

Inspiring people with Science: Innovation at the UK's Science and Discovery Centres

Dr Penny Fidler, Chief Executive The UK Association for Science and Discovery Centres

Every week, 385,000 people of all ages and backgrounds engage with science at one of our member science and discovery centres or science museums. This equates to 20 million people every year, taking the time to explore and delve into science in a hands-on, intriguing and personal way.

One of the key goals of the UK science and discovery centres is to offer school children, families and adults unusual and exciting opportunities to explore, discover, question, test and experiment on the world around them. The aim is not simply to fill people with facts, but to take them on a journey to spark their curiosity; to encourage them to continue asking questions about the world long after they leave our centres.

The subject might range from biomedicine to nanoscience, light to neuroscience or climate science to astrophysics. For all, the goal is to achieve a sense of wonder and excitement through hands-on interactive experiences and activities. Visitors are always encouraged to have a go, experiment and to try things out for themselves.

The vast majority of the UK's science and discovery centres are independent charitable enterprises. Their goal is to inspire and involve children and adults with the broadest range of the sciences, as well as instilling a deeper understanding of the process of science and the nature of scientific evidence. Many science centres work with local science-based entrepreneurs and innovators as well as science experts from universities, start-ups and major industries to help the public and school students explore the latest science and the issues surrounding new advances. They also offer a host of opportunities for the public to talk directly to scientists and for school students to meet inspirational science role models and inventors.

A casual observer might be forgiven for thinking that science and discovery centres are only hands-on science exhibitions. But this is just the tip of the iceberg. Taking a single example, last year one of our 60 science centres (based in Birmingham) attracted around 260,000 people, of whom 78,000 were school students and teachers who took part in targeted curriculum-linked science workshops and activities. The remaining 182,000 were family and leisure visitors. Of these, 70,000 participated in science events such as lab-based workshops, family science shows, sleepovers, story-telling, object handling sessions, molecular biology workshops, meet the scientist events and events based in community venues. Over 62,000 people also visited their planetarium to sit back and enjoy the stars.

Together, the UK science and discovery centres make up the largest publically accessible network dedicated to both hands-on science learning and family science learning. They employ an army of over 5000 professional science engagement specialists with backgrounds as wide-ranging as



performance artists, scientists, ecologists, teachers, designers and film-makers. All skills which are needed to bring science alive with people from all parts of society.

Tens of thousands of teachers nationally feel visiting a centre so inspires their students that it is worth the effort of taking students on trips to centres. And of course, millions of families and leisure visitors feel the experience is sufficiently enjoyable to spend their valuable free time and money visiting.

Across the world the UK is seen as a benchmark of excellence in both creating and running science centres. The UK Government is one of the few countries in Europe that does not give any central subsidy to its science and discovery centres despite the fact that UK centres are viewed internationally as inspirational, innovative and lean organisations. All the while, delegations arrive at The Association for Science and Discovery Centres (ASDC) and UK science centres, sent from the Governments of China, India and other Asian nations. They are keen to learn from our science centres as they rapidly set up their own hands-on science centres across their nations. It is clear they see new science centres as a vital ingredient in inspiring young enquiring minds to choose a career in science, and that they see science centres vital to both their scientific and economic future.

The UK Association for Science and Discovery Centres (ASDC) is itself a charitable organisation, with 60 members from both rural and urban areas right across England, Ireland, Scotland and Wales areas. Our membership includes science centres, environment centres, national science museums, discovery centres and university departments. **Our mission is to bring together our membership to play a strategic role in the nation's engagement with science.** In addition to our not-for-profit members, ASDC has corporate members. From this year we are also inviting innovative science based organisations as key supporters of the work we and our members do.

On a final note... As a nation, and as a global society we have some huge challenges ahead. We need our young people to be confident to experiment, to explore and to try to change the future. We need our adults and aging population to better understand the sciences and to lobby for the policy changes needed for a low carbon future. We need to nurture the brightest young minds and bring back the adventure and delight of exploring and discovering the world around us. As the only UK network of year-round publically accessible science venues, the UK's charitable science and discovery centres have both the infrastructure and the passion to strive towards this.