

institute of engineering+ technology

Strategic plan 2023–28

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Britain's economy has long suffered from an acute skills shortage while Korea, Singapore and other ambitious countries around the globe understand and celebrate the immense wealth-creating ability of engineers. We can't stand on the side lines watching while the world engages in a knowledge and technology race. I believe a new education model is important if we are to create the generation of problem solvers that we so badly need. That's why I founded the Dyson Institute of Engineering and Technology-to try something new and train the next generation of engineers.

James Myson

Sir James Dyson Founder and Inventor

Engineers matter. They invent, design and build technology that makes the world better. They're crucial not just to the future of Dyson, but to the world. There's already an annual shortfall of 59,000 engineers, and demand is rising. A traditional approach to education isn't going to be enough.

The engineers we are educating today will work in roles that don't yet exist, solving problems we can't currently conceptualise. We don't just need more engineers – we need engineers capable of thriving in a rapidly changing world, with both academic calibre and technical know-how.

The Dyson Institute was set up as a direct response to this urgent need, pioneering a new approach to higher education that develops the engineering leaders of the future through a combination of high-quality, innovative academic programmes with work on live engineering projects.



# Vision

To develop the best engineers in the world who will pioneer technologies and radical new designs that shape the future of engineering and innovation.

Our vision and mission reflect the founding purpose of the Dyson Institute and guide our strategy as we look to the future.

## Mission

To support Dyson by combining rigorous academic programmes with work on revolutionary future products, advancing technology globally through ground-breaking research and the development of engineering leaders.

## Our values Determined to become No.1 in everything we do

## Never stand still

We are not restricted by conventional thinking. It takes all kinds of minds to forge a <u>different</u> path. Experts in engineering education, unafraid to challenge tradition in order to stay ahead.

We are brave explorers, curious and excited by the unknown. We embrace experimentation, always learning and developing.

#### What this looks like

#### Education:

Constantly looking for new opportunities and ways to improve. Actively inclusive, supporting everyone to be themselves and celebrating individual differences.

#### Ways of working:

Agile and responsive. Always collaborating – working together to adapt processes and systems to increase efficiency and drive improvement. Seeking out and valuing different points of view.

#### Behaviours:

Open-minded, proactive and inclusive. Embracing change, always looking for opportunities. 'Wrong thinking'.

## Never stop innovating

We embrace ingenious thinking to find radical solutions, always pursuing progress. We don't copy what other people do. We <u>pioneer</u>.

We discover and learn for ourselves to form new ideas and approaches, never afraid to step into the unknown. We are proud to be trailblazers, forging a path for others to follow.

Pioneering educational approaches that are different

and better. Designing for outcomes, doing the right

Embracing different approaches to find entirely

and logical problem-solving approach to

Leading not following. Thriving on challenge.

Having courage to break convention and take

an alternative approach to find a better solution.

everything, not just engineering.

new solutions. Taking an engineering philosophy

What this looks like

thing – not the easy thing.

Ways of working:

**Behaviours:** 

Education:

## Never be satisfied

We believe the best can always be made <u>better</u>. We are never willing to compromise or settle for 'good enough'. Instead, we challenge ourselves to find improvement.

By continuously iterating and refining, we design educational approaches that are different and better.

## Never give up

Driven by our <u>authentic</u> desire to develop the best engineers in the world, we dare to think differently and turn challenges into opportunities.

The journey isn't always easy, but we push ourselves forward, knowing that the best solutions are often the hardest to find. When we encounter problems, we think of creative ways to solve them.

#### What this looks like

#### Education:

Setting the highest standards and always looking for improvement. Treating our students as partners in their educational experience and working together to find better solutions.

#### Ways of working:

Iteration. Iteration. Iteration. When we think we have the best possible solution, we challenge ourselves to make it better. Embracing change.

#### Behaviours:

Striving for perfection, whilst being proud of what we have achieved. Raising the bar and setting direction.

#### What this looks like

#### Education:

Supporting our students to succeed. Solving real problems that have previously been ignored.

#### Ways of working:

Using ingenious thinking to find more efficient and creative methods to solve supposedly unsolvable problems. Thinking differently to see opportunities where others see problems.

#### Behaviours:

Believing in what we do. Being determined, tenacious (and patient)! Accepting failure, learning from it and not giving up. Always acting with integrity.

## Who we are today

The Dyson Institute is a pioneering higher education model, offering an alternative – and we believe, better – choice to traditional university provision. Our unique approach combines rigorous academic programmes with hands-on work on future Dyson products and real responsibility from day one.

Enhanced by our proactive approach to development and support, the Dyson Institute is creating talented engineers and future leaders who are making significant contributions to Dyson's technologies and culture.



The Dyson Institute has evolved significantly since opening its doors in 2017, initially in partnership with Warwick Manufacturing Group (WMG), the University of Warwick. In 2020 we gained our own degree awarding powers and we began to recruit our own students in 2021.

Sir James Dyson with the graduating class of 2021.

# A pioneering model of industrial integration

Setting up an independent higher education provider which is fully integrated with a global technology company is a significant innovation – the first educational model of its kind. We are paving the way for academic-industrial collaborations which transcend traditional notions of academic and vocational pathways, enabling meaningful student choice and supporting employers to play a much more fundamental role talent development.

This ground breaking approach is testament to Dyson's pioneering spirit and its certainty that learning drives progress.

Dyson Institute graduate Sophie, pictured, worked on the acoustics of the Dyson Zone<sup>™</sup> air-purifying headphones.

## The future

The next exciting phase in our development will build on the principles that have underpinned our model since its conception while expanding our horizons through new taught programmes, short courses, apprenticeships, applied research and increased international reach.

We will develop a reputation as a leading centre of academic excellence in engineering education, recognised not only for the quality of our programmes and the calibre of our graduates, but for our innovative approach to applied research and contributions to Dyson's technological advances.

We will attract talented students and staff from a diverse range of backgrounds, who will thrive in our productive and supportive academic crucible. **The future** 

Our impact will transcend our academic programmes.

We will create an environment in which curiosity is encouraged and development is supported. We will help Dyson to deliver its ambitious vision for the future by nurturing a company-wide culture of learning.



Strategic themes

**Teaching and learning** 

Student experience

Research

International

**People and infrastructure** 

Integration with Dyson

1.0 Teaching and Learning

We will enhance and expand our portfolio of taught programmes and courses, delivering academic excellence through our unique integration with Dyson, commitment to innovation and our impactful and industrially relevant approach to teaching and learning.



## 1.0 Teaching and Learning Approach

Our strong partnership with Dyson's engineering and talent leaders will enable us to forecast skills needs proactively and think creatively about how we can support their resolution. This includes postgraduate provision, short courses and apprenticeships. We will not limit our provision to the attraction of new talent but will support the upskilling of the high-calibre individuals already working within Dyson.

Regardless of the nature and level of our provision, the integration of academic study with work on live engineering projects will remain a central tenet of our courses and we will be renowned for the industrial relevance of our programmes. Our approach to teaching and learning will continue to capitalise on our unique approach to the delivery of exceptional student outcomes.

We will ensure that our curricula are industrially relevant, delivered by expert, passionate lecturers in innovative and engaging ways, and that we think creatively about how to integrate academic study with workplace learning. Our co-location with Dyson's research and development department will allow us to create a cohesive community of academics and leading engineers with a shared commitment to impactful, research-informed teaching and learning. We will embrace innovation in teaching and learning, both in pedagogical approach and technological enhancement. We will not be afraid to trailblaze where we see new opportunities, creating novel and exciting approaches that are entirely our own while also leading the adoption of emerging methods and technologies to enhance our provision.

Critically, our students will play a driving role in shaping their educational experience. We recognise that our students are the experts in their own experience and that we will achieve the best outcomes by working with them to understand and improve that experience. Working in partnership with our students, we will design teaching and learning approaches that maximise engagement and foster active learning, ensuring high rates of student satisfaction with their academic programmes.

The combination of our integrated approach, alongside our commitment to continuous improvement, will result in exceptional student outcomes, including minimal non-completion or failure rates, the majority of students on taught programmes receiving grades of 2:1 and above, and high levels of progression into full-time employment within 12 months of graduation. Within Dyson, we expect many of our graduates to see accelerated career progression.

## 1.0 Teaching and Learning Goals

#### 1.1

We will deliver an outstanding and innovative learning experience with exceptional outcomes.

#### 1.2

We will be renowned for the industrial currency and relevance of our degrees.

#### 1.3

We will expand our portfolio of taught programmes.

#### 1.4

We will support talent development across Dyson through learning opportunities designed to address skills needs and nurture professional growth. 2.0 Student experience

We will champion a culture of inclusivity and community, underpinned by individualised support and professional development opportunities which enable every student to thrive.



## 2.0 Student experience Approach

The Dyson Institute's approach is studentcentric – placing students at the heart of our education decision making. This focus will continue to shape the development of Dyson Institute provision, ensuring an excellent student experience in which health, wellbeing and development are proactively supported.

Where other providers might focus on reactive wellbeing support, responding to welfare needs after they emerge, we take a proactive approach. At the Institute we help our students to understand themselves and their needs and develop resilience that will support them during challenging times throughout their programme of study – and beyond. Student support is about more than health and wellbeing, it's about giving our students the tools they need to be successful in every aspect of their lives.

Our professional development approach extends beyond crucial workplace learning to planned, targeted interventions designed to supplement experiential knowledge and develop skills that will support students at key moments of transition and progression. We will ensure that all our students graduate with an appreciation for the interdisciplinary nature of engineering. The Dyson Institute does not believe in a 'one size fits all' approach to education. Individual differences will be celebrated, and the support we offer will be tailored to specific needs. We will ensure that our culture is one in which everyone is treated equally, fairly and with respect and is supported to realise their potential. We will invest in opportunities to strengthen our community, creating shared experiences, nurturing relationships and helping everyone to feel that they have a role to play in the Institute's success.

## 2.0 Student experience Goals

#### 2.1

We will attract talented students from a wide range of backgrounds.

#### 2.2

We will ensure that every student is well supported to succeed.

#### 2.3

We will develop a strong community in which everyone is treated equally, fairly and with respect. 3.0 Research

We will be nationally and internationally recognised for our innovative approach to applied research and our contributions to Dyson's technological advances.



## 3.0 Research Approach

Dyson is a research leader, not only employing thousands of its own researchers but engaging in research partnerships with universities across the UK. A £2.75 billion company investment plan is supporting research in the fields of robotics, next generation motor technology, intelligent products, machine learning, connectivity, material science and solid state battery technology.

The Dyson Institute will develop its academic research capabilities to complement and enhance Dyson research, supporting the currency of academic knowledge, developing new pathways for student progression and creating an environment that encourages knowledge sharing and generation. It will also assist the recruitment and retention of excellent academic staff. We will design our research initiatives with deference to our context. Our professional doctoral programmes will be aligned to Dyson's research needs, being primarily applied in nature. Our research agenda will support the development of new Dyson technologies and expedite their realisation.

We will ensure that students have their home base on a Dyson campus and are actively involved with the Dyson research and development teams, as well as actively contributing to the Institute's academic community and the development of its learners.

We will secure Research Degree Awarding Powers, becoming a recognised research and research-led teaching institution with a specialism in applied engineering research.

## 3.0 Research Goals

#### 3.1

We will specialise in applied research.

#### 3.2

Our applied research agenda will support the development of new Dyson technologies and expedite their realisation.

#### 3.3

We will lay the foundations for an application for Research Degree Awarding Powers by building high quality research infrastructure and expertise. 4.0 Internationalism

We will internationalise our institutional operations and provision, developing Dyson talent across the world.







## 4.0 Internationalism Approach

Dyson employs over 14,000 people and is present in more than 80 countries. This includes significant engineering, research, development, manufacturing and testing operations in the UK, Malaysia, Singapore and the Philippines. The successful co-operation of global teams is critical to Dyson's success.

We will ensure that all our students are able to develop an international perspective that will support their cultural awareness, adaptability, and problem-solving and enable them to succeed in roles with a global outlook. Our educational offering will be both more open to international Dyson talent and inherently more global in its delivery, with creative programme design enabling students to benefit from opportunities to work and study abroad.

## 4.0 International Goals

#### 4.1

Our taught programmes will facilitate international experience.

#### 4.2

We will enable the participation of Dyson people from across the globe in our programmes and courses.

#### 4.3

We will support our students to develop an international outlook and work effectively in a global organisation. 5.0 People and infrastructure

We will ensure operational excellence by attracting brilliant people and supporting them to succeed, alongside investment in outstanding facilities, systems and processes.



## 5.0 People and infrastructure Approach

Our ability to deliver our strategic ambitions will be underpinned by our investment in our people.

We will recruit high quality people and support them to succeed through active engagement and effective talent development mechanisms. We will ensure that our team members feel valued, able to develop the skills they need to perform in their roles and supported to achieve their goals.

We will recognise the particular needs of our academics, establishing a career framework that enables their continued development and progression in both research and teaching.

The Dyson Institute will be recognised as an integral part of Dyson. Dyson Institute team members will be active contributors to Dyson initiatives and will be supported to develop their careers through Dyson opportunities.

Brilliant people need brilliant infrastructure to empower them to deliver their best work. We will carefully invest in digital and physical infrastructure to enhance the student and staff experience, responding with agility to feedback and continuously improving our services while also maintaining a rigorous approach to identifying appropriate solutions.

Across our provision, academic excellence and best practice will always be front of mind. We will consistently exceed regulatory expectations and academic delivery benchmarks.

## 5.0 People and infrastructure Goals

#### 5.1

We will realise the potential and maximise the contribution of all our team members.

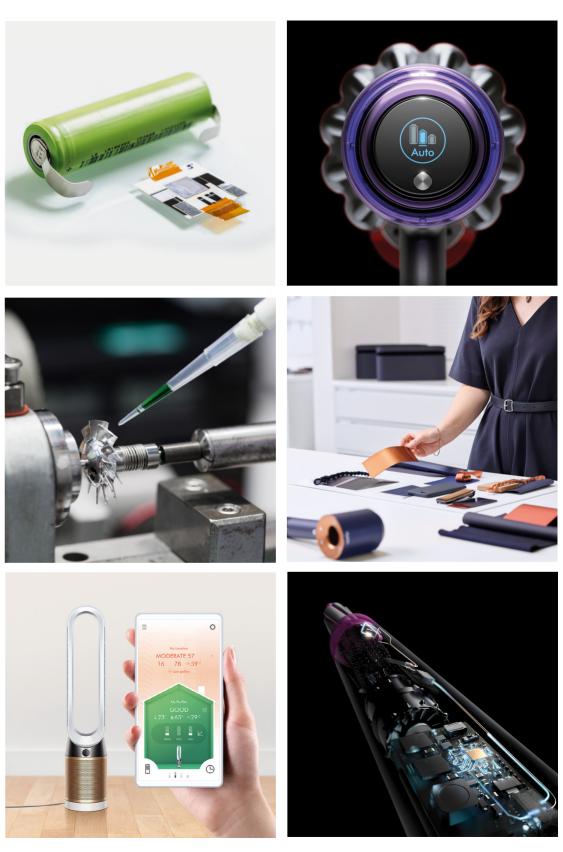
#### 5.2

Our digital and physical infrastructure and estate will enable a rich campus experience for both learning and living.

#### 5.3

Our robust governance arrangements will ensure regulatory compliance, financial sustainability and effective decision making. 6.0 Integration with Dyson

We will have a transformational impact on Dyson through our support for its talent needs and our contributions to its culture and ways of working.



## 6.0 Integration with Dyson Approach

We will be Dyson's key strategic partner; recruiting, training and retaining outstanding talent that meets the needs of the business. But our impact will transcend talent development.

We will ensure that we share our knowledge and expertise with Dyson, working together to maximise our impact – acting as a testbed for new initiatives and approaches with potential benefits across the Dyson world. As we progress through regulatory milestones, we will continue to exemplify Dyson's pioneering spirit and commitment to innovation and excellence. We will actively enhance Dyson's campus culture and its environment of collaboration, learning and development.

Whether through the programmes we deliver, the research we undertake or the contributions of our students and graduates, the Dyson Institute will play a pivotal role in Dyson's continued evolution.

## 6.0 Integration with Dyson Goals

#### 6.1

We will be Dyson's key strategic partner in the recruitment, development and retention of engineering talent.

#### 6.2

The contributions of our students and graduates will shape Dyson's future.

#### 6.3

Dyson people will be proud of and celebrate the Dyson Institute's achievements and our contributions to Dyson's success.

# Summary of our strategic goals

1.0 Teaching and learning We will enhance and expand our portfolio of taught programmes and courses, delivering academic excellence through our unique integration with Dyson, commitment to innovation and our impactful and industrially relevant approach to teaching and learning.	2.0 Student experience We will champion a culture of inclusivity and community, underpinned by individualised support and professional development opportunities which enable every student to thrive.	3.0 Research We will be nationally and internationally recognised for our innovative approach to applied research and our contributions to Dyson's technological advances.	<b>4.0</b> <b>Internationalisation</b> We will internationalise our institutional operations and provision, developing Dyson talent across the world.	5.0 People and infrastructure We will ensure operational excellence by attracting brilliant people and supporting them to succeed, alongside investment in outstanding facilities, systems and processes.	6.0 Integration with Dyson We will have a transformational impact on Dyson through our support for its talent needs and our contributions to its culture and ways of working.
Goals1.1We will deliver an outstanding and innovative learning experience with exceptional outcomes.1.2We will be renowned for the industrial currency and relevance of our degrees.1.3We will expand our portfolio of taught programmes.1.4We will support talent development across Dyson through learning opportunities designed to address skills needs and nurture professional growth.	Goals2.1We will attract talented students from a wide range of backgrounds.2.2We will ensure that every student is well supported to succeed.2.3We will develop a strong community in which everyone is treated equally, fairly and with respect.	Goals3.1We will specialise in applied research.3.2Our applied research agenda will support the development of new Dyson technologies and expedite their realisation.3.3We will lay the foundations for an application for Research Degree Awarding Powers by building high quality research infrastructure and expertise.	Goals4.1Our taught programmes will facilitate international experience.4.2We will enable the participation of Dyson people from across the globe in our programmes and courses.4.3We will support our students to develop an international outlook and work effectively in a global organisation.	Goals5.1We will realise the potential and maximise the contribution of all our team members.5.2Our digital and physical infrastructure and estate will enable a rich campus experience for both learning and living.5.3Our robust governance arrangements will ensure regulatory compliance, financial sustainability and effective decision making.	Goals6.1We will be Dyson's key strategic partner in the recruitment, development and retention of engineering talent.6.2The contributions of our students and graduates will shape Dyson's future.6.3Dyson people will be proud of and celebrate the Dyson Institute's achievements and our contributions to Dyson's success.

# An extract from Jake Dyson's speech at the 2021 Graduation Celebration

"The Dyson Institute is about shaping highly skilled engineers for future, high-flying, and fruitful roles in Dyson. The end of the course is not the end of the journey. The most exciting days – and discoveries – lie ahead.

We are investing in the future at the fastest rate, shaping Dyson for 2030. We have exciting new products and categories emerging. The realisation of these ideas lies with our pioneering, forward thinking, engineering graduates.

They can shape Dyson, and the world, through their ideas and contributions. Our future is in their hands."

Jake Dyson Chief Engineer **Strategic milestones** Our progress will be mark<u>ed by the</u>

achievement of key strategic milestones.

Milestone Projected year of achievement :

First microcredential\* 2023

First cohort of engineering doctorates\* 2024

Time-limited Full Degree Awarding Powers awarded 2024

First cohort of taught Masters programme\* 2024

Indefinite Full Degree Awarding Powers 2027

University Title 2027

Research Degree Awarding Powers 2028

\*Milestone refers to the year in which delivery begins