



UK Association for
**Science and
Discovery Centres**

Inspiring Science:

A Capital Investment Fund for the Nation's Science and Discovery Centres

Executive Summary

- The UK Association for Science and Discovery Centres brings together over 60 of the UK's major science engagement organisations. Together our members engage 20 million adults and children every year with science and engineering, involving and inspiring them with hands-on creative science challenges, activities and practical science. This includes around 2 million school students visiting each year who participate in inspirational curriculum-linked workshops, activities and labs. The Association's Centres span all regions and countries of the UK and reach out into a huge number of 'hard to reach' communities.
- Largely constituted with the benefit of investment in Millennium Centres, the sector has come to maturity. Science and Discovery Centres operate successfully on a day to day basis. By combining commercial savvy with imagination they have created sustainable business models that enable them to inspire and involve schoolchildren and families with the sciences, delivering excellence in cities and rural areas around the UK and making a huge contribution to the Nation's STEM skills base. The fact that the public and schools pay to get into the Science and Discovery Centres shows the high level of value that the public place upon their offer.
- However, in part due to the newness of the sector, traditional capital reinvestment schemes that are open to Museums, Galleries and the Arts are not accessible to Science and Discovery Centres¹. This means that Science Centres are now struggling to maintain the excellent quality of their hands-on and inspirational offer – an offer that makes a huge contribution to the future of the UK as a whole.
- We therefore propose the creation of a competitive £22 million '*Inspiring Science*' Capital Investment fund to which Science and Discovery Centres from England, Scotland, Wales and Northern Ireland may apply. This would be specifically to support capital investment for inspirational and involving **hands-on science** exhibitions and programmes across the UK. We propose the fund is open to science and discovery centres that cannot access capital investment from other public sources. We would propose the Capital Investment fund was for 2 years in the first instance.
 - Our proposal would equate to 17p per person per year across the UK
 - In comparison, Arts Council England awards cost £11.77 per person per year.

¹ Within the ASDC network there are a variety of different centres and funding models. National museums (with historic collections) have access to public funds. Largely the major science and discovery centres in England have no access to central public funding. Some science and discovery centres outside England have secured a small amount of public funding, though rarely for capital investment. Further details are included within this document.



Inspiring Science:

A capital investment fund for the Nation's Science and Discovery centres

1. An overview of the UK's Science and Discovery Centres

The UK Association for Science and Discovery Centres brings together over 60 of the UK's major science engagement organisations. Together our members engage 20 million adults and children every year with science and engineering, involving and inspiring them with hands-on creative challenges, activities and practical science². This includes around 2 million school students visiting each year to participate in inspirational curriculum-linked hands-on programmes and activities.

The network of UK Science and Discovery Centres is the UK's largest publically accessible network dedicated to both out-of-school science learning and family science engagement. Collectively, and every week, they encourage 385,000 adults and children to experiment, explore, discuss and delve into the world of science, technology, engineering and the environment. This is important given that school students spend 80% of their waking time out of school³, and that young people said, although they received careers advice from a variety of sources, family was the most common and most useful.⁴

The science centres within our membership support school students and teachers particularly with future-focussed and practical science. In a recent multicentre national study, 89% of students taking part in a hands-on workshop said the experience had increased their interest in science and 95% felt it increased their confidence in them doing science⁵.

2. The need: Capital Investment to support future-focussed Science

The sector has blossomed since the Millennium investments and now, ten years on, has reached maturity. Unlike traditional Museums and Galleries, science and discovery centres have no tradition of receiving revenue support from central funds. Science and Discovery centres have therefore needed to become adept at generating income to cover their operating costs and most charge an entry fee to visitors. The fact that visitors (including families and schools) are happy to pay for entry indicates the value that they place on the Centres' work.

However, the conditions of application of all major publically-funded capital funds are constituted in a way that excludes applications from Science and Discovery Centres. This means Science and Discovery Centres cannot apply for capital investment from (from example) Arts Council England, the Heritage Lottery Fund, other National Lottery funds, DCMS Wolfson Museums and Galleries Improvement Fund or the HEFCE Museums, Galleries and Collections Fund.

This means that, despite their excellent (and largely self-funded) achievements in raising aspiration and attainment amongst school pupils, and their contribution to the Nation's STEM skills base, the Science

² This is the collated number of visits per year to all ASDC members across the UK.

³ Bell, P *et al*

⁴ 2013: Wellcome Trust Monitor Wave 2

⁵ 2012: Hands-on DNA programme, supported by Wellcome Trust

and Discovery Centres are now struggling to maintain the inspirational quality of their hands-on and inspiring exhibitions and facilities due to lack of Capital Investment.

This situation needs to change, particularly because as a nation and a global society we have some major challenges to solve over the coming decades, many of which will rely heavily on scientific entrepreneurship and innovation. We need to nurture our young creative talent to ensure growth and enterprise in many of these science, engineering and technology sectors.

Currently, as a nation, we invest heavily in the arts but do not do the same for inspiring young people in the sciences.

The UK wants to play a leading role in the future in science and innovation, at the fore-front of scientific and engineering innovation. We therefore need to inspire our children early, giving them access to cutting-edge experiments and ideas and create the conditions that inspire them to take the next steps into a future of innovation and science. More widely, we need to give all members of our society the ability and confidence to contribute to science-based societal discussions. Of note at this point is whilst the situation is marginally better in Wales, Scotland and Northern Ireland, access to capital investment for hands-on science is needed in all four countries.

3. Our Proposal

We propose the creation of a competitive £22 million '**Inspiring Science**' fund to which Science and Discovery Centres from England, Scotland, Wales and Northern Ireland may apply for capital investment. This would be specifically to support inspirational and involving **hands-on** science programmes in centres that cannot access the Museums-based Capital funds and would operate over 2 years in the first instance.

- Our proposal would equate to 17p per person per year across the UK⁶
- Arts Council England awards £11.77 per person per year.

Vision for the Fund

To support investment in capital development and renewal programmes in future-focussed **hands-on** science and discovery centres, with the specific aim of inspiring and involving children and adults with science, technology, engineering and maths.

Who could apply?

- The application process would be competitive, and peer reviewed
- All Science and Discovery Centres who are ineligible for Museums capital funding could apply
- Applicants must be a registered educational charity
- Applicants must involve at least 50,000 people each year in the sciences
- Applications must be focussed on delivering hands-on inspirational science experiences

⁶ Assuming a UK population of 63 million (63,181,775 2011 census) and an English population of 53 million. Arts council funding in 2011-12 was £624.5 million annual investment divided by population of England www.artscouncil.org.uk/what-we-do2/advocacy/faqs/

What would the 'Inspiring Science' Fund enable?

1. Development and renewal of learning spaces, labs and lab equipment and hands-on science exhibitions, (including IT and operational infrastructure) to keep the science programmes offered to students at the leading edge.
2. Special Hands-on science education programmes with a capital component, eg the capital component of setting up a molecular biology laboratory for students, or a space science lab,
3. Capital build and equipment to increase the on-going financial sustainability and viability of science and discovery centres (for example improving science centre facilities to increase on-going earned income from corporate hire, or development to kick-start other revenue generating programmes where clear Return on Investment can be shown
4. Capital programmes to reduce the environmental and carbon impact of the organisation.

Logistics

1. It is clear that setting up a new administrative resource for this fund would be inefficient and impose an inappropriate overhead on the fund overall.
2. Nonetheless, appropriate and robust administrative, financial and evaluation systems are required for this and it is therefore proposed that a portion of the fund (circa £300k over 2 years) should be set aside in order to contract an appropriate organisation to administer the fund and ensure that outcomes are delivered and evaluated appropriately. The ASDC would be one option for this or, alternatively, one of the existing funding organisations (though there may be some lack of capacity in terms of science knowledge and experience in many of these).
3. Marketing of the fund and the 'signal' that it makes in terms of Government commitment to the Scientists of the Future is a key element of this project and needs to be planned from the earliest stages.

Potential Timetable

Jan 2014	Peer Review Panel constituted
March 2014	Announcement of Programme Call for first round of Proposals
July 2014	Deadline for first round submissions (for up to 60% of fund total)
Sept 2014	First round funding awards made
Nov 2014	Call for second round of Proposals
Feb/March 2015	Deadline for second round of Proposals
June 2015	Second funding awards made
Dec 2015	Initial Evaluation
Sept 2016	Final Evaluation

Appendix 1: Which ASDC members already get public funding?

ASDC members are funded in a variety of ways. However, unlike museums, the major science and discovery centres in England receive no central public funding. These include for example, At-Bristol Science Centre, Centre for Life in Newcastle, Winchester Science Centre (Intech), The National Space Centre in Leicester, Eden Project in Cornwall, The situation differs slightly in Scotland and Wales where some science centres have been awarded public funds from the Scottish and Welsh Governments.

DCMS Museums within the ASDC membership

Some ASDC members already receive funds from public sources from DCMS. These include for example the Science Museum, Natural History Museum, MOSI, National Museums Liverpool, Tyne and Wear. Whilst they all undoubtedly would make excellent use of additional capital investment, they already have access to public funding for both capital and revenue and we would consider outside the scope of this fund.

For example, the taxpayer provides approximately 62% of the Science Museum Group's funding in the form of a grant from the Department for Culture, Media and Sport. The remaining 38% of its income derives from commercial activities, grants, legacies and donations. The total Grant-in aid for the Science Museum Group (comprising a number of museums) in 2012-13 was £43.7 million. The Science Museum, London attracts 3 million people each year, of which 400,000 visit in school groups.

Scottish Science Centres

The Office of the Chief Science Advisor within the Scottish Government awards funding to the following four Scottish Science and Discovery Centres towards their operations. The figure is different for each centre and is based on the number of children and adults they attract to their science programmes and exhibitions.

1. Glasgow Science Centre
2. Our Dynamic Earth, Edinburgh
3. Dundee Science Centre
4. Satrosphere, Aberdeen Science Centre

For example, Glasgow Science Centre (2012-13)

- Annual Turnover: £6 million
- Annual award for inspiring people with science from Scottish Government: £0.9 million
- 15% of Glasgow Science Centre's funding is from the Scottish Government (Office of the Chief Science Advisor, for science engagement)
- 85% of Glasgow Science Centre's income is self-generated, from commercial and trading activities, entry tickets, grants and other sources
- Like most science centres they have a high percentage of schools taking part: Glasgow Science Centre attracts 280,000 people of which 90,000 (32%) are brought by their schools to enhance their school science in curriculum linked activities.

Appendix 2: Lack of access to Lottery and Arts Council funding

National Lottery Funds

'National Lottery Money is given out by 12 Independent organisations, each with specialist knowledge of their sectors' <http://www.lotterygoodcauses.org.uk/funding>

1. Arts Council England
2. Arts Council of Wales
3. Arts Council of Northern Ireland
4. British Film Institute (film forever)
5. Big Lottery Fund
6. Creative Scotland
7. Heritage Lottery Fund
8. Sport England
9. Sport Northern Ireland
10. Sport Wales
11. Sport Scotland
12. UK Sport

None are focussed on inspiring science, engineering or innovation
Should there be new National Lottery Fund
be for inspiring science?

The current situation with Lottery funds

The two lottery funds that have some cross-over with the work of science and discovery centres are the BIG lottery and HLF. However, ineligibilities for capital investment are as follows:

Big Lottery: are '*Committed to Improving communities and the lives of people most in need*'. Science centres *can* apply for BIG Lottery grants for their specific community outreach programmes working with disadvantaged groups **however** they can't secure funds here for capital investment or for their more mainstream schools and science engagement work.

Heritage Lottery Fund: aim '*To preserve and transform the heritage of the UK through innovative projects that will make a lasting impact on people and places, and bring heritage to life for generations to come*'.

However, although science and engineering is within their remit, HLF are focussed on heritage and collections rather than inspiring future innovation and experimental science. Their funds are awarded primarily for heritage collections and buildings. Science and Discovery Centres can't access (or can't successfully secure) capital investment for future-focussed science and inspirational hands-on science.

The Arts Council

Arts Council England '*champions, develops and invests in artistic and cultural experiences that enrich people's lives. Their mission is to provide 'great art for everyone*'.

Their mission (above) quite clearly indicates they consider that culture means Art not the Sciences.

Consequently there is no real access to capital investments for hands-on science centres. There is some support for museums, libraries and archives through the Arts Council but most science and discovery centres can not apply as they do not qualify as museums.

In 2011/12, total arts council investment (including Lottery) was £624,479,000. This is the equivalent of £11.77 per person, or 23p per week. (Ref: www.artscouncil.org.uk/what-we-do2/advocacy/faqs/)