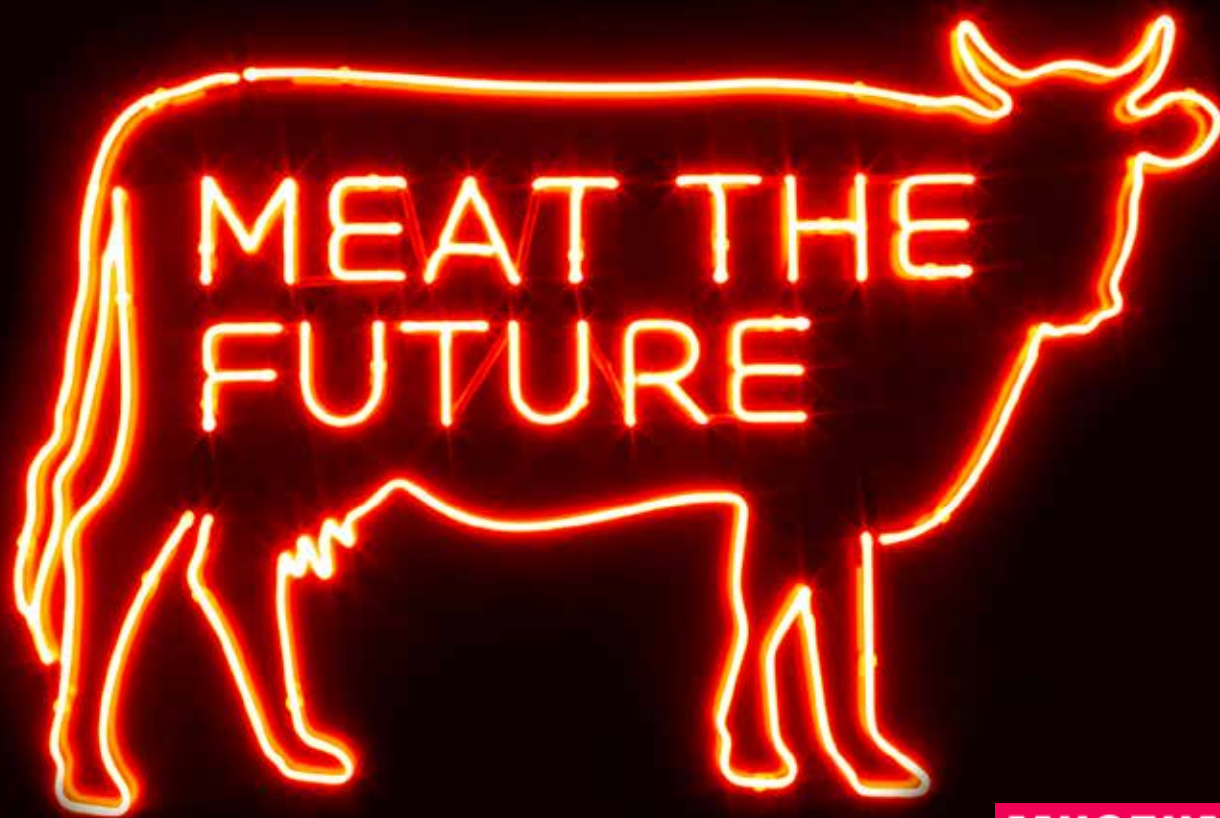




OXFORD UNIVERSITY MUSEUM OF NATURAL HISTORY

EXHIBITION REPORT

A special exhibition and events programme serving up serious food for thought about how the consumption of meat affects our health and the planet.

28 May 2021 – 5 June 2022

oumnh.ox.ac.uk/meat-the-future



Supported using public funding by
**ARTS COUNCIL
ENGLAND**



Museum of
Natural
History

4800+
EVENT ATTENDEES

35
CONTRIBUTING
RESEARCHERS

1
NATIONAL
AWARD

3
PARTNERS

670
AVERAGE DAILY
VISITORS

245,222
EXHIBITION
VISITORS

£289,729
GROSS CAFE INCOME

£8.22
AVERAGE CAFE
SPEND

23
ACCOMPANYING
EVENTS

39
ECOLABEL
PRODUCTS IN CAFE

Meat the Future is the latest instalment of the Museum's Contemporary Science and Society (CSS) exhibition series. This series brings research from across the University of Oxford and beyond directly into the public eye of the Museum's diverse audiences. Providing an unrivalled opportunity for public engagement with research, CSS combines an exhibition and an events programme to engage the public with the research power of the University of Oxford.

Since the first exhibition within the CSS series, Biosense (2015), this Public Engagement with Research model has gone from strength to strength. Despite a delayed opening during the Covid-19 pandemic, Meat the Future has attracted over 250,000 exhibition and event visitors during its 12-month run, and has significantly contributed to the Museum's recovering visitor numbers, which have reached 90% of its pre-pandemic levels of 800,000 visitors per year.

The Museum of Natural History is the most visited university science museum globally, and the most visited UK science museum outside of the nationals. The CSS initiative provides a unique opportunity for collaboration between world-leading researchers, public engagement experts, and diverse audiences.



Meat the Future was an ambitious exhibition and events programme which brought together the museum, a research team, and a local café to encourage serious food for thought about the worldwide meat industry. Underpinned by the research of the Livestock, Environment and People group (LEAP), Meat the Future showed the latest evidence on the health and environmental impact of meat consumption across the globe. The key messages of the exhibition and its associated events programme were:

Levels of meat consumption vary between different countries.

Livestock farming has a huge impact on the planet. It is a leading cause of environmental degradation and a contributor to global warming.

The food system is an interconnected global system, with actions and impacts around the world that might be geographically distant are still closely linked.

Our levels of consumption are unsustainable. We must change our diets to rebalance consumption levels to ensure a sustainable future.

Livestock Environment and People, based at the University of Oxford, is a Wellcome Trust supported project that seeks to understand the health, environmental, social and economic effects of meat and dairy production and consumption. The research aims to provide evidence and tools to decision makers worldwide to promote healthy and sustainable diets.

The project ran from 2017 to 2021, and was directed by Professor Charles Godfray FRS and Professor Susan Jebb. The public engagement programme was co-ordinated by Lucy Yates. LEAP is a collaboration between the University of Oxford, the International Food Policy Research Institute (IFPRI), the supermarket group Sainsbury's, and The Nature Conservancy.

LEAP's research was developed into a public-facing exhibition and events programme over several months, beginning in 2019. This collaborative process involved staff members from the museum and researchers from LEAP, exchanging ideas to develop the key messages, presentation styles and design ideas of Meat the Future.

The core of the research was captured through interviews with fifteen key researchers, providing an array of content for the museum public engagement team to develop into the detailed structure of the exhibition. Working with museum collections staff, an external science writer and graphic design teams enabled the iterative development of exhibition text, design, infographics, interactives, and specimens. The events programme was developed alongside this, providing ways to explore aspects of the research further, in different formats, and to different audiences.

DESIGN AND STRUCTURE

The design of Meat the Future created an exhibition that simulated different environments of food retail. The long and narrow Upper East gallery was transformed into a row of market stalls with different food settings recreated throughout, including butcher's shops, supermarkets, and canteen serveries. These themes guided the narrative arc of the exhibition.

Butcher's Shop

'Meat Is...' Introduced visitors to the topic of meat consumption, and posed a variety of opinions (both good and bad) about meat.



Bistro Table

'Our Fair Share' highlighted different levels of global meat consumption and how this has changed. It also displayed key information about the emissions from different food products, including land use, equipment use, transport, and packaging.



Farmhouse Dresser

'Meeting Demand' explored the history and culture of farming in the UK, from localised small scale farming of the past, to industrialised large-scale farming of the present.



Shop Window

'High stakes' discussed the environmental impact of the current meat industry, highlighting endangered species, the problem of deforestation, and a potential future of a world without cows.



Supermarket Shelves

'Check Out Choices' introduced new eco-labelling systems for food products, to highlight their environmental impact to consumers at the point of purchase, as developed by the LEAP team. Visitors had an opportunity to explore the 'How Green is your Shop?' interactive to see how ecolabels could affect their purchasing habits.



Health Boards

'Natural Born Meat Eaters' explored the health impact of different food products, and offered visitors a chance to look at meat through a microscope.



Canteen Servery

'A Planetary Diet' recommended a new diet based on reduced meat consumption, with meal ideas to fulfil the changes.



Restaurant Specials

'Tomorrow's Specials' discussed the future of meat products, from lab grown meat to insect farming.



Food for Thought

The exhibition ended with an exploration of the impact of eating less meat in 'Biting the Bullet' and allowed visitors to reflect on the different options that can support changes in meat consumption.



Cain and Abel (1994) Damien Hirst (b.1965)
Glass, painted steel, silicone, acrylic, plastic ties, calves
and formaldehyde solution



ART MEETS SCIENCE

The Contemporary Science and Society exhibition series provides an opportunity to work at the arts-science interface, celebrating the long history of the Museum as a vision of nature. In Meat the Future, there was the opportunity to display Damien Hirst's 1994 work Cain and Abel. The artwork is part of Hirst's 'Natural History' series, which includes a number of tanks holding preserved animals and draws connections between science and art. Preservation in formaldehyde has historically been used to aid medical and zoological studies.

Situated alongside museum specimens including the Chillingham bull skeleton, Cain and Abel invited visitors to reflect on the intertwined history of humans and cattle and how the topics of Meat the Future sit within the space of a museum of natural history.

EAT THE FUTURE

Meat the Future provided an innovative opportunity to integrate the research of the LEAP team with the Museum's commercial offer, leading to a new partnership with local Oxford café, Vaults & Garden. Led by William Pouget, their vision is to create a socially positive café hub built on the principles of ecological sustainability. They are committed to sustainably sourcing food from local suppliers and creating menus that are environmentally responsible.

Vaults & Garden established an 'Eat the Future' café within the Museum, serving up their fresh food and socially conscious ethos to museum visitors. They provided a largely vegetarian and vegan menu and also implemented the ecolabels devised by the LEAP research team, providing an opportunity for visitors to explore the environmental impact of their food at the point of purchase. To date, 39 products have had their environmental impact calculated by LEAP researchers and are on display with ecolabels, alongside staff who are trained to engage in conversations about them.



EVENTS PROGRAMME

Alongside the exhibition, Meat the Future ran an ambitious events programme which engaged a variety of audiences with the LEAP research in more detail. 23 events were held during the exhibition run, involving 42 researchers and engaging over 4000 visitors. As Meat the Future was open during the uncertain period of the Covid-19 pandemic, the events programme also reached a significant virtual audience of over 1000, with several online talks and events being held.

The Great Debate

An annual event to celebrate The Great Debate of 1860 between Samuel Wilberforce and Thomas Huxley about Darwin's theory of natural selection. The 2021 debate was centred on Meat the Future and discussed 'Do we need an agricultural revolution?'



Outreach

Led by a Museum Community Connector who supports engagement of the Museum with local communities, an outreach event at Oxford City Football Club engaged grassroots football fans with the exhibition and museum, and encouraged people to try meat-free catering options.

Tours

A range of tours for different audiences, including researcher tours, a tour for older visitors, and for blind and partially sighted visitors.



Public Talks

A range of online and in-person talks led by LEAP researchers exploring the themes of Meat the Future in further detail. Topics included supermarket shopping, the ethics of growing meat, plant-based alternatives, and the environmental impact of the meat industry.

Super Science Saturday

An event for families and children to engage with science and researchers, with a look at reducing food impact and growing local produce.

Late Night: Consumed

The Museum after hours event, with adult visitors exploring the ideas of Meat the Future through researcher talks, tasting insects, investigating their Meat Personas, playing board games, and getting creative with art activities, all over a glass of wine.



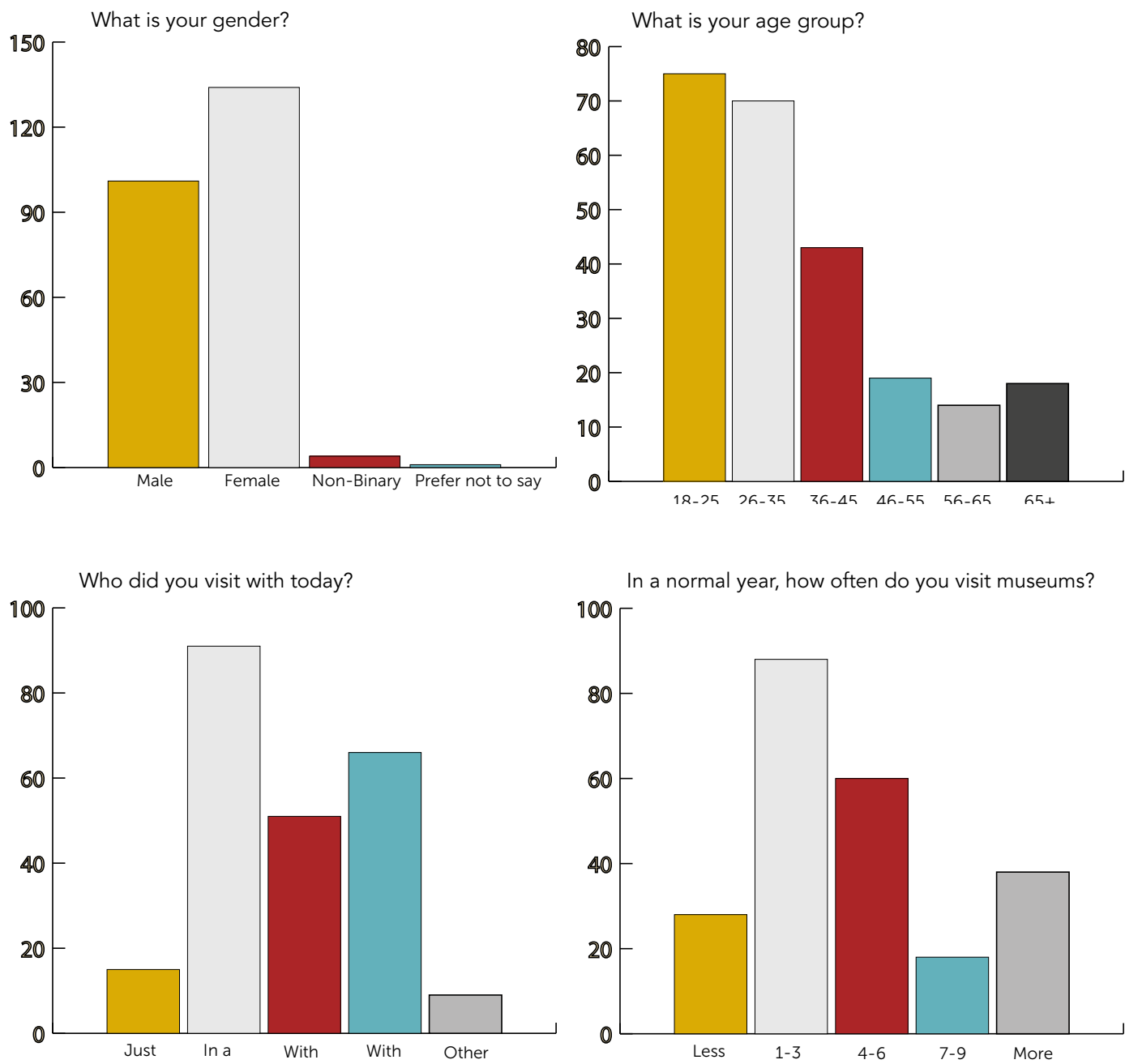
Study Days

School study days for Key Stages 3, 4 and 5, exploring Meat the Future with researchers.



From June 2021 until March 2022 a combination of snapshot interviews, visitor observations and survey responses were utilised to capture visitor responses to the exhibition from a total of 2592 visitors.

July 2021 also saw a separate evaluation conducted by AHRC doctoral student Ellie King, trialling a new evaluation method based on User Experience. This gained further survey and interview responses from 264 visitors.



How did people feel after visiting Meat the Future?

264 visitors were asked to select how they felt from a list of standard emotions.



Which elements of the exhibition did visitors engage with most?

During surveys and interviews, visitors were asked what stood out to them in the exhibition. Some visitors were observed in the gallery.

- More Engagements
- Our Fair Share
Checkout Choices
High Stakes
Microscope Interactive
Meeting Demand
Tomorrow's Specials
Food for Thought
World Without Cows
Talking Heads
Fields of Gold
- Fewer Engagements

It feels like there's less of an agenda; it's a balanced presentation of the subject.

I hadn't seen any of that food labelling before so that was really interesting to me, that's probably what's going to stick in my mind.

What did visitors learn from visiting the exhibition?

In kiosk and face to face surveys, and in interviews, visitors reported a wide range of learning on a variety of exhibition themes.

- **142** people learned about the environmental impact of different foods
- **86** people learned about global and individual levels of meat consumption
- **80** people said they did not learn anything specific but still felt they learned something new
- **53** people learned about different meat substitutes available
- **51** people learned about the concept of eco-labelling
- **45** people learned about the impact of their diet on their health
- **30** people learned about the impact of farming on land use
- **29** people said they already knew a lot but the exhibition was a reminder
- **23** people learned that they should eat less meat
- **23** people learned about pollution from the food industry
- **22** people said the data presented supported what they already knew

97% of visitors said they learned something new at Meat the Future

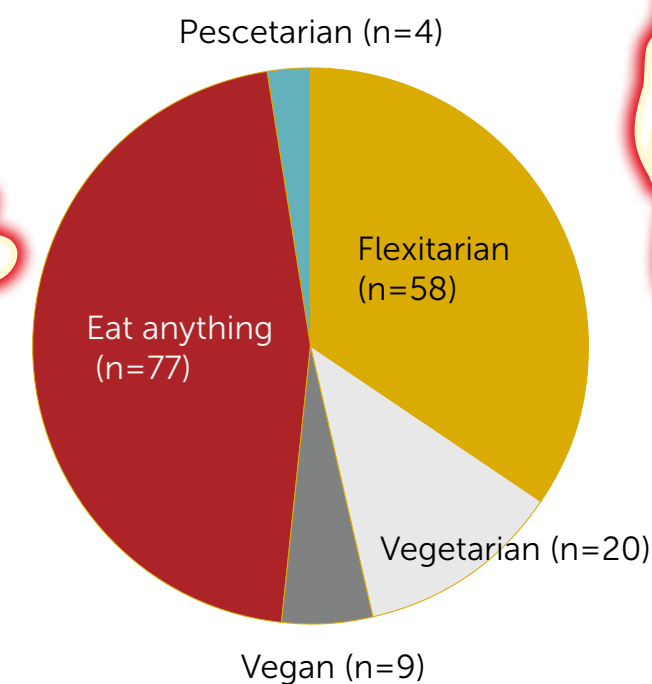
The visitor experience of Meat the Future contributed to the learning reported. When assessing outcomes against how visitors perceived the exhibition, the relevant and impactful content was crucial to their understanding and engagement. Evaluation also found that the exhibition being stimulating, inspiring and enriching supported visitors' positive response to Meat the Future and their appetite to learn more.

Visitors rated the exhibition as interesting, relevant, relatable, impactful and coherent

How did visiting Meat the Future help people consider their own diet choices?

In kiosk and face to face surveys, and in interviews, visitors reported a wide range of learning on a variety of exhibition themes.

Visitors who took part in interviews, and those who attended the Late Night: Consumed event, were asked what their current diet was.



Visitors strongly supported the evidence-led exhibition approach and science provided, making them feel informed and empowered to make their own decisions about their diets in the future

Admiration for a brilliantly put together, very informative exhibition. My daughter has just gone vegan and as a result of this exhibit we have decided to cut beef from our diet for the rest of the family

59% of visitors said they wanted to change their behaviour as a result of visiting – especially those who said they felt guilty after visiting

I was already trying [to eat less meat] but now with specific subject knowledge I feel empowered to change

Meat the Future has made a significant impact across the museum sector. The project was awarded Partnership of the Year at the 2022 Museums + Heritage Awards. LEAP was also awarded a University of Oxford Vice Chancellor's Innovation and Engagement award for its public engagement initiatives, including the Meat the Future exhibition.

There has also been further project funding awarded to the LEAP research group, to continue their work and expand its impact more internationally. The exhibition will also travel to the newly branded Museum of Food (formerly the Museum of East Anglican Life) as a temporary exhibition in 2023. Meat the Future also retains a legacy at the Museum of Natural History in an online version of the exhibition which can be accessed via the link below.

"a brilliant example of a completely mutual and cross-dependent partnership. Meat the Future successfully combined research, engagement and commerce in an immersive and involving experience."

Museums + Heritage Awards Judging Panel



Oxford University Museum of Natural History would like to thank the following people for their contributions to this exhibition:

Lead research consultants and Co-Directors of LEAP:

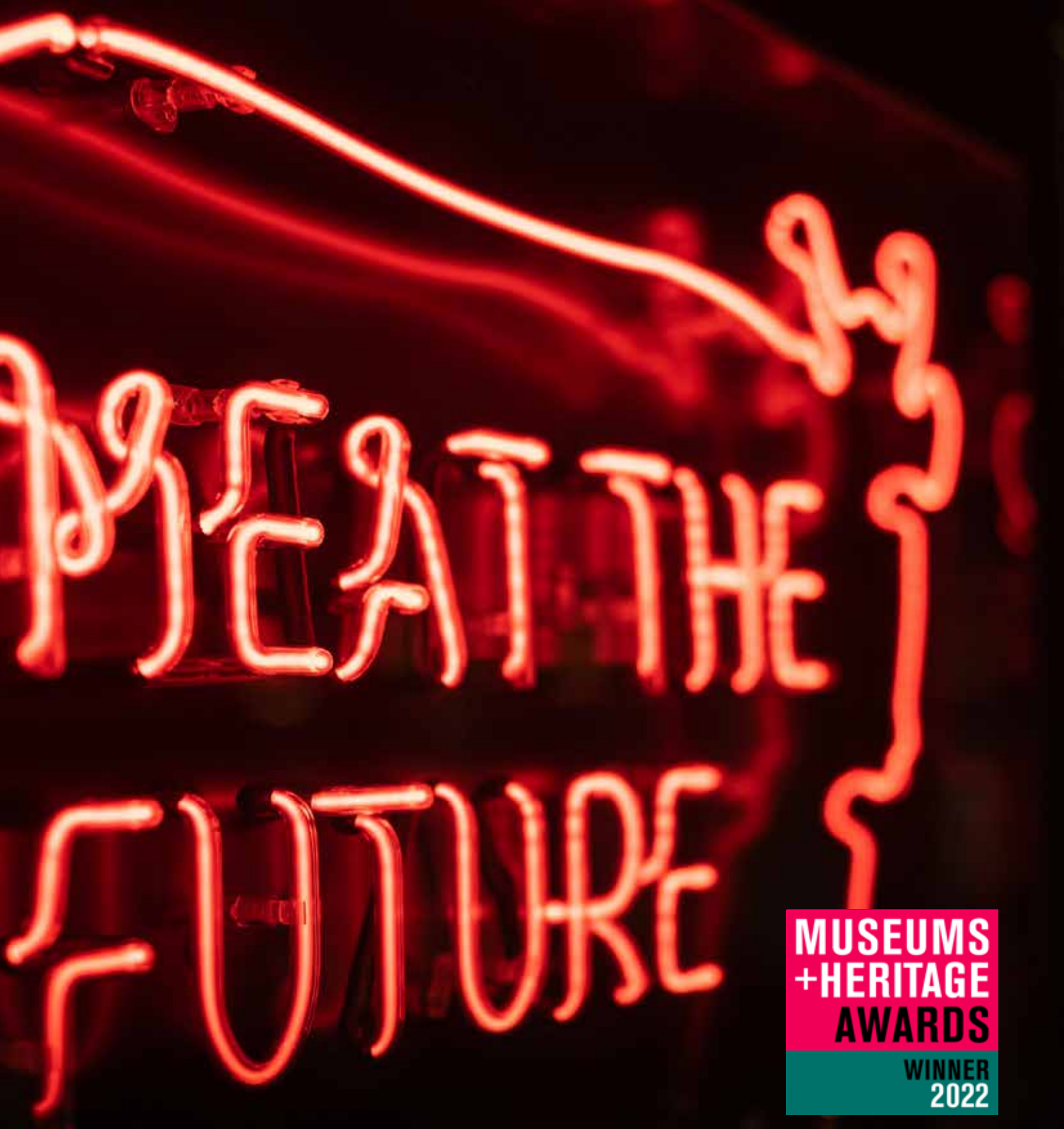
- Professor Sir Charles Godfray, Professor of Population Biology, Director of the Martin School
- Professor Susan Jebb, Professor of Diet and Population Health
- LEAP consultants:
- Dr Mike Clark, Postdoctoral Researcher
- Dr Brian Cook, Senior Researcher in Health Behaviours
- Elif Nas Çoker, DPhil Student in Health Behaviours
- Dr George Cusworth, Postdoctoral Researcher in Geography
- Dr Tara Garnett, Director of TABLE
- Professor Tim Key, Professor of Epidemiology & Deputy Director of CEU
- Dr John Lynch, Postdoctoral Researcher in Physics
- Dr Keren Papier, Postdoctoral Researcher in Nutritional Epidemiology
- Dr Rachel Pechey, Postdoctoral Researcher in Health Behaviours
- Professor Pete Scarborough, Associate Professor and Lecturer
- Dr Razi Sheikholeslami, Postdoctoral Researcher
- Dr Marco Springmann, Senior Researcher in Population Health
- Cristina Stewart, Researcher in Health Behaviours
- Lucy Yates, Public Engagement Coordinator

Exhibition contributors:

- Kerri Coffey, Agriculture with Animal Science student, Harper Adams University
- Kurt Jackson, Artist
- Dr Morgan Jones, Director of The Outdoor Swimming Society and Lecturer at the University of Cumbria
- Carole Mitchell, Eating Better Alliance
- Rob Percival, Head of Food Policy at the Soil Association
- Elaine Steane, Oxford Rambling Group
- Dr Ida Parisi, Dr Bryony Stott, Rhiannon Cook at the Kennedy Institute of Rheumatology, Histology Facility, University of Oxford
- Dr Hayat Muhammad and Professor Tonia Vincent at the OA Centre Oxford
- Dr Chris Bear, University of Cardiff
- Dr Jonas House, Wageningen University & Research
- Cellular Agriculture in association with the University of Bath

A special thanks to the following organisations for the loaning of artwork, objects and specimens to the exhibition:

- Science (UK) Ltd. - Damien Hirst, Cain and Abel
- Museum of English Rural Life, University of Reading
- Cambridge Veterinary School, University of Cambridge



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AWARDS**
**WINNER
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