

TOMORROW'S
ENGINEERS

CODE

The Code Explores... inspiring young people

Exploring the evidence: How young
people engage with engineering and
technology careers

Becca Gooch, Head of Research at EngineeringUK

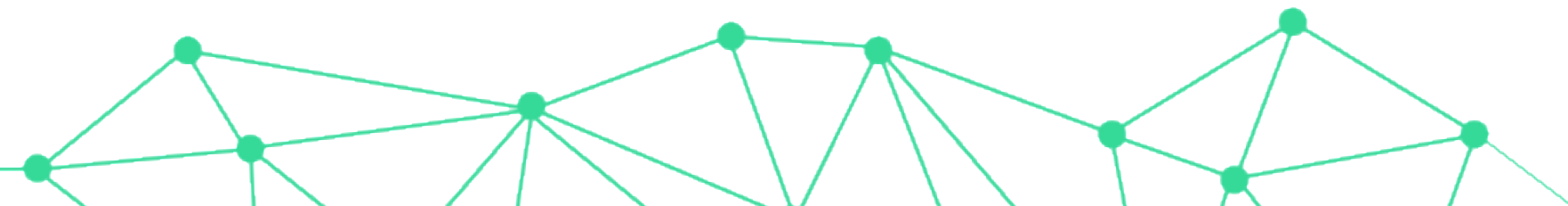
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EngineeringUK
INSPIRING FUTURES TOGETHER

What we'll cover

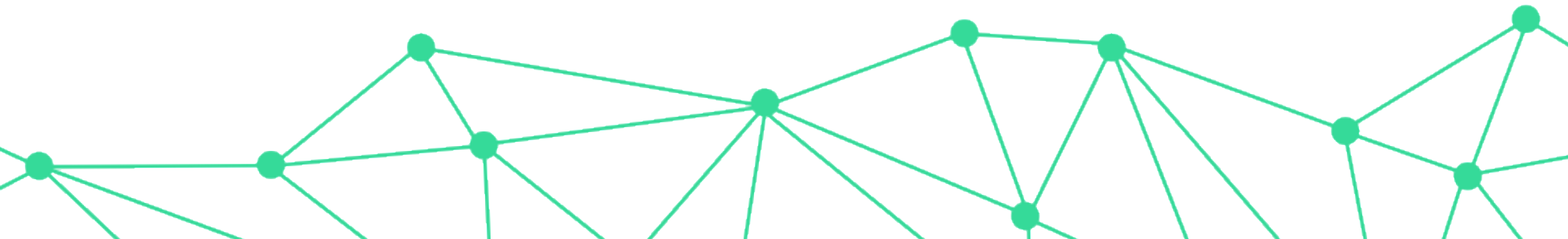
- Knowledge and perceptions of engineering and technology
- Interests and what they want to know about engineering and technology careers
- How young people engage with STEM outreach and what approaches demonstrate the greatest impact
- Engaging young people from groups underrepresented in engineering and technology



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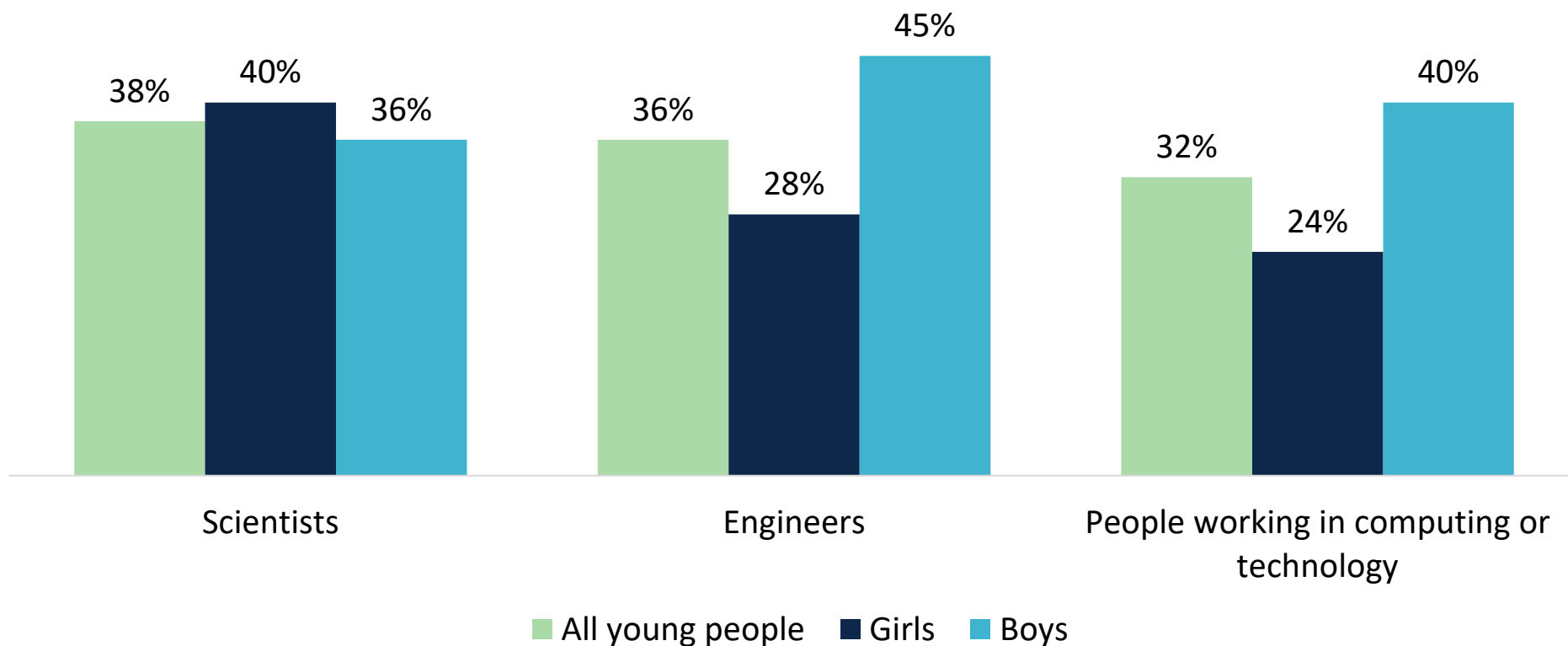
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Knowledge and perceptions



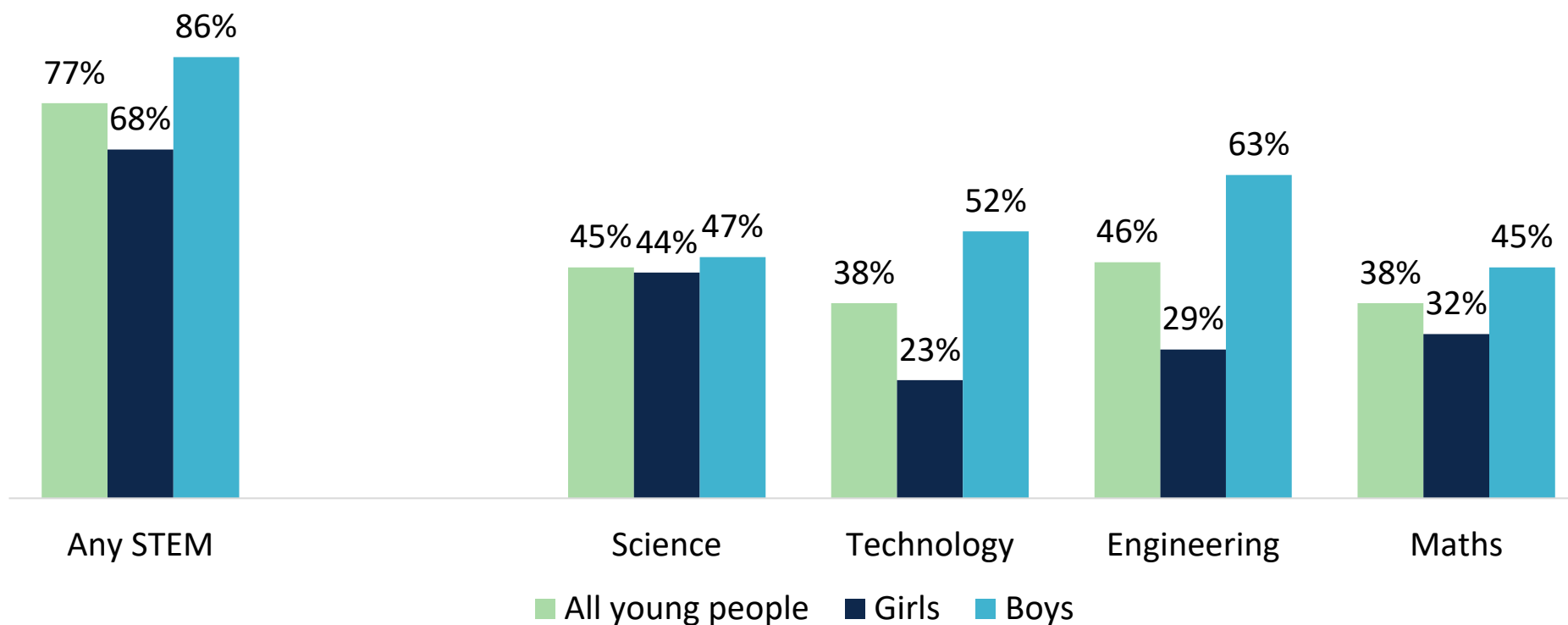
Knowledge and perceptions

% of all years 7-13s who report being knowledgeable about these jobs



Knowledge and perceptions

% of all years 7-13s expressing interest in STEM careers

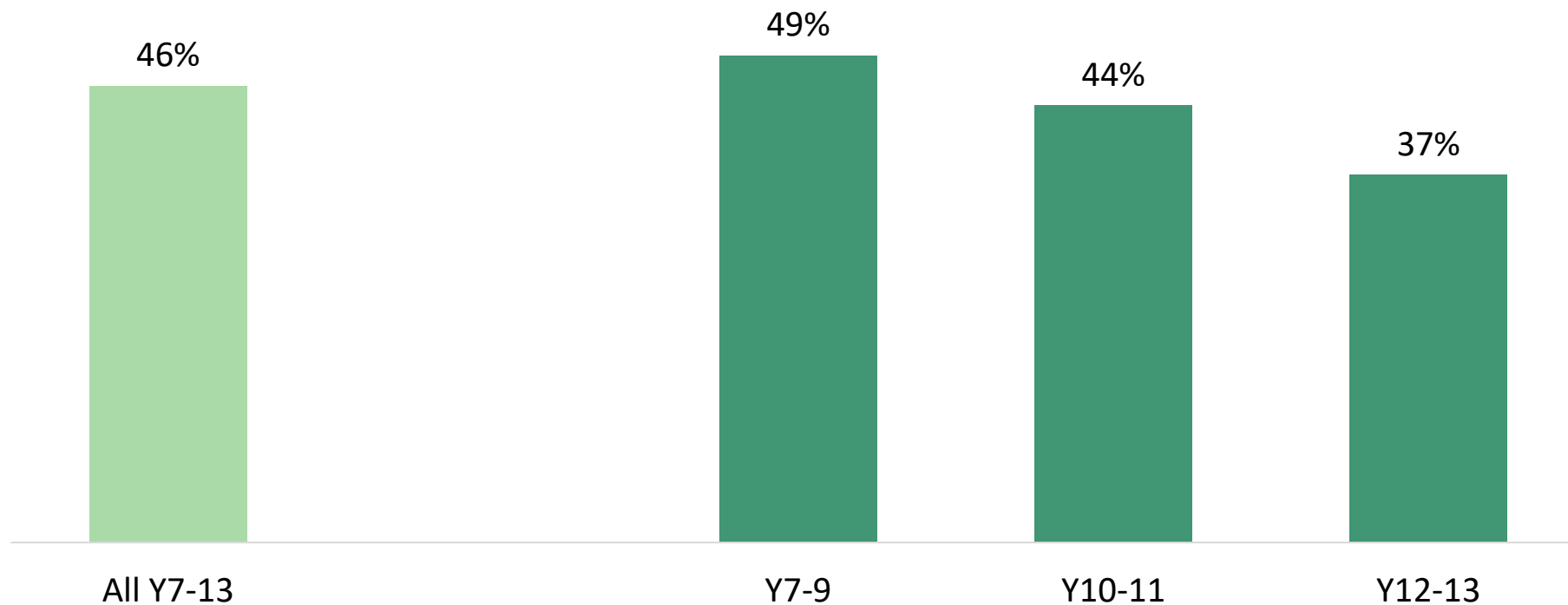


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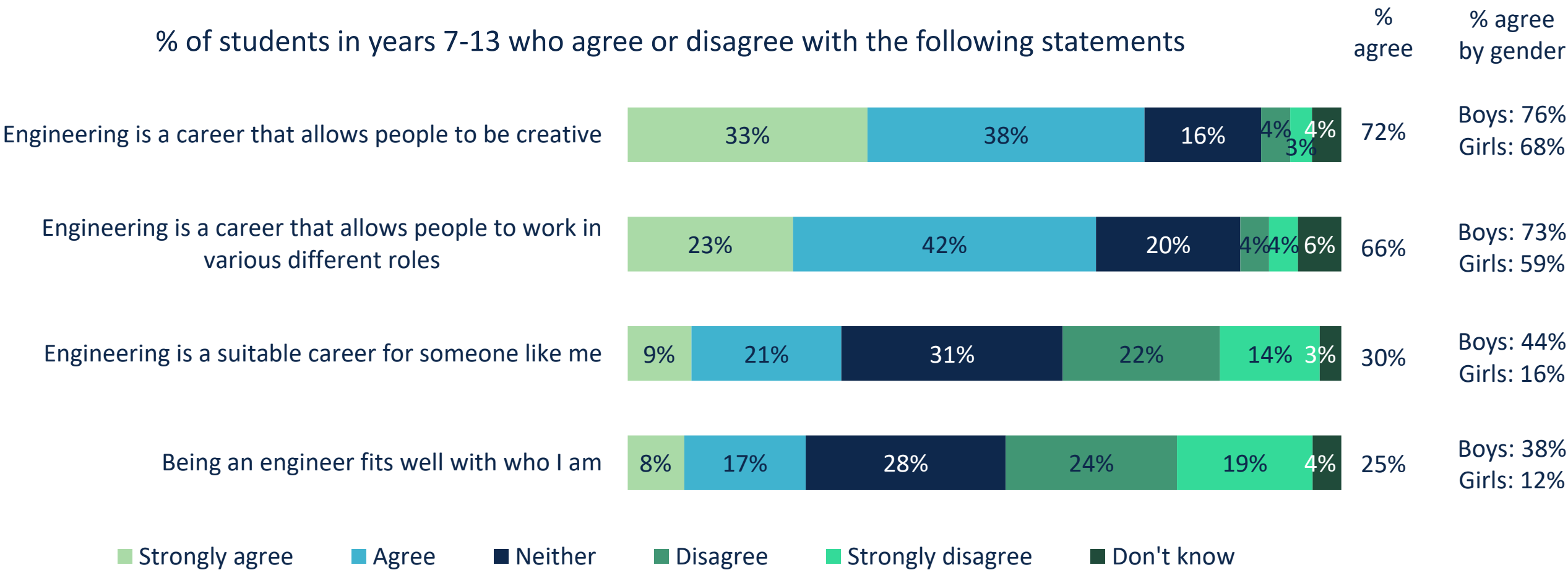
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Knowledge and perceptions

% of students in years 7-13 who think they definitely or probably could become an engineer in the future

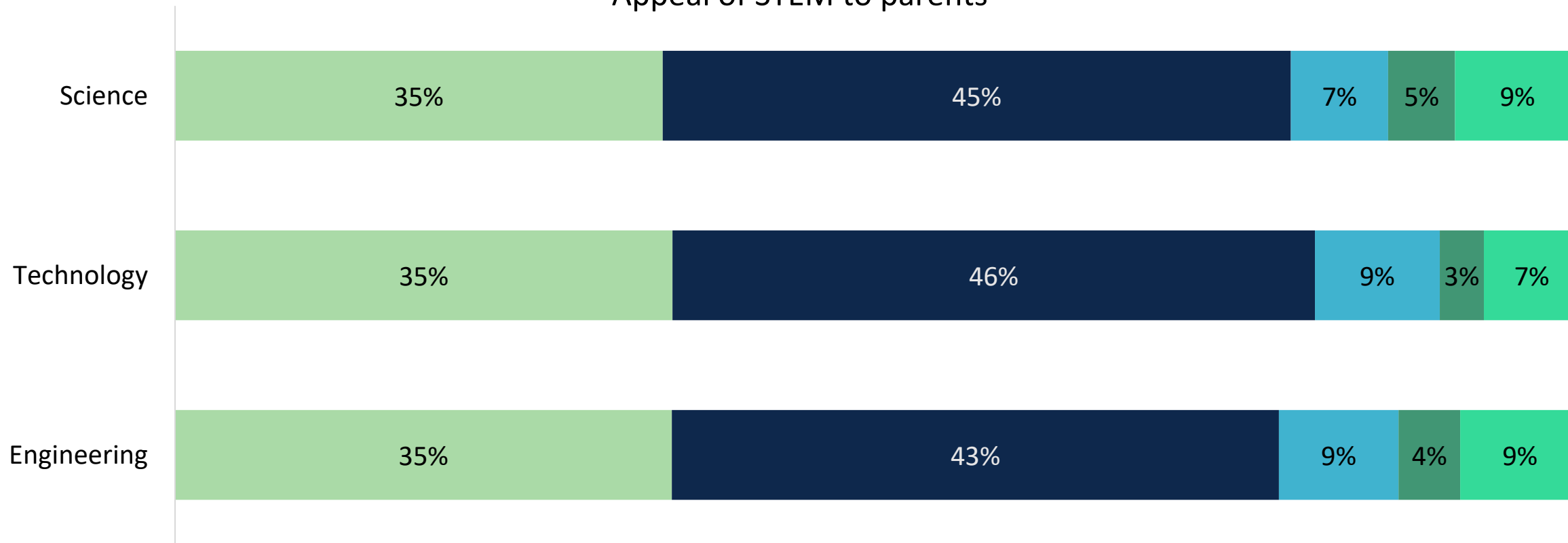


Knowledge and perceptions



Knowledge and perceptions

Appeal of STEM to parents



Very appealing

Somewhat appealing

Somewhat unappealing

Very unappealing

Don't know

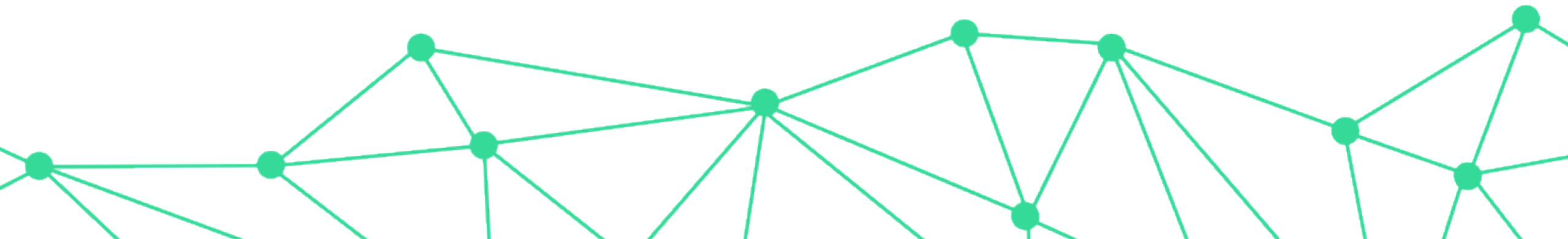
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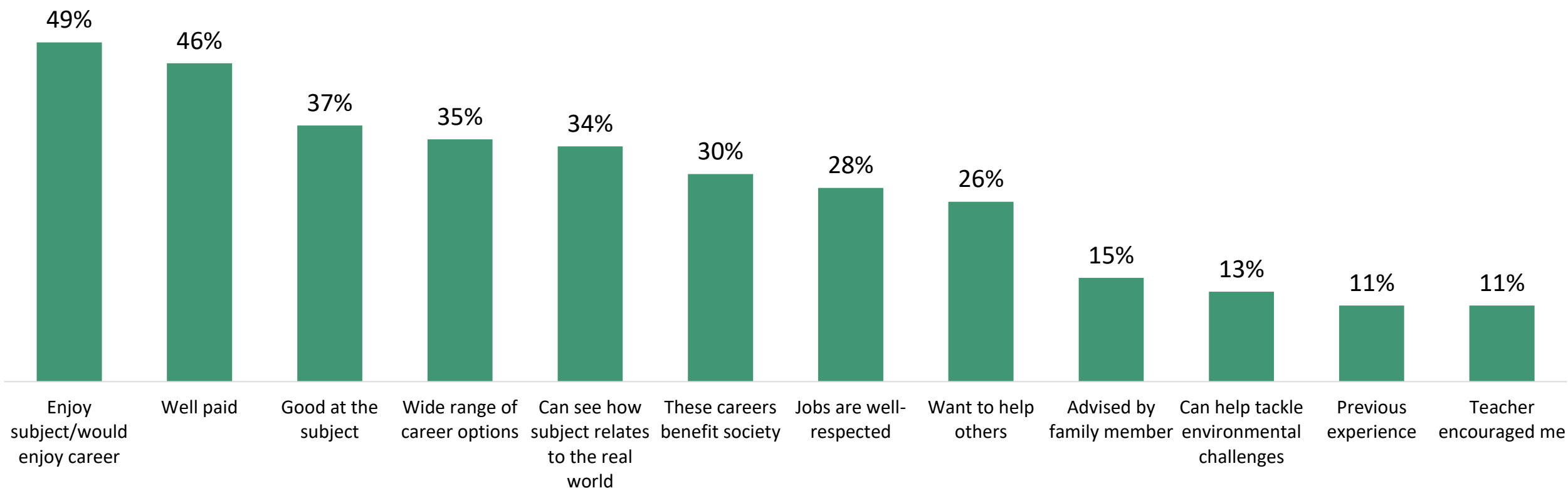
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Interests within engineering and technology



Interests within engineering and technology

% of those who are interested in a STEM career, reasons why

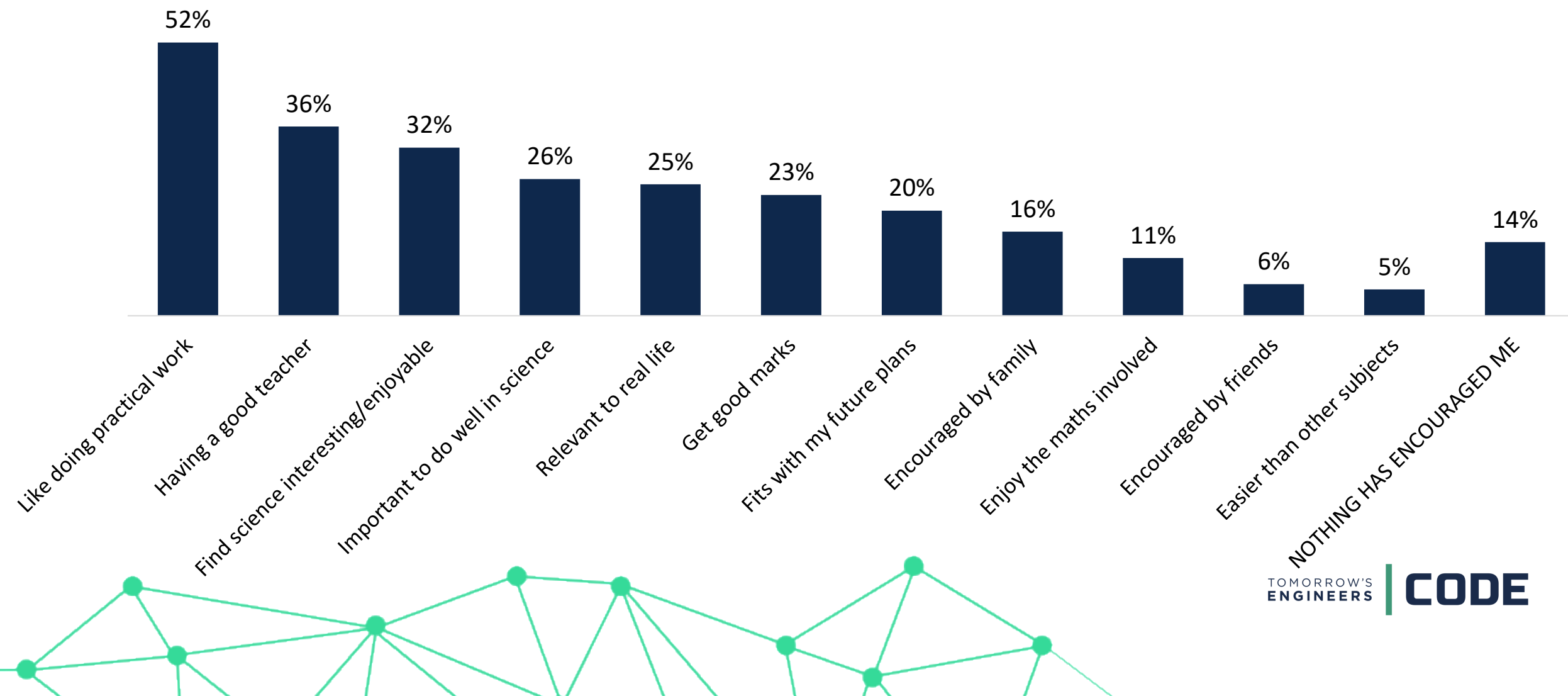


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Interests within engineering and technology

% of students in years 7-9, motivators to study science in school



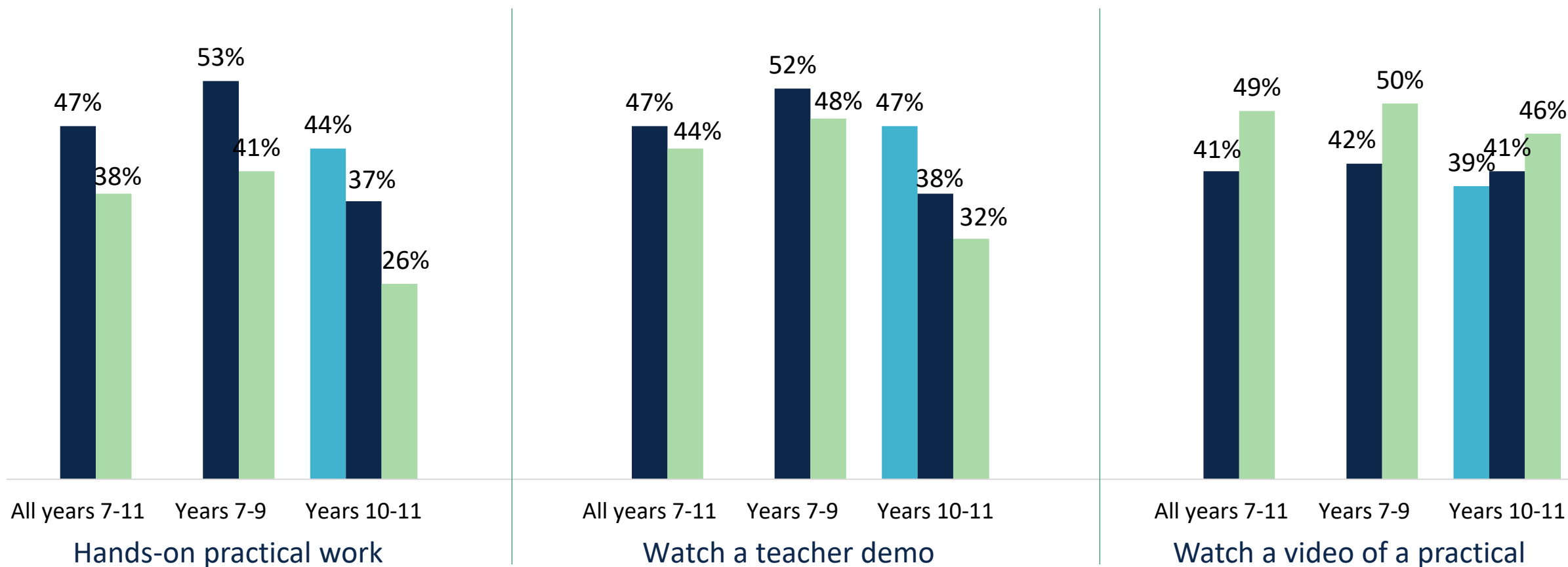
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Interests within engineering and technology

% of students saying they do each type of practical work at least once a fortnight

2016 2019 2023

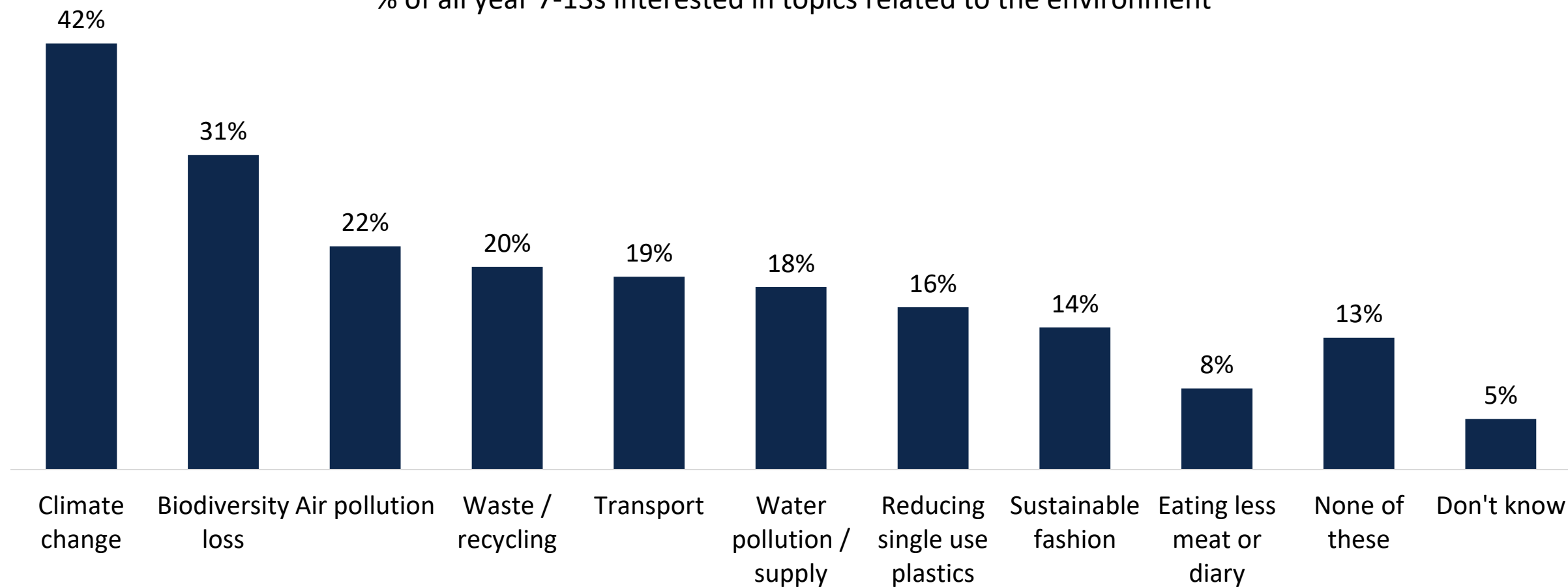


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Interests within engineering and technology

% of all year 7-13s interested in topics related to the environment



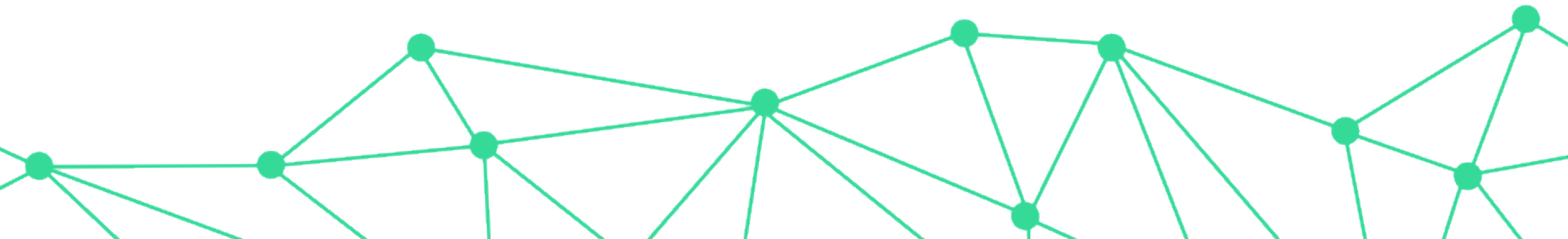
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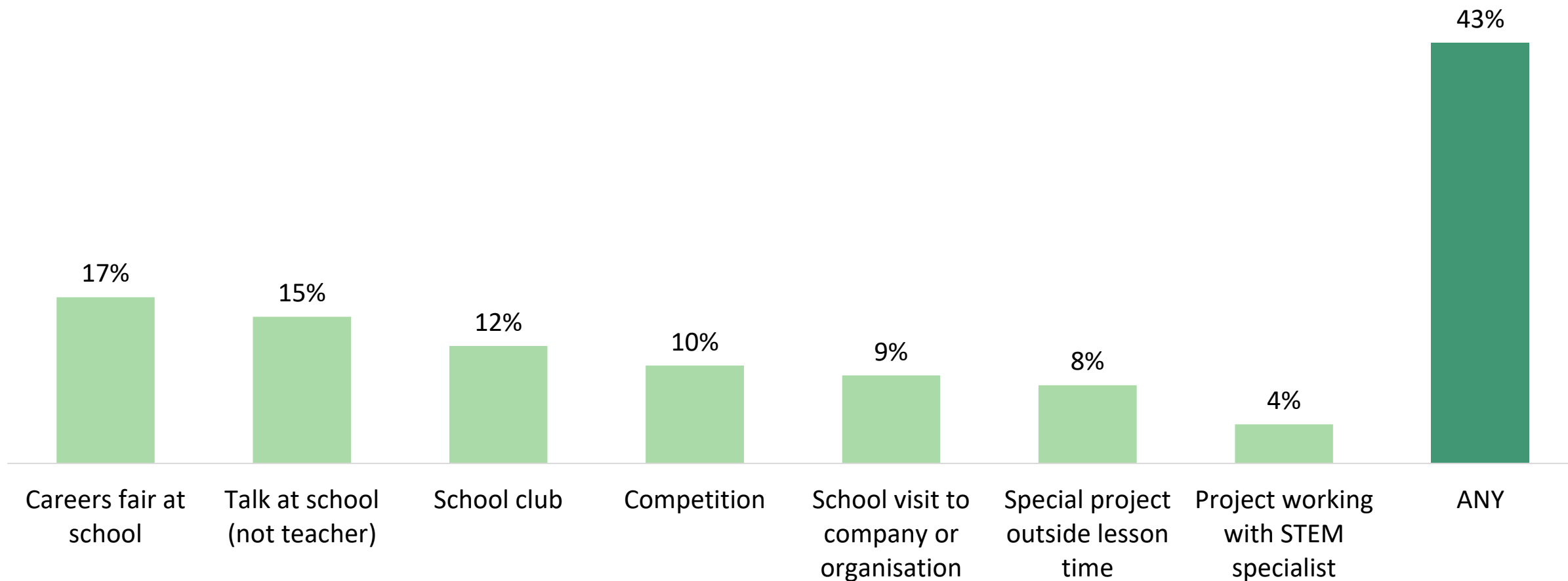
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Engagement with STEM outreach



Engagement with STEM outreach

% of all year 7-13s taken part in activities in the past school year

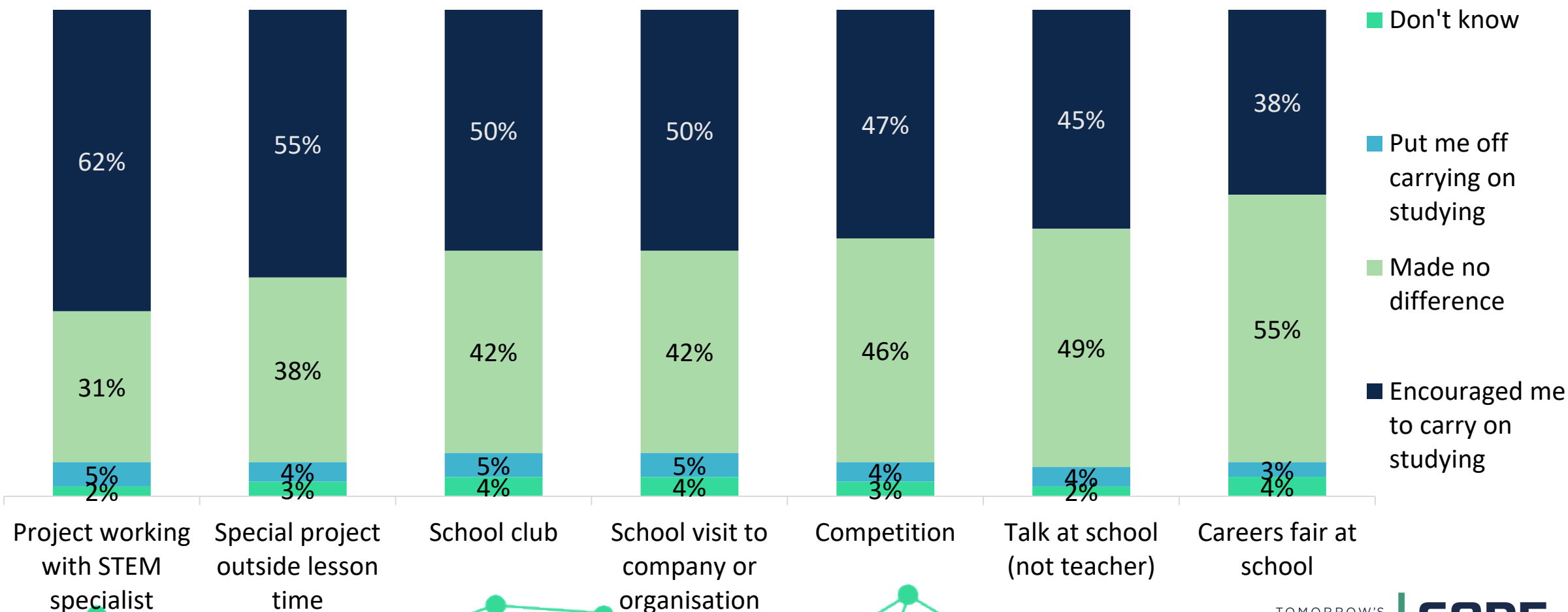


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Engagement with STEM outreach

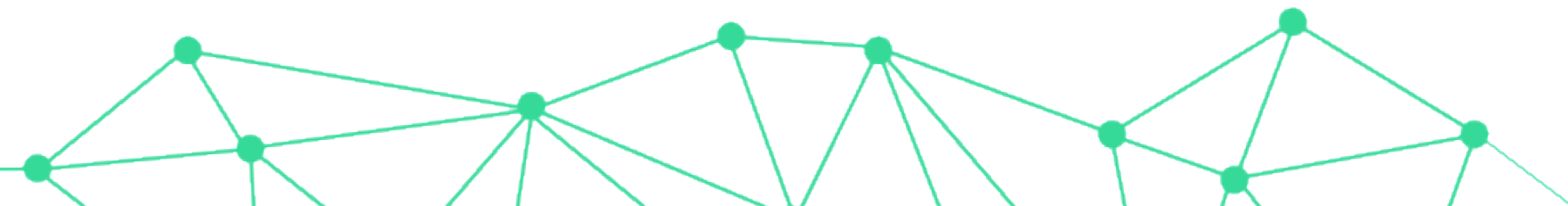
% of all year 7-13s taken part in activities through school in the past year



Engagement with STEM outreach

Effective outreach programmes are based on:

- behavioural change models and Theories of Change
- evidence from existing child development research and STEM education research
- evidence from other evaluation, such as that from EngineeringUK's programmes and activities for schools



Engagement with STEM outreach

How can we change young people's views and behaviour?

Using the COM-B model, we have created an impact framework to support the development of STEM outreach and careers engagement activities to ensure more young people have the capability, opportunity and motivation to make an informed choice and to choose engineering:



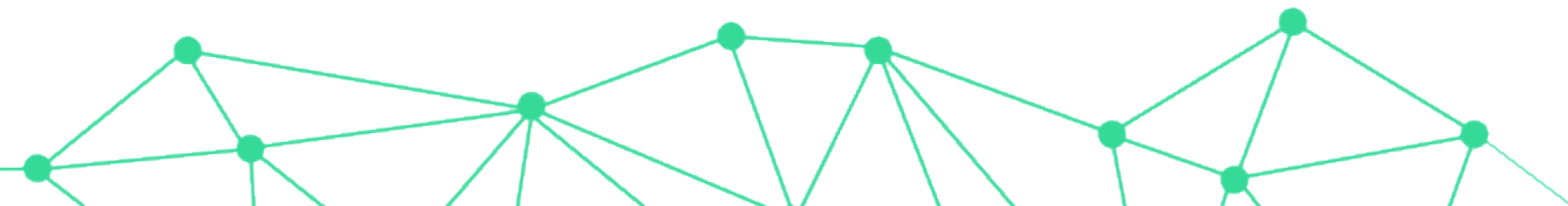
Engagement with STEM outreach

Existing developmental and STEM education research

We have built our programmes on developmental theories and STEM education research related to:

- Young people's career choice development
- STEM identity formation
- Science Capital

And from that we know perceptions and knowledge of engineering and technology are important factors in whether young people consider engineering.



Engagement with STEM outreach

What are the other key ingredients?

Evidence from existing evaluations for delivering high impact activities:





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