

Evaluation of the
Bristol Bright Night 2015
(BBN15)

Margarida Sar do

Science Communication Unit

University of the West of England, Bristol

April 2016



SUMMARY	4
ACKNOWLEDGEMENTS	4
1. INTRODUCTION	5
1.1 About Bristol Bright Night	5
1.2 The activities	5
2. EVALUATION METHODOLOGY	6
2.1 Questionnaire (Adults)	6
2.2 Schools Evaluation	7
2.3 Observations of the Researcher / Audience interactions	7
2.4 Interviews	8
2.5. Feedback boards	8
3. FINDINGS	8
3.1 General pre-issues	8
3.2 Venues	9
3.3 Format	10
3.4 Audiences	13
3.5 Researchers	16
3.6 Engagement	19
4. KEY CONCLUSIONS AND RECOMMENDATIONS	24
APPENDIX I - QUESTIONNAIRE (ADULTS)	25
APPENDIX II – SCHOOL CHILDREN QUESTIONNAIRE	27
APPENDIX III – TEACHERS’ QUESTIONNAIRE	28
APPENDIX IV – OBSERVATIONS SCHEDULE	31
APPENDIX V – RESEARCHERS INTERVIEW SCHEDULE	34

Summary

This report details the key findings of the evaluation of Bristol Bright Night 2015 (BBN), an event funded by the Marie Skłodowska-Curie Actions, which was part of the European Researchers' Night. BBN took place on Friday the 25th September 2015, between 11am and 12pm. The evaluation included a variety of data collection methods such as questionnaires, interviews and observations. Building on the 2014 evaluation, it focused on the audiences' engagement with the activities and on the researchers' motivations for participating, the challenges they faced and the perceived value of such events. This report includes the complete evaluation kit.

The Science Communication Unit at the University of the West of England, Bristol undertook the evaluation.

Acknowledgements

The management team would like to express their gratitude to the European Commission for funding BBN15. We are also very grateful to all the researchers and volunteers who took part and gave their time and enthusiasm to make this an extraordinary event.

1. Introduction

1.1 About Bristol Bright Night

“Bristol Bright Night lit up the Harbourside on Friday the 25th September. At-Bristol, the Green Capital Lab Space and the Watershed opened their doors to aspiring scientists and the simply curious, for an awe-inspiring free evening of cutting-edge research.”¹

Following on a successful Bristol Bright Night in 2014, the event was a collaboration between the Bristol Natural History Consortium (BNHC), University of Bristol (UoB) and the University of the West of England, Bristol (UWE) and was part of the prestigious annual Europe-wide Researchers’ Night programme. European Researchers’ Night is funded by the EU Commission under the Marie Skłodowska-Curie Actions (project call H2020-2014-MSCA-Night).

1.2 The activities

Most of the activities took place in the award-winning science centre At-Bristol (Appendix 1) with some in the Watershed, cultural cinema and digital creativity centre, and the Green Capital Lab Space, part of the Bristol 2015 European Green Capital. Street Theatre was also part of the programme, with several pop-up events happening throughout Bristol in the afternoon, including the Hippodrome, one of Bristol’s theatres.

The activities in At-Bristol ranged from traditional presentations followed by questions and answers to bite-size research talks, with most activities being stall-based. The stalls included posters, props, hands-on materials, interactive displays, etc. At-Bristol also hosted a Planetarium show, stand-up comedy and a music performance with an augmented 3D visual display where it was possible to ‘see’ the music in a novel way.

The Watershed hosted the screening of the film "The Mask We Live In", followed by a debate. The Green Capital Lab Space hosted an interactive demonstration and debate about Resuscitation.

¹ <http://www.bnhc.org.uk/bristol-bright-night/highlights-and-gallery/>

2. Evaluation methodology

This section outlines the methodology used to generate the data. A variety of methods was selected, to capture the experiences of the audience and researchers involved and to judge the impact of Bristol Bright Night activities on the audience and researchers involved.

The evaluation *aimed* to:

- Evaluate a sample of events at Bristol Bright Night 2015 (25th September), what worked and what did not, challenges, what motivated researchers to participate, etc.

The *objectives* were to assess:

- Impact on the audience: levels of engagement, reasons for participation, visitors' views and reactions to the event (how it was presented, favourite and least favourite aspects, etc.), previous engagement with science, etc.
- Impact on researchers involved: motivations for participation, views on the event, challenges, etc.

Through the use of multiple complementary methodologies, a range of both quantitative and qualitative data was collected. The evaluation covered a sample of events in each venue: At-Bristol, Watershed, Green Capital Lab Space and the streets.

2.1 Questionnaire (Adults)

A short paper questionnaire was distributed randomly to participants. The questionnaire took the form of a single side of A4 and included both open and closed questions. In addition, an online questionnaire was set up using the exact set of questions as the paper version, and hosted using the website SurveyMonkey. A link to the survey was sent to members of the public who had registered to attend BBN15 activities. In total, 64 paper questionnaires were filled in and returned and 59 online questionnaires were submitted (total questionnaires n=123, 5.18% of total visitors).

A copy of the questionnaire can be found in Appendix I.

2.2 Schools Evaluation

Paper questionnaires were designed specifically for schools visits. All school children were asked to fill in anonymous self-completion questionnaires. These took the form of a single side of A4 and included both open and closed questions. In total, 122 questionnaires were filled in (61.2% response rate).

In addition, an online questionnaire was designed specifically to seek feedback from teachers involved in BBN. Five questionnaires were completed and submitted (out of 10 participating teachers, 50% response rate).

A copy of the school students' questionnaire can be found in Appendix II.

A copy of the teachers' questionnaire can be found in Appendix III.

2.3 Observations of the Researcher / Audience interactions

Observation permits an evaluator to contextualise other research data, become aware of subtle or routine aspects of a process and gather more of a sense of an activity as a whole. The evaluator used a standard observation guide to gather data as efficiently as possible, which was used at several events. For consistency, one evaluator (MS) conducted all the observations. The evaluator was situated in an unobtrusive location and recorded data such as audience size, composition and their reactions. In total, ten observation sessions were made throughout BBN, throughout the duration of the event, covering different venues, different times of the day and different activity types. Detailed notes were taken, supplemented by additional reflections made by the evaluator immediately after the event.

A copy of the observation schedule can be found in Appendix IV.

2.4 Interviews

Interviews with participating researchers took place either face-to-face or via telephone shortly after the event and were conducted by the evaluator. Interviewees were asked to provide both formal and informal feedback of their impressions of the event. Semi-structured interviews were used, to provide a meaningful discussion of the researchers' experience. A sample of 14 researchers (out of a total of 249 was invited for interviews (seven from UWE and seven from UoB) and six agreed to participate. The interviews were transcribed in full and analysed for common themes. Informal feedback was also sought from researchers.

A copy of the researchers' interview schedule can be found in Appendix V.

2.5. Feedback boards

The evaluation also involved feedback boards, an autonomous evaluation method which did not disrupt the flow of events. The feedback board was placed on the second floor of At-Bristol, where the Researchers Fair and Schools Event took place. Members of the audience added their thoughts by writing and drawing comments on the boards. The feedback board asked visitors: "What do you think of Bristol Bright Night?".

3. Findings

The findings described below are drawn from the exit interviews and online questionnaire, observation records, feedback boards, paper questionnaires, suggestion boxes and researchers' interviews.

3.1 General pre-issues

No major pre-issues were identified, the weather was fine during the day and mild during the evening, presenting no problems for those wanting or planning to attend. However, the nearest car park (Millennium Square car park) was closed due to fire. There are two other large car parks nearby, so this would not affect those visiting BBN.

3.2 Venues

As in 2014, in At-Bristol the atmosphere was relaxed and informal. The layout was improved from last year, with a more natural flow of visitors in the room. There was a sense of organisation, with some stalls naturally attracting the public, some due to visual factors (displays, posters, etc.) and others due to the efforts of the researchers, who actively tried to engage with the public – this was also observed in 2014.

There was again a mixture of styles, with some stalls relying on posters while others offered more interactive materials and equipment. The use of similar tablecloths helped to achieve a cohesive look throughout the room.

In the Green Capital Lab Space the area, albeit small, was organised in an informal way. There was a central space for the demonstration and a few long benches for the audience to sit down. The lights were slightly dimmed, which contributed to an intimate atmosphere.

The venues were perceived as appropriate by the visitors and some would welcome a bigger event:

Thought more stalls would be great! (Audience member, online survey)

More stands and shows please. (Audience member, paper questionnaire)

Other participants were more specific, saying they would welcome ‘more chairs and discussion rooms’ (Audience member, paper questionnaire). At-Bristol is a great venue which in itself attracted a large audience, with several audience members mentioning that free entry to the At-Bristol was a great incentive to participate.

From the audience’s point of view the only issues with venues had to do with the poor signage:

Rooms not very well indicated. (Audience member, online survey)

Could have done with a map / guide so I knew what was there (all the stands).
(Audience member, online survey)

Lack of a floor plan so you could work out what you wanted to see. (Audience member, online survey)

But it was not only the audience noting issues with signage, researchers too pointed to it when asked about any issues:

I think the signage within the event was a challenge. Lots of people stopped to ask where things were and I did not know. I could not point to a sign or to someone who knew where they were. So that was probably the challenge. (Researcher, face-to-face interview)

Clearly better signage would be welcomed by the visitors, something to bear in mind for future events.

3.3 Format

Similarly to 2014, most of the events in the At-Bristol were stall-based with a few on a traditional ‘presentation followed by questions’ model. There were also ‘bite-size’ talks in the morning, a quick succession of three or four short presentations (average 5 minutes) followed by questions. These talks were managed by a chairperson, who introduced the speakers and led the discussion. Events at At-Bristol started at 11am, with 11am - 2.30 pm reserved for pre-arranged school visits. There was a break between 5 and 6pm for reorganising the space and the event was then open to the general public until 10pm. In addition to the stall based activities and presentations followed by questions and answers, the afternoon programme at At-Bristol also included novel formats such as science cocktails, Chem Dine with Me demos, stand-up comedy and a video installation inviting audience responses to be captured on camera. An EU corner featured a stand with 36 Marie Skłodowska-Curie researchers displaying their work.

There was a film screening followed by a panel discussion in the Watershed, 7 – 9 pm. In the Green Capital Lab Space there were three time slots for interactive demos followed by a debate with the audience.

Two shows in the planetarium used new 3D technology to showcase a collaborative project

between a digital SME (small and medium-sized enterprise) and psychology researchers.

Details on all the events can be found in Table I.

Table I – Events details.

Event	Venue	Times
Schools Event	At-Bristol	11.00am – 2.30pm
Bite-size talks	At-Bristol	6.30 – 7.30pm 7.45 – 8.45pm 9.00 – 10.00pm
Researchers' Fair	At-Bristol	6.00 – 10.00pm
Speech therapy talks	At-Bristol	6.15 – 7.15pm
Stand-up Comedy	At-Bristol	6.30 – 7.30pm
Reflets: Music you can see (performance)	At-Bristol	6.45 – 7.15pm 7.30 – 8.00pm 8.30 – 9.00pm 9.15 – 9.45pm
Planetarium Show: Flavour and the Mind	At-Bristol	7.00 – 8.00pm 8.30 – 9.30pm
Water and Marine Security Talks	At-Bristol	7.30 – 8.30pm
Green Hour Talks	At-Bristol	8.30 – 9.30pm
Film screening ('The Mask You Live In') and panel debate	Watershed	7.00-9.30pm

Resuscitation (Interactive demo and debate)	Green Capital Lab Space	6.00 – 6.45pm 7.00 – 7.45pm 8.00 – 8.45pm
Street Theatre	Streets of Bristol and Hippodrome	11.00 – 11.45 Queen’s Road 12.00 – 12.45 College Green 1.45 – 2.30 Broadmead 3.00 – 3.45 Queen’s Square 4.00 – 4.45 Arnolfini 5.15 – 5.45 St Augustine’s Parade 6.00 – 7.00 Hippodrome 7.00 – 8.00 At-Bristol

Overall, audience members were happy with the different formats, writing that:

I love the demonstrations. The science cocktails are clever and fun and the "chem dine with me". I also love meeting the researchers and finding out about what they're doing. I also went to the "food and the brain" thing in the planetarium and it was AWESOME. (Audience member, online questionnaire)

The activities were largely positively received, with some getting rave feedback from visitors. The evaluation data shows that it is crucial to have a variety of activities, and the feedback shows that although some visitors would welcome more interactive activities, traditional engagement activities (such as lectures and talks) remained popular with some audiences. There was also a greater variety of formats in 2015 which provided a good balance between traditional forms of science communication, such as lectures, and more experimental ones, such as the ‘Flavour and the Mind’ show.



Figure 1. Chem dine with me. (Photo credits: Ella Beeson)

3.4 Audiences

Observations showed that audiences were diverse, with age ranging from school children to the elderly. There was also a number of young children visiting with their parents, especially in At-Bristol. Parents with children were also observed engaging with Street Theatre performances. As reported in 2014, the 2015 BBN attracted new audiences that do not usually visit At-Bristol, as their audience is usually families.

Dwell time in At-Bristol was long, with visitors sometimes engaging with the same activity for around 10-15 minutes. Observations indicate that members of the audience engaged fully with the activities and with the researchers: they were observed paying close attention and asking lots of questions.

In the Green Capital Lab Space and Watershed the audience was mostly adults with only a few teenagers participating. In the Green Capital Lab Space the audience was also fully engaged,

paying close attention to the interactive demo. Afterwards, the debate started off naturally with the audience providing lots of comments and asking pertinent questions. Some of those who attended provided specific feedback on this activity:

The resuscitation event was really thought provoking and engaging, and very well run by the organisers. (Audience member, online questionnaire).

The activity at the Watershed was not observed. The Street Theatre performances were successful at gathering a small crowd that mostly stayed until the end of the performance. Little interaction was observed between the performers and the audience.

The majority of visitors learnt about the event in advance and decided to participate (62.6%, n=77), while a small number were walking by or already at the venues (11.4%, n=14). Their attitudes towards science were overwhelmingly positive, with 61.3% (n=68) stating they ‘love it’ and 28.8% (n=32) stating they ‘like it’. Visitors stated they were interested in science and the vast majority stated they usually engage with science-based events and activities. They thoroughly enjoyed the opportunity to be face-to-face with researchers and the chance to ask questions in an informal environment:

[my favourite part was...] opportunity to directly talk to scientists about their research. (Audience member, online questionnaire)

The complete interactive experience with the researchers’ extensive knowledge of their chosen area (Audience member, online questionnaire)

For the teachers visiting, the opportunity for their students to meet the researchers was also a highlight and mentioned as their favourite aspect of the event:

The opportunity for children to meet 'real' scientists/ graduates and see new research applied in practice. The most interactive, hands on activities were best. (Teacher, online questionnaire)

Being able to engage with real researchers. Students could see real projects and what their benefits are/ will be to society etc. (Teacher, online questionnaire)

When asked what the purpose of the event was the majority of visitors answered using words such as ‘education’, ‘science outreach’, ‘inform’, ‘engagement with science’, and ‘to raise awareness of what researchers and scientists do in the city’, which are all in line with the organisers’ purposes.



Figure 2. Schools’ event (Photo credits: Ella Beeson)

At-Bristol received pre-arranged visits from schools from 11am until 2.30pm. In total, 197 children from 10 local schools attended the event, mainly from mostly Year 9 but also Years 5 and 6. When asked directly in the questionnaire if ‘you like to be a scientist one day’, 58.8% (n=67) of school children said ‘maybe’ and 8.8% (n=20) responded ‘yes’. In addition, 26.2% (n=32) stated the event changed their attitudes to science, with a further 39.3% (n=48) mentioning that the event and activities might have changed their attitudes.

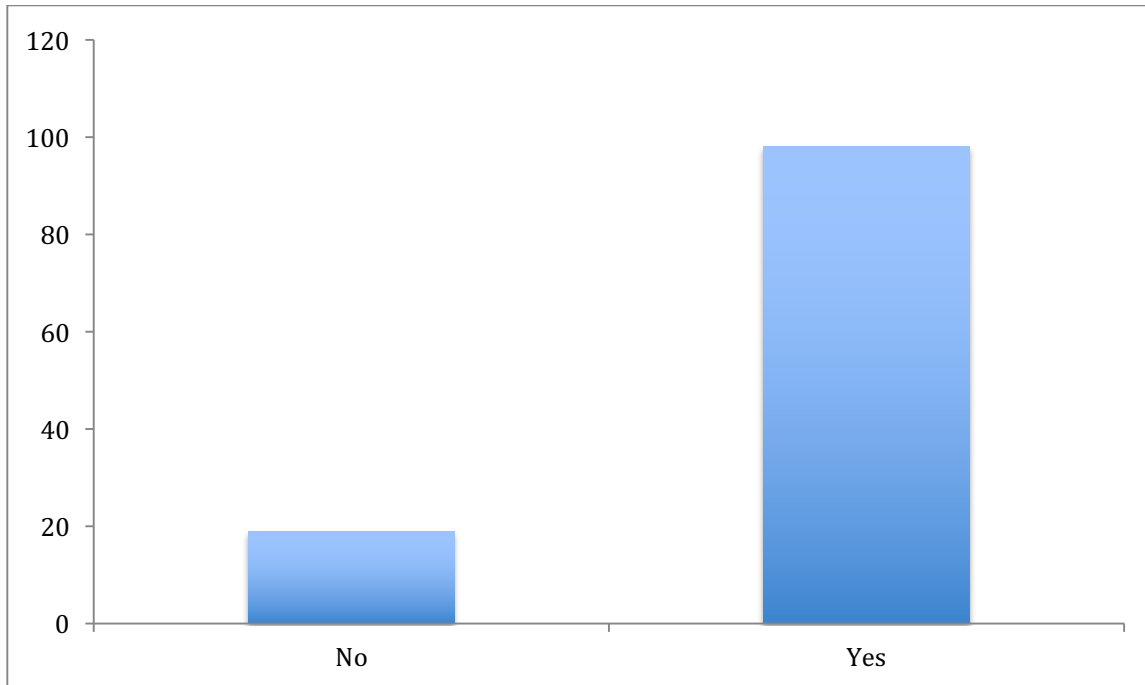


Figure 3. School children were asked: “Did you learn something from the activity?”

Children were asked if they learnt anything (Figure 1): 83.8% said they learnt something from the activities. When asked for details they mentioned learning ‘how to travel in a robot car’, ‘how Bristolian I am’, ‘about bacteria’ and that ‘women need to be engineers too’, amongst others.

3.5 Researchers

Researchers involved were positive about their experience and keen to participate in similar events. They were particularly impressed with how engaged and interested the visitors were. Some researchers highlighted the need to be proactive when engaging with visitors:

It is not difficult... HOWEVER, you have to be encouraging and not shy yourself, as some people might not dare initially asking questions, while, if you catch their visual attention smiling and coming to them in a friendly, relaxed way, they will interact, sometimes a lot! (Researcher, email interview)

Researchers also commented on how well organised the event was and were positively overwhelmed by the number of visitors.

This year BBN was quite popular, I had a continuous stream of people who showed interest in our work, which was again nice to have. (Researcher, email interview)

Researchers reported having conversations with local authority and business representatives which may lead to future projects. They also valued the opportunity to see how other researchers from different disciplines are making their work accessible to wide audiences through interactive activities. That served as inspiration to develop different ways of communicating science.



Figure 4. Face-to-face interaction with researchers was perceived as important by the audiences.

The opportunity to be face-to-face with members of the public seems to have been valued by both the audience and the researchers involved:

I really did enjoy the opportunity to communicate with the general public around research that we do and that we are involved in. I think it is really important particularly around our field, where lots of people do not know

enough about it. So we found that very good. (Researcher, face-to-face interview)

Great opportunity to talk with the public, and this is a very rewarding experience to hear all night long ‘very interesting!!’ about your daily activities (Researcher, email interview)

While motivations to participate varied, one researcher expressed a deep interest in participating and had a clear idea why he was doing so:

I like to participate in events like BBN, where people gather for something good to our society. And I am interested in science communication, inspiring young people which I have not experienced much in my country while I was at school. I want to have more experience in it and learn more, so one day I might be able to help people in my country. (Researcher, email interview)

Researchers raised very few issues, as their impression was that it was all “very straightforward”. Minor technical problems were mentioned, such as lack of microphone and also a relatively low school participation:

The lack of schools this year was a real shame. The lack of adults last year was a real shame. (Researcher, face-to-face interview)

As mentioned before, researchers too noticed the poor signage:

Better signage as people were getting flustered and annoyed by that.
(Researcher, face-to-face interview)

One researcher mentioned he felt more colleagues would benefit from attending the training that was available to researchers:

Well I think everybody should go through the public engagement training to build their confidence. I think we need to set higher standards with minimum thresholds so that whatever the displays there are that they look the part. (Researcher, face-to-face interview)

This raises an interesting point, as the uptake for public engagement training was low in both 2014 and 2015. Interestingly the public also commented on how some researchers did not seem as comfortable and confident as others.

3.6 Engagement

The event was a huge success and high levels of in-depth engagement were observed by the evaluator, as well as reported by the majority of visitors. BBN15 has had a positive impact on its visitors, with some spending an overwhelming length of time at the event:

My son and I thoroughly enjoyed ourselves! The exhibits were brilliant! In total we spent over seven hours at @Bristol, and could easily have spent more if we hadn't got so exhausted! Overall, we had a fantastic time and only wish it lasted another day so we could return and complete talking to all exhibitors. Thank you very much. (Audience member, online questionnaire)

It's very common for parents visiting with children to comment not only on their engagement but also on the engagement of their children. Answering the question "What was your favourite part of the event", this participant stated:

ALL. Was great to see my children interacting + experiencing lots of experiments. (Audience member, paper questionnaire)



Figure 5. School children providing feedback.

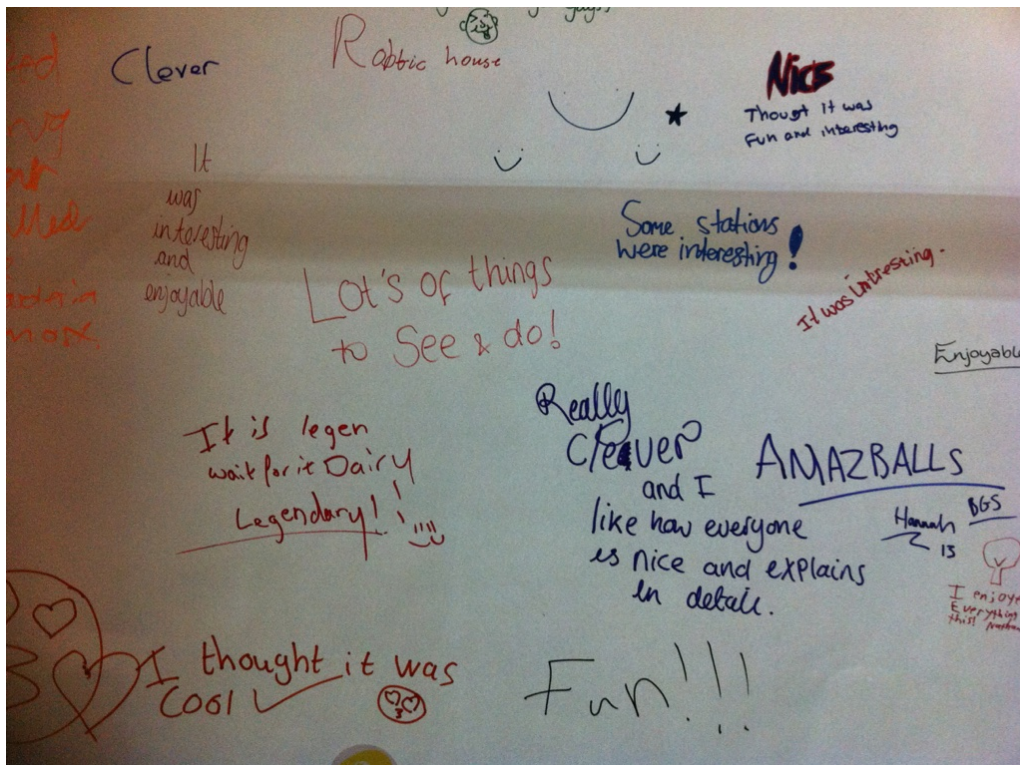


Figure 6. A section of the feedback board.

It is important to cater for different audiences and different age ranges and BBN seem to have achieved that:

[my favourite part was...] being able to have fun as adults and watch the children enjoying themselves. (Audience member, online questionnaire)

Of teachers providing feedback, all found that the event was useful in supporting your students' learning (40%, n=2 'very useful'; 60%, n=3 'quite useful'). All teachers stated they would like to bring students to future events.

Researchers participating in the Researchers' Fair were, by and large, enthusiastic and proactive in engaging with members of the audience. This proactivity is key for a successful event and was noted by one of the teachers:

Some of the people on the stands waited for students to go to them. The most successful stands were those that came out from behind their desks and approached the students. (Teacher, online questionnaire)

Minor issues were raised, such as not having enough time to see everything ('Too much to do and see but not enough time' – visitors feedback, online questionnaire) and lack of a floor plan and poor signage. Also, some activities seem to have left a mixed impression on the audience. This specific comment relates to the film screening at the Watershed:

The film was fascinating, the panel discussion was lacklustre. (Audience member, online questionnaire)

There were more comments supporting the above, which indicate that better care needs to be taken when putting together discussion panels. Some similar comments were made in relation to the Green Hour talks (audience members saying some speakers were excellent, but others were not as engaging) and the Flavour and the Mind show (comments around how great the show was, but highlighting the lack of organisation). Also, a few comments on difficult accents, which seems to have been slightly tricky for school children:

A couple of the speakers' accents were quite strong and, unfortunately, some of the students found it difficult to understand what they were saying.

Although, it was very inspiring for the students to see different nationalities all working together. (Teacher, online questionnaire)

Overall the audience was very positive toward the event and specific activities. Even when some minor issues occurred, the overall impression was still positive:

Very good event. Some problems with technical tools used on the event but the topic was interesting for my children and myself. (Audience member, online questionnaire)

A number of people commented on how they would like to see a longer event and there is clearly an appetite for a bigger event, as reflected in these comments:

<p><i>It's only one night! There wasn't enough time to do as many activities and attend as many talks as I would have liked to.</i> (Audience member, paper questionnaire)</p>	<p><i>Reflets - would happily have spent much longer there!</i> (Audience member, online questionnaire)</p>
<p><i>Shame it could not be for longer than 4 hours. I found that there was not enough time to participate in the activities and be able to discuss the outcomes / results / information with the respective researchers. I think that this should definitely be a whole day event in future.</i> (Audience member, online questionnaire)</p>	<p><i>One evening to learn about all of Bristol's research might not have been enough - especially as the interactive stuff was so great!</i> (Audience member, online questionnaire)</p>
<p><i>Make it longer because if people go to the booked events there is not much time to look around the rest.</i> (Audience member, paper questionnaire)</p>	<p><i>The bite-sized talks. I wish I had attended more of these sessions.</i> (Audience member, online questionnaire)</p>

questionnaire)	
----------------	--

The audience was keen on learning more about local projects and one suggestion for improving future events was to develop links with local community projects:

Could have been better joined up with other related community projects.

(Audience member, online questionnaire)

Overall, BBN15 was a very successful event at engaging the public with the different research topics, demonstrations, etc.

4. Key conclusions and recommendations

Key conclusions:

- Once again, the audience enjoyed all the activities from traditional presentations to interactive performances.
- The audience was positive about the activities and the speakers and would like to participate in similar events again in the future.
- As in 2014, the venues were considered appropriate although some members of the audience found it difficult to find out what events were happening and where. They also found it difficult to navigate the venues.
- There is appetite for a bigger and longer event: the audience asked for more stalls, more interactive activities, more talks and a longer event, that would allow them to explore BBN fully.

Key recommendations:

- Better signage within the venues: better promotion of the floor plan would be welcomed by the visitors and improve their experience.
- Overall the descriptions of the activities could have been more accurate to illustrate the variety of activities and unique attractions.
- Increase awareness of the event and their locations.
- Training: researchers need encouragement and support to participate in activities like BBN. More needs to be done to make sure researchers attend at least one of the training opportunities offered. This can be by offering more one-on-one support, additional training sessions (different days and/or times of day) or online resources.

Appendix I - Questionnaire (Adults)



Thank you for taking the time to complete this questionnaire. It shouldn't take, and will help improve the event in the future. Completing this questionnaire indicates that you give consent for this data to be used in this research study. All data will be treated anonymously and confidentially.

1. How did you enjoy the event in general?

- loved it liked it neutral disliked it hated it

Other comments:

2. What attracted you to this event?

- Walking past / happened to be here Learnt about it so came by

Other:

3. What was your favourite aspect of Bristol Bright Night?

4. What was your least favourite aspect of Bristol Bright Night?

5. What do you think the purpose of this event was?

6. Is there any way we could improve the event for you?

7. How do you feel about science more generally?

love it like it neutral dislike it hate it

8. Do you usually engage with science-based activities and events?

yes no

9. Did you attend Bristol Bight Night last year (2014)?

yes no

10. Would you recommend this sort of activity to others?

yes maybe no

11. Would you like to participate in this sort of event again?

yes maybe no

Thank you for your time!

Appendix II – School Children Questionnaire

QUESTIONNAIRE

Thank you for taking the time to complete this questionnaire. Completing this questionnaire indicates that you give consent for this data to be used in this research study. All data will be treated anonymously and confidentially.

1. Did you enjoy this activity?

Loved it 😊😊 Liked it 😊 Neutral 😐 Disliked it 😞 Hated it 😞😞

2. Would you recommend this sort of activity to others?

Yes Maybe No

3. Which part of the activity have you enjoyed the MOST?

4. Which part of the activity have you enjoyed the LEAST?

5. Did you learn something from the activity?

Yes No If YES, what have you learnt? _____

6. What did you think about Science before today?

Loved it 😊😊 Liked it 😊 Neutral 😐 Disliked it 😞 Hated it 😞😞

7. Would you like to be a scientist one day?

Yes Maybe No

8. Do you think this activity has changed your attitude to Science?

Yes Maybe No If YES, in what way? _____

9. What is your gender?

Male Female

10. What is your age?

Under 15 – please write your age here: _____

15-19

Thank You!

Appendix III – Teachers' Questionnaire



Thank you for taking the time to complete this questionnaire. It shouldn't take long, and will help improve the event in the future. Completing this questionnaire indicates that you give consent for this data to be used in this research study. All data will be treated anonymously and confidentially.

2. How did you enjoy the event in general?

loved it
 liked it
 neutral
 disliked it
 hated it

Other comments:

2. How would you rate the following aspects of Bristol Bright Night?

	Very good	Good	Poor	Very Poor
Organisation of the event				
The materials provided				
The content				
The staff running the stalls				
The venue				

3. How useful will this event be in supporting your students' learning?

- Very useful
- Quite useful
- Not very useful
- Not at all useful

5. What was your least favourite aspect of Bristol Bright Night?

6. What do you think the purpose of this event was?

7. Is there any way we could improve the event for you?

8. How successful do you feel the event was in achieving the following aims?

	Very successful	Quite successful	Not very successful	Not at all successful
Increasing your students' understanding of science (in general) ?				
Increasing you students' understanding of what is a researcher?				
Increasing your students' interest in science?				

9. Would you like to bring a school group to Bristol Bright Night next year?

Yes

No

9a. {If No} For what reason would you **not** bring another school group to this event?

10. In which Year Group(s) are the students you brought to Bristol Bight Night?

Thank you for your time!

Appendix IV – Observations Schedule

Observation Details:

Location: _____ Date: _____ Time: _____

Observation Guide

Please use this guide to record as much as possible about the observation. If unobtrusive circulate around the room whilst performing the observation. Record the following observations over a **10-15 minute** time window.

<u>Getting Started:</u>	Event name:
Estimated Audience Number:	Estimated Male/Female Ratio:
Audience Type (families, groups of friends, couples, etc. and size of groups, multi-generational, age range?):	
Any general <u>pre-problems</u> (accessibility, logistics, weather, scheduling, rowdiness, etc.)?	
<u>Getting finished:</u>	
Was the discussion curtailed or running out of steam?	
Any general problems? (accessibility, logistics, weather, scheduling, rowdiness, etc.)?	

The Activity	Start Time:	End Time:
Environment: (lighting, sound, props etc.)		
Presenters: (age, appearance, confidence, enthusiasm, activity levels etc.)		
Presenter Activity: (question-asking, body language, movement etc.)		
Activity type: (performance, presentation, discussion, experimental, etc.)		
Any other observations:		

Diagram of Venue: Please insert a diagram of the venue either before/after the observation here

Appendix V – Researchers Interview Schedule

Notes for interviewers:

- *Make sure participants read the information sheet and that you obtain written consent prior to commencing the interview.*
- *The interview reference is written in the top right corner of the interviewee's consent form; quote this at the start of each interview (during recording).*

Questions:

Thank you very much for agreeing to participate in this interview. It won't take very long and I'd appreciate it if you could be as honest as possible regarding your views and thoughts about this activity.

1. **Did you enjoy participating in the Bristol Bright Night? Why?**
2. **What motivated you to participate in the Bristol Bright Night?**
3. **Did you participate in the Bristol Bright Night last year?**
4. **In your opinion, what was the purpose of the event?**
5. **Did you have any contact with the audience both during or after the activity? If yes, how did the audience respond?** e.g. did any of them approach you with questions or comments?
6. **How easy or difficult was it to engage the audience in this activity?**
7. **What was your favourite and least favourite aspect of being involved in the activity?**
8. **In your opinion, what worked well?**
9. **And what didn't work so well?**
10. **How would you improve this activity?**
11. **Would you like to participate in a similar event again in the future?**

Thank you for your time.