QA Vector® Analytics:
Proving the value of quality
to support investment and demonstrate progress

AUTOMATED
SOFTWARE TESTING
AND QUALITY
Summit

Hosted by **PARASOFT**

Digital Operational Resilience and
the Need for Inspectable Benchmarks
A collaboration between Parasoft and QA Vector® Analytics

Digital Resilience – driving standards

Digital Resilience is driving attention on ICT development standards in the financial world

DORA is coming down the track in the EU - requiring FIs to show inspectable digital resilience procedures and impose them on software suppliers, in force in 2024

Other regulators around the world are paying more attention

But where are the shorthand standards?

- ➢ How do we show RoI for Quality efforts?
- ➢ How do we know how we are improving?
- ➢ How do we compare to others and for different approaches?
- ➢ How do we connect Quality to business outcomes?
- ➢ How do we demonstrate Quality compliance to our regulator?

Digital Resilience – inspectable benchmark standards
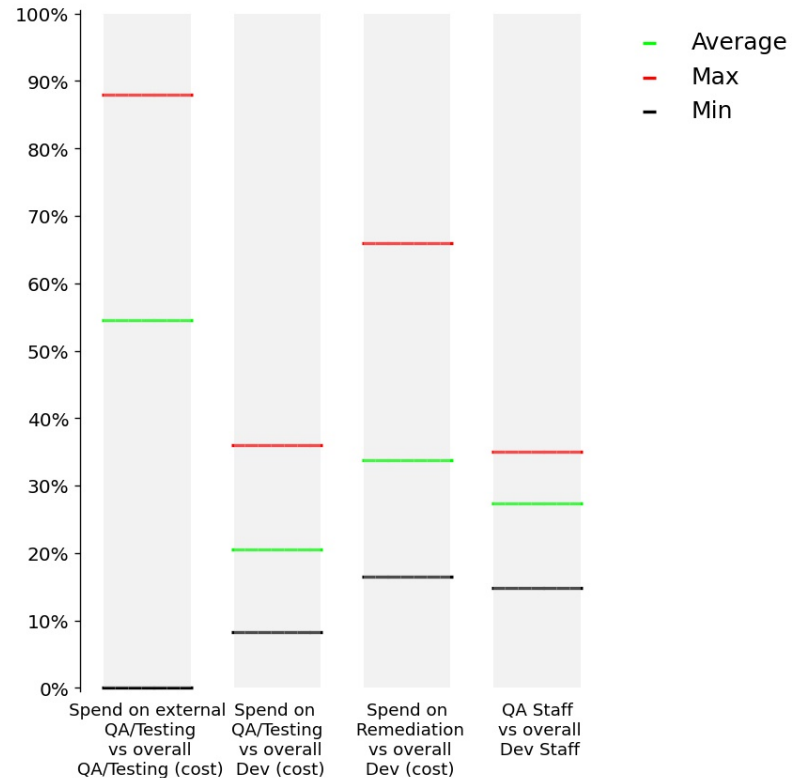
QA Vector Analytics

➢ **Developed in partnership with the Bank of England and other financial institutions**

➢ **Designed to measure the whole-of-quality-journey and investment**

➢ **Solves for these challenges.**

Parasoft is partnering with QA Vector Analytics to drive deeper, looking at the value of quality in areas such as API testing and service virtualisation.

QA Vector® Research

What effort and cost go into quality – and how much is hidden?

How do firms allocate development spend and staff across QA/Testing and remediation?

- **The spend on fixing/remediating and/or duplicated efforts accounts for more than a quarter of all spending**
- **The potential for efficiency gains is substantial**

- **While there is a narrow range in spend on QA/testing and QA staff, a large range in external QA/testing spend can be seen across organisations**

QA Vector® Research
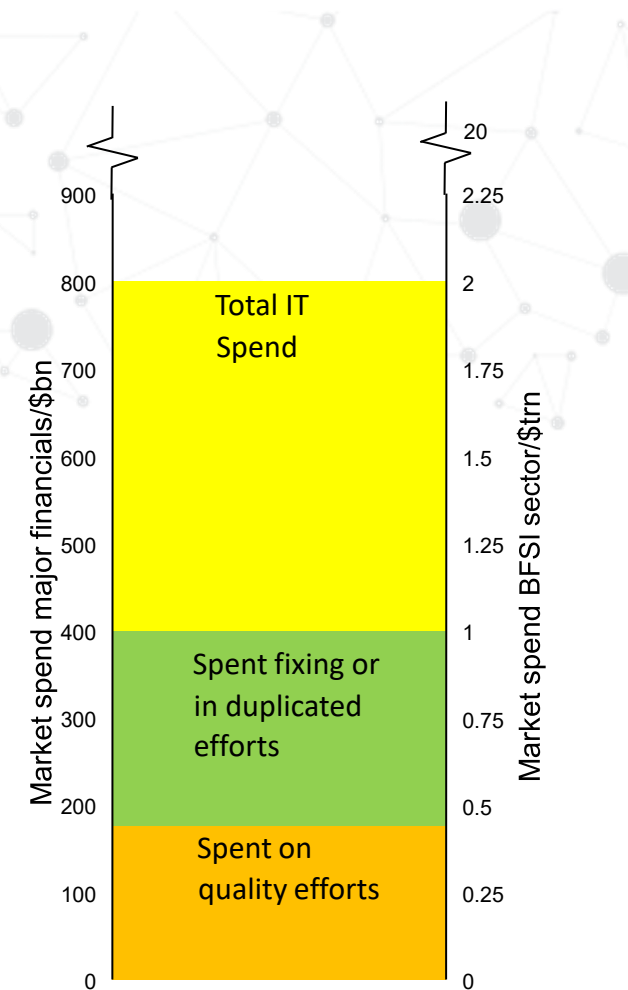
How do you transition from Waterfall to DevOps with Quality?

- **This is a challenge we hear across institutions**
- **Traditional institutions have processes and systems built and tested in waterfall**
- **Most challenger banks and fintechs are DevOps from the ground up**
- **We have been tracking the success in delivering return on quality investments using our unique approach – QA Vector Analytics**
- **This short presentation will share some key lessons**

QA Vector®Research

The quality vs cost vs speed challenge – which levers to pull?
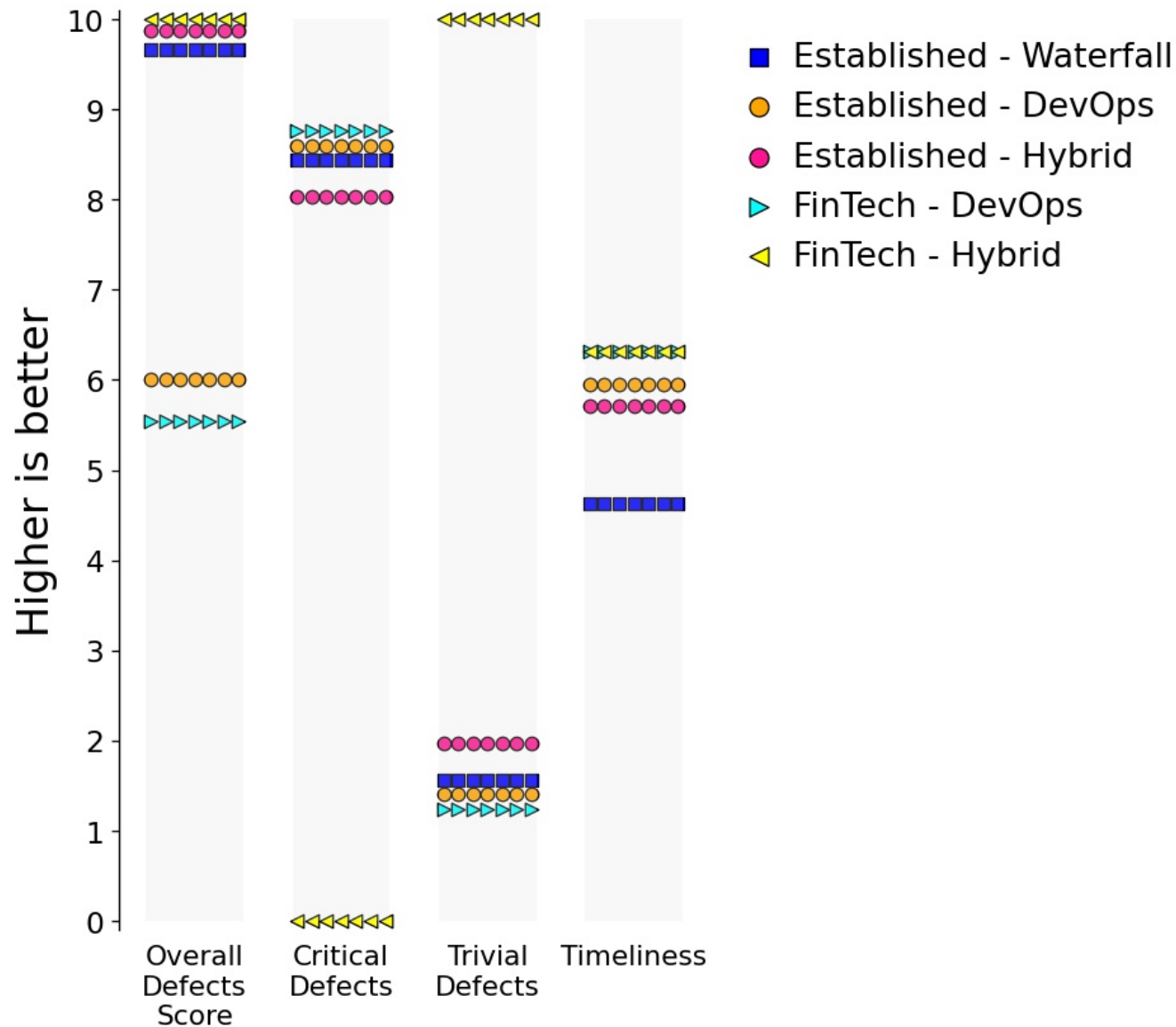
Quality: Size of bubble
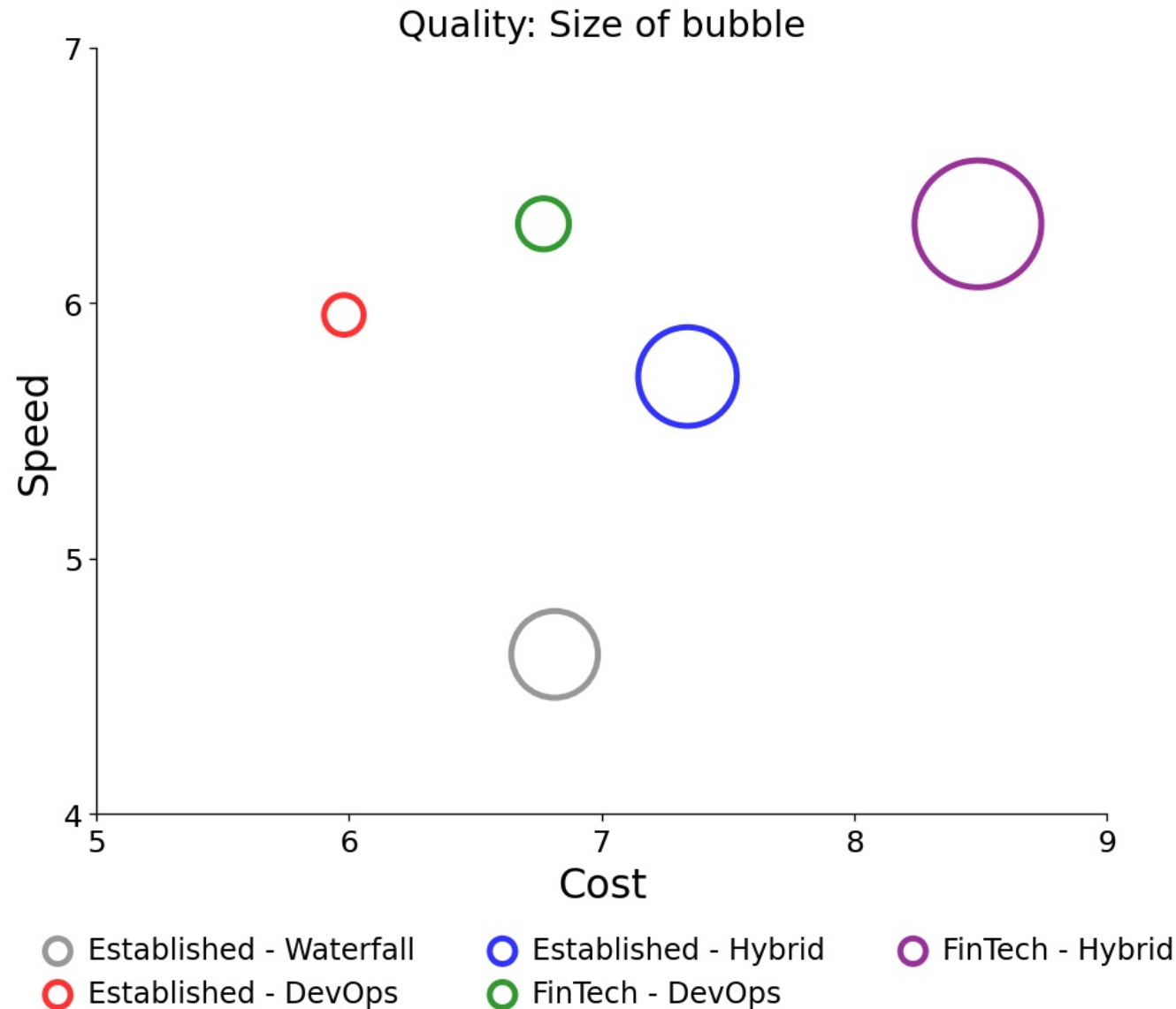
QA Vector® Analytics data, across a range of European and American institutions and projects/workstreams, show:

- **Firms often mistakenly assume that they must sacrifice either cost, speed or quality in a trade-off between the three**
- **FinTechs and challengers, who have built their processes from the ground up, are most successful in delivering speed with quality and economy**
- **Established firms struggle to make the conversion to DevOps pay**

What do established banks and other financial service firms need to learn?

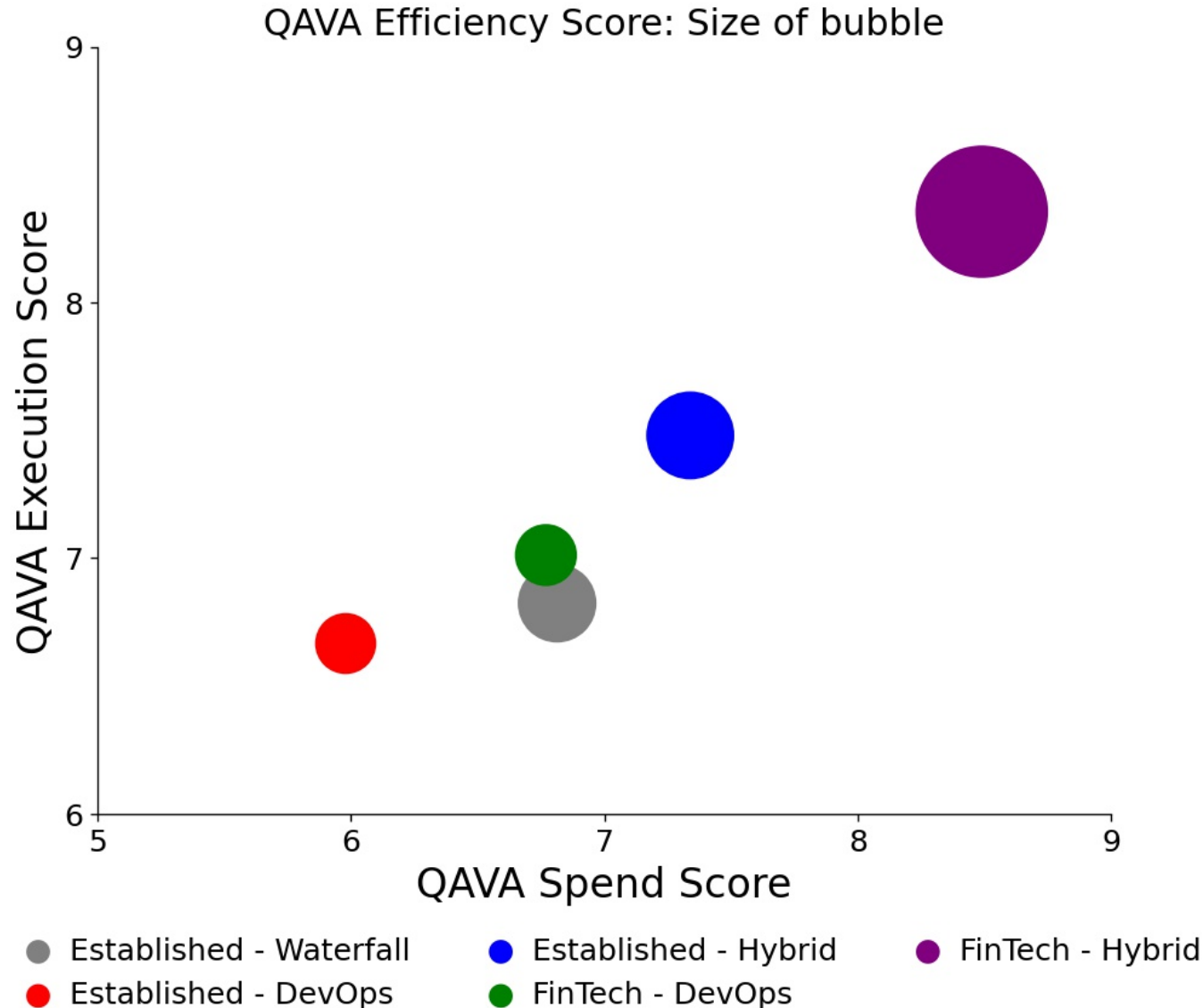**We can also apply this analysis for business line and development approach.**

Legend:
- ○ Established - Waterfall
- ○ Established - DevOps
- ○ Established - Hybrid
- ○ FinTech - DevOps
- ○ FinTech - Hybrid

KPIs: ratios to measure defects and timeliness

Established firms should have an increased fault tolerance

- **Developers need to be more sensitive to their own minor, fixable bugs**
- **Users become testers**
- **Remediation has to be fast and efficient**
- **All firms need to be smarter than the traditional four-point defect classification in determining acceptable defects leaking to production**
- **Fintech and traditional best practice shows a place for lockbox pre-production waterfall-style testing**

KPIs: Overall quality score and a measure of spending efficiency

QAVA Efficiency Score: Size of bubble

QAVA Execution Score (y-axis), QAVA Spend Score (x-axis)

Legend:
- ● Established - Waterfall (grey)
- ● Established - DevOps (red)
- ● Established - Hybrid (blue)
- ● FinTech - DevOps (green)
- ● FinTech - Hybrid (purple)

These analytics are driven not only by defect-related data but also by the cost and time absorbed by quality efforts – testing and remediation, in particular.

Established firms often think they can deliver quality with less money by becoming agile:
- **They should expect to maintain spend, just spend differently**

Firms should focus and refine their spending – which tests count?
- **API testing and fixing can account for double the quality spending per defect than other defects – we are analyzing this across firms**
- **We are examining the pickup from service virtualisation**
- **Data provisioning is a key source of wastage (ineffective development) and duplicated spending**

Proof of concept to production: key features

- **We have market tested QA Vector Analytics**
  - Customers have already committed long-term contracts
  - We provide a data extraction, transformation, normalization and uploading service as part of our onboarding

- **For new customers, we undertake free-of-charge Proofs of Concept**
  - All participants will receive outputs positioning them against the market and a review and insight meeting.

- **The production service has been operationalized on a web-delivered platform**
  - We are increasing the number of data fields and sort-keys

- **New developments include:**
  - Predictive analytics of expected incidents/defects and remediation as solutions are put into production
  - Analysis of value-added of different vendors

- **Please contact me or your Parasoft relationship manager to find out about a no-charge partnership proof of concept**

Confidentiality undertaking

Data you provide to us will be treated as strictly confidential

We will execute a mutual non-disclosure agreement with you (either ours or yours)

We will show you your data positioned against the anonymised market

We will use your data to create the market reference positioning for others but never reveal your data in disaggregated format

Contact us

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