

At-Bristol

Situated in Bristol's historic Harbourside, At-Bristol is blazing a trail for science learning destinations, aiming to 'change the way you see the world, forever'. Chief Executive **John Durant** introduces the mix of innovative products that aims to inspire renewed interest in science at all age levels.



The idea of the science centre is relatively new. Other than the Science Museum and possibly the Natural History Museum, you would have been hard pressed to name any other major visitor destinations in the UK with a scientific education mission – until the current raft of Landmark Millennium Projects came along, that is. Now we have the Glasgow Science Centre, W5 at Odyssey, the National Space Science Centre in Leicester, The Eden Project, the Millennium Seed Bank and, of course, At-Bristol. All of these projects, in one way or another, have set out to deepen scientific awareness of the world, not just among visiting schoolchildren but adults, too.

At-Bristol comprises three distinct learning experiences, each of which uses the most up-to-date technology and features to capture the imagination. Whether you are nine or ninety, the interactive nature of all the exhibits here is designed specifically to help you experience science in ways never dreamt of before. Explore At-Bristol invites visitors to take a hands-on approach – by walking through a tornado, playing a game of virtual volleyball or starring in a show in the Play TV studio. The Orange Imaginarium is a state-of-the-art digital planetarium in which visitors can travel through time and space.

Wildscreen At-Bristol takes visitors from the origins of life on earth right through to the state of the planet today. Its collection of over 75,000 living creatures brings visitors face-to-face with nature, from scorpions to seahorses and chameleons to rodents. Even the most cynical person can't fail to be enchanted by its tropical rainforest with tree-flying birds and butterflies. It is also home to ARKive, a unique digital library of wildlife film footage drawn from the collection built up by the BBC's Natural History Unit, based in Bristol.

Last but by no means least, the IMAX Theatre At-Bristol, with the largest cinema screen in the West of England, takes visitors on a fascinating odyssey from the top of Everest to the depths of the sea, and even headlong into a 3D animated parallel universe. These constituent parts are linked by a series of magnificent open squares, Open Spaces At-Bristol, in which visitors are surrounded by public art including sculptures and water and light features.

Such ground-breaking content obviously demands massive front-end investment. The project's set-up costs totalled £97 million. We know that a long road of reinvestment and renewal of exhibits lies ahead. But the early signs are extremely encouraging. By the end of February 2001, we had welcomed 533,253 visitors through our doors, and daily footfall figures are now peaking at over 6,500. *The Good Britain Guide 2001* has officially recognised the quality of our visitor experiences by voting us their Family Attraction of the Year. At-Bristol has proved that it really has what it takes to fascinate and inspire. It has struck a major blow for science centres the world over, and is leading the way for the new generation of visitor destinations.

At-Bristol

www.at-bristol.org.uk

1. SET-UP FUNDING		
Millennium Commission		£m
		44.3
SWERDA		17.1
Bristol City Council		15.7
Private sector and other contributions to date		19.4
Funding sought		0.5
		97.0
2. VENUES		
	Floor space (m²)	Capacity
Explore At-Bristol	4,000	N/a
Wildscreen At-Bristol	N/a	N/a
IMAX Theatre At-Bristol	N/a	350
Open Spaces At-Bristol	N/a	N/a
3. ANNUAL VISITOR TARGET		
		N/a
4. NORMAL ADULT ADMISSION FEE		
One attraction		£6.50
Two attractions		£11.00
Three attractions		£15.50
5. OPERATING AUTHORITY		
		N/a

N/a = Not available

The Eden Project

Throughout history, and before, we have depended on plants for the air that we breathe, the clothes that we wear, the food that we eat and the shelter we need from the elements. Eden's mission is both to show how we share our world with plants and to bring home the importance of knowing how to use these valuable resources sustainably so that we can all take responsibility for the future of our planet.

So how are we setting about educating the world? Built on a vast site in a former china clay quarry, we have made Eden a home for plants from all around the world, which our visitors can view both out in the open and under cover, in two enormous temperature-controlled 'biomes'. On site we also have a large visitor centre, a restaurant and an outdoor event arena. As well as the fabulous living collections, artists of all kinds are providing sculpture, automata, animation, puppetry, wind and water installations, live music and performance. Visitors can join in with hands-on workshops ranging from performance arts to horticulture, cooking to dyeing. But Eden is not a green theme park, a 'Disney with dahlias'. Nor is it a 'tree museum'. Instead, it is a living theatre of plants and people that tells a story.

The act of creating Eden was itself an exercise in practising what we preach – all the facilities here were designed and constructed according to environmental principles. The huge biomes housing our humid tropics and temperate climate zones, for instance, came in lightweight, flat-pack form. Unlike most buildings, once erected, they had to be tethered down to guard against being blown away!

With half a million visitors under our belt before the project opened, we feel justifiably confident of future success. But we know this is not a given. In many scientific institutions, marketing and education are afterthoughts. At Eden they are at the core. We have the media savvy to press our message and promote brand development for science and horticulture generally. We have already received fantastic coverage up to and since our opening on 17 March. So much coverage, indeed, that it is difficult to believe there is a reader left in the UK who has not at some point in the last two years glimpsed a sight of its magnificent, bizarre structures on the sheets of a newspaper. We also recognise the importance of partnership in our ongoing efforts. Eden sits in a web of partnerships with environmentalists, businesses, universities, schools and communities, providing an international forum for debate and a centre for communication.

Our aim is to be one of the greatest destinations on earth: a riotous assembly made sense, and an assault on all the senses; vibrant, entertaining, informative. An unforgettable experience in a breath-taking, epic location, which we believe will inspire people to become involved in what Eden is all about.

Eden, the largest, best-publicised and arguably most dramatic of the Millennium Landmark Projects, is attempting to make environmental sustainability sexy, through a combination of space-age design, art, interpretation and science. Chief Executive **Tim Smit** believes that the project has got what it takes for the long haul.



Eden Project

www.edenproject.org.uk

1. SET-UP FUNDING	£m
Millennium Commission	40
English Partnerships	3.9
European Regional Development Fund	10
Restormel Borough Council, Cornwall	
County Council, Prosper, Single	
Regeneration Budget, Rural	
Development Commission, Other Grants	1.2
Charitable Donations	0.5
Loans and private sector funds	20.5
Other grants	0.1
Sponsorships & Donations in kind	3.8
	80.0

2. VENUES	Floor space (m ²)	Capacity
<i>Main areas:</i>		
Roofless Biome	1,200,000	N/a
Humid Tropics Biome	250,000	N/a
Warm Temperate Biome	50,000	N/a
<i>Other areas on site:</i>		
Gateway to Eden (Visitor Centre)	N/a	N/a
Eden area (Performance amphitheatre)	N/a	2,000
Restaurant	N/a	500
Education resources centre	N/a	250
TOTAL SITE AREA	1,500,000	
3. ANNUAL VISITOR TARGET	750,000	
4. NORMAL ADULT ADMISSION FEE	£9.50	
5. OPERATING AUTHORITY	The Eden Trust	

N/a = Not available

The International Centre for Life

The mission of the International Centre for Life (ICFL) in Newcastle upon Tyne is 'to discover, interpret, apply and disseminate knowledge about the new understanding of life based on DNA'. Following the ICFL's successful launch, Chief Executive Alistair Balls believes that a promising future lies ahead, thanks to a powerful combination of science learning facilities.

When the International Centre for Life opened for business in June 2000, the press declared our visitor attraction, LIFE Interactive World, a runaway success. It went on to host 120,000 visits in its first four months of operation. Some journalists suggested that the Dome could have taken a leaf out of our book in terms of clarity of purpose, excellence of exhibits and value for money. LIFE Interactive World features nine separate zones, which collectively enable the public to explore the key areas of the new life sciences in a stimulating, memorable way.

But the ICFL is much more than a visitor attraction. It is an independent, not-for-profit, educational institution. Situated on a 10-acre site in the city centre, the ICFL comprises six elements: PEALS (Policy, Ethics and Life Sciences Research Institute); the Institute of Human Genetics; the Bioscience Centre; LIFE Labs; LIFE Interactive World; and the LIFE Conference and Banqueting Centre. The last of these provides a new conferencing venue for the North East. Our guests can also hold events in a variety of other settings within the ICFL. All the activity at the ICFL takes place around Times Square, the largest public square opened in the city for 100 years, which will eventually play host to a range of retail and leisure outlets.

ICFL's component parts range from world-class science institutes to a visitor-facing science attraction. Crucially, the ICFL promotes cooperation



between facilities serving advanced academic researchers, schoolchildren, start-up biotech businesses, etc – the full spectrum of 'science learning'. PEALS is a collaborative project between the ICFL, the University of Newcastle and the University of Durham, which aims to promote greater public understanding and debate surrounding issues linking science and society. The Institute of Human Genetics, also part of the University of Newcastle, is a leading-edge centre for medical research, medical application, technology transfer and commercial application in the fields of genetics, biochemistry and biotechnology. The Bioscience Centre, meanwhile, houses and nurtures incubator units and cell culture facilities. Its objectives are to create a cluster of small-sized enterprises at the forefront of research into life sciences and to encourage their commercial application. The Bioscience Centre has already let over half of its 60,000 square feet of space and offers an unrivalled environment, facilities, business support and infrastructure for biotech companies.

Last, but certainly not least, there is LIFE Lab, a cutting-edge educational facility for schoolchildren of all ages. Designed to combat poor results in GCSE subjects and unpopularity of science subjects at 'A' level and degree level in the North East of England, LIFE Lab brings science to life through interactive laboratories, and opens the eyes of pupils in the region to new discoveries in bioscience. LIFE Lab's challenge is to nurture the interest and scientific skills of young people, in preparation for successful careers within the flourishing biotechnology sector. And where better for these new scientists to pursue higher education than the Institute of Human Genetics, or a career in genetics. Or to pursue a scientific career than our Bioscience Centre?

Only time will tell whether these ambitions will be realised. It is early days, but we have made a promising start. As the scientists of tomorrow are enthused and taught, the scientists of today pioneer new biotechnologies. And the public continues to show faith in the venture by turning out in force to learn more about these advances through our imaginative exhibits.

International Centre for Life

www.centre-for-life.co.uk

1. SET-UP FUNDING		£m	
Millennium Commission		31.5	
Tyne and Wear Development Corporation		11	
European Regional Development Fund		10.6	
Wellcome Trust		3.3	
One North East		2.5	
Other partners		3.0	
		61.9	
2. VISITOR ELEMENTS		Floor space (m ²)	Capacity
LIFE Interactive World		N/a	N/a
<i>Includes:</i>			
Secret of Life Show		N/a	80
Big Brain Show		N/a	120
Crazy Motion Ride		N/a	48
3. ANNUAL VISITOR TARGET		225,000	
4. NORMAL ADULT ADMISSION FEE		£6.95	
5. OPERATING AUTHORITY		International Centre for Life Trust	

N/a = Not available

The Lowry Centre

Media coverage of The Lowry Project, the National Landmark Millennium Project for the Arts, has often focused on The Lowry itself. But the project's role as a catalyst for the continuing regeneration of its urban surroundings is just as important as its cultural agenda. Felicity Goodey, Chair of The Lowry Trust, explains why.

Situated on a spectacular promontory, The Lowry Project is a waterfront home for the arts, entertainment, education and innovation. It comprises several elements, the best reported of which is The Lowry itself. Opened in April 2000 to near-universal critical acclaim, The Lowry is an architecturally dynamic powerhouse for creativity and the arts, comprising gallery spaces, two theatres, ArtWorks (an interactive art attraction), and bars and restaurants. The project's other component ingredients are the Digital World Centre (due to open in late 2001), which will be a showcase for innovative digital technologies and the next generation of the internet; the Plaza, a vast outdoor performance space; access routes; transport infrastructure; and a lifting footbridge across the Manchester Ship Canal, which links The Lowry to Trafford Wharfside and provides easy access from both Manchester United Football Club and the site for the Imperial War Museum - North. So what has all this got to do with regeneration?

The Lowry Project was conceived by the City of Salford as the final part of the regeneration of Salford Quays, a process which had begun in the mid-1980s with the purchase of the majority of the site by the City Council. Committed to halting the decline of the former industrial docks, the Council commissioned an architectural plan for the area. Released in 1985, this plan focused on three aspects: housing, business and leisure.

During the 1990s, the first new developments were completed: a multiplex cinema, watersports centre, restaurants, bars and smart waterside residences. Dock basins where transatlantic cargo vessels had unloaded their wares were cleaned, oxygenated and filled with 12,000 coarse fish, encouraging angling and other watersports on what were once polluted and rat-infested waterways. In place of an industrial ghost-land was a smart new development with an extensive network of footpaths encouraging people to enjoy the waterways. Thousands of people moved into new waterside apartments and houses. The regeneration of Salford Quays has been the result of a remarkable partnership between the public and private sectors, which has transformed the former docks.

Research indicates that The Lowry and associated projects are responsible for the creation of some 6,500 jobs in the local economy, and that a total of 11,000 jobs will arise from the regeneration of the Quays as a whole. As well as creating new jobs, The Lowry Project has been a catalyst for the Water Quarter Improvement Programme, which involves cleaning the headwaters of the Manchester Ship Canal. Funded by North West Water (£3.5 million) and English Partnerships (£500,000), this is creating a vibrant, attractive water corridor linking Salford Quays to Manchester city centre.



Photograph courtesy of Len Grant

Gerald Kaufman, MP, the chairman of the House of Commons Select Committee on Culture, Media and Sport has described The Lowry as 'Salford's Guggenheim', and like many others is convinced that it will attract millions of tourists in its own right. Two and a half million visitors are expected to visit Salford Quays each year, bringing in massive revenues.

Acting as a catalyst for the regeneration of the Northwest as a region, The Lowry Project is generating a wide range of far-reaching economic and social benefits. It is embracing its broad community and providing it with access to new areas of creativity. Leisure, culture and innovation have replaced heavy industry. Dreams have replaced fears. The Lowry Project is bringing a new economic dimension to the regional capital and new experiences to new audiences. Most of all, it is raising people's aspirations.

The Lowry

www.thelowry.org.uk

1. SET-UP FUNDING	£m
National Lottery Distributors	
Arts Council of England	45
The Millennium Commission	16
Heritage Lottery Fund	9
Subtotal	69.0
European Regional Development Fund	16
English Partnerships	5
Salford City Council	4
Trafford Park Development Corporation	0
EDS	1
Other sources/private sector	11
Subtotal	69.0
TOTAL COSTS	80.0

2. VENUES	Floor space (m ²)	Capacity
The Lyric Theatre	N/a	1,730
The Quays Theatre	N/a	466
The Plaza	4,500	7,000
Galleries	1,610	N/a
3. ANNUAL VISITOR TARGET	770,000	
4. NORMAL ADULT ADMISSION FEE	FREE*	
5. OPERATING AUTHORITY	The Lowry Trust	

* Galleries free, fee charged for concerts, artworks, exhibitions, food and drink

N/a = Not available

Millennium Seed Bank

The loss of Earth's biodiversity is one of the tragedies of our age – once a species becomes extinct, it is lost forever. Professor Peter Crane, Director of the Royal Botanic Gardens, Kew, explains why the Millennium Seed Bank Project, at Wakehurst Place in West Sussex, is a cause for celebration amongst botanists and the general public alike, as it offers visitors a chance to see not only the endangered plant species but also the battle to preserve them taking place.



The Millennium Seed Bank Project (MSBP) International Programme is a nine-year global conservation programme (2001-2010), conceived, developed and managed by the Seed Conservation Department at the Royal Botanic Gardens (RBG), Kew. Plant species loss is accelerating, and it has been estimated that it

will affect 25% of the total in the next 50 years. Feeling that not enough was being done worldwide to counteract species loss, RBG Kew's Trustees proposed the Millennium Seed Bank in February 1995. Their vision for the MSBP was to create a pioneering centre of excellence, not only to collect seeds, but also to build international research networks. The Millennium Seed Bank would be housed in a specially designed new home, in the grounds of the RBG's Wakehurst Place site. This vision became reality when the Wellcome Trust Millennium Building was completed in August 2000.

The science of long-term seed conservation is well established: ex situ seed conservation has been shown to be an efficient and cost-effective way of conserving the variation within and between individual plant species. Already holding the most diverse collection of seeds in the world, the Seed Conservation Department at the Royal Botanic Gardens, Kew also has a proven track record in seed research, specialising in fundamental aspects of seed storage and germination. By the year 2010, the MSBP aims to collect and conserve 10% of the world's seed-bearing flora - some 24,000 species - principally from the drylands (a third of the Earth's land surface), which are under threat of desertification due to intensive human settlement in areas subject to drought. The Millennium Seed Bank will act as a genetic asset of global significance, insuring against the loss of these species.

The second key objective of the MSBP is to develop bilateral research, training and capacity-building relationships worldwide in order to support and advance the seed conservation effort. Already, we are developing partnerships with institutions in Australia, Egypt, India, Kenya, Madagascar, Mexico, South Africa and the US. These collaborations will ensure the long-term sustainability of the programme after 2010.

The Wellcome Trust Millennium Building is home not only to leading-edge facilities for seed processing and botanical research, including training and accommodation quarters, but also to a high-quality visitor facility, The Orange Room Exhibition Area. The exhibition is centred on a large planter containing living plant specimens from dryland regions, and there are walkways from which visitors can see directly into the processing and research laboratories. The layout of the laboratories deliberately presents the visitor with a logical story of the project's activities, exposing the 'inner workings' of the Seed Bank to the public. So while our researchers and scientists get on with the job of preserving plant species from all over the world, the public will be able to keep up with our ground-breaking work.

Millennium Seed Bank

www.rbgkew.org.uk/seedbank/msb.html

1. SET-UP FUNDING	£m	
Millennium Commission	30	
Wellcome Trust	9.2	
Orange plc	2.5	
Other	39.3	
	81.00	
2. VISITOR ELEMENTS	Floor space (m²)	Capacity
The Orange Room Exhibition Area (in The Wellcome Trust Millennium Building)	664	N/a
3. ANNUAL VISITOR TARGET	330,000	(For Wakehurst Place as a whole)
4. NORMAL ADULT ADMISSION FEE	£5.00	
5. OPERATING AUTHORITY	Royal Botanic Gardens, Kew	

N/a = Not available

Our Dynamic Earth



Our Dynamic Earth is a high-tech visitor attraction that takes its guests on a trip around the planet. It was one of the first Landmark Millennium Projects to open its doors to the public, in mid-1999. Since then, it has enjoyed considerable early success. Julie Fawcett, Chief Executive, explains why.

It is now twenty months since Our Dynamic Earth first opened its doors to the public. The pace since then has been, to say the least, hectic. The key milestones along the way have been: the formal opening by HM The Queen on 2 July 1999, followed by a successful public launch the day after; hosting the official dinner to mark the opening of the Scottish Parliament – three days before we opened to the public; reaching our half-year target after just 16 weeks; and achieving the Investors In People Award seven months after opening.

The project opened to critical acclaim and has been hailed by many as a commercial success, yet we are painfully aware that it still remains 'early days'. Whilst descriptions of success may be somewhat premature, it is certainly the case that we entered the market at a particularly turbulent time. Press and public awareness of Millennium Projects generally, and the so-called white elephants particularly, was high. All initial targets have been exceeded, and press and public responses have been extremely positive. So, how have we pulled it off?

The fact that Edinburgh is a well-known tourist destination has led to some views that our success is largely down to our location. In fact, it was always our contention that our subject and story would not easily appeal to the tourist market – the majority of tourists to the City still quote 'history or heritage as the primary purpose for their visit' (*Tourism in the Lothians*, 1997), and would be less inclined to visit a centre such as ours.

Our focus is very much on the local resident market, which is relatively small. There is a low population density within the classic two-hour day visitor catchment area compared to other attractions across the UK. An independent visitor survey commissioned by Our Dynamic Earth, and conducted over the last eight months, confirms 68% of our visitors were from Scotland, 21% from elsewhere in the UK, and 11% were from overseas. The actual profile of visitor mix is, in this regard, close to that envisaged by ourselves and indicates no exceptional shift in the day or overseas market. The results have been driven in the primary resident market. This reliance on domestic audiences places us in a similar position to other high profile facilities that launched within the same year. The well-documented commercial problems being experienced elsewhere clearly demonstrate the challenges of succeeding in this highly competitive industry.

We believe that the biggest challenge facing projects like ours lies in the necessity to combine educational imperative with commercial savvy. These new centres require to be run in a business-like fashion in order to survive and to be efficient. That means adopting best business practice and using it to the benefit of the centre. We are passionate about our products, we believe we give a great show, we know our people are our greatest asset, we work closely with our partners and corporate sponsors, and we exploit every commercial avenue to support our core product – the attraction. We believe that it is this successful harmonisation of a good story, its effective presentation, and its sound commercial management that has been the key to any success to which we may make claim.

The team at the centre is close-knit, and morale remains high. We are all committed to keeping the momentum going. It's been a great adventure, and it isn't over yet.

Our Dynamic Earth

www.dynamicearth.co.uk

1. SET-UP FUNDING	£m	
Millennium Commission	15.75	
Scottish Enterprise Edinburgh & Lothians	8	
City of Edinburgh Council	5.8	
Private funding	5.2	
	35.75	
2. VISITOR ELEMENTS	Floor space (m²)	Capacity
The Stratosphere (inc. café)	572	N/a
The Biosphere (corporate meetings space)	304	N/a
The attraction	2,432	N/a
3. ANNUAL VISITOR TARGET	430,000	(512,000 came in first year)
4. NORMAL ADULT ADMISSION FEE	£7.95	
5. OPERATING AUTHORITY	Dynamic Earth Charitable Trust (owns and is responsible for the operation of Our Dynamic Earth) Dynamic Earth Enterprises Limited (runs the attraction as a self-sufficient enterprise)	

N/a = Not available