Stage Awards: Capturing outcomes, learning and impact
Workshop report

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TABLE OF CONTENTS

Executive summary 2
1 Introduction 5
1.1 Background and context 5
1.2 The workshop 6
2 Workshop delivery 6
3 Findings 7
3.1 Stage Awards – overview of the outputs 7
3.2 Key outcomes 8
Researchers and institutions 8
Case study 1: Building institutional public engagement capacity 10
Increased public awareness and engagement 10
New projects and activities 11
Profile raising and recognition 12
3.3 Key learning points 12
Setting up the network of researchers 12
Case Study 2: Example network model for Stage Awards 13
Core project team 14
Partner relations 15
Case study 3: Example partnership model for Stage Awards 16
Flexibility and innovation 16
Time and duration 17
Value for money 17
4 Future public engagement: recommendations and key messages 18
4.1 What would you say to researchers about public engagement in a Stage Awards model? ... 19
4.2 What would you say to EPSRC about public engagement in a Stage Awards model? 20
APPENDIX 1: Summary of feedback form responses 21
APPENDIX 2: What would you say to…. 23
APPENDIX 3: Full topic guide for workshop 27

Executive summary

This report presents the findings gathered from a workshop commissioned by the Engineering and Physical Sciences Research Council (EPSRC) and conducted by Laura Grant Associates (an independent public engagement and evaluation consultancy) to gather views on the outcomes, experiences, key learning and impacts of a one-off round of funded public engagement projects, entitled the Stage Awards.

The Stage Awards aimed to provide flexible non-project based funding for public engagement activity. Networks of engineering researchers within a particular research field were funded to develop and deliver a programme of activities over a three year period to engage a wide variety of audiences. The projects were to be supported by a dedicated science communicator and advisory board.

Three Stage Award projects were funded in 2005, averaging £260K per award, each of which focused on a different research theme: robotics, biomedical engineering and acoustics.

A total of eight key individuals from across all three Stage Award projects attended the workshop that was held in London in May 2011.

Key outcomes

There were four key outcomes of the Stage Awards projects (the Stages):

Building public engagement capacity within institutions and the research community was considered to be an important legacy of the Stages. The latter was considered to be a particular outcome (compared to other grant schemes) by involving a relatively large number of researchers in the projects, who in turn gained a deeper understanding of public engagement, in addition to skills, experience and training. The participants highlighted that a proportion of these researchers continued to take part in public engagement activities.

The participants considered the second most significant outcome to be **the impact on the public audiences, by increasing knowledge, awareness and interest** in engineering research and its relevance to everyday life. Although this was not perceived to be an outcome that was particularly unique to the Stage Awards, the participants reported that the sheer scale of the projects enabled the development and delivery of a broad range of activities that engaged tens of thousands of people from diverse backgrounds, ages and regions. All projects had difficulties in trying to engage policy makers and there were varying successes and challenges in facilitating a **dialogue** with public audiences.

The Stage Awards were also used as a springboard to attract **further funding** for additional public engagement projects and activities**.** They were effective platforms for generating new ideas and piloting projects, which could then be put forward for funding from alternative sources. **Recognition** and **prestige** were also noted as outcomes, for the research area, their institutions and the project teams themselves by achieving wider media coverage.

Key aspects and learning

EPSRC had designed the Stage Awards to have **particular key aspects** that differentiated them from other funded public engagement projects: a core research theme; a network of researchers; a dedicated science communicator/co-ordinator; and an advisory board. In addition the Stage Awards were intended to have innovative aspects, be flexible and include dialogue activities.

Although identified as a key way of working for the Stage Awards, only one of three projects specifically set out to establish a **public engagement network of researchers**. Whether the network should have been a key aspect of the Stage Awards was hotly debated by the representatives of the other two projects. They noted that it was neither an original objective, nor was it crucial to the delivery of their projects. On reflection one of the projects noted that they had created a **partial network** of sorts and the third created a **series of partnerships**, rather than a 'web' of inter-related connections.

Whether the Stages considered that they had created a network of researchers or not, all of the projects utilised a **pool of researchers** to develop and deliver the activities, which was co-ordinated by **core management team** that included a **science co-ordinator** and an **academic champion** with the assistance of non-academic **partner organisations**, **contractors** and an **advisory board**.

All the participants felt that the Stage Awards was an excellent model for encouraging **innovation**. This was enabled by the **flexibility** and the open-ended nature of the Stages in *combination* with the **relative longevity** of the Award (at least three years). This provided the Stages time to build public engagement capacity, develop new ideas, pilot activities, and be reactive as well as proactive. The **duration** of the award also permitted employment continuity and therefore the retention of skills while a **lack of time** was found to be the oft-quoted reason for researchers and students being unable to take part in the projects.

The Stage Awards faced several challenges. Although the open-ended nature of the Awards was welcomed by many, in some cases it also lead to **ambiguity** about what the project team and EPSRC were trying to achieve. Engaging **policy makers** and encouraging a **dialogue** with the public audiences were recognised as key aspects of the Stages, but it was difficult to achieve success in these areas. The Stages were considered to have negligible impact on policy.

There were also significant challenges in working with some **partner organisations**, who had differing agendas or did not deliver what was promised.

Key messages and recommendations

Although there were many challenges faced along the way, the participants considered that the Stage Awards were, on balance, a **successful and fairly efficient model** for developing and delivering a suite of activities for a diverse audience range that were also able to build public engagement capacity in the academic community. The participants were unanimous in their view that the public engagement in a Stage Awards model was a worthwhile and effective way of delivering activities that should continue. However they were clear in their opinion that **this could not work as part of an embedded model**. This was principally because the Stage Awards required engagement with a broad research area (rather than with one research grant) and relied on a number of core elements in order to be successful, not all of which would be possible in an embedded model:

- Champion – who believes in public engagement
- Money
- Flexibility
- Need for engagement in the area
- Dedicated co-ordinator
- Partner with professionals: science communication; public engagement evaluations

Although a number of key ingredients were clarified, the participants stressed that there was **no single unified method** or model that should be used to either develop or deliver a Stage Award-type project. Instead, this would depend on a number of factors, such as the research area itself.

Participants were also asked what they would say to other researchers and EPSRC about public engagement in a Stage Awards model. These individual reflections were grouped together and a number of clear themes and recommendations emerged. A summary of these is provided below:

What would you say to researchers about public engagement in a Stage Awards model?

- The Stage Awards model is a **successful funding model** that enables **large-scale public engagement** that in turn can reach many **diverse audiences**.

- The **science communicator/ co-ordinator** role is key.

- The **flexibility** and **longevity** of the Stage Awards model can have many positive outcomes and enables **innovation**.

- You need to capitalise on **networking** and **partnership** opportunities available.

What would you say to EPSRC about public engagement in a Stage Awards model?

- The Stage Awards model has **several benefits** compared to other funding mechanisms.

- The **experience and learning gained from the Stage Awards could be lost** and the **investment wasted**.

- Stage Award-type projects should be **funded** but they **will not work in an embedded model**.

- If the Stage Awards are provided further funding, they will require **flexibility, management and time**.

- Public engagement needs to be **valued**.

1 Introduction

1.1 Background and context

The Engineering and Physical Sciences Research Council (EPSRC) is the UK's main agency for funding research in engineering and the physical sciences.

The EPSRC Engineering Programme issued a call for the Engineering Stage Awards in 2005 as an experiment to explore a different model for public engagement with engineering activity[1]. Three Stage Awards were awarded in 2005 to the total value of £781,875 and the projects were completed in 2009 and 2010.

The principal objectives of the Stages were[2]:

- *to encourage young people into engineering career paths;*
- *to raise the profile of contemporary engineering research in various public audiences (including opinion formers such as MPs or media figures);*
- *to allow an interaction with various public audiences to inform future research activities;*
- *to promote the spread of public engagement skills through the engineering research community.*

The Stage Awards (the Stages) were set up to be analogous to EPSRC Platform grants which provide flexible funding for leading academic groups, but directed towards public engagement activities rather than research. The Stages were specifically set up to differ from EPSRC's existing public engagement schemes at that time, principally the Partnerships for Public Awareness[3], in the following ways[4]:

- They were intended to support activities by a **network of researchers** linked to a particular topic rather than a single researcher.

- Rather than supporting single one-off projects, they were intended to enable on going and developing programmes of activity with the **funding allocated flexibly**. The core mechanism for developing these programmes was the hiring of a **specialist science communicator** to co-ordinate, develop and deliver the programme of activity.

- Rather than the details of delivery being specified by the applicants in advance, these were to be worked out by the appointed communicator in conjunction with the **advisory group**.

In addition, each of the Stages was to focus on a core engineering research **theme**, utilise conventional and **innovative** public engagement methods, engage a **variety of audiences** and **dialogue** with the public audiences must take place.

[1] Engineering Stage Awards, Panel Background Document, 2005 (EPSRC internal document)
[2] Engineering Stage Awards, Call for Full Applications, 2005
[3] Became the Partnerships for Public Engagement later in 2005
[4] Edited from the Engineering Stage Awards, Call for Full Applications, 2005

1.2 The workshop

As the Stage Awards were an experimental call for funding public engagement with research, EPSRC were keen to bring together the key individuals from each of the projects for a reflective discussion about their experiences. EPSRC had also announced in 2010 and 2011 that their bespoke public engagement schemes, the Partnerships for Public Engagement and the Senior Media Fellowships, were going to end and that researchers would be encouraged to apply for public engagement funds as part of 'Pathways to Impact', and therefore develop a new embedded model.

EPSRC commissioned Laura Grant Associates to deliver a workshop to bring together key individuals to gather views on the outcomes and impacts of the Stages in addition to any learning gained and how this could inform the new embedded public engagement funding model.

This report draws together the findings of the Stage Awards workshop.

2 Workshop delivery

The workshop agenda and topic guide were developed around the following five research questions, in consultation with EPSRC:

- *What were the outcomes and impacts of the Stage Awards projects?*
- *What were the different models and strategies used to build a public engagement network and train researchers in public engagement?*
- *What learning was gained from the Stage Awards?*
- *Could the Stage Awards be used as an effective model for future public engagement with EPSRC research?*

The workshop was held on 31st May 2011 in London. Eight key individuals from the Stage Awards (Principal Investigators; Co-Investigators and Project managers/ co-ordinators/ science communicators) attended, with at least 2 representatives from each project.

The day was a mixture of presentations, group activities and facilitated discussions. Participants also completed feedback forms to capture their views on certain aspects of the workshop – a summary of the responses is provided in Appendix 1. An outline agenda from the workshops is provided below and a copy of the full topic guide is provided in the Appendix 3.

10.15 am	Arrival, registration, tea and coffee
10.45 am	Welcome and introductions
11.15am	Project presentations
11.45am	Modelling your public engagement network
1.00 pm	Lunch
1.30 pm	Key outcomes & impacts, learning & legacies
2.20pm	How to build an effective public engagement network
3.15pm	Tea
3.30pm	The Stage Awards – a model for the future?
4.15pm	What would you say to....?
4.30pm	Close, feedback forms and networking

3 Findings

3.1 Stage Awards – overview of the outputs

Stage Award 1: Acoustics and Sound Engineering

This Stage Award was co-ordinated and delivered by two centres of research excellence in two universities (South-East England and North-West England) in partnership with a number of other individuals and organisations, including artists, musicians, science centres and a schools outreach organisation.

Audiences reached included: adults, teachers, school pupils, visually impaired and hard to reach groups.

Public engagement activities delivered and resources produced included:

- Schools activities including a roadshow
- Adult debates in regional science centres
- National science and engineering week events
- Performances in the Albert Hall
- Narrative story telling/ life history project with acoustic scientists
- Teacher CPD, Teachers TV programme
- Radio 4 documentary
- Online resources

Stage Award 2: Medical Engineering

This Stage Award was delivered by a department within a university in Wales and in partnership with other cross-disciplinary departments in the institution and a range of external organisations that specialised in diversity, science communication, interactive exhibits and careers.

Audiences included: school pupils, teachers, business leaders, families and the general public; some activities were specifically targeted at girls and women.

Public engagement activities delivered and resources produced included:

- Schools activities including a touring schools show; teachers and careers advisers days
- National photography competition and publication
- Public exhibitions, presentations and an annual Christmas lecture
- Science Cafes; science festivals and National Science and Engineering Week events
- Production of a DVD (showcasing careers) and posters for distribution to schools and libraries
- Public engagement training for researchers

Stage Awards 3: Robotics
This Stage Award was coordinated from a university (in South-West England) in collaboration with three others 'lead' universities in England, and in partnership with a number of robotics laboratories across the UK and other partners such as science centres and the science learning centres. Audiences included: school pupils, adults, families, policy makers and the media. Public engagement activities delivered and resources produced included: • Interactive events and exhibits including a lifelike-puppet robot which appeared to elicit emotions • Adult and teenage debates and dialogues • Competition events including Robocup and Lego league • Café Scientifiques, presentations and talks to schools and adult audiences • Events at museums, science festivals, science centres and science festivals • Young people's 'Vision' conference • Parliamentary seminar • Public engagement training for researchers

3.2 Key outcomes

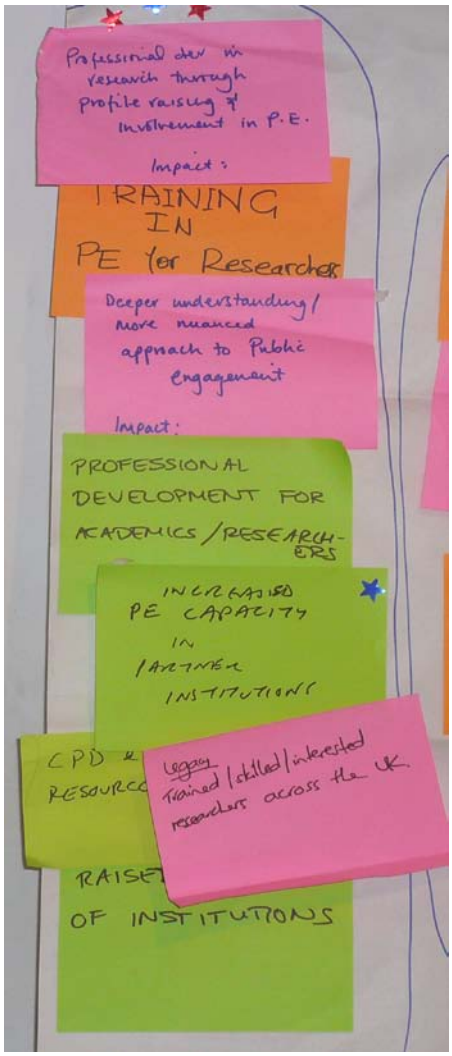
Researchers and institutions

Building public engagement capacity within institutions and the research community was considered to be a significant outcome of the Stages. Due to the scale of the projects, they were able to make an impact on raising awareness of public engagement and its value within their institutions and in one case resulted in making it not just *"acceptable"* but *"wanted"* where there had been resistance at the beginning. One of the delegates noted that obtaining a Stage Award helped their region secure the National Co-ordinating Centre for Public Engagement.

> *"Building up capacity of the institution…..having a longer project gives you more time'*
>
> *"Because of the scale of the project its impact is larger on the institution because more people were involved"*

The participants were strong in their opinions that the Stages built public engagement capacity through the impact on a number of researchers who became involved in the activities and gained a deeper understanding of public engagement, in addition to skills, experience and training.

> *"Stage Awards provide a platform for more creative public engagement, more time for reflection and as a result, a deeper impact on researchers involved".*
>
> *"It was as much about what the researcher got from it as well as the audience."*



The resulting number of researchers across the UK that the have continued to take part in such activities was considered to be an important legacy of the Stage Awards in particular (compared to other funding mechanisms):

"….then researchers went on to do other stuff on their own"

"…researchers [went] off to Green Man [festival] completely off their own back"

"There were lots of spin outs. I still hear of junior researchers we trained that are continuing to go off and do things, we could write a long list of public engagement activities done as individuals, for example talks and lectures that in some way are part of that legacy."

Formal training of researchers took place in two of the three Stages, one of which was able to secure a grant to specifically support this activity. Training was enabled by working with professional training providers and partners. One project team tried to encourage other research teams involved in their Stage Award to provide training (i.e. to elicit a cascade effect) but this was found to be very difficult.

As well as reaching out to the wider community of researchers, the Stages also had an impact on the Principal Investigators individually, who stated that they also learnt new skills, broadened their understanding and in one case provided a new dimension to their role as an academic:

"[For me] personally - performing on the stage at the Royal Albert hall and learning about live performance."

"From a personal point of view it has changed my professional life… it's turned me from a geek into a publicly engaged geek"

Not all the researchers that had been invited to take part in the projects were able to do so. The point was stressed that many researchers were motivated but unable to take part in the activities due to competing pressures that come with their *"day job"* even after training had been provided, which was felt to be inevitable but disappointing.

"Researchers were harder to work with. Were very keen to be involved but often did not have the time to engage when we needed them to engage".

"Not that people don't want to do it - there's such pressure…teaching and research is what they're after"

Case study 1: Building institutional public engagement capacity

By raising the profile of public engagement and capacity within the university the Stage Award made a *"huge difference"*, either as a direct or indirect result, in the following ways:

- the university signed up to the Manifesto for Public Engagement*
- secured additional Partnerships for Public Engagement funding
- the Stage Award's project co-ordinator was converted into a part-time public engagement post, funded by the faculty
- The university now provides public engagement training.

> *"We acted like a mini beacon…….we didn't have funding for a beacon but there was definitely a cascade effect"*

** The Engaged University: A manifesto for public engagement* was developed to encourage universities and research institutes to express their strategic commitment to engaging with the public.

Increased public awareness and engagement

The participants highlighted that the second most significant outcome was the impact on the public audiences, by increasing their knowledge, awareness and interest in engineering research and its relevance to everyday life.

> *"Everybody was captivated…[there was] a stampede to the front of the room to see a demo"*

Although all the workshop participants felt that this was a very important outcome, and "*arguably the core purpose of the Stage Awards"* the participants were surprised to conclude that it was not a particularly special or unusual outcome for the Stages. However, on reflection the participants acknowledged that this was of course the main objective and outcome of many other public engagement projects and programmes, irrespective of the funding model used. The longer-term impact of engaging the public with engineering research was commented on but it was felt to be difficult to measure and provide evidence for:

> *"Things have happened – but [we] don't know if they happened because of our activities"*
>
> *"Will take years to evaluate"*
>
> *"…different when talking about outcomes….can only guess at them. No long-term research study. Some work could be done… we've got so much activity in this area, how do we know what is working and what is not?"*

However, all the participants reported that the sheer scale of the Stage Awards enabled the development and delivery of a broad range of activities that engaged tens of thousands of people from a diversity of backgrounds, ages and regions, and had a greater reach than other funding models would have achieved.

All projects noted that one audience in particular was very difficult to reach – the policy makers. Consequently it was felt that any impact on policy through the Stages was negligible. One project was successful in running a parliamentary seminar, but this was considered to be an awareness raising and showcasing activity rather than influencing the policy agenda.

"I now realise that you can't all turn up for an hour in the members' dining room and change the world. Changing policy takes a long time of dialogue and lobbying".

All the participants were fully aware that encouraging a dialogue with public audiences was an important part of the Stage Awards model, involving listening and feedback, as well as communicating, and as such had included it in their objectives.

"EPSRC were keen on dialogue, so keen to have this going all ways so that what audiences said fed back in".

"…our aim was to engage the public and have dialogue"

However, the Stages had varying degrees of success in initiating a dialogue. One project adopted the premise that dialogue was to be the foundation of all their activities and felt they had been mostly successful in achieving this; another faced challenges in *starting* the dialogue and another in duplicating this activity as it was already well underway within their research discipline:

"We were committed to a dialogue model"

"That was quite difficult, partly because they feel like they can't comment on it because they don't have the expertise – un-empowered. But once you get them involved they are curious and interested, then start to ask questions and can get something back."

"…was in the bid….you had to have a dialogue. In the areas we touched on there were already researchers in that area with their research so it seemed a bit contrived to have that dialogue…it was well trodden ground"

New projects and activities

Two of the three projects were able to attract additional funding as a result of their Stage Awards, resulting in a further public engagement activity. This included attracting further funding from EPSRC's Partnerships for Public Engagement and Senior Media Fellowships, The Royal Academy of Engineering's *Ingenious* scheme, in addition to receiving funding from their own institution to help support the project. The Stages enabled the participants to pilot new and innovative ideas and then apply for funding to roll out those activities that were shown to be successful.

"We obtained funding for nine projects"

"You can also pilot things….and use evidence of that for subsequent funding"

"New projects and grants….. more came out of the Stage Awards than would have come from a PPE"

While the third project did not obtain additional grants, their schools activity programme was so well received that once the Stage Award funding had been used it was able to continue by the schools paying for the activity themselves:

"Paid for it ourselves originally and then schools picked up the bill".

Profile raising and recognition

Recognition and prestige was also gained through the Stages: for the research area, the institutions and the project teams themselves. Media coverage was achieved for some of the activities, raising the profile of the research area still further.

"We ended up creating a media storm around that public debate meaning we had to turn away the cameras"

Other projects however had difficulties in working with the broadcast media. They reported spending a lot of time on projects that never came to fruition and felt that they had *"wasted a lot of time going back and forth with proposals".*

One project was also awarded a prize for public engagement and was able to secure international recognition, receiving visiting researchers from the USA who wished to learn more about the project and best practice in public engagement.

3.3 Key learning points

There were particular aspects key to the Stage Awards in their set-up, as detailed in the introduction. Here each is examined in turn and the effect they had on the success (or otherwise) of the projects is explored.

Setting up the network of researchers

Although identified as a key way of working for the Stage Awards in the EPSRC call for proposals and internal documents, only one of three projects specifically set out to set up a public engagement network:

"We did think it was key to have a network"

The need to set-up a *network* of researchers was strongly debated by the representatives of the other two Stages, who noted that this was not one of their original objectives and neither was it key to running their projects. On reflection one of the projects felt that they had created a network of sorts, but this was a consequence or 'by-product' of trying to achieve their objectives rather than an intention, and that they were partial networks at best:

"Our aim was to engage the public and have a dialogue – not having a network to do things"

"I don't think we were striving to build a network – [we were] looking to do good public engagement….take opportunities…..ok so we do build a network – but only right at the end….we started to think about it"

"…different contacts that maybe didn't cross over"

The third project felt that they had created a series of partnerships and connections that stemmed from their centralised Stage Award management team (see case study 3):

> *"It felt more like partnerships with individuals and individual organisations. I don't think we were successful in creating a brand or network – although some of the things we did have become embedded"*

Consequently, when asked, all three of the Stages found it difficult to define what their network 'looked like', including the project that had purposefully set one up as part of their objectives. The latter noted that while they had indeed created a network, the entity that they had created was felt to be much more than this and was *"an ambitious project that sometimes made it difficult to understand"* (see case study 2 below for further details).

Case Study 2: Example network model for Stage Awards

In its simplest form, this Stage Award could be modelled by a Venn diagram with the central team in the middle which joined up existing communities of *"young and more experienced"* researchers, science communicators, publics and others such as policy makers and partners.

> *"the network had extraordinary reach by the end"*

Although it was not considered to represent conventional network structures with single, solid lines of criss-crossing connectors - it was structured enough to provide a way for people to get involved, yet flexible enough to not be restrictive or exclusive.

> *"We were inclusive. If you wanted to do something we made a place for you"*

The entity that was created became different things to different people:

- a 'cloud' of activity and ideas generation that was difficult to define although it had enough shape that researchers could recognise it and were able to become involved;
- a launch pad for people to expand or begin their own science communication/ engagement activity;
- a vehicle on which a researcher or partner could 'hitch a ride' to see where it could take them;

> *"We made a place for people to get involved"*

- a vision to strive towards, or a brand that was available to all the researchers to use

> *"We were able to create a brand that people wanted to join"*

In some cases, there was a limit to extent that the network could be facilitated due to the geographical spread, where it was difficult to get things started in some areas, and reaching saturation (of public activity level) in others.

Whether the participants considered that they had developed a 'true' network or not, all of the projects had an infrastructure that included a pool of researchers that helped develop and deliver the activities, which were co-ordinated by core management team which included a

science communicator and an academic champion; with the assistance of non-academic partner organisations, contractors and advisory board.

All three Stages noted that the pool of researchers that helped develop and deliver their activities 'grew' as the project progressed, and by building on what was already there rather than being 'made'.

> *"We weren't trying to make a network – it grew organically"*
>
> *"Some places had fantastic networks already"*
>
> *"It grew……some fell off and others came on board"*

Core project team

In every case, the core project management teams were central to the Stage Awards to drive the programme of activities forward and ensure momentum was maintained, by facilitation or direct delivery.

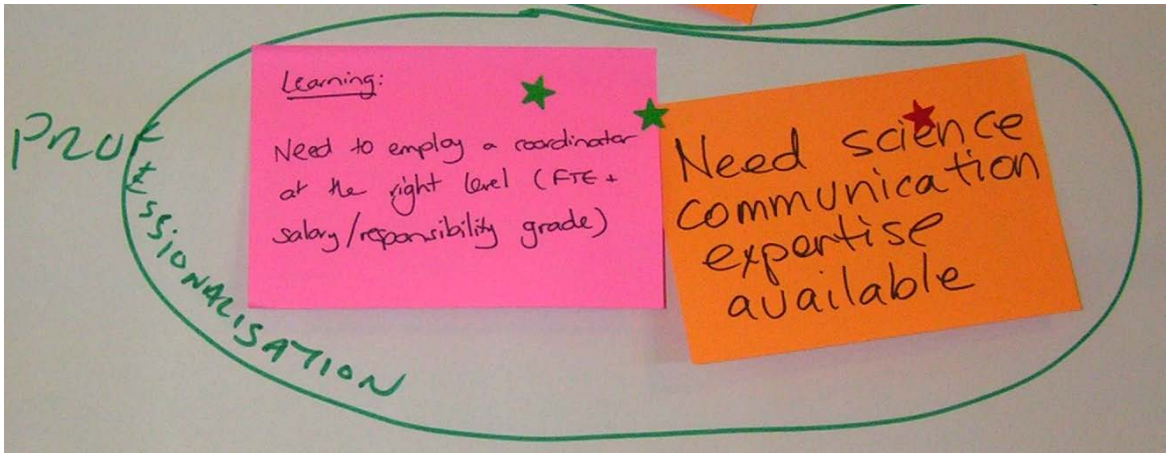
> *"Ours was quite centrally controlled"*
>
> *"Was very important that it was a managed project…give it focus and a drive"*

A vital role within this team, and one that was considered to be *"crucial"* and *"pivotal"* to the success of the Stages, was the appointed science communicator whose role was to co-ordinate the project.

> *"Enabled by having a full time network coordinator and active management team"*

The participants had strong opinions that it was essential to have a dedicated proactive project coordinator at the right level and grade, with science communication expertise, rather than opting for a purely administrative role. Indeed the importance of the science communicator/ co-ordinator was exemplified by the fact that the Stage Award project could not start until this person had been recruited:

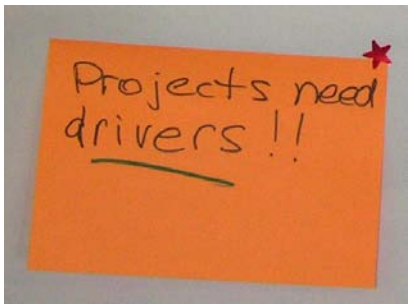
> *"We lost two months getting [science communicator/coordinator] on board"*
>
> *"[Science communicator/coordinator] couldn't join until her PhD so we postponed the start date"*



The participants also found that they would have benefitted from further resources for this role, as the co-ordinator either did not having enough time to dedicate to the project or be reactive to

all the opportunities presented, or required extra funding from the university to support the salary.

> *"We would argue very strongly for a well paid full time science communicator and some extra time to set things up"*



Another core role was found to be that of the academic champion to help drive the project forward.

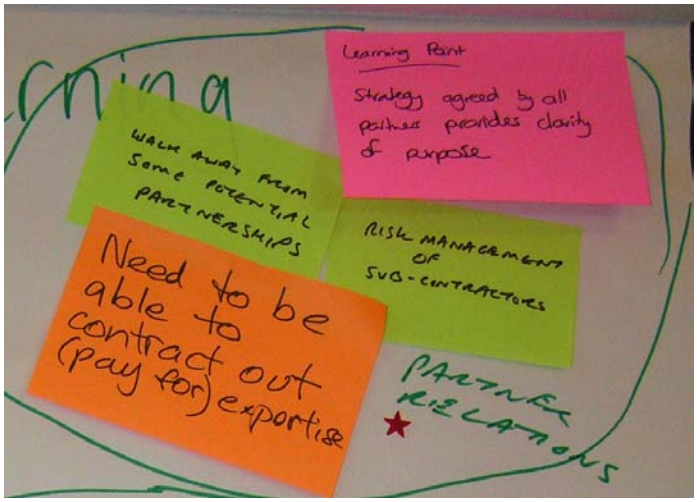
> *"You also need an academic champion….otherwise it's just not going to work"*

The Stage Awards were also set up to use an advisory group but there were mixed feelings about the usefulness of this group. All agreed that the initial large size of the group was unhelpful, but as the project developed some found it was useful for contacts. Overall, some felt the advisory group was a *"bonus"*, for contacts and suggestions but others a *"waste of time"* due to their lack of actual practical involvement in the project.

Partner relations

External partners and contractors were clearly an important part of the Stage Awards, and were common across all the projects.

> *"More has come out of Stage Awards than other projects because it has opened up more partnerships, it is more diverse"*



In many cases the partners and contractors were highlighted as integral to the success of the activities. Most described them as very engaged and said they provided communications expertise and extended the audience reach as well as providing much needed extra staff and time resources.

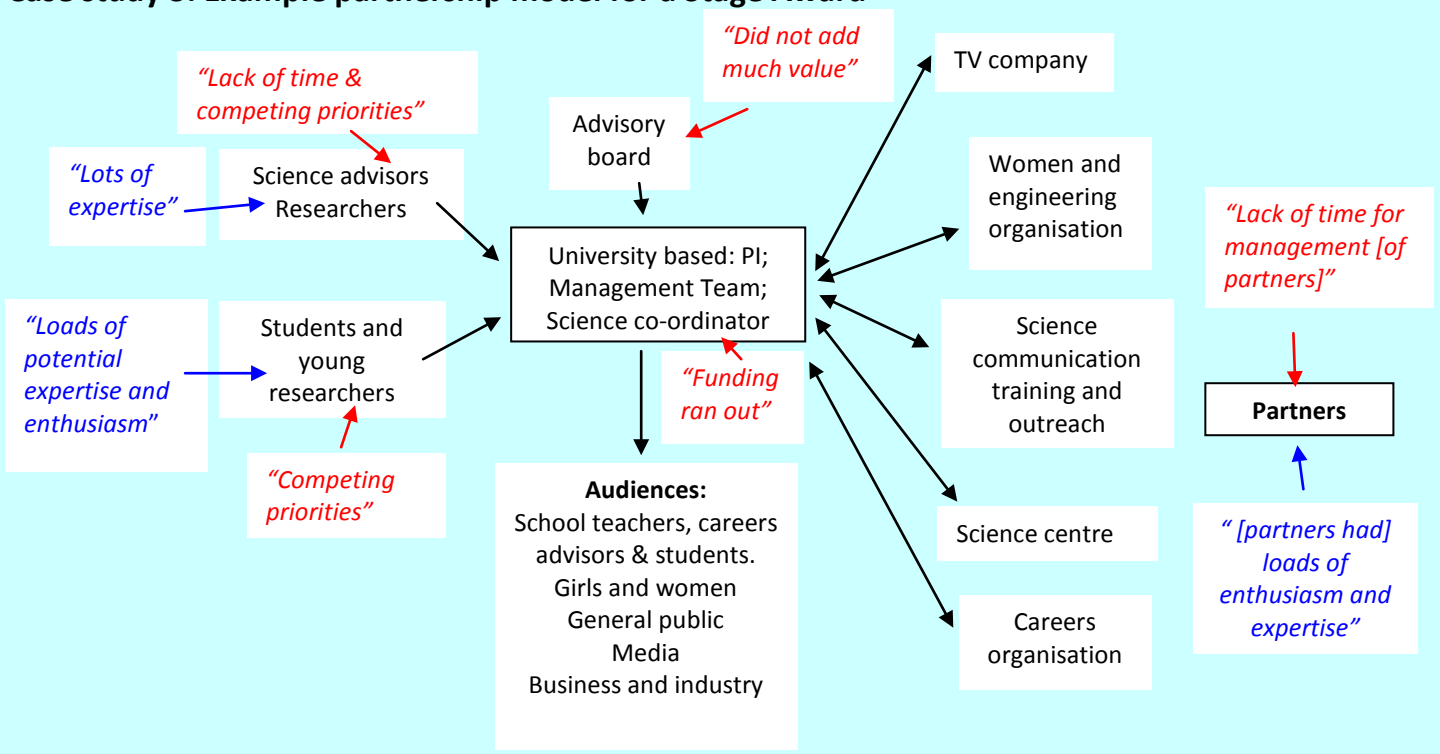
> *"External partners were very easy to work with, engaged, had the expertise"*

The challenges of working with partners were also highlighted. These included the difficulties of being geographically spread; managing relationships and communications and that some partners had different agendas that were at odds with those of the core project team.

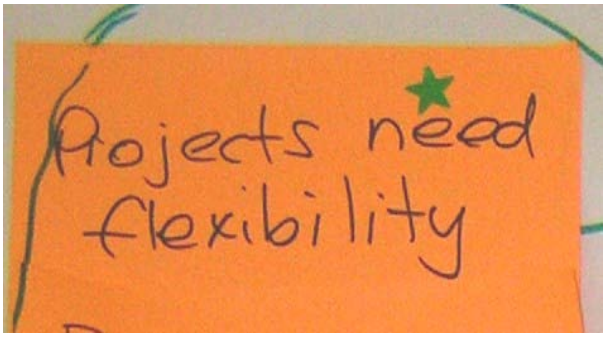
In one or two cases there were clear disappointments with partners or contractors who did not deliver what they had promised. In hindsight, they wished that had walked away from problematic partnerships much earlier.

> *"Big learning for me was the issues of working with outside organisations…headaches!"*

Case study 3: Example partnership model for a Stage Award



Flexibility and innovation



The flexibility offered by the Stage Awards, which intentionally did not request concrete objectives and deliverables, was unanimously found to be a great asset to this funding model.

"Less focused on specific outcomes which gives you confidence"

"Flexibility was amazing…to be able to jump at opportunities"

The participants frequently raised the point that the flexibility enabled the projects to be innovative, which was an intended outcome of the Stage Award model. Not being held to a set of fixed objectives or outcomes enabled the Stages to have the time to explore different avenues, to pilot activities, try new ideas, to capitalise on new opportunities and to be reactive as well as proactive.

> *"You could make mistakes and learn from them"*
>
> *"Flexibility made this a great experience, rather than working on short term engagement grants"*
>
> *"You are less focussed on specific outcomes which means you can be braver"*

It was also noted that because the focus was not on audience numbers, where you might be tempted to roll-out tried and tested techniques guaranteed to attract a crowd, you could try new activities, which required more time investment for development and that may or may not be successful in attracting numbers.

"We were not held to specific audience numbers so we were not limited in what we could try. There were no inhibitors to innovation"

The participants also noted that the open-ended nature of the Stages resulted in the participants experiencing very little guidance from EPSRC on what was expected. For several of the participants, this was welcomed.

"That's how it works with research grants – just let us get on with it. As a researcher you're used to getting on with it."

However, some concerns were raised that this lack of structure also led to a lack of focus - there was ambiguity over what they were trying to achieve, as this had not been defined in their original proposal or a requirement of EPSRC on receiving the funding. This led to one team feeling they had *"over-promised"* and consequently that time had been *"wasted"* by having such an open-ended project, where many avenues were explored and several resulted in dead-ends.

"We were over-ambitious so wasted time on projects that did not go anywhere"

Time and duration

The duration of the award was also found to be a key aspect to the Stage Awards and made a significant difference to the projects in a number of ways. It enabled continuity of employment and therefore for skills to be retained, to build up capacity in the institution and researcher networks and provide time to train others.

"Traditionally get someone on board for six months, gain skills then you lose them. Here you could build on the opportunities"

Time was also a significant factor in other ways. As mentioned previously, a lack of it was found to be the oft-quoted reason for researchers and students being unable to take part in the projects, despite being motivated and enthusiastic.

In addition, as mentioned above, having the time to explore new avenues and try new projects was also key to enabling innovation. In essence, it was the *combination* of the flexibility permitted and the time period of three years given for the Stage Award projects that created the conditions for innovation.

"It comes back to two things – length of award and we were not required to stick precisely to the methodology that was stuck in the bid; you can make it up as you go along; much more than a PPE grant"

Value for money

The Stage Awards were considered to offer good value for money and added value in the following ways: employing a central co-ordinator with science communication expertise was viewed to be cost-effective and productive; the researchers could focus their valuable time to the activities that required academic input and expertise rather than the focus being on logistics and coordination; and the projects were able to attract further public engagement funds.

Furthermore, many participants felt that the Stage Awards offered excellent value for money, compared to other funding mechanisms, principally because of the number of researchers that offered their time for free.

"Incredible value for money; such a small amount of money; only salaries was for the science communicator; everybody was putting in all the effort for nothing; then only paying for materials; travel; resources to do the activities; lots did for free in our spare time"

Although it must be stressed that it was actually very difficult to compare 'like with like', as Stage Awards were funded before Full Economic Costing (FEC) was introduced to public engagement grants, which significantly increases the level of funding required.

"It's very difficult to judge as [they] were awarded pre FEC"

"All funding through the research councils are [now] calculated FEC….if the Stage Awards were funded now they'd go from £250,000 to £600,000"

"Delivers a great deal of value-added that was not directly funded i.e. the network members only got travel expenses and a sandwich. This would not happen now due to changes in funding so if Stage Awards were to happen now the funding would need to be much more"

4 Future public engagement: recommendations and key messages

The participants unanimously agreed that the Stage Awards could and should be a model for future public engagement with research. Although there were indeed many challenges faced along the way, there were many advantages to developing and delivering a programme of public engagement activity in this way.

The participants were vociferous in their opinions that Stage Award-type projects would not work in an embedded model. One great asset to the Stage Awards was the ability to be an effective platform to cover a breadth of subject matter:

"One of the things with the Stage Awards was that they could cover research that wasn't directly funded as it wasn't linked to a dedicated funding scheme"

"I think the public want to know about things that aren't directly about your ideal research area."

Hence it was stressed that the Stage Awards would not work as part of the embedded model, which focused on public engagement with a particular research grant, rather than with a broader science and engineering area. Furthermore, the Stage Awards required a number of core elements in order to be successful, not all of which would be possible in an embedded model:

- Champion – that believes in public engagement
- Money
- Flexibility
- Need for engagement in the area
- Dedicated co-ordinator
- Partner with professionals: science communication; public engagement evaluations

Although a number of key ingredients were clarified, the participants stressed there was no single unified method or best practice model that should be used to either set up a network of public engagement researchers or develop and deliver a Stage Award-type project. This would depend on many factors, such as the project objectives, the 'players' involved and the research discipline.

Participants were also asked what they would say to other researchers and EPSRC about public engagement projects in a Stage Awards model. These individual reflections have been grouped together, and a number of clear themes and recommendations emerged. A summary of these is provided below and the complete verbatim responses are presented in full in Appendix 2.

4.1 What would you say to other researchers about public engagement in a Stage Awards model?

1. The Stage Awards model is a successful funding model that enables large-scale public engagement that in turn can reach many diverse audiences:

> *"That the Stage Awards model is a unique platform for large scale public engagement in your research discipline with other researchers/ groups/ universities, regionally and nationally. The model uniquely affords: - the possibility of longer-term engagement with a wide range of publics, over a range of societal issues and concerns that are broader than your research, such as futures, societal impact and ethics."*

> *"Allowed the development of an ambitious and wide ranging programme which could be delivered to a large and diverse audience".*

2. The science communicator/ co-ordinator role is key:

> *"Having science communicators/ managers saved academic staff time in project management, training, organisation and networking and added expertise to the research groups."*

> *"Recruitment of a capable science communicator is vital. Get the job description right and offer a decent salary."*

3. The flexibility and longevity of the Stage Awards model can have many positive outcomes and enables innovation:

> *"The flexibility to change tack as one went along was really valuable and saved wasting money on useless activities."*

> *"Stage awards mean you can get involved in public engagement in such a way that the peaks and troughs of your research commitments can be accommodated."*

> *"Take the opportunity to try something new and more outside your 'comfort zone'. Be creative and innovative and share your experiences – both good and bad!"*

4. You need to capitalise on networking and partnership opportunities available:

> *"It's easy to replicate others' mistakes or activities. Networking is crucial to avoid mistakes/ duplication of effort, and also to be aware of/ make opportunities."*

> *"Opens up unexpected/ unusual/ novel opportunities for partnerships"*

4.2 What would you say to EPSRC about public engagement in a Stage Awards model?

1. The Stage Awards model has several benefits compared to other funding mechanisms:

"Stage awards provide a platform for more creative public engagement, more time for reflection and as a result, a deeper impact on researchers involved."

"You get much more done, much more interesting public engagement and more people involved with stable funding."

"This model generates added-value compared to PPE or short term fixed outcomes model."

"Flexibility, longer length (3 yrs +) and core co-ordinator posts make this model uniquely productive."

2. The experience and learning gained from the Stage Awards could be lost and the investment wasted:

"That it would be a tragedy if the experience gained from the Stage Awards were to be lost or forgotten."

"Academics have spent a lot of time building up public engagement expertise, unless you fund PE grants this expertise will wither and you will have wasted your money."

"These awards achieved so much more than the individual sum of their parts! Huge amounts of learning occurred – where is that going on to? PLEASE make the evaluation report publicly available so others can learn, even if nothing else continues."

3. Stage Award-type projects should be funded but they will not work in an embedded model:

"Keep funding."

"The breadth and depth of PE achieved within the Stage Awards will not be possible through the embedded "pathways to impact" PE funding."

"That the Stage Awards provide a model for large scale innovative public engagement that cannot be achieved with the proposed embedded model of PE."

4. If the Stage Awards are provided further funding, they will require flexibility, management and time:

"Any funding programme needs to build in flexibility and a reasonable time scale for delivery."

"Stage awards require careful and active management ensuring there is a balance between researcher aspirations and public engagement experience."

"Do not be prescriptive"

5. Public engagement needs to be valued

"If PE is to retain any credibility it needs to be funded."

"Universities need to be convinced that EPSRC is serious about the value of PE"

APPENDIX 1: Summary of feedback form responses

Participants were asked to rate the following aspects of the workshop:

	Very good	Good	Neither	Poor	Very poor
Overall impression	3	3	1		
Project presentations	2	5			
Modelling your PE network	1	5	1		
Outcomes and impact discussion	1	5	1		
Building a PE network activity		3	3	1	
Stage Awards as a future funding model		5	2		
Venue	5	2			
Catering	3	4			
Organisation	5	2			

A number of written comments were provided, which have been grouped into a number of key feedback messages:

a) It was beneficial to meet the other Stage Awardees and get all three projects together but this should have happened much sooner:

"Meeting that should have happened during the project life. Meeting a very good idea"

"Good useful day but much too late – should have been within lifetime of grants or soon after".

"Good to hear successes and learning of other awards"

"Further reflection on networks of researchers which will be useful in the future."

"Great to catch up with and meet the other Stage Award people".

"Slightly depressed ☹ but got greater awareness of what others had achieved during their programme"

"Meeting other award participants; exchange of ideas."

"Shame this wasn't held earlier and is now taking place once the funding has been cut."

"Getting the three projects together [worked well]"

"Networking"

"Reflection in wider contexts"

"[should have] held it sooner!"

"met my expectations but it was late in the day"

b) It was unclear what the purpose of the workshop was:

"Not quite sure where the findings from today will go/ what we achieved in the discussions. This made it very difficult to get motivated/ consider it worthwhile (sorry!)"

"Not sure on the purpose"

"I was not sure of the objectives of the workshop until it was over!"

"Clarity about how EPSRC may use report from workshops"

"Would have been useful to see agenda in advance, and know some of the context."

"EPSRC presence to directly explain the situation and what might actually happen with the results from today would have been extremely valuable. A later start would have helped re: travelling at peak times."

c) There was repetition in the workshop and too many activities

"Too many activities, further opportunities for freeform discussion may have been more useful."

"Repeated the same question at different sessions."

"Fewer discrete activities, more opportunity for discussion"

"Might be to shorten it as some of the questions in sessions were similar"

d) Other comments

"I thought you handled it very well ....but it's an awfully long way to come and a long day when I am extremely suspicious that very little notice will be taken about anything we covered today."

"I think it was always going to be very difficult to hold this workshop in the environment of funding cuts, cancellation of PPE etc – so under the conditions – you did an admirable job of organising and running this workshop."

"Round table discussions, manual activity and overall format [worked well]"

"The discussion on future funding models was difficult as we had no background info and had no prior knowledge to be able to consider our responses"

"Was probably better than I expected however I have come at [it] a little depressed"

"Please make the reports publically available (for the PPE workshops also!)"

APPENDIX 2: What would you say to….

i) Complete verbatim responses to "What would you say to other researchers about the public engagement in a Stage Awards model?"

The Stage Awards model is a successful funding model that enables large-scale public engagement that in turn can reach many diverse audiences:

- That the Stage Awards model is a unique platform for large scale public engagement in your research discipline with other researchers/ groups/ universities, regionally and nationally. The model uniquely affords: - the possibility of longer-term engagement with a wide range of publics, over a range of societal issues and concerns that are broader than your research, such as futures, societal impact and ethics.

- The potential to get large-scale media, professional bodies/ institutions and/ or policy makers in your discipline.

- Allowed the development of an ambitious and wide ranging programme which could be delivered to a large and diverse audience.

- Has a long-term capacity-building effect – excellent 'added – value'

The science communicator/ co-ordinator role is key:

- The quality of who you recruit is vital.

- Have a science co-ordinator ready!

- Having science communicators/ managers saved academic staff time in project management, training, organisation and networking and added expertise to the research groups.

- Recruitment of a capable science communicator is vital. Get the job description right and offer a decent salary.

- Think about staffing – a 'champion' and strong project co-ordinator with (sci comm. expertise) are essential. Make sure these people are appointed at a reasonable level of FTE and salary grade (Full time and high RA at least).

The flexibility and longevity of the Stage Awards model can have many positive outcomes and enables innovation:

- Stage awards mean you can get involved in public engagement in such a way that the peaks and troughs of your research commitments can be accommodated.

- The flexibility and longevity of the Stage award will result in broader impacts on researchers.

- Having sustained funding allows you to react to opportunities, innovate and take risks. But you need time to develop.

- Be prepared to be flexible

- The flexibility to change tack as one went along was really valuable and saved wasting money on useless activities.

- Take stock regularly. Use flexibility of stage award to change direction where appropriate.

- Take the opportunity to try something new and more outside your 'comfort zone'. Be creative and innovative and share your experiences – both good and bad!

You need to capitalise on networking and partnership opportunities available:

- It's easy to replicate others' mistakes or activities. Networking is crucial to avoid mistakes/ duplication of effort, and also to be aware of/ make opportunities.

- When working with outside public engagement experts, make sure you have a shared vision.

- Opens up unexpected/ unusual/ novel opportunities for partnerships

Other comments

- The opportunity to develop yourself as a communicator/ engager to a much greater level if breadth and experience than usually possible for a research academic.

- Good idea but think through very carefully

- Provides a critical mass of public engagement (thus avoiding over-commitment be individuals)

- Reflect and evaluate at all stages and leave a reasonable budget of both time and money for this process.

ii) Complete verbatim responses to "What would you say to EPSRC about public engagement in a Stage Awards model?"

The Stage Awards model has several benefits compared to other funding mechanisms:

- That this was a hugely successful model with a multiplicity of extremely valuable outcomes, impacts and legacy

- Stage awards provide a platform for more creative public engagement, more time for reflection and as a result, a deeper impact on researchers involved.

- You get much more done, much more interesting public engagement and more people involved with stable funding.

- This model generates added-value compared to PPE or short term fixed outcomes model.

- Flexibility, longer length (3 yrs +) and core co-ordinator posts make this model uniquely productive.

- Bringing together active researchers with experts in sci comm./ PE is incredibly valuable for both sides, especially over a dedicated period (3+) years where things can really be achieved!

The experience and learning gained from the Stage Awards could be lost and the investment wasted:

- That it would be a tragedy if the experience gained form the Stage Awards were to be lost or forgotten.

- Academics have spent a lot of time building up public engagement expertise, unless you fund PE grants this expertise will wither and you will have wasted your money.

- It has generated a wealth of experience + expertise that should be seen as an investment to build upon.

- These awards achieved so much more than the individual sum of their parts! Huge amounts of learning occurred – where is that going on to? PLEASE make the evaluation report publicly available so others can learn, even if nothing else continues.

- Great deal of learning and development (and previous financial outlay) will be lost….

- Take on board comments raised at the meeting (i.e. this one!)

- Facilitate cross fertilisation between concurrent projects during their course, not just afterwards.

Stage Award-type projects should be funded but they will not work in an embedded model:

- Keep funding.

- The breadth and depth of PE achieved within the Stage Awards will <u>not</u> be possible through the embedded “pathways to impact” PE funding.

- That the Stage Awards provide a model for large scale innovative public engagement that cannot be achieved with the proposed embedded model of PE.

If the Stage Awards are provided further funding, they will require flexibility, management and time:

- Any funding programme needs to build in flexibility and a reasonable time scale for delivery.

- Stage awards require careful and active management ensuring there is a balance between researcher aspirations and public engagement experience.

- Do not be prescriptive

- Flexibility made this a great experience, rather than working on short term engagement grants.

- Too short. Five years, as for research platform grants; and with the expectation that successful projects will apply for renewal. (If/ when the science communicator leaves – momentum can easily be lost)

Public engagement needs to be valued

- If PE is to retain any credibility it needs to be funded.

- Universities need to be convinced that EPSRC is serious about the value of PE

APPENDIX 3: Full topic guide for workshop

Full Guide	
10.15 - 10.45	**ARRIVAL, REGISTRATION, TEA AND COFFEE**
10.45 - 11.15	**WELCOME AND INTRODUCTIONS (SESSION 1)** • Welcome participants; introduce team • Brief introduction/ presentation re: background and purpose. • Round table introductions – name, institution, project title, your role in the SA project (note roles) and share 1 -2 mins vignette describing what was most memorable about their SA (inc props). • Run through workshop agenda Also note: will seek views in your own words; views not attributed to individuals but to projects.
11.15 – 11.45	**PROJECT PRESENTATIONS (SESSION 2)** Each team gives an 8 minute presentation to include: · project title · core theme · network members and partners · what they wanted to achieve · what happened/ what activities took place If time: 2 mins Q & A per project.
11.45 to 13.00	**MODELLING YOUR PUBLIC ENGAGEMENT NETWORK (SESSION 3)** *Stage Award project team activity (Session 3a)* *Introduce task* • A core Stage Awards objective was to build and utilise a public engagement network. • As such we'd like you to get into Stage Award teams and use flipchart paper/

	coloured pens to describe/ represent… *What your public engagement network looked like?* … using diagrams, pictures, text and metaphors or analogies if you like. Then provide verbal and visual prompts: *Who was involved? How did it start? How did it grow?* *What did your 'Stage/ Platform' look like?* *What was the relationship between the network and the network partners?* Re: the above – can incorporate the above into current diagram or use more than one flipchart as your network model evolves. *What were the successes/ enablers and barriers/ challenges of setting up an effective network?* Re: the above - can add as post-it notes or have new flipchart and list them. *12.15 – 12.30pm* *Stage Award teams – verbal feedback on their model (Session 3b)* Each team displays flipcharts on flipchart boards (need white tac). Each team has up to 5 minutes to feedback to group and describe what their public engagement network and stage looked like; their successes and challenges; barriers/ enablers. *12.30 to 1pm* *Whole group round table facilitated discussion (Session 3c)* • Did your network work as you envisaged? Why? Why not? • Listening to others - what were the commonalities? - what were the differences? - common/ diff successes/enablers? - common/ diff challenges/ barriers? • Was there a cascade effect? • Was your network easy or difficult to set-up? How? Why? • How was it facilitated/ managed?

	• What training occurred? How? When? • What would have done differently?
13.00 to 13.30pm	**LUNCH**
13.30 to 14.20pm	**KEY OUTCOMES & IMPACTS, LEARNING, AND LEGACIES (SESSION 4)** *Post-it note individual brainstorm and group clustering* *Introduce task:* Each delegate: post-it notes to record key outcomes and impacts; key learnings and legacies and place onto the relevant flipchart. Group task - cluster/ theme and label. Use coloured stars to label which outcomes/ lessons/ legacies are unique to the SAs. *13.50 to 14.20pm* *Facilitated group discussion* • Which outcomes/lessons/legacies are unique to the Stage Awards? Why? • Were there differences in the PE outcomes re: the SAs? Open discussion and also probe: quality, quantity, diversity of audiences reached, formats/ media used; innovation. • If time: what difference did the following elements of the scheme make?: flexibility, inclusion of dialogue, steering group, anything else? • Overall, how effective is the SA model compared to other schemes/models/ mechanisms? o What are its strengths and weaknesses? o Does it offer better or worse value for money?
14.20 to 15.15pm	**HOW TO BUILD AN EFFECTIVE PUBLIC ENGAGEMENT NETWORK/ CORE REQUIREMENTS FOR A SUCCESSFUL STAGE AWARD PROJECT (SESSION 5).** *Facilitated discussion.*

	• Create an instruction manual for other researchers on how to build an effective public engagement network. • Core elements of a Stage Award Project
15.15 to 15.30pm	**TEA BREAK**
15.30 to 16.15pm	**THE STAGE AWARDS – A MODEL FOR THE FUTURE? (SESSION 6)** Whole group activity; facilitated round table discussion Could the SAs be used as a model for the future public engagement with EPSRC research? Why or why not? What would the benefits and drawbacks be? How could this happen? What might it look like? What enablers would be required? How would you encourage others to adopt this strategy? What would EPSRC need to do? What other activities/ mechanisms/ processes would need to take place as well for effective public engagement with engineering to continue?
16.15 to 16.25	**WHAT WOULD YOU SAY TO……(SESSION 7)** What would you say to EPSRC about the public engagement in a Stage Awards model? What would you say to researchers about the public engagement in a Stage Awards model? *Fill in Feedback Forms.*
16.30	**Thank you and networking/ informal drinks.**