



Evaluation of the British Science Festival 2011

Bradford

Key partners



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Space
Connections

This year, the British Science Festival was hosted in Bradford. Being Europe's largest, most established and most press worthy science event, the British Science Festival attracts thousands of people to attend, participate in and celebrate science.

Evaluation data comes from various sources.

1. Demographic questionnaires completed by Festival attendees focussing on the types of people attending events (1217 completed)
2. Qualitative questionnaires completed by attendees about the specific events they attended (1529 completed)
3. Data about number of people in events is by observation by Association staff, Festival assistants and event organisers. Where this data is unavailable we used data about numbers of people booked in to events.

Evaluation data comes from people attending events, rather than participating in a drop in activity. The numbers of people completing the forms at a drop in activity was too low to have any significance.

The evaluation looks at 3 main areas:

1. Impact

Assessing the effects of the Festival

2. Demographics

This will assess who took part in the festival

3. Process

The festival has been analysed and compared to previous festivals. Any feedback will be taken into consideration to improve future Festivals

Evaluation overview

Impact

With 177 different events and 206 event opportunities the Festival programme covered all areas of science, engineering and technology. There were just over 15,000 attendances at events including talks and discussions on a range of topics, from the creation of the Universe to the adolescent brain; and workshops for adults and families, learning how to protect themselves online, how to make herbal medicines, or how forensic science helps solve crime.

Hands-on drop in activities, including the Bang goes the Theory interactive zone, and a range of activities at the University of Bradford, had an estimated 30,000 visits.

Our outreach programme offered small grants to a range of organisations to host events for community groups around Bradford. Over 500 people attended events including children with Down's syndrome and their carers, Asian teenagers and women affected by mental health issues

A legacy from the Festival has been left in Bradford in the form of a sculpture by local artist Marcus Levine. The sculpture is designed to excite the senses – sight, touch and smell – and was created using locally sourced materials.

Local SMEs engaged with the Festival through presenting their products and services to the public and their peers, as well as attending events highlighting the latest research in areas relevant to their businesses. An estimated 2,000 people from local businesses attended events. Over 50 SMEs were involved in House of the Future, showcasing their technologies which transformed a dilapidated old house into a sustainable living environment.

A total of 4,600 school children attended the Young People's Programme hosted by Bradford College. 46 primary Schools and 38 high schools attended both from the local area, from all over Yorkshire, Lancashire and Lincolnshire and from as far away as Suffolk.

Demographics

In Bradford we had the highest proportion of BME visitors ever at the Festival with 26%. 8% of all respondents to the evaluation did not answer the question about ethnicity.

Although the majority of attendees were from the local area (67% of all respondents) a significant proportion (25%) had travelled over 50 miles to attend the Festival.

Process

We decided to make the majority of the events in the Festival free of charge this year. Average numbers of people in events was up from last year although not by a significant amount and some events were still poorly attended. We also tried to determine which of the various marketing campaigns had the most impact.

Impact objectives

Festival attendance

- 50,000 event attendances (2010: 55,000; 2009: 33,000)
 - Currently just under 50,000 estimated footfall
- 180-200 individual events in the main Festival programme. (2010: 237; 2009: not recorded)
 - 177 different events creating 206 event opportunities
 - 40 different exhibitions

Media Targets

- An increase in national and international coverage (2009: 169 national, 101 international, 2010: 160 national, 112 international)
 - Actual: 81 National, 63 International
- Increase in entries in the major Sunday newspapers – Sunday Times, Observer, Independent on Sunday (2009: 2, 2010: 16)
 - Actual: 6
- 1500 Twitter followers (2009: c 350, 2010: 800)
 - Actual: 2,295
- A 25% increase in trade and technical press coverage (2009: 21, 2010: 59% increase on previous year)
 - Actual: 19
- A 20% increase in regional coverage (2009: 261, 19% of which was in the Midlands, 2010: 237)
 - Actual: 241
- 30 opinion pieces generated (2009: 23, 2010: 27)
 - Actual: 20
- 15 pieces in BME media (2009: 6, 2010: 13)
 - Actual: 16

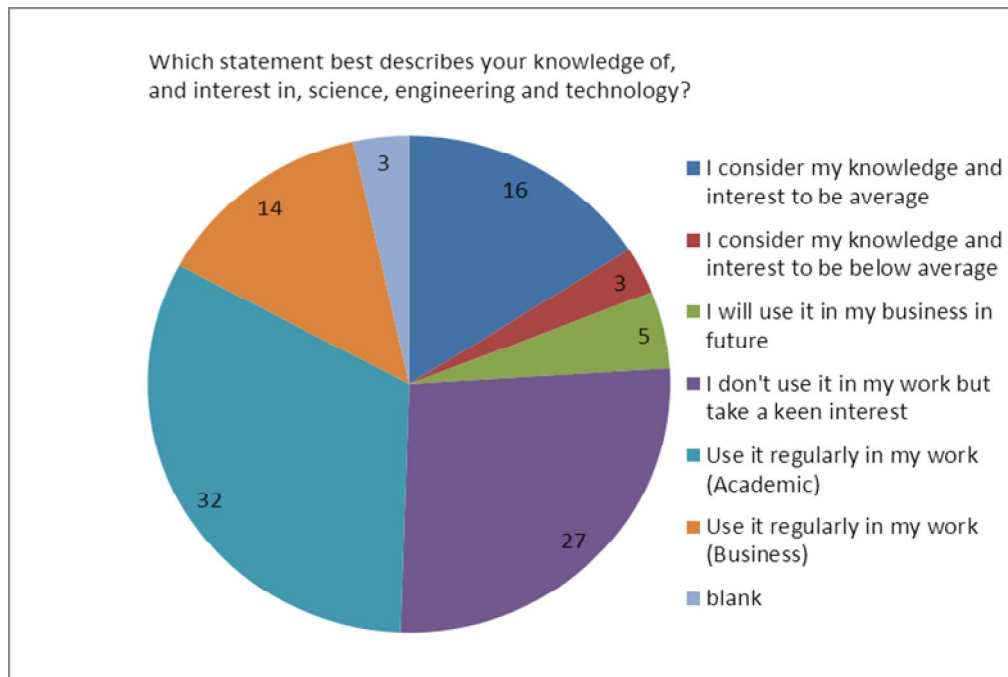
For an analysis of all press coverage, you can download the full media evaluation from www.britishsiencefestival.org

Business Targets

Ensure that the business community participates in the Festival with:

- At least 500 attendees from businesses (2010: 550)
 - From evaluation forms we find out that 14% of respondents work in a business that regularly uses science (approximately 2,100 people). A further 5% (approximately 750 people) stated that

they would use more science, engineering and technology in their business after attending the Festival.



- *At least 50 business attendees at the Festival dinner (2010: 38)*
 - 15 attendees from local, national and international business attended the Festival dinner with representatives from Saudi Aramco, Robinson Design and Yorkshire Water. This was significantly below the target of 50, but this represents the challenges we faced in gaining sponsorship from local businesses.
- *To raise £100,000 in sponsorship (2010: £448k)*
 - £32,500 was raised in sponsorship, with a further £43,000 from grant income. £260,000 was provided by an ERDF grant.
- *Create a minimum of 2 business-led events that encourage businesses to reconsider the role of science within business, with specific networking benefits, delivered with at least one notable speaker.*
 - There were 3 key business led events during the Festival: Science for a circular economy; House of the future and Faster than the speed of light.

Science for a circular economy

Event description:

The Ellen MacArthur Foundation promotes the role of science to respond to the challenges of a resource-constrained world advocating the redesign of our industrial

systems. A shift in education is needed to support virtuous cycles of economic development. Dame Ellen MacArthur presents her vision and views followed by Professor James Clark on the role for closed loop chemistry.

It was a full day event with 2 key speakers, Dame Ellen MacArthur and Professor James Clark. All the feedback from the event was very positive with all respondents agreeing or strongly agreeing that they felt they had discussed something important and that they had learnt something new from the event.

1/3 of people attending stated that they did so for professional reasons or for networking opportunities.

House of the future

Event description:

Join us to visit the house of the future! A dilapidated old house, bought by Bradford Council, has been transformed into a sustainable living environment using the latest technological solutions to tackle the challenge of making existing housing stock sustainable. See local businesses and organisations working together to deliver a truly remarkable future for Bradford.

The House of the Future was delivered by the Bradford Property Forum, Bradford Council, Be Involved, B CEP and BEAT. The project was led by a group of over 50 businesses from the Bradford Property Forum including Rex Procter & Partners, Rance Booth & Smith Architects, Paul Waite Associates and Watson Batty. Over 30 businesses and organisations were involved in the delivery of the programme.

The project showcased a range of sustainable and technology solutions to tackle the challenge of making existing pre 1900 housing stock sustainable and to showcase technological innovation in Bradford.

Over the course of the Festival 456 people visited the house with approximately a further 400 visting in groups in the 2 weeks following the Festival.

Faster than the speed of light

[Waiting for report from Tirene Doepel]

- *Create a legacy (i) of increased engagement of business with the local science base, and (ii) an annual mini Bradford STEM Fair.*
 - Although the amount of sponsorship money raised was very disappointing there was a great deal of contact with businesses in the region during the information briefings to local business groups and individual meetings. The engagement of business on this level was extensive. It is understood that discussions are taking place in the region for an annual STEM Fair.

- *Ensure that the business potential from the Festival is fully documented and create a framework of business engagement activities to sustain interest and contacts as a platform for four years hence.*
 - Since the response in the region to requests for sponsorship was extremely poor the creation of a framework of business-engagement opportunities was limited. For the very few local companies that did both provide sponsorship and take part in the Festival the results were rewarding and will be used as a basis for further public engagement activity in the future.

Young People's programme Targets

The Young People's Programme was delivered by Space Connections

- *To engage at least 45 unique event providers*
 - We had 63 event providers
- *To deliver at least 150 events*
 - We delivered 778 workshops
- *To achieve attendance of 4,000 young people over the course of the Festival*
 - 4,600 children attended the festival
- *Create a legacy (i) of increased STEM activity in Schools, (ii) of increased University-schools activity, (iii) Improving STEM achievement in the Bradford LEA*
 - From the feedback we have received from teachers and pupils, all have expressed an interest in attending a festival again. Bradford College, The University and Council are also keen to pursue a smaller scale festival each year and they hope to hold a festival in 2012, in collaboration with Space Connections, who feel we have made some excellent contacts with schools that participated and hope to engage with them further.

For comparison the numbers of school children visiting the Festival from 2004 – 2011 are below:

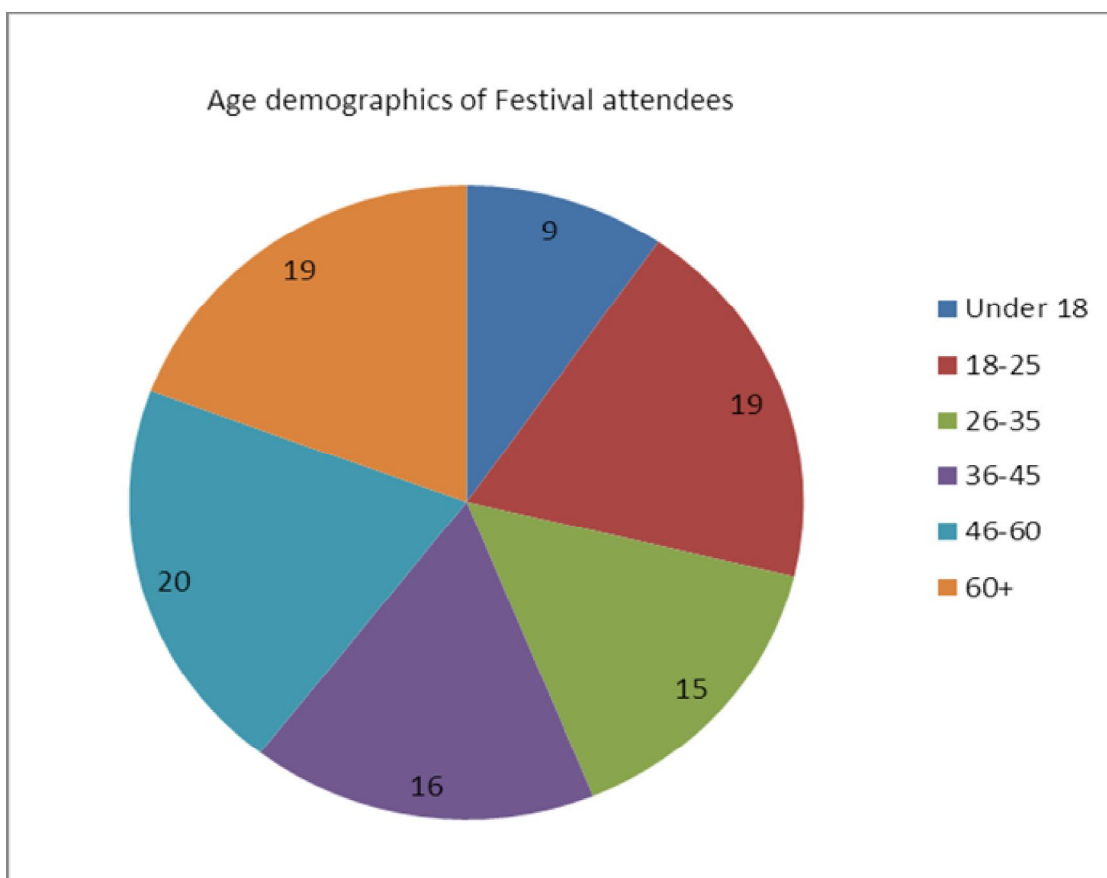
2004	2005	2006	2007	2008	2009	2010	2011
Exeter	Dublin	Norwich	York	Liverpool	Surrey	Birmingham	Bradford
4333	6941	4280	4126	3655	3196	3892	4600

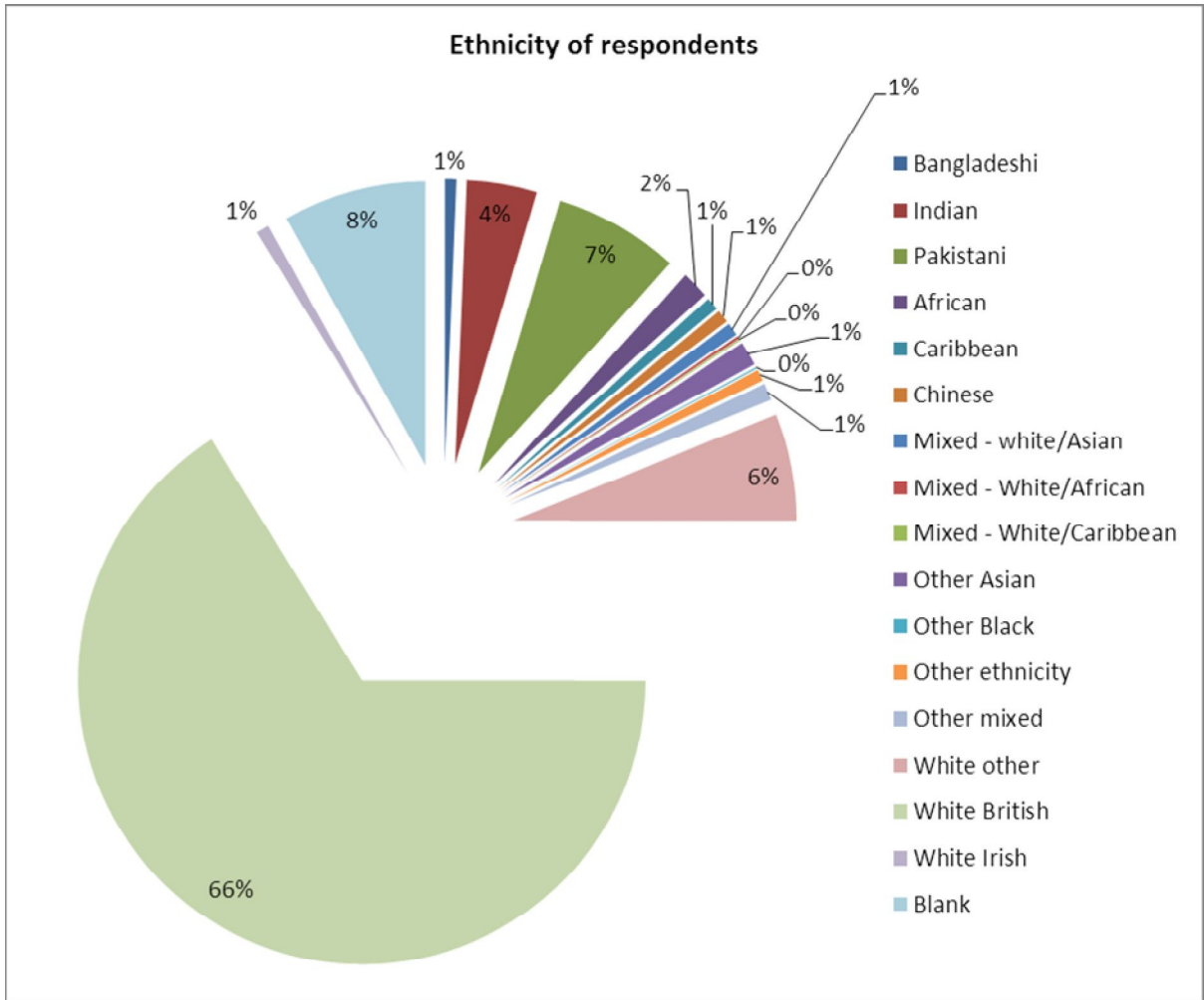
Visitor satisfaction and attitudes (measured by completion of feedback forms at each event)

- *Festival visitor satisfaction to average 4.5 out of 5 (1 =very poor 5= very good) (2010: 4.35; 2009: 4.47)*
 - 4.56 visitor satisfaction
- *A stated improvement in visitor attitudes to science, engineering and technology*
 - 68% agreed or strongly agreed that they felt more positive towards STEM as a result of attending the Festival
 - 4% disagreed with this statement
 - 29% said they felt neither more nor less positive, although many people who chose this option did also write that it was because they felt very positive about it before they attended the Festival

Demographic objectives

- 40% of Festival attendees to be BME (2010: 19%; 2009: 6%)
 - 25% of attendees from BME groups – 8% of respondents did not answer this question
- 40% of Festival attendees to be 18 – 35 (2010: 40%; 2009: 21%)
 - 35%
- An equal gender split in Festival attendees (2010: male 49%, female 51%; 2009: male 38%, female 45%)
 - 49% female. 48% male (2% didn't answer this question)





Very complex topic covered in a very accessible manner

Unusual, fascinating

[I liked the] balance between humour and seriousness

Presented science behind an important current hot topic

[There were] so many fascinating people to talk to in a playful environment

Engaging with the local community

For 2011 we administered grants to local organisations to provide events and activities for groups traditionally under represented within the Festival. It was felt that the spread of activity was good, engaging community groups in Bradford in relevant activities, which the groups could use as a basis to deliver science based-activities in the future. Over 500 people took part in these events.

Grants were awarded as follows:

Title	Organised by	Details
Healthy eating	Bangladeshi Youth Organisation	Open to all young women in Bradford, this special session aimed to engage young BME women in thinking about how to eat and cook healthily.
Benefits of exercising in water	The Aqua Clinic	Open to invited groups only. The event targeted the Down's syndrome training and support services group in Bradford. 20 children with Down's syndrome, along with their parents or guardians, attended a 3 hour session exploring the benefits of exercising in water. Without the grant from the Association this group would not have been able to afford to attend.
Forensic science workshop	Bangladeshi Youth Organisation	This workshop aimed to engage young people in the community with science in a way they could relate to. About 50 people attended, mainly young Asian men aged between 13 and 25. Feedback from the event showed that most of them had never considered attending a science event before and that they had found the experience to be very positive. 73% of attendees said they would definitely attend a science event again, with the remaining 27% answering maybe to this question. All respondents stated that they had enjoyed the event and all but one had learnt something new.
Dr Who science show	Bradford Libraries	This event was aimed at local children from socio-economically deprived areas, and children considered vulnerable. The invited children were selected by their schools to attend with their parents or guardians. In total 76 children aged between 6 and 13, and 31 adults attended the show. Feedback shows most of the children enjoyed the show, although some of the older children thought

		that the science could have been more challenging.
Your beauty products and you	Neighbourhood Service, Bradford Council	An event for women living in the BD3 area of Bradford (a deprived inner city ward). The participants were predominantly Asian Muslim women. The event was well received and the participants and the women enjoyed the make-up demonstrations and being able to talk to someone about the products they use. The Neighbourhood Service intends to work with this audience across a range of issues in their neighbourhood.
Drugs awareness and rap music workshop	Bangladeshi Youth Organisation	A workshop you young people to engage them in thinking about drug abuse through taking part in a workshop about rap music.
Pond dipping	Bradford Metropolitan District Council	Local children and their families were invited to a special day of pond dipping at Chellow Dene Beck, a local wetlands area. Experts were on hand to help identify the creatures and talk about the habitat.
Eat well workshops	Kala Sangam	A workshop aimed at local women who have experienced mental health issues. Two workshops took place using healthy foods as a basis for art and creativity, encouraging participants to consider the role of food in their lives. The grant was able to pay for transport costs and a crèche facility to allow women to attend.
Healthy living festival	Grange Interlink and Exceed	The two organisations worked together to host a family fun day to promote the importance of physical and mental well-being, and the science behind physical and mental fitness.

Process

Ticketing and charging

For 2011 we changed the pricing structure for the Festival. The strategy behind this change was to try to make the Festival as inclusive as possible, and to improve attendance at all events, with a special focus on daytime events during the week. The revised ticketing and charging policy for the Festival meant that:

- Most events on campus were free of charge. It was hoped that this would attract larger audiences for some of the events on campus during the day.
- Exceptions to this include workshops where there is a cost (materials etc) to putting the event on and/or numbers are limited
- Star speaker and performance events would be charged for
- Events would generally be ticketed, even if they were free

When we were considering this policy we recognised that there were pros and cons to charging for events:

Pros to charging

A small charge adds perceived value to an event
Helps manage numbers

Cons against charging

Perceived barrier to participation
VAT implications

What were the issues in not charging for events?

There was a significant drop out rate for many of the events, in some cases up to 60% of people booked in did not turn up. In many cases this was not an issue, and people turned up on the day to replace them. Where there was limited space in events this did cause issues as we needed to ensure that events were not significantly oversubscribed. In one case a high no show rate significantly affected the event.

Did not charging improve attendances on the previous year?

The table shows average attendance figures from this year's Festival and last year's Festival in Birmingham.

	Bradford	Birmingham
Average attendance at all events	78	49
Average attendance at events excluding workshops	91	51
Average without upper and lower amounts <10 and >300	53	51
Median	44	37
Average weekend attendance	53*	48
Average weekend attendance excluding workshops	60*	52
Average weekday attendance	58	49
Average weekday attendance excluding workshops	68	51
Average attendance at morning events	43	44
Average attendance at morning events excluding workshops	50	46
Average attendance at afternoon events	49*	44
Average attendance at afternoon events excluding workshops	60*	47
Average attendance at evening events	95	68

*This figure excludes the BGTT live shows in order to show a meaningful comparison with the previous year. Figures including BGTT are 114, 135, 91 and 112

As we had more workshops with restricted numbers in the programme this year, we have also shown the numbers excluding workshops for comparison purposes.

Conclusions about ticketing

We will consider, along with partners for the 2012 Festival, whether to charge for events in the Festival next year or not.

How successful were the different marketing campaigns?

According to the data captured, the most successful form of marketing is word of mouth. No budget is spent in this area so on reflection, allocation for the budget for 2012 could be invested in this category to encourage more people to talk about the Festival. This could be achieved through creating a presence in the selected city, attending more local events and running some guerrilla marketing style campaigns.

The area for concern is the cost of the printed material campaign. A large percentage of the budget is invested in this form of media. Reducing the number of programmes could be considered and ensure that a targeted distribution strategy is in place.