Race to net zero 2040

Report on climate pledge achievements 2021-22

bit.bio

THE CELL CODING COMPANY

Contents

About bit.bio

bit.bio is a synthetic biology company providing human cells for research, drug discovery and cell therapy. We apply a patented safe harbour gene-targeting approach to inducibly express transcription factor combinations that reprogram human induced pluripotent stem cells (iPSCs) into highly defined and mature human cell types. The required transcription factor combinations are discovered using high throughput screens and advanced data analysis (bit.bio discovery platform). We are currently building a clinical pipeline and marketing a wide range of cells and disease models for research and drug discovery under our ioCells brand including nerve cells, immune cells, and muscle cells.

Our values

Purposeful

We are aware of our own purpose. Our individual purpose is aligned to that of bit.bio: coding biology for the benefit of humanity. We look beyond our daily struggles, putting purpose first.

Ambitious

We are exceptionally driven and ambitious in the pursuit of our common goals and create things that have value. We get things done. Together we will change the world.

Collaborative & trustworthy

Our joint purpose and mission critically depend on bringing together our combined knowledge and skills. We value diversity and approach everyone with an open mind.

Empirical

We adhere to the scientific method. We put facts above opinions. In the absence of data, we create it. We know that the world is full of opportunities. Our mindset is one of abundance.

Foreword from the CEO

Mark Kotter
bit.bio CEO

Alongside empowering biomedical innovation and a new generation of cures through precision reprogrammed human cells, I am acutely aware of our industry's impact on the environment and potential to lead in sustainability. One of the biggest challenges we face is the reduction of carbon emissions to mitigate the effects of climate change.

At bit.bio, we have aligned our purpose to use our innovative technology to tackle social and environmental challenges by providing leadership on social responsibility and sustainability. We believe that it is our responsibility to build a sustainable business from the ground up to protect the planet for future generations. We have implemented several initiatives to reduce our carbon emissions, including investing in renewable energy, improving our waste management practices, and encouraging our employees to adopt sustainable habits in their daily lives. We actively engage in partnerships and initiatives that promote sustainable practices and reduce environmental impact. In addition, we have strategically aligned with several of the United Nations Sustainable Development Goals (SDGs). Our "coding cells for health" purpose is 100% aligned, specifically with SDG 3 – "ensure healthy lives and promote well-being for all at all ages." Our sister company, Meatable, extends this responsibility by addressing other major issues – the ethical challenges of animal production, the disease transmission risks of high-density animal production, and the impacts of industrial antibiotics use on global health.

Our dedication to sustainability aligns with the values of our employees, shareholders, and external stakeholders. As we continue to grow, we will remain committed to our sustainability goals and strive to make a positive impact on the planet. Together, we can work towards a cleaner, greener future for generations to come.

Thank you for your support and for believing in our mission.

Message from the heads of sustainability

Marie-Claire Cordonier Segger
Chair of Ethics and Sustainability Board

Kathryn Corzo
COO

Megan Doe
VP Portfolio Strategy & Business Operations

bit.bio was built to do good and contribute to global sustainability from day one as part of its mission, "coding cells for health." We align to multiple UN SDGs and are tackling the climate crisis by committing to the UN Race to Zero campaign and to achieving net zero prior to the 2050 deadline.

We are pleased to present our annual carbon emissions report, which provides a comprehensive overview of our greenhouse gas emissions and our progress towards reduction. This report represents our ongoing efforts to transparently communicate our environmental impact and to hold ourselves accountable for our actions. We include information on emissions sources, including direct emissions from internal company activities and indirect emissions from purchased electricity and transportation services, as well as on strategies for achieving emission reductions.

Additionally, we are proud to announce that bit.bio won a bronze award in the 2022 NUS Green Impact Initiative, a UN award-winning change and engagement programme designed to support environmentally and socially sustainable practice within organisations.

As we work towards a more sustainable future, we recognise the importance of collaboration and transparency. We welcome feedback and engagement from our stakeholders on this report and on our sustainability efforts.

We believe that by aligning our sustainability efforts with the UN SDGs and the COP26 goals, we can help to achieve a more sustainable, equitable, and resilient world for future generations.

Ethics and sustainability

We have aligned our purpose to use our innovative technology to tackle social and environmental challenges by providing leadership on social responsibility and sustainability.

Corporate sustainability framework and contributions to the SDGs

We create codes for cures

We are driven and ambitious in building a scalable technology platform capable of producing consistent batches of every human cell. We are democratising access to high-quality human cells for research, drug discovery and a new generation of cures.

We innovate discovery and partnerships

Innovation is at the core of what we do. In addition to our breakthrough technology, we harness innovation in our business practices, pricing, and partnerships to protect people and the planet. We are creating new industries and long-term opportunities.

We revolutionise biomanufacturing and biomedical research

We enable innovators to focus on what they do best, leveraging our cell coding platform to provide the cells. We are uncovering the “operating system of life”, transitioning biology to engineering, sharing genetic resources & knowledge globally, mobilising enterprise & finance on synthetic biology.

Race to Zero as part of COP26

bit.bio is joining the world’s efforts to tackle the climate crisis by joining the United Nations Race to Zero campaign and are committed to achieving net zero and beyond, ahead of the 2050 deadline.

bit.bio is committed to:

- Halve our greenhouse gas emissions before 2030.
- Achieve net zero emissions before 2040.
- Measure and report our progress on a yearly basis.
- Implement decarbonisation strategies in line with the Paris Agreement through real business changes and innovations, including efficiency improvements, renewable energy, materials reductions, and other carbon emission elimination strategies.
- Neutralise any remaining emissions with additional, quantifiable, real, permanent, and socially beneficial offsets.

2022 carbon emissions tracker

We measure and track our emissions across three key areas, which are further tracked under Greenhouse Gas protocols (GHG; Scope 1, 2 & 3 emissions).

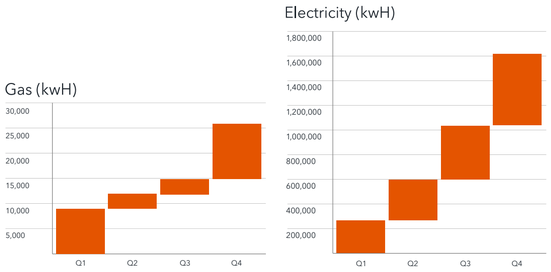
Please find more information about GHG protocols here.

Electricity & gas

KwH usage from separate meters at DHB

This includes the shared used of air conditioning. We consumed about 1,046,698 kWh of electricity and gas in the year 2022-23.

Our first goal is to track emissions from our own operations and eliminate them in due course of time. Electricity and gas contributed to Scope 1 and Scope 2 emissions. Our ambition is to eliminate emissions from all our own operations. Our gas consumption was maximum in Q1 and Q4 (projected) 2022. In total, we consumed 25,771 kWh of gas in 2022. Similarly, our consumption in electricity was higher in Q4 (projected) and Q2 compared to Q1 and Q2. We consumed 16,13,874 kWh of electricity. Thus, these contributed to 221,810 kg CO_2 emissions.



Net consumption	Scope 1	Scope 2
1,046,698 kWh	**2732 kg CO_2e**	**221,810 kg CO_2e**

Total emissions

221,810 kg CO_2e

Waste disposal

KG of waste

Data from Babraham campus. We generated about 26,937 kg of waste in the year 2022-23.

GMM2	Scope 3	Other waste
2009 kg	**2732 kg CO_2e**	**24,389 kg**

Total waste disposed

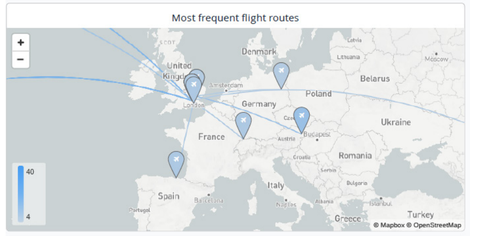
26,937 kg

Business travel

CO_2 emissions

We have a new tool for measuring data for business flights & hotels. All travel by our employees generated 427,105 kg of CO_2 emissions in the year 2022-23

	Origin	Destination	Bookings	Travelers	Total CO_2 emissions	Avg CO_2 per booking	Avg CO_2 offset fee	Distance per booking
1	Boston	London	40	41	132,444 kg	3,311 kg	∅	5,240 km
2	San Francisco	London	12	12	55,803 kg	4,650 kg	∅	8,616 km
3	London	San Diego	7	8	37,634 kg	5,376 kg	∅	8,807 km
4	London	San Francisco	12	12	36,713 kg	3,059 kg	∅	8,616 km
5	London	Boston	11	12	22,254 kg	2,023 kg	∅	5,240 km
6	Singapore	London	4	4	16,754 kg	4,188 kg	∅	10,883 km
7	London	New York	3	4	9,242 kg	3,081 kg	∅	5,540 km
8	London	Seattle	1	2	8,052 kg	8,052 kg	∅	7,702 km



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4	London	Boston	11	12	22,254 kg	2,023 kg	∅	5,240 km
5	London	Vienna	8	14	5,007 kg	626 kg	∅	1,238 km
6	London	San Diego	7	8	37,634 kg	5,376 kg	∅	8,807 km
7	London	Basel	5	5	1,134 kg	227 kg	∅	720 km
8	London	Bilbao	5	5	1,467 kg	293 kg	∅	897 km

Total CO_2e

427,105 kg

Carbon offsets

In addition to local and internal mitigation and resilience efforts that will help us to go carbon negative over time, bit.bio is investing in high impact and value international carbon reduction projects. Our chosen partners, The International Small Group and Tree Planting Program (TIST), Gold Standard, and Carbon Footprint, were selected by the staff together in a vote.

- Most of the CO_2 emissions from electricity/gas are offset internally as all our electricity and gas consumption are 100% REGO renewable certified. Therefore, we have adjusted our emissions from electricity/gas to be internally offset by 65%.
- Remaining emissions are offset externally, via strategically engaging with three offset beneficiaries outlined below. These partners and their respective weighting were selected by employees.
- The offset costs for Gold Standard and Carbon Footprint are subject to change depending upon the project selected.

More on the choice of projects below:

- **Carbon Footprint**
- **Gold Standard**
- **TIST**

External offset partner	External offset amount (Ton)	Cost ($)
TIST [50% weight]	65	2282
Gold Standard [30% weight]	82	906
Carbon Footprint [20% weight]	65	613
Total	**130**	**3326**

2040 roadmap and emission reduction initiatives

As we progress in our commitment to reduce carbon emissions, we are continuing to undertake initiatives to limit our carbon footprint. Select examples include commuting, office and laboratory.

Commuting

- Support hybrid working
- Promote commuting methods with lesser carbon footprints (e.g., electric vehicle scheme, subsidised bus pass, car sharing, cycling)

Office

- Choose sustainable suppliers for office supplies
- Offer 100% vegetarian menu in café
- Implement new recycling streams (e.g., crisp packages, batteries)

Laboratory

- Choose sustainable suppliers for consumables and reagents
- Implement glove and plastics recycling to avoid incineration
- Reduce carbon impact of shipping materials

If you would like
to learn more about
our commitment
to reaching net zero,
please feel free
to contact us.

bit.bio
The Dorothy Hodgkin Building
Babraham Research Campus
Cambridge, CB22 3FH

+44 (0) 1223 787297
info@bit.bio

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