
**Manchester City Council
Report for Resolution**

Report to: Economy Scrutiny Committee – 1 February 2017

Subject: EuroScience Open Forum 2016 and European City of Science

Report of: Vicky Rosin. Programme Director, ESOF 2016

Summary

This report provides a summary of the outcomes and impact of the EuroScience Open Forum (ESOF) which was held in Manchester in July 2016 and of the activities and events which marked the designation as European City of Science. A monitoring framework was designed and utilised by New Economy to capture data and feedback during / following ESOF and the Science in the City Festival and the headline findings inform this report. Both the conference and the Science in the City Festival that accompanied it were considered to be highly successful. Over 70 partners collaborated to bring the city 'alive with science' and engage with Manchester residents, in particular young people and families. The legacy from the Forum and the European City of Science is also considered with an ambition to make the Great Science Share an annual event and to continue to grow the Manchester Science Festival.

Recommendations

Members are invited to comment on the outcomes and impact from the EuroScience Open Forum and the activities which were held in the city during the year as European City of Science.

Wards Affected: All

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

If None – state none

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

Summary Report. EuroScience Open Forum Manchester 2016. The University of Manchester and Marketing Manchester. November 2016.

EuroScience Open Forum Monitoring Report. New Economy. November 2016

European City of Science Monitoring Report. New Economy. November 2016

1.0 Introduction

The EuroScience Open Forum (ESOF) is the biennial, pan-European, general science conference dedicated to scientific research and innovation held in a major European City every two years. Manchester hosted ESOF 2016 from 23-27 July.

In recognition of Manchester being the host city for ESOF 2016, the city was awarded the title European City of Science 2016. Activities to celebrate this took place across the city over 12 months from October 2015, with the majority of activities taking place in the same week as ESOF as part of the 'Science in the City' festival.

This report presents the main findings from monitoring and post-ESOF survey work undertaken on behalf of the delivery team by New Economy and Technopolis, along with additional data gathered by ESOF partners.

2.0 Background

The planning and delivery of ESOF and the activities that formed part of the European City of Science spanned two and a half years from April 2014. This was overseen by a Local Organising Committee that was co-chaired by the Council's Chief Executive and the President and Vice Chancellor of the University of Manchester, Professor Dame Nancy Rothwell. Previous reports on the planning and objectives of ESOF and the European city of Science have been reported to the Committee; the last report was considered on 27th January 2016.

At the last meeting members asked:

- i. that information on the Great Science Share and the wider ESOF/ European City of Science programme of events be circulated to councillors and governors.

This information was circulated earlier in 2016 when the schools were being encouraged to participate in the Great Science Share which was held on 6th July 2016, and when the programme for the Festival and ESOF was published in July 2016.

- ii. to receive a further report following ESOF/European City of Science 2016, on the evaluation of the effectiveness and impact through the data capture and monitoring framework, and on the legacy of the events'.

New Economy undertook a range of primary research to collect data and evidence which tested six key objectives and a range of success criteria. This focused primarily on visitor/delegate feedback including an online survey conducted with delegates immediately after the end of ESOF.

3. Objectives and Success Criteria for EuroScience Open Forum

The following six key objectives were agreed early in the planning process and were used to gather data and feedback which were tested against key success criteria to demonstrate whether each of the objectives were achieved.

- Presenting cutting-edge scientific and technological developments in all fields of science
- Showcasing public and private research
- Promoting links between the scientific, research and business communities
- Connecting early career researchers to senior researchers, industry and sponsorship
- Using the media as a tool for science communication
- Marketing ESOF so that it generates economic value for Greater Manchester

The key success criteria included:

- Number and share of delegates satisfied with ESOF 2016
- Number and share of delegates indicating that they would like to attend another ESOF in the future
- Number of speakers
- Views of speakers and stakeholders regarding delivery and impact of ESOF 2016
- Satisfaction with the interaction between science and business
- Number of media hits generated
- Number/share of participants who agree that the UK is one of the top countries in which to do science and innovation
- Satisfaction with the career relevance of careers programme among young researchers

Outcome 1: A highly successful conference

ESOF 2016 received a very high overall satisfaction rate from delegates – 90% of all delegates who responded to the post-ESOF delegate survey said that, overall, they were satisfied with ESOF 2016.

Qualitative feedback from respondents to the post-ESOF delegate survey confirmed high levels of enjoyment of and satisfaction with ESOF 2016:

“Really enjoyed the event. I cannot recall another conference I've attended in 25 years where I have not been bored at any point and in any talk. Brilliant. Will recommend to my colleagues and I will hope to attend the next ESOF.”

“ESOF2016 was an outstanding experience - highly professional team, excellent organisation, interesting venue, appealing design and very pleasant atmosphere.”

Delegate feedback on the quality of sessions delivered as part of ESOF 2016 programme was very positive, on the whole: 85% of post-ESOF delegate survey respondents rated the quality of the sessions as either ‘Excellent’ (27%) or ‘Good’ (58%).

Delegates were generally highly satisfied with the scientific relevance of ESOF 2016 and its coverage of cutting-edge scientific research:

- 81% of post-ESOF delegate survey respondents rated the opportunities to learn about new research trends and directions as either 'Excellent' (32%) or 'Good' (49%).
- 74% of post-ESOF delegate survey respondents rated the access to cutting edge science or research as either 'Excellent' (27%) or 'Good' (47%).
- 90% of post-ESOF delegate survey respondents rated the calibre of the key note speakers as 'Excellent' (45%) or 'Good' (45%).

Delegate feedback on the opportunities for networking, interaction, dialogue and debate with other attendees of ESOF 2016 was mixed, however on the whole it was mostly positive.

“ESOF 2016 was a well facilitated and extremely useful event and the networking opportunities were of high order”

“Many thanks! Great networking with scientists, fellow journalists and some policymakers!”

However, several delegates felt that there were limited opportunities for dialogue and debate in many of the sessions, mainly due to the high number of speakers at many sessions which meant that there was not enough time for discussion or Q&A.

“Some of the sessions I attended were excellent, with lots of interaction between delegates and speakers, but some were sadly disappointing, with the time taken up by speakers with no opportunity for question or comment.”

Outcome 2: ESOF 2016 larger in scale and scope than previous ESOF events

ESOF 2016 was attended by 3,542 delegates (of whom 1,619 were paying delegates). The target number of delegates set by the ESOF Local Organizing Committee (LOC) was 4,000, based on the experiences of Dublin in 2012 and Copenhagen in 2014 which had 4,494 and 4,072 delegates respectively.

The LOC felt that the timing of ESOF 2016 in late July (i.e. in the summer holiday season) impacted attendance at the conference. One of the most frequent reasons for declining an invitation to attend ESOF 2016 was that the person would be on holiday. Qualitative feedback from delegates in the post-ESOF delegate survey highlighted that delegates were aware of the comparatively lower attendance at ESOF 2016 and the timing of the conference as a possible reason for this.

The ESOF 2016 LOC also considered that the Brexit issue may have been a factor affecting attendance levels, although this impact is harder to quantify. The overall gender balance of delegates came close to parity, with 52% male and 48% female representation.

80 countries across six continents were represented among the delegate cohort. Based on initial registration data, the number of countries that would have been represented was 86, with six continents represented. However, in the weeks before ESOF 2016 a number of delegates experienced difficulties in obtaining visas and this impacted on the final number of countries represented (particularly from Africa).

The highest number of delegates attending, unsurprisingly, was UK-based (1,421 delegates, representing 40% of the cohort). The next highest number of delegates came from Germany, Belgium, France, Italy and the Netherlands. Good representation was also recorded from the USA and Japan, underlining the international attraction of ESOF 2016 (60% of delegates were from outside the UK).

483 business delegates attended ESOF 2016, which represented 14% of all delegates, exceeding the original target of 10%. 113 unique businesses were represented at ESOF 2016.

In addition, ESOF 2016 was attended by 495 media (315) and science communicators (180) from 43 different countries. This exceeded the original target of 400 from 25 countries.

ESOF 2016 was attended by 717 speakers, including 4 Nobel laureates. The gender split in the speaker cohort was 42.5% female and 57.5% male.

There were 157 sessions in the ESOF 2016 programme. The sessions were broadly spread over the main three days of the conference (25-27th July 2016), but with the Early Career Researcher programme and the dedicated programme on Responsible Research and Innovation commencing on 24th July 2016, to relieve programme pressures.

ESOF 2016 delegates acknowledged the variety and depth that the programme had to offer.

“This was the fifth time I attended an ESOF conference and the organisation of this edition was of the highest level. The tone and content of the session was almost perfect and the speakers in each of the sessions that I attended were really experts in their fields or subjects.”

However, a number of delegates felt that the programme was too full, with too many sessions. The tightly-packed programme for many delegates also meant that delegates were not able to attend all the sessions they wanted due to clashes and the lack of longer breaks limited opportunities for networking and discussion with other delegates from outside the sessions.

Outcome 3: Generate linkages between the scientific, research and business communities

ESOF 2016 was well attended by business delegates, and 89% of delegates rated the science to business sessions as either Excellent or Good.

56% of business delegates who responded to the post-ESOF delegate survey rated the networking opportunities at ESOF 2016 as “Excellent” (22%) or “Good” (34%).

Delegate feedback on the Science to Business sessions was positive. 89% of delegates who completed a feedback form for a Science to Business session rated the quality of the session they had attended as “Excellent” (38%) or “Good” (51%),

and 61% rated the opportunity for scientists / researchers and businesses to engage with one another during the session as “Excellent” (18%) or “Good” (43%).

38% of delegates who completed a feedback form for a Science to Business session said that they met someone who will be useful for their business or academic interests, and one third of those delegates said that they will follow up on the contacts they have made at the session.

Outcome 4: International profiling of Manchester and the UK as a centre of science/innovation/research excellence

The majority of delegates felt that attending ESOF 2016 has made them more aware of UK science and innovation, and most agreed (either strongly or partially) that the UK is a leading country for science and innovation, and likewise for Manchester.

There were a number of qualitative comments from delegates that supported these findings:

“While I was already aware of the great scientific research going on in the UK it can often be London-centric. I really appreciated the opportunity to see the calibre of research “up North” in Manchester.”

“Manchester is the city of science and has been the home of innovation for hundreds of years amongst many other cities and countries. It has founded many scientists, innovations and inventions and I believe Manchester will continue to do so.”

Comments in the post-ESOF delegate survey also revealed that many delegates felt that Brexit was a threat to UK science and innovation. However, this is not something over which conference organisers had any control, so should be taken as a comment on wider context in which the conference was operating.

66% of respondents to the post-ESOF delegate survey knew that Manchester was the European City of Science 2016 before their visit.

Good levels of media coverage of ESOF 2016 helped to publicise more widely the profile of Manchester and the UK as centres of scientific excellence.

Twenty press briefings and press conferences took place during ESOF 2016, and the Forum was widely covered in leading media around the world. According to the Meltwater media monitoring platform, between August 2015 and August 2016 ESOF 2016 generated a total of 1,014 hits nationally and globally, exceeding the original target of 500 media hits.

Most of the coverage was concentrated in the UK, but that there were good levels of media coverage across Europe, particularly in Germany, France and Spain. Over the coming months and years it is anticipated that ESOF 2016 will likely have generated upwards of 2,000 online and print media articles.

Social media engagement with ESOF 2016 was also strong. There were over 30,000 unique visits to the ESOF 2016 website in July, and over 2.4million impressions on

Twitter in the same month, when ESOF 2016 Twitter account gained 1,000 additional followers. Overall, ESOF 2016 had around 6,500 Twitter followers, exceeding the target of 6,000.

Outcome 5: Young researchers are supported in their careers

530 Early Career Researchers (ECRs) attended ESOF 2016. It falls some way short of the target figure of 1,000, and may be explained at least in part by the holiday season. Concerns about the costs of coming or staying in the UK were raised and may have been a factor for some in this cohort.

Delegates who attended ECR sessions at ESOF 2016 provided positive feedback on the sessions' quality and usefulness. 88% of delegates who completed a feedback form for an ECR session said that they learnt something that is (or will be) relevant and useful for their career pathway, and 34% said that they met someone who could help them progress in their career.

Qualitative feedback from the ECRs who responded to the post-ESOF delegate survey also highlighted that many had found ESOF 2016 a highly enjoyable and useful experience:

"The experience and exposure afforded to me in ESOF 2016 is immeasurable and greatly mind stimulating. I was able to get contacts and engage in fruitful discussions with fellow early-career researchers and senior scientists"

"As an early career researcher I think I got the opportunity to participate in this conference at the right time. I could get exposed to the world of science and get to know what is happening outside the lab and how I could get involved in them and contribute to the society as a whole. I am really glad that you organised such a good event!"

Outcome 6: ESOF creates economic value for Greater Manchester

Being the host city for ESOF 2016 will have created economic value for Greater Manchester alongside raising the city's profile and reputation in the field of science.

In 2015 New Economy undertook research into the economic impact that is generated by Manchester Central (the location for ESOF 2016) hosting exhibitions. Given the relevance and currency of the 2015 research, this methodology was reapplied in order to estimate the economic impact of ESOF 2016 delegate spend in GM. Doing so reveals an estimated economic impact from delegate spending of 3.54m.

The estimated economic impact figure does not present the total economic value to GM of hosting ESOF and being the European City of Science for the entirety of 2016. This is because the figure does not include:

- ECoS/Science in the City visitor expenditure – audience numbers and demographics were not collected in detail for the more than 300 ECoS/Science in the City events that have been held. Therefore we are unable to estimate how

much economic benefit GM will have received from this ESOF associated activity.

- Future business output/value generated via the science to business links formed at ESOF 2016
- Intangible benefits, most obviously the reputational benefit for GM of hosting Europe's largest pan-scientific event and the opportunities this afforded GM to promote its science and research excellence.

4. The financial profile for ESOF

The Business Plan for ESOF2016, endorsed by the Local Organising Committee, established an overall project cost plan of £4m. Core funding of £2.1m was secured from the supporting partnership which included the City Council and University of Manchester, the European Commission, the Department for Business, Innovation and Skills (now Business, Energy and Industrial Strategy) and Research Councils UK.

Additional revenue was derived from delegate registrations, exhibition sales, Trusts and other sources. Further, significant and highly valued funding and support (£753K) was also provided by a range of sponsors. These were:

Principal partners: BT, Glaxo Smith Kline, Johnson & Johnson, Manchester Airport, Manchester Science Partnerships, Siemens, Wellcome Trust.

Executive partners: Unilever, Waters, Nature.

Supporting partners: COST, La Caixa, NCP, Elsevier.

Associate partners: British Council, Copernicus.

Principal supporters: Addleshaw Goddard, KPMG

The main Programme was eventually delivered for a cost of approximately £3.1m.

"As business representatives with a strong belief in scientific progress and collaboration, we witnessed an edition of this congress that not only recognized our efforts but really endorsed them". Seema Kumar, VP Johnson and Johnson (Sponsor)

5. European City of Science

Manchester's designation as the European City of Science was formally launched at the Manchester Science Festival in October 2015 and ran until October 2016. The aim was for Greater Manchester to 'come alive with science'.

The European City of Science programme was underpinned by strong partnerships with local universities, and the cultural and community sectors and resulted in events and activities that engaged the general public. Over 70 partner organisations were involved and this fostered new science focussed collaborations and partnerships in GM.

The Science in the City programme was greatly enriched by a series of events, exhibitions and activities run by partners and the unique nature of the City of Science designation offered a new platform for organisations to do things differently and work together to deliver content, such as the collaborative initiatives between Manchester's three universities. There was immense support from local organisations many of which contributed in-kind support, staff time, resources and venues.

Citizen science projects were an important feature, offering audiences to make a direct contribution to scientific research. Two App-based projects involving Manchester-based research teams were launched in 2016 and promoted as part of the programme; Cloudy with a Chance of Pain and #Britain Breathing. A creative citizen engineering initiative, the Manchester Robot Orchestra was developed which captured the public's imagination.

The Great Science Share (6th July) encouraged young people to share and celebrate the science they enjoy and was aimed at pupils of all ages from pre-school to college, with over 150 schools in Greater Manchester registering to take part while the social media account @2016GSS achieved 38,000 social media impressions. In March, over 200 teachers and STEM professionals took part in the Great STEM TeachMeet.

Feedback gathered by New Economy revealed that pupils who participated in the Great Science Share said that they found it very enjoyable, and teachers felt that engaging in the event had increased their pupils' enjoyment of science and interest in learning about science.

"As a high school student, this experience was priceless in increasing my knowledge and passion for science" – Great Science Share participant

The Science in the City festival (22-29th July) aimed to make science relevant and accessible to a wide range of audiences. Over 70 partners were involved with the festival. Broad themes included food, the body, the environment and technology and over half of the festival content was interactive. Core events included the Allotment of the Future, the Science of Me, and Science at Number 70. Arts and Science projects were an important part of the festival and included performances such as the Human Sensor. Likewise, the Sensory Soundpit premiered as part of the Manchester Science Festival in October 2016.

The Science in the City festival reached an estimated audience of around 40,000 people including families, adults and ESOF delegates. From data captured by New Economy

- 98% of members of the public visiting Festival core activities said that they found the experience very enjoyable or enjoyable;
- over 80% said that they learnt something new from their visit;
- over 60% said they had been inspired to apply science to, or do something different in, their daily life.

In addition, several major exhibitions, cultural programmes and events that had been planned before Manchester secured ESOF 2016 were also aligned with the programme. These included The Imitation Game (Manchester Art Gallery), Climate Control (Manchester Museum) and The Royal Exchange season 'BIRTH', while one of the biggest annual events in the city, the Manchester Day Parade adopted 'Eureka' as its theme. The Science in the City festival itself was 'kickstarted' by the Bluedot Festival of science and music, held at the iconic Jodrell Bank site.

The Manchester Science Festival in October 2016 recorded 136,226 visitors to 125 unique events delivered with 90 organisations at 60 different venues. Attendances were up by 13% on the previous year, which can, in large part, be attributed to the impact of the European City of Science activities.

Altogether, across the year, some 300 events (double the target of 150) were featured on the dedicated website manchestersciencecity.com: these were delivered by a wide range of organisations and covered many different aspects of science. Over 500,000 people engaged in science over the year.

The European City of Science raised £225,000 towards the delivery of the Science in the City Festival. Staff costs were accounted for within the ESOF budget.

6. Conclusions and legacy

The evidence and data presented indicates that ESOF 2016 was successful in achieving the six key outcomes identified in the ESOF monitoring framework.

Feedback from delegates shows that, across a range of quantitative measures, ESOF 2016 was a great success. Qualitative feedback from delegates, speakers and exhibitors was positive and enthusiastic.

The success of ESOF in Manchester has given an excellent platform to continue to develop and strengthen the collaboration between scientists and researchers, innovators and business across Europe and now globally.

Of importance to Greater Manchester is the ability to capture different strands of legacy from the hosting of ESOF and the accompanying designation as European City of Science.

This includes:

- Continuing to build Manchester's reputation as a city of scientific research, innovation and invention;
- Attracting and promoting high profile scientists to take Manchester science to the world;
- Building and promoting the Manchester Science City brand;
- Building on the wide range of new and innovative partnerships, e.g. between educators and outreach professionals across the primary, secondary and post-16 sector;

- Developing even closer and continuing collaboration between the three Manchester Universities, and sustained engagement with national organisations such as the Royal Society, Wellcome Trust and Arts Council England;
- Supporting enduring events, especially those that engage young people in Science –the Great Science Share will hopefully become an annual event, and there is ambition to grow the Manchester Science Festival;
- Sustaining science and business tourism, e.g. the ‘science walks’ and ‘Open labs’, while there are opportunities with a whole range of science and medical science conferences scheduled over the coming months/years;
- Continuing to nurture the extensive contacts established with science journalists and communicators.

Members are invited to comment on the outcomes and impact from the EuroScience Open Forum and the activities which were held in the city during the year as European City of Science.