



The route to better software sooner

A perspective from QA Vector[®] Research

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Who is QA Financial?

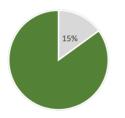
- QA Financial is a specialist events and research company
- The QA Vector® team provides rolling research of vendors and best practice and specialist white papers in specific areas such as test automation and data
- Matthew Crabbe, CEO, and I have 30+ years experience of events and research in financial services
- I have built, supported, consulted on delivery and maintenance of trading solutions in global markets

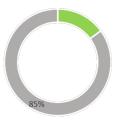
Whose voice is in the research?

- Today's presentation is based on conversations with about 100 QA and development professionals
 - Majority directly select and manage processes and vendors
- Examples and recommendations drawn from real experience of building and maintaining trading solutions

The business demands more for less....

85% have a target for savings and investments



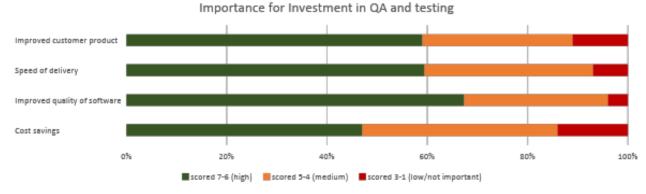


With an average target of 15% of the IT budget

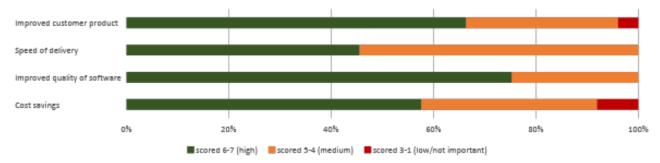
IT-investments Continuous-Integration Off-shoring Tools DevOps ile/ Cost-control Transformation New-ideas Cloud Codina-time Investment **Risk-reduction** Project-Alignment Resources Cross-functional-teams Software-Delivery Efficiencies Quality-increase Architecture Technology-Strategy Vendor-renego Staff-reduction

Envisioning their savings in these areas

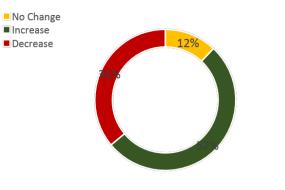
But also better software sooner



Importance for benchmarking software testing



And in the end will pay for it



 Nevertheless 52% expect their firm's spending on software QA and testing to increase in the next 2 years

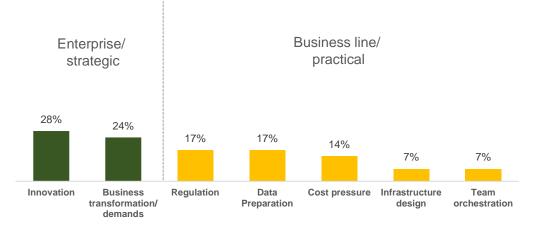
Competition Productivity Efficiency Business-Maturity Continuous-Integration Increased-Systems **Optimised-Expectations** Automated Regulator hange Quality Technology-Change Economics Amortisation-Bill Brexit **New-Testing-Movements** gile Investments Automation

With spend in these areas



So what's getting in the way?

Business challenges facing software delivery



- Conflicting drivers of innovation
- Conflicting business demands
- Regulatory demands
- Access to decent test data
- Multiple legacy systems and fiefdoms

What does this mean in the trading world?

- Prioritisation against clear business vision
- Regulatory pressures unabated
- Data all over the place
- Spaghetti systems
- Ownership of cost management within each business
- Key tools automation, but smarter, AI



Clarity of vision, prioritisation – it's an organisational challenge

Problem

- Every business unit wants their changes implemented
- Inadequate time and resources allocated to testing
- Activity overload, nice-to-haves block need-to-haves
- Resources go to most forceful, not most appropriate

Solution

- Clear business prioritisation
- Centralised allocation of resources against that



Regulation trumps all

• Problem

- Constant regulatory change
- Principles published in advance, practical rules ill-defined or defined late
- Planning postponed until greater clarity is achieved
- Scramble to deliver, resources diverted
- Regulators taking increasing interest in QA and development processes

Solution

- Allocate resources to scenario-based planning
- Test for different scenarios prepare automation
- Have spare resources or live with it!

Gathering the data

• Problem

- Data resides in and is owned by multiple business lines and specialist knowledge required on how it looks
- Lack of agreement on how to organise and prepare test data
- Lack of focus on the issue leave it to test managers!

Solution

- See data as a strategic enterprise opportunity (not just "defensive" compliance concern)
- Organise and manage, therefore, on enterprise resource basis



Working across systems

• Problem

- Applications only tested narrowly and not across whole workflow, multiple systems touched
- Key resources only available in production / only current in production (often reflecting current data status)
- Firewalls!

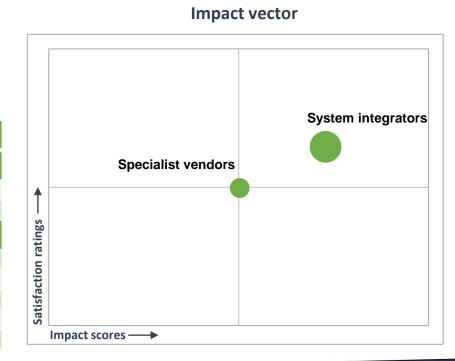
Solution

- Create enterprise test architecture
- Maintain it in parallel with production don't just aim to!
- Ensure that applies to firewalls too!

Benchmarking partners and process: QA Vector Impact Ratings

- SIs/consultants have more impact
 Generate more loyalty than specialist vendors
- Vendors have targeted expertise
- Tougher to generate commitment because of dependencies they don't control

Detailed ratios & ratings	System integrators	Specialist vendors
Impact scores		
Onboarding impact	7.2	5.1
Acceleration impact	7.6	6.9
Satisfaction ratings		
Getting to market faster	6.3	5.2
Customer service	6.8	6.1
Expertise	7.1	7.1
Expectation	6.5	6.1
Recommendation	7.6	5.4



QA: the route to better software, sooner

- Business strategy leads technology priorities leads testing priorities
- Key functions (complete test environments, hosting, integration strategy, data) require enterprise view, budgets and approach
- Not just automation, but smarts!
- More complete benchmarks not just for phases or by results after the fact
- *Our contribution:* QA Vector Impact Ratings for partners, for FI QA processes

Questions or comments?

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