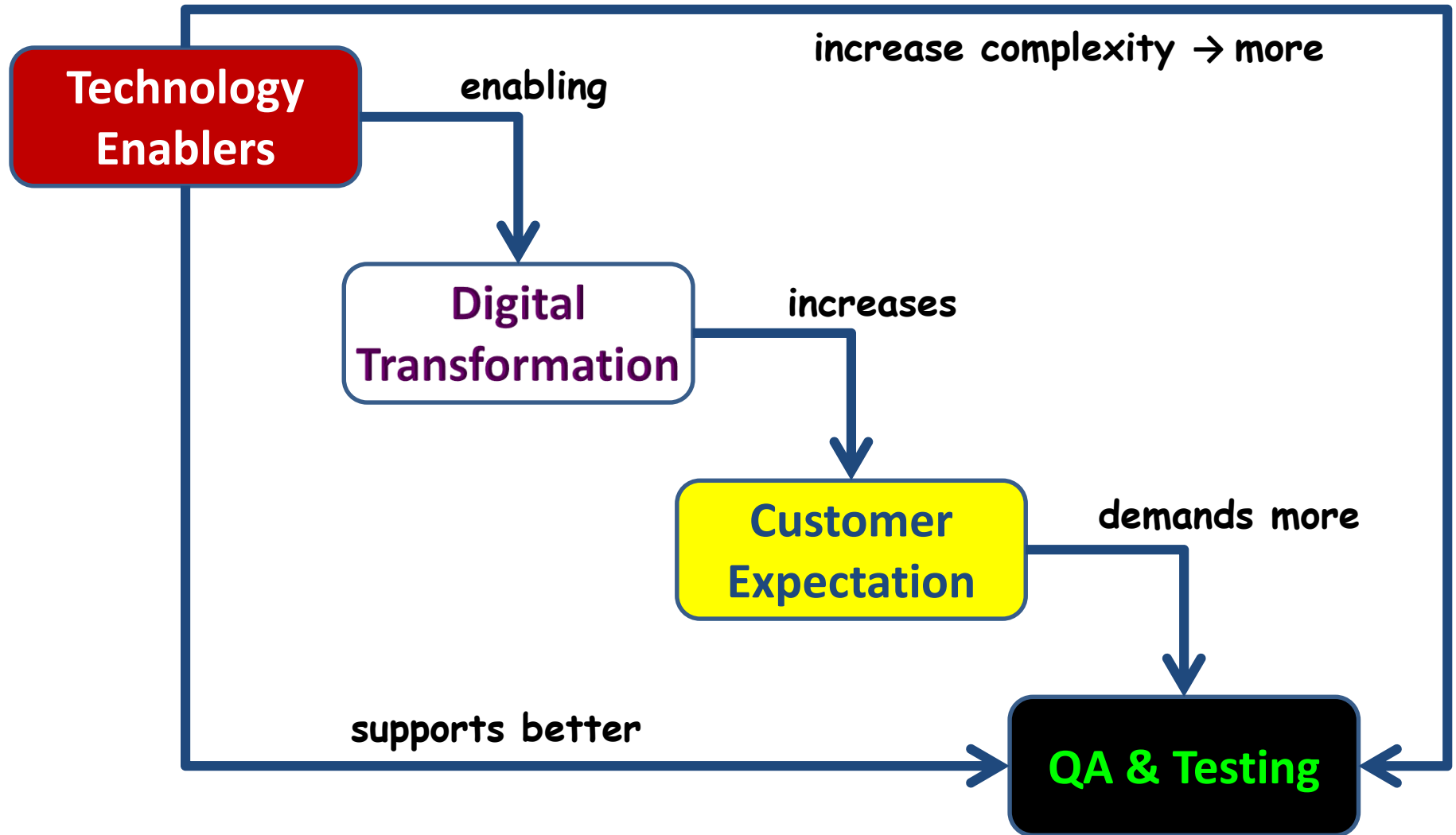


# QA & Testing

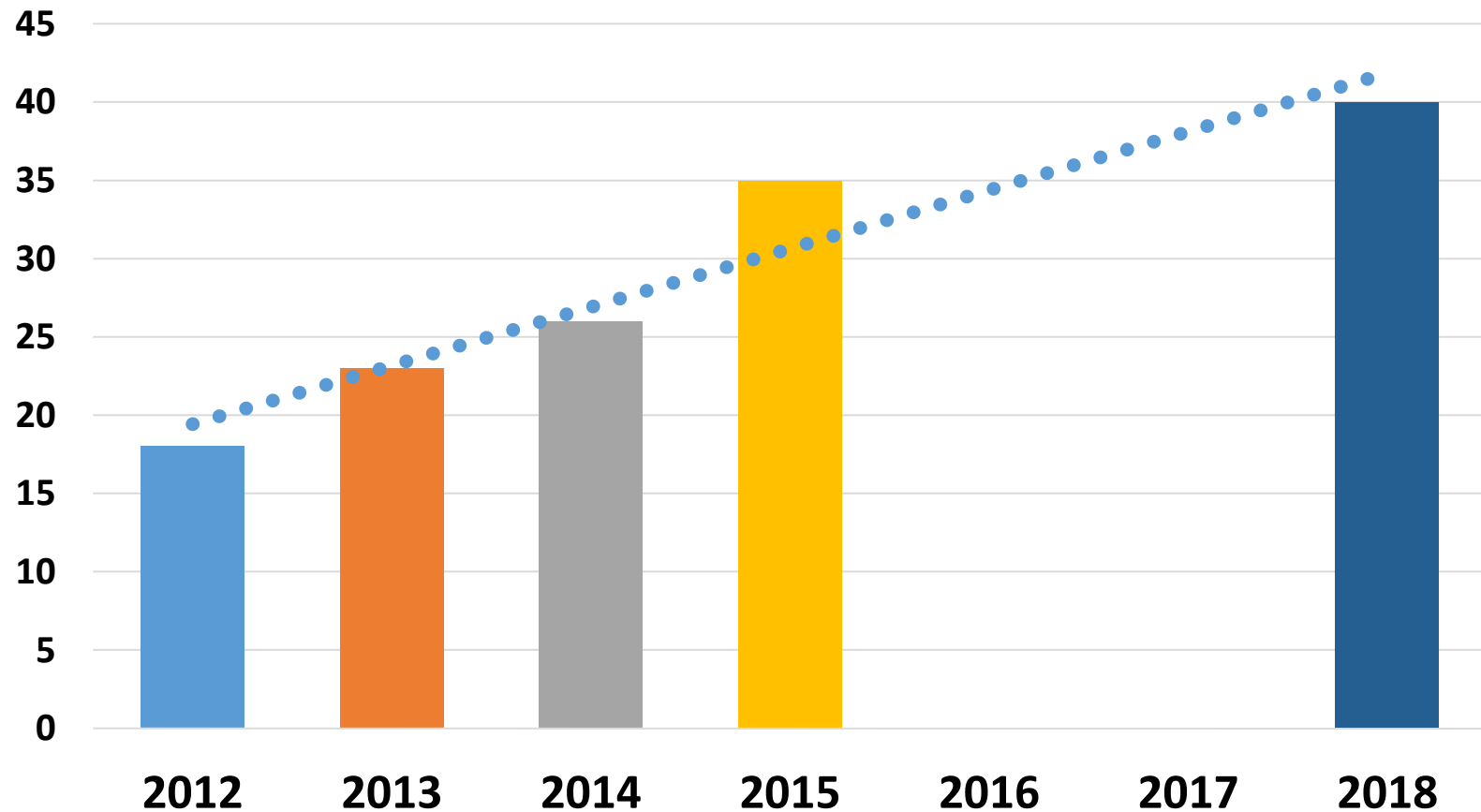
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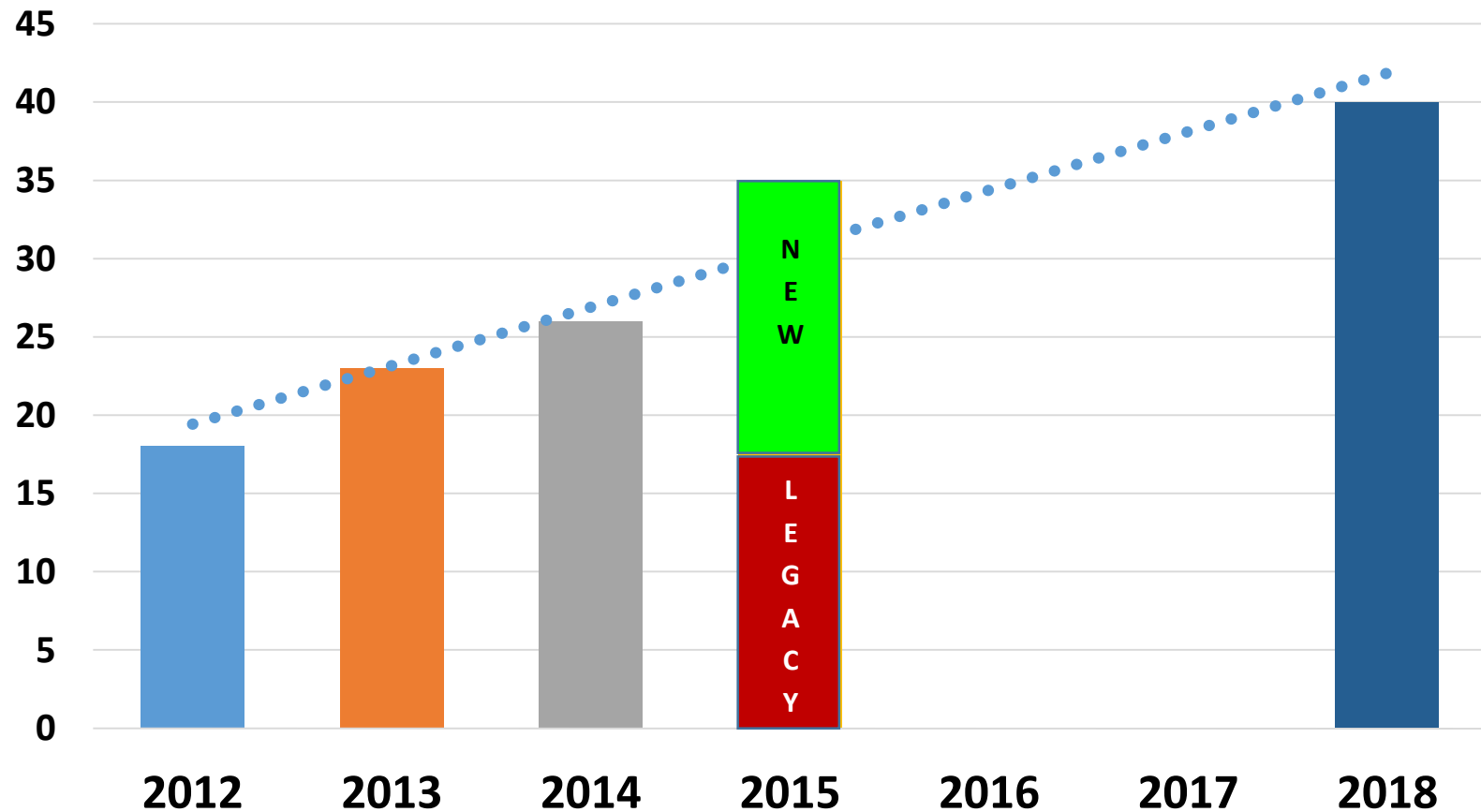
# Technology complicates, but also helps...



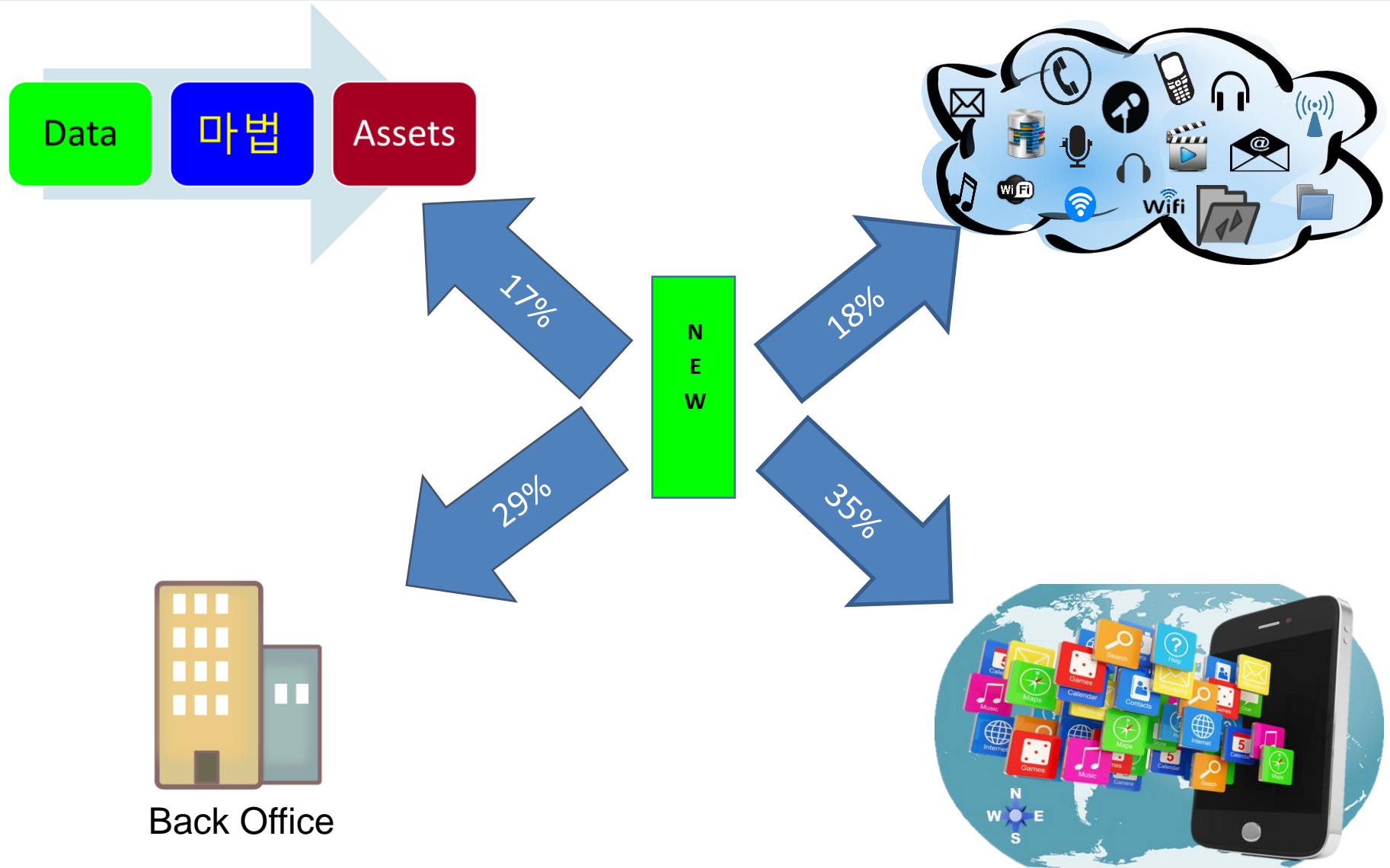
# Testing as a Percentage of IT Budget



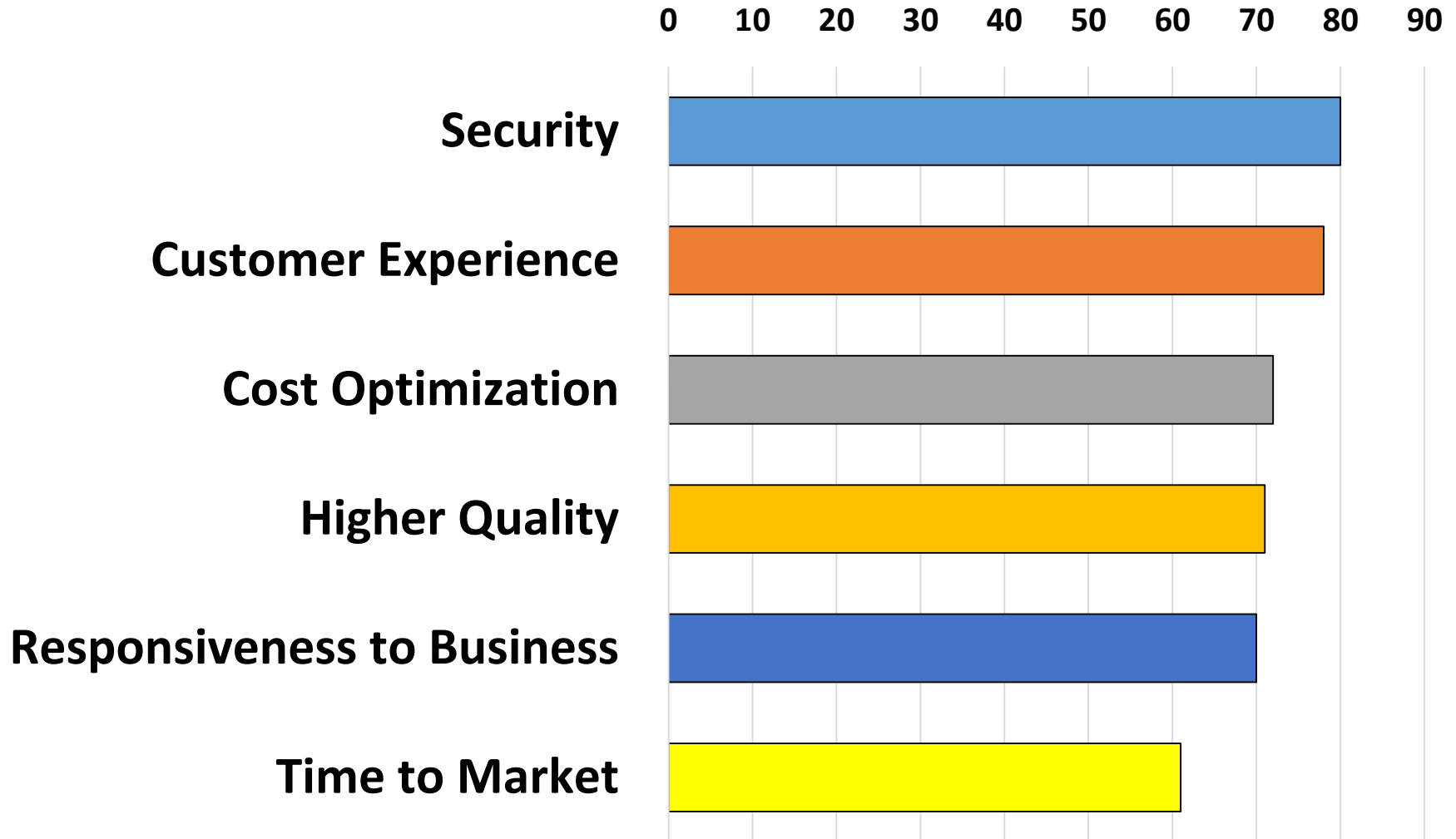
# Testing as a Percentage of IT Budget



# Where Does the Testing Budget Go?



# QA & Testing Priorities



# Testing Inefficiencies

- Technical complexity increases testing difficulty and adds more defects
- Too much manual testing (only 45% automated)
- Too much spent on tools (30% of budget)
- Limited Risk-Based Testing - difficulty identifying focus (risk) areas
- Lack of awareness of the importance of testing (objective #2)
- Limited reuse of test sets
- Dispersed testing knowledge (only 25% have a fully operational TCoE)...

# Testing Centre of Excellence

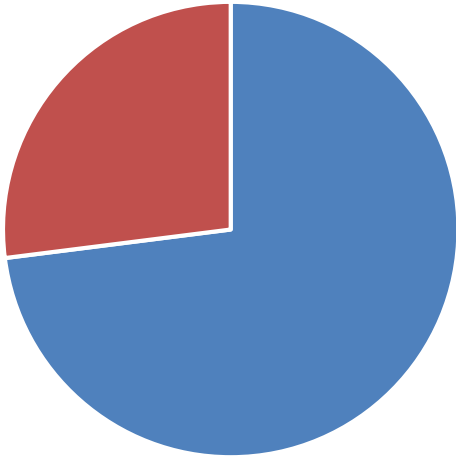
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- **Specialists grouped into virtual shared service teams**
- **More specializations required**
  - 54% use specialists with data scientist skills for the testing of data analytics
  - 53% use mobile test specialists
  - 67% use specialists to predict expected usage and risk areas for new developments
  - 51% use their own internal security test teams
- **A standardized approach allows testers with a mix of abilities to be used effectively**

# Mobile



# Mobile Trends



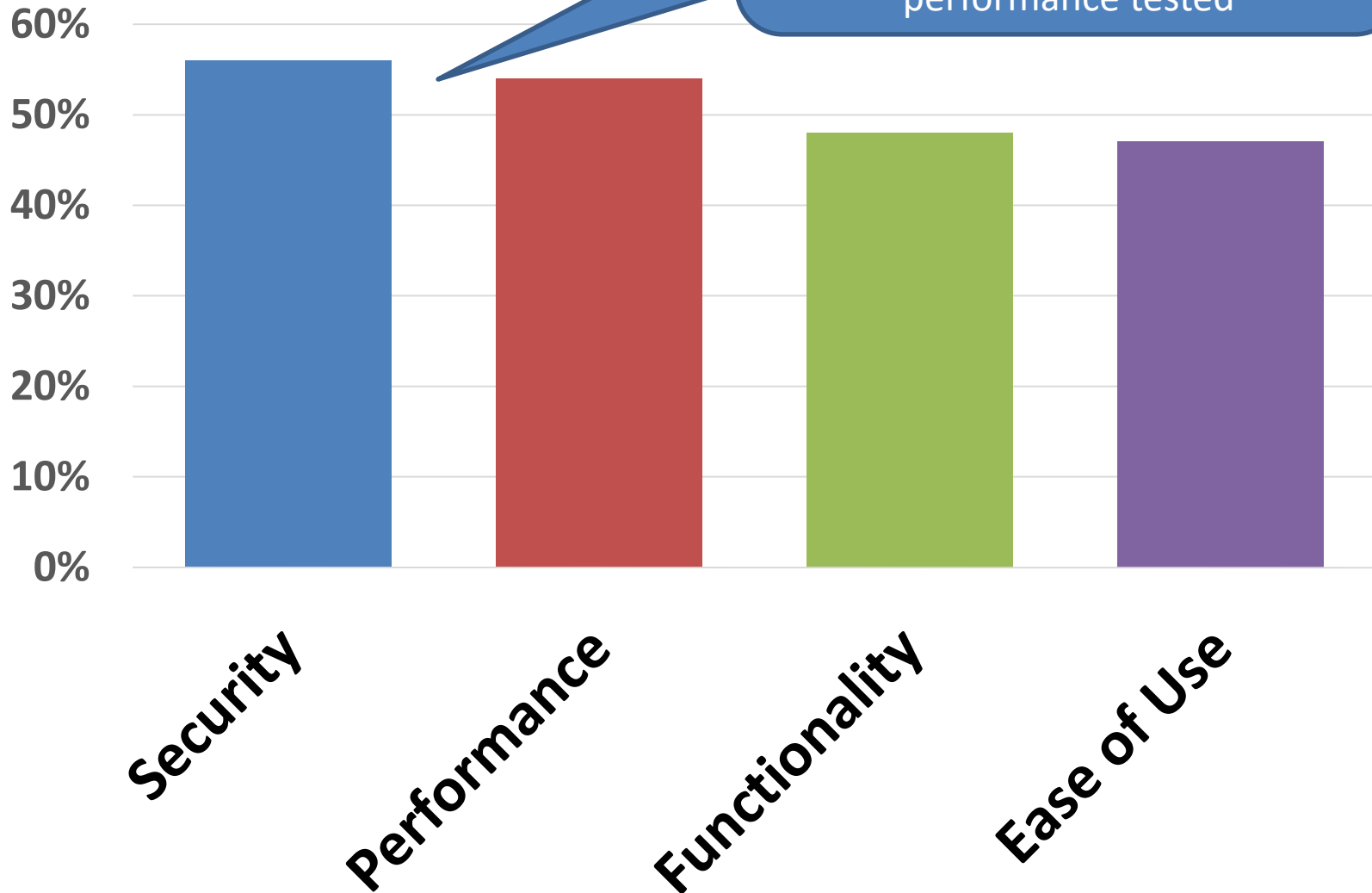
73% of organizations are planning to increase spending on mobile in the next year



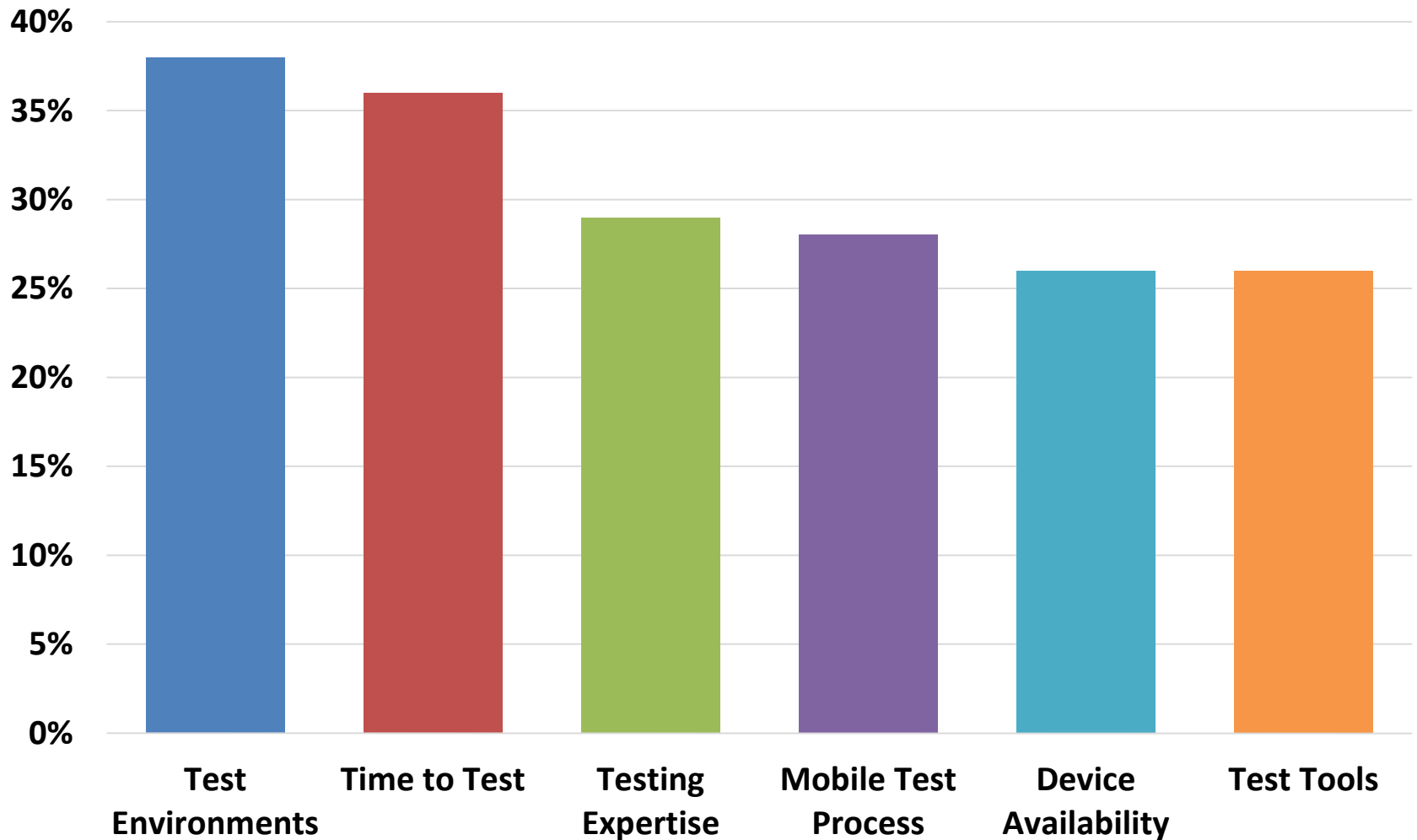
- Mobile services revenue will grow to ~~¥~~\$1.2 **Quadrillion** globally by 2018
- Mobile connections to reach 8.5 Billion by 2018

# Mobile Focus Areas

Mobile opens up new touchpoints and so increases the number of security vulnerabilities and channels that need to have their performance tested



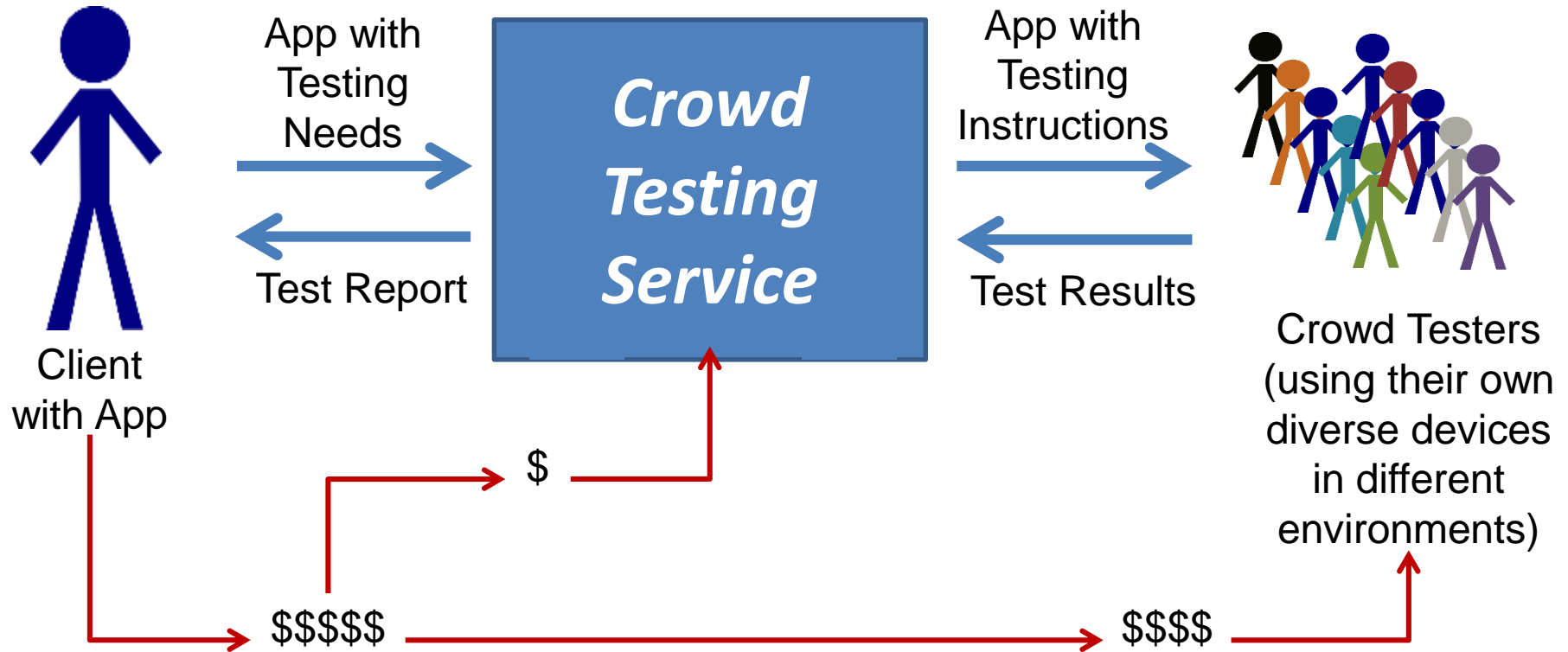
# Mobile Testing Challenges





# 24,000 distinct devices (Aug 2015)

# Crowd Testing for Multiple Devices/Env'ts



# End of Part 1

(split into two parts due to size restrictions)

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