Planit Testing Index 2015

**Graham Davis
Director of Testing**

www.planittesting.com

Presentation Overview

- About the Planit Testing Index
- Respondents 2015
- Testing in the Organisation
- Project Conditions and Outcomes
- Technical Testing
- Outlook and Investment
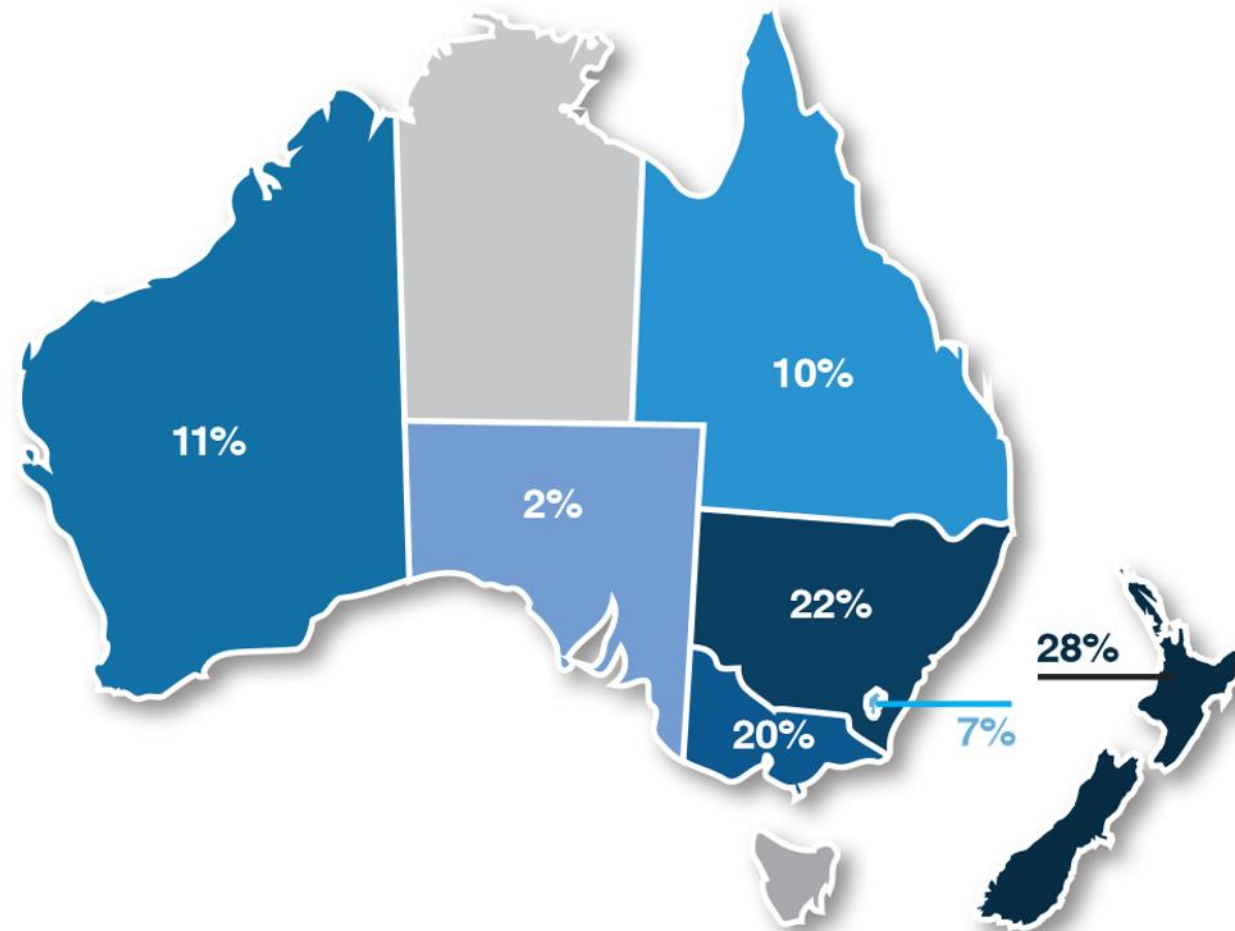
About the Planit Testing Index

About the Planit Testing Index

- Leading study of Australian & New Zealand software projects
- Now in its ninth year
- Over $35,000 donated to charity
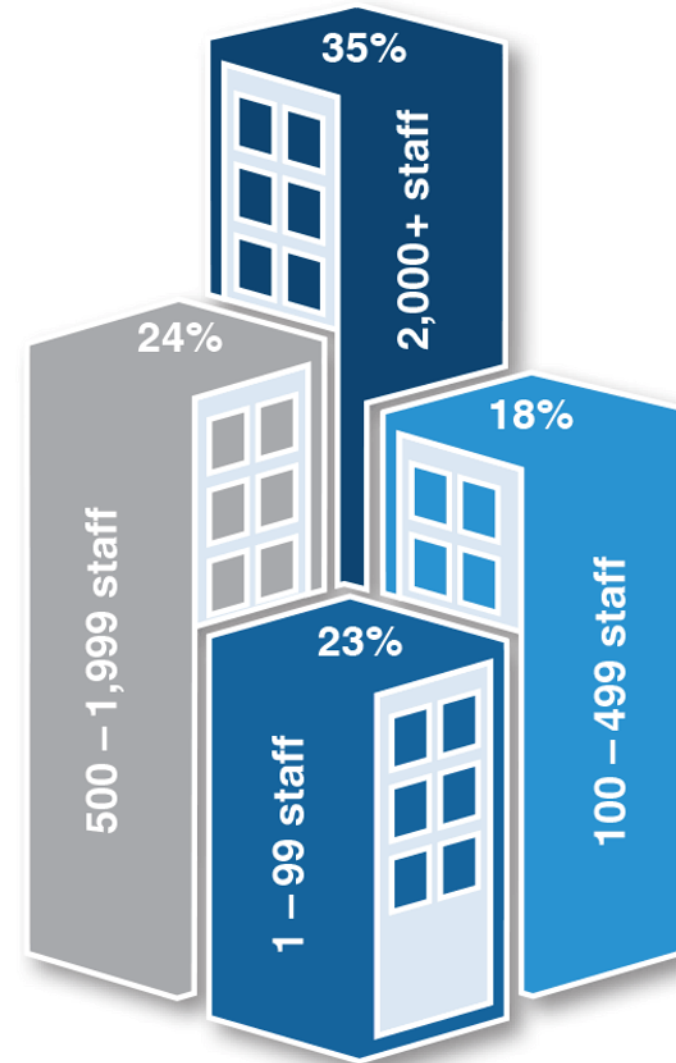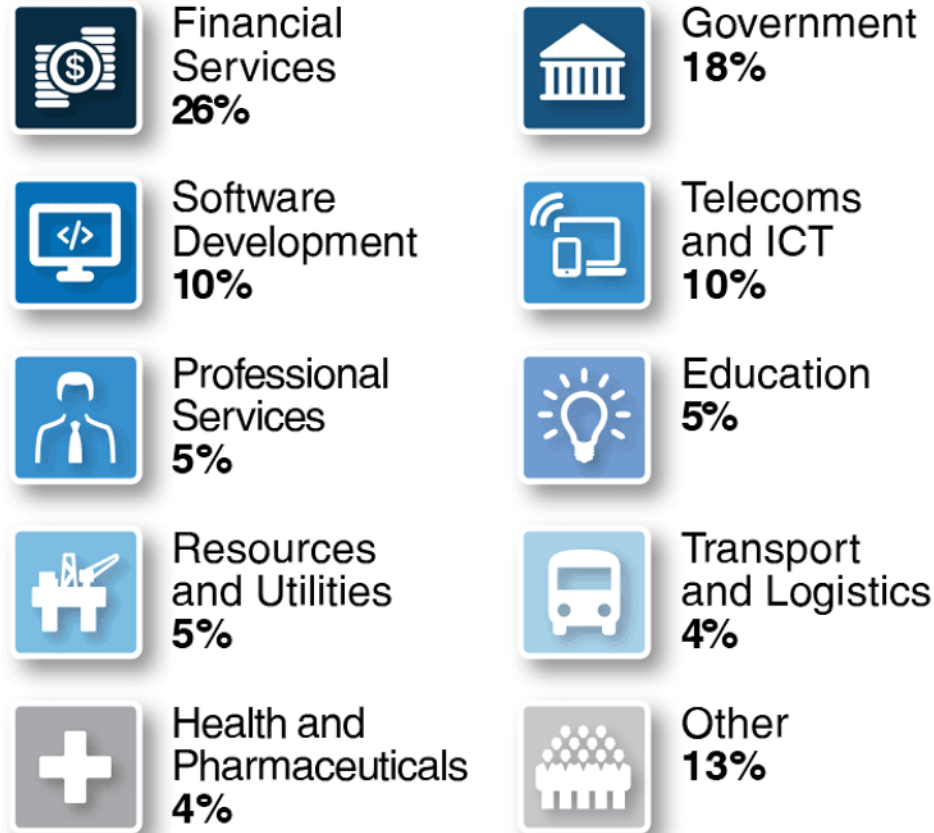- 2015 Index represents 281 respondents
- Spans 12,749 projects

Respondents 2015

Respondents by Region

Respondent Demographics

Financial Services **26%**

Government **18%**

Software Development **10%**

Telecoms and ICT **10%**

Professional Services **5%**

Education **5%**

Resources and Utilities **5%**

Transport and Logistics **4%**

Health and Pharmaceuticals **4%**

Other **13%**

35% — 2,000+ staff

24% — 500 – 1,999 staff

18% — 100 – 499 staff

23% — 1 – 99 staff

Types of Projects

Existing app maintenance
45%

New app development
33%

Tailoring 3rd party apps
22%
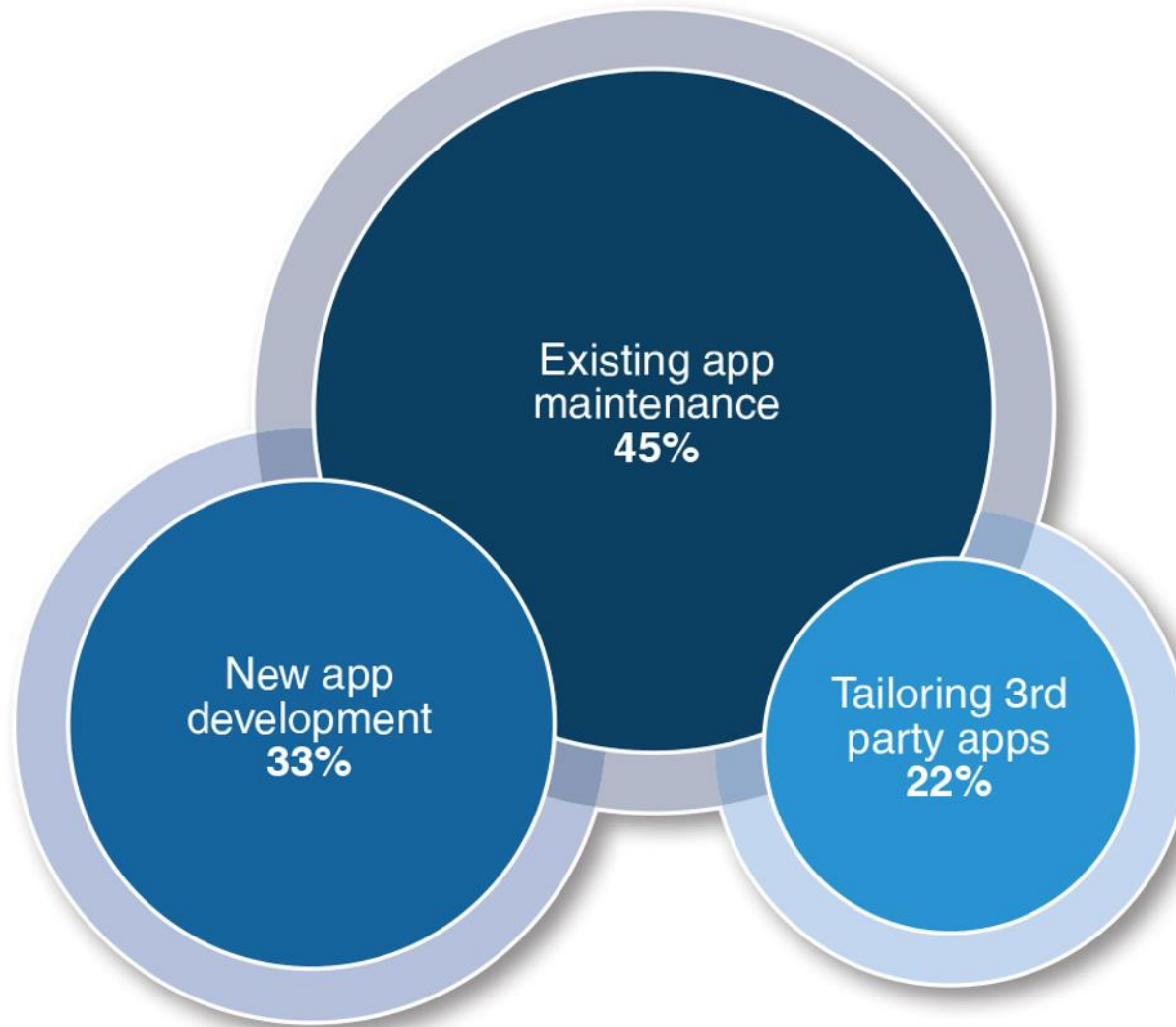
New South Wales
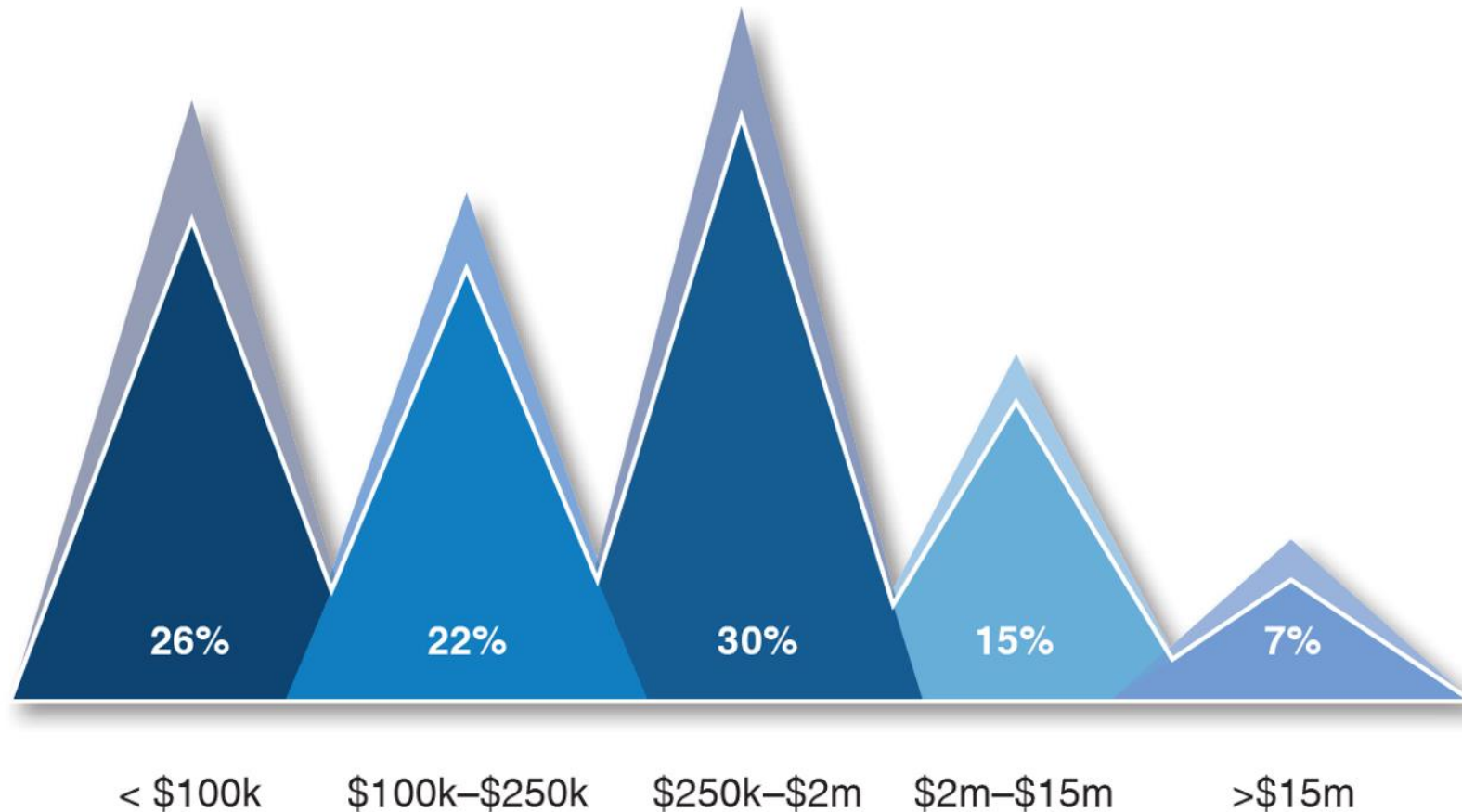New application projects 40%

Project Budgets

26%   22%   30%   15%   7%

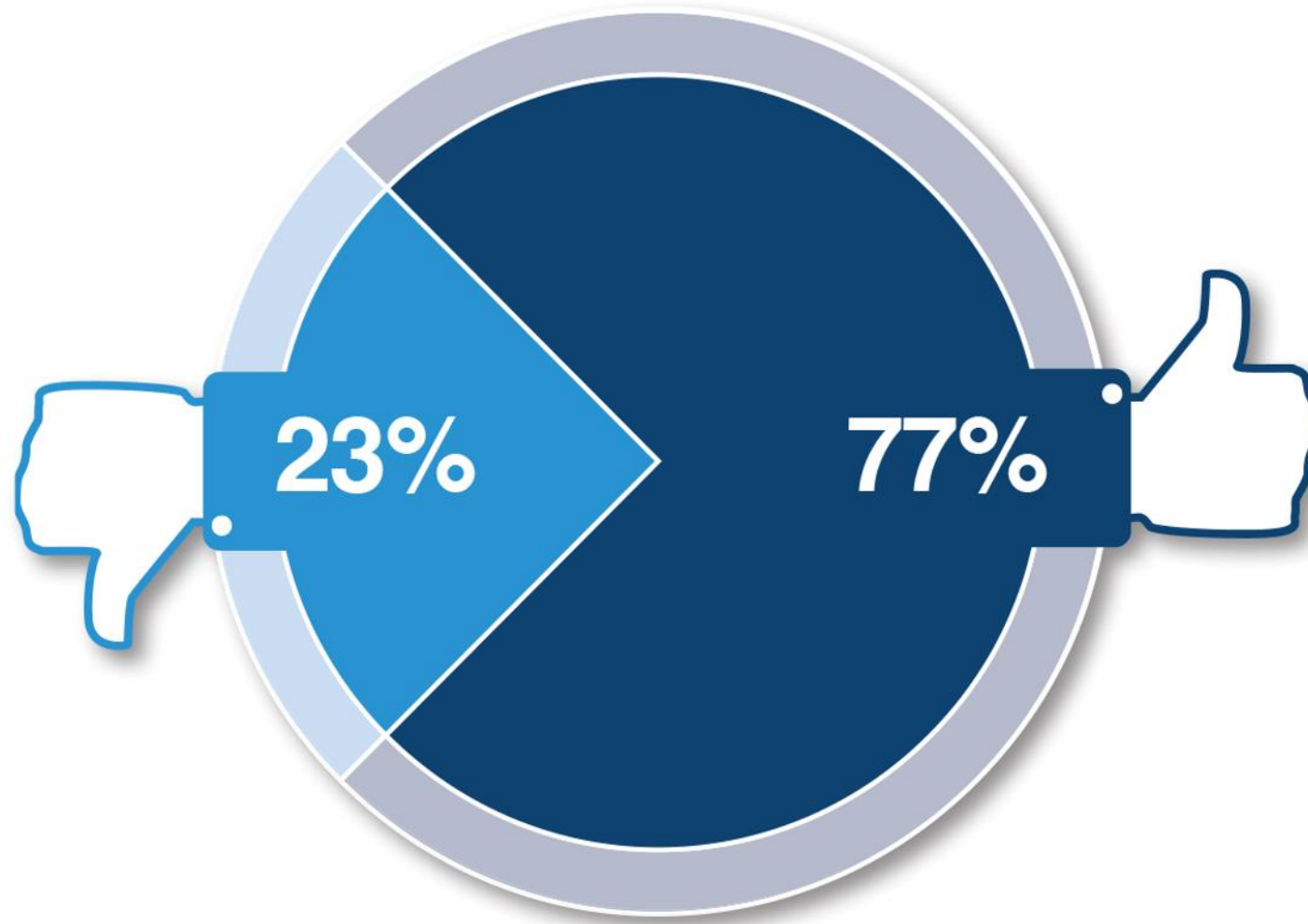< $100k $100k–$250k $250k–$2m $2m–$15m   >$15m

New South Wales
34% over $2 million

New Zealand
11% over $2 million

Queensland
73% under $250k

Testing in the Organisation
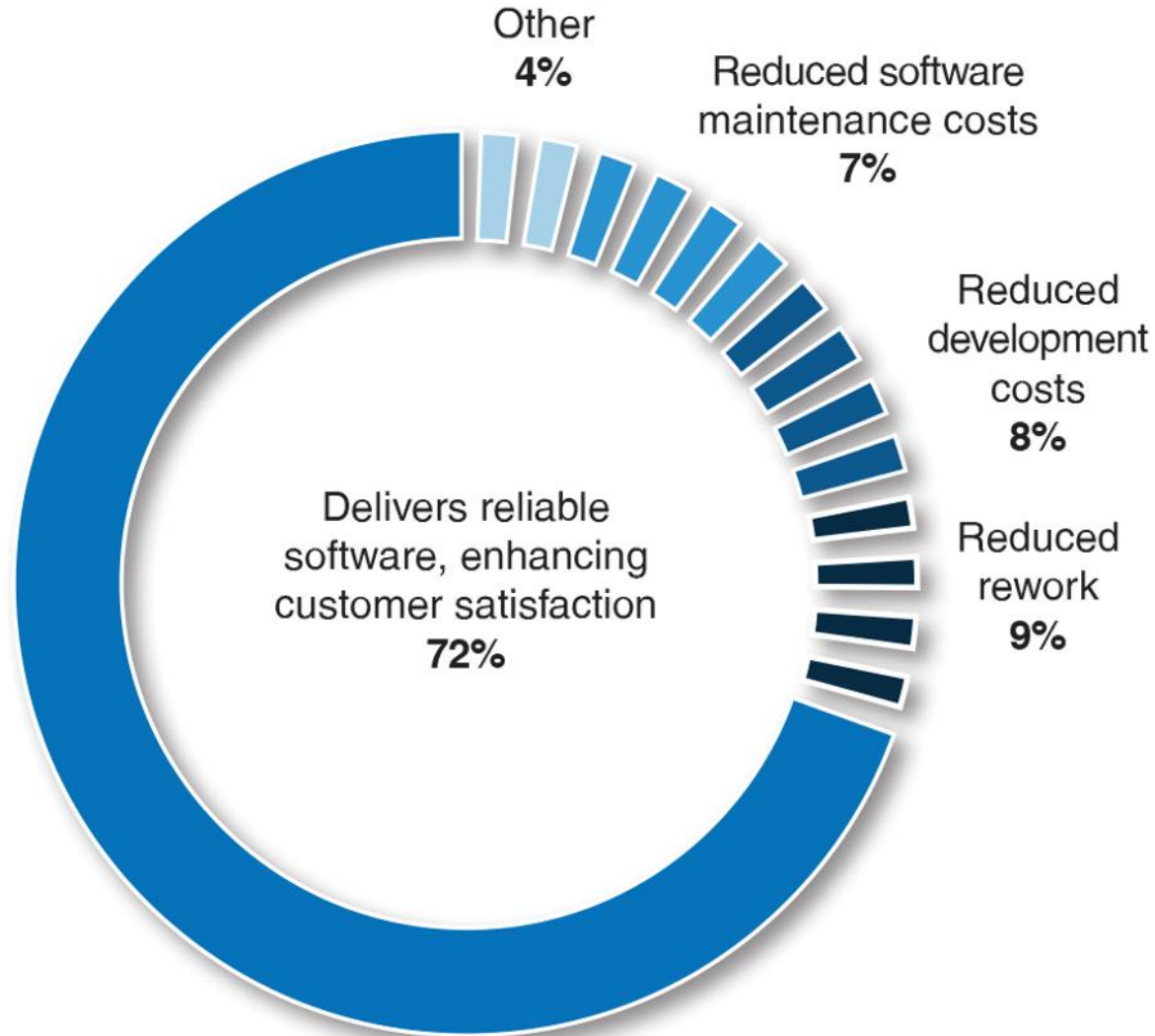
Organisational View of Testing

23%

77%

Critical element in producing reliable software 46%

Strategically important for organisation success 31%
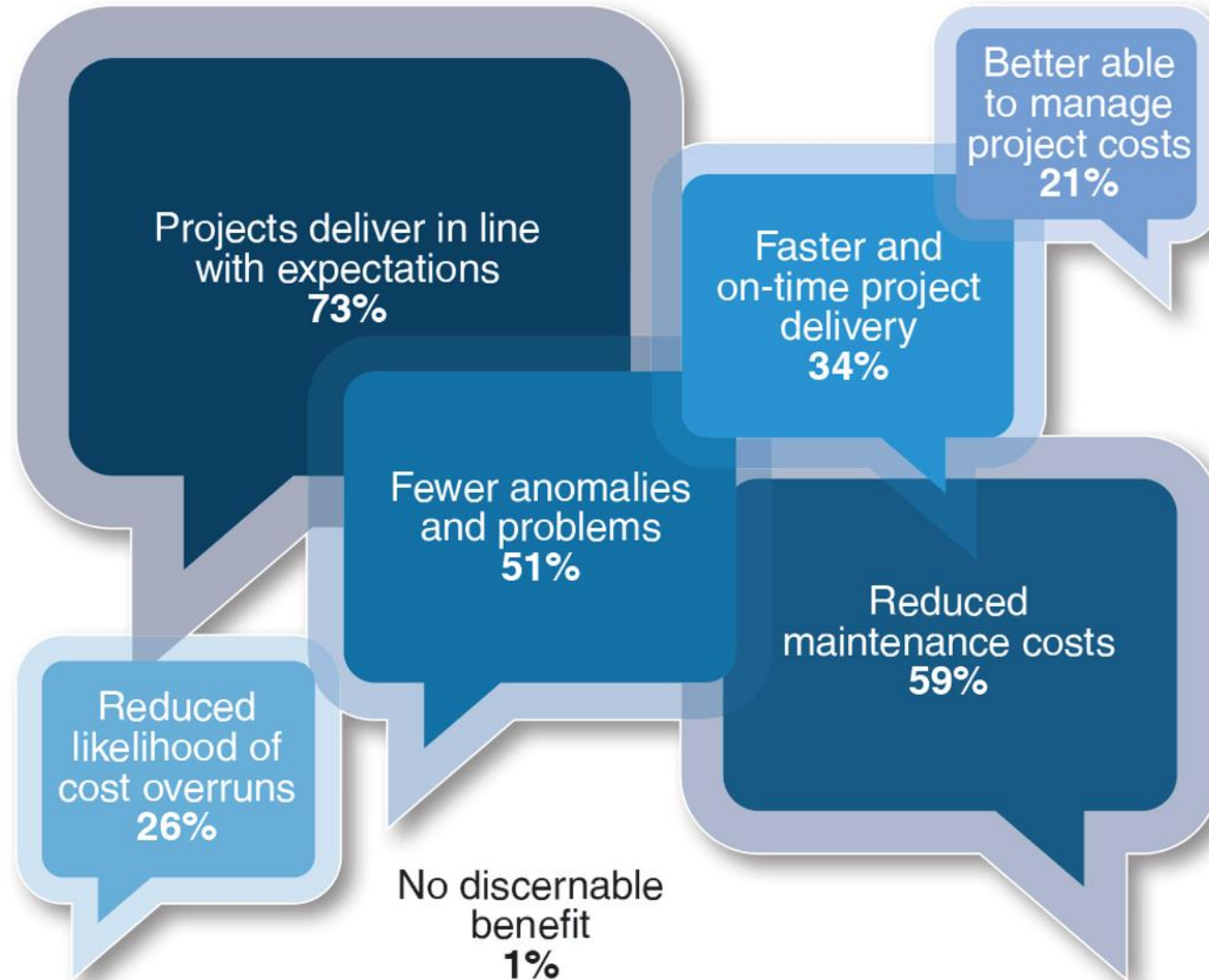
Necessary evil 11%
Cost to be minimised 10%
Low priority 2%

Business Cases for Testing

Other
4%

Reduced software
maintenance costs
7%

Reduced
development
costs
8%

Delivers reliable
software, enhancing
customer satisfaction
72%

Reduced
rework
9%

Secondary Business Case
Reduced software
maintenance costs 39%

© Planit Testing Index 2015   12

Benefits of Testing

Projects deliver in line with expectations
73%

Fewer anomalies and problems
51%

Faster and on-time project delivery
34%

Better able to manage project costs
21%

Reduced maintenance costs
59%

Reduced likelihood of cost overruns
26%

No discernable benefit
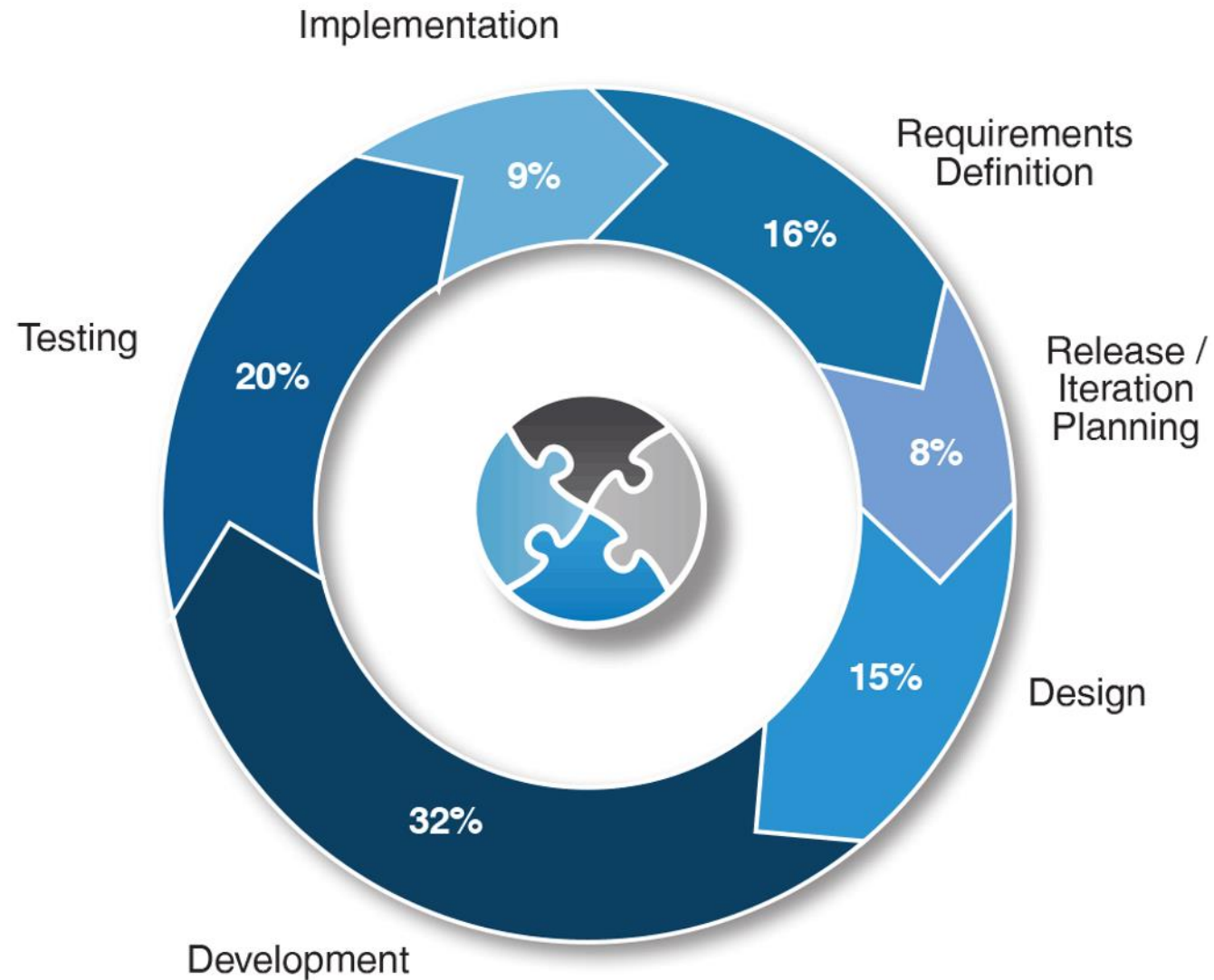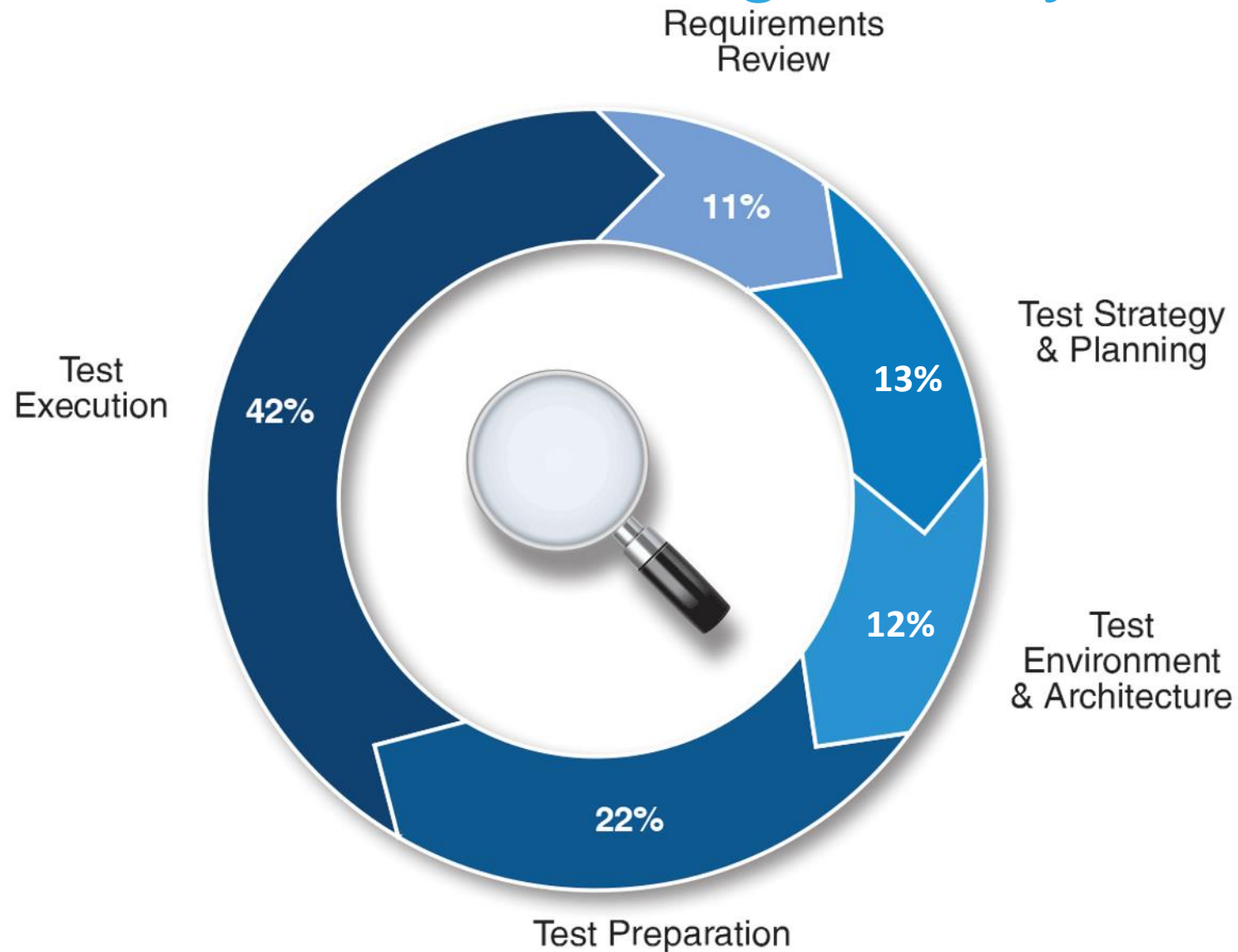**1%**

73% cite multiple observable benefits

Telecoms & ICT
Faster and on-time project delivery 48%

Project Budget Allocation

Implementation

Requirements Definition

Release / Iteration Planning

Design

Development

Testing

9%

16%

8%

15%

32%

20%

Breakdown of Testing Activity

Requirements Review — 11%

Test Strategy & Planning — 13%

Test Environment & Architecture — 12%

Test Preparation — 22%

Test Execution — 42%

Western Australia
test preparation +
test execution 75%

When Testing Starts – Desired

Requirements
68%

Build/Development
12%

Design
14%

Desired

Release/Iteration Planning
5%

Roll-out/Installation
1%

Maintenance
1%
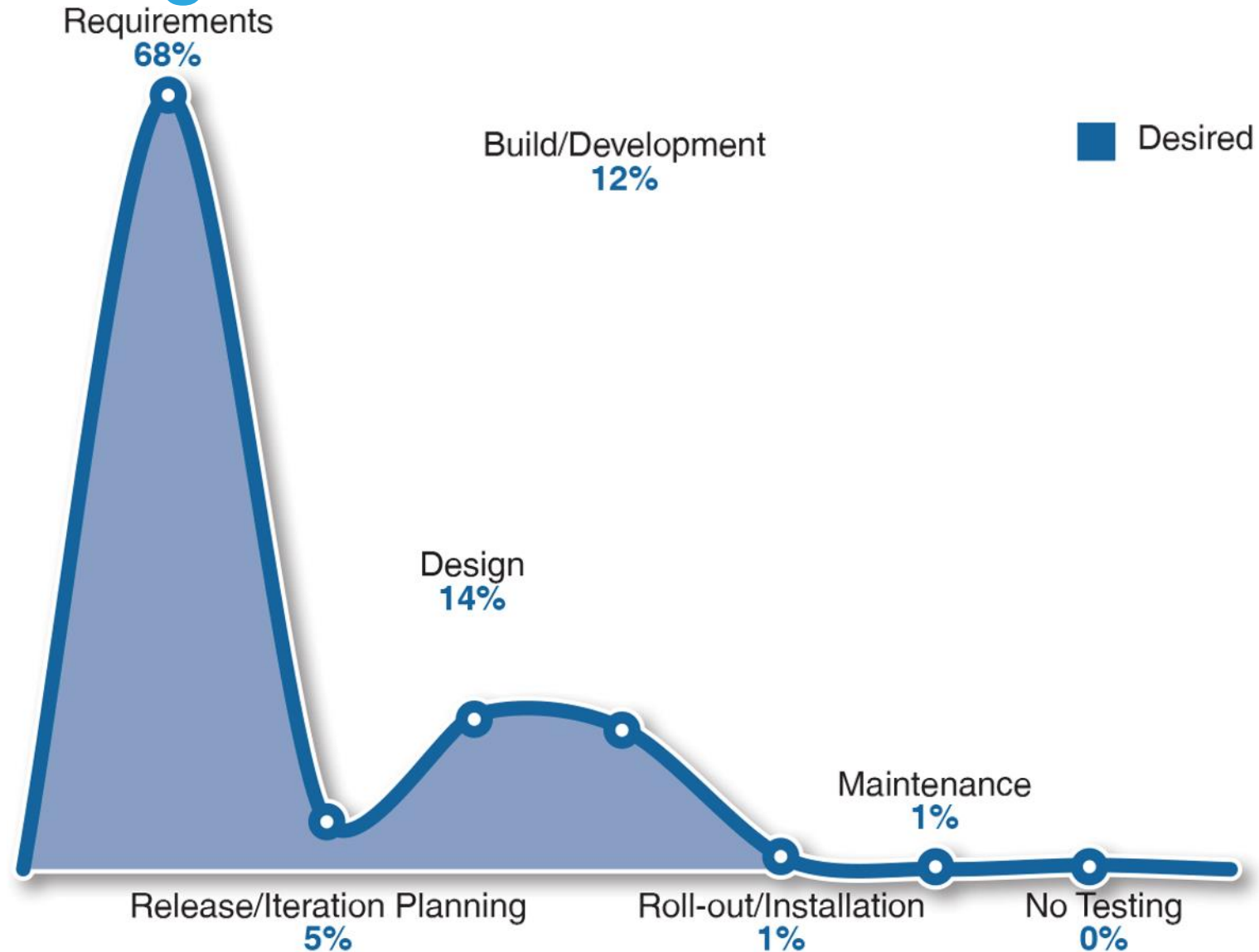
No Testing
0%

When Testing Starts – Actual vs Desired

Requirements
13% | 68%

Build/Development
56% | 12%

Design
19% | 14%

Release/Iteration Planning
5% | 5%

Roll-out/Installation
5% | 1%

Maintenance
0% | 1%

No Testing
1% | 0%

Actual
Desired
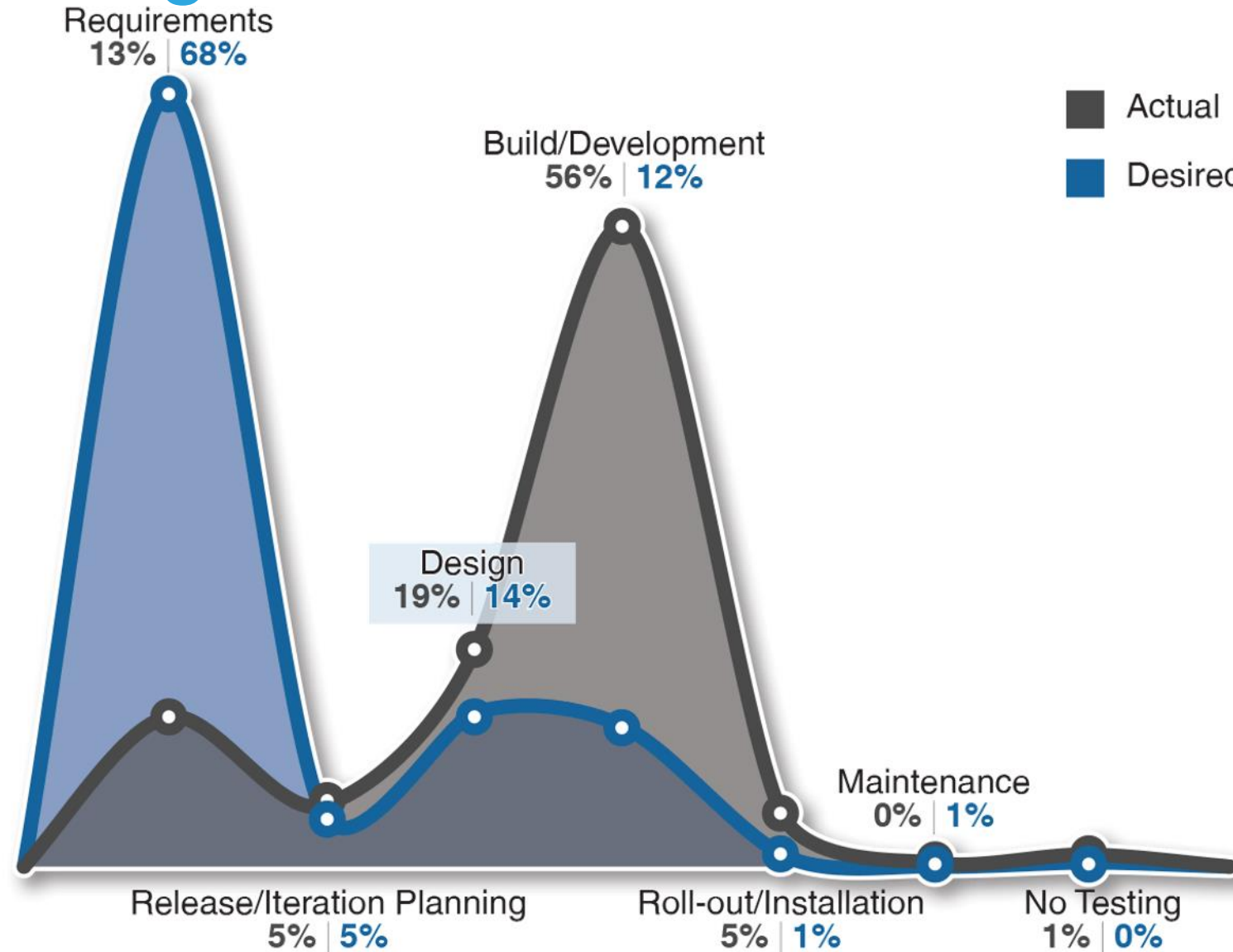
Project Conditions & Outcomes

Project Conditions

Condition	Excellent	Good	Okay	Poor	Very Poor
Project staff quality	12%	43%	38%	5%	2
Management buy-in	6%	40%	39%	12%	3%
Test environment (overall)	5%	35%	40%	13%	7%
User involvement	5%	34%	41%	17%	3%
Small/regular project milestones	5%	31%	43%	18%	3%
Communication	2	37%	43%	15%	3%
Requirements Definition	2	25%	37%	30%	6%
Estimation (project budget)	2	24%	44%	25%	5%
Estimation (project times)	2	21%	37%	34%	6%
Realistic expectations	1	17%	45%	28%	9%
Overall Conditions	1	34%	51%	13%	1

Project Outcomes

Cancelled

Postponed

9 | 6

8 | 5

6 | 2

On time, budget, scope

37%

40%

52%

2013 2014 2015

Over time, budget

19%

19%

22%
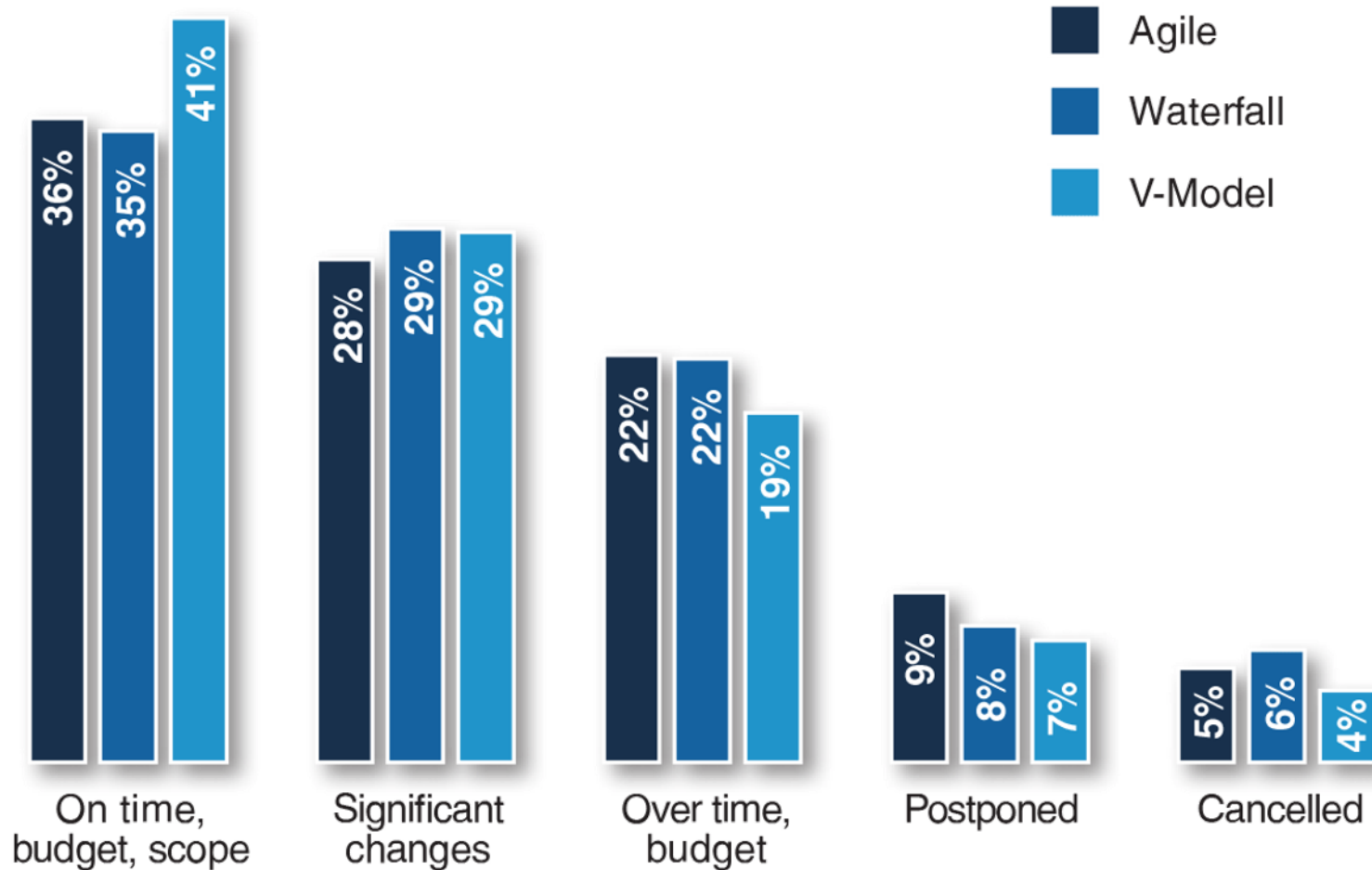
21%

28%

Significant changes

26%

Postponements and cancellations at an all-time high 15%

Victoria
45% completed on time, budget, scope

New South Wales
11% completed on time, budget, scope

Project Outcomes by Primary Methodology

Legend:
- Agile
- Waterfall
- V-Model

Chart data:

Outcome	Agile	Waterfall	V-Model
On time, budget, scope	36%	35%	41%
Significant changes	28%	29%	29%
Over time, budget	22%	22%	19%
Postponed	9%	8%	7%
Cancelled	5%	6%	4%

Agile – 2015 vs 2014
Completed on time, budget, scope -6%

Waterfall – 2015 vs 2014
Completed on time, budget, scope -11%

V-Model – 2015 vs 2014
Completed on time, budget, scope +1%

Project Methodologies

Agile
43%

V-Model
17%

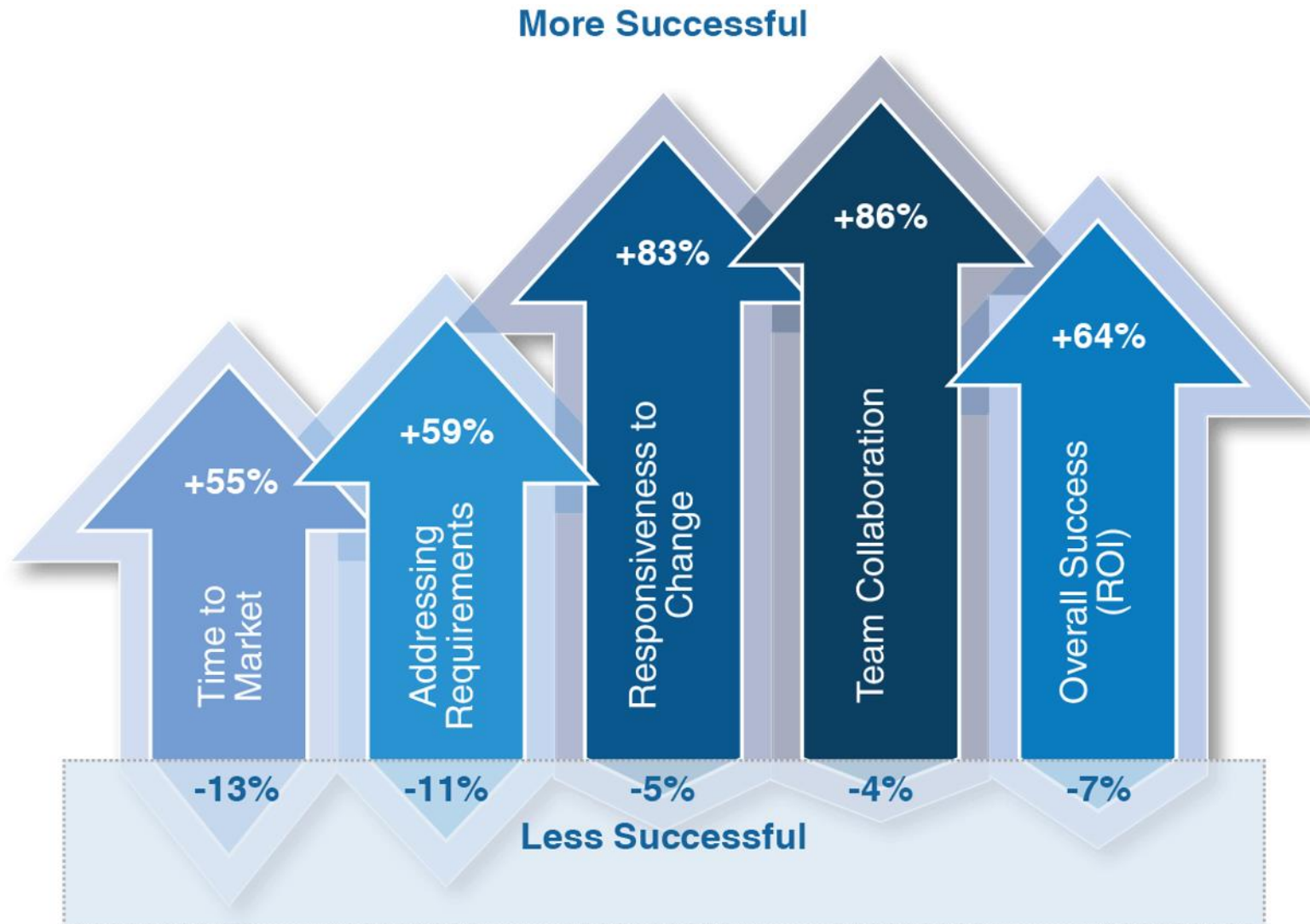Waterfall
32%

No Defined Methodology
3%

Other
5%
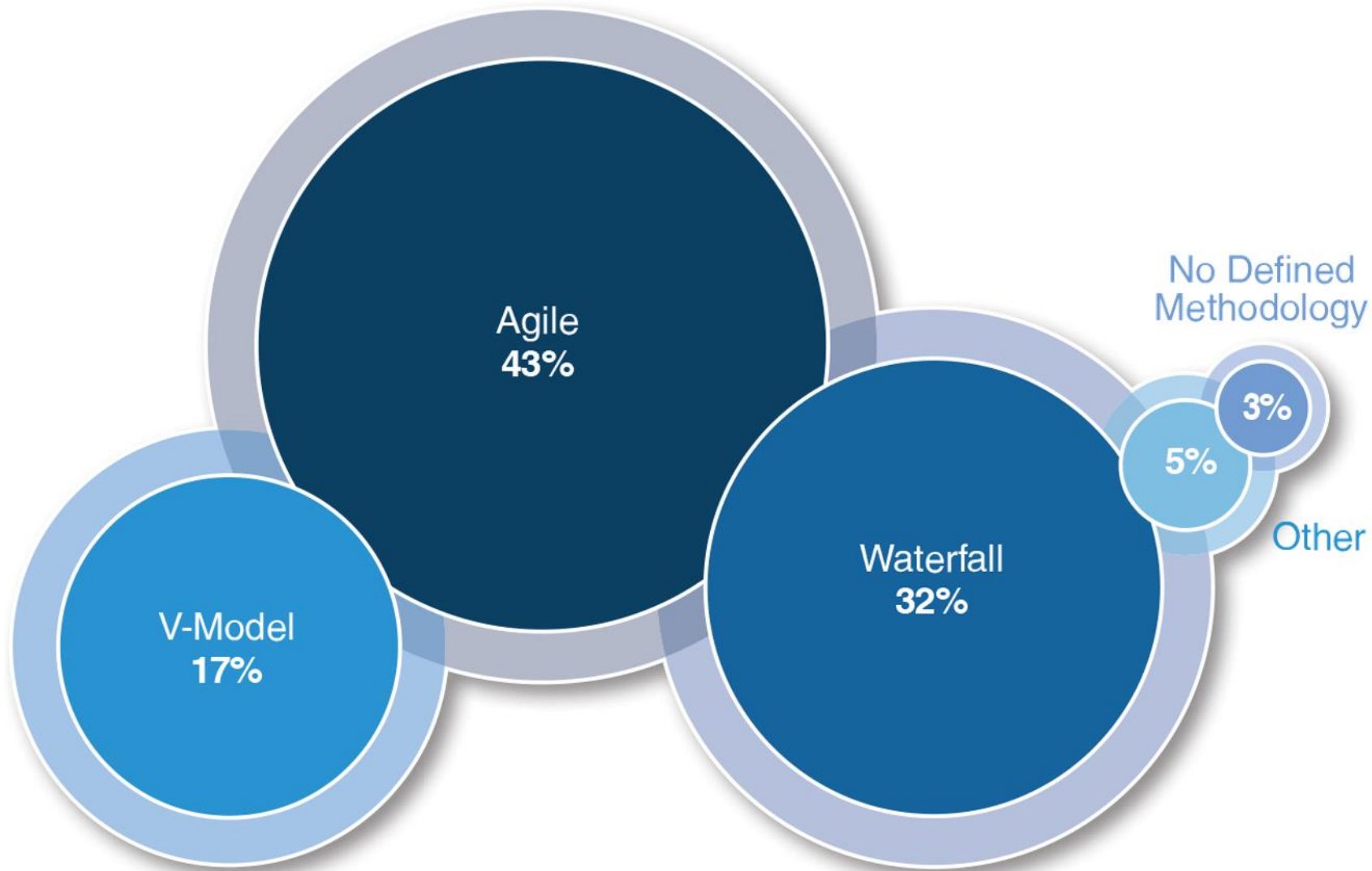
88% of orgs apply Agile in some portion of their projects

77% of Agile orgs are applying Scrum practices
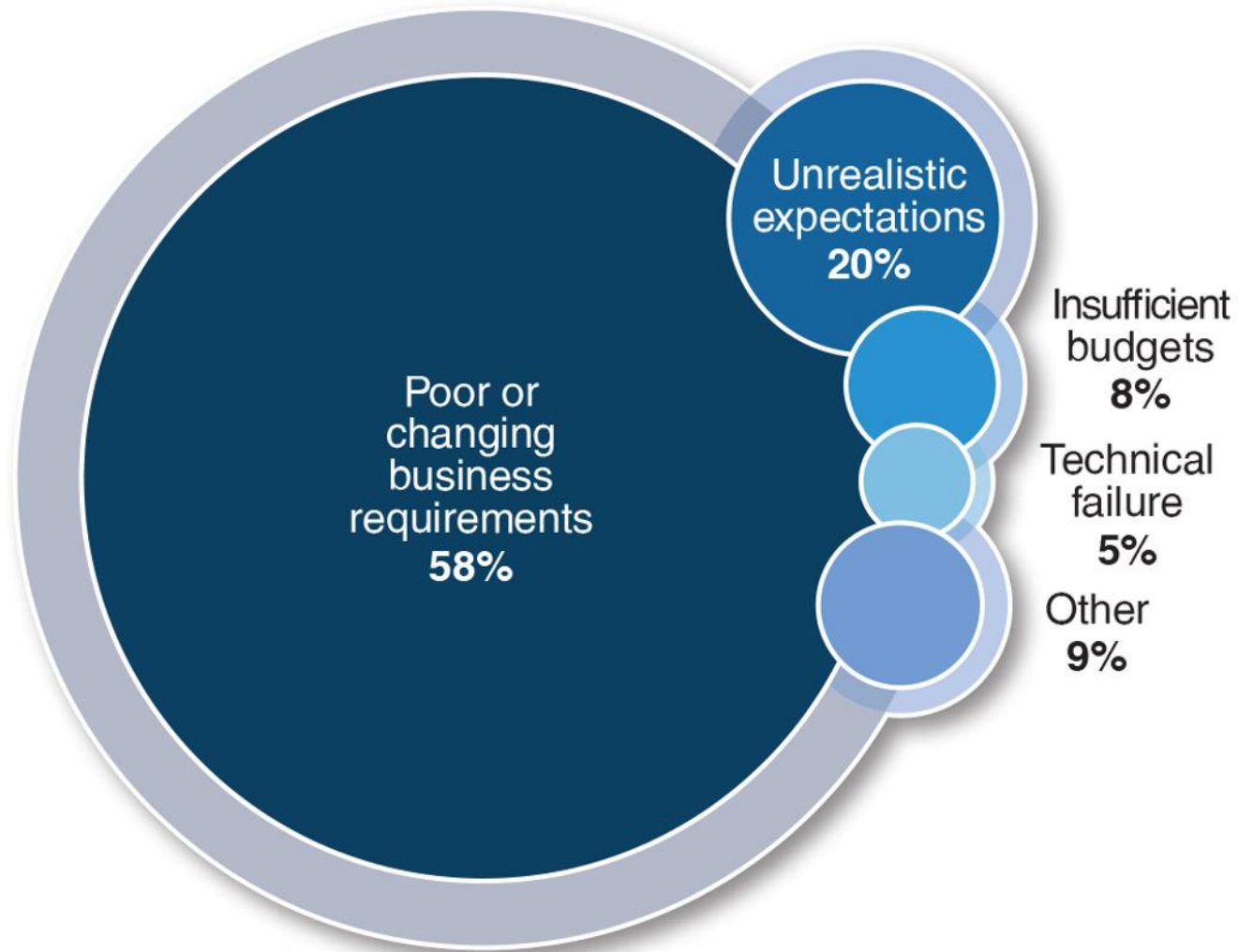
32% of Agile orgs are applying Kanban practices

Success of Agile

More Successful

- +55% Time to Market
- +59% Addressing Requirements
- +83% Responsiveness to Change
- +86% Team Collaboration
- +64% Overall Success (ROI)

Less Successful

- -13%
- -11%
- -5%
- -4%
- -7%

2015 vs 2014
More successful overall + 7%

Primary Causes of Project Failure

- Poor or changing business requirements **58%**
- Unrealistic expectations **20%**
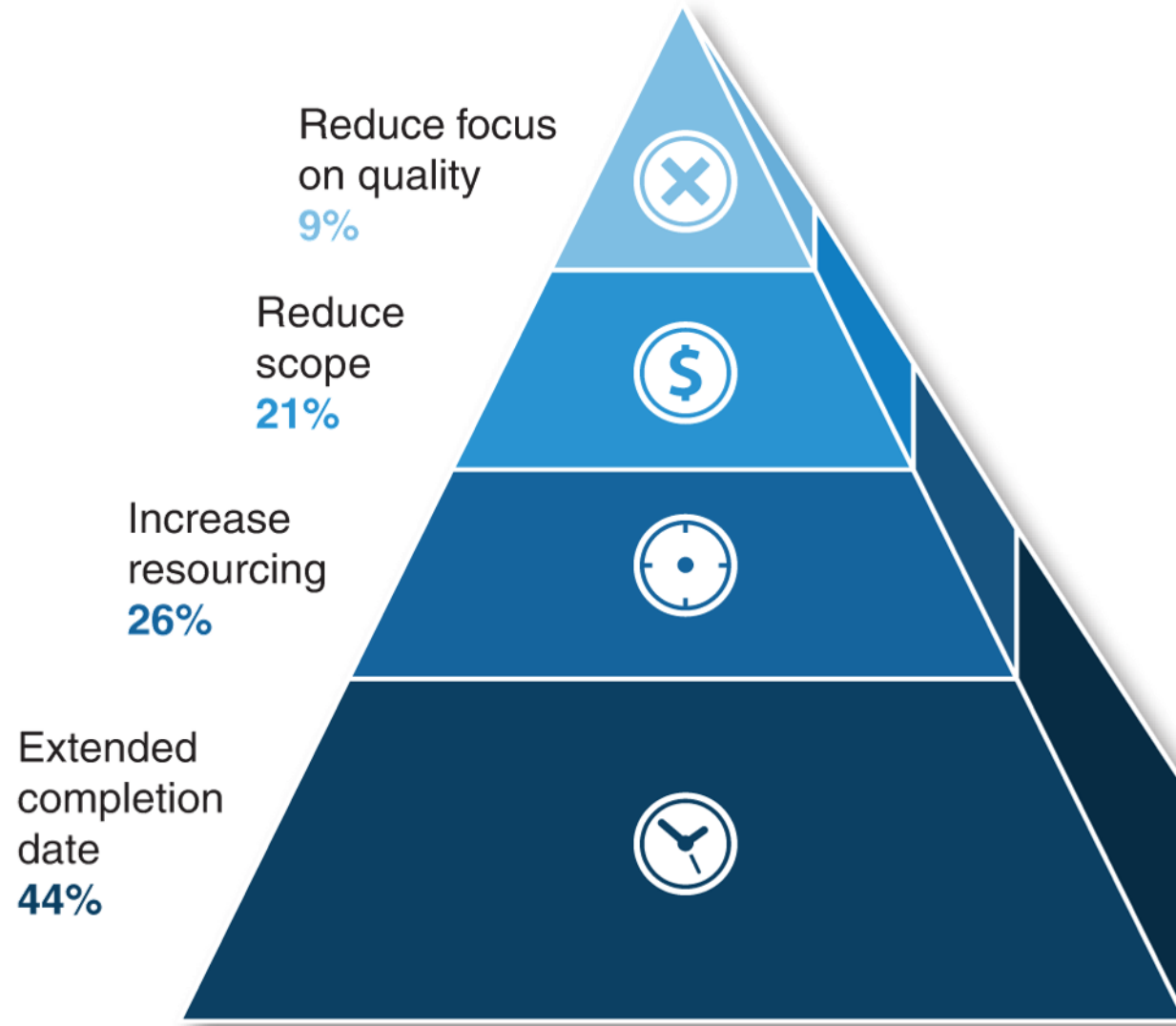- Insufficient budgets **8%**
- Technical failure **5%**
- Other **9%**

Telecoms & ICT
Insufficient budgets 15%

Telecoms & ICT
Technical failure 11%

Projects Under Pressure

Reduce focus on quality
9%

Reduce scope
21%

Increase resourcing
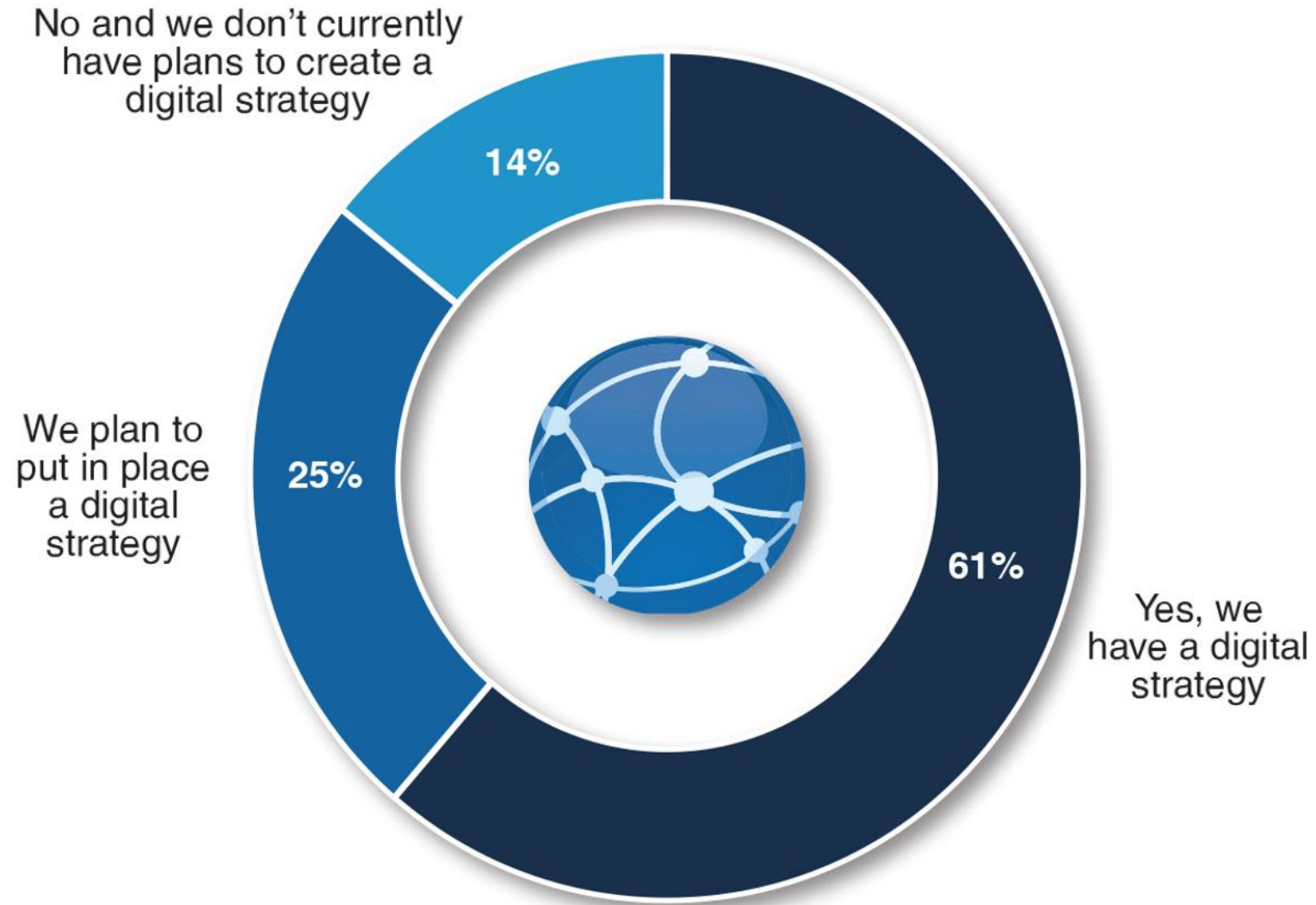**26%**

Extended completion date
44%

Queensland
38% increase resourcing

Telecoms & ICT
56% extend completion date

Software Industry
56% extend completion date

Digital Strategies

No and we don't currently have plans to create a digital strategy — **14%**

We plan to put in place a digital strategy — **25%**

Yes, we have a digital strategy — **61%**

Government 43% have a digital strategy

Government 38% intend to implement a digital strategy this year

Government 19% have no digital strategy nor plans to put one in place

Industry Trends

Cloud

Digital

Mobile

Service Virtualisation

Agile

App Testing

Outsourcing

Test Automation

Offshoring

Technologies

DevOps

Analytics

Tools

Security

Open Source

Government
The Cloud 21%

Telecoms & ICT
The Cloud 22%

Western Australia
DevOps 26%

Technical Testing

Test Automation Utilisation

Not utilised — 27%

A key part of the SDLC — 31%
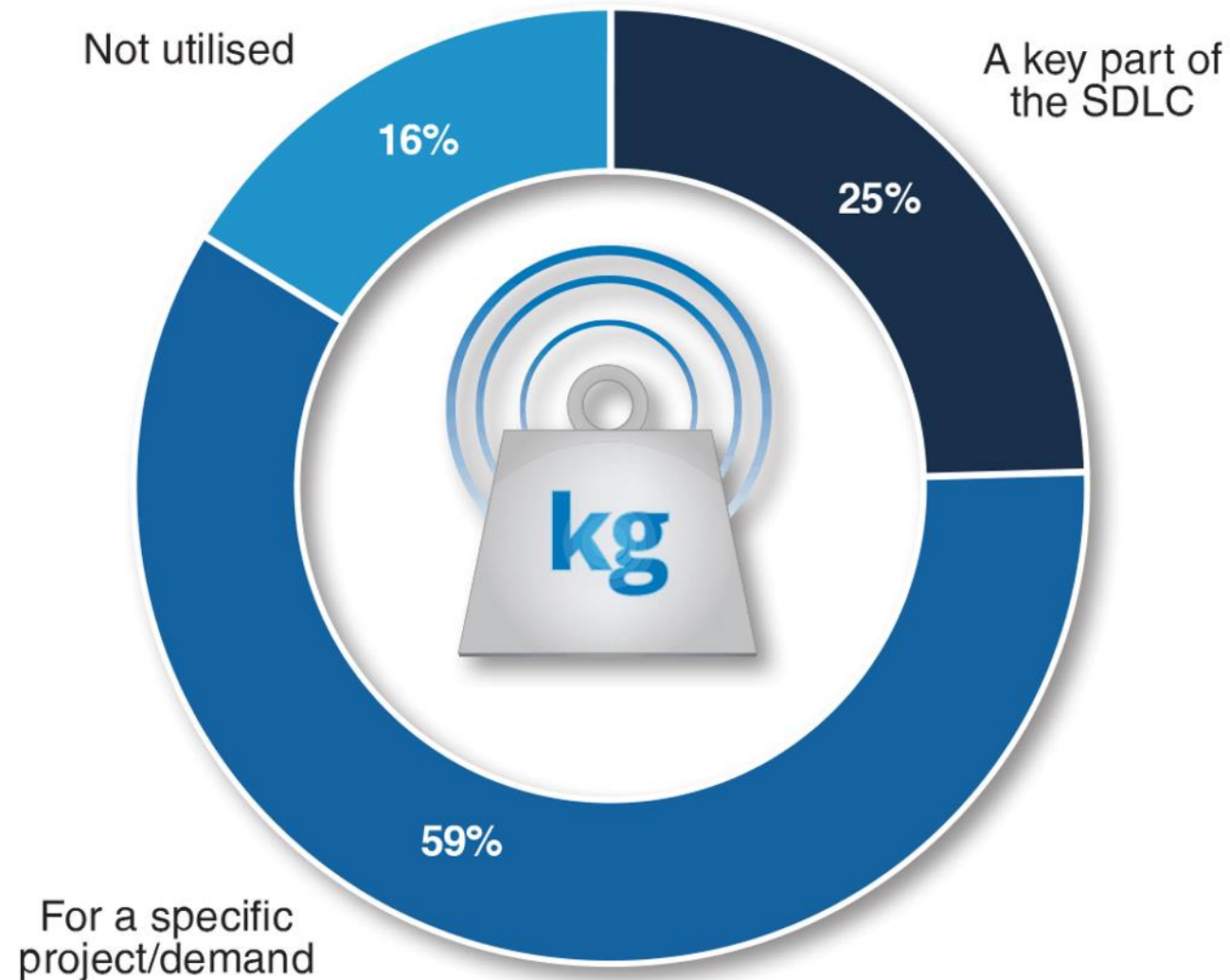
For a specific project/demand — 42%
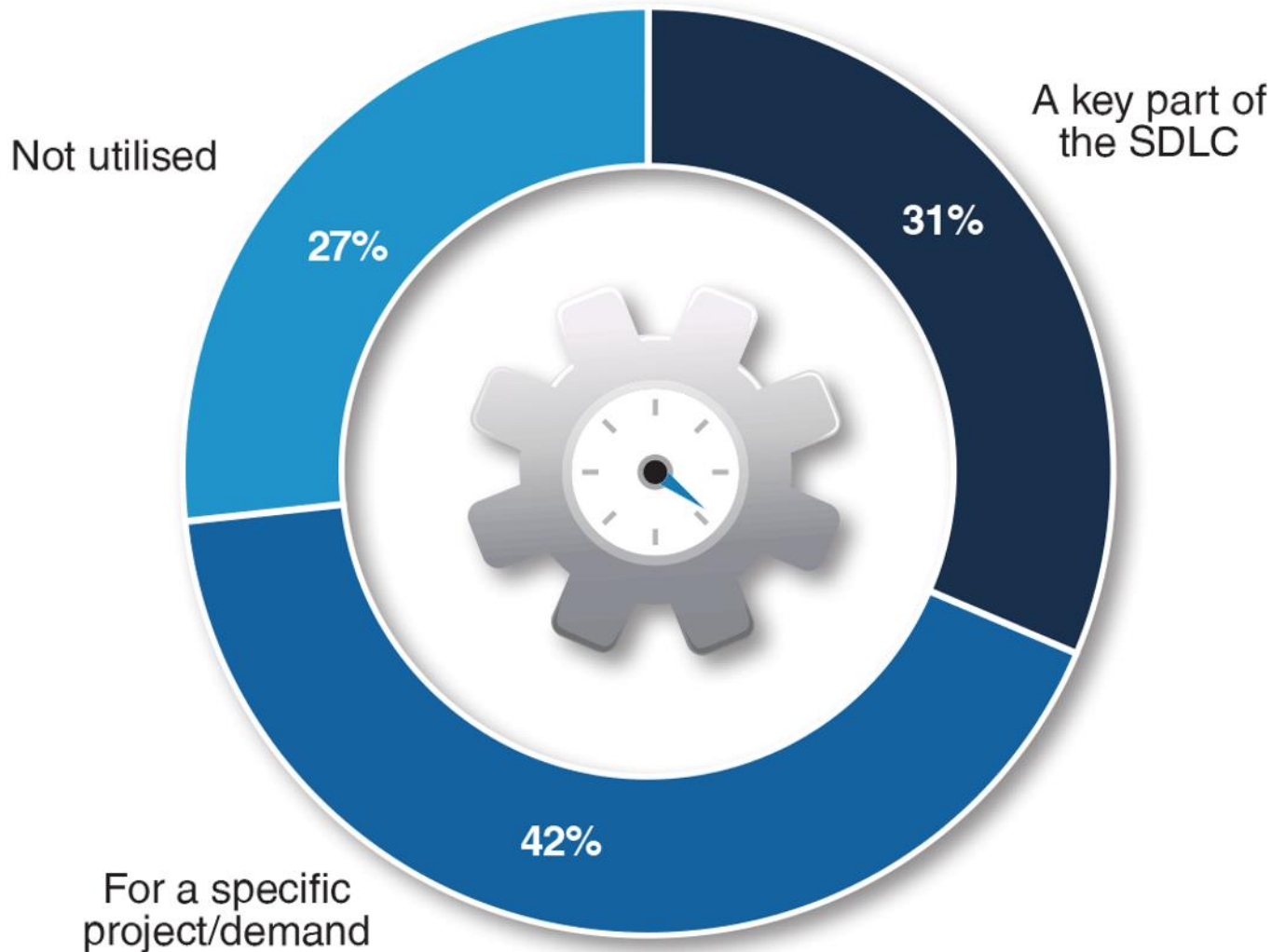
2015 vs 2012
A key part of the SDLC +15%
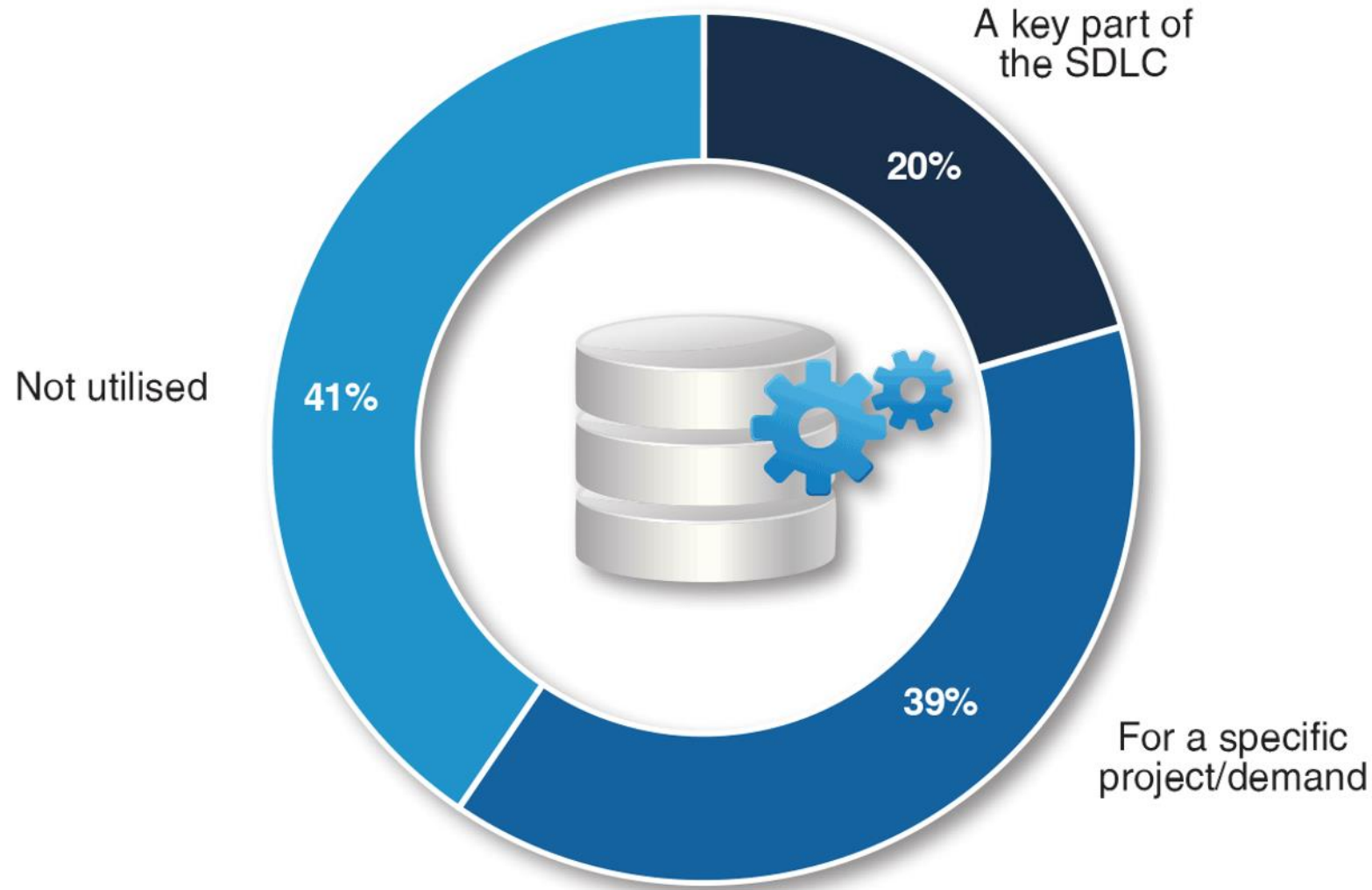
Government
38% not utilising test automation

Financial, Telecoms, ICT and Software Industries
Key part of the SDLC >40%

Performance Testing Utilisation

Not utilised — 16%

A key part of the SDLC — 25%

For a specific project/demand — 59%

Financial Services
32% a key part of the SDLC

Service Virtualisation Utilisation

A key part of
the SDLC

20%

Not utilised

41%

39%

For a specific
project/demand

Government
Not utilised 52%

Telecoms & ICT
Key part of the SDLC 33%

2015 vs 2014
Key part of the SDLC +7%

Demand for Cloud-based Services

Tools and Applications

37%	23%	40%

Development and Test Environments

32%	24%	44%

Production Environments

32%	21%	47%

Data Warehousing and Analytics

27%	24%	49%

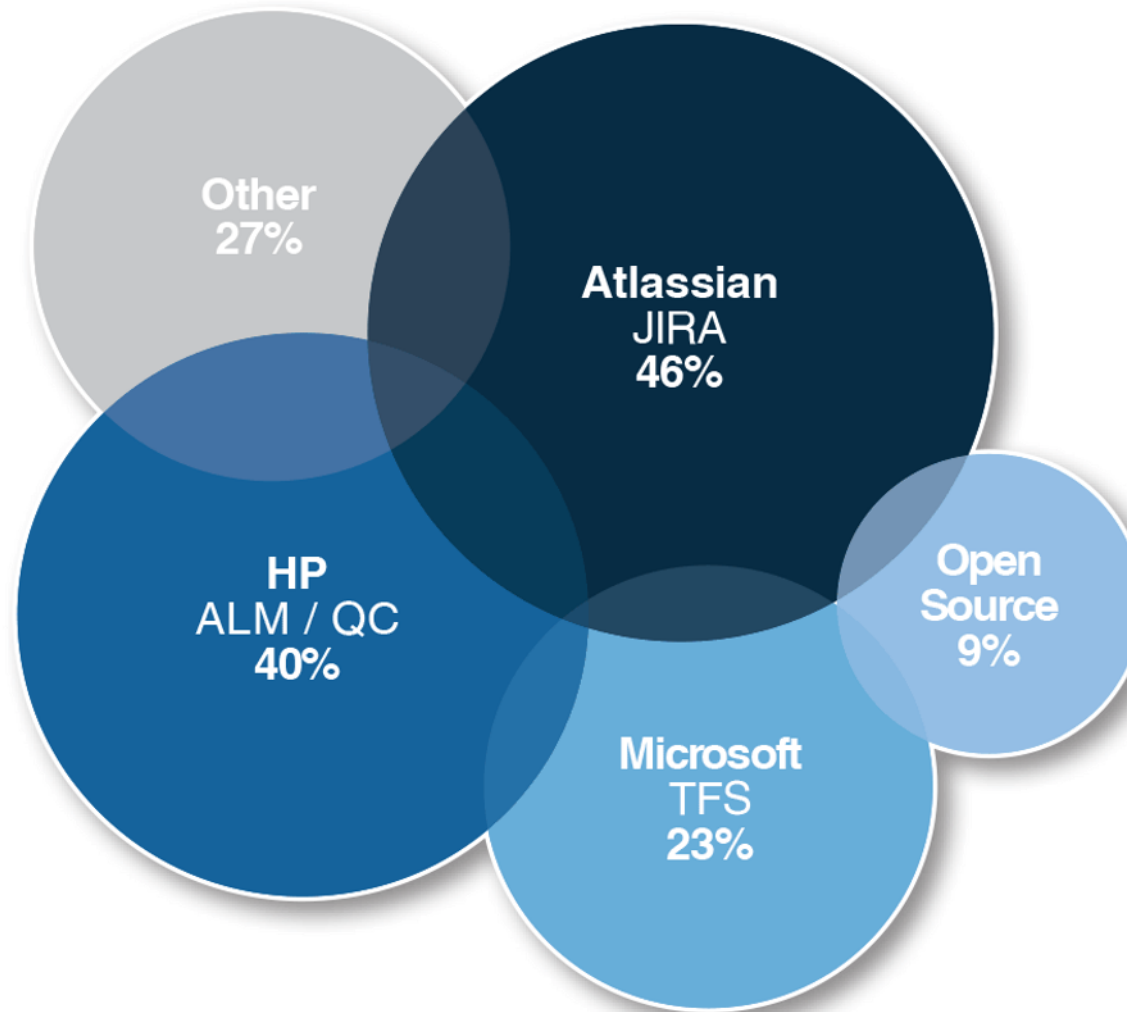■ Currently Using   ■ Plan to Adopt   ■ Not Used/Planned

2015 vs 2014
Currently using cloud-based tools +18%

Finance & Government
Cloud utilisation approx. half of overall average

Telecoms/ICT & Software
Currently using cloud-based tools 65% & 57%
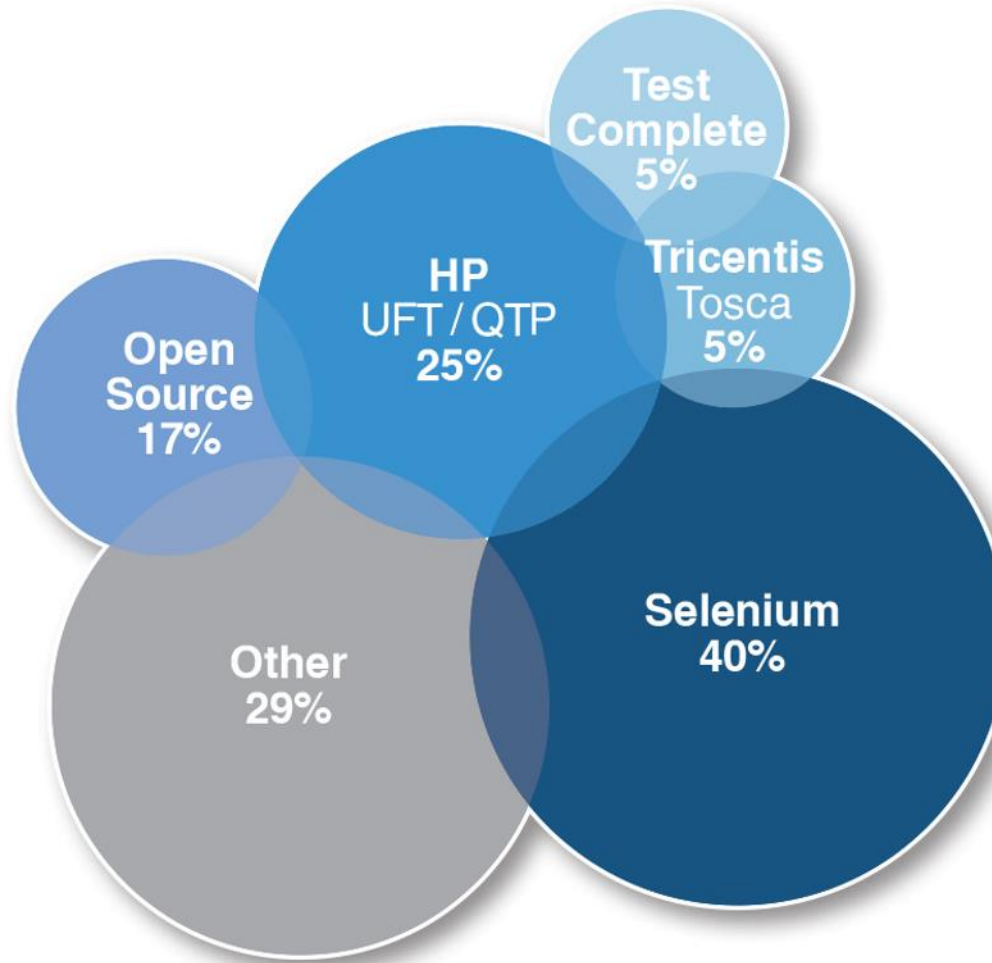
Test Tool Utilisation – Test Management

Other 27%

Atlassian JIRA 46%

HP ALM / QC 40%

Open Source 9%

Microsoft TFS 23%

Australia
HP ALM/QC 48%

Software Industry
HP ALM/QC 14%

New Zealand
Microsoft TFS 31%

Test Tool Utilisation – Test Automation

Test Complete 5%

HP UFT / QTP 25%

Tricentis Tosca 5%

Open Source 17%

Other 29%

Selenium 40%

2015 vs 2014
Selenium +8%

Software Industry
HP UFT/QTP 11%

Test Tool Utilisation – Performance Testing

Microsoft
Visual Studio
15%

Other
28%

Open Source
12%

JMeter
30%
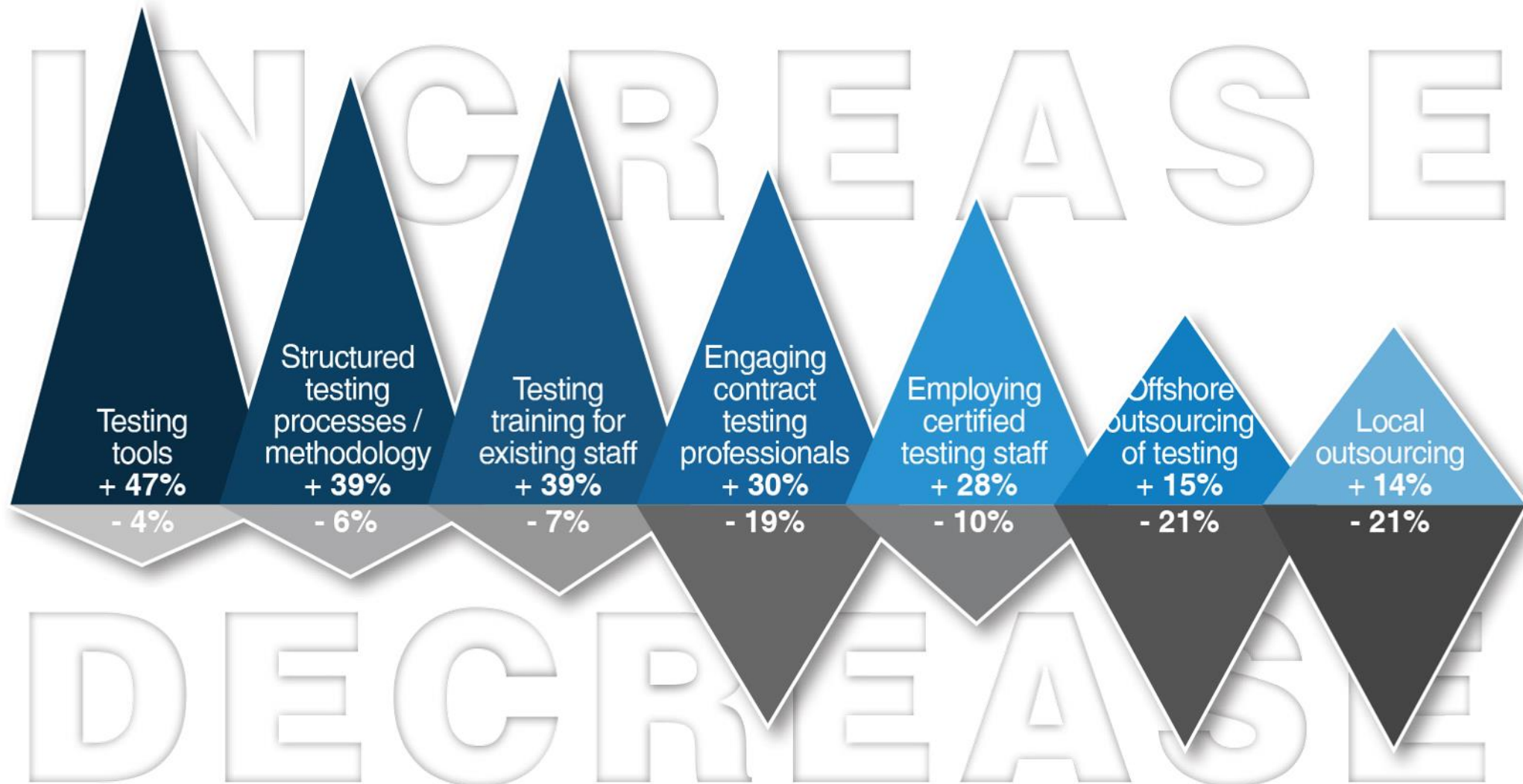
HP
LR / PC
32%
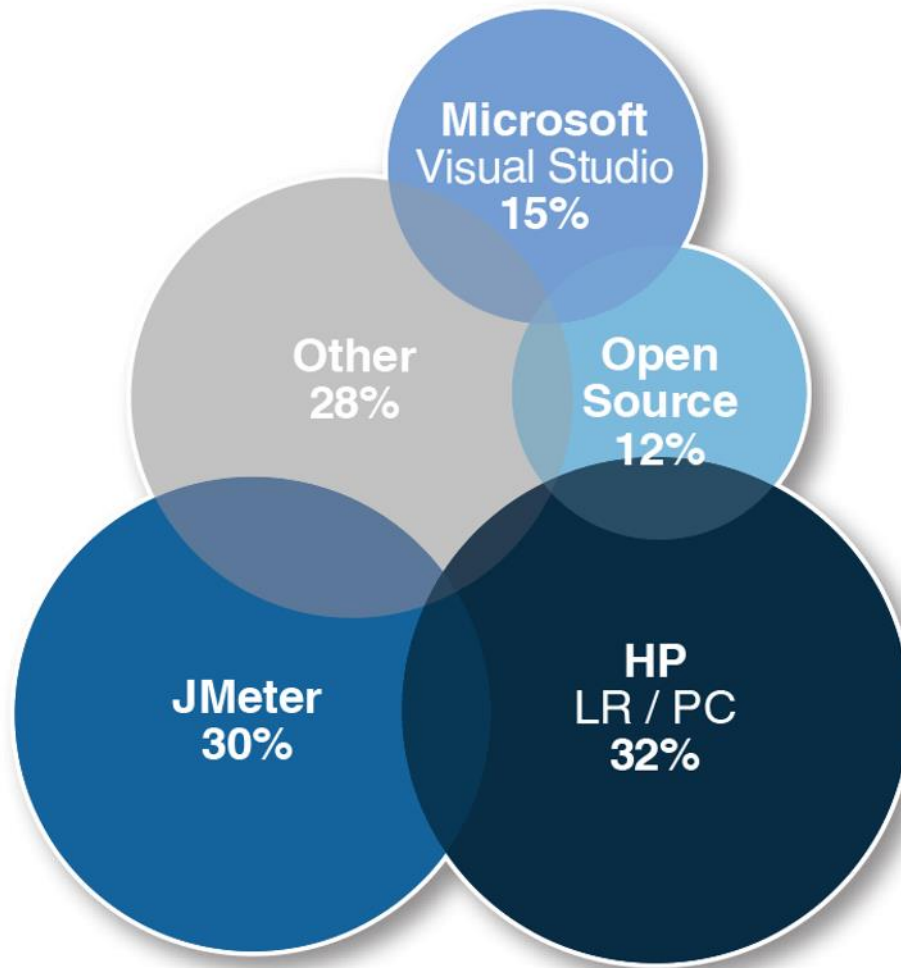
2015 vs 2014
JMeter +5%

New Zealand
JMeter 31% (#1)

Software Industry
HP LR/PC 8%

Outlook and Investment
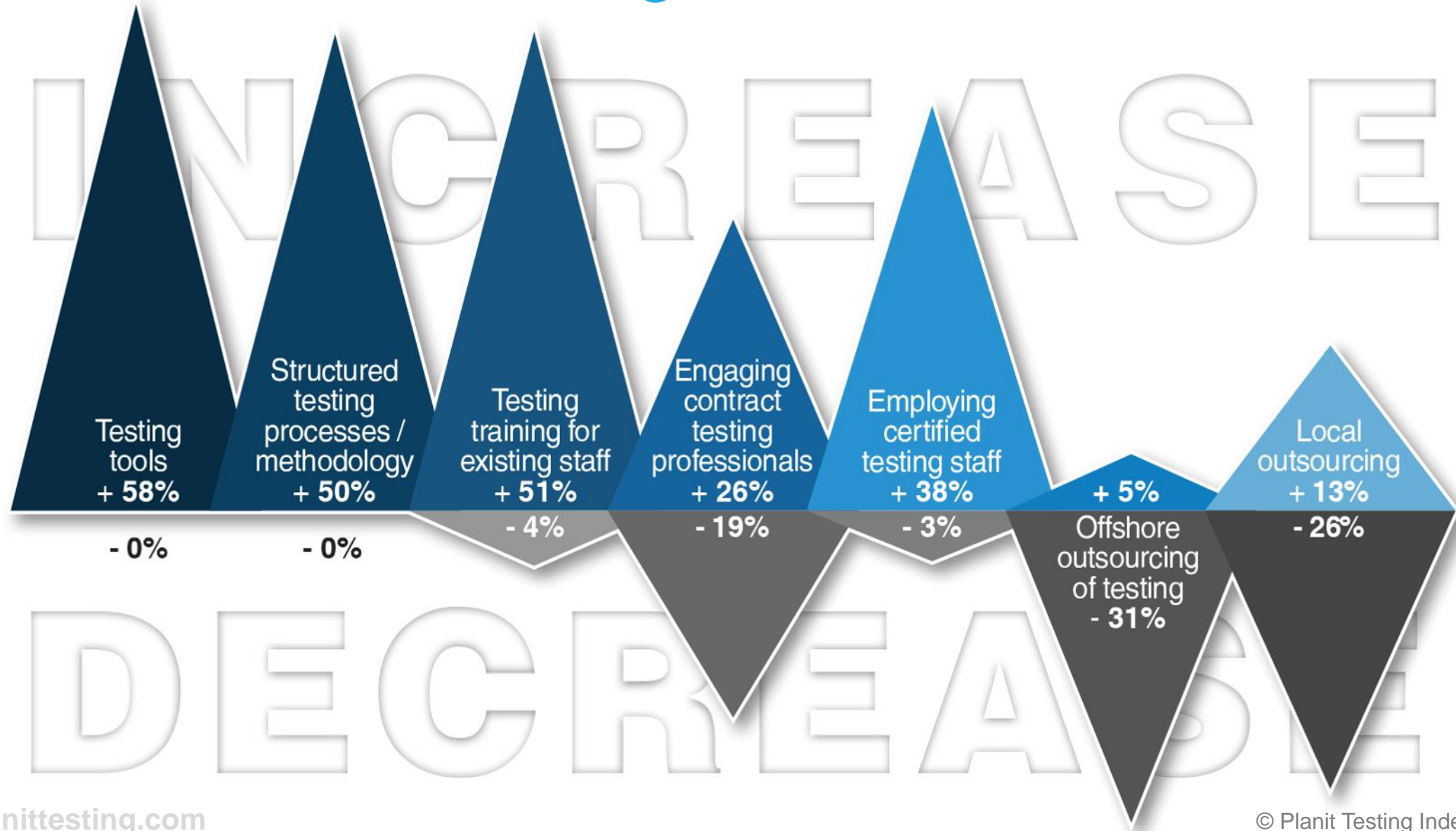
Investment in Testing - Overall

Testing tools
+ 47%
- 4%

Structured testing processes / methodology
+ 39%
- 6%

Testing training for existing staff
+ 39%
- 7%

Engaging contract testing professionals
+ 30%
- 19%

Employing certified testing staff
+ 28%
- 10%

Offshore outsourcing of testing
+ 15%
- 21%

Local outsourcing
+ 14%
- 21%

Investment in Testing - Australia
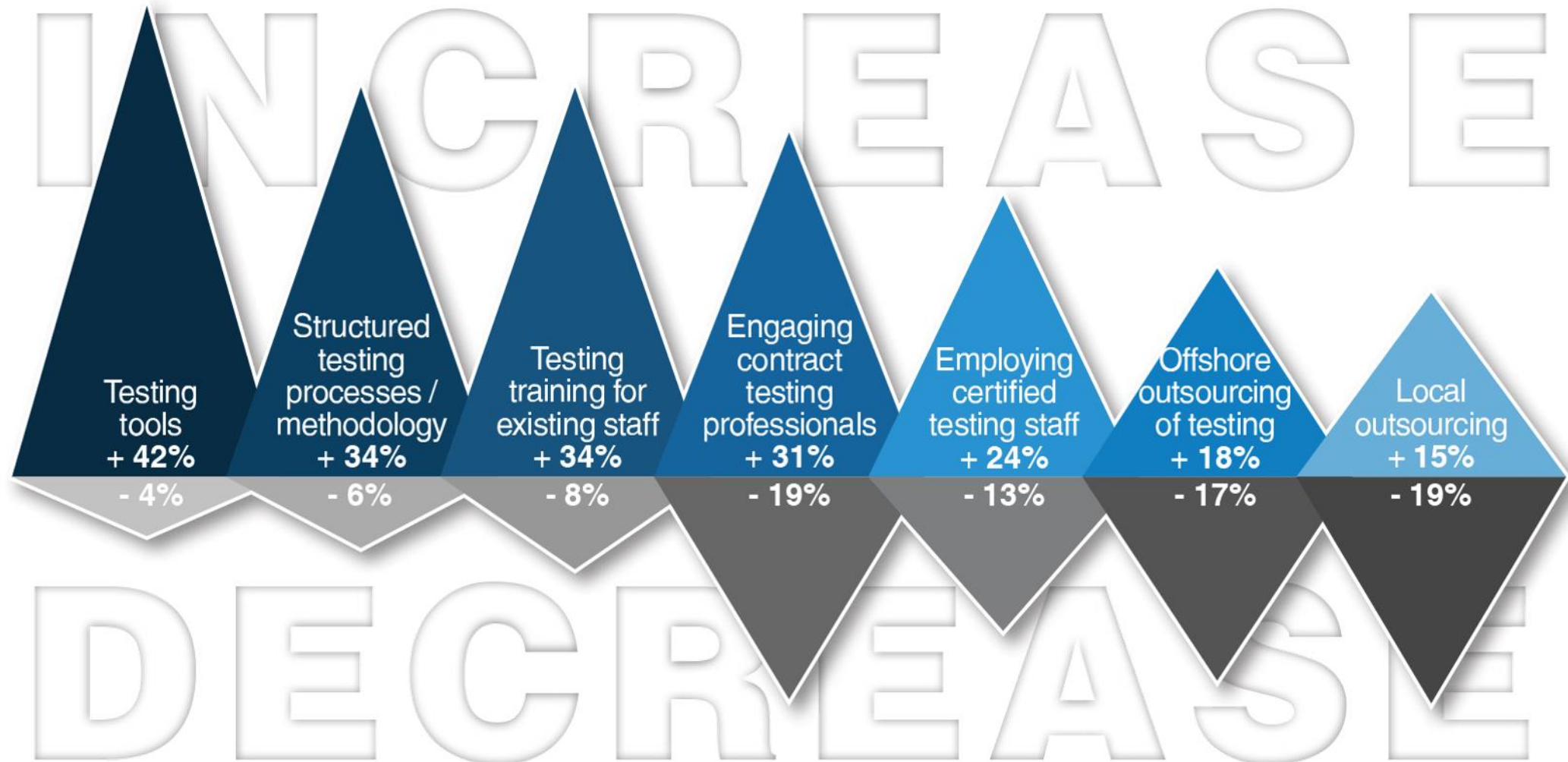
Presentation Summary

- Understand the benefits but we don't seem to be getting there
- Testing still starting late in the SDLC despite the push to Agile/DevOps
- Still bad at the same things: requirements, estimation and expectations
- Postponements/cancellations at an all-time high; less on-time; more over budget
- V-Model posting the best results but perception is that Agile is more successful
- Most organisations have a digital strategy or will have one
- Significant trends are Automation, Cloud, Tools, Agile, Mobile and DevOps
- Significant growth in cloud-based tools/services, JIRA and Selenium
- Overall drop in offshoring
- New Zealand investing heavily in training and employing certified testing staff

QUESTIONS?

Graham Davis
Director of Testing

www.planittesting.com