The effect of an inclusive innovation culture on administrative innovations in Australian and NZ universities

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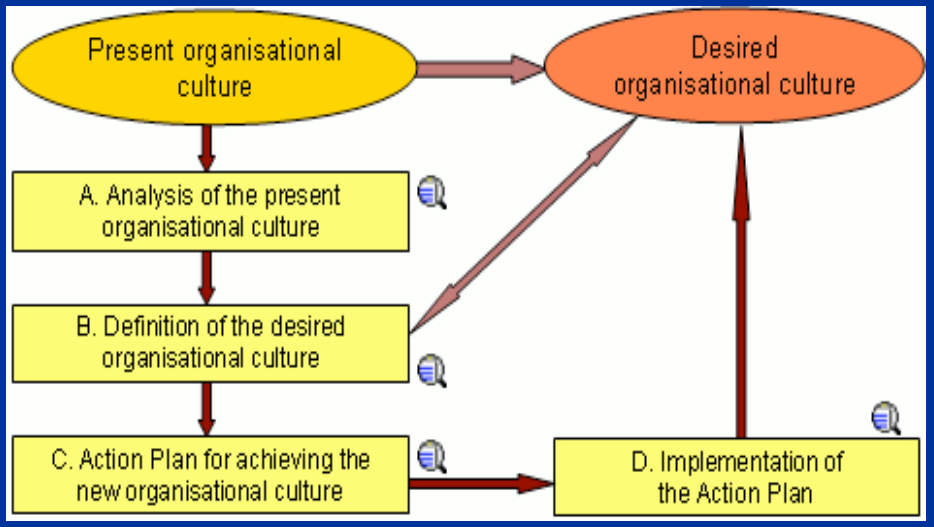

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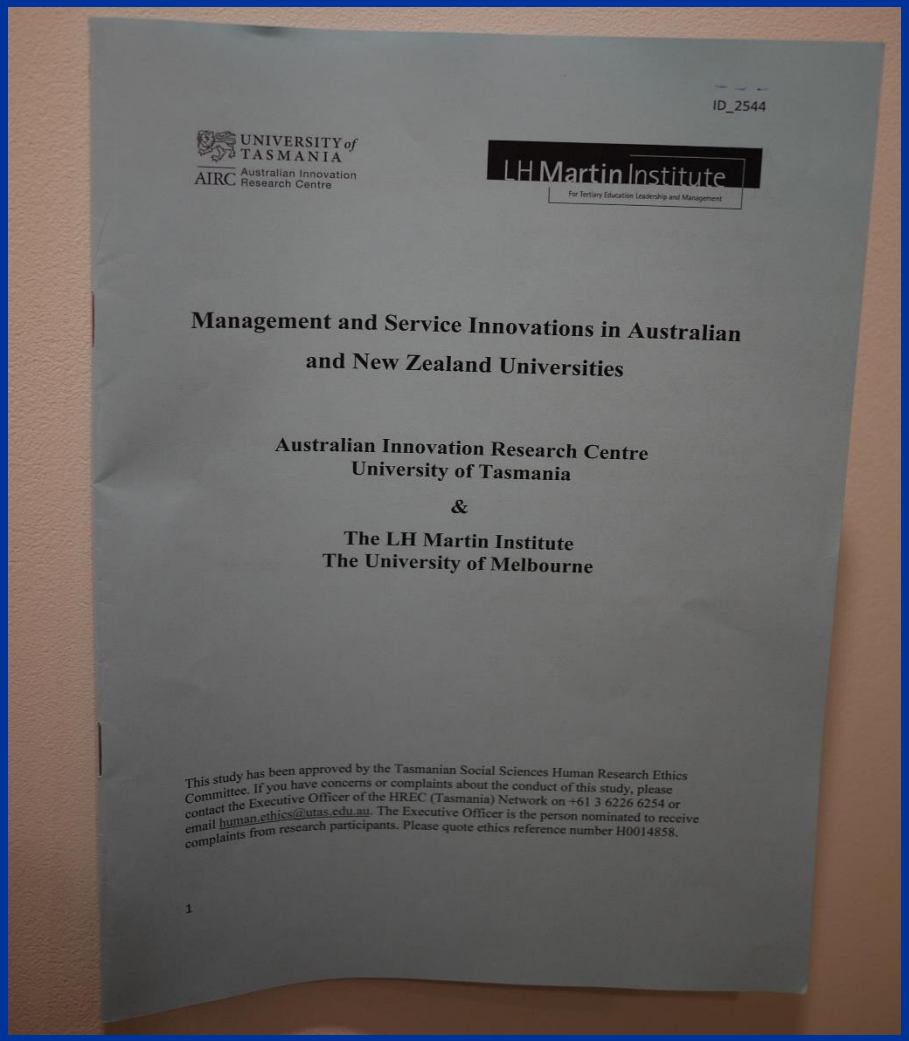
Online and mailed survey

- 39 Australian universities
- 6 New Zealand universities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UNIVERSITY of TASMANIA
AIRC Australian Innovation Research Centre

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Management and Service Innovations in Australian and New Zealand Universities

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University of Tasmania
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This study has been approved by the Tasmanian Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on +61 3 6226 6254 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H0014858.

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Survey methods

- Questionnaire sent to 1,516 senior managers in **10 functional areas** (Library services, governance, IT services, etc.)
- 573 respondents (37.8% response rate)
- Responses from all targeted universities (45 in total)
- Questions refer to the respondent's "area of responsibility"
- Reference period of two years

Questionnaire sent to Senior Managers at the level directly below the Senior Executive

We excluded the Senior Executive to collect information on:

1. How innovation occurs
2. Involvement of all administrative staff in innovation
3. The ‘innovation culture’

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+ Innovation culture

Drivers

Ideas

Methods

- Design thinking
- Brainstorming
- Collaboration
- Working groups
- Training

- Risk aversion

Revisions

Good outcomes

Bad outcomes

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General information	Innovation environment	Innovation methods
Time in current position	Drivers	Use of Information sources
Number of staff	Competition	Funding & resources
Restructuring	Supportive environment	Staff involvement
Types of innovations	Inclusive innovation culture	Use of design thinking methods

Function

Two year reference period for all questions

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Most important innovation

- Novelty of innovation
- Source of the idea
- Use of collaboration
- Number of staff involved
- Outcomes

Abandoned or under-performing innovation

- Purpose of innovation
- Causes of failure

Obstacles to innovation

- Causes of obstacles

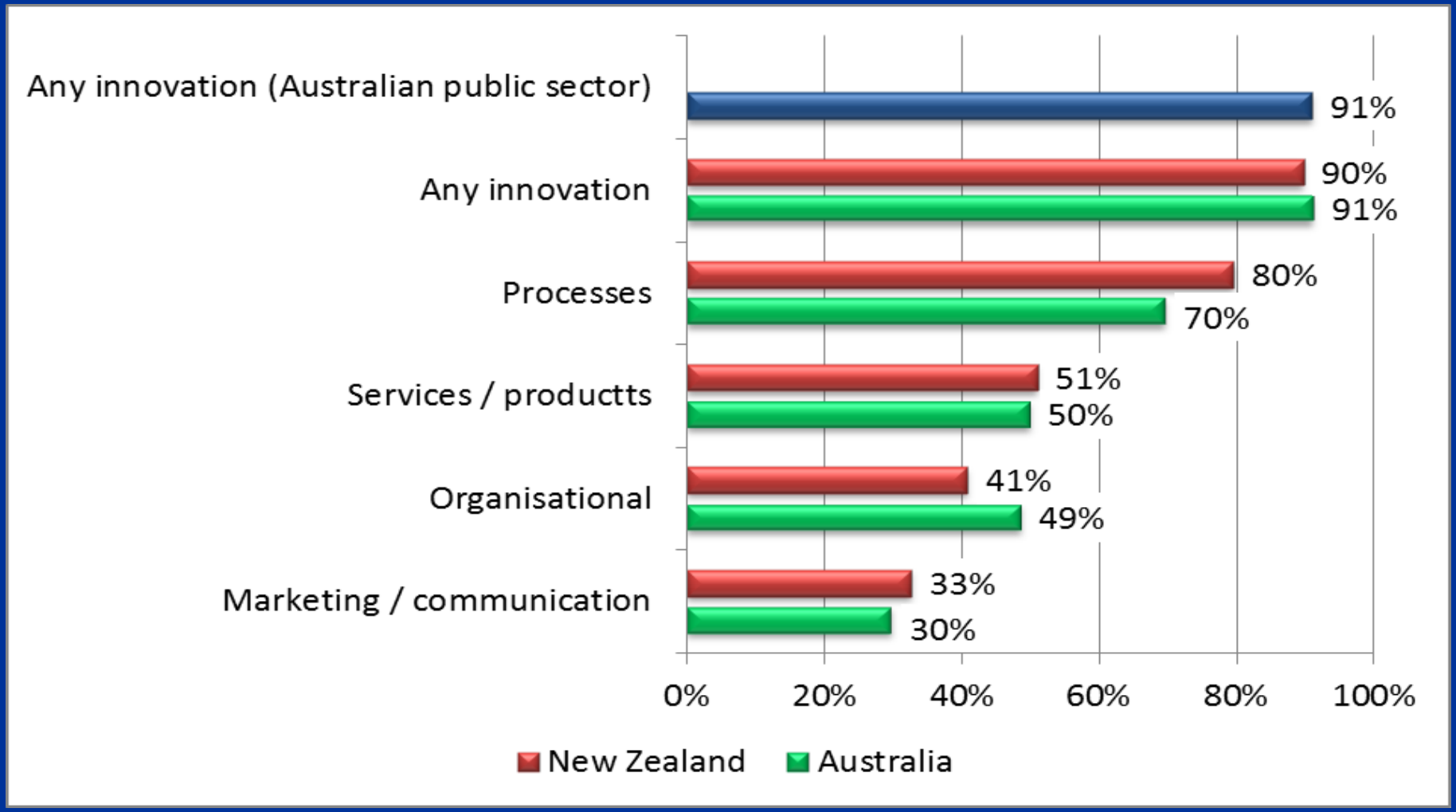
Most important innovation = greatest expected impacts on the respondent's area of responsibility, university, students, or staff

Examples of the most important innovations

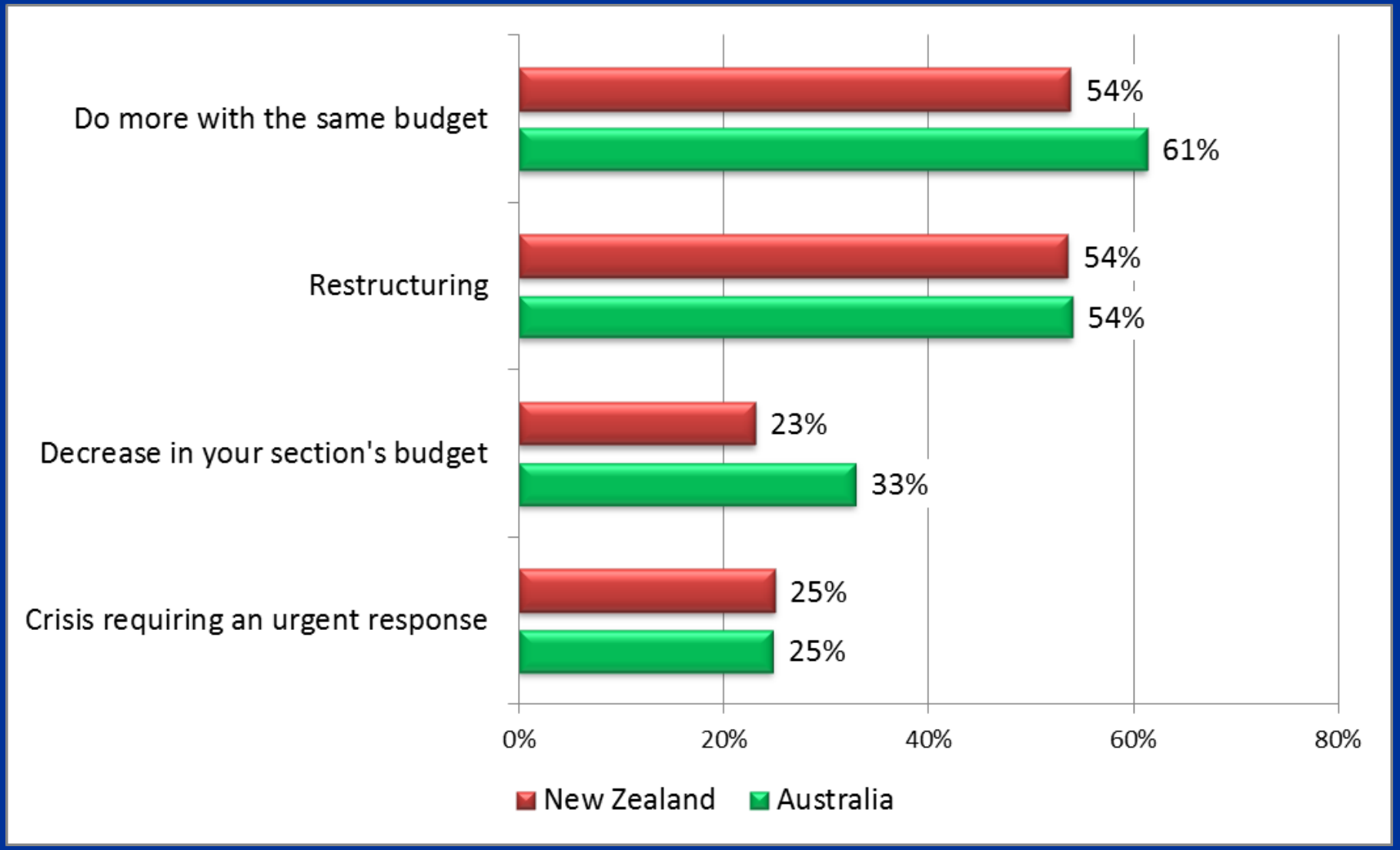
- New form of therapy for university students.
- Enrichment program for high-achieving high school students.
- Customized website to provide career development strategies to international students.
- Online suite of resources to assist students in managing social media.
- Mobile app to allow students to manage their courses, lectures and tutorials from a smartphone.


Many results pointing to excellent innovation performance

Percent innovators, by type of innovation



‘High importance’ innovation drivers, percent respondents



Methods to support innovation

Widespread use of 'best practice' innovation methods

- **52%** of respondent's staff involved in brainstorming meetings to develop ideas for innovations.
- **61%** of respondents delegate responsibility for an innovation to an individual.
- **73%** of respondents report collaborating on their most important innovation.
- **Majority** of respondents use design-thinking methods.

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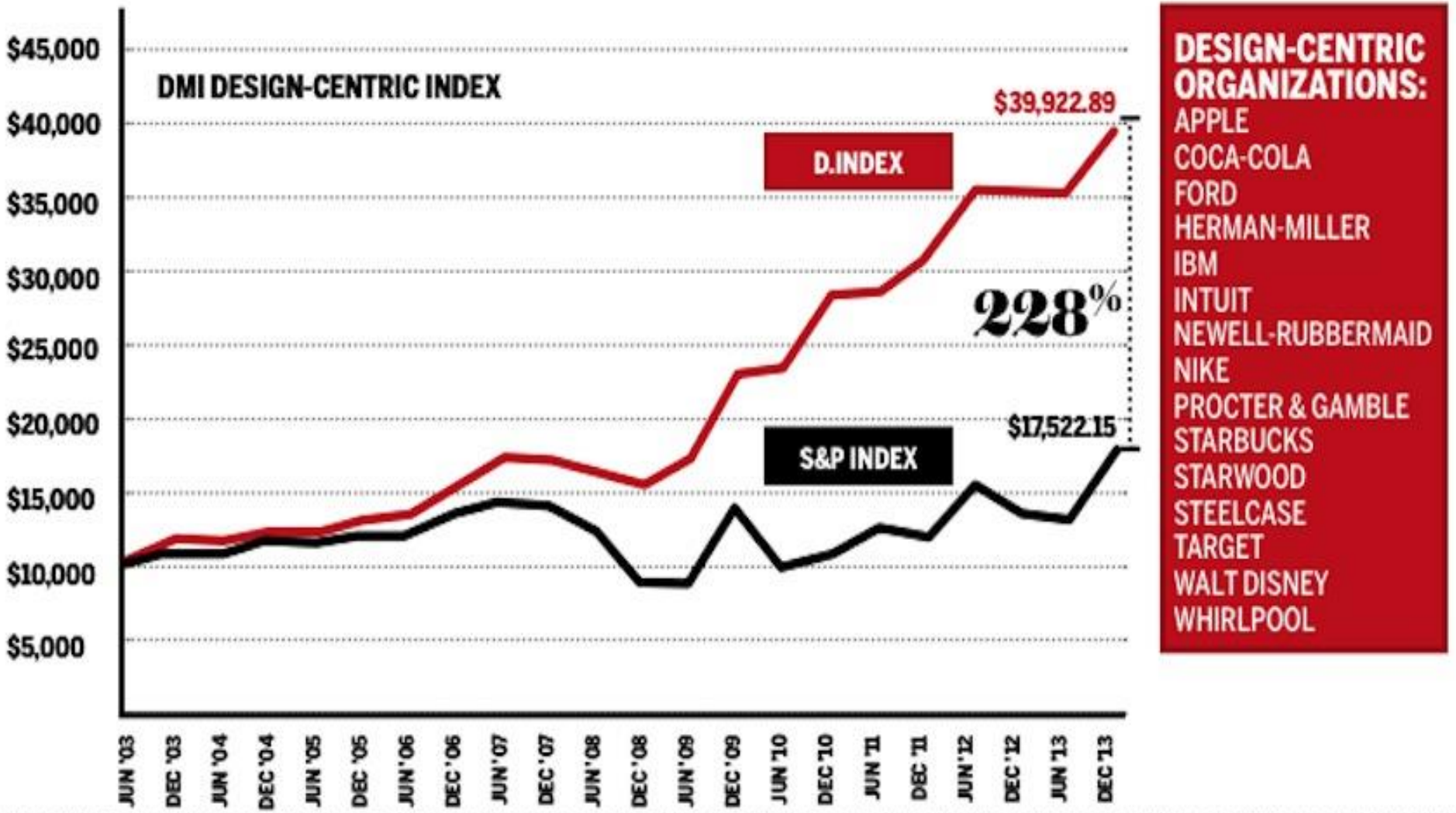
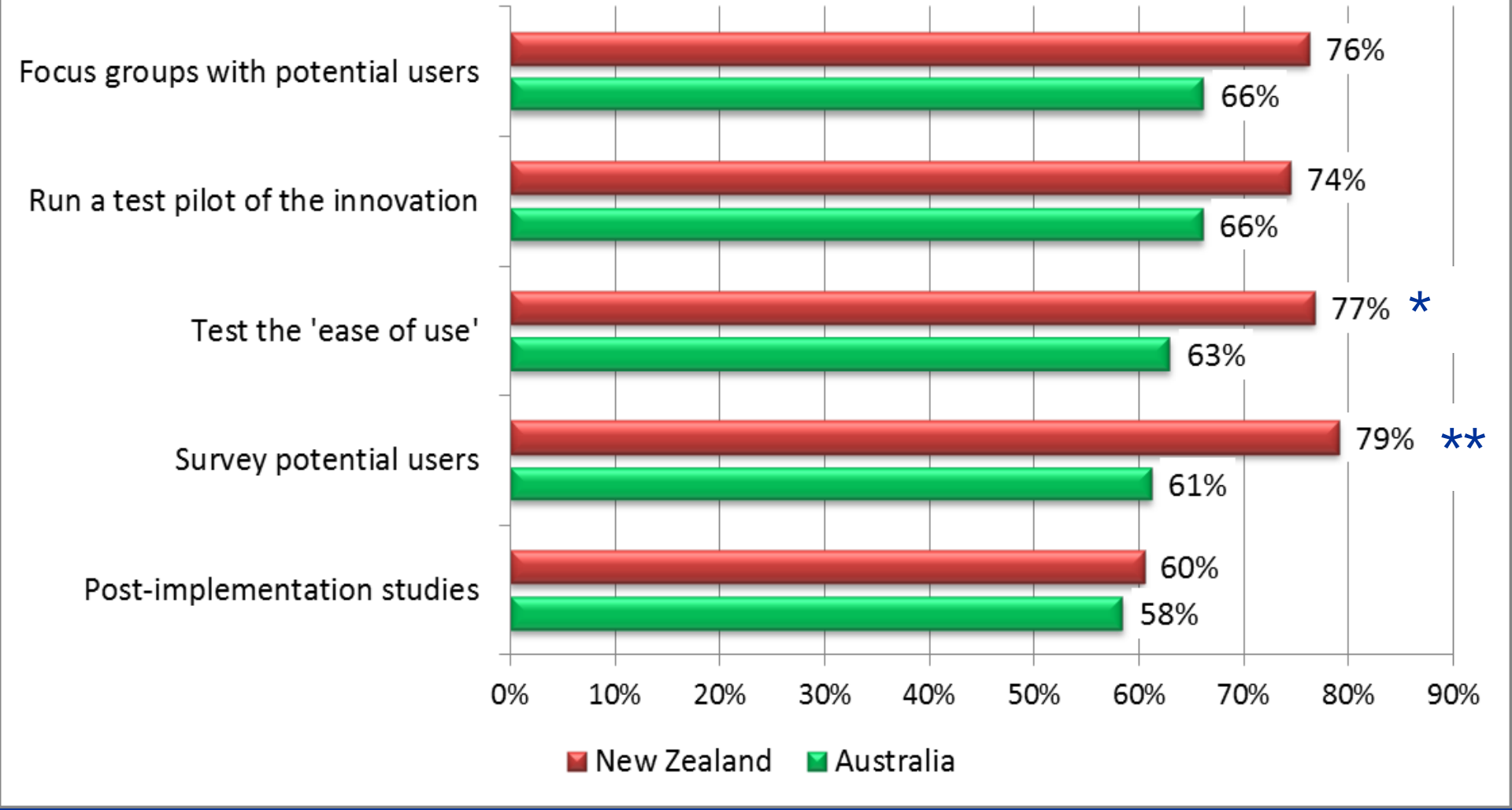
Businesses that use design-thinking (co-creation) methods to innovate perform better than non users



Use of design-thinking methods, percent respondents



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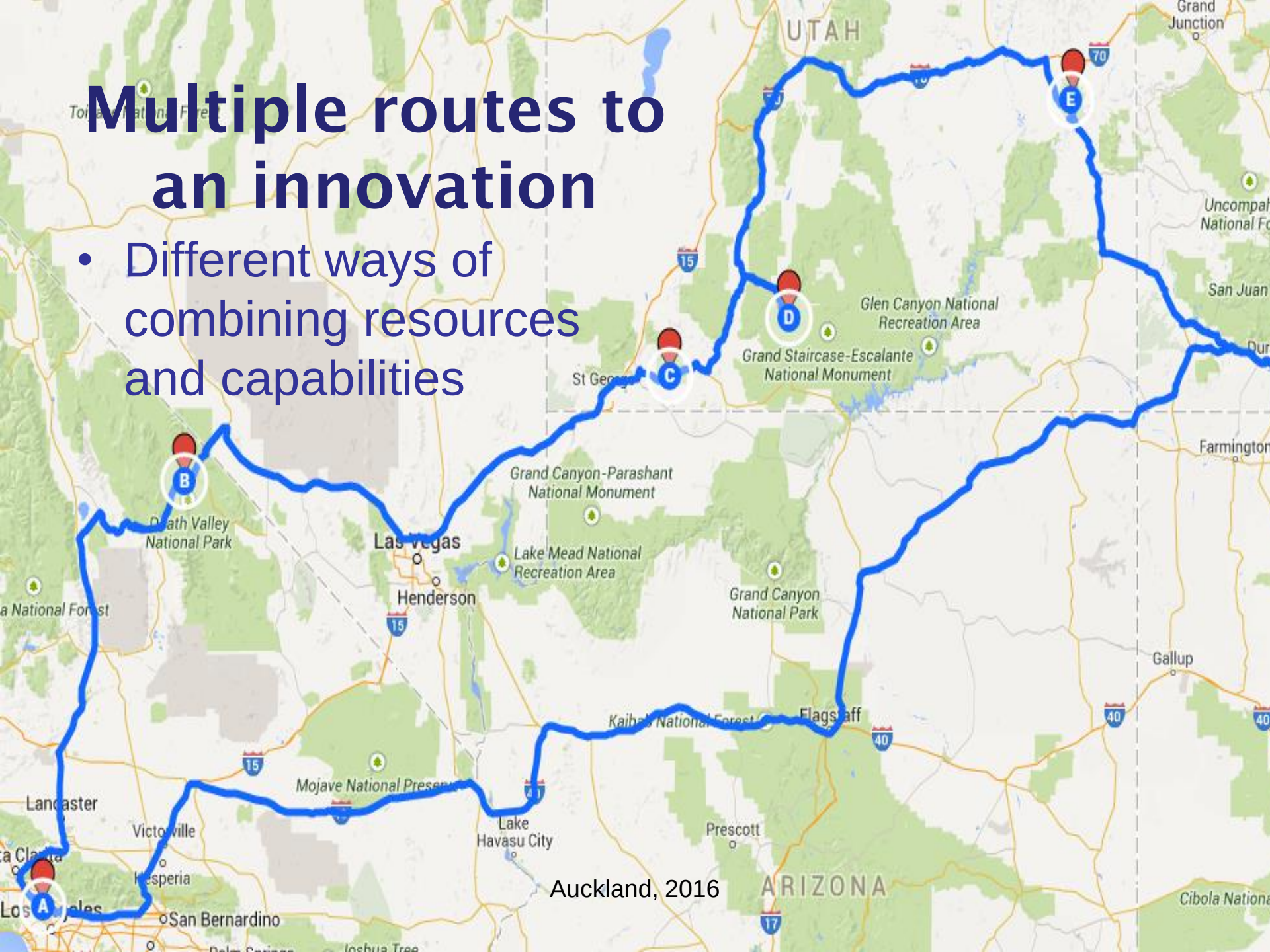
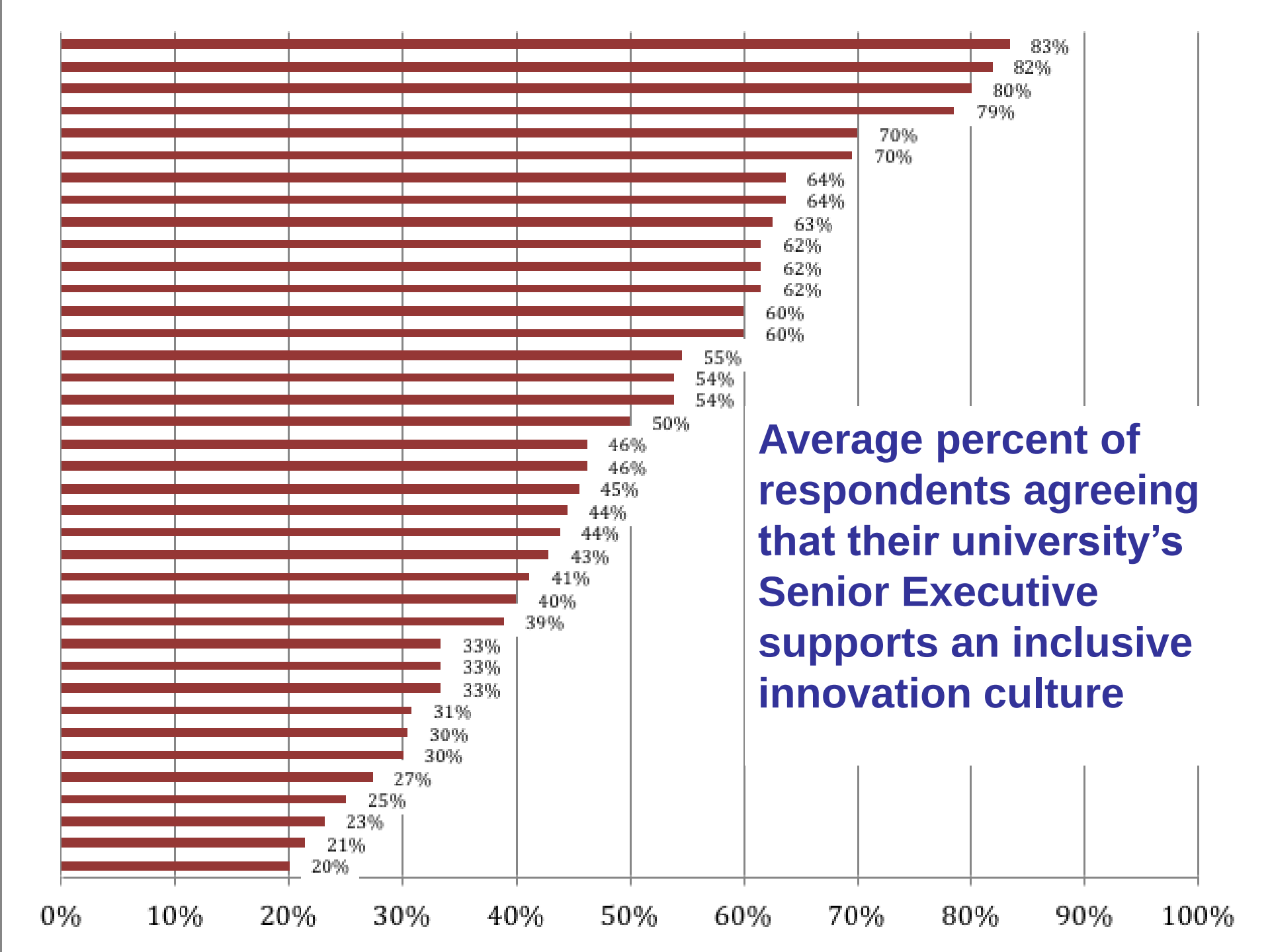
Multiple routes to an innovation

- Different ways of combining resources and capabilities

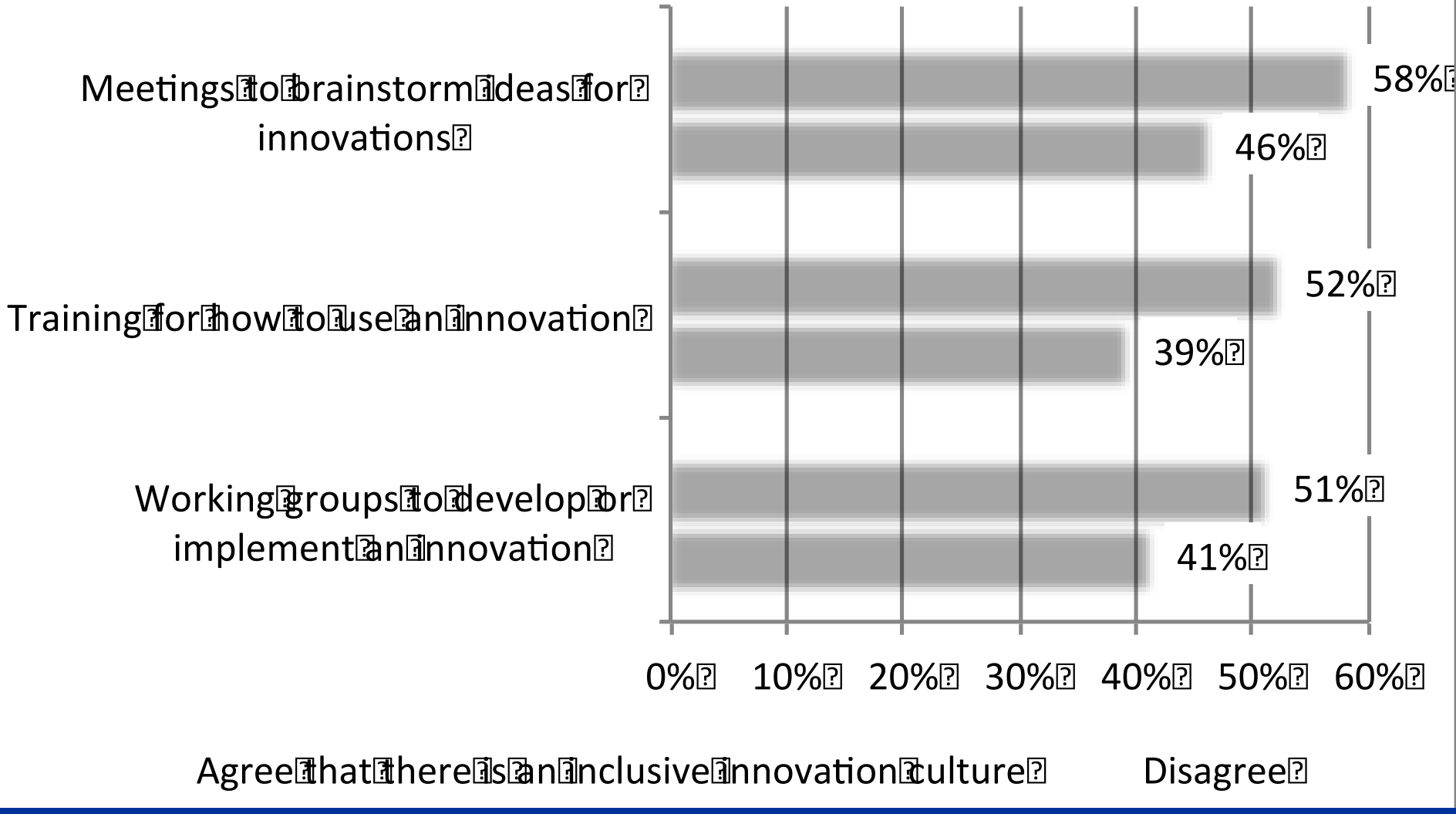


49% of respondents agree that their "Senior Executive support a positive innovation culture that includes all staff." (inclusive innovation culture)



Average percent of respondents agreeing that their university's Senior Executive supports an inclusive innovation culture

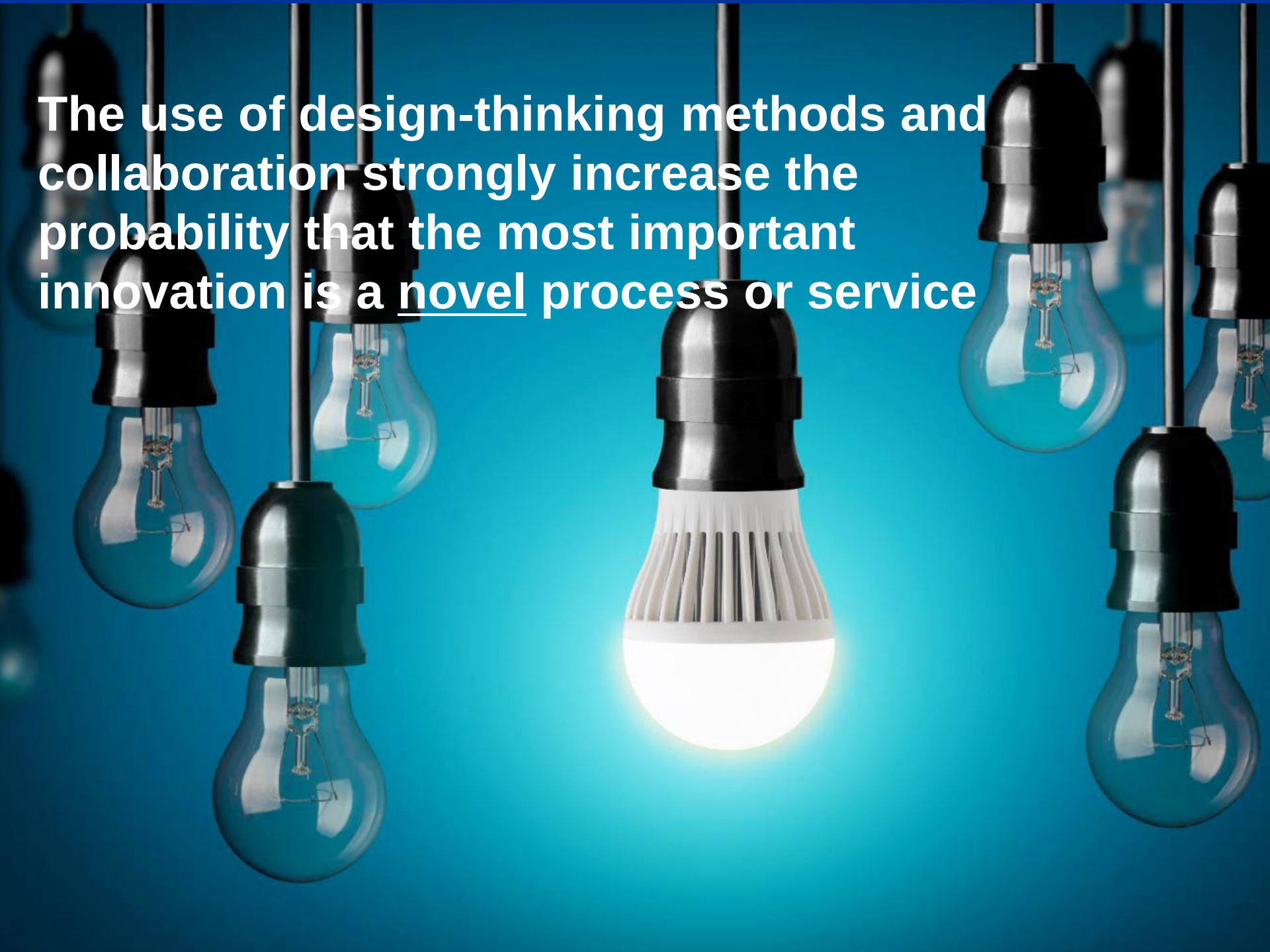
Share of staff involved in three innovation support methods by agreement with an inclusive innovation culture



Effect of an inclusive culture on the use of design thinking methods

Design-thinking method	Odds ratio	p
Conduct project user or focus groups	1.9	.029
Surveys of potential users	2.2	.004
“Ease-of-use” surveys	2.7	.001
Pilot tests of an innovation	1.9	.033
Post-implementation studies to identify problems	2.1	.012

Results from logistic regressions that control for innovation type, reasons for innovating, restructuring, number of staff, and function
Comparison between ‘agree’ with an inclusive culture versus ‘disagree.
Evidence for a dose-response effect for all methods.

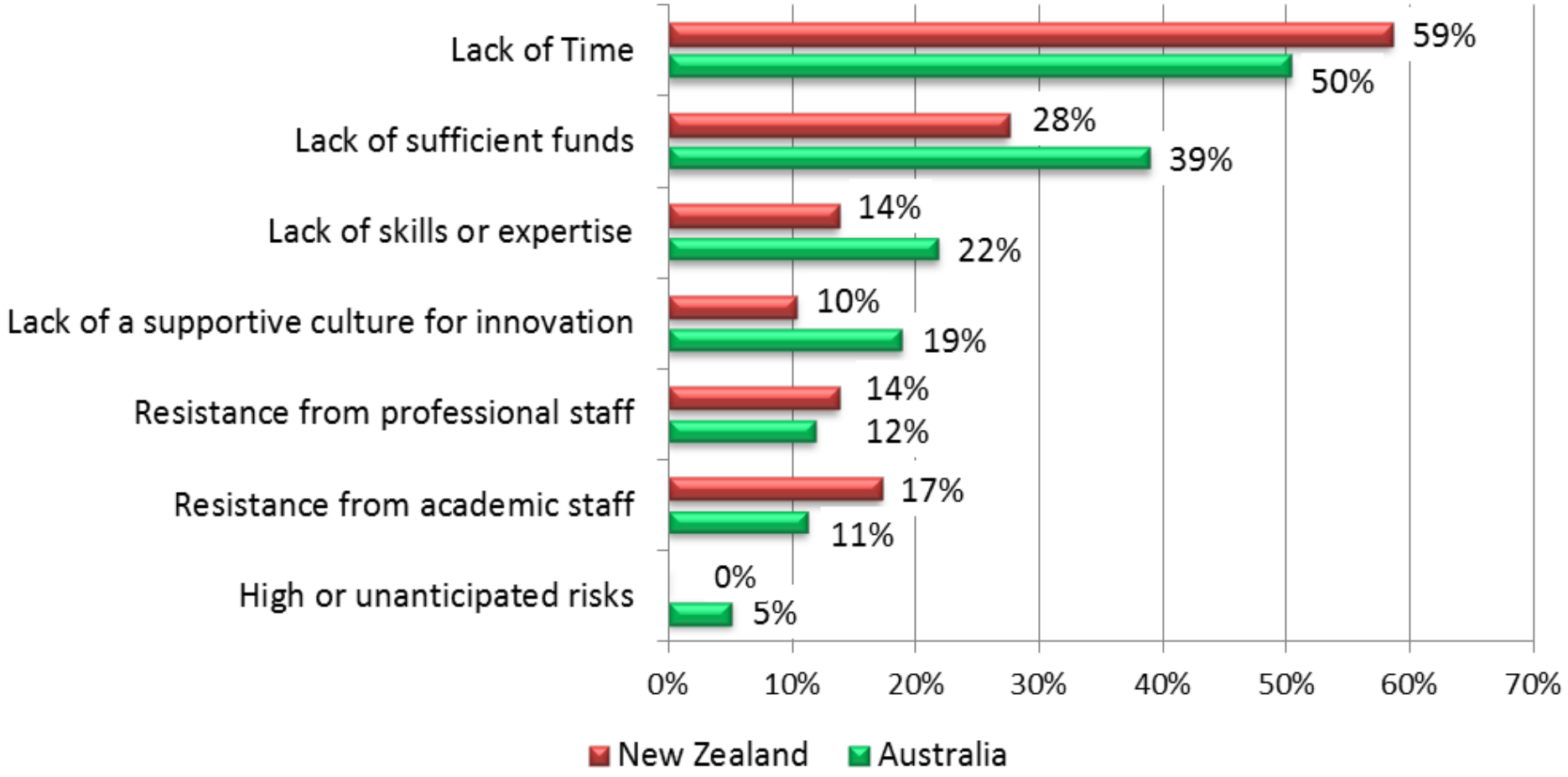

The use of design-thinking methods and collaboration strongly increase the probability that the most important innovation is a novel process or service


What doesn’t work?

A lack of support for an inclusive innovation culture doubles the probability of an abandoned or underperforming innovation

A budget cut increases the probability of abandonment or underperformance by 60%.

‘High importance’ innovation obstacles, percent innovators



The odds of reporting each of three obstacles that are measures of a lack of resources (skills, funding and time) decreases substantially in the presence of an inclusive culture (Odds of 0.32, 0.24 & 0.12).

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The main factor **increasing** the reporting of all resource obstacles is when innovation is driven by a **crisis requiring an urgent response** (Odds of 2.2 to 2.8)**.**

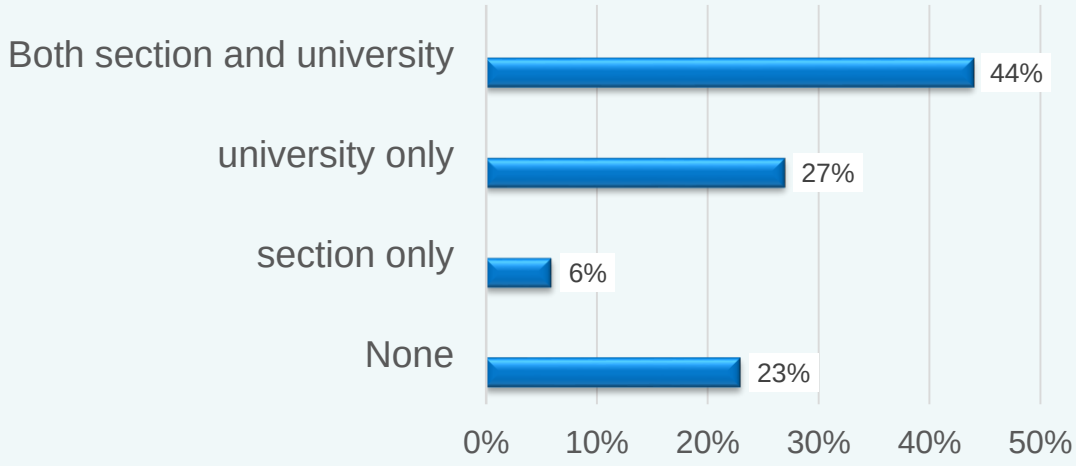
Negative effects of the most important innovation

1. University's brand or reputation
2. Simpler or faster processes
3. Increase in revenue
4. Employee working conditions
5. Student experience
6. Teaching and learning
7. Research
8. Reduction in costs

Factors correlated with one or more negative effects from the most important innovation (MII)

- The absence an inclusive culture increases the odds of a negative effect from the MII by 2.5 times.
- When the idea for the MII is obtained from the Senior executive versus the respondent, the odds of a negative effect is increased by 1.9 times.
  - (respondent better informed or tries harder?)

Restructuring



Only 7% of reported ‘most important’ innovations involve restructuring

Restructuring effects

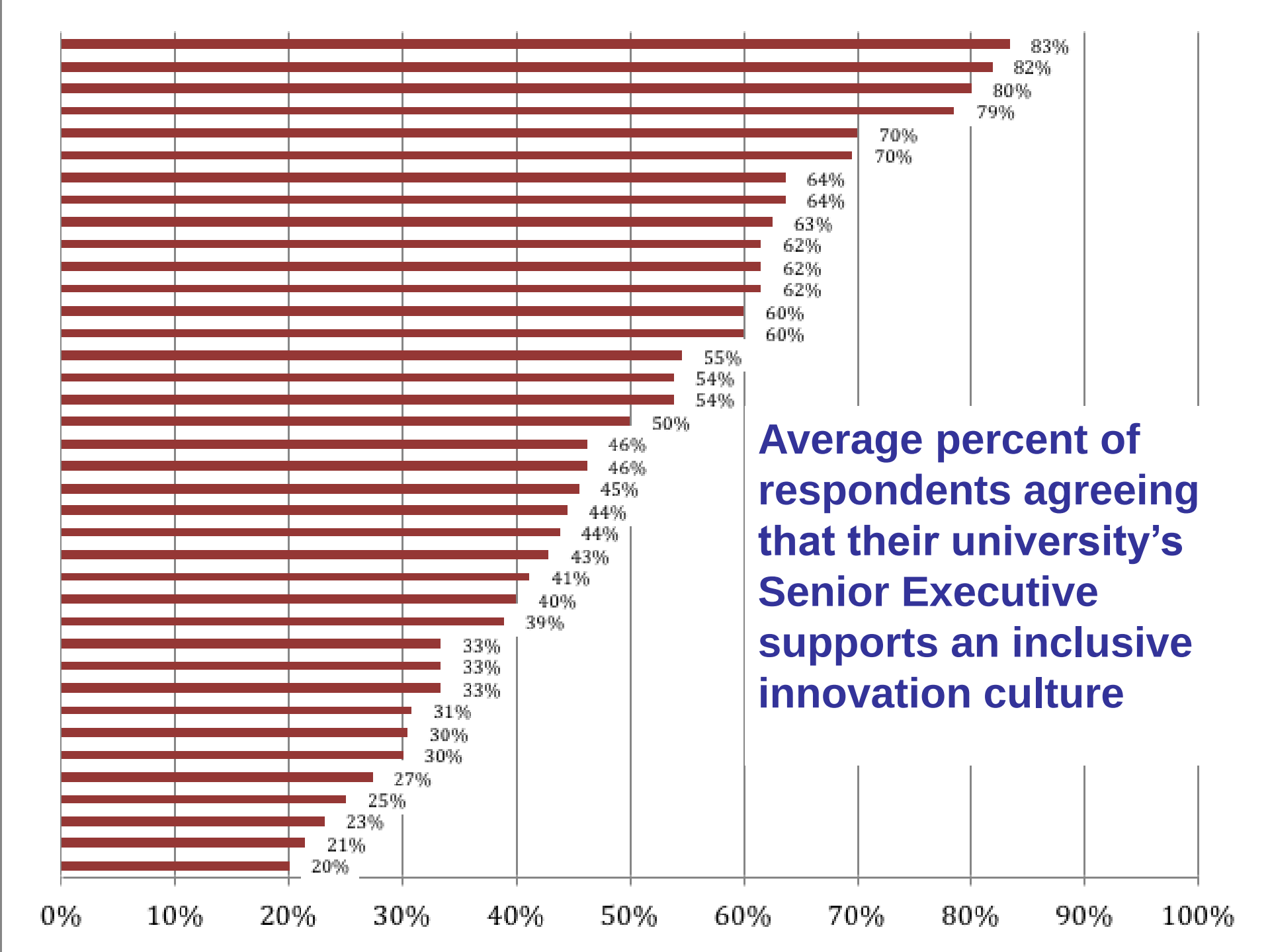
- None on use of 5 design thinking methods, except a small positive effect on use of ‘post implementation studies’
- None on occurrence of an abandoned /under performing innovation
- None on innovation obstacles
- None on a novel most important innovation
- None on negative effects of the most important innovation

Conclusions: what works

- Collaboration
- Inclusive culture
- Use of design-thinking methods
- Use of other innovation support methods
- Sufficient resources
  - Similar success factors as in the private and public sectors

An inclusive innovation culture

- Large impact on the use of '**best practice**' innovation support methods such as design-thinking.
- Substantially decreases the probability of an **abandoned or under-performing** innovation and **negative** effects from a most important innovation.
- No effect on **novel** innovations.
- Positive but not robust effect on a few **beneficial outcomes** of the most important innovation.



Average percent of respondents agreeing that their university's Senior Executive supports an inclusive innovation culture

Further information

Available from the AIRC and LH Martin websites:

Preliminary report on descriptive results
http://www.utas.edu.au/australian-innovation-research-centre/research/innovation-in-the-public-sector/University-Management-and-Service-Innovations

Report on innovative culture
http://www.utas.edu.au/data/assets/pdf.file/0007/871351/Arundel-OECD-Blue-Skies-Paper.pdf

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