

EXCERPTS FROM THE PLANIT SOFTWARE TESTING INDEX 2013 | OCTOBER 2013

PLANIT TESTING INDEX 2013 AUSTRALIA & NEW ZEALAND

the **BENCHMARK** *in*
SOFTWARE TESTING
AND SYSTEMS ASSURANCE

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BETTER PLAN, BUDGET AND EXECUTE
IT PROJECT STRATEGIES

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Planit
SOFTWARE TESTING

ABOUT THE PLANIT TESTING INDEX 2013

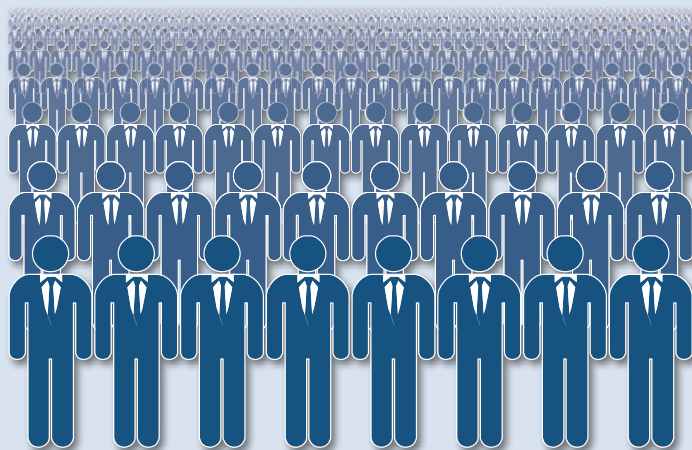
For years, the Planit Testing Index has been the leading survey of local software projects, garnering an unrivalled level of industry participation from across Australia and New Zealand.

Drawing on seven years of detailed historic data, the Index provides key insights into industry trends, acting as a solid foundation for strategic planning, budgeting and execution of quality assurance activities.

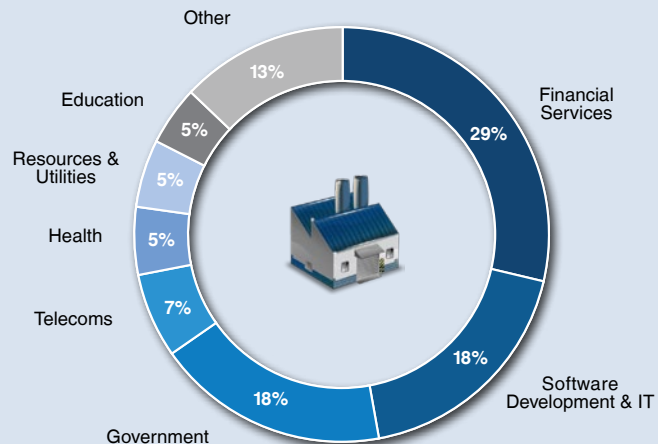
A significant increase in participation was registered in the latest survey, reaching a new milestone of 303 respondents – up 34 percent from 2012.

The 2013 Index attracted participants from a wide cross-section of industries. As in previous years, those industries best represented were financial services (29 percent), software development (18 percent) and government (18 percent).

In terms of sheer numbers, several other industries were better represented in 2013. These include telecommunications, health, education, resource and utilities.



303 survey respondents



Respondents by industry segment

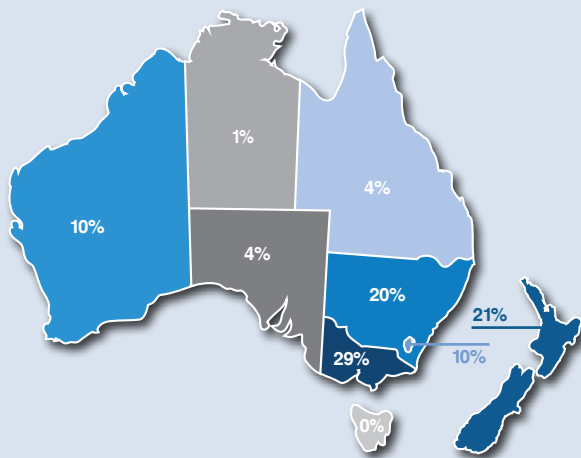
the BENCHMARK *in* SOFTWARE TESTING

The 2013 Planit Testing Index provides a comprehensive representation of the full spectrum of Australasian software projects across industry sectors, organisational sizes and the region.

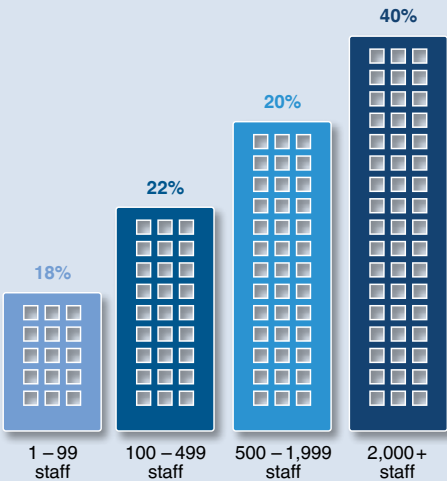
There were a few significant shifts in the geographic breakdown of respondents in comparison to the 2012 survey. Most notable was the rise in New Zealand respondents, registering an increase of 44 responses (up 220 percent).

Relatively minor changes were registered in the breakdown of respondents by organisation size, the biggest shifts coming among 100 – 499 staff companies and 2,000+ staff companies, decreasing and increasing by 5 percent respectively.

For the first time, there was over 50 respondents for each category of organisational size represented in the 2013 Index.



Respondents by region

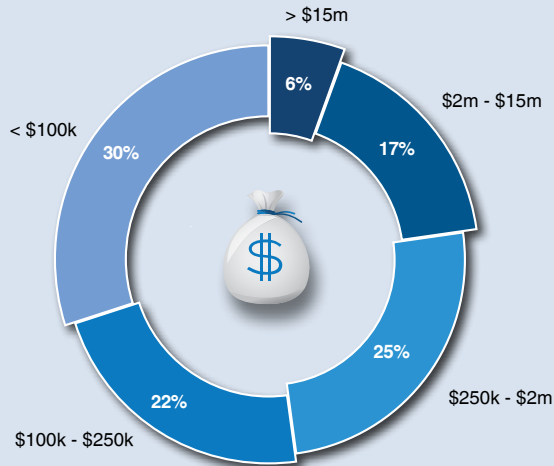


Respondents by organisation size

PROJECT BUDGETS

For the second consecutive year, the Planit Index reports on over 10,000 software projects. The majority of projects (52 percent) had a total budget of less than \$250k, with almost a third coming in below \$100k.

22 percent of projects were budgeted at over \$2 million, although only 6 percent of projects had budgets over \$15 million.

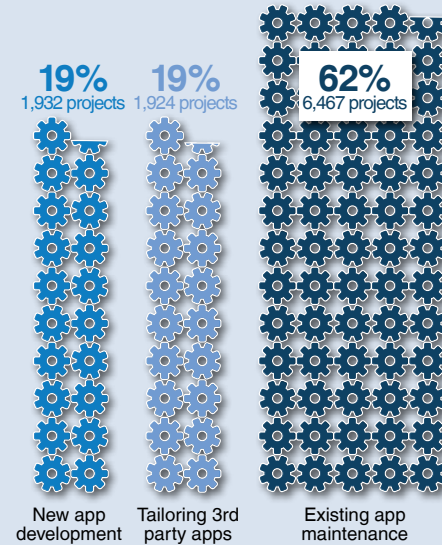


Projects breakdown by budget

PROJECT TYPES

Examining the past few years of Index data, more significant changes were evident when breaking down projects by type, including a significant increase in the share of software maintenance projects, reaching 62 percent of all projects for the 2013 Index.

Conversely, the percentage of new application development projects continues to fall from 33 percent in 2010 to 19 percent in 2013.

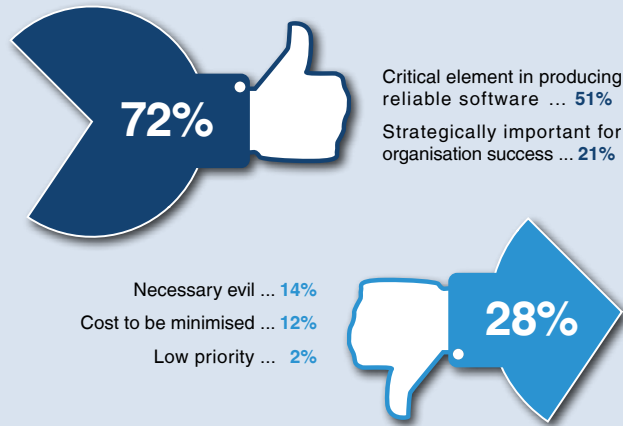


Project breakdown by type

ORGANISATIONAL VIEW OF TESTING

For the first time since 2009, over 50 percent of respondent organisations have identified testing as critical to producing reliable software. This was complemented with a further 21 percent who considered testing as strategically important to organisational success.

In spite of its recognised benefits, over a quarter of the respondent organisations maintain a relatively negative view of testing (up 2 percent). This includes a 4 percent increase in the number of organisations considering testing as a cost to be minimised (12 percent).

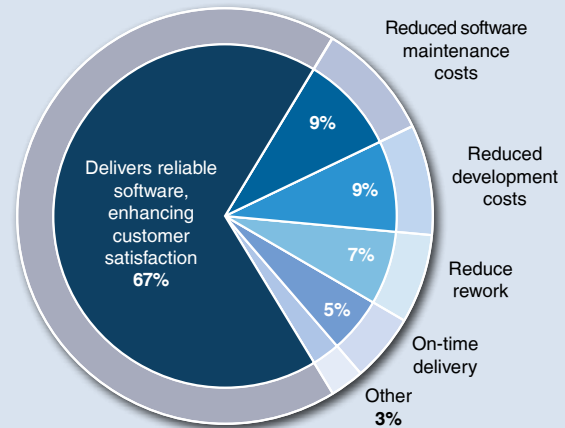


Organisational view of testing

BUSINESS CASES FOR TESTING

When justifying investment in testing, software reliability and improved customer satisfaction remains the dominant argument, being the primary business case for two thirds of respondents.

Still, 18 percent of primary business cases and 46 percent of secondary business cases for testing revolve around cost reduction. The majority of this being to reduce software maintenance costs.

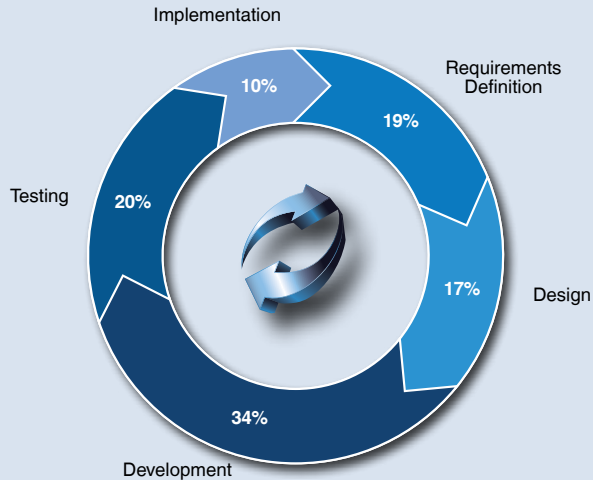


Primary business case justifications for testing

BUDGET ALLOCATION

Last year saw the first departure from testing's consistent 19 percent project budget allocation, with a rise to 22 percent. In 2013, testing appears to be returning to equilibrium, receiving a solid 20 percent of project budgets, second only to development that remains consistent at a third of project budgets.

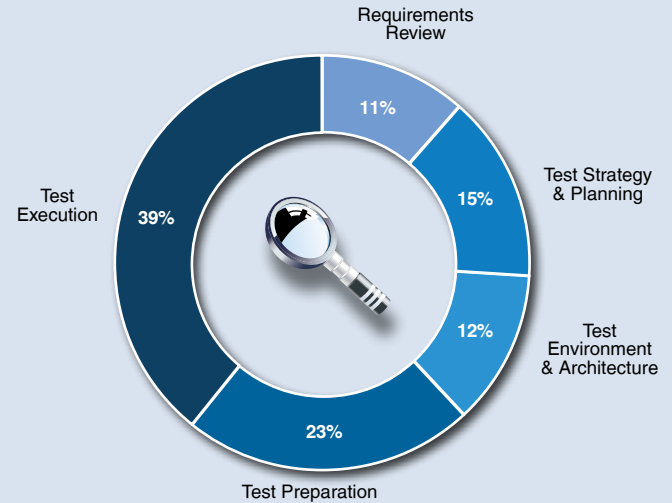
Meanwhile, investment in requirements definition continues to increase ever-so slowly as organisations recognise the correlation between excellent requirements and project success.



Budget allocation across project phases

TESTING ACTIVITY

Over the past three years, testing activity has been consistent with little change in the make-up of testing activity. The dominant category is test execution at 39 percent of the testing effort.

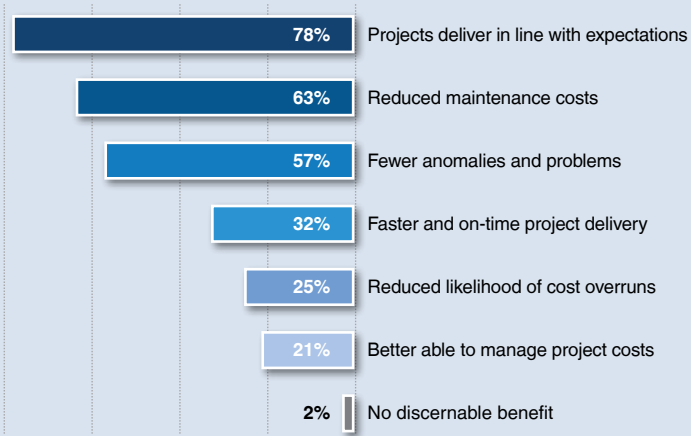


Breakdown of Testing Activity

BENEFITS OF TESTING

As in 2012, 98 percent of respondents realised significant benefits from software testing, most prominently being its ability to deliver project results in line with expectations (78 percent, up from 71 percent).

Other frequently observed benefits include fewer problems within the project and reduced maintenance costs once the project has been implemented.

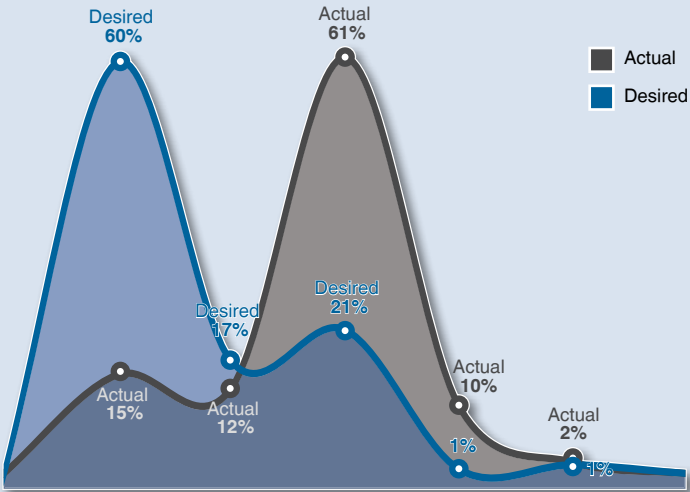


Benefits observed when increasing investment in testing

WHEN TESTING STARTS

As in previous years, there has been a significant difference between when testing activity starts and when the team would like to begin testing. Fewer and fewer projects are commencing testing in respondents' preferred phase of requirements definition, reporting its lowest level since 2009.

While the majority of respondents commenced testing during the development phase (61 percent), a similar portion would rather see testing commence several phases earlier during the requirements phase.



When testing started - Actual vs. Desired

PROJECT CONDITIONS

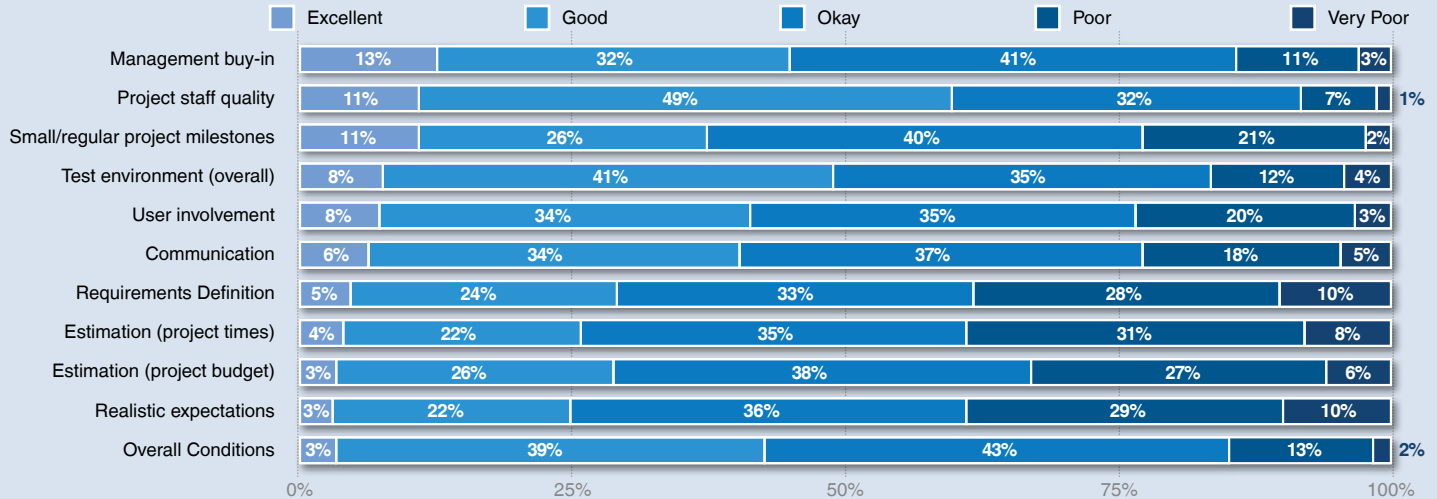
In 2013, the project conditions were considered to be relatively average overall, with 42 percent reporting 'good' or 'excellent' conditions.

When examining individual project conditions, those that reported the most positive response were:

- Project staff quality – 92 percent satisfied;
- Management buy-in – 86 percent satisfied;
- Test environment – 84 percent satisfied.

At the other end of the scale, opinions were less favourable in the areas of realistic expectations, requirements definition and estimation:

- Realistic expectations – 39 percent poor/very poor;
- Project timeline estimation – 39 percent poor/very poor;
- Requirements definition – 38 percent poor/very poor;
- Project budget estimation – 33 percent poor/very poor.

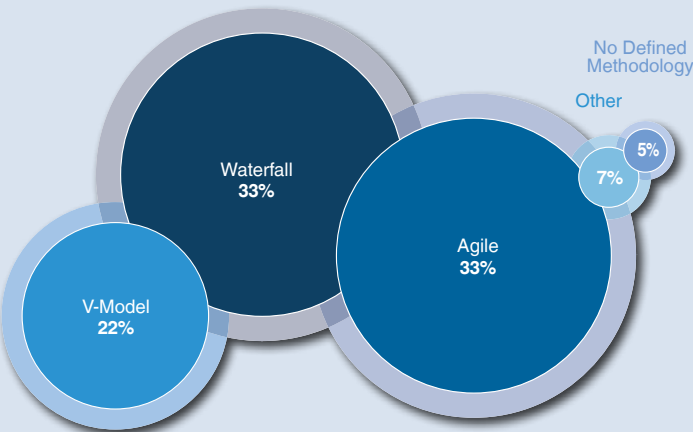


How would you generally rate the conditions for your software development projects in terms of the following criteria?

PROJECT METHODOLOGIES

For the first time in the seven year history of the Index, Waterfall shares its top spot in total project utilisation with Agile. Whilst project scale and budgets may vary, each of these methodologies account for a third of all software development projects.

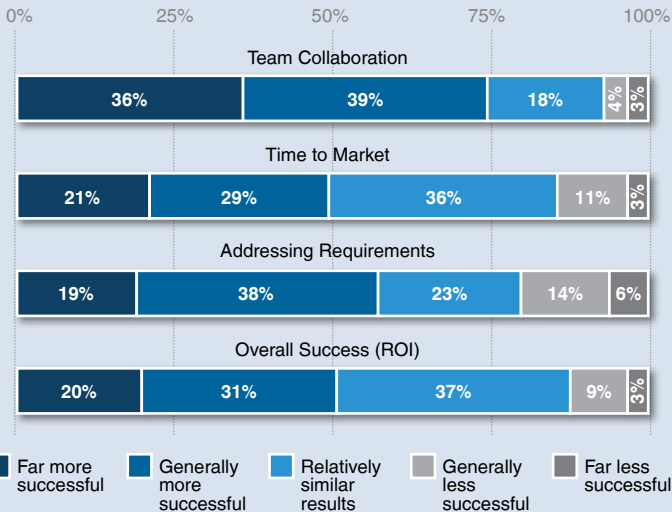
80 percent of respondent organisations are now applying Agile methods in some of their software projects. By comparison, Waterfall and V-Model are applied in 68 and 42 percent of organisations respectively.



Software development projects by methodology

The growth of Agile is partially due to positive market sentiment, with 88 percent of respondents considering Agile to be at least as effective overall as competing methodologies. Moreover, Agile registered an even greater response in key areas including:

- Improved team collaboration – 75 percent;
- At least as quickly to market – 86 percent;
- Addressing requirements as well if not better – 80 percent.

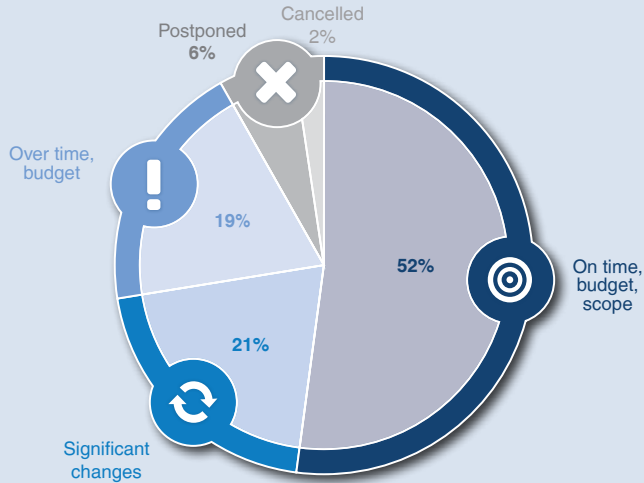


Success of Agile vs. other methodologies

PROJECT OUTCOMES

The 2013 Index marked a five-year high in project performance, with 52 percent of projects being completed on-time, on-budget and in-line with scope (up from 39 percent). Meanwhile, there was also a drop in the number of projects completed over time and budget (19 percent, down from 29 percent) and a drop in project failures (from 4 percent).

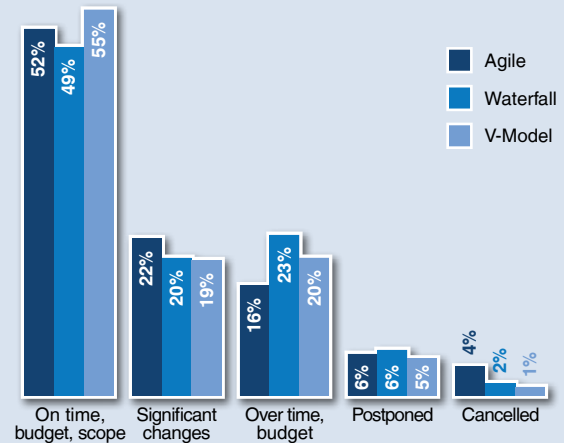
When examining outcomes against primary project methodology, V-Model again registered the most successfully (55 percent on time, budget and scope).



Project outcomes, main methodologies

Waterfall performed the most poorly (49 percent on time, budget and scope), and was most likely to complete over time and budget (23 percent).

Projects utilising Agile significantly improved their performance over the past year, more than half being completed on-time, budget and scope, up over 40 percent from 2012. Agile also reported the least over-time and budget projects (16 percent), down 11 percent, but did show the most project cancellations (4 percent).

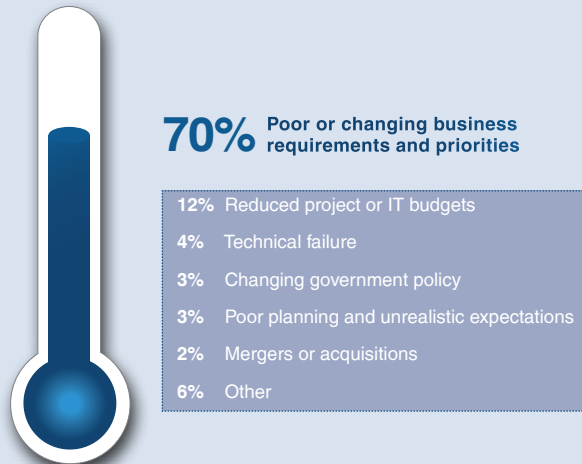


Project outcomes, by primary methodology

PROJECT FAILURE

Of the projects started in the past two years, an average of one project failed per participating organisation, with the majority of these failures being primarily due to poor or changing business requirements. Requirements engineering has long been recognised as the leading cause of project failure throughout the seven year history of the Index.

So dominant is the role of poor requirements in project failure that the only other cause registering double digits is reduced project or IT budgets, being the primary cause of failure in 12 percent of cases.



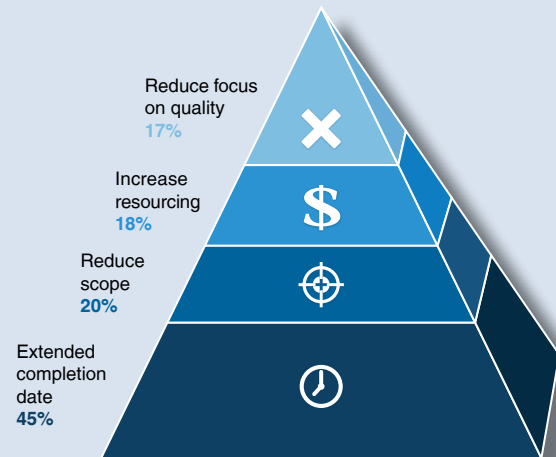
Primary causes of project failure

When projects come under pressure the top priority among almost two thirds of organisations is to maintain quality and scope, with:

- 45 percent extending project timelines (down 7 percent); and
- 18 percent increasing the budget (up 4 percent).

However, the remaining third of respondents were more happy to compromise:

- 20 percent reduce project scope (up 1 percent); and
- 17 percent reduce focus on quality (up 2 percent).

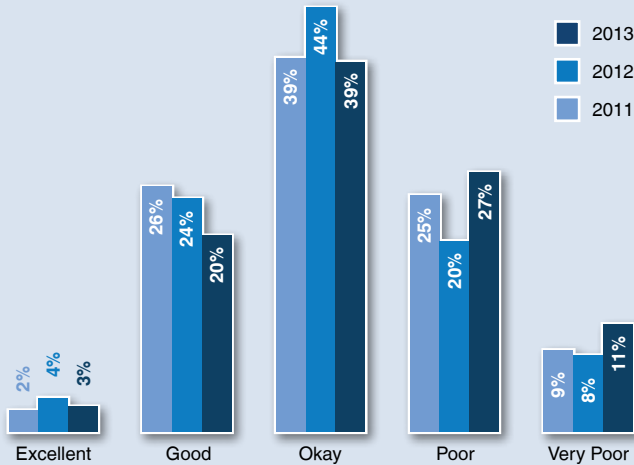


Strategies when a project comes under pressure

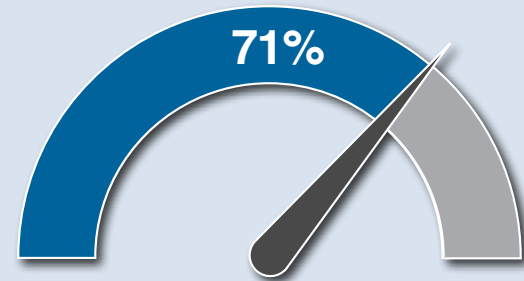
REQUIREMENTS ENGINEERING

Once again the quality of requirements has been poorly rated by the majority of respondents, with the percentage rating either 'good' or 'excellent' at an all-time low. Over a third of 2013 respondents classified their requirements definition capabilities as 'poor' or 'very poor'.

The general concern over quality of project requirements is reinforced by the 99 percent of respondents who conceded that they can benefit from improving the requirements engineering process.



Rating your requirements definition



71% ... Significantly benefit from improving requirements

28% ... Somewhat benefit

1% ... Would not benefit

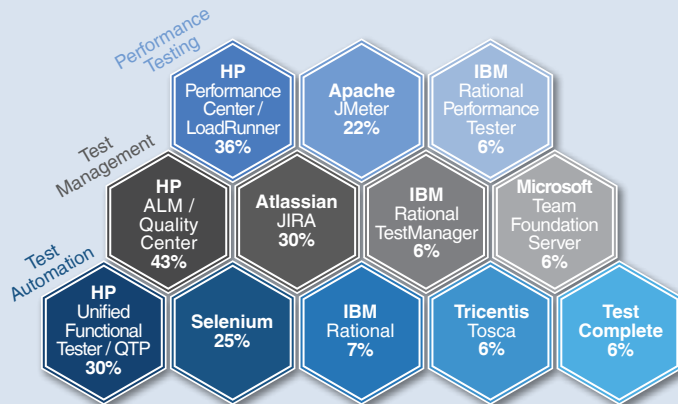
Benefit expected from improving requirements

SOFTWARE TESTING TOOLS

Continuing its dominance, HP leads the Australian and New Zealand tools markets in test management, test automation and performance testing, being utilised by 43, 30 and 36 percent of participating organisations respectively. Moreover, around 90 percent of those respondents with HP tools tend to use them as their primary tool.

In test management, the other noteworthy player is Atlassian's JIRA tool, utilised by 30 percent of participating organisations, half of whom use it as their primary test management tool.

Competing relatively closely behind HP's UFT/QTP automation tools is Selenium, utilised by 25 percent of organisations, over half of whom use it as their primary automation tool.

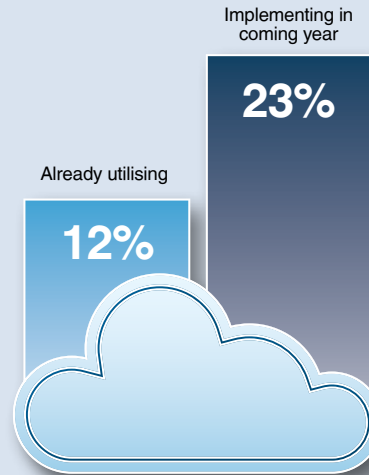


Test tool utilisation

Competing with HP's performance testing tools, JMeter is utilised by over a fifth of organisations, two thirds of whom use it as their primary performance testing tool.

With much talk around software moving to the cloud, only 12 percent of respondents are currently using SaaS tools (up by 2 percent). If intentions to switch are realised, this would stand to shift significantly by mid-2014, reaching an uptake of 35 percent.

Given that 80 percent of organisations who intended to switch to the cloud over the past year never realised this transition, it seems likely that SaaS tool uptake will remain below 20 percent come the 2014 Index.

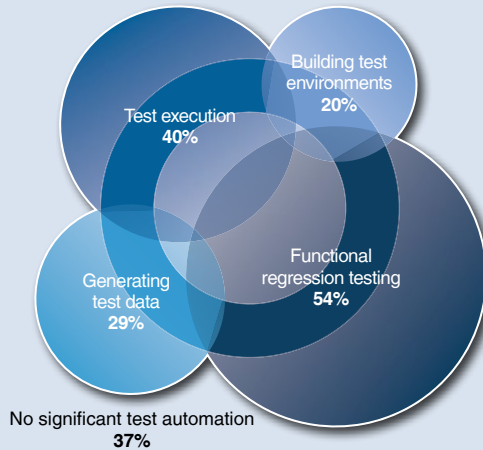


Demand for SaaS Test Tools

TEST AUTOMATION

The past year has seen a positive shift towards test automation, albeit a minor one with a 7 percent aggregate increase across the four surveyed applications of test automation. The most significant rise was registered in its applications for functional regression testing (up 3 percent), being utilised in this capacity by 86 percent of organisations who utilise a significant amount of automation in their testing.

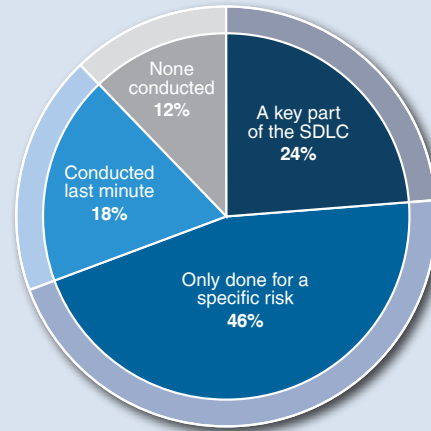
Despite the efficiencies and significant potential savings associated with test automation, 37 percent of organisations are still not utilising this in any capacity.



How test automation is utilised

PERFORMANCE TESTING

The uptake of performance testing over the past year has been a near mirror-image of the results from 2012, with an equal portion of organisations conducting it as a key part of the SDLC (24 percent) as well as those who conducted no performance testing at all (12 percent).



How performance testing is conducted

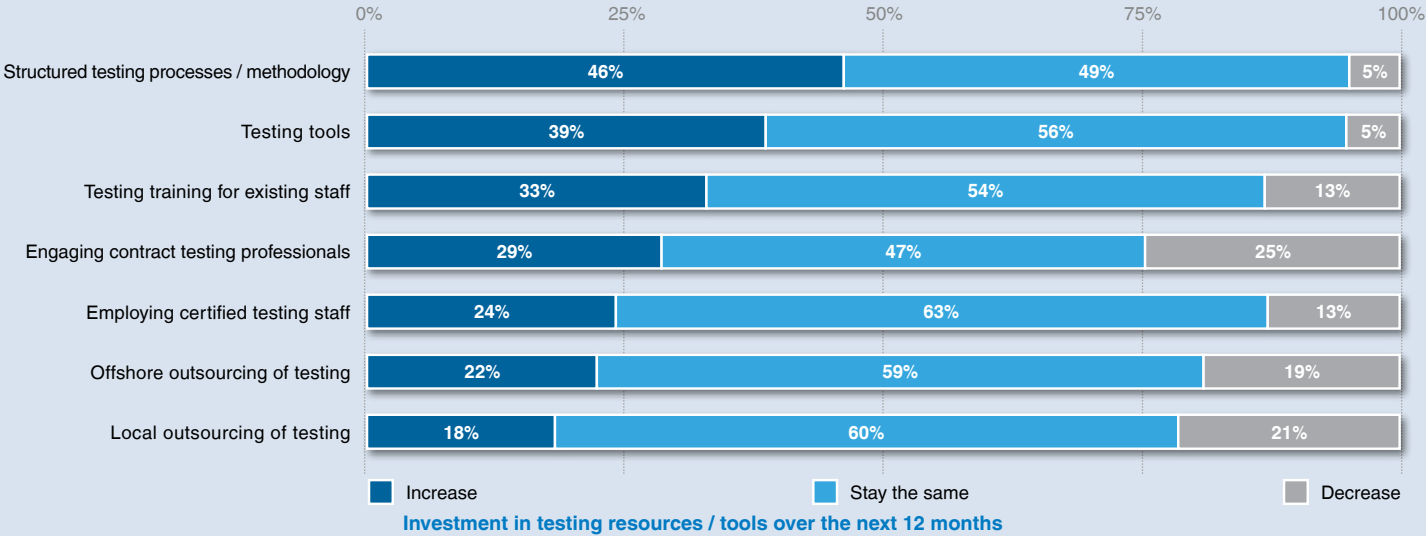
INVESTMENT IN TESTING

The past year saw solid growth in project activity, closely matching the forecast with 54 percent of organisations registering an increase (57 percent forecasted). The coming year is expected to be even busier, with 81 percent forecasting at least as much project activity.

To cater for this, organisations are primarily looking to act smarter, with 46 percent investing more in structuring testing processes and methodologies and 39 percent supporting employees with increased investment in test tools.

Other areas that are expected to see a significant increases in investment are training for existing staff and employment of certified testing staff, with a net shift of organisations increasing investment by 20 and 11 percent respectively.

While overall organisational investment is looking to increase (average net increase of 16 percent per category), there are several areas in which net investment looks to remain relatively stable.





CONFIDENCE IN *your* SYSTEMS

BENEFIT FROM THE EXPERTISE OF 500 SKILLED PERMANENT SOFTWARE TESTERS & BUSINESS ANALYSTS

Planit is a leader in its field, offering a full suite of software testing and business analysis services. Planit services clients ranging from small software development houses through to large multinational corporations.

Planit's software testing staff are exposed to multiple industries and projects, bringing a wealth of knowledge to any project – they are able to use their past experience to add value from day one.

Planit can be engaged for both the long term and short term, thus providing the comfort of knowing that whatever your project timeframes, they can be met.

Our software testing staff must not only pass our strenuous review process but also a rigorous, time-pressured entrance exam before they join Planit, which allows us to recruit only the best people who truly know their testing.

TESTING SERVICES

Test Delivery

Planit offers various levels of testing personnel from junior testers through to senior test program managers. This allows clients

to leverage our skilled team to suit their project resourcing needs, from full teams to individual testers as required.

Consulting and Advisory

Planit can define the overall direction for software testing within an organisation, offer an independent evaluation on existing test practices and provide recommendations for ongoing improvements and guidance.

Technical Testing Services

Planit provides training, independent advice and implementation services for the use of software testing tools, as well as Performance Testing and Test Automation functions.