

ENGINEERING

AND INNOVATING FOR



**Why increased diversity is essential to
the UK achieving Net Zero**



Challenges to achieving Net Zero

Diversity Delivers

1. Addressing the required build rate and supply chain scaling



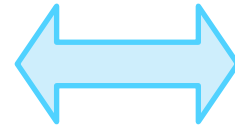
Access to the Widest Talent Pool & Supply Chain

2. Developing innovative technologies that all work together



Unique Perspectives and Views

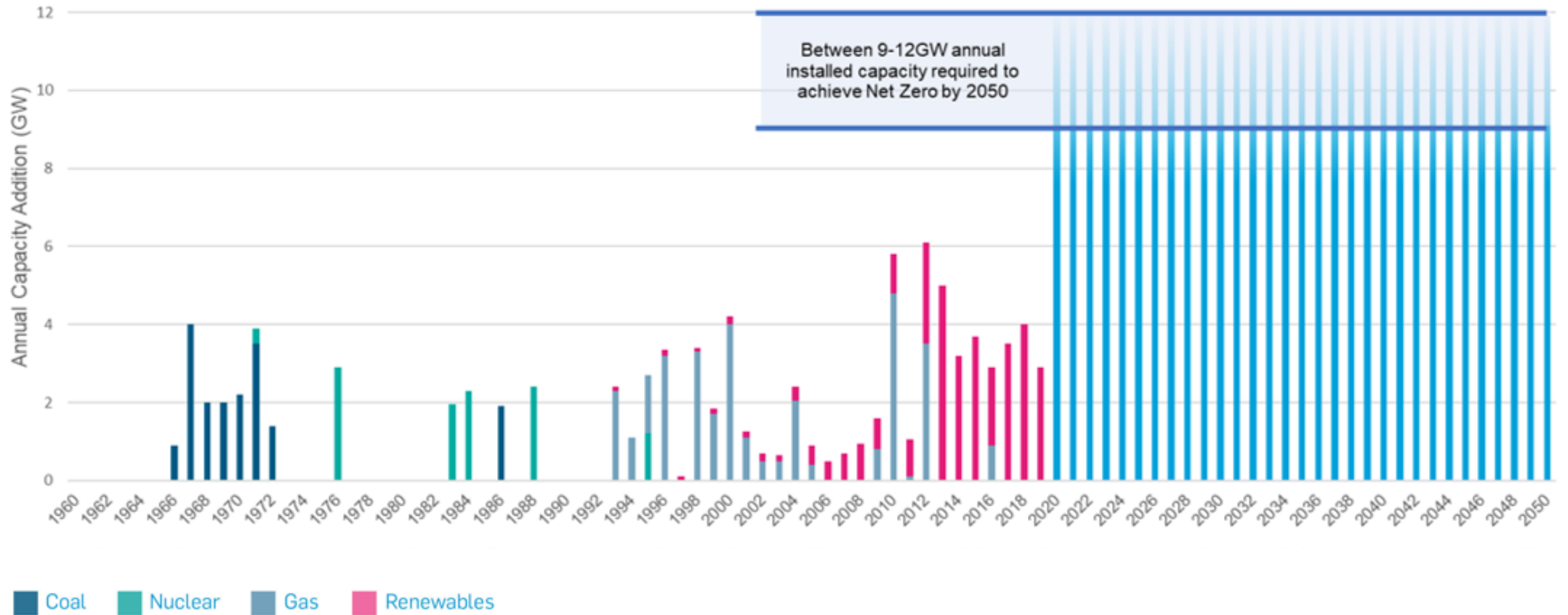
3. Improving understanding of Net Zero and implementing required behavioural change



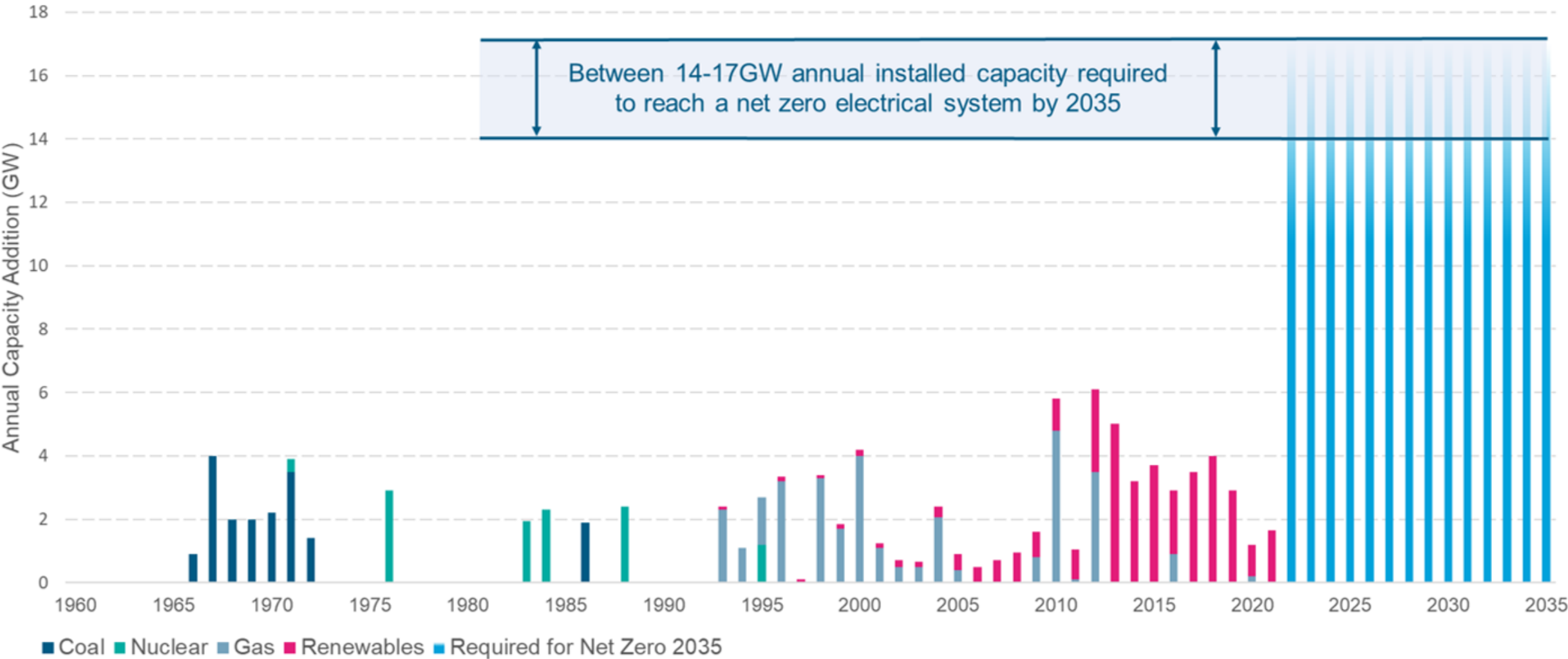
Influence over a wider spectrum of society

1. Addressing the required build rate to get to Net Zero

Power Generation – Unprecedented Build Rate



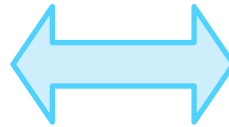
Power Generation – Unprecedented Build Rate



Net Zero – Diversity Delivers

Addressing the required build rate

- 14-17GW a year to meet the 2035 electricity decarbonisation target set by UK Gov
- ‘Build, Build, Build’
- 200+ offshore wind turbines a year
- 1 Nuclear power station every 5 years
- 3+ CCGT or Biomass stations with CCS a year

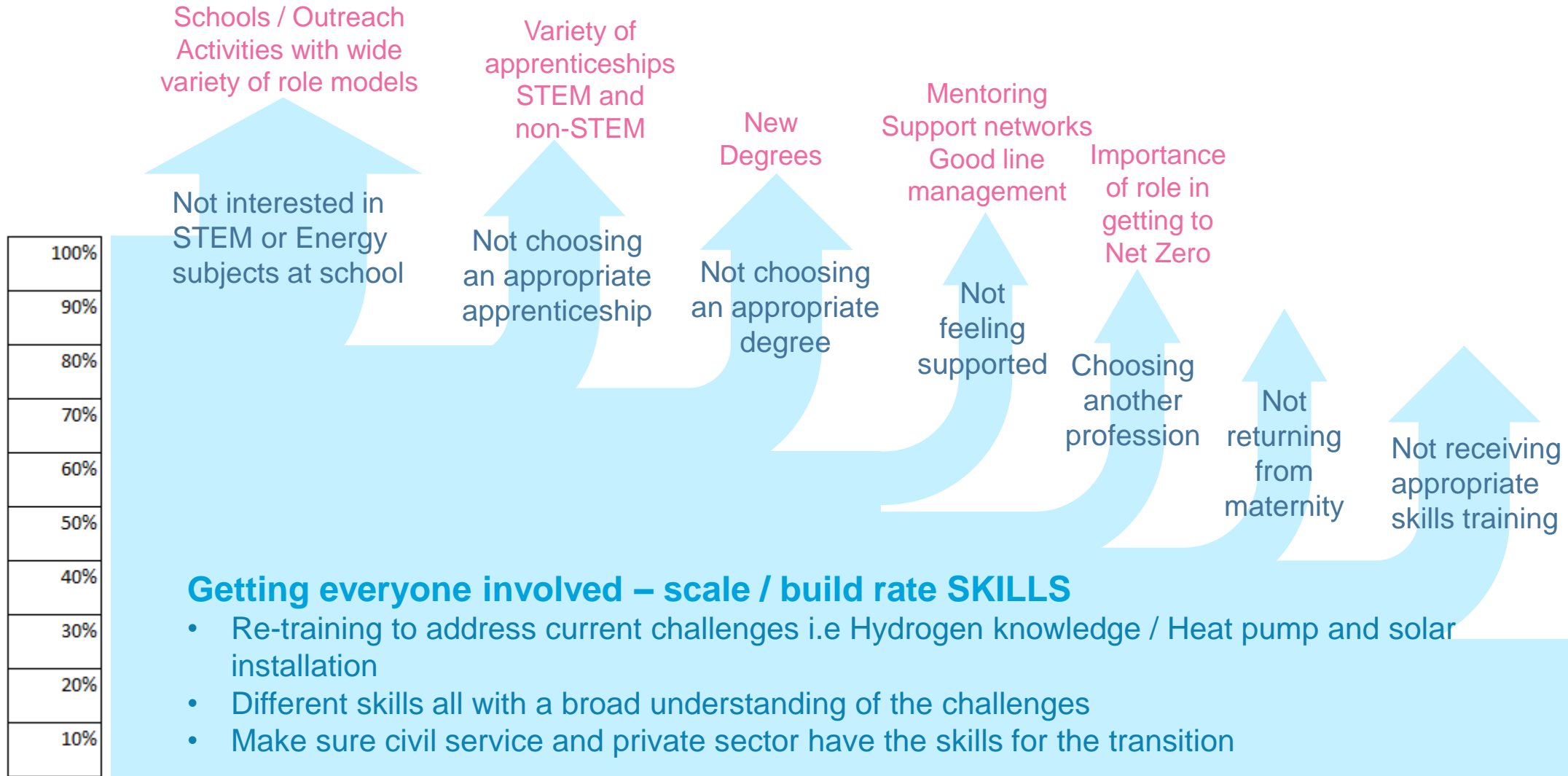


Access to the Widest Talent Pool & Supply Chain

- Access to 100% of the population
- Agility
- Flexibility
- All types of backgrounds, experience, ways of thinking - Inclusivity

Not just in the UK but across the world.

Access to the Widest Talent Pool



UK Equality Diversity & Inclusion Insights



IMPACT



Executive Sponsor:
Philip Hoare



People Strategy:
Proud to build the workforce that matters

■ 2013 ■ 2018 ■ 2020

13% **20%** ↑ **26%**
BAME* Graduates

23% **31%** ↑ **38%**
Female Graduates



STEM Ambassadors promoting STEM to underrepresented groups

Collaborations:



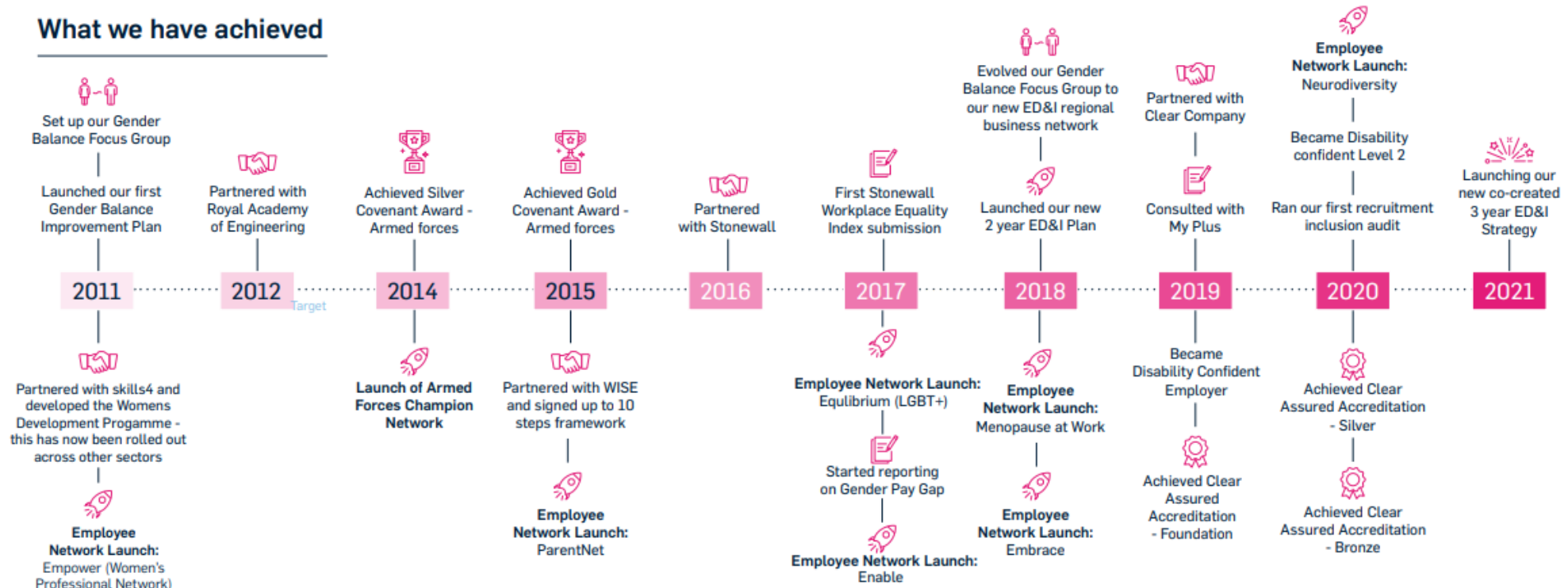
9,225
UK Workforce

42% ↑ **46%**
Male Part Time Workers



BAME* - Black, Asian and minority ethnic

What we have achieved



Net Zero

2. Developing Innovative Technologies that together deliver a Net Zero System

Net Zero System

NET ZERO INNOVATION PORTFOLIO - PRIORITY AREAS



**Advanced
Modular
Reactors**



**Floating
offshore wind**



Hydrogen



Bioenergy



**Industrial fuel
switching**



**Advanced
CCUS**



Homes



**Disruptive
technologies**

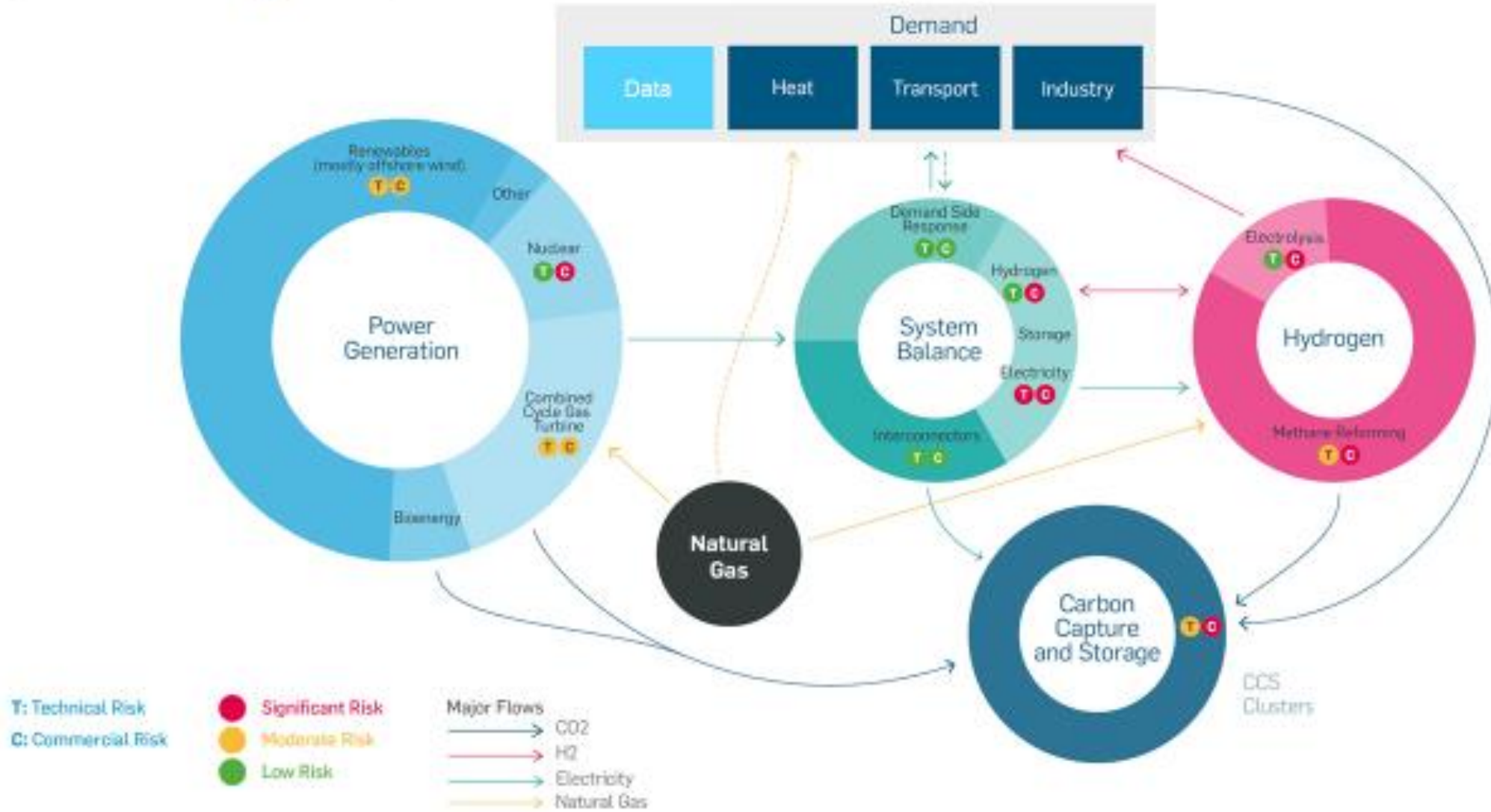


**Direct air
capture**



**Energy storage
and flexibility**

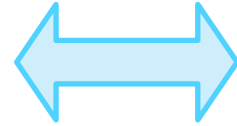
Net Zero System



Net Zero – Diversity Delivers

Developing innovative technologies that all work together

- Systems thinking
- Hydrogen production, transportation, storage, use cases
- Carbon Capture & Storage - Clusters
- Energy storage
- Efficiencies – Transport & power



Unique Perspectives and Views

- Different industry experience
- Different skills
- Different cultural or social background
- Different lived experience
- Collaboration and connection

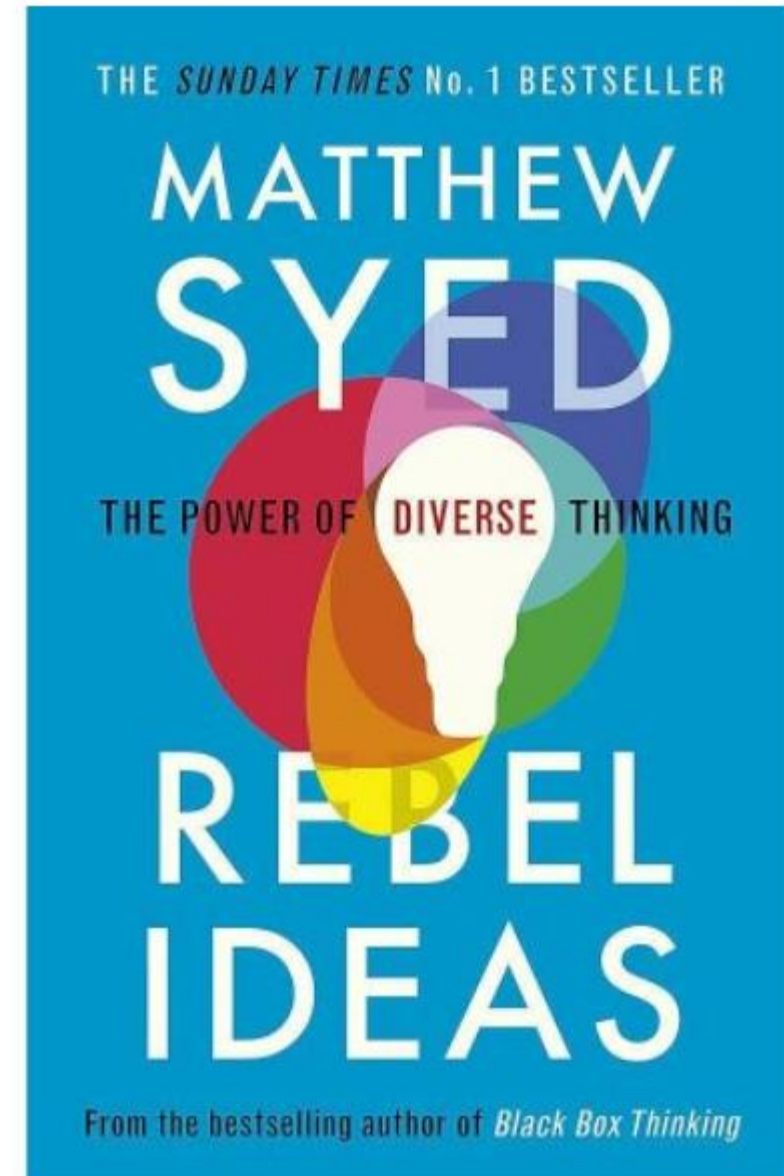
- Improved problem solving
- Break out of echo chambers
- Better decisions
- Improved collaboration
- Varied approach to risk



- Matthew Syed talks about the differences in diversity and where the best ideas come from – YouTube
- Implementing a growth culture - Matthew Syed - YouTube

Homophily Bias

Proximity Bias



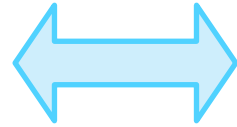
3. Behavioural change

Influencing consumers and the public to the understand the changes needed to achieve Net Zero

Net Zero – Diversity Delivers

Improving understanding of Net Zero and behavioural change needed

- 30 years is not long
- We need a mix of Energy sources
- Nuclear is not ‘bad’
- We can’t break our fossil fuel addiction overnight
- We need to reduce our demand
- Engineering and building is essential to Net Zero
- Need to remove public objection to projects to proceed at pace



Influence over a wider spectrum of society

- Educating the next generation
‘Don’t Look Up’
- Trusting people like you

Trusting people – people trust people like them



Challenges of Net Zero

1 .Addressing the required build rate and supply chain scaling



Diversity Delivers

Access to the Widest Talent Pool & Supply Chain

2. Developing innovative technologies that all work together



Unique Perspectives and Views

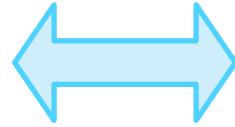
3. Improving understanding of Net Zero and implementing required behavioural change



Influence over a wider spectrum of society

Net Zero – Diversity Delivers

1. Addressing the required build rate



Access to the Widest Talent Pool

- What do we need from Government to underpin pipeline of projects and skills.
- How encourage more outreach (backed up by pipeline of opportunities)?
- How define what apprenticeships are needed/gaps and are there new topics – such as an energy transition technologies course?
- How could T-levels help you get better access to more staff?
- How do you ensure we don't lose people once they are in the industry?

2. Developing innovative technologies



Unique Perspectives and Views

- What ways can you ensure diverse perspectives are bought into innovation forums
- How can you ensure high level decisions incorporate diverse perspectives
- How do you break out of echo chambers
- How do you encourage 'inclusive meetings'

3. Improving understanding of Net Zero and behavioural change needed



Influence over a wider spectrum of society

- How do we use different role models and different communication methods within our companies?
- Who are you talking to with your podcasts/webinars etc? (are we in echo chambers)

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Diversity – What does increased diversity bring?

