

# STRATEGIC PLAN

## 2020-2025



Centre for Alternative Technology  
Canolfan y Dechnoleg Amgen

# Towards a sustainable future – CAT's vision, mission and values

The Centre for Alternative Technology (CAT) is an internationally renowned environmental charity, a world-leading eco centre, and one of the foremost providers of postgraduate environmental education in the UK.

**Our vision** is a sustainable future for all humanity as part of a thriving natural world.

**Our mission** is to inspire, inform and enable humanity to respond to the climate and biodiversity emergency.

## How we work

At the heart of CAT is a belief in the power of education in positive solutions. Some of the key principles that underpin our work are outlined below.

### CAT is:

**Inspiring** – we spark the imagination, helping people to envisage a future in which humanity has risen to the climate challenge.

**Empowering** – we provide people with the tools they need to play their part in creating a positive future.

**Positive** – whilst acknowledging the scale of the environmental challenge, we remain optimistic and hopeful about the future, providing people with the motivation to make change happen.

**Solutions-focused** – we move quickly from challenges to solutions, focusing on the changes that can provide the greatest positive impact.

**Evidence-based** – from understanding the scale of the challenges to being realistic about the effectiveness of solutions, all of our work is informed by scientific evidence and expert research.

**Inclusive** – we believe in the transformative power of diversity, inclusion and equality. Only by actively engaging different perspectives can we challenge and stretch our thinking, enrich the experiences of our employees, and empower people, policy makers and organisations to make the radical change we need to deliver a sustainable and regenerative future.

## Who we work with

CAT is for everyone, and we believe that everyone has their part to play in building a zero carbon future. Within this broad outlook, our main target audiences can be summarised as:

**Our visitors:** CAT has operated a visitor centre since 1975, informing and inspiring thousands of visitors. We reach hundreds of thousands more through our website and social media. Over the next five years we plan to advance our vision for these sites, at CAT and online, helping ever more people to learn about environmental solutions.

**Our students:** In 2020 CAT's Graduate School of the Environment welcomed its largest ever intake of over 240 students, making a total of over 500 registered full- and part-time students.

**Learners of all ages:** From parents and toddlers through the numerous school and university visits that we host each year, to the wide variety of participants of all ages who join our short courses, learners are – and have always been – one of our most important audiences.

**Councils, communities, companies:** The transition to a zero carbon future will, in large part, be driven by communities and their elected representatives. CAT will support councils, communities and companies as they translate climate emergency declarations into action plans.

**Policymakers:** CAT works with policymakers at all levels to help bring about the urgent changes needed to address the climate and

biodiversity emergency. Over the next five years we will be scaling up this work through our new Zero Carbon Britain Hub and Innovation Lab.

### Members, supporters and graduates:

Underpinning everything we do, CAT's members, supporters and graduates are the lifeblood of CAT and part of our shared history. Their commitment to our core mission is a source of inspiration and hope in challenging times and their contribution to CAT is vast and varied – as donors, fundraisers, friends and ambassadors. The backing of thousands of individuals helps amplify our voice and provide financial security and independence. We will be focusing on expanding and building these networks significantly over the next five years.



# A time for transformation

Humanity must reach net zero greenhouse gas emissions by mid-century if we are to avoid dangerous climate breakdown. The earlier this is achieved, the greater our chance of limiting global temperature rise to near 1.5°C.

At the same time, we must adapt our infrastructure and ways of life to reduce the impacts of now unavoidable levels of climate change, and we must address the widespread destruction of ecosystems and biodiversity loss.

This is a huge challenge and will require action at all levels to help implement solutions: individuals, communities, businesses and government all have parts to play in addressing the climate and biodiversity emergency.

With nearly 50 years' experience in environmental solutions, and a decade of thought leadership in how the UK can reach net zero, CAT has a unique role to play.

## Building a Zero Carbon Britain

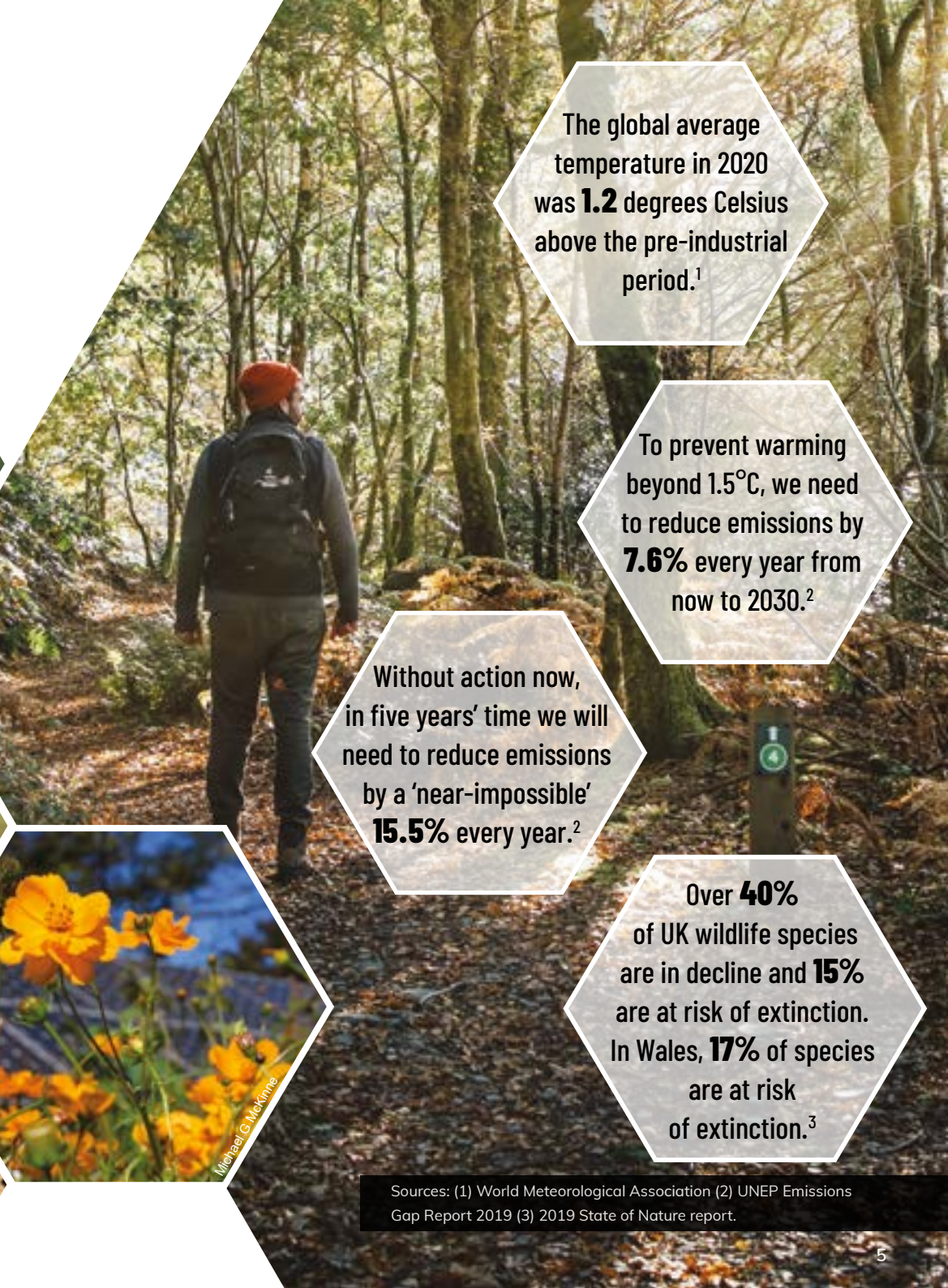
CAT's Zero Carbon Britain project explores how we can respond to the climate and biodiversity emergency by outlining how the UK can reach net zero greenhouse gas emissions.

By powering down energy demand in buildings, transport and industry, powering up clean energy supplies from renewables, and transforming what we eat and how we use land, we can reach net zero using technology available today.

CAT shows how this can be done in a way that provides multiple co-benefits, including helping us to adapt to climate impacts, restoring biodiversity, improving public health, reducing fuel and food poverty, creating jobs and enhancing wellbeing.

All of CAT's work sits within this broad framework, focusing on measures needed to accelerate this transformation, highlighting

the most effective levers for change, and providing people with the skills, knowledge and inspiration to play their part in building a better future for all humanity as part of a thriving natural world.



The global average temperature in 2020 was **1.2 degrees Celsius** above the pre-industrial period.<sup>1</sup>

To prevent warming beyond 1.5°C, we need to reduce emissions by **7.6%** every year from now to 2030.<sup>2</sup>

Without action now, in five years' time we will need to reduce emissions by a 'near-impossible' **15.5%** every year.<sup>2</sup>

Over **40%** of UK wildlife species are in decline and **15%** are at risk of extinction. In Wales, **17%** of species are at risk of extinction.<sup>3</sup>

Sources: (1) World Meteorological Association (2) UNEP Emissions Gap Report 2019 (3) 2019 State of Nature report.

# Inspiring, informing and enabling the transition to zero carbon

As we approach our 50th year, CAT is more relevant and more necessary than ever before. The past two years have seen a rapid escalation in awareness of and action on climate change. The publication of the Intergovernmental Panel on Climate Change (IPCC) 'Global warming of 1.5°C' report in 2018 marked a turning point for policymakers, whilst citizen action has contributed to a dramatic increase in the level of public awareness.

Over the next five years it is essential that we focus attention on solutions and begin building a Zero Carbon Britain.

## CAT's unique role

We believe that everyone has a part to play in building a better world – from a child with a banner to a politician passing an act into law, we are all agents of change.

To be effective changemakers, people need knowledge, skills and understanding.

By providing inspiration, information, education and training on positive solutions that can help create a Zero Carbon Britain, CAT empowers people, communities, businesses and policymakers to play their part in the transition to net zero.

Whether it's a family inspired by a day out at our visitor centre, a postgraduate student building a career in sustainability, or a local councillor learning about zero carbon planning, we help people to become a crucial part of this essential movement for change.



## The CAT Timeline



- 1973** CAT starts with a £20,000 donation.
- 1975** Visitor centre opens. First completely solar heated building in the UK (probably the first in Europe).
- 1977** An Alternative Energy Strategy for the UK published and presented to Tony Benn's Energy Ministry.
- 1982** Dulas Engineering Ltd founded at CAT – they go on to become an independent company, inventing a solar fridge that helps preserve vaccinations in off-grid locations across the world.
- 1988** Eco Cabins built, offering a residential experience for visiting schools. Aber Instruments founded at CAT.
- 1991** Water balanced cliff railway completed.
- 1996** Largest PV roof in the UK installed at CAT.
- 2000** AtEIC Environmental Information Centre opened.
- 2003** First community wind turbine in Wales erected with CAT.
- 2007** CAT's Graduate School of the Environment launched. First Zero Carbon Britain report published by CAT.
- 2010** WISE education and conference centre opened – built with experimental low energy materials, including the UK's tallest rammed earth walls.
- 2014** New MSc in Sustainability and Adaptation launched.
- 2017** New MSc courses in Sustainable Food and Natural Resources, and Sustainability in Energy Provision and Demand Management.
- 2018** New MSc courses in Behaviour Change, Green Building and Ecology launched.
- 2019** New Zero Carbon Britain Hub and Innovation Lab announced, thanks to support from the Moondance Foundation.
- 2020** Online courses and events developed in response to Covid-19, allowing people to experience #CATatHome.

# CAT stories

## Transforming construction:

### Tom Robinson

Tom worked with another CAT graduate to launch Adaptavate, an award winning company that's rethinking the way that building products are produced, used and disposed of to make them more sustainable.

Having been a builder prior to coming to CAT to study, Tom could see that linking his practical skills with new research techniques could help reduce the landfill waste created in the construction industry.

Tom describes his time at CAT as offering, "The perfect balance of theory and practice with really inspirational people."

In 2020 Adaptavate secured £500,000 of UK Government funding to further develop their innovative sustainable building materials.

## Researching energy and climate policy:

### Dr Jaise Kuriakose

Jaise was CAT's electrical engineer from 2006 to 2012, during which time he developed his expertise in microgrid systems and contributed to our research and education work.

After leaving CAT to complete a PhD in smart grid systems, Jaise went on to become a lecturer at the Tyndall Centre for Climate Change Research, where his research includes translating global climate change targets to local and national energy and climate policy, as well as climate impacts on energy infrastructure and smart grid solutions.

In 2020, Jaise was selected as one of the 100 BAME climate experts in the UK by Climate Reframe. He advises policymakers and gives public talks on climate change, regularly returning to CAT to give guest lectures to our Masters students.

## Facilitating large scale renewables:

### Sonya Bedford MBE

"The MSc at CAT was one of the most challenging and rewarding endeavours I have undertaken. My work in the energy industry as a lawyer now has a new dimension because

of the learning from CAT. I can now truly understand renewable technologies and apply my learning to make my work much more valuable in all senses."

Sonya's MSc in renewable energy has been part of her journey to becoming the Head of Energy at Stephens Scown LLP, where she advises industry on legal requirements for large scale renewable energy developments. Sonya also sits on the board of five community energy groups.

## Pioneering community energy:

### Agamemnon Otero MBE

CEO of Repowering, Energy Garden, Hydra and Director of Brixton Energy. Agamemnon co-founded industry advocacy body Community Energy England and sat on the Business, Energy and Industrial Strategy Office's Community Energy Contact Group. He has an MSc Architecture: Advanced Environmental and Energy Studies from CAT/UEL and previously worked as the director for Renewable Energy Project Finance and Social Responsibility at a financial institution.

In 2014 he was made a London Leader; in 2016 he was awarded an MBE for services to community energy; and in 2017 was named one of the 51 Most Impactful Green Leaders globally by the CSR Congress.

## Strengthening local food systems:

### Katie Hastings

Katie is building local food systems, communities and economies.

Like many, Katie once felt overwhelmed by the issues of food insecurity, land degradation and disappearing wildlife. But after a six-month volunteer placement at CAT, she began launching local projects in Machynlleth to combine economic, social and community work with food growing.

The whole town now benefits – with free-to-pick food growing in every available corner, regular workshops and events, local grain varieties saved from extinction and a thriving network of market gardeners delivering directly to households and businesses. CAT is now supporting Katie's work with the ambitious Pathways to Farming programme, to train a new generation of growers in sustainable food production.

## Zero carbon communities:

### Shropshire Climate Action Partnership

Shropshire Climate Action Partnership ([www.ZeroCarbonShropshire.org](http://www.ZeroCarbonShropshire.org)) is a collaboration between businesses, communities, councils and individuals dedicated to achieving net zero carbon Shropshire by 2030.

Basing their work on CAT's Zero Carbon Britain research, they have developed a shared vision for a sustainable, prosperous Shropshire.

More than 100 volunteers from across the county are involved in the partnership, along with a wide range of small and large businesses, charities, councils and community organisations, all working together in a collaborative approach to build on the blueprint for zero carbon provided by CAT.



Tom Robinson



Dr Jaise Kuriakose



Katie Hastings



Sonya Bedford MBE



Agamemnon Otero MBE

## Our strategic direction

Over the next five years, CAT's work will focus on providing inspiration, training and education in positive solutions to accelerate the shift to net zero greenhouse gas emissions.

Three cross-cutting themes will allow a step change in how we deliver on our mission at this pivotal time for environmental solutions.

### The Llwyngwern Quarry site

CAT's world-renowned eco centre is a key factor in what makes this organisation unique. People have been coming to CAT to learn and be inspired since we first opened our visitor centre in 1975.

The site is now in need of significant redevelopment in order to meet the challenges and opportunities of the future, and to play a key role in providing inspiration, education and skills for the transition to zero carbon.

We are developing a refreshed vision and masterplan for the site, a substantial reimagining of the eco centre to create a flagship tourist attraction and regional skills hub centred on providing inspiration, education and skills for the zero carbon transition.

### Outreach and partnership work - taking CAT beyond the quarry

To help accelerate the transition to zero carbon, we urgently need to ensure that our message is heard by as wide a range of audiences as possible.

An important feature of our work over the next five years will be an increased use of online delivery in order to extend CAT's reach.

We also recognise the vital importance of partnership working: the challenges we face as a society are too big for any one

organisation to tackle alone, and by building strategic partnerships with relevant groups and institutions we will be able to achieve more, in a shorter period of time, than the sum of our individual efforts.

We aim to work collaboratively wherever possible where this is the most effective way to deliver our objectives.

### Enhancing diversity

One of our key aims for the next five years is to increase diversity and inclusion at all levels in our staff body and across key audiences, helping us benefit from and engage with a wider range of voices and perspectives as we build a movement for change.



## Our key priorities

CAT has ambitious plans for the future at a time when its mission and services have never been so relevant or in such demand.

With the need for urgent action on climate change and biodiversity loss over the next decade, key priorities for CAT for the next five years are aimed at increasing the reach and strengthening the impact of our work. In doing so, we will inspire, inform and enable many more people to play their part in creating a sustainable future for all humanity as part of a thriving natural world.

### 1) Public engagement, both on site at CAT and through outreach work

The reimagining and redevelopment of the CAT eco centre is a key priority for 2020-25, with the launch of a capital development campaign to enable a major revitalisation.

The reimagined eco centre will offer a microcosm of a future based on sustainable choices, embedded within high quality learning and practical training spaces. This truly immersive visitor and learning experience will offer inspiration and training to hundreds of thousands of people at our unique Mid Wales site.

The transition to a zero carbon economy requires a workforce trained in insulating buildings and installing renewable energy and low carbon heating. A new sustainable skills hub will help Wales to become a leader in providing skills for a sustainable future.

Alongside this, we have plans to rapidly scale up our outreach work to deliver CAT's messages and learning experience to a much wider digital audience, with the development of new online events, courses and resources.

### 2) Providing skills and knowledge for a zero carbon future

More than 2,000 people have graduated from CAT's Graduate School of the Environment; many of them are now inspirational changemakers working to embed climate and biodiversity solutions into the policy and practice of government, the public sector, industry and civil society.

In 2020-25 we will continue to develop our postgraduate courses focused on providing the skills and knowledge needed to respond to the climate and biodiversity emergency.

We aim to build on the recent growth in applications, with plans for a steady year-on-year increase in student numbers supported by investment in staffing and infrastructure. We are committed to increasing diversity within the student body, and will put in place plans to improve our recruitment processes to support applications from minority groups.

### 3) Influencing the development of policy to support the transition to zero carbon

The choices our government makes now will define the shape of our society and economy for the next decade. There is a clear and urgent need for more ambitious targets and appropriately funded plans to get us to net zero.

Drawing on nearly 50 years' experience in environmental solutions, and on more than a decade of Zero Carbon Britain research, CAT has an important role to play in helping in the development of local, regional, devolved and UK level government policy that will support the transition to zero carbon.

We plan to invest in this area, developing strategic partnerships with others in the environmental movement and with key policymakers, working together to amplify calls for climate action and to share tried and tested zero carbon solutions.

### 4) Supporting communities and local authorities to make the transition to a zero carbon future

In 2020 CAT established a new Zero Carbon Britain Hub and Innovation Lab, thanks to a significant donation from the Moondance Foundation. This project has created a step change in our approach to sharing solutions to the climate and biodiversity emergency.

The Hub and Innovation Lab will work with councils, communities and organisations, helping build their capacity to implement solutions, create systemic change and increase resilience to climate change.

Training sessions, social innovation labs and an online resource hub are just some of the ways we will help build confidence, knowledge and skills and provide tools that enable them to contribute towards the development and delivery of zero carbon action plans.



## Developing our organisation

To be successful in our mission to inspire, inform and enable humanity to respond to the climate and biodiversity emergency we must ensure that CAT has the capacity and resilience to deliver on our ambitions. We will invest in key areas behind the scenes to create new income streams and develop existing ones, and to strengthen the capacity and capability of the organisation.

### 1) Building a financially resilient organisation

Nearly two-thirds of CAT's income is generated through trading, and one-third through giving. There is strength in this diversity, as shown by the organisation's robustness during COVID-19. As an educational charity, we can further diversify and increase our fundraising streams by securing grants and contracts for services from statutory sources and trusts and foundations.

Key to our five year plan is an ambitious £20 million capital fundraising campaign to reimagine the CAT site – a campaign that will help create a step change in our approach to fundraising.

In addition to the capital fundraising campaign we will aim to secure funding from statutory sources and trusts and foundations for other areas of our work, including: the Zero Carbon Britain Hub and Innovation Lab (building on support from the Moondance Foundation); our education work; our free information service; volunteering; and widening access and participation.

CAT has developed a diverse portfolio of trading activities, principally our Graduate School of the Environment, visitor centre, venue and accommodation, short courses, and Ecostore. The financial strategy for the next five years includes developing the profitability of these in order to support the delivery of CAT's mission.

### 2) Building the capacity and capability of the organisation to deliver its objectives now and in the future

We recognise that in order to fulfil our mission CAT needs to invest in itself as an organisation to support the most effective, efficient, positive ways of working.

Investment in developing CAT's Board, staff, volunteers and infrastructure over the next five years is core to our ability to deliver on our other strategic priorities.

Key areas of work include continuing improvements in governance and continuing to invest in the essential functions that support CAT's work, including finance, HR and IT resources and infrastructure.

We also recognise that we need to invest in aligning CAT's pay scales with market rates to help us retain and attract talented staff – we will therefore undertake a comprehensive salary review during the period covered by this plan.



## CAT IN NUMBERS

**40,000**  
site visits and growing in 2019

**500**  
studying at the Graduate School of the Environment

**1,000**  
people attending CAT short courses

**20,000**  
Twitter followers

**£3M**  
turnover

**6,000**  
CAT membership

**15**  
universities sending groups to CAT

**23**  
hectares estate

**50,000**  
Facebook followers

**90**  
staff

**2,000**  
CAT graduates

**14,000**  
volunteer hours in 2019

**94**  
onsite beds



# JOIN THE CHANGE

CAT researches and shares practical, achievable solutions to the climate and biodiversity crisis.

If you'd like to be part of a better tomorrow, join us – and let's build it together.



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