SCIENCE
MUSEUM
GROUP

INSPIRING FUTURES

STRATEGIC PRIORITIES 2022–2030

INSPIRING FUTURES

When *Inspiring Futures: Strategic Priorities 2017–2030* was first issued, we included a commitment to review it after no more than five years. In fact, an interim review took place in 2019/20, reflecting the pace and scope of change in a dynamic organisation such as the Science Museum Group. The five-year review was always expected to be broader and deeper than that light-touch refresh, but we could hardly have anticipated the enormous, worldwide impact of the COVID-19 pandemic.

Thus, our strategy review was more challenging than we'd imagined, and so much remains uncertain at the time of writing. We know that many things will never be the same again, but what changes will endure and how do we prepare for new 'black swan' events? Throughout change, though, we must keep in mind that our fundamental mission and values remain constant – we exist to inspire futures. Even when our museums were dark and empty of visitors, we never stopped working, not merely keeping things ticking over, but planning for recovery and renaissance.

The Science Museum Group has tremendous assets to call upon – our collection, our sites, our reputation and experience, and, above all, our people. Employees, volunteers, contractors and partners have demonstrated unprecedented resilience, ingenuity and commitment to bring the organisation to 2022 in as good a shape as possible. We thank each and every one of them.

Now we need to face the future with our customary ambition and optimism and there is much to look forward to – new buildings, new exhibitions, new acquisitions and new partnerships. Many new visitors and colleagues, too, through our heightened commitment to equity, diversity and inclusion.

Nevertheless, ambition and optimism alone will not carry us through what will undoubtedly be a difficult period. The changed circumstances are reflected in our six strategic priorities. The pandemic brought a whole raft of challenges (and some opportunities) including rebuilding visitor numbers and loyalty, and renewed focus on organisational resilience. The latter includes growing and diversifying income but is also about our operations and culture. We were already grappling with being a more sustainable organisation and engaging the public with climate change, growing science literacy and social equity through science capital, making best use of new technologies, and fulfilling our obligations as custodians of the world's greatest science and technology collection. These are all among our strategic priorities. Two areas have been removed as strategic priorities, signifying that since 2017 they have become intrinsic to our practice. These are international working and capital development of the estate, both of which remain embedded under several strategic priorities.

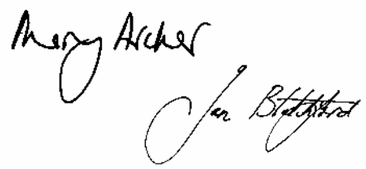
Some key projects and initiatives have been spotlighted to illustrate how our strategic priorities will be delivered. These do not nearly cover all we will do – this strategy does not aim to be comprehensive – and each serves more than a single goal, but they represent some major stepping stones on the Science Museum Group's journey to 2030 and beyond.

Of course, by 2030 the world will have changed and so, no doubt, will our plans. A great deal of our work is dependent on external support, especially funding, and the economic environment is highly constrained. More positively, new opportunities will arise that we will want to embrace. In exercising judgment on when to flex plans and when to stay on course, we will be constantly mindful that our purpose is to benefit audiences and that we are privileged to have a most precious asset that must be maintained – public trust.

This strategy was led by a small steering group on behalf of the Board of Trustees, and this was chaired by two Trustees in succession, Sarah Staniforth and Jo Foster.

In reality, of course, many people throughout the Group and among our many stakeholders contributed. Without the unstinting support of our own people, partners and collaborators, funders and supporters we could not achieve all that we do and aspire to be. We thank all those upon whose work this strategy is built and who will help to implement it in future.

Dame Mary Archer, Chair, and
Sir Ian Blatchford, Director



SCIENCE MUSEUM GROUP

SCIENCE MUSEUM, LONDON
The Science Museum aims to inspire visitors with award-winning exhibitions, iconic objects and stories of scientific achievement. Among key objects on display are Babbage's Difference Engine No. 1 (c 1832), Alan Turing's Pilot ACE computer (1950) and the Apollo 10 capsule that went into lunar orbit in 1969. We have pioneered interactive science interpretation for nearly a century and the Science Museum is the most visited museum in the UK by school groups.

A decade of transformation – which included opening the largest medical galleries in the world – saw the museum being named a winner of the prestigious Art Fund Museum of the Year prize for 2020.

sciencemuseum.org.uk

NATIONAL SCIENCE AND MEDIA MUSEUM, BRADFORD
Set in the heart of Bradford, the National Science and Media Museum explores the science and culture of image and sound technologies and their impact on our lives.

Traditional and interactive galleries located across eight floors of the museum investigate and celebrate photography, film, television, animation, video games and sound technologies. The museum is home to three cinemas, including Europe's first IMAX screen and the world's only public Cinerama screen.

scienceandmediamuseum.org.uk

NATIONAL RAILWAY MUSEUM, YORK
LOCOMOTION, SHILDON
One museum on two sites, our railway museums are home to over 200 years of history and a vast and diverse collection of railway objects that include the record-breaking *Mallard*, firsts such as *Locomotion No. 1* and *Rocket*, and the world's finest collection of royal carriages.

Across our sites, visitors can explore the past, present and future of the railways and be inspired by engineering feats and innovation. Railways are one of the most important and influential inventions of our modern world; their story is everyone's story.

Located in the 'cradle of the railways', Locomotion in Shildon is the site of historic buildings including the home of railway pioneer Timothy Hackworth. The museum is run in partnership with Durham County Council.

railwaymuseum.org.uk
locomotion.org.uk

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

Clockwise: *Amazônia* at the Science Museum; *Wonderlab* in the Science and Media Museum; Racking inside Building One at the National Collections Centre; Visitors in *Distortions in Spacetime* at the Manchester Science Festival; An architect's drawing of the proposed *Central Hall* entrance for Vision 2025 at the National Railway Museum

© Feilden Fowles

SCIENCE AND INDUSTRY MUSEUM, MANCHESTER
On the site of the world's oldest surviving passenger railway station, the Science and Industry Museum tells the story of Manchester's scientific and industrial past, present and future.

Manchester – the world's first industrial city – has long been a hotbed of invention and experimentation. The museum conveys the huge impact of the city's science, technology and innovation in changing the world.

scienceandindustrymuseum.org.uk

NATIONAL COLLECTIONS CENTRE, WROUGHTON
The National Collections Centre is the main home of the Science Museum Group's collection. The site is being transformed into a dynamic hub for collection care, conservation, access and research. It is located in our Science and Innovation Park at Wroughton, a 220-hectare former airfield that also hosts projects and partnerships supporting our sustainability approach, including one of the UK's largest solar farms.

sciencemuseumgroup.org.uk/about-us/collection/national-collections-centre

collection.sciencemuseumgroup.org.uk

The Collections Decant team unloading the first objects at the National Collections Centre in Building One

VISION, MISSION AND VALUES

Our vision is of a society that celebrates science, technology and engineering and their impact on our lives, now and in the future.

Our mission to inspire futures acts as our 'North Star' for the creative exploration of science, for building science literacy through a 'science capital' approach, and for inspiring the next generations of scientists, inventors and engineers.

Our values were defined in consultation with our people throughout the organisation and are manifested in all we do:

- Think big
- Reveal wonder
- Share authentic stories
- Ignite curiosity
- Be open for all

A brass pocket compass, c 1792

Right: A volunteer helps a young visitor at the National Science and Media Museum

STRATEGIC PRIORITIES

- **AUDIENCES: Build bigger audiences and deeper connections**
  Through creative innovation and focus on the needs of our audiences, we will reach more people and build lifelong connections with our museums and topics.

- **SUSTAINABILITY: Act on climate change and sustainability**
  We will be a world leader in public engagement with climate change science and solutions, and will achieve net zero by 2033.

- **EQUITY: Grow science capital through all we do**
  We will actively promote greater equity, inclusion and diversity in science, in culture and in wider society.

- **DIGITAL: Scale up digital reach, impact and innovation**
  Our digital estate will grow significantly in scale and scope to increase global reach and reputation.

- **COLLECTION: Sustain and enhance our collection**
  Our collection will be the best in the world for our fields: well understood and cared for, and accessible to all for research, display, learning and pleasure.

- **RESILIENCE: Thrive through change**
  We will value our people, manage our assets and secure income to be an ambitious, confident and dynamic organisation for the long term.

OUR APPROACH

Our museums share some core principles that, together with our values, guide our approach to curation and display, and capitalise on the unique opportunities we have as collections-based museums that include both sciences and arts. A common approach fosters cooperation across the Science Museum Group and will be used to deliver a consistent mission and standards.

- **Connecting the past, the present and the future:** we illuminate the history of science, technology and engineering through our unparalleled collections, but we also provide contemporary context and look to the future.

- **A broad definition of science:** we showcase and explain science as a method for securing a deeper, systematic understanding of our world, and we demonstrate the fertile relationships between different scientific disciplines.

- **Open for all:** we represent diverse socioeconomic and ethnic backgrounds within our collection and through the stories they tell and aim to capture people's different experiences of gender, disability and sexuality.

- **Science as culture:** we explore science, technology and engineering as creative and entrepreneurial pursuits, and reflect science as a facet of broader culture.

- **Science capital:** we use research-based insights into what influences and shapes people's attitudes towards and their engagement and relationship with science, technology, engineering and mathematics (STEM). Each of us has a different amount of science capital; it is not fixed and can change across a lifetime. By taking a science-capital-informed approach we can understand and challenge inequalities, enabling us to create content that is accessible and spaces, both physical and virtual, where everyone can feel they belong.

OUR INSPIRING FUTURES STRATEGY

Starting from our mission to inspire futures and working through our core values, our six strategic priorities for 2022–2030 will help us to deliver our vision of society that celebrates science.

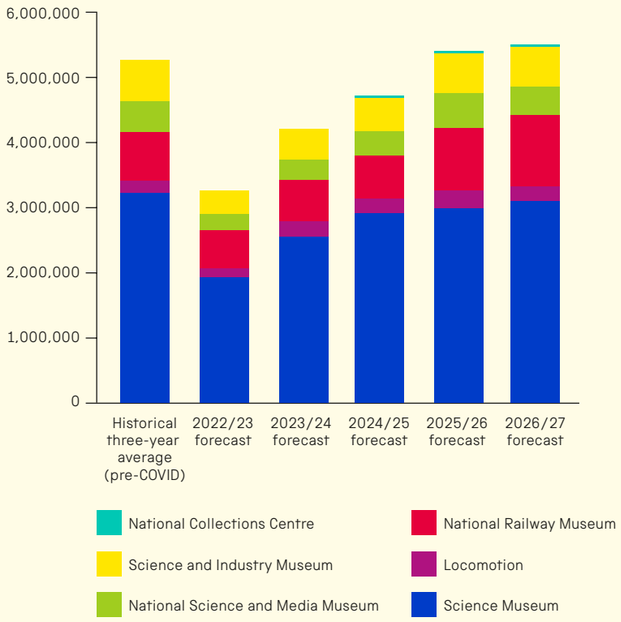
INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

AUDIENCES

Build bigger audiences and deeper connections
Through creative innovation and focus on the needs of our audiences, we will reach more people and build lifelong connections with our museums and topics.

We need to rebuild physical visits to all our museums after a dramatic fall due to the COVID-19 pandemic. The experience of the pandemic was devastating for society and individuals, and the long-term impact remains uncertain. But there were some positive lessons for the Group. One of these was an acceleration in digital services and consumption, and our response is described in **DIGITAL**. However, museums are also social spaces where people come together, and the response of our visitors as our museums reopened confirmed a strong appetite for visiting among those who could. Welcoming visitors to our museums continues to be a fundamental aspect of our purpose, and a significant proportion of our self-generated income derives from on-site visits. Nevertheless, continued restrictions and lack of confidence about travelling and socialising are expected to suppress visit numbers for several years (*see below*).

VISITOR FORECASTS



Left: Visitors to the Bradford Science Festival at the National Science and Media Museum

Audience numbers have never told the whole story, though. The quality of our visitors' experiences is at least as important. Our values of revealing wonder and igniting curiosity make engagement with our offer – whether in museums, online or off-site, free or paid for – enriching, thought-provoking and entertaining so that people want to return, to try new things and to recommend us to friends. The highlights of our public programme (*see page 12*) illustrate the richness of our temporary exhibition programme, a key driver of new and repeat visits, with a strong emphasis on sustainability themes in accordance with our declaration of a decade of climate action from 2019 (*see* **SUSTAINABILITY**). We aim to build lasting relationships with our audiences so that we can meet – and surpass – their needs and expectations in different aspects and at different stages of their lives, and to challenge ourselves about what accessibility and inspiration mean to different people. Rigorous audience research and feedback mechanisms and our customer relationship management system provide supporting evidence for this.

Our physical and digital activities are complementary. Digital tools continue to be central in marketing physical visits, and we have identified two further challenges in the digital arena, above and beyond the digital-only user. Firstly, there is a public expectation that museums will increasingly provide digital activity, accessible across multiple platforms

and locations. Secondly, much contemporary science is concerned with the invisible – the very small, the very large, data and concepts – and digital interpretation may be the best way to convey it to audiences. The implications for the Group in terms of our exhibitions and investment must be addressed in this strategy period and are covered further under **COLLECTION** and **DIGITAL**.

We will retain our position at the forefront of informal learning in STEM, with the Science Museum the UK's most popular museum for education visits. Beyond the learning activities for school and family programmes, for which the Group is rightly renowned, we also run special events (such as the prestigious online Talks series) and festivals across the Group, the network of more than 1,000 Trans-Pennine STEM Ambassadors, outreach programmes and community partnerships. Our signature *Wonderlabs* – already in London and Bradford and planned for York and Manchester – are key to the informal STEM learning offer. This work is steered by the **Learning Strategy 2020–2030**.

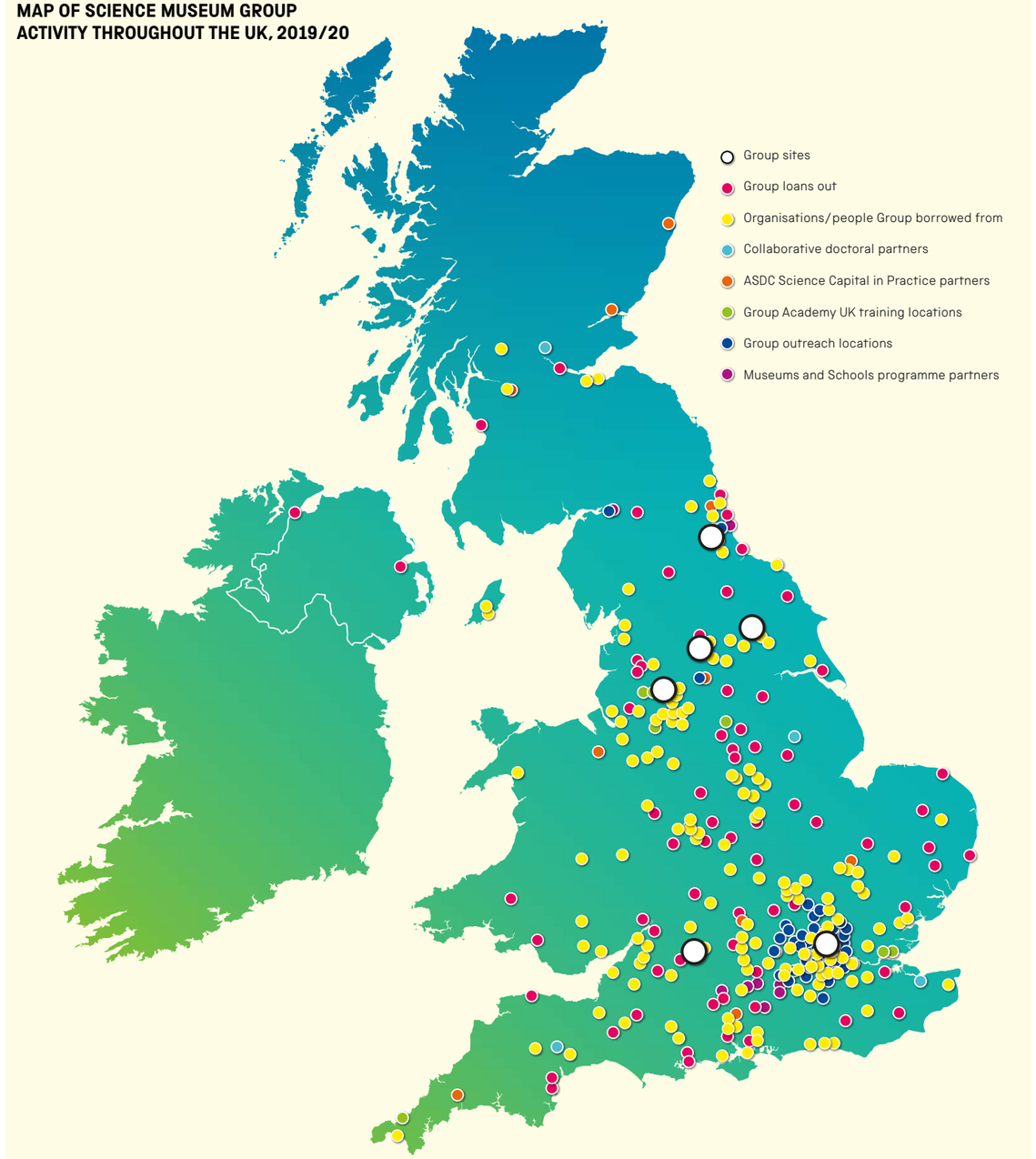
Learning activity outside our own walls – together with loans, operating rail vehicles, touring exhibitions, research projects and more – means that the Science Museum Group reaches all parts of the UK (*see opposite*). Under a new National Framework produced in 2021, our UK work will be reviewed and reported every three years.

At the heart of our museums are the galleries which we regularly refresh and redevelop, as captured in each site's Masterplan, described on pages 14–15 as Spotlights (projects are subject to funding, and dates and titles may change). In this strategy period, we have created opportunities to focus on sustainability and climate change, not only in dedicated galleries such as *Energy Revolution: The Adani Green Energy Gallery*, but in other galleries (such as in the Science and Industry Museum's *Power Hall* and the National Railway Museum's *Central Hall*) where we can also demonstrate that we are making our own contribution to change through our sustainability actions and choices (*see* **SUSTAINABILITY**).

Above: A visitor in *Amazônia* at the Science Museum

Public programme highlights, 2022–2024 (working titles; programme subject to change)		
Amazônia	London, Manchester	2022
Top Secret	Bradford (previously London, Manchester)	2022
Ancient Greeks: Science and Wisdom	London	2022
Our Future Planet	London	2022
Cancer Revolution	Manchester, London	2022
A Quiet Afternoon in Cloud Cuckoo Valley	Manchester	2022
Broadcast 100	Bradford, Manchester, London	2022
Innovation Station	York, Shildon	2022
Stephen Hawking at Work	London, Manchester, Bradford, Shildon, York	2022–24
Hunt for the Vaccine	London, Manchester	2022–23
Music	Manchester	2022
Flying Scotsman Centenary	York, Shildon	2023
Science Fiction: Voyage to the Edge of Imagination	London	2023
Zimingzhong	London	2023
Video Games/Gaming	London, Bradford, Manchester	2023–25
Curating for Change	York	2023
Versailles	London	2024
Mars	London	2024

MAP OF SCIENCE MUSEUM GROUP ACTIVITY THROUGHOUT THE UK, 2019/20



Ultimately, the visitor verdict depends on a great many factors: not just exhibitions and attractions that are accessible intellectually and physically, but the shops, the cafés, the lavatories, the ease of moving around and finding your way, and interactions with our people. Recognising that everyone has a part to play in inspiring futures, colleagues have helped to define a suite of organisational behaviours derived from our values. Volunteering helps to enrich our public offer as well as creating valuable experiences for volunteers themselves and supporting our science capital approach. Between 2015 and 2020, volunteer contribution increased by 90%, with a total of 450,000 volunteer hours donated. Through our Volunteering Strategy 2021–2025 we aim to be the leading UK national museum for volunteering, making a difference for visitors, volunteers and local communities.

AUDIENCES SPOTLIGHT: VISION 2025: THE WORLD'S RAILWAY MUSEUM

The foremost capital development programme in this strategy period, Vision 2025 will transform the National Railway Museum and Locomotion (*see also* **EQUITY** *Spotlight*). The £60 million programme comprises a series of interlinked sub-projects that will expand the display footprint and increase visits to 1.2 million per year.

The new *Central Hall*, designed to be sustainable by UK-based architects Feilden Fowles, references historic locomotive 'roundhouses'. The gallery space will highlight innovative technologies and the impact of the railways on our lives. More than that, for the first time it will unify the site, accessed by a spectacular gateway.

Locomotion's new building will increase the size and scope of the displays, drawing on Shildon's unique heritage as the cradle of the railways.

In addition, the National Railway Museum's Masterplan sets out complementary capital development projects beyond 2025.

Masterplan projects beyond 2025 *(Working titles; programme subject to change)*	
Vision 2025	
Wonderlab	Gallery, York
South Yard (phase 1)	Facilities, York
New Hall	Gallery, Shildon
Central Hall	Gallery, York
Post-2025	
Great Hall	Gallery, York
Open Store	Facilities, York
Station Hall	Gallery, York
South Yard (further phases)	Facilities, York

Left: An architect's drawing of the proposed *Central Hall* interior for Vision 2025 at the National Railway Museum. © Feilden Fowles

Above: Concept design for a new interactive gallery in the National Railway Museum. © De Matos Ryan

An architect's drawing of the proposed *Central Hall* exterior for Vision 2025 at the National Railway Museum. © Feilden Fowles

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

Above: Visitor playing with a train toy at Locomotion

Below right: A volunteer shows off the miniature railway at the National Railway Museum

BY 2030 WE WILL:

- **Welcome more than 5 million visits to our physical sites every year:**
  - Year-on-year growth achieved consistently to 2025/26 from a 2020/21 baseline.
- **Achieve the highest 'recommend' rating from a greater proportion of visitors** at each museum than the average for the three years to 2018/19; increase the overall 'recommend' ratings (top two scores) year on year compared with a 2020/21 baseline (recommendation scored on a five-point scale).
- **Have delivered Vision 2025 and other museum Masterplan projects** to time, budget, scope and quality; evaluate audience impacts against project objectives.

AUDIENCES SPOTLIGHT: MUSEUM DEVELOPMENTS

Enhancements of the Science and Industry Museum, the National Science and Media Museum and the Science Museum are also planned according to site Masterplans. The major projects anticipated to complete in this strategy period are listed below.

Museum developments *(Working titles; programme subject to change)*		
Science and Industry Museum		
Power Hall	Gallery + decarbonisation	2023
Link to The Factory (adjacent cultural centre)	Facilities	2023
Public realm improvements and accessible routes	Facilities	2025
Wonderlab, STEM Learning Hub, STEM Playground	Gallery + facilities	2025
Revolutionary Railroad	Gallery + experience	2026
City of Ideas	Gallery	2030
Cottonopolis	Gallery	2030
National Science and Media Museum		
Sound and Vision	Gallery	2025
Science Museum		
Technicians	Gallery	2022
Engineering	Gallery	2023
Energy Revolution	Gallery	2023
Global Challenges	Gallery	In development
Space and Astronomy	Gallery	In development
Spaces of Science	Gallery	In development
East Hall and visitor welcome	Gallery + facilities	In development
Digital World	Gallery + experience	In development
Early Years	Gallery	In development
Feed the World	Gallery	In development
The Garden	Experience + facilities	In development
Making the Modern World	Gallery	In development
Flight	Gallery	In development

SUSTAINABILITY

An aerial view of the National Collections Centre, including one of the UK's largest solar farms

Act on climate change and sustainability
We will be a world leader in public engagement with climate change science and solutions, and will achieve net zero by 2033.

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

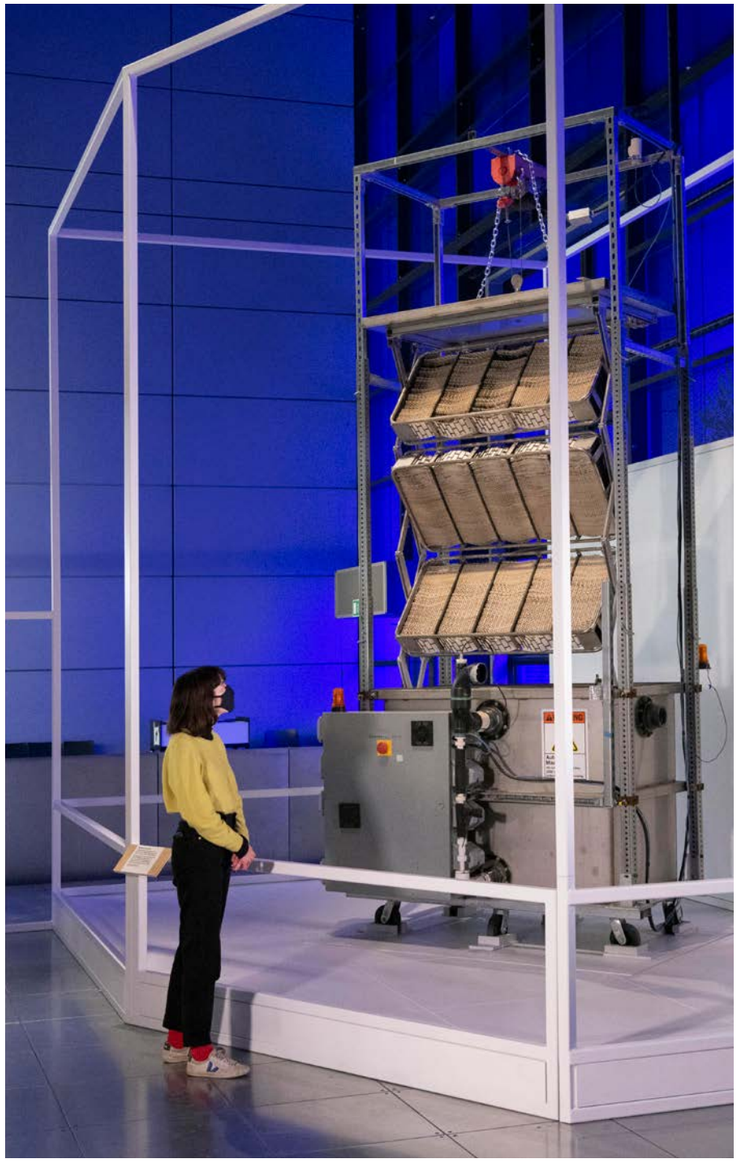
Climate change is one of the most urgent threats facing humanity. Our mission to inspire futures demands meaningful engagement with climate change and sustainability, both in our own organisational performance and in how we interact with the public. The Science Museum Group has a strong record in this area going back to the early 2000s, ranging from hosting one of the UK's largest solar farms at Wroughton to introducing a Cycle to Work scheme, and from eliminating single-use plastic bottles and bags from our shops and cinemas to donating removed furniture, fixtures and fittings to other organisations. *Atmosphere*, our gallery focused on the science of climate change, opened in 2010.

We made a massive gearchange in 2019 when we committed to a decade of climate action and published an ambitious **Sustainability Policy** that recognised the need to radically reduce carbon emissions, consistent with limiting warming to 1.5˚C above preindustrial levels, and our approach to this vital issue will continue to evolve.

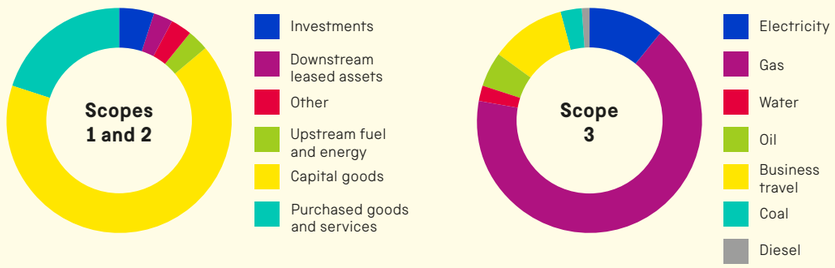
Rigorous independent analysis of the challenges and opportunities across the Group led us to announce in April 2021 our commitment to achieving net zero by 2033, following the respected Science Based Targets initiative. This categorises carbon emissions as scopes 1 and 2 – those generated directly by us through our buildings and activities and indirectly through our electricity usage – and scope 3 – all remaining emissions arising indirectly, eg through the goods and services we buy, business travel and waste. Between 2011 and 2019 we had already decarbonised our scope 1 and 2 emissions by 69% and recognised that this is a continuing journey.

Our target is to decarbonise our scope 1, 2 and 3 emissions by 59% by 2033 compared with 2019/20, the baseline year against which progress will be measured. Some data on the position in 2019/20 is given below. We will do this via a carbon reduction pathway that includes various decarbonisation initiatives and changes within our practice and operations, and through progressively decarbonising our supply chain.

Scopes 1 and 2 present significant challenges, especially to a complex organisation such as ours with geographically dispersed locations and many historic buildings, including some of Grade 1 status. Nevertheless, the parameters of change are largely within the Group's control, and we have successfully invested our own resources and external funding to start initiatives both big and small.



EMISSIONS BREAKDOWN



Above: The Lackner artificial tree in *Our Future Planet*, an exhibition at the Science Museum
Right: Two beehives at the National Collections Centre

SUSTAINABILITY SPOTLIGHT: PUBLIC ENGAGEMENT WITH CLIMATE CHANGE
(Examples; titles and dates subject to change)

- **Permanent galleries:**
  - *Technicians: The David Sainsbury Gallery*, Science Museum, 2022
  - *Energy Revolution: The Adani Green Energy Gallery*, Science Museum, 2023
  - *Engineering*, Science Museum, 2023
  - *Power Hall*, Science and Industry Museum, 2023
  - *Central Hall*, National Railway Museum, 2025

- **Exhibitions:**
  - *Our Future Planet*, Science Museum and touring, from 2021
  - *Amazônia*, Science Museum and Science and Industry Museum, from 2021
  - *Feeding 10 Billion*, Science Museum, from 2023

- **Installations:**
  - *Home Away from Hive* installation relocated from Exhibition Road to the National Collections Centre

- **Online:**
  - Sustainability blogs
  - *Our Environment* online stories series, from 2021

Other content streams will be used as opportunities can be created, including events and programmes associated with the galleries and exhibitions, festivals, blogs and digital channels. The last has enormous potential to amplify programmes and extend reach.

The Group's own performance will be communicated publicly in relevant galleries (eg *Power Hall* in Manchester and *Central Hall* in York), through our communication channels and formally in our Annual Report and Accounts.

A recent highlight has been the *Power Hall* project at the Science and Industry Museum that will catalyse site-wide decarbonisation to significantly reduce carbon dioxide emissions every year from 2022/23. Further scope 1 and 2 reductions (and some scope 3) will be delivered by implementing the Decarbonisation Strategy agreed in 2021, covering the operation of the estate and associated plant. External funding will be secured where possible, building on previous successful applications.

Scope 3 emissions, however, pose a more difficult challenge in both scale and complexity. These are estimated to represent approximately 94% of the Group's carbon footprint, and we use a huge number and variety of sources and suppliers. We are already working with, and learning from, our biggest suppliers to align our carbon emissions journeys and will extend this across our supply chains throughout this strategy period. Our capital development and maintenance programmes remain key opportunities to effect significant change; for example, the National Railway Museum's *Central Hall* takes natural materials, passive design and minimal mechanical intervention as guiding principles.

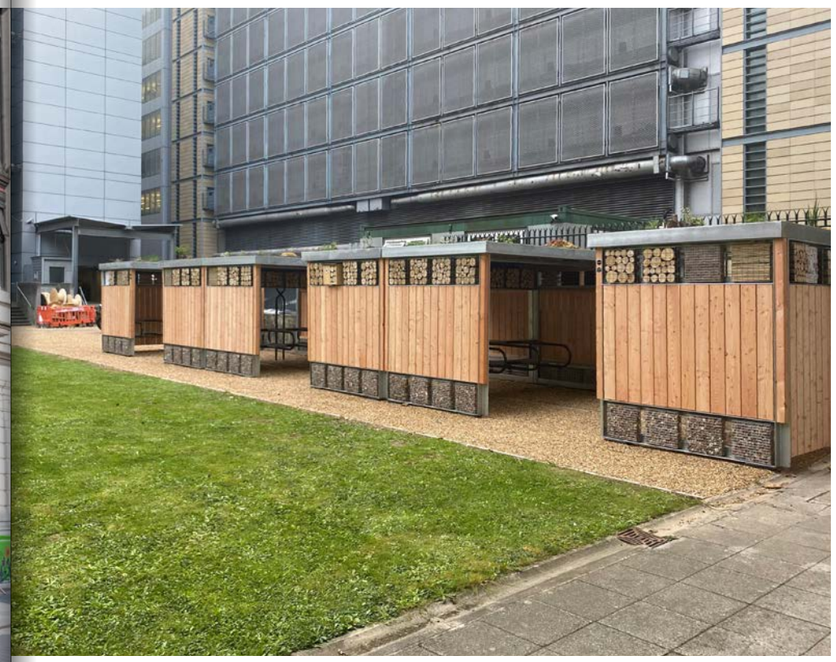
The Science Museum Group has enhanced biodiversity across our estate, with the Science and Innovation Park at Wroughton (*see* **RESILIENCE**) – including a Site of Special Scientific Interest within an Area of Outstanding Natural Beauty – providing particular opportunities. Here we have pledged to plant 1,000 UK-sourced broadleaf trees per year from 2020 to 2030, supplementing the 43,000 already planted, in partnership with the Woodland Trust. Bee colonies are established on the site, and we are working with local wildlife groups to further improve

the environment and biodiversity, for example in a consortium that aims to improve biodiversity in 10,000 hectares of Wiltshire farmland. In Manchester, York and Shildon work has begun on new native planting schemes that enhance the environment for people as well as wildlife, and we are exploring the potential to create a wild-pollinator-friendly garden in the only remaining open space on the Science Museum site, alongside the green-roof bicycle sheds that were installed in 2021.

From 2022 a new role of Sustainability Manager will focus on tackling the 94% of our emissions that fall in scope 3 and driving progress on Sustainability Action Plans for each site and across the Group in order to deliver our net-zero commitment (*see Spotlight opposite*).

In 2020 we became the first cultural organisation to use the Transition Pathway Initiative (TPI) as one means of assessing corporate partners' degree of alignment to the Paris Agreement goals and trajectory towards improvement. TPI data allows us to take informed, transparent decisions that help to influence companies to effect real change by opening them to public scrutiny and accountability.

The findings of the respected UN Intergovernmental Panel on Climate Change (IPCC) special report *Global Warming of 1.5˚C* are clear: to have any chance of meeting the Paris Agreement and keep global temperatures to 1.5˚C above preindustrial levels, all sectors of society need to be involved in achieving urgent, drastic and far-reaching cuts in carbon emissions. Responsible and informed choices are required from individuals and governments, from neighbourhoods and nations. The Science Museum Group has a unique combination of assets that enables – indeed, obliges – us to play an important role in influencing public understanding and behaviours: our collection, our audiences, the trust and authority vested in us, and our convening power. We will build on previous public programme initiatives to advance public understanding of the science and issues behind climate change and sustainability to demonstrate their impact on the world and society; to illuminate global science and technology efforts in greenhouse gas reduction, mitigation and adaptation; and to influence people's actions.



Opposite: The *Home Away from Hive* installation outside the main entrance to the Science Museum

Left: New green-roof bicycle shelters at the Science Museum

SUSTAINABILITY SPOTLIGHT: OUR NET-ZERO JOURNEY
(Examples)

- Deliver carbon dioxide emission reduction of 515 tonnes per year from 2022/23 at the Science and Industry Museum through the *Power Hall* decarbonisation project, a reduction of c 74% in site total net emissions compared with 2019/20 (40% gross).
- National Collections Centre Building One using passive control as much as possible, with necessary power coming from solar and biomass sources.
- The National Railway Museum's *Central Hall* (opening 2025) will be a low-carbon timber construction, using a low-carbon electric air-source heat pump for heating and natural ventilation for cooling, and be predominantly illuminated by daylight. *Central Hall* aims to achieve a BREEAM Excellent rating.
- Exhibitions to reuse and recycle more furniture and materials.
- Plant 1,000 UK-sourced broadleaf trees every year from 2022 to 2030.
- As well as increasing the range of sustainable merchandise in our shops, often in collaboration with high-profile designers and makers such as Pentatonic, we can reduce carbon emissions in retail operations, eg by identifying suppliers who use environmentally benign packaging; using fewer, more efficient deliveries; and adopting e-receipts.
- Our IMAX cinemas wash and reuse 3D glasses, projector lamps are recycled and LED lighting has been installed in the concessions area (Science Museum).
- Our catering suppliers are seeking to install food waste digesters at the National Science and Media Museum to mirror the success of that at the National Railway Museum, and to introduce filtered water taps.
- A Sustainable Travel Policy was adopted in 2021.

BY 2030 WE WILL:

- **Be on track to achieve a 59% reduction in the absolute level of our direct and indirect emissions** from a 2019/20 baseline in line with our commitment to net zero by 2033.
- **Be implementing comprehensive Sustainability Action Plans for each Science Museum Group site**, covering operations and Masterplan and exhibition projects, and specifying opportunities and milestones in the period to 2033:
  - o First local Sustainability Action Plans to be agreed by end of 2022.
- **Have delivered a range of public programme outputs on climate and sustainability** themes across all our sites and beyond, including, but not limited to, these significant milestones:
  - o *Amazônia* and *Our Future Planet* exhibitions at the Science Museum and Science and Industry Museum (2021/22 and touring internationally).
  - o *Technicians: The David Sainsbury Gallery* (2022), *Energy Revolution: The Adani Green Energy Gallery* (2023) and the *Engineering* gallery (2023) at the Science Museum.
  - o *Power Hall* at the Science and Industry Museum (2023).
  - o *Central Hall* at the National Railway Museum (2025).

EQUITY

Grow science capital through all we do
Our equity-based approach will promote greater inclusion and diversity in science, in culture and in wider society.

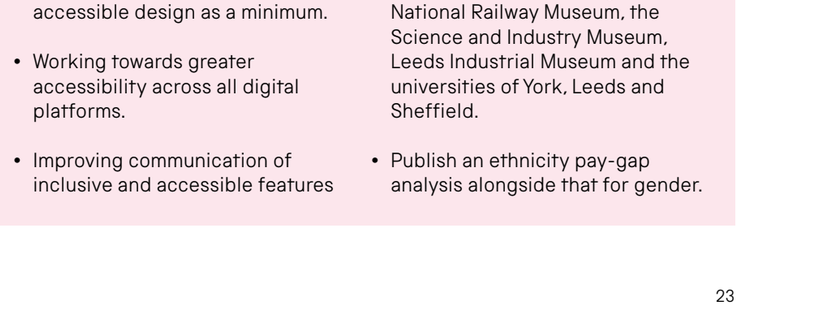
We are committed to growing science capital in individuals and society and will amplify this approach in this strategy period. Science capital provides research-based insights and tools that are not restricted to learning activity but can guide an equity-focused approach to everything we do. Science capital principles are used effectively in large parts of our public programmes; our challenge for this strategy period lies in embedding a science-capital-informed approach across all functions and teams, behind the scenes and front of house, for audiences and our own people.

Open for All is a rolling programme of varied actions that takes its name from our organisational value. It aims to make the Science Museum Group – and science itself – more accessible and attractive to everyone throughout their lives by identifying and reducing or removing barriers to engagement. Aspects of equity, diversity and inclusion are at the forefront of public consciousness, notably regarding race, socioeconomic status and geography (eg the UK government's 'levelling up' agenda), gender, sexuality and disability. These are complex, interrelated issues, but we are determined to address our own practice, as explained in our **Equity Framework**. We will work with a wide range of collaborators and stakeholders and across all workstreams to create content that is accessible and spaces, both physical and virtual, where everyone can feel they belong. Our science capital insights help us to ensure that everything we do and how we do it is 'open for all' (*see Spotlight below*).

Science capital is about keeping STEM subjects in mind during life decisions such as those involving education and career pathways. The new *Technicians: The David Sainsbury Gallery* at the Science Museum (opening October 2022) and the

Opposite: Visitors in *Top Secret: From Ciphers to Cyber Security* at the Science and Industry Museum

Right: An architect's sketch of the entrance to *Technicians: The David Sainsbury Gallery* at the Science Museum. © JAC Studios



EQUITY SPOTLIGHT: OPEN FOR ALL
Open for All has been driven by a dedicated senior steering group and site-based working groups since 2019. The aim is to embed good practice throughout the Group so that we are truly living our organisational value of being open for all. There are four pillars:

- Grow a diverse workforce
- Build an inclusive culture
- Create places that are open for everyone
- Engage everyone with science

To drive continuous action and improvement, two new Group-wide posts were created in 2021: Head of Access and Equity to focus on public programmes, and Inclusion and Diversity Lead to focus on the Group's workforce and culture. An Open for All Strategy was also agreed.

Examples of Open for All actions in the period 2022–25 include, but are not limited to:

- Creating opportunities to enable a diverse range of people at all levels to be exposed to working in our sector and a wider range of career entry routes.
- Trialling new and different ways of recruitment and selection to draw in new audiences and encourage transferable skills.
- Introducing a Big Read scheme for all employees across the Group.
- Implementing physical access plans at each site, taking legal standards of inclusive and accessible design as a minimum.
- Working towards greater accessibility across all digital platforms.
- Improving communication of inclusive and accessible features and the on-site visitor welcome; introducing new features such as sensory-friendly maps.
- Expanding our accessible activity programme, including our out-of-hours and sensory-friendly activity such as dementia-friendly programming, BSL tours and audio-described activity.
- Initiating a programme to review collection catalogues, identifying and considering potentially problematic terminology in historic records and developing guidance for the future.
- Completing the research project on slavery in early railways with a consortium comprising the National Railway Museum, the Science and Industry Museum, Leeds Industrial Museum and the universities of York, Leeds and Sheffield.
- Publish an ethnicity pay-gap analysis alongside that for gender.

Trans-Pennine STEM Ambassador Hub, for example, explicitly promote STEM skills and careers. But it is also about participation in science and society. Science is at the heart of many of the big challenges, such as climate change, that we face as citizens, communities and nations. We want more people to feel comfortable and confident in debating and influencing decisions about all our futures. We also want to share our own enthusiasm for STEM as something people choose to do in their leisure time. By applying science capital principles more widely and deeply within the Group, we will improve our organisational capabilities, the experience of our people and what we provide for all our audiences (*see* **RESILIENCE**).

Geographic disparity within the Group is being addressed through increased investment at our sites outside London. The Science Museum Group is the most national of all the UK national museums, with six sites throughout England, from the Northeast to the Southwest, and activity that reaches all parts of the UK (*see visitor forecasts on page 10*). We draw on the power of the Group to learn from each other, share resources and deliver good value, for example in developing our temporary and touring exhibitions programmes. But each of our sites also retains its own character and sense of place, reflecting and contributing to local and regional communities. The capital development projects in our Masterplans deliver great buildings and visitor attractions that resonate with local heritage and future ambitions, but this spirit of place is also nurtured through the relationships we hold and the voices we listen to. This is, perhaps, particularly true of our museums in York, Shildon, Bradford and Manchester, where each team works closely with local authorities, schools, higher and further education organisations, businesses, community groups and others. We are proud to be part of our locales and to promote them widely in the UK and abroad; we also aim to be a source of pride to our friends and neighbours. Some key developments in this strategy period are outlined in the Spotlight opposite.

In addition, our ambitions for the National Collections Centre (NCC) at Wroughton include, alongside economic stimulus, several regionally based objectives in the Southwest. These include community engagement and research partnerships that form part of the Open NCC phase of the One Collection programme (*see* **COLLECTION**). From late 2021 this work has been led by the holder of a new post of Collection Engagement and Volunteering Manager and marked by a new commission from internationally acclaimed artist Bedwyr Williams created with Wiltshire communities.

Beyond our walls, the Science Museum Group Academy is one means by which we share our science capital approach and experience with teachers, peers in our sector and research professionals. Between 2018 and 2022 the Academy was able to offer participation by UK teachers free of charge. Delivering the next phase of the Academy from 2022 is a priority, nationally and internationally.

We demonstrate the global nature of science through our international partnerships and projects in the UK and overseas. We can showcase British achievements as a leader in science, but also as an open, generous collaborator – it takes global cooperation to tackle the global challenges that face humankind, such as climate change and health. In a rapidly shifting political and economic climate, we aim to promote an internationalist outlook, fostering tolerance and respect for different cultures and voices. This approach is exemplified by the *Hunt for the Vaccine* project (2021–24) that brings together partners in the UK, India and China to tell the story of vaccines, in particular those for COVID-19, through collaboratively produced exhibitions and events programmes.

BY 2030 WE WILL:

- **Routinely involve diverse communities and voices** in the development of our physical and digital public programmes and services to ensure that we meet or exceed designated standards, delivered and monitored through site-based access plans and regular external audit.
- **Reach audiences that are more diverse** and representative of the communities we serve; actions will be driven and monitored through Open for All plans and reported annually.
- **Be an exemplar for inclusive employment practice** in the museum/cultural sector by creating more career entry routes and pathways, and by influencing behaviours and infrastructure to enable a stronger sense of belonging within the Group; targets to be set and reported periodically (*see also* **RESILIENCE**).

Above: An Explainer helps young visitors with the Build a Bridge activity at Locomotion

Opposite: A family workshop at the Bradford Science Festival in 2021

EQUITY SPOTLIGHT: NATIONAL MUSEUMS, LOCAL CONNECTIONS

The National Railway Museum and Locomotion will be transformed through Vision 2025 (*see* **AUDIENCES** *Spotlight*), and the impact will be felt in their wider communities. In York we are poised to become the cultural anchor of one of the largest city-centre brownfield regeneration projects in Europe – York Central, a 45-hectare development that will create 2,500 homes and a commercial quarter providing up to 6,500 jobs. The new *Central Hall* will replace the road that currently bisects the museum and form a gateway to the metamorphosed site. South Yard will start to become the green backbone, providing an open space to picnic and play for all.

At Locomotion in Shildon a brand-new building will house impressive displays and draw on Shildon's unique heritage as the cradle of the railways. A sustainable open store will invite engagement with the museum's collection and emphasise Locomotion's pivotal role as a cultural cornerstone for the community.

The National Science and Media Museum is increasingly embedded in the life of the city and aims to be a national and international leader for community engagement. An academic research programme with the University of Leeds (Bradford's National Museum, 2017–20) explicitly addressed what it means to be a locally rooted national museum based outside the capital. Consultation and participation are built into the museum's operations, including the major new gallery project, *Sound and Vision*, due to open in 2024.

The National Science and Media Museum also organises and hosts the biennial Bradford Science Festival, delivered in partnership with organisations including Bradford Metropolitan District Council, with activities regularly taking place in civic spaces across the city. A key priority in this strategy period is supporting Bradford's bid to be UK City of Culture 2025.

The Science and Industry Museum site is internationally important, including important historic industrial buildings. In 2030 the site will be 200 years old, and our vision is to create new galleries and experiences that tell the story of the railway and of Manchester's industrial past. We also plan to repurpose parts of the site for appropriate commercial use. New entrances will create a more porous site through which more people will flow. Outdoor spaces will be rejuvenated by sustainable planting, accessible routes and new experiences including a STEM Playground. A new *Wonderlab* will be the core of a proposed new STEM Learning Hub for the region, to be developed and delivered in partnership with Manchester City Council and Greater Manchester Combined Authority, and involving families, education providers and employers.

The Science and Industry Museum runs the biennial **Manchester Science Festival**. The museum is at its heart, but it is produced with many partners and infuses the city as one of its cultural highlights.

DIGITAL

Scale up digital reach, impact and innovation
Our digital estate will grow significantly in scale and scope to increase global reach and reputation.

In the years preceding the current strategy period we, in common with other cultural organisations, were increasing our digital and online content and activity (*see opposite*). This was driven by technological advances, audience expectations and competition, and delivered within our overall project portfolio with considerable success. When the closures and restrictions enforced by the COVID-19 pandemic accelerated the sectoral 'pivot to digital' – delivering much more content online, using different platforms and tools, growing digital access and reach – it was recognised that the incremental approach should evolve to become more proactive and considerably more ambitious. Such a shift will require significantly increased investment and changes in organisational culture and practice.

This approach is captured in the latest iteration of the Group's **Digital Strategy 2022–2024**. This includes two key priorities that are covered in this section as Spotlights: stepping up our mission reach through new editorial content channels to create the 'Digital Science Museum Group', and undertaking innovation initiatives including academic research. The other digital priorities are, of course, to deliver against the Group's *Inspiring Futures* strategic priorities, elements of which are mentioned in the relevant sections of this document, including ongoing digitisation of the collection (*see* **COLLECTION**).

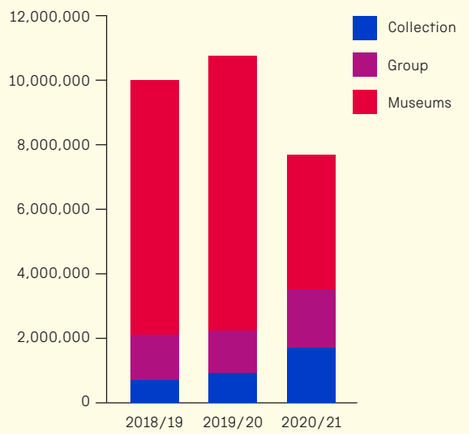
Given resource constraints, adopting the Digital Science Museum Group will impact on digital activities elsewhere, restricting some and increasing others. Digital imaging and cataloguing must be continued, with particular focus on the Library and Archives material that comprises by far the greatest proportion of the collection numerically. Digital communications and data analysis remain key means for making and strengthening connections with our audiences and supporters, especially in light of our objectives of rebuilding physical museum visits, increasing income and reaching underserved audiences.

The Science Museum Group aims to represent and use the latest digital technologies and practices, and to champion innovation in our sector; for example, we made a 3D lidar scan of the newly acquired Hawking office (*see* **COLLECTION**). As well as hardware and software, this requires our people to be digitally literate and confident.

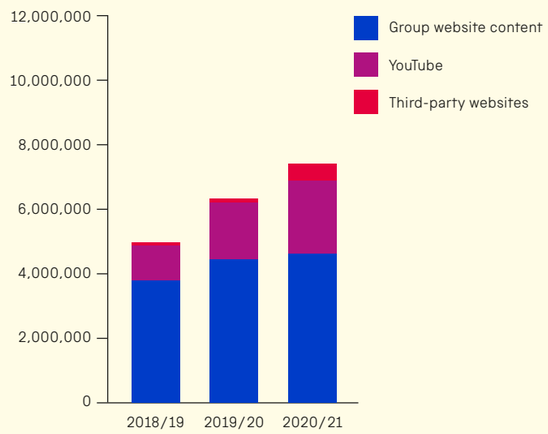
A Science Museum Group photographer working on the digitisation of the *Daily Herald* Archive

Opposite: Playing a video game in *Power UP* at the Science Museum

GROUP ANNUAL WEBSITE VISITS



GROUP ANNUAL CONTENT REACH



In 2022 we will conclude the third project under the One by One UK–US consortium, a multi-partner international initiative that helps museums to better embed digital literacy and practice. We are making increasing use of crowdsourcing, for example in the National Science and Media Museum's Communities and Crowds project for the *Daily Herald* Archive (2021–24). This project fosters digitally enabled participation, specifically aiming to provide a sectoral model that enables volunteer communities to be involved with projects from conception, rather than reserving design and development for institutions. The major research project in this arena will be The Congruence Engine, continuing our investigation into AI and machine learning as means of interrogating and connecting the holdings of multiple organisations with different types of collections and sources (*see Spotlight opposite*).

Our reputation and experience in museum interactivity date from the ground-breaking *Children's Gallery* in the 1930s. This has translated over recent decades into digital features in our exhibitions and programmes, with considerable success among audiences and critics. In 2022/23 we will formally launch *Wonderlab+*, a new children's website and YouTube channel, and an augmented reality game in partnership with Niantic. It is now time for a bolder vision – a pioneering gallery experience that we call *Digital World*. As our first digital-only gallery, it will make a step change in our ability to present areas of contemporary science that are difficult to communicate by conventional means. It will inspire visitors with sophisticated experiences that go beyond mere spectacle to combine beauty and wonder with fascinating authentic science. *Digital World* is part of the Science Museum Masterplan phase 2, but is without a committed delivery plan to date. Opportunities will be sought for a proof-of-concept project that will test the approach in advance of a major Masterplan development, most likely working in creative partnerships with the university and/or commercial sectors.

BY 2030 WE WILL:

- **Have established a Digital Science Museum Group approach** and capability that delivers vastly increased digital reach compared with 2020/21.
- **Be using digital to its full potential** in supporting and delivering the *Inspiring Futures* strategic priorities:
  - o Continue collection digitisation programmes, including adding 62,000 objects with images to our Collection Online in 2022/23.
- **Attract partners and funding** to undertake digital projects that align with the Group's strategy. This includes delivery of the objectives of the Congruence Engine research project by completion in 2024.

DIGITAL SPOTLIGHT: DIGITAL INNOVATION – THE CONGRUENCE ENGINE

A major research project running from 2022 to 2024, The Congruence Engine will demonstrate how computational techniques, particularly artificial intelligence, can make strong connections between historical objects and sources and contribute to the creation of a true national collection. It builds on the Heritage Connector project (2020–21) and both are supported by the Arts and Humanities Research Council.

The topic for The Congruence Engine is industrial history and collections, but the approach and tools will be widely applicable. Information lies in museum collections, archives, photographs and film, sound recordings, maps, buildings, etc; however, records are often inconsistent, incomplete and difficult to access by professional and amateur researchers alike. Traditional cataloguing drives are slow, expensive and patchy. With our partners we will investigate technologies that can bring multiple collections together and enable new forms of exploration and discovery.

The project's computational methods embrace artificial intelligence techniques including specifically trained machine learning models and natural language processing.

To achieve this breakthrough in collections accessibility, we have brought together a unique combination of skills and interests including digital researchers, professional and community historians, and curators. Outputs will include interactive digital exhibitions, displays at partner institutions, and conferences and publications. Software and project data will be widely and freely disseminated.

DIGITAL SPOTLIGHT: DIGITAL SCIENCE MUSEUM GROUP

Pro bono research commissioned from McKinsey & Company in 2020/21 concluded that there is 'vast opportunity to increase reach' through our own sites and third-party channels such as YouTube. We will establish new editorial digital content channels to fulfil the mission for remote audiences more systematically and at much bigger scale than before. The proposition is to draw on our unique collection, as well as our extensive experience in audience engagement, to create branded channels for informal, entertaining narrative content aimed at particular audiences. These will be informed by past outputs – such as stories, learning resources and videos – which have grown and driven digital engagement in recent years, especially during the lockdown.

The first programme will be for children, based on the success of our *Wonderlab* galleries and with an extra head start derived from *Wonderlab+*, a website for kids and families developed in 2021. The second will be for adults, and further programmes may be added in response to demand and capacity. A new approach will be necessary throughout the Group, firstly in creating content from a digital-first perspective rather than adding digital dimensions to site-based projects, and secondly in adopting a heuristic methodology that encourages experimentation and adaptation.

Primarily mission-driven, we anticipate a commensurate increase in awareness of the Science Museum Group and enhanced reputation that could help to drive physical visits.

Opposite above: Playing a video game in *Power UP* at the Science Museum
Opposite: Behind-the-scenes filming for a BBC Bitesize video shoot in front of Stephenson's *Rocket* at the Science and Industry Museum

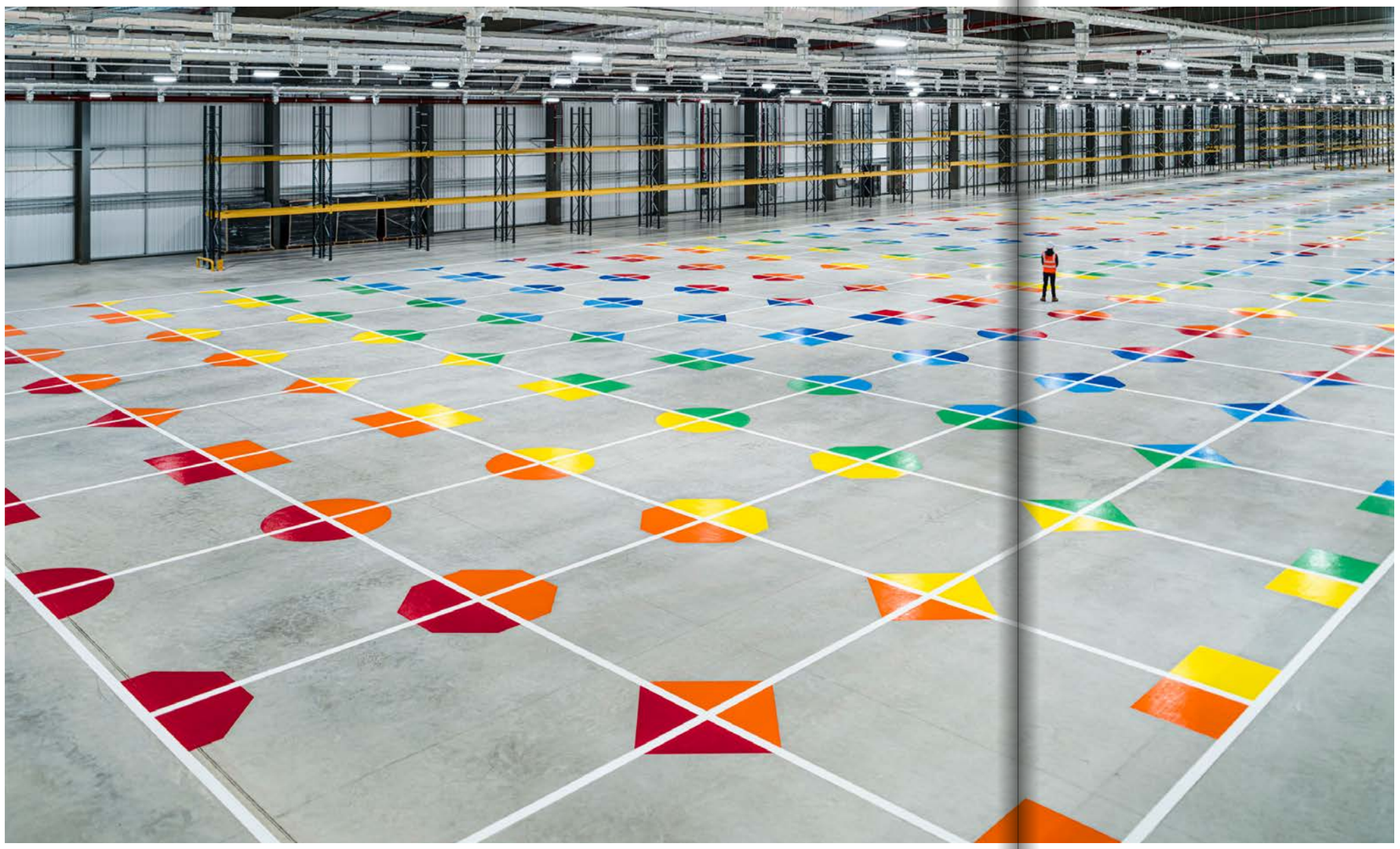
Building One
at the National
Collections Centre

COLLECTION

Sustain and enhance our collection
Our collection will be the best in the world for our fields: well understood and cared for, and accessible to all for research, display, learning and pleasure.

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

One Collection, the major initiative to transform how we care for and share our collection, continues until 2024 and is funded mainly by the Department for Digital, Culture, Media & Sport (DCMS). The major milestones within this strategy period are outlined on page 34 as a Spotlight. Over the next period the National Collections Centre (NCC) at the Science and Innovation Park at Wroughton, Wiltshire, will be consolidated as the sector-leading hub for managing the Science Museum Group's collection, as described in the Collection Services Strategy (2020). Work will also focus on ensuring the new facilities work for a wide range of users under the Open NCC project. Research partnerships, community engagement, an innovative schools programme and public tours will make the NCC one of the most open and vibrant collection facilities anywhere in the world.



Moving the collection from Blythe House, our central London facility, to the new Building One at the National Collections Centre is a huge undertaking. It has also been the catalyst for photographing and documenting the collection at an unprecedented rate. We have developed more efficient processes, used technology effectively and invested considerable research, curatorial and digital resource to make the collection vastly more accessible, digitally (*see* **DIGITAL**) and – ultimately – physically.

One Collection has marked a step change in our collections management, access and use, but it does not resolve all our collections issues and aspirations. The second Spotlight on page 34 looks at how we may build on that experience and momentum.

We add to the collection to sustain its relevance and status as the world's pre-eminent museum collection of its type and enhance its potential to inspire audiences (*see highlights opposite*), as described in the Collection Development Policy. Acquisitions vary a great deal. For example, the COVID collecting project includes children's NHS rainbow pictures as well as analytical equipment. In 2021 the Group was delighted to acquire, via the Government Acceptance in Lieu scheme, the contents of the late Professor Stephen Hawking's Cambridge University office. A dedicated curator has been appointed to prepare this acquisition for a highlights display that will be installed at the Science Museum in 2022. This will then visit each of our museums before returning to London in 2024 to feature in a new gallery provisionally called *Spaces of Science*.

As well as making new acquisitions, responsible collections management requires the identification of unsuitable items (eg because they are duplicates, hazardous or in very poor condition) that may be transferred to more suitable locations or otherwise safely removed. This is the purpose of our continuing collections review programme.

Our collection, accumulated over more than a century, chiefly comprises material artefacts and documents.

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

SOME COLLECTION HIGHLIGHTS
The Science Museum Group Collection comprises 7.3 million items, including:

- 7 million items of photographic, archive and library material
- 150,000 medical items, including the long-term loan of the Sir Henry Wellcome's Museum Collection
- 38,000 items relating to railway locomotives, rail technology and railway life
- 26,000 scientific instruments
- 17,000 items of photographic, cinematographic and televisual technology
- 7,000 artworks

Among the standout items are Stephenson's *Rocket*; Alan Turing's Pilot ACE computer; Crick and Watson's 1953 DNA molecular model; Charles Babbage's drawings and models; William and Lawrence Bragg's X-ray machine; the apparatus with which J J Thomson discovered the electron; Amy Johnson's Gypsy Moth aircraft; the record-breaking locomotives *Mallard* and *Flying Scotsman*; the world's earliest known surviving photographic negative, W H F Talbot's 'Latticed Window at Lacock Abbey'; the earliest recording of British television, the Baird Phonovision disc; Richard Arkwright's textile machinery; and John Dalton's surviving apparatus.

Recent acquisitions include:

- The Soyuz spacecraft and Sokol spacesuit used by Tim Peake in the Principia mission
- Numerous items for the Group's COVID collecting project, including vials from the first UK vaccinations
- Material relating to the campaign to pardon Alan Turing
- *A Quiet Afternoon in Cloud Cuckoo Valley*, a sculpture by Rowland Emett
- The incubator used for the conception of the first 'test-tube baby', Louise Brown
- 82 sets of 'life model' magic lantern slides from the late 19th and early 20th centuries
- A five-roller textile printing machine, thought to be the only surviving example

Increasingly, though, science is digital and much of our world today functions in the digital realm. We will actively consider the curatorial implications of collecting digital-only assets, including data and code – how it may be identified, acquired, preserved, accessed and used. We see particular opportunities in gaming, and the National Science and Media Museum is leading here with the appointment of a Curator of Gaming in 2021 and a Group-wide *Gaming* season in 2024. The Group's first Digital Preservation Manager was appointed in 2021 and is tasked with developing a digital preservation programme for our growing born-digital collection, digitised assets and our corporate records identified for permanent preservation.

Many people only access our offer online. This trend accelerated during the pandemic closures, but we had already made great progress in increasing both content and usage in recent years, under the Digital Strategy and One Collection. It is now timely to emphasise digital-only users, and this is covered in **DIGITAL**. Here it should be noted that there will be increased focus on archival and two-dimensional material (eg photographs, posters, technical drawings and other documents) in future programmes. Numerically, these constitute the vast majority of the 7.3 million items in the collection and are a rich resource that should be better used. This is the remit for a new role of Group Head of Archives and Libraries from 2021.

The collection – and the audience experience – is sustained and enhanced through research. As an Independent Research Organisation with similar status to universities, we have had considerable success in funding academic research, particularly through the Arts and Humanities Research Council, and were active in establishing the large-scale programme Towards a National Collection. We will seek to extend the range of research topics, partners and funders in order to generate increased income and activity, with conservation science a new priority.

Opposite: Bird's-eye view of the grid system on the floor of Building One at the National Collections Centre. This colour-coded system helps staff to identify and organise collections material. © Timothy Soar

COLLECTION SPOTLIGHT: ONE COLLECTION, 2016–2024

By 2021 the new 33,000m² building at the heart of the National Collections Centre was completed and the move out of Blythe House started. Moving at scale has enabled the development of better systems and tools for managing the collection; 270,000 objects have been prepared to move, including by barcoding and, in some instances, cataloguing them for the first time. More than 200,000 objects were photographed as the basis for increased digital accessibility, and improved cataloguing across the board was enhanced by 'deep dives' into selected topics with the help of volunteers and user groups. The Collection Online is vastly bigger and better used, supplemented by blogs, videos and our Never Been Seen tool.

The final two years of One Collection (2022–24) will see the completion of the move out of Blythe House and moves of large objects within the NCC – a significant operation. Alongside, the Open NCC project will create the facilities and procedures that will ensure that the site works effectively for all users and delivers on efficiency and access objectives. This includes an enhanced visitor welcome, inspiring work and collaboration spaces, and dedicated research facilities. We expect at least 15,000 physical visits to the NCC per year, comprising researchers, public tours and schools programmes. Remote access will offer sustainable, global access to our collection.

The moratorium on Science Museum lending will be lifted, reopening large parts of the collection to new interpretation and display in other venues and contexts.

COLLECTION SPOTLIGHT: MAINTAINING THE ONE COLLECTION MOMENTUM

Recognising the outstanding challenges in managing and storing our collection, we will extend the transformational One Collection approach to all our museums and to our Library and Archives collection. We will also develop plans for the collection beyond Building One. The older buildings on the NCC site present big access, maintenance and sustainability challenges that need to be addressed. Safe and appropriate storage of our collection is our chief priority.

The size and nature of our collection, and our national museum status, mean we are uniquely positioned to lead the sector in the sustainable storage and care of collections. This is evidenced by the low-energy Building One and there is potential to develop the approach and to add further buildings to serve our own needs and, potentially, those of external clients and partners.

We will explore new opportunities for research partnerships and funding to enable and extend conservation science practice in areas that will be key to sustainable preservation of the collection. We will also tackle our non-material (born-digital) collection, which we expect to grow over the next decade, to ensure its preservation and future accessibility.

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

BY 2030 WE WILL:

- **Have established the National Collections Centre** as a sector-leading hub for museum object management and access:
  - o Complete the One Collection programme in 2024.
  - o Facilitate at least 15,000 users per year from 2025/26.
- **Be delivering a further phase of collection storage improvements:**
  - o Deliver an options appraisal in 2022.
- **Have developed a capability for collecting and preserving born-digital assets for public benefit:**
  - o Implement an integrated digital preservation system by 2025.
  - o Develop collecting methods for born-digital acquisitions by 2026.

The Science Museum Conservation team cleaning Professor Stephen Hawking's Permobil model F3 Corpus wheelchair

RESILIENCE

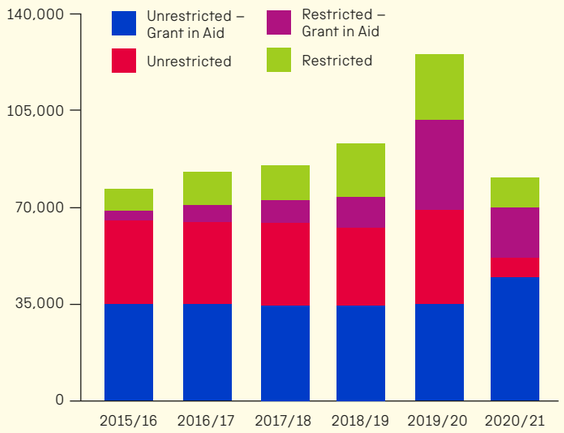
Thrive through change
We will value our people, manage our assets and secure income to be an ambitious, confident and dynamic organisation for the long term.

The COVID-19 pandemic was hugely disruptive throughout 2020 and 2021 and its effects on society, the economy and individuals remain uncertain, except in that they will endure for years. The impact on the Science Museum Group was partially ameliorated by additional government funding, but the massive drop in income and continuing financial constraints pose big challenges for at least the first half of this strategy period. Overall, the Group's response and recovery to date has been highly gratifying, owing largely to the dedication, professionalism and adaptability of our people at all levels.

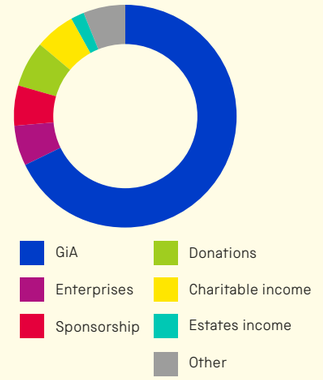
We learned a lot and made some significant operational changes, some of which will endure. To thrive and grow through future challenges, as yet unknown, we need to prepare actively. We will review systems and processes for efficiency and robustness, especially the generation and use of data and metrics. Examples include enabling better remote and hybrid working, rationalisation and automation of performance reporting through a new Management Information Hub, enhanced cybersecurity and the introduction of a Group-wide Technical Design Authority. We will continue to foster greater financial literacy and management throughout the organisation and review risk appetite so that innovation is encouraged.

The primary goal in the short to medium term must be to rebuild visits to our sites. Visitors' positive response to our reopenings affirms a strong appetite. Significant elements of our income derive from on-site visits, both directly – eg retail, catering, donations, attractions and exhibitions – and indirectly by attracting Development funding – eg sponsorship, corporate partnerships and grants (*see opposite*). What we offer will be varied and enticing, and visitor capacities will be increased as

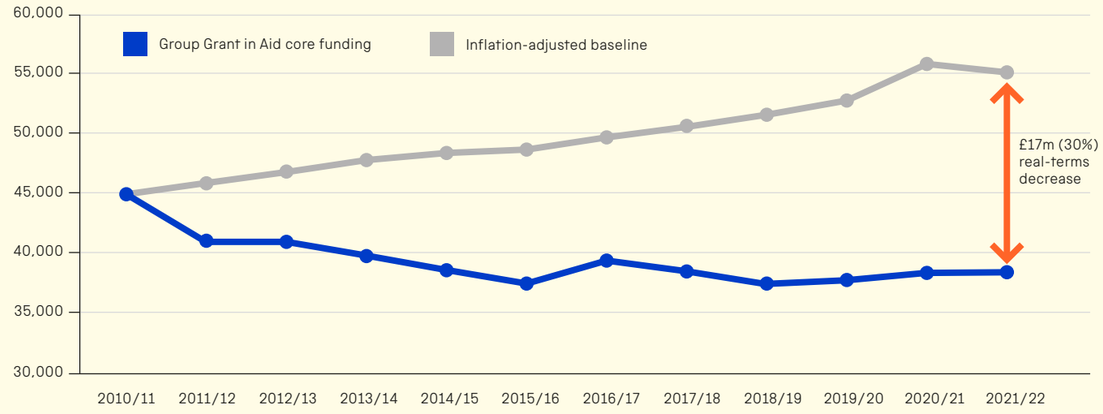
RESTRICTED/UNRESTRICTED INCOME (£000s)



RESTRICTED INCOME (£000s)



GRANT IN AID, 2010–2022
(Excluding special projects and one-off funding)



circumstances allow. Even with these positive indicators, we still expect that visitor numbers will not recover to pre-pandemic levels until 2025/26 (*see page 10*).

Further financial pressures arise from the wider economic climate affecting the price of goods and services, increased competition for limited funding, and funder confidence. To sustain our ambitions and commitment to high standards and organisational development, we will exercise particularly strict financial prudence while seeking to grow and diversify sources of income, especially sustainable unrestricted profit.

Building a more entrepreneurial and risk-tolerant culture will support this.

Our people and organisational culture are fundamental to the Group's success. Our work in this area is guided by a new People Strategy from 2022 centred on four key themes: shaping the post-pandemic workplace to embrace future ways of working; advancing inclusion, diversity and belonging as we aspire to be open for all (*see* **EQUITY**); enhancing organisational health through strengthening leadership, performance and agility alongside common purpose, values and engagement; and enabling fair reward and recognition for all to enhance our competitiveness as an employer.

We continue to invest in our sector-leading volunteer scheme, primarily as a means of engagement and increased inclusion (*see* **AUDIENCES**). It may also be noted that between 2015 and 2021 our volunteers contributed 450,000 hours of their time and helped to generate income of £1 million (for example by running the National Railway Museum's miniature railway attraction), with potential to grow.

Our extensive estate is an asset, but not an unqualified one as it varies in type, quality, status and

performance, and comes with costly maintenance obligations. Parts of our estate could work harder, and in 2021 a comprehensive asset management planning process was introduced as a road map for future management of the estate, covering sustainability, income/expenditure and maintenance standards. Opportunities to generate new revenues and/or defray liabilities are a prominent factor, and plans are progressing for appropriate commercial development of underused assets, especially at Wroughton, where we are establishing a Science and Innovation Park (*see Spotlight opposite*). We will seek to identify partners and clients whose business and values align with our own, eg innovative low-carbon technologies.

Large-scale remediation of accumulated historic underinvestment is required to tackle the continuous maintenance challenge, for example to over 125 roofed buildings within the estate. Work is prioritised according to the Capital Maintenance Plan, taking into account operational need and opportunities presented through Masterplan developments and sustainability imperatives.

Within this strategy period, priorities (after replacing and upgrading critical systems as they reach the end of useful life) include roof works at the National Railway Museum in York, the Science and Industry Museum and the Science Museum.

We cannot achieve all our aspirations alone. We work directly with a great many people and organisations in the public and private sector who support the Group with expertise, goods and funding. We also work hard to advocate for our mission among decision-makers and policy-makers. As our major funder, the UK government is clearly a key stakeholder, through our sponsor department, DCMS, and others. We aim to broaden the range of public funding that we secure, including from research.

Though we can be pragmatic and flexible when appropriate, we will always adhere fundamentally and demonstrably to the Science Museum Group's values. Authenticity is a source of pride in our people and inspires confidence in partners and stakeholders. The strategic priorities in this document often have an overt twin-track approach – what we present to the world through our programmes, eg in sustainability and climate change, and what we do ourselves. In other words, it is not enough to talk the talk, we are committed to walking the walk.

The *Textiles* gallery at the Science and Industry Museum

Opposite: Engaging with the light box exhibit in *Wonderlab: The Equinor Gallery* at the Science Museum

BY 2030 WE WILL:

- **Have a more diverse workforce and a more inclusive culture** through understanding and addressing the barriers to working in the culture sector, widening our reach across the labour market and enhancing our competitiveness as an employer; compared with a 2019/20 baseline.

- **Have improved the performance, condition and capability of the estate**, achieving high standards for its maintenance and sustainable management while ensuring that its designated use is fit for purpose:

  - Decarbonisation plans implemented from 2022; roof repairs across the Group completed by 2027.

- **Have a more resilient funding model with diversified income streams and improved financial awareness** throughout the organisation:

  - Unrestricted non-Grant in Aid income to be more than 50% of our total unrestricted funding (from pre-pandemic average for 2015/16–2018/19 of 32%).

  - Collaborative budgeting and planning processes to deliver internal forecasting with an accuracy of +/-5%.

RESILIENCE SPOTLIGHT: HYBRID WORKING

Remote working was introduced at scale during the national lockdown due to the COVID-19 pandemic. The Science Museum Group adapted rapidly and effectively with new technology and ways of working, and with enhanced internal communications mechanisms. Benefits of remote working were realised very quickly as an increased ability to connect more effectively as a Group while maintaining the safety and wellbeing of our colleagues. External communications also benefit from increased capacity for online communications, eg we are able to sustain our international networks with reduced need for carbon-intensive travel.

As we emerge from the pandemic, we have sought to embrace hybrid working as a key benefit of the employee offer. The world of work is changing and the ability to work in a hybrid way has fast become an expectation in the labour market. Around 75% of the Group's workforce are able to work with some level of flexibility, allowing significant improvement in work/life balance, and this is key to enhancing our employee value proposition.

We firmly see hybrid working as the future. From mid-2021 we implemented an interim model for hybrid working, running to the end of 2022. This period is being used to improve the ICT infrastructure and culture (eg dedicated hybrid meeting spaces), to adapt workspaces and to seek feedback from our people on impacts on employee experience. We will take the learning from this pilot to create a system for the long term that enables flexibility for colleagues without compromising on our culture, learning, engagement and leadership.

RESILIENCE SPOTLIGHT: SCIENCE AND INNOVATION PARK, WROUGHTON

Our Wroughton site is evolving into the Group's Science and Innovation Park (S+IP). We are growing activity in science research and development, collections management and renewable energy to deliver against the Group's strategic priorities as described in this document. The NCC and sustainability initiatives spanning building innovation – such as the award-winning hempcrete store – and ecology projects that include our woodlands programme – standing at 45,000 new native trees planted by 2022 – are especially notable.

Making use of the large land area available, the S+IP is home to partnership projects that provide a robust income for the Group while supporting societal good. We already host the extensive 50MW Swindon solar farm and the University of Bath's HIVE research facility that investigates the long-term performance of building materials.

Recent studies demonstrate the site's potential to become a unique and extensive research and development facility, and we have established governance arrangements to oversee incremental growth of the S+IP through this strategy period. Over time, the aim is to grow durable strategic relationships by establishing tenancies or partnerships on commercial terms with private- and public-sector organisations that are aligned with our mission and values. This leads us to a particular focus on low-carbon technological innovation and the renewable energy sector. But the site also lends itself to other uses such as film production, large-scale events and specialist storage for collections (in both public and private ownership). Securing a small number of 'anchor tenants' is a priority from 2022.

MONITORING PROGRESS

Above: Listening to music at the National Science and Media Museum

Left: *Amazônia* at the Science Museum

INSPIRING FUTURES: STRATEGIC PRIORITIES 2022–2030

The Science Museum Group was established under the National Heritage Act 1983 with its own Board of Trustees, appointed by the Prime Minister. It has the status of a Non-Departmental Public Body (NDPB), operating within the public sector but at arm's length from its sponsor department, DCMS. The Group is also an exempt charity under the Second Schedule of the Charities Act 1993, with DCMS acting as its principal regulator for charity law purposes.

The Board of Trustees is the senior decision-making body of the Science Museum Group, supported by a system of specialist subcommittees that comprise both Group Trustees and external advisers. The Board has led, through a dedicated steering group, the review of long-term strategy that resulted in *Inspiring Futures*. The Board also approves both the annual Science Museum Group Plan and the Annual Report and Accounts. Production of the latter is a statutory requirement, audited by the National Audit Office. The report is laid before parliament and published both by HMSO and on the Group's website. The Annual Report and Accounts is the primary formal means of reporting on the Group's performance against its statutory purposes and objectives, and against certain indicators required by DCMS.

The priorities and goals in *Inspiring Futures* are reflected in annual Science Museum Group Plans that set out specific actions and deliverables. This overarching strategic framework will also inform the subject-specific strategies and plans that are produced from time to time. A new regime of performance monitoring and reporting will be instituted to enable us to assess progress, and reports will be made regularly (at least annually) to the Board. The strategic priorities themselves will be reviewed at intervals of five years or less, at the Board's discretion.

We have dedicated a good deal of time and thought to *Inspiring Futures*. For a complex and evolving organisation such as the Science Museum Group it was difficult to decide what – out of all the many and diverse things we do – should be included. This document captures the top-level, long-term priorities and is to be used actively as a touchstone for decision-making throughout the Group for the next decade or so. We anticipate looking back from 2030 to a period of continued challenge and hard work, but also one of sustainable growth and success.

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