



WHERE SCIENCE
TECHNOLOGY
ENGINEERING AND
MATHS COME ALIVE.

Power Challenge 2025

Impact report



ENERGISED BY



TRANSPOWER

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Contents

Power up! 1

Modules 1

Igniting a passion for STEM 2

Participants this year 2

Participants since 2021 3

Demographics 4

Impact at a glance 5

Ākonga experience 6

Perceptions 7

Confidence 8

Knowledge and skills 8

Enjoyment 10

Kaiako experience 11

Registering 12

Confidence 12

Challenge content 14

Enjoyment 15

Ambassador experience 16

Challenge content 17

Enjoyment 17



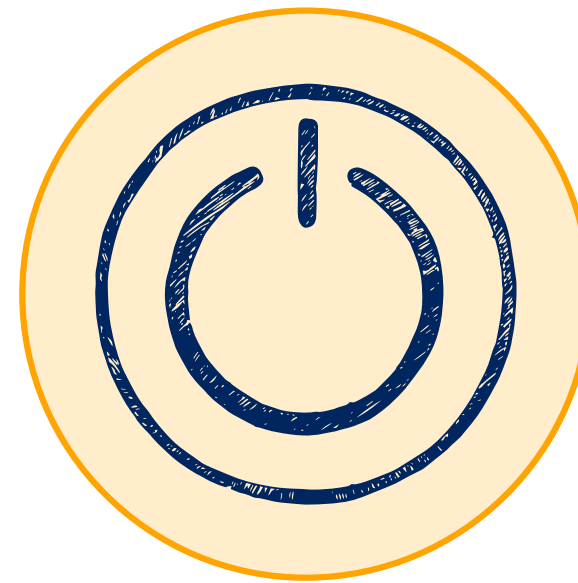
“It was a really fun experience that gave me the opportunity to get kids excited about the world around them and how it works.”

Finnian Montgomery, Ambassador
Ergo Consulting

POWER UP!

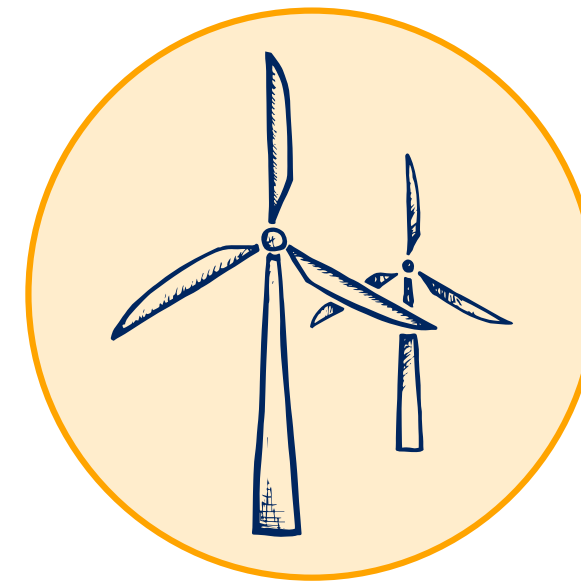
Ākonga design and build a wind turbine and work as a rōpū to light up their own mini town. Along the way they discover the amazing phenomenon of electricity and renewable energy.

Modules



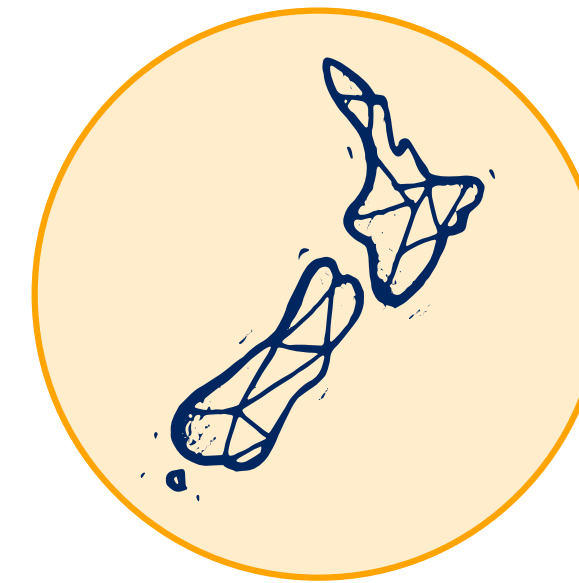
Module 1: Power up

Ākonga get ready for the Power Challenge by meeting their Wonder Project Ambassador, and find out what it takes to power a town of the future, before discovering the phenomenon of electricity.



Module 2: Generate

Ākonga explore renewable and non-renewable energy sources, and how energy is generated across Aotearoa. Then, they follow the engineering design process to design a wind turbine.



Module 3: Move

Ākonga learn about electricity's journey through Aotearoa New Zealand's power system, the National Grid, before creating and testing a wind turbine – using observation and analysis to record results.



Module 4: Illuminate

Ākonga analyse turbine performance data to improve its design. Then, they compete in rōpū, using the optimised turbines to light up all of the buildings in a mini town.

IGNITING A PASSION FOR STEM

Funding continued to be tight for the Wonder Project this year, after losing our primary source through Government, and economic conditions for businesses being difficult. Making the most of what we had, over 5,000 rangatahi took part, across 176 classes at 141 schools – 10% of target schools. Over the Power Challenge's five years, it's been in 31% of schools with Level 4 ākonga.

Continued high demand from schools coupled with limited funds meant we again had a waitlist, with 170 kaiako who we were unable to accept into the challenge. We prioritised schools with a higher level of socio-economic disadvantage and are proud that 44% of participants that received funded kits were in this high barrier group. We also had high levels of Māori and Pacific ākonga in the challenge, at 35% and 15% respectively, making up half of participants.

We saw a strong level of interest from schools who have participated before as well as schools new to the Power Challenge. We had 47 repeat schools and 94 new schools involved.

We supplied 118 funded full kits, valued at over \$50,000, and 22 funded refresh packs to replace items in older kits. We had 19 kaiako reuse an existing kit, and 7 purchased a full kit or refresh pack.

256 STEM professionals registered to help with the Power Challenge, and we were able to match 120 of them to support 121 classes – 72% of participating classes. After withdrawals, we had 111 ambassadors we were unable to match due to location differences with participating schools and the relatively low number of available classes compared to ambassador interest. Thanks to our partner organisations who supplied 72% of our matched ambassadors.

**Participants
this year**

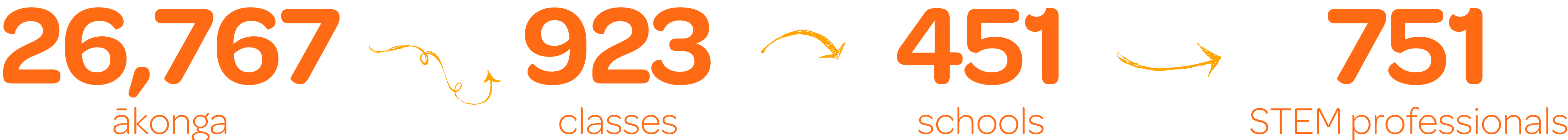
5,104
ākonga

176
classes

141
schools

120
STEM professionals

Participants
since 2021



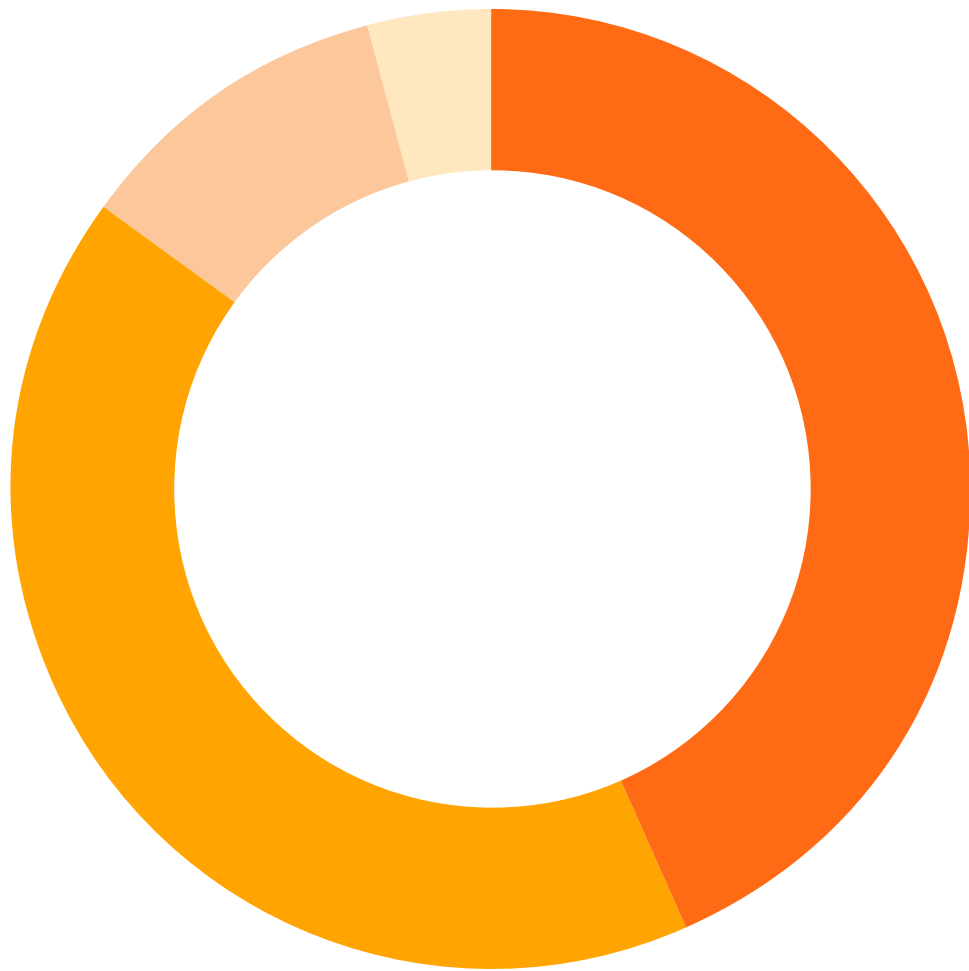
	2021	2022	2023	2024	2025	Total
Ākonga*	870	6,844	8,497	5,452	5,104	26,767
Classes	30	236	293	188	176	923
Schools	16	119	195	113	141	451
STEM professionals	46	192	185	208	120	751

*Based on average of 29 ākonga per class

Demographics

Socio-economic barriers

With limited spaces in the challenge, we wanted to prioritise schools with high socio-economic barriers as much as possible. 44% of participating schools who received a funded kit had high barriers – a 52% increase from 2024. Even amongst all participants, we still had 39% in the high barrier group.



Equity Index group

- High barriers, 44%
- Moderate barriers, 42%
- Fewer barriers, 11%
- N/A, 4%

Ākonga ethnicity

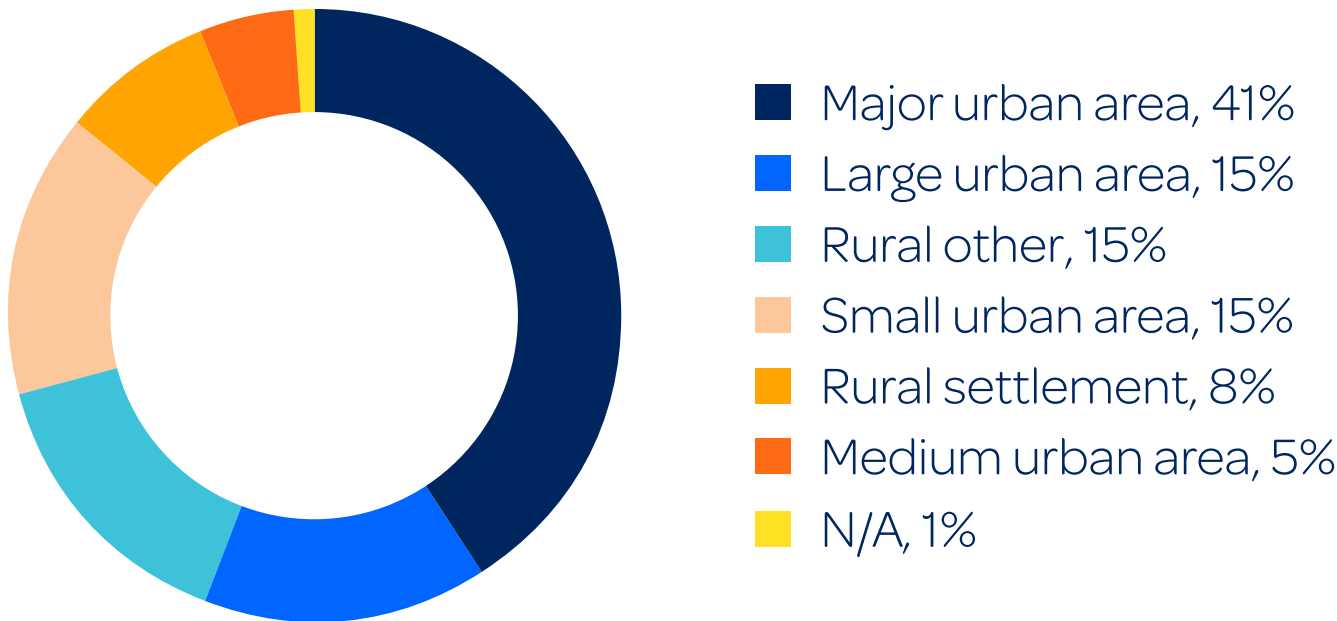
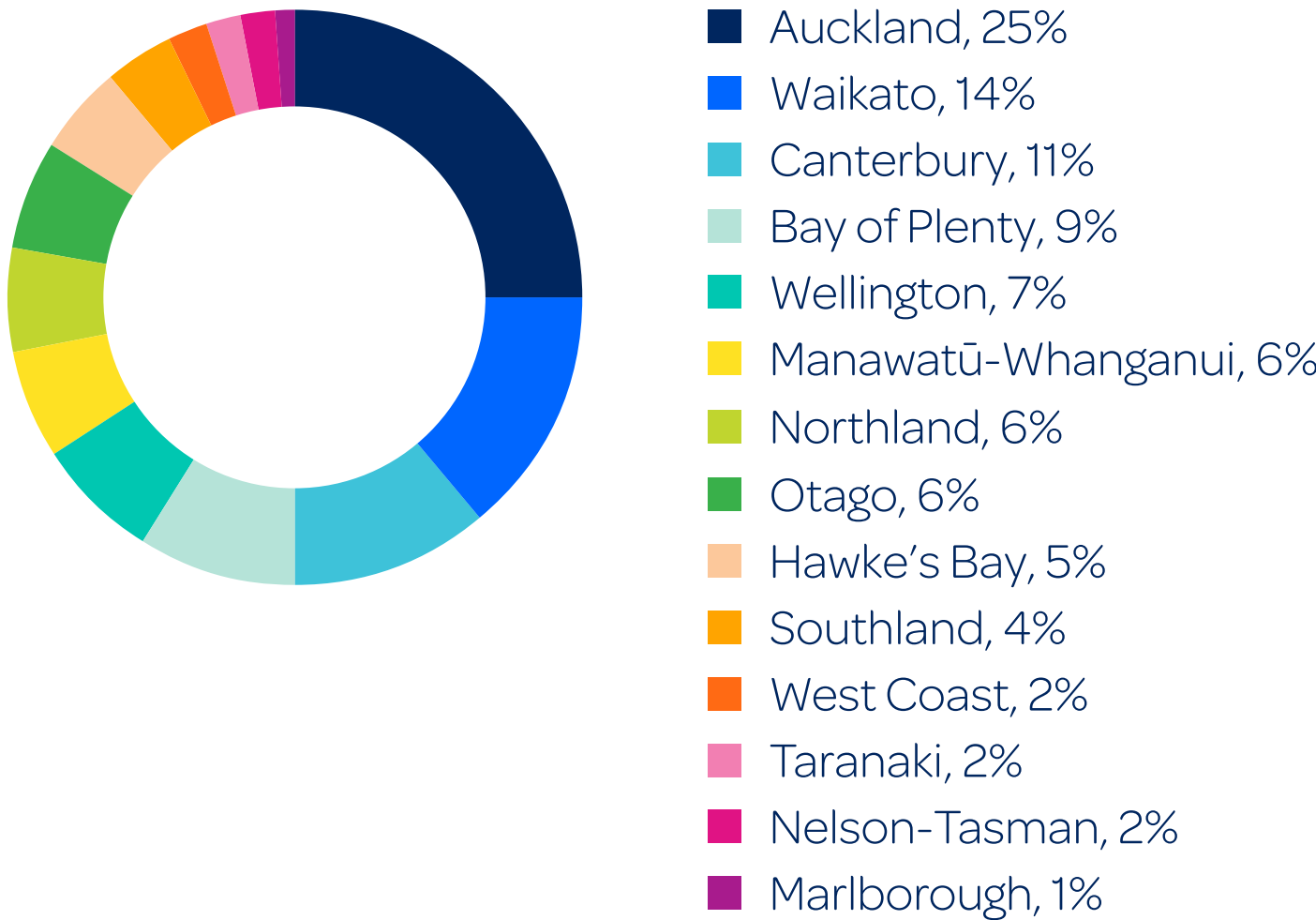
We had 35% ākonga Māori and 15% Pacific Peoples participating in the Power Challenge. With resources available in te reo Māori, we also had 10 kura kaupapa and 12 Māori immersion classes, totalling 22 Māori medium classes across 21 schools.



- Māori, 35%
- Pacific Peoples, 15%
- Other, 50%

Region

We had 52% of participating schools in the main centres (Auckland, Wellington and Canterbury), and 48% across the regions.



IMPACT AT A GLANCE

67%
ākonga said the Power Challenge made them feel more confident in STEM subjects

41%
ākonga were more interested in STEM jobs after the challenge

67%
ākonga said they would do it again

97%
kaiako enjoyed teaching the Power Challenge

89%
kaiako noticed a positive shift in ākonga perceptions of STEM

97%
kaiako increased their confidence in teaching STEM

86%
ambassadors enjoyed supporting the Power Challenge

100%
kaiako said ākonga were engaged with the programme

100%
kaiako said they would do it again

73
(NPS) Challenge Net Promoter Score

“It was really exciting
when all the lights
came on and it was
super fun thinking,
drawing and explaining
your design ideas.”

~~~~~  
Caden, Ākonga  
– Te Atatū Intermediate School

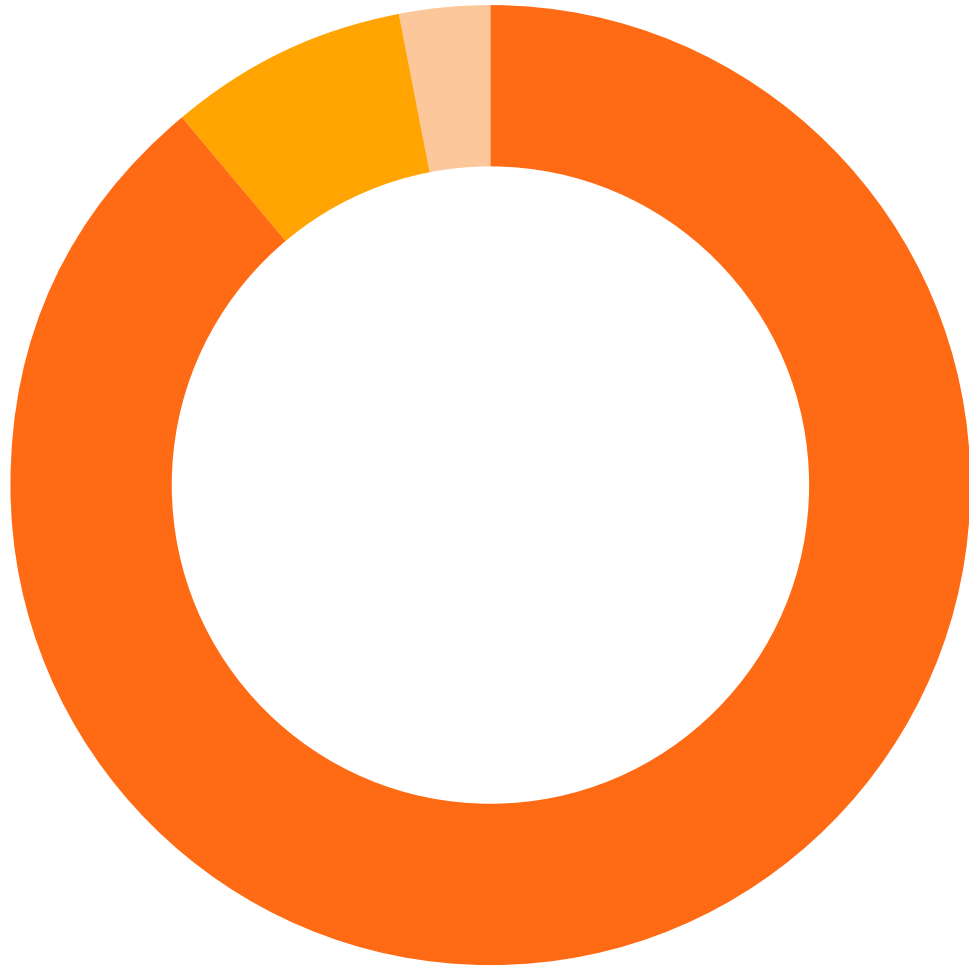
ĀKONGA  
EXPERIENCE



# Perceptions

## STEM perceptions

When kaiako were asked if they noticed a shift in ākonga perceptions towards STEM over the challenge, 89% said they noticed a positive shift.



- Their perceptions changed positively, 89%
- Their perceptions didn't change, 8%
- Their perceptions changed negatively, 3%

## Interest in STEM jobs

81% of kaiako believed their ākonga were more curious about the opportunities that different careers in STEM can provide, after the challenge.

41% of ākonga reported that they were more interested in STEM jobs after completing the challenge. With a further 18% of rangatahi already interested in STEM jobs, post the challenge, 65% of ākonga would consider a STEM career.



- Yes – I was more interested, 41%
- No – I was already interested, 18%
- Yes – I was less interested, 12%
- No – I am still not interested, 30%

**“It’s a cool job looking after our planet and being ‘superheroes’.”**

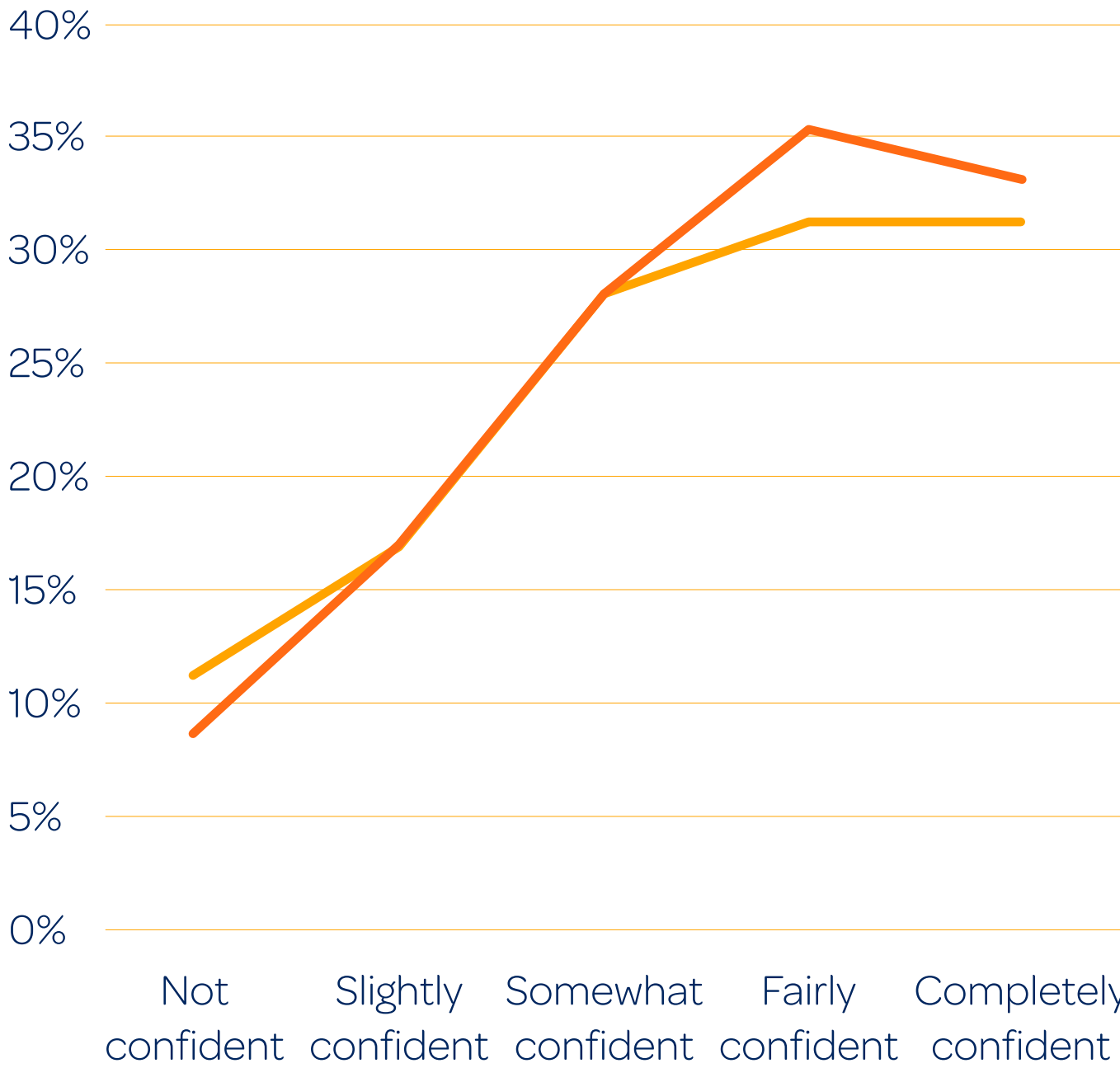
**Miriam, Ākonga**  
St Francis De Sales School

# Confidence

## STEM subject confidence

When asked if taking part in the challenge made them feel more confident in STEM subjects, 67% reported that it did.

When asked about confidence across each subject, we saw the biggest change in maths, with a 13% increase in ākongā being fairly or completely confident. Overall, there was a slight increase in subject specific confidence for ākongā.

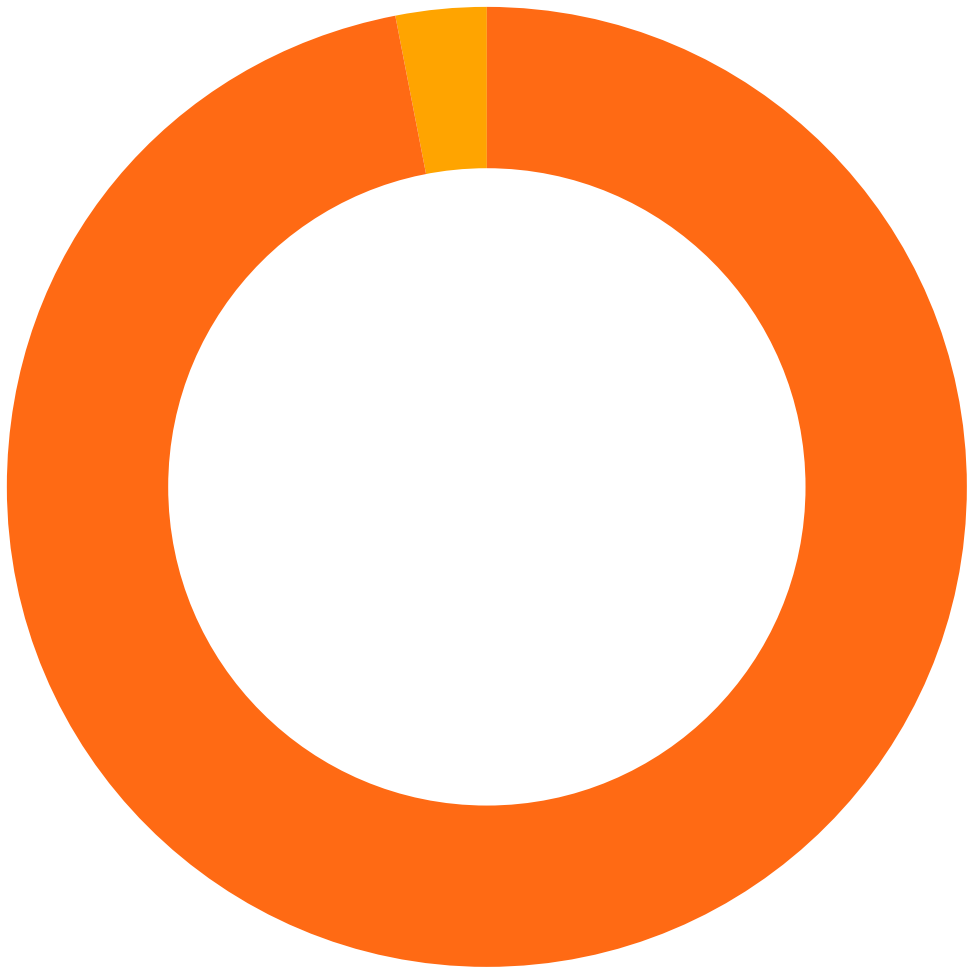


■ Pre  
■ Post

# Knowledge and skills

## Level of challenge

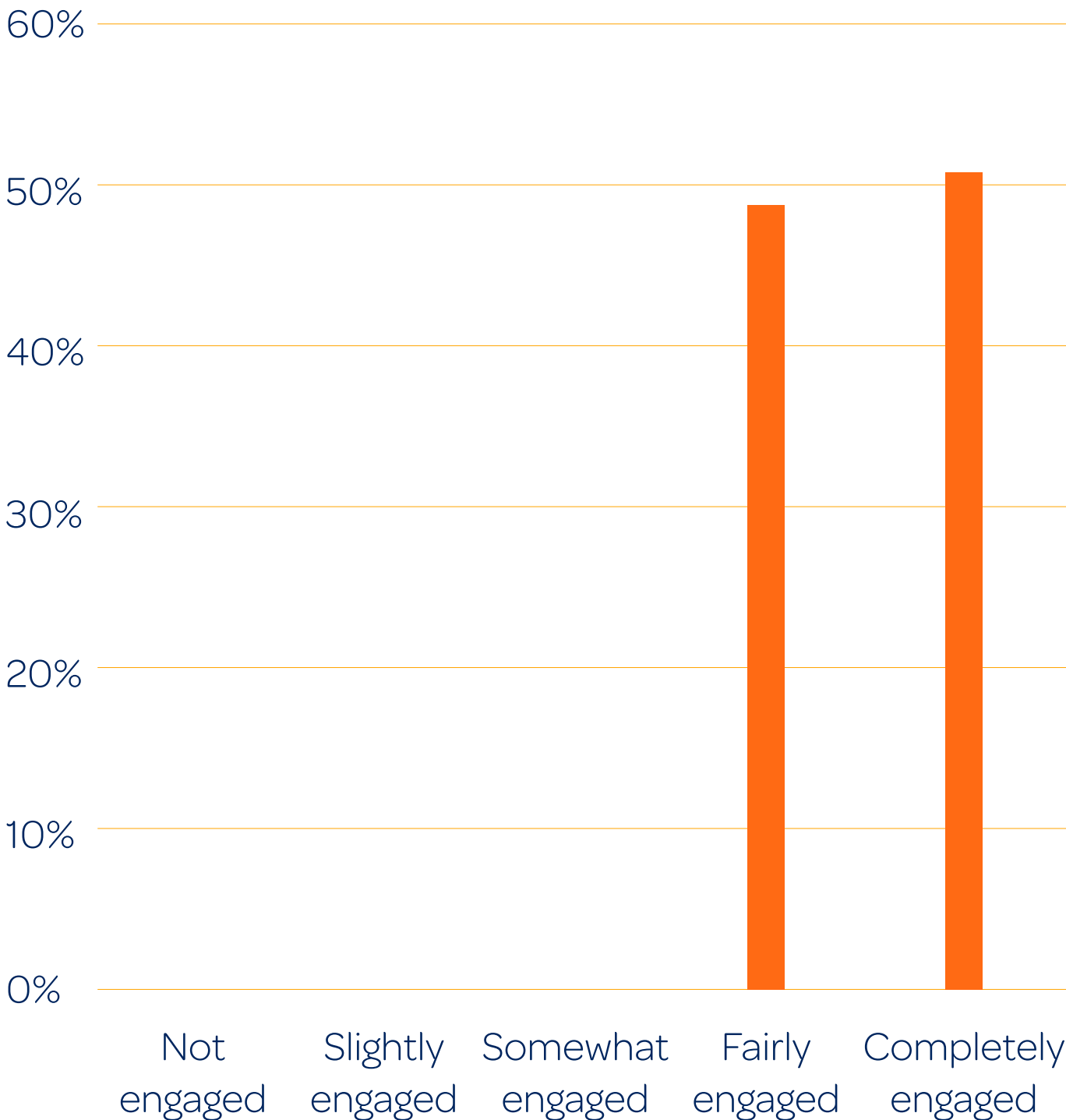
Nearly all kaiako said ākongā were challenged by the learning material at about the right level.



■ About the right level of challenge, 97%  
■ A bit too challenging, 3%

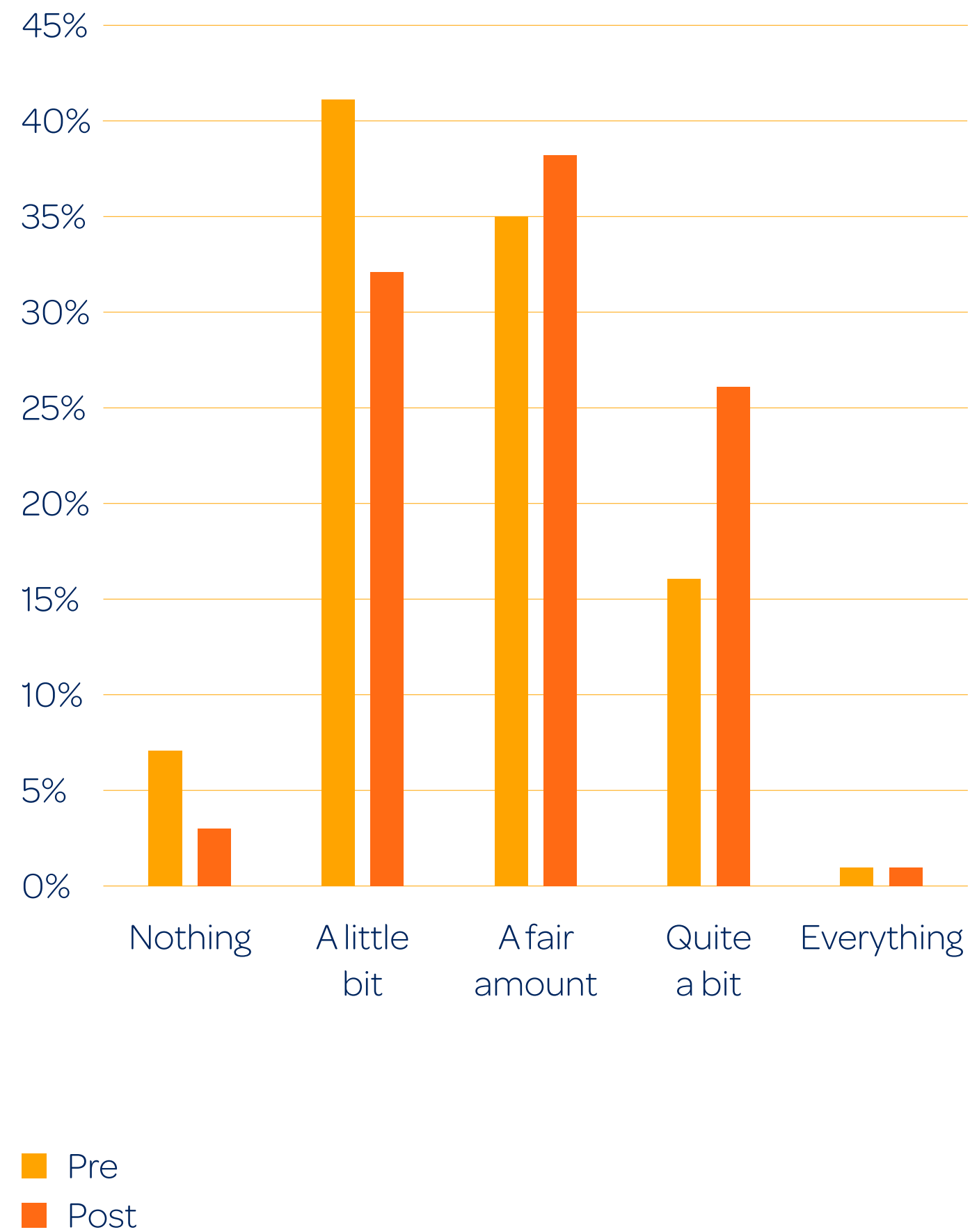
## Engagement with learning

All kaiako reported their ākongā were fairly or completely engaged with the learning journey.



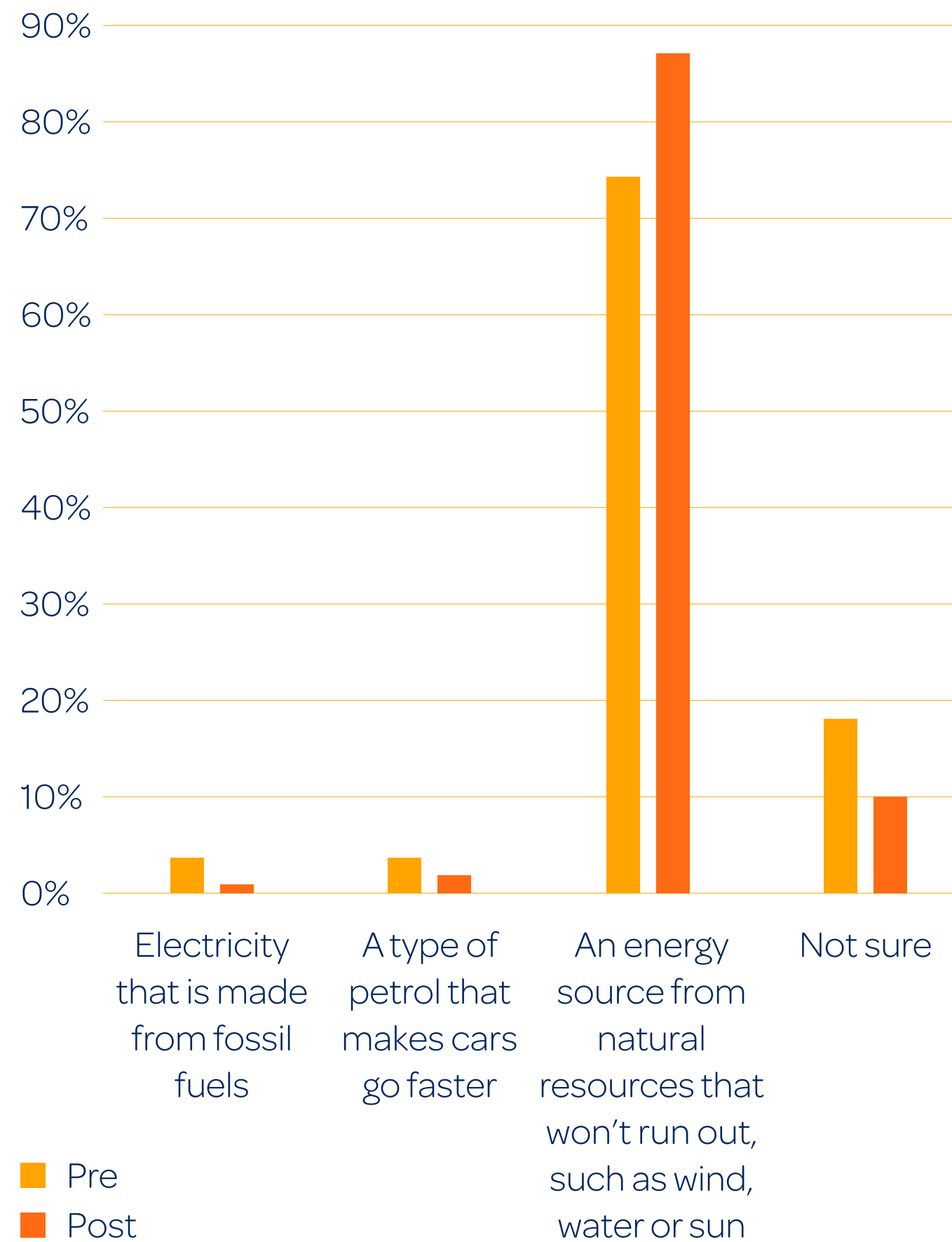
## Electricity

We saw a positive shift in what ākongā knew about one of the key learning outcomes, electricity, including a 38% increase in ākongā saying they knew quite a bit about the topic.



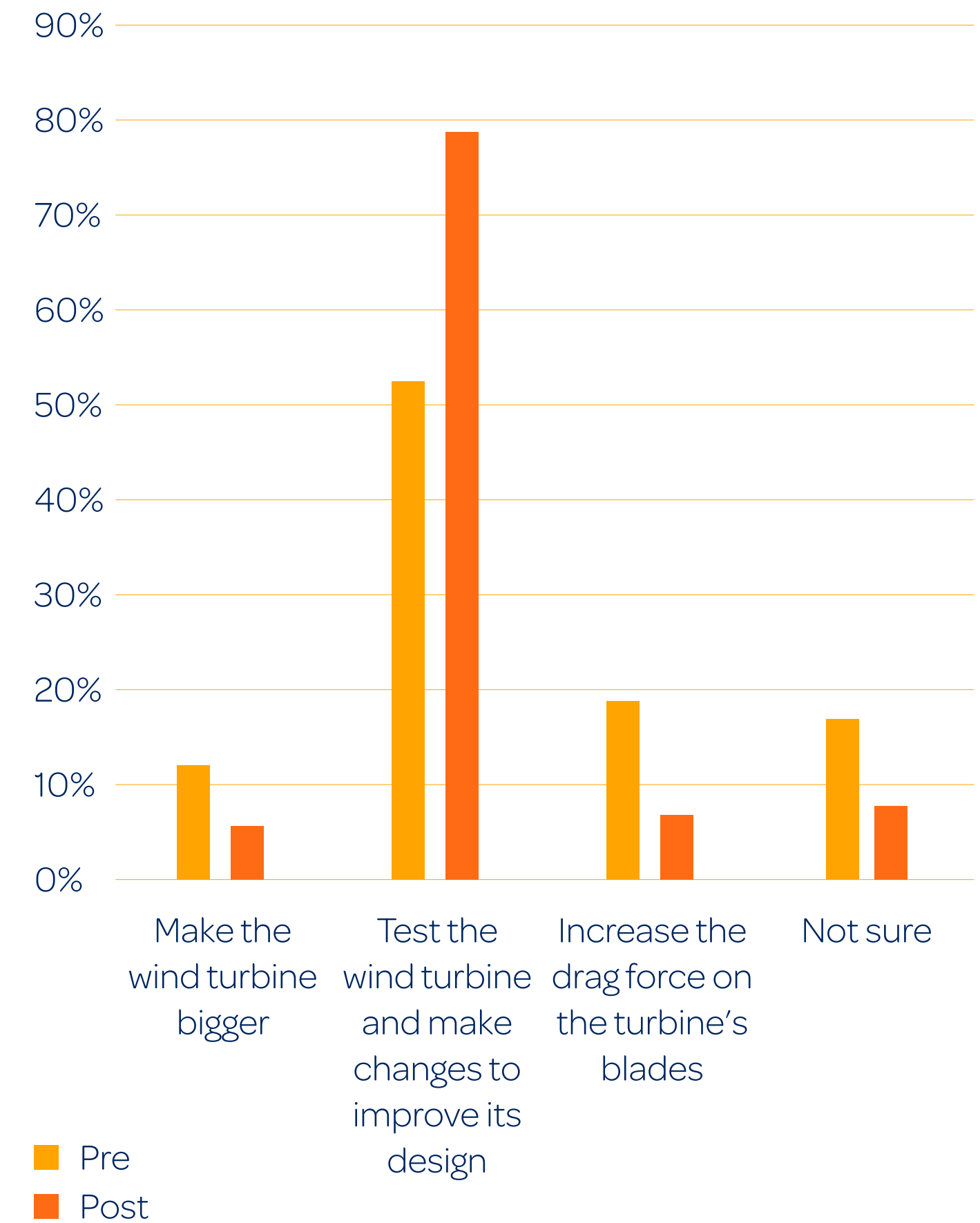
## Renewable energy

Before the challenge, 74% of ākongā could correctly identify what renewable energy was. After the challenge this rose to 87% of ākongā, an 18% increase.



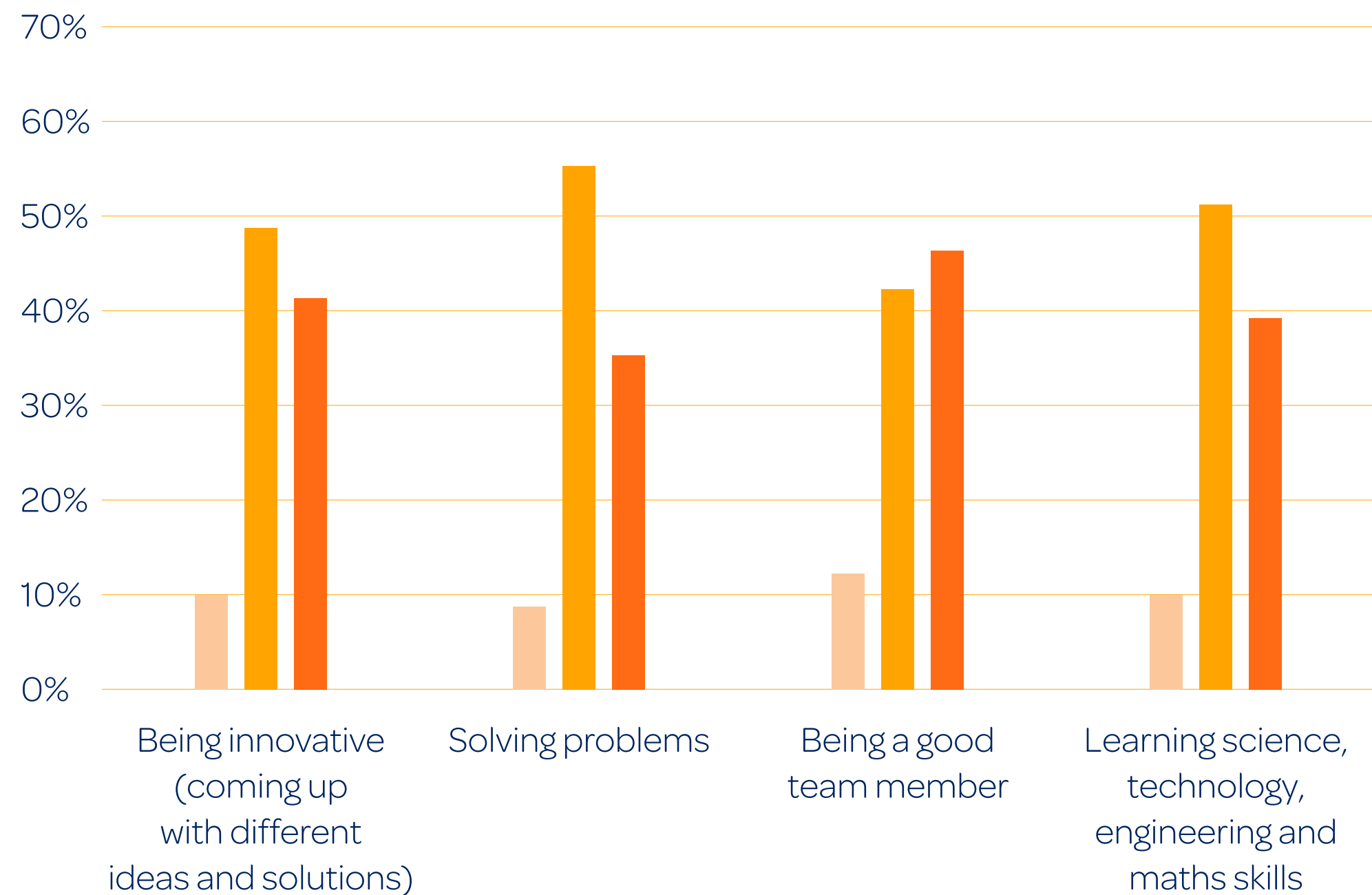
## Engineering design process

Before the challenge, 52% of ākongā could correctly identify testing and improving their wind turbine as the best way to make it generate more power. After the challenge this rose to 79% of ākongā, a 52% increase.



## STEM skills practiced

During the challenge, we expect ākonga will learn about and practice four key STEM skills. The majority of ākonga were exposed to these and could identify that they'd been able to practice them. Teamwork was the highest, with 46% of ākonga saying they practiced this skill a lot. 98% of kaiako also said there were lots of opportunities for ākonga to discover and develop STEM skills.

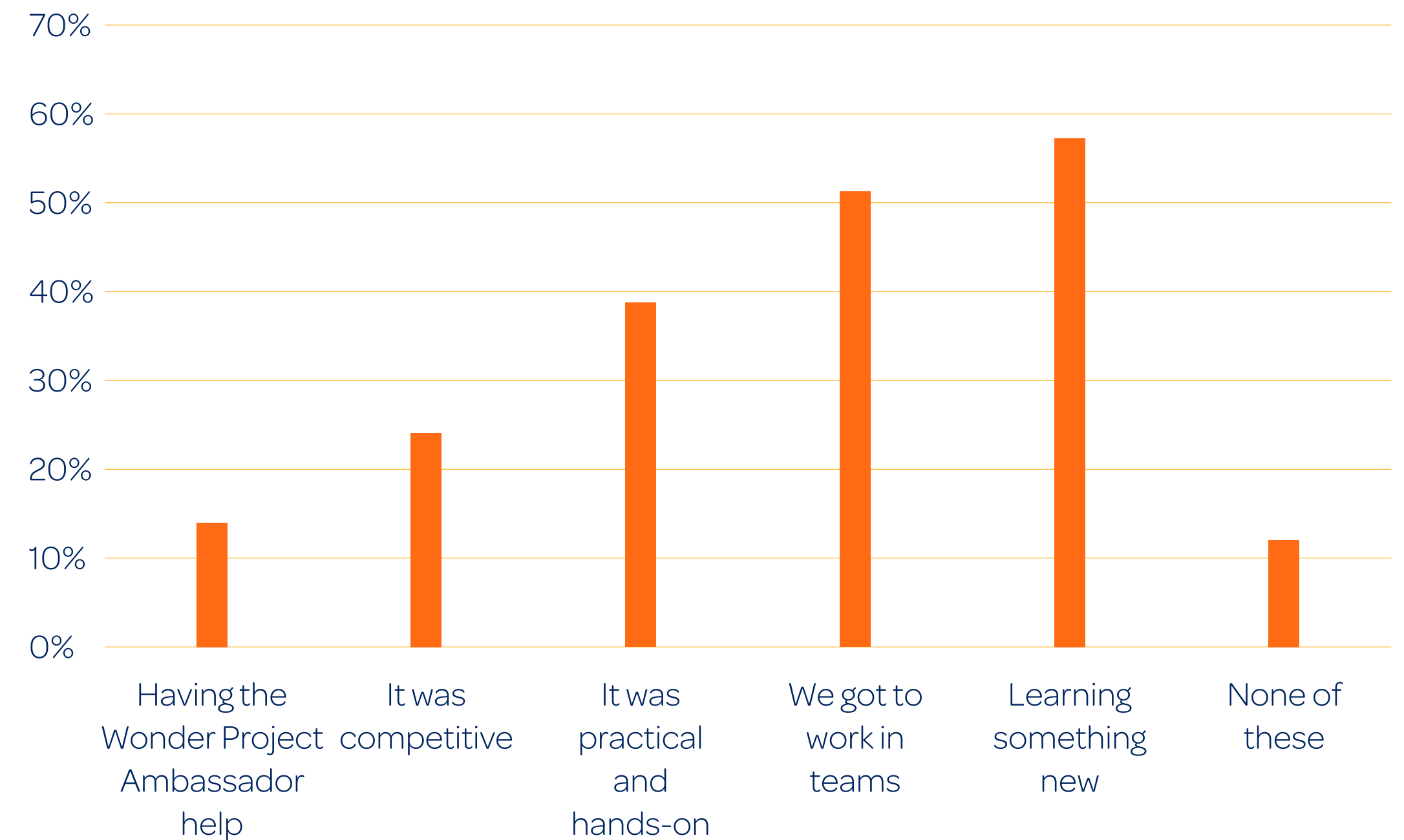


Not at all  
Just a little  
A lot

## Enjoyment

### What they liked

From their Wonder Project experience, ākonga mostly valued learning something new and working in teams, when asked what they enjoyed about the challenge.



### Experience completing the challenge

**58%** had a great experience doing the Power Challenge  
**ākonga**

### Take part again

**67%** said they would like to take part in another challenge  
**ākonga**

“Amazing, I would never  
have approached  
this topic without the  
supplied resources  
and teaching plans.”

Sarah Plunket, Kaiako  
Weston School

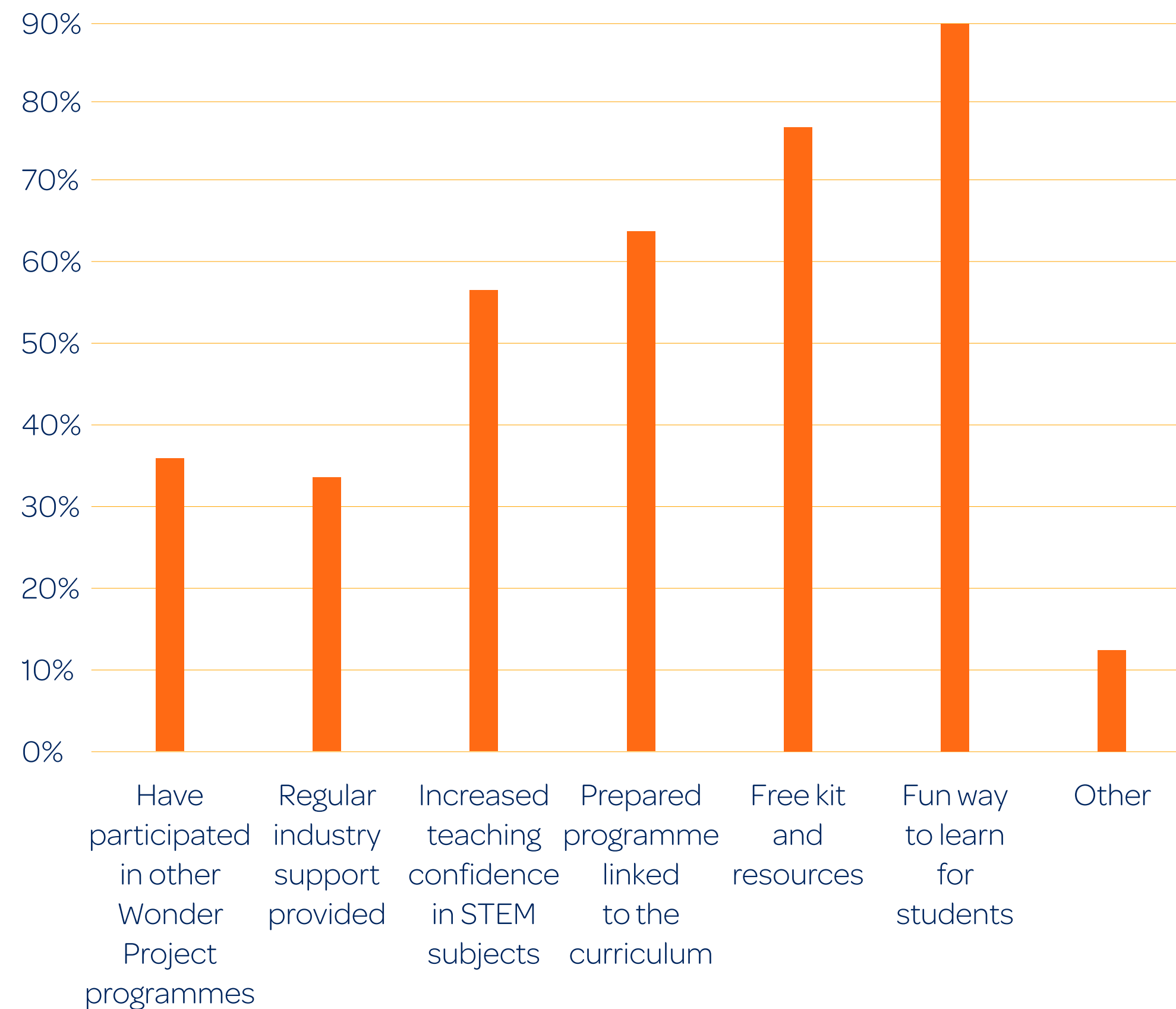
**KAIAKO  
EXPERIENCE**



## Registering

### Motivation to sign up

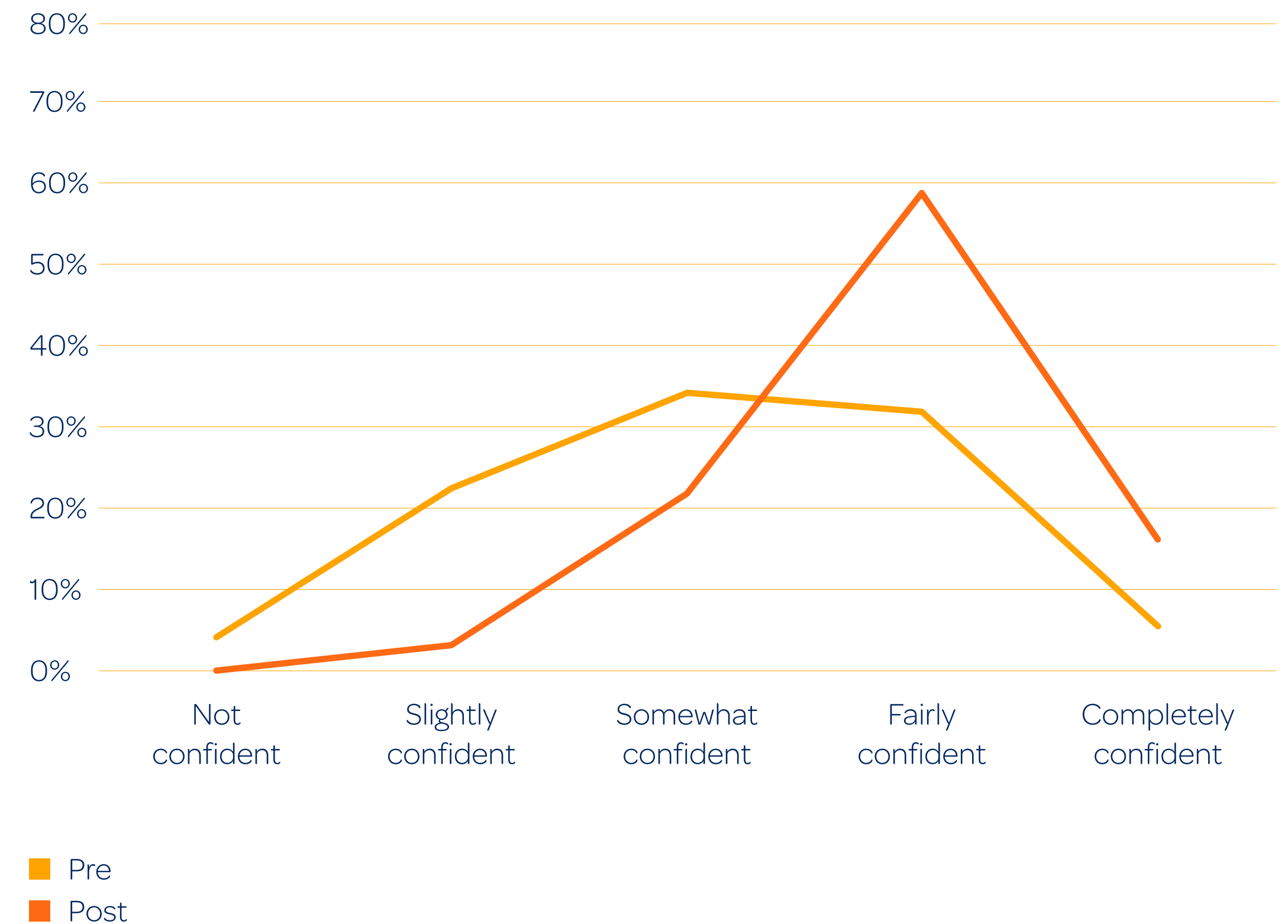
Kaiako primarily registered for the Power Challenge because it looked like a fun way for their ākonga to learn. The free kit and resources, as well as it being a prepared programme linked to the curriculum, and increasing their confidence teaching STEM were also predominant reasons they signed up.



## Confidence

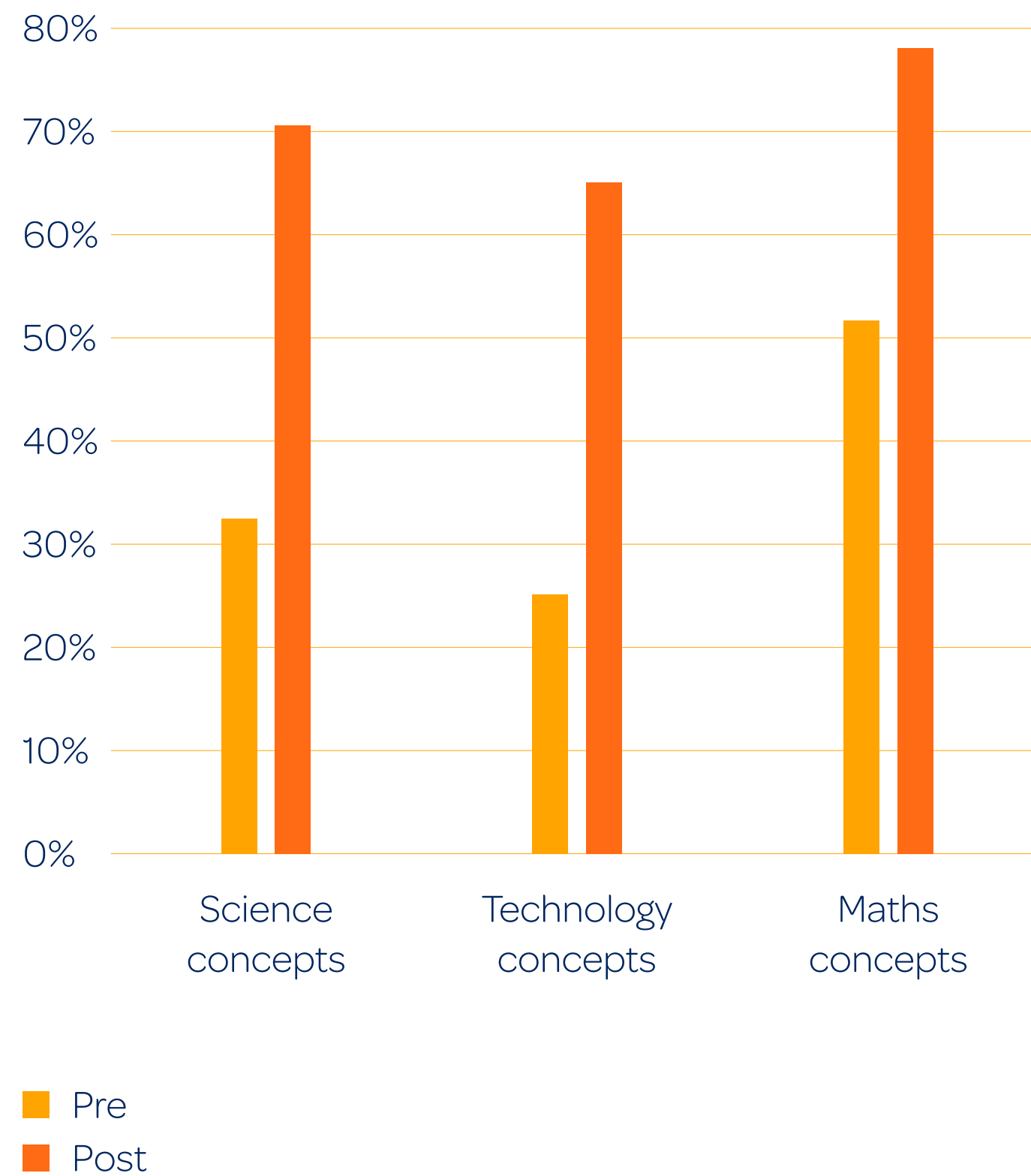
### Teaching STEM subjects

When asked if they felt participating in the challenge has increased their confidence in teaching STEM, 97% of kaiako agreed. We had a 97% increase in kaiako feeling fairly or completely confident teaching STEM subjects.



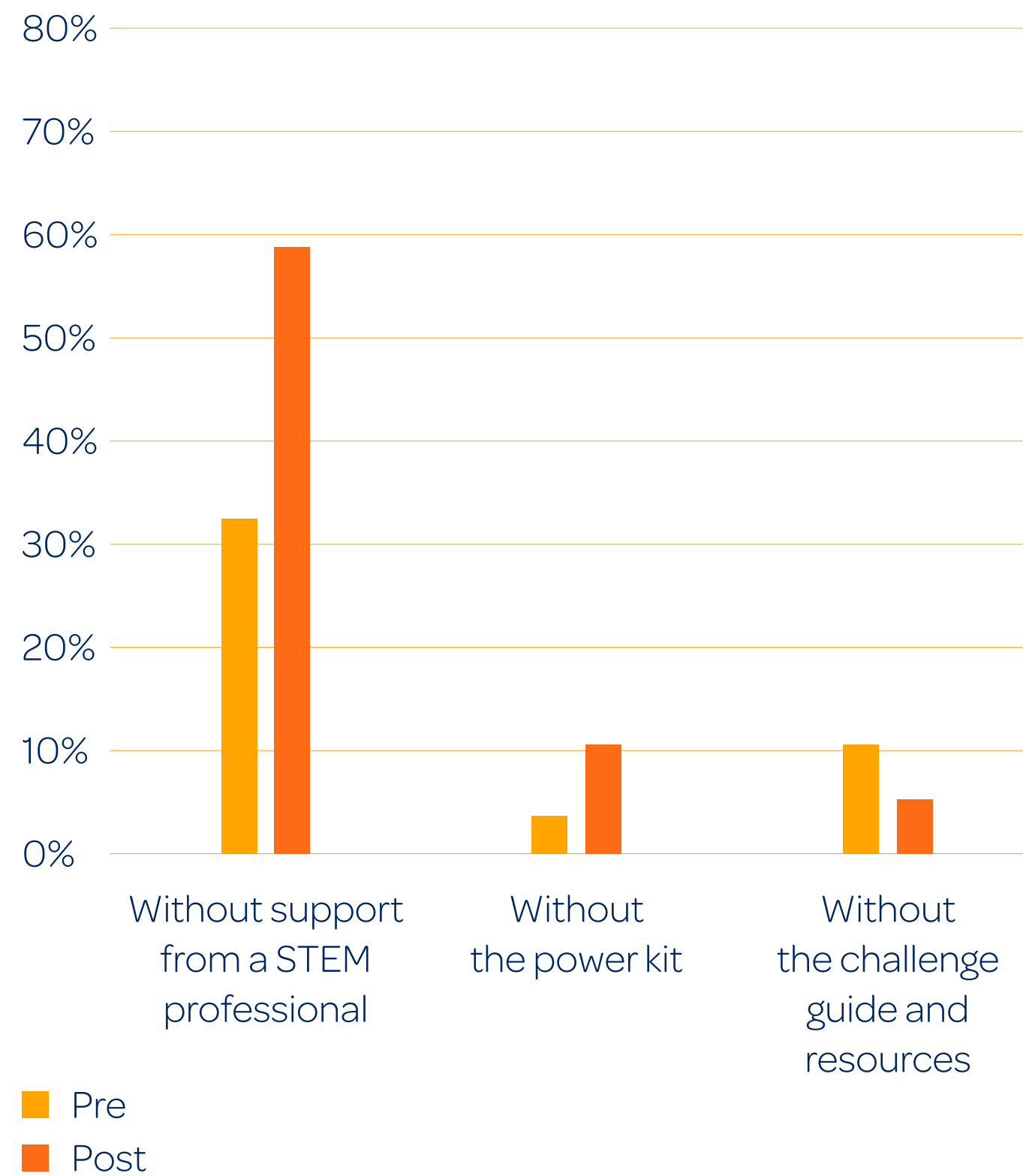
### Demonstrating STEM concepts

There was a 96% increase in kaiako feeling fairly or completely confident demonstrating STEM concepts overall.



### Wonder Project support

When asked how confident kaiako would feel running the challenge on their own and without various aspects of support provided by the Wonder Project, we notice that kaiako still value the kit and challenge guide post the challenge. They do feel more able to run the challenge without support from a STEM professional, which aligns to their increase in confidence teaching STEM subjects and demonstrating concepts.



**“My students who are reluctant learners were often the most engaged in this activity.”**

**Megan Moore, Kaiako**  
Merrin School Ngā Whetū Kohara

## Challenge content

### Structure and pace

**98%**  
**of kaiako**

said the challenge was well structured and paced to support ākonga learning and agency

### Accessibility

**95%**  
**of kaiako**

said the challenge was appropriate for ākonga from different cultures and backgrounds

### Inclusiveness

**82%**  
**of kaiako**

said the challenge was appropriate for neurodiverse learners

### Online Learning Hub

**89%**  
**of kaiako**

said the online Learning Hub was helpful, easy to use and navigate

### Teaching content

**90%**  
**of kaiako**

were fairly or completely satisfied with the teaching content

### Ākonga module content

**95%**  
**of kaiako**

were fairly or completely satisfied with the ākonga module content

# Enjoyment

Net Promoter Score



NPS of  
**73**  
with  
**76% of kaiako**  
being promoters for the Wonder Project



Experience teaching the challenge



**97% of kaiako**  
said they enjoyed teaching the Power Challenge



Take part again



**100% of kaiako**  
said they'd take part in another Wonder Project challenge based on their experience



“It was fantastic to see young minds engaged in the challenge. The design was impressive, well thought out, with strong logic integrated throughout. Truly a clever and creative effort.”

~~~~~  
Chandrakant Mathurkar, Ambassador
Transpower

AMBASSADOR EXPERIENCE



Challenge content

Teaching content

80%
ambassadors

were fairly or
completely
satisfied with the
teaching content

Ākonga module content

89%
ambassadors

were fairly or
completely satisfied
with the ākonga
module content

Enjoyment

Net Promoter Score

**NPS of
54**

with

61%
ambassadors

being promoters
for the Wonder
Project.

Experience supporting the challenge

86%
ambassadors

said they enjoyed
supporting the
Power Challenge

Take part again

89%
ambassadors

said they'd like to
be involved again

Benefits

Ambassadors rated giving back to their community and fostering the next generation of STEM professionals as the top things they gained from being part of the Wonder Project.

An opportunity to
practice te reo Māori

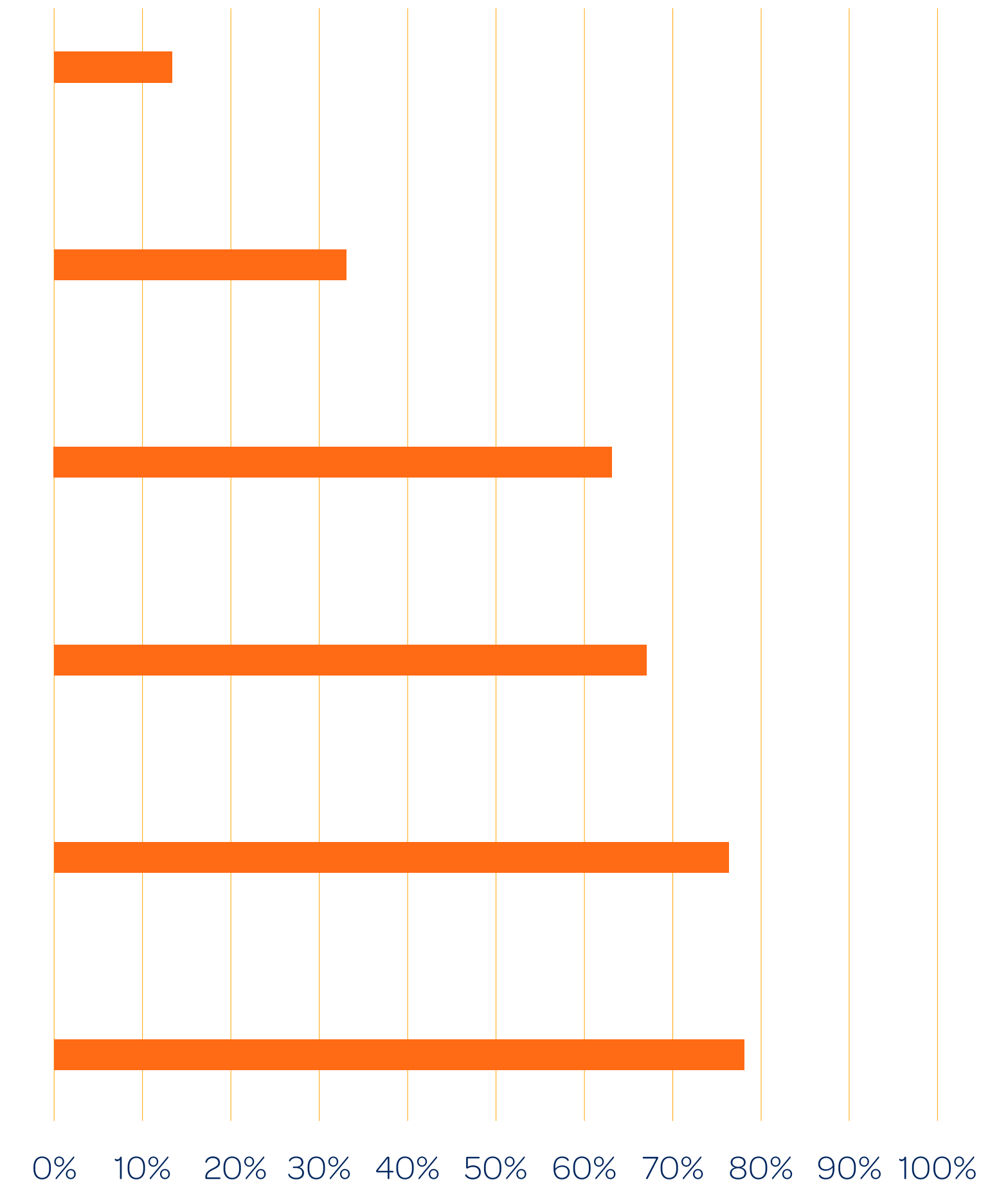
Nostalgia for
returning to school

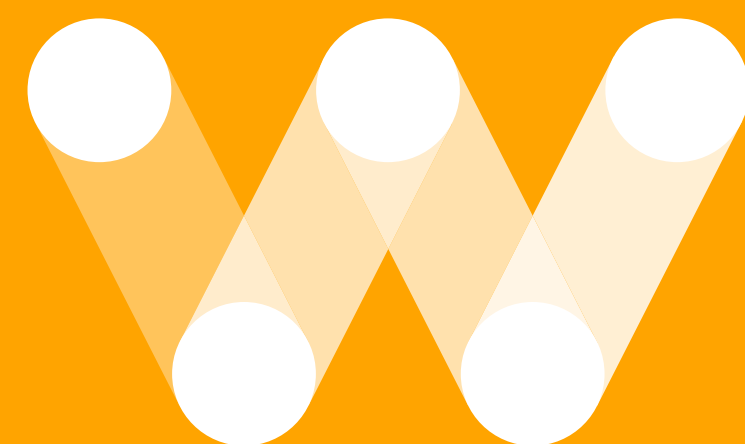
It was fun!

Enhanced communication
skills to young audiences

Fostering the next
generation of STEM
professionals

Giving back to
the community





Wonder
Project

**WHERE SCIENCE
TECHNOLOGY
ENGINEERING AND
MATHS COME ALIVE.**