Sustainability at Queen's

28

"We've launched our Net Zero Plan - now what?"

Sustainability with Impact
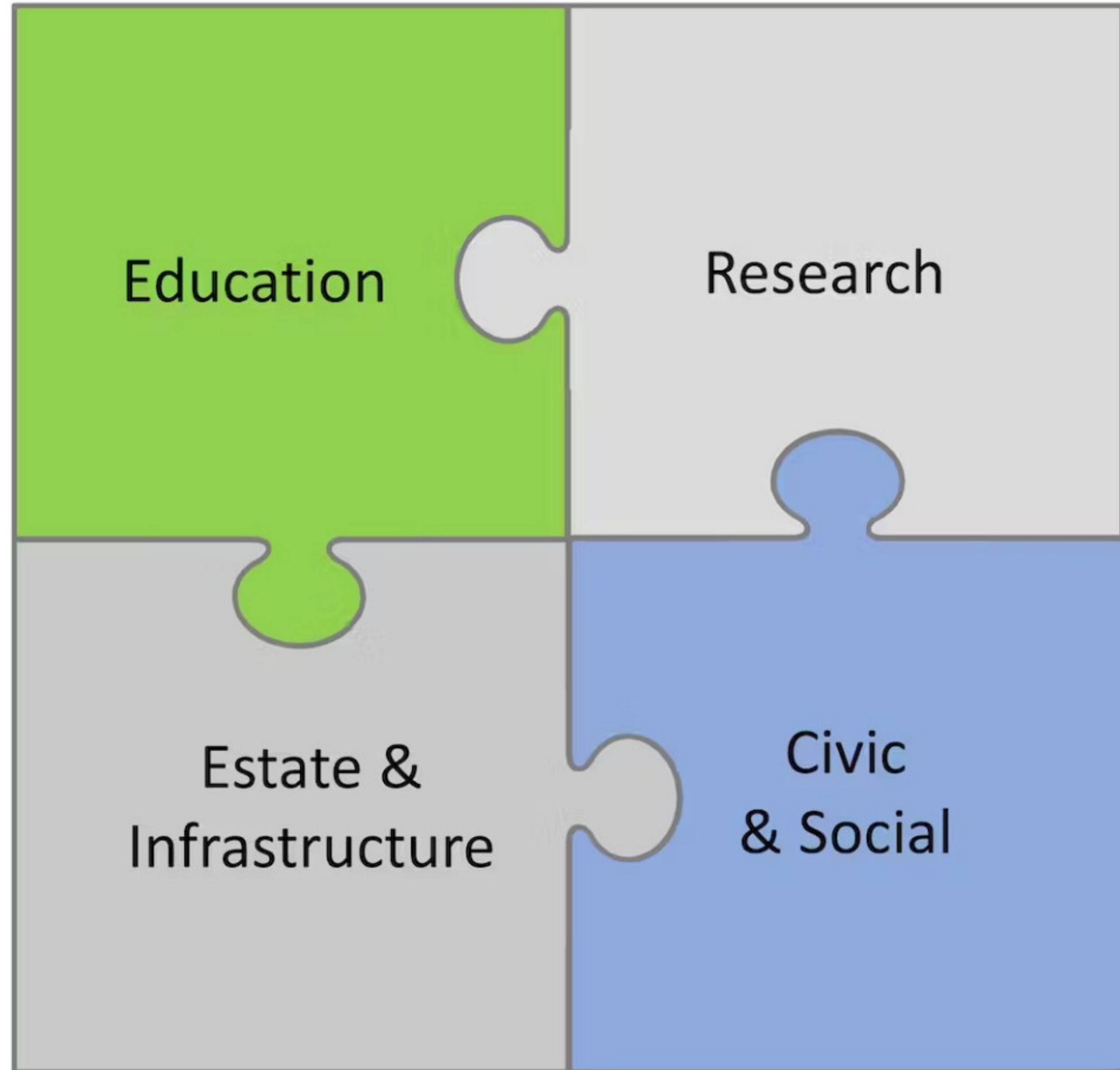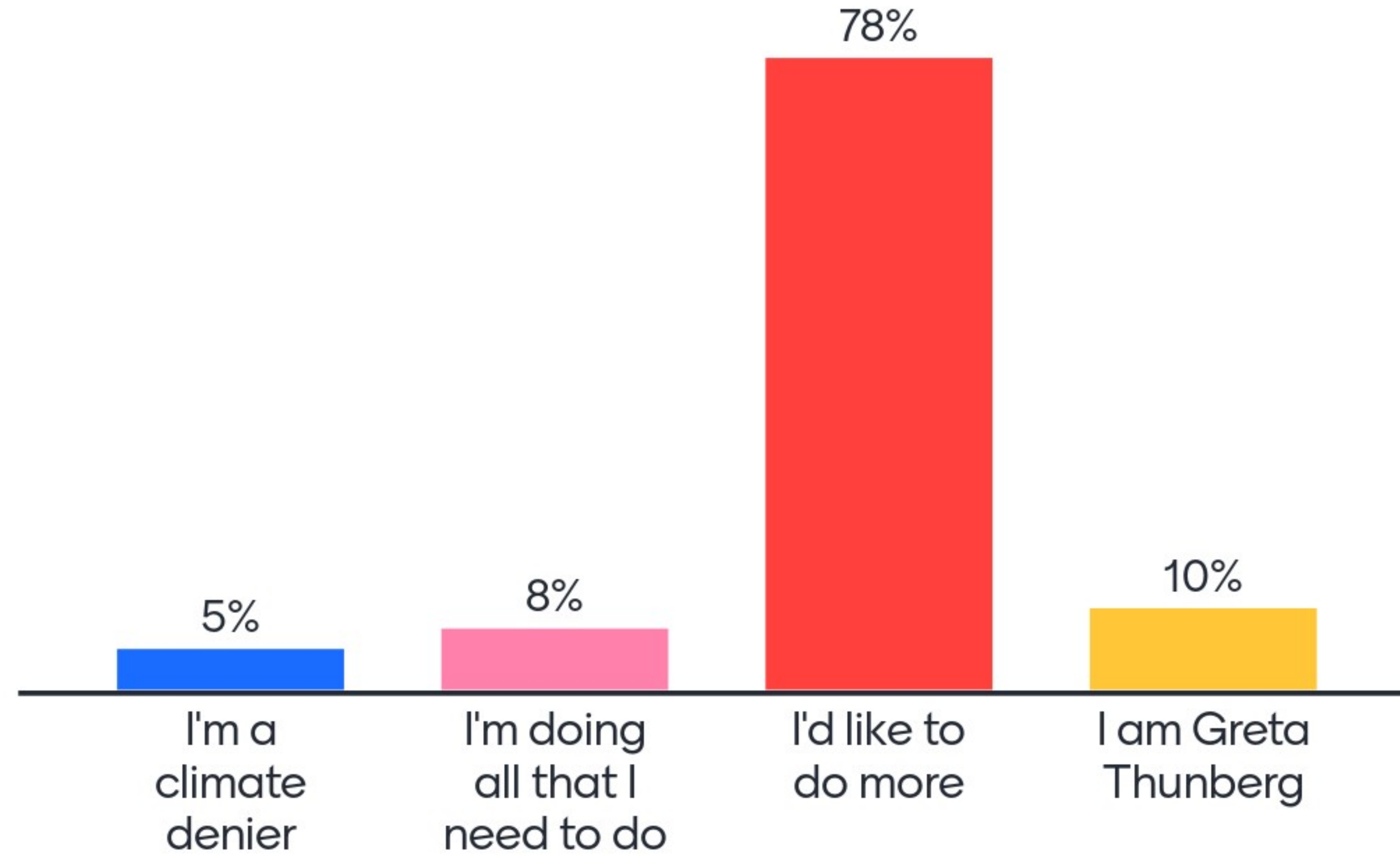
Strategy 2030

Our Vision

- Our Vision is to conduct leading-edge education and research, focused on the needs of our society.

Strategic Priority

- Social and Civic Responsibility and Economic Prosperity

Commitment to:

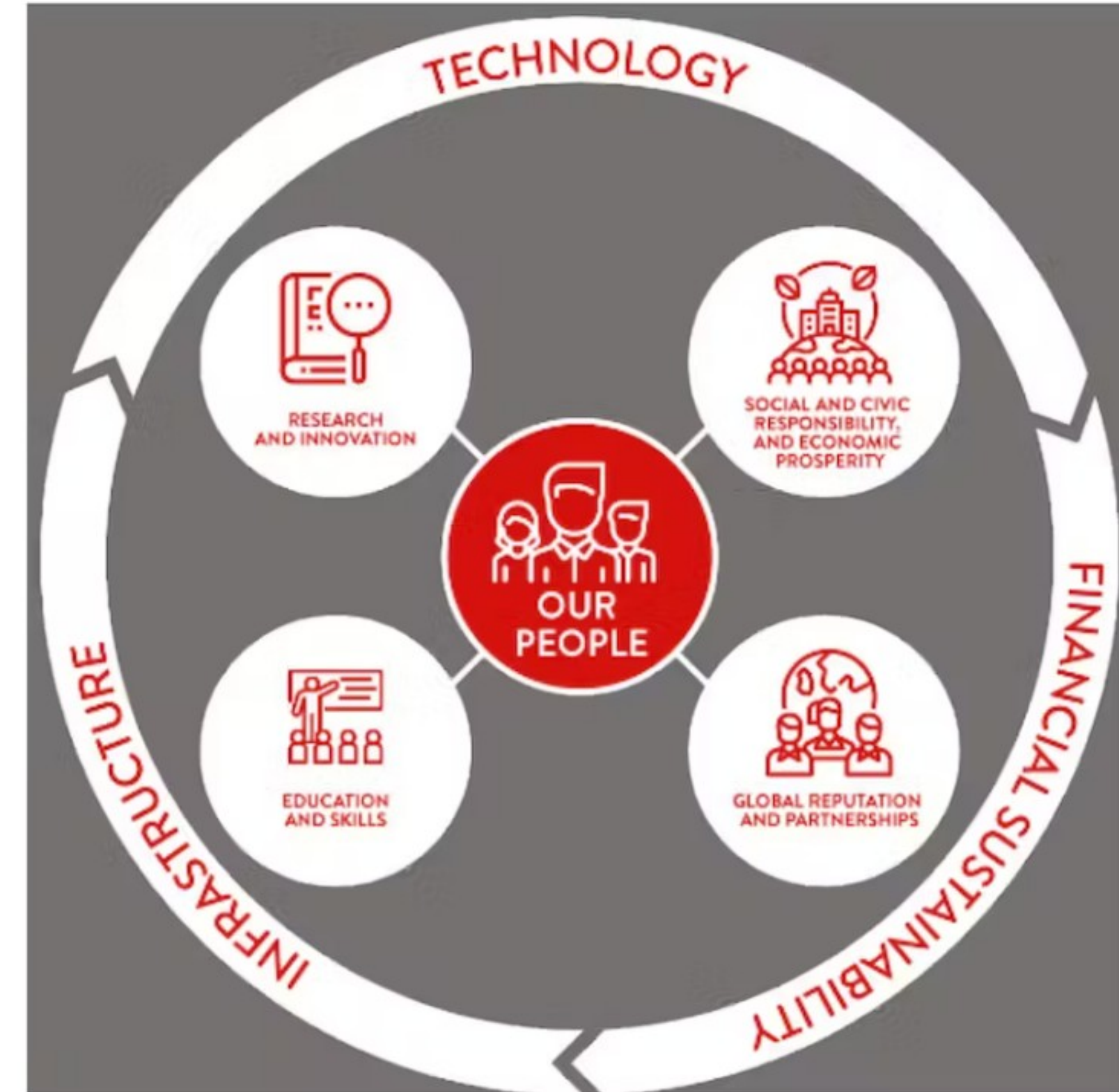- Embrace the Sustainable Development Goals across all our activities

- Transition to a Carbon Neutral Society

QUEEN'S AND THE SDGs

THE GLOBAL GOALS
For Sustainable Development

The SDG Accord
The University and College Sector's Collective Response to the Global Goals

- THE Ranking Results 2022
- **85 out of 1591 institutions – top 6%**
  - **institutions**

Co-hosts the SDSN Ireland - QUB and UCC (University College Cork)

QUEEN'S UNIVERSITY BELFAST

SDSN Ireland
An All-Island network in support of the SDGs

Quick Quiz on Net Zero!
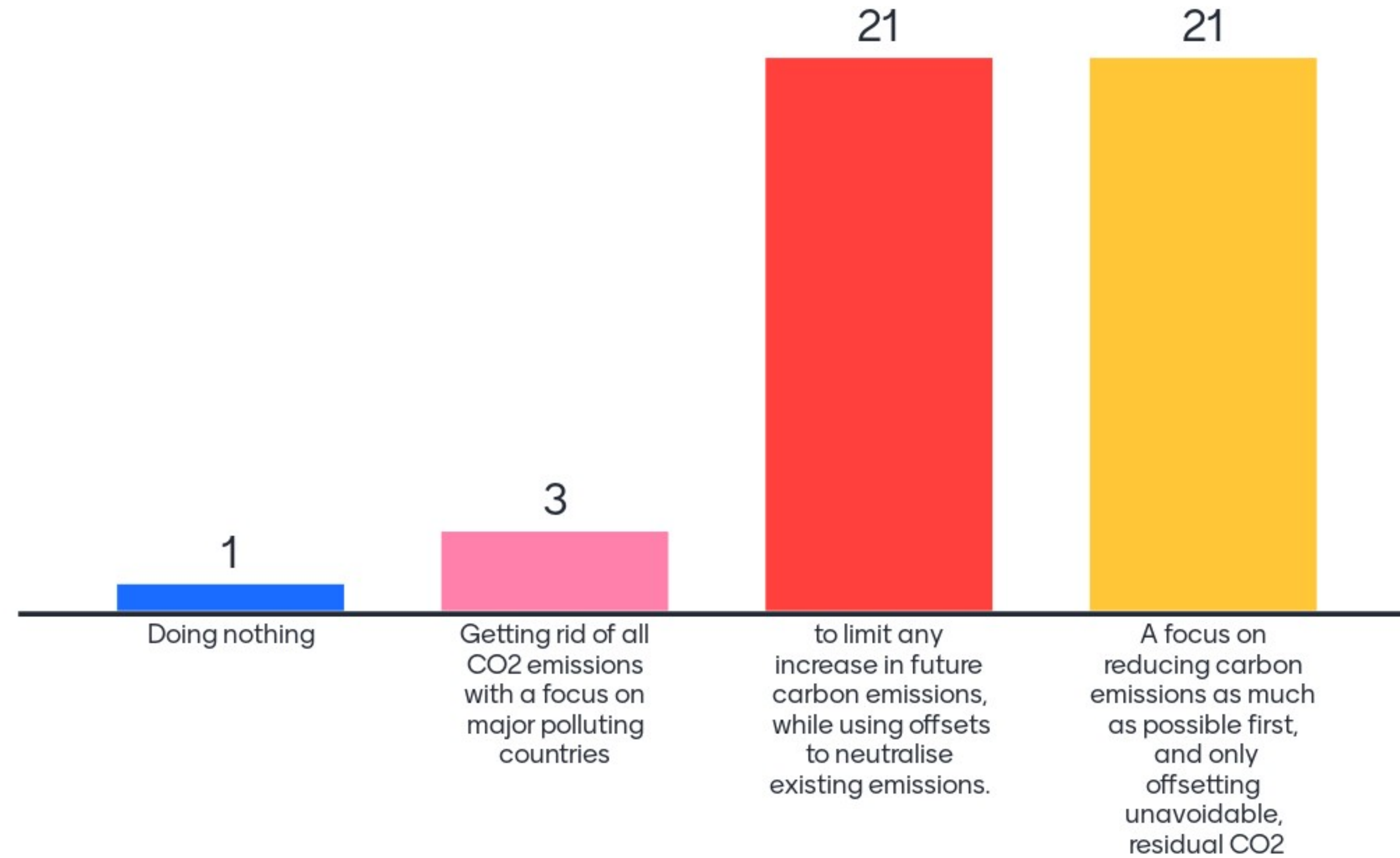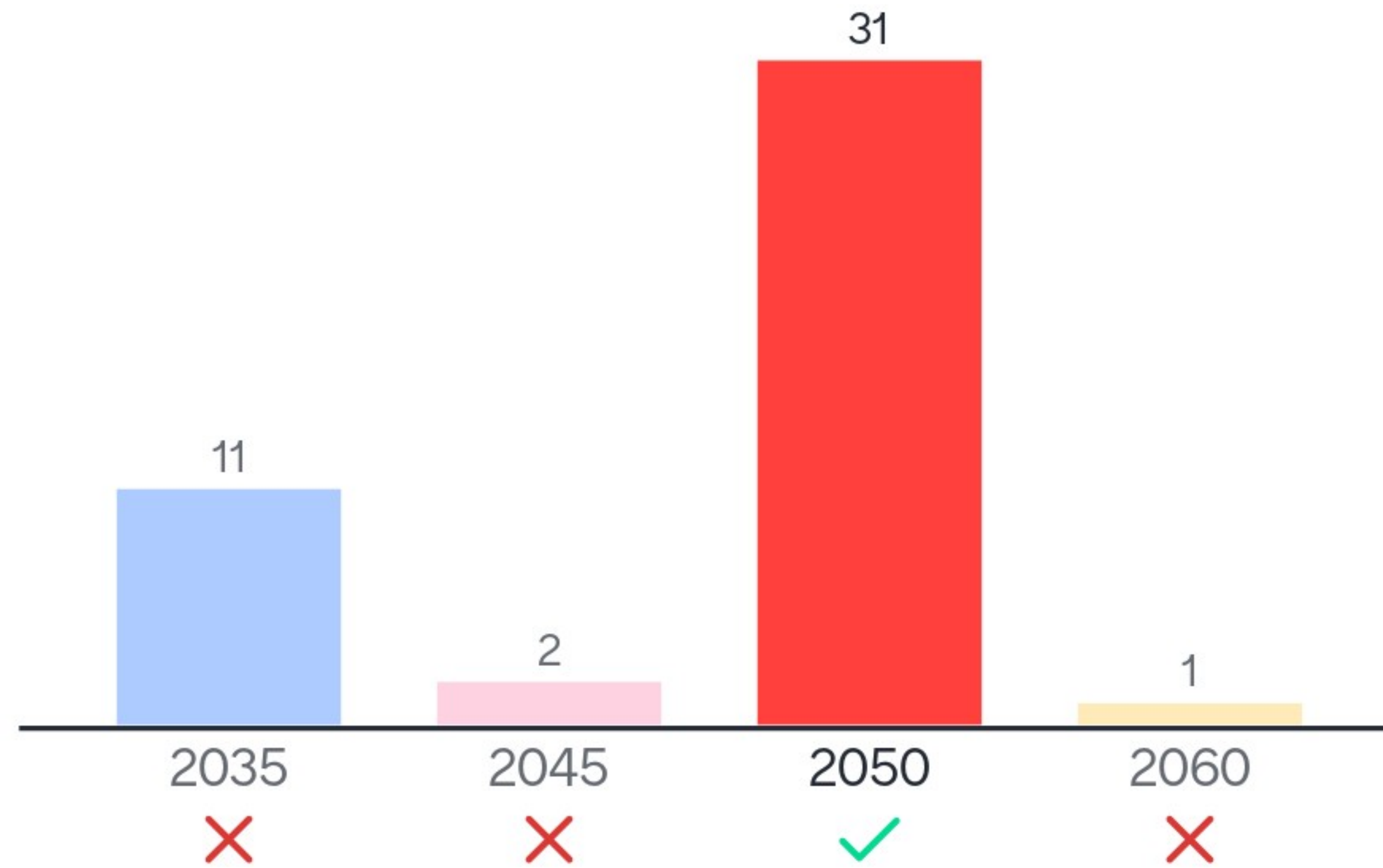
Following Rushi Sunak's recent announcements on changes to Net Zero targets, what is the year that the UK now aims to meet a Net Zero commitment?

2040	2050	2060	2065
1	16	24	3
✗	✓	✗	✗
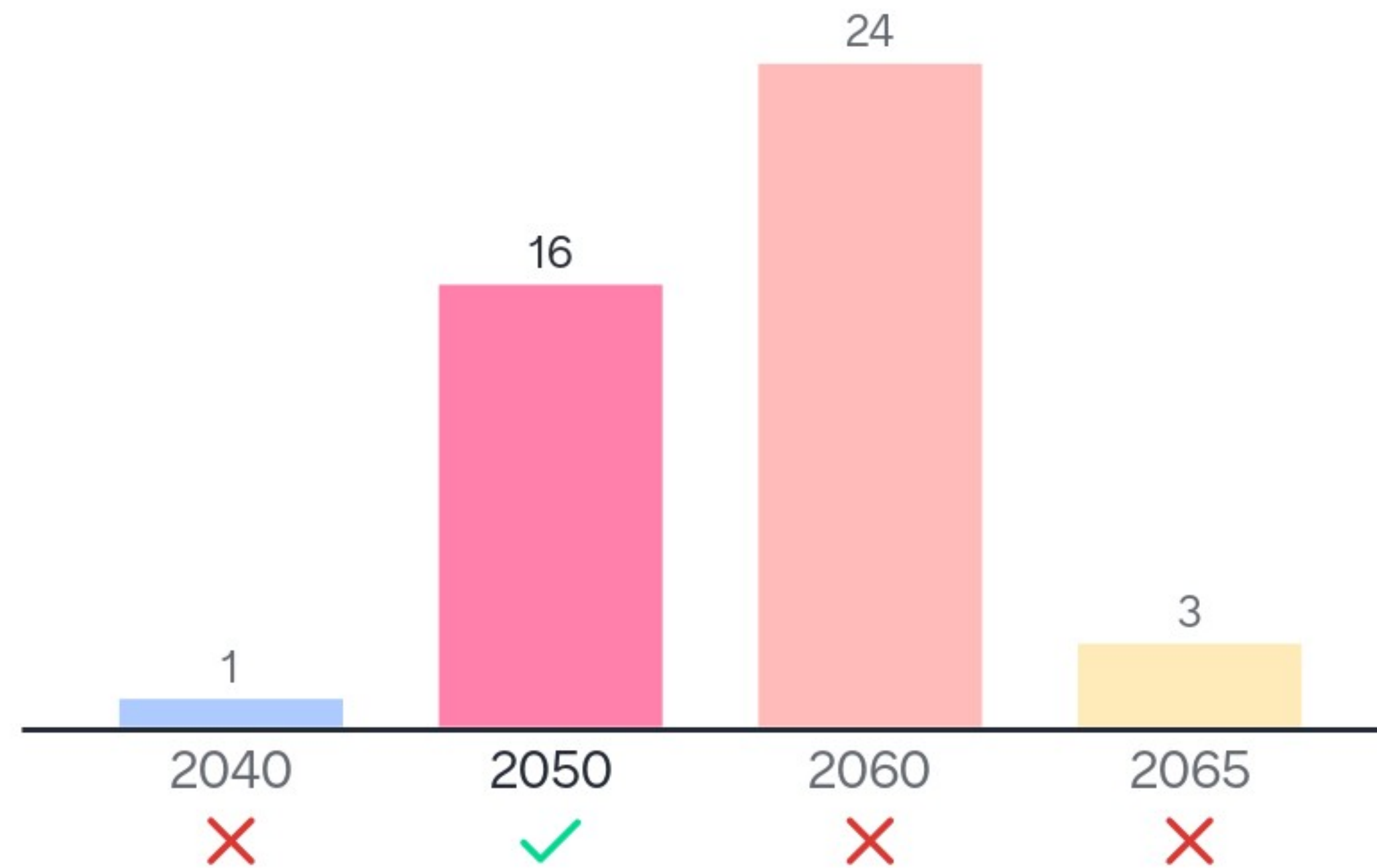
Net Zero 2040
Aims of the Plan

Our Plan provides a high-level overview of the following:

Carbon baseline

Actions and interventions

Engagement

Offsetting
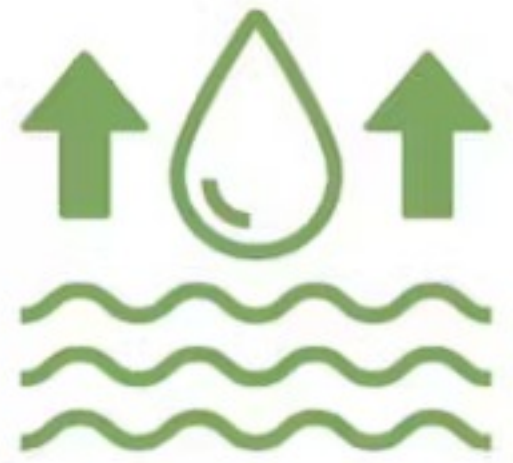
Climate adaptation

Our Carbon Baseline - 2018-19
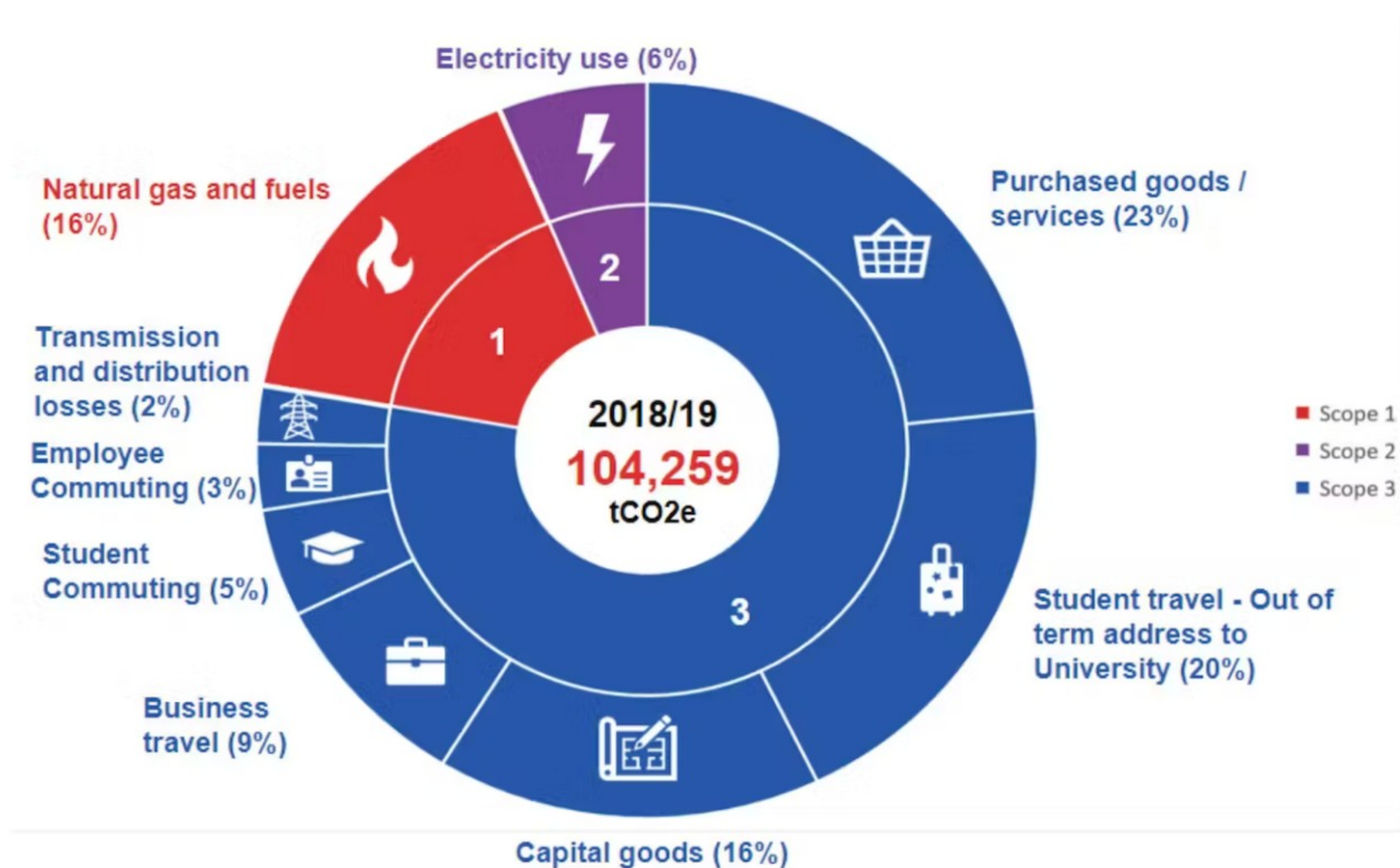
Electricity use (6%)

Natural gas and fuels (16%)

Transmission and distribution losses (2%)

Employee Commuting (3%)

Student Commuting (5%)

Business travel (9%)

Capital goods (16%)

Purchased goods / services (23%)

Student travel - Out of term address to University (20%)

2018/19
104,259
tCO2e

Scope 1
Scope 2
Scope 3
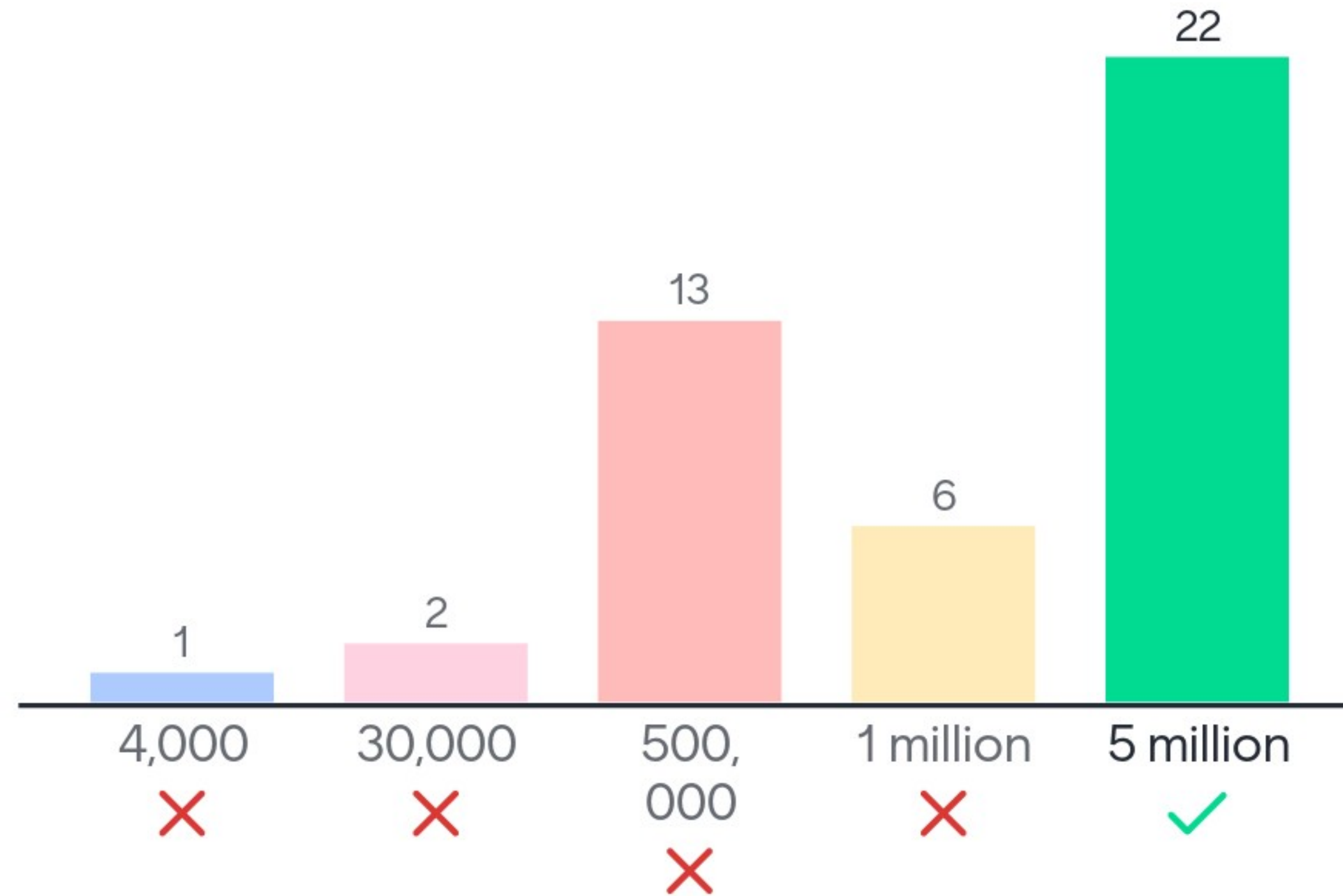
Key Principles
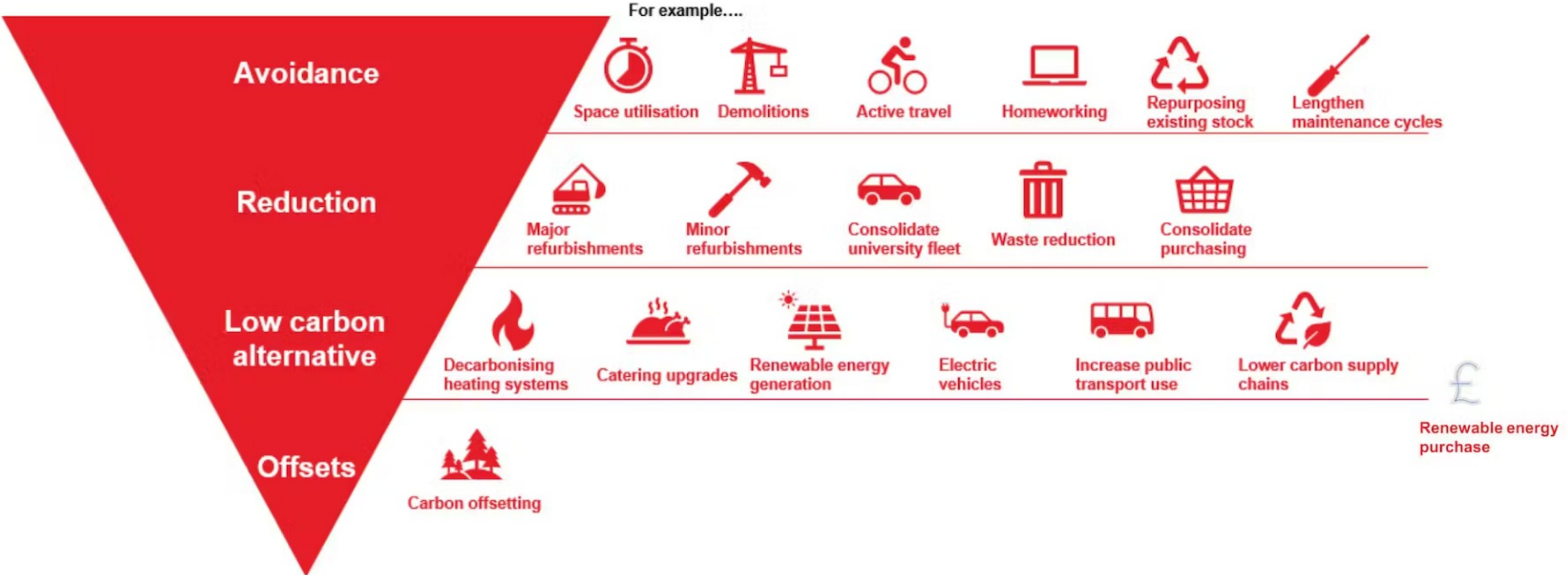
Our Net Zero Journey

June 2010 – University Carbon Management Plan

Governance and reporting

Monitoring and Measuring

Policies e.g. BREEAM Excellent

Green Revolving Fund and Queen's Green Fund

Energy Efficiency & Infrastructure Projects

Engagement across Community

Leaf Programme

- 12 labs in the LEAF pilot in 2021-22

- **31 labs in 2022-23**

- success of the LEAF Programme has been, and continues to be, the commitment from the Technicians within the Lab environment

Sustainable Design And Construction
Riddel Hall Business School

- BREEAM Excellent
- Geothermal - 38 boreholes
- PVs
- Extensive Green Roof
- Swift Bricks
- EV Charging
- Living Lab

EDUCATION

✓ **Development of new programmes (e.g. MSc in Climate Change)**

✓ **Adoption of Carbon Literacy Training (SoBS & NBE)**

✓ **Provision of Training for Staff:**

SEDA ACCREDITED PROGRAMMES

Education for Sustainable Development (ESD)
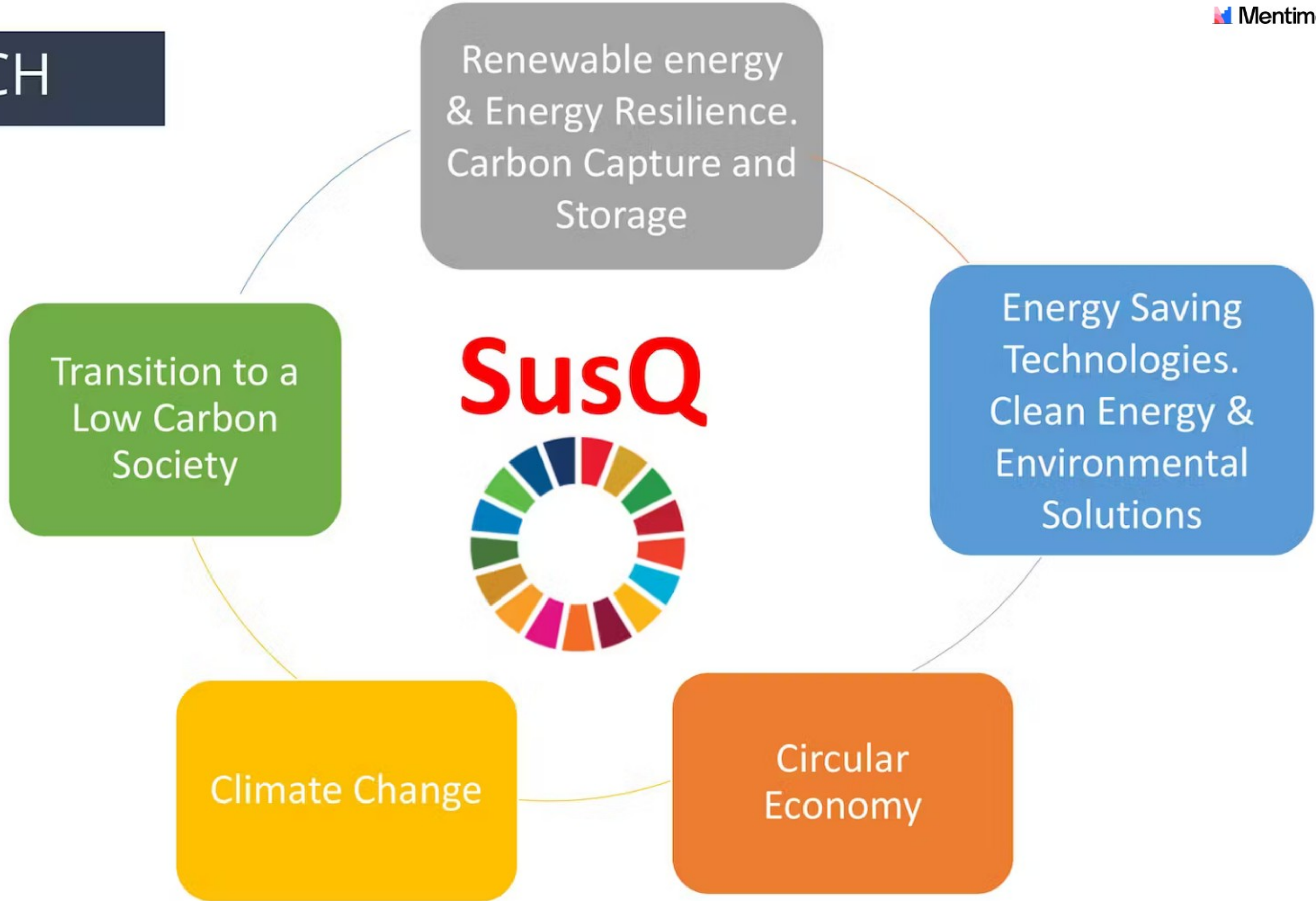
Biological Sciences together with CED are piloting an Education for Sustainable Development (ESD) course 27 Sept – 06 December 2023. The award is a SEDA-recognised award (pending) open to members of staff who teach and support learning across Queen's University Belfast. Those who take part in the course should be Module Co-ordinators, Programme Directors, or members of staff who have significant influence over the curriculum development and learning design of credit-bearing courses. Embedded in the material and signposted will be learning design principles and Sustainable Development Goals and the programme aligns with the Queen's 2030 Strategy.

The course is a mixture of both F2F and online sessions as detailed below and is a CPD opportunity for staff, providing professional learning through a structured programme which is unpinned by the PSF, SEDA values and evidence-based practice.

EDUCATION

✓ Sustainability contribution now within the revised Academic Profiles

Evidence of engagement with the SDGs in teaching and learning practice.	Evidence of engagement with the SDGs and engagement with Education for Sustainable Development in teaching and learning	Established leadership in ESD-related curriculum design and development	Sustained leadership in ESD-related curriculum design and development and in mentoring staff on ESD principles.

✓ New Modules, CAPE and module review will be seeking information on ESD

✓ Working with FE & HE on sector-wide skills provision on sustainability

Sustainable Travel

Big Loop Bike Hub

- Increasing access to cycling on campus

- Circular economy

- Volunteers transitioning through the justice system

Lennoxvale Tree Nursery

Partnership with Queen's, San Souci Residents and Conservation Volunteers

Decarbonising the Supply Chain

Lifestyle Choices...

I have...

Reduced food waste — 1.8

Limited my use of single-use plastic — 1.8

Reduced the amount of new products and goods I buy — 1.6

Bought more seasonal groceries — 1.4

Limited water usage — 1.6

Bought second-hand/refurbished items — 1.7

Chosen brands that have environmentally sustainable practices/values — 1.4

NO   Yes

I have...

Reduced consumption of meat/animal products — 1.4

Chosen brands that have ethical practices/values — 1.4

Opted for low carbon emission and/or shared modes of transport — 1.6

Reduced my air travel — 1.4

Used my car less — 1.6

Changed some, or all, of my personal financial investments for more ethical or sustainability related investments options — 1.2

NO

Yes

9   46

Carbon Examples

- **Flight from London to Hong Kong** - 3.4 tonnes CO_2e

- **A new iMac** - 570 kg CO_2e

- **Congested Commute by Car** - 22 kg CO_2e (5 miles)

- **TV on standby for 20hrs per day** uses 15Kg CO_2e

- **Ironing a shirt** – 70g CO_2e

-

Carbon examples

Web search uses 0.2g CO_2e (Google)

Email uses 0.3g CO_2e (McAfee)

Email with a long and tiresome attachment uses 50g CO_2e (McAfee)

Drying your hands

3g CO_2e (Dyson) 10g (paper towel)

Cheeseburger
2.5Kg CO_2e

Litre of Petrol
3.15Kg CO_2e
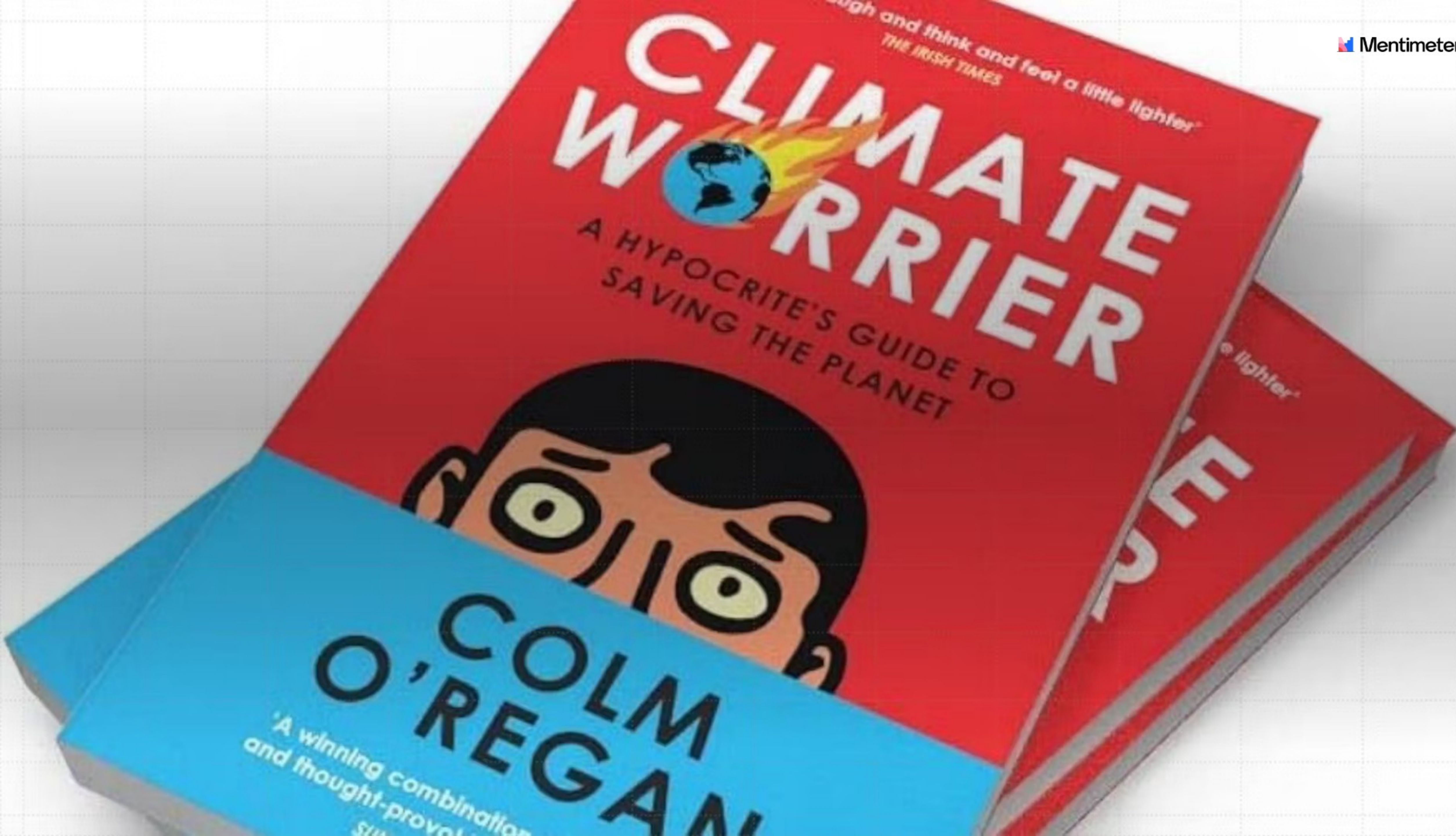
Sustainability

THE Impact Rankings

AASHE Stars

Times Higher Education
Impact Rankings

Mentimeter

Impact Rankings
Methodology 2024
Version 1.0

- 184 pages

- Descriptions of the assessment methodologies for each SDG

THE Impact Rankings

THE measures success in delivering the United Nations' Sustainable Development Goals (SDGs).

Launched in 2019 with 450 Universities participating

THE use "carefully calibrated indicators" across: **research, outreach, stewardship and teaching**.

capture a university's progress toward an individual SDG beyond teaching and research. Both quantitative and qualitative information informs the calculation, including both data provided by your university and 3rd-party data providers.

To date:

	2020	2021	2022	2023
No. of participating institutions	766	1115	1406	1591
QUB ranking	87	43	85	85

2020   *2023*

Participating Russell Group universities performance: *Participating Russell Group universities performance:*

University of Manchester – 8th

King's College London – 9th

University of Leeds – =11th

University of Newcastle - =11th

University of Edinburgh – 30th

University Durham – 100 - 200

University of Manchester – 2 (up from 9)

University of Glasgow - 13 (=19 in 2022)

University of Exeter =18 (up from =42)

University of Newcastle =24 (down from 8)

University of Sheffield =42 (not ranked in 2022)

University of Cardiff =52 (101 – 200 in 2022)

University of Edinburgh =52 (down from 29)

University of Durham =77 (up from 101 - 200 in 2022)

University of Liverpool =79 (up from =88)

University of York – 101 – 200 (same in 2022)

University of Southampton – 301 – 400 (not ranked in 2022)

Top Performing Institutions in 2023

1: Western Sydney University, Australia

2: University of Manchester

3: Queen's University, Canada

4: Universiti Sains Malaysia

5: University of Tazmania

6: Arizona State University (Tempe), United States

=7: University of Alberta, Canada

=7: RMIT University, Australia

=9: Aalborg University, Denmark

=9: University of Victoria, Canada

=9: Western University, Canada

Queen's Submission last year (2023)

SDG10 Reduced Inequalities:
39 out of 901 institutions *(=41 out of 796 institutions in 2022)*
18 out of 48 UK institutions *(19 out of 40 in 2022)*

SDG12: Responsible Consumption and Production:
7 out of 674 institutions *(=35 out of 604 in 2022)*
5 out of 42 UK institutions

SDG14 Life Below Water:
=35 out of 504 institutions *(22 out of 452 institutions in 2022)*
6 out of 25 UK institutions

Queen's Submission 2023

SDG15 Life on Land:
34 out of 586 institutions *(=38 out of 521 institutions in 2022)*
12 out of 33 UK institutions

SDG17 Partnerships for the Goals
101 – 200 out of 1625 institutions *(=97 out of 1438 institutions in 2022)*

Why engage in STARS? (from STARS website)

1. Make real progress towards sustainability

2. Engage your community

3. Generate new ideas

4. Create a baseline for continuous improvement

5. Inform strategic planning and budgeting

6. Integrate sustainability into teaching, learning and research

7. Gain international recognition for your sustainability efforts

8. Be part of a global community of STARS institutions

History

- 2007 - first draft STARS system
- 2008 – first pilot
- 2010 – first full STARS programme
- 2013 – v2 STARS published
- 2019 – vision for STARS v3 released
- 2021 – public comment on STARS 3.0 opens
- 2023 – provisionally Q4 – STARS v3 technical manual release

STARS participants

- 1,161 Institutions Registered

- 348 have valid STARS rating

- Most are US Institutions + some Canada and South America

- Recently registered:

University of Greenwich
Glasgow Caledonian University
University of Edinburgh
Queen's University Belfast
Dundalk Institute of Technology
University College Cork*
National University of Ireland, Galway*
Atlantic Technological University
Technological University Dublin

What can you contribute to our Net Zero journey through your work at Queen's?
38 responses

Engage with LEAF

Sign your lab up to the LEAF programme

Follow Ulster University examples

Rechargeable batteries

Set the sleep settings on our school computer so they are not on for as long.

Take the bus/train

Work from home

Consolidate space,In-house maintenance of equipment to prolong lifecycle and therefore reducing costs which includes travel of external engineers

Cycle

5

27

What can you contribute to our Net Zero journey through your work at Queen's?
38 responses

Pay more attention to using email attachment and sharing documents

Promote sustainably sourced lab consumables

Send less/fewer tiresome attachments

- reuse some consumables or find better alternative

Use public transport more

Establish a hot-desking system to avoid empty buildings being heated and using electricity

Online conferences instead of in- person

buy repareable computers to inprove life time

Ensure all lights automatically turn off after a reasonable time if not in use.

5

27

What can you contribute to our Net Zero journey through your work at Queen's?

38 responses

Lab sustainability, reduce energy use, improve recycling

Use public transport where possible

Use public transport more often and or use a bike to travel.

Purchases: ordering in bulk, rather than scattered orders

Pressurised water tanks. Very very efficient

Limit emails, have physical conversations where able

More leaf champions

Set up timer switches on equipment to turn off outside of core hours

Use x1 monitor, not x2

5   27
👍   👤

What can you contribute to our Net Zero journey through your work at Queen's?
38 responses

Bulk orderingConferences/large gatherings onlineReduce meat consumption

Live off grid and eat only lettuce

Stop living

Stay in bed

Cycle

Eat less meat

Investigate employee car sharing app/system

install roof gardens on older buildings

QUB to set up schemes with local car firms to allow staff and students reduced price on electric cars. Also, QUB encourage everyone to use public transport again with reduced pricing

5

27

What can you contribute to our Net Zero journey through your work at Queen's?
38 responses

Grow own veg

Upgrade instead of replacing computers

5

27