



Evaluation of

Public input to the Sciencewise horizon-scanning workshop project

March 2014

Dr Richard Watermeyer

Dr Gene Rowe

CONTENTS

Executive Summary

1.1 Introduction	p. 3
1.2 Context	p. 3
1.3 Methodology	p. 4
1.4 Record of events	p. 5
1.5 Value and benefits to those involved	p. 5
1.6 Dialogue impacts	p. 6
1.7 Overall findings	p. 7
1.8 Lessons for the future	p. 9

Workshop Exit-Poll Analysis

a. London	p. 10
b. Manchester	p. 16
c. Cambridge	p. 23
d. London (Reconvened)	p. 31
e. Workshop cross-comparison	p. 37

Ethnographic Observations

a. London	p. 42
b. Manchester	p. 46
c. Cambridge	p. 47
d. London (Reconvened)	p. 52

Impacts and Issues p. 55

Conclusion p. 58

Annex: Observational Schedule p. 59

EXECUTIVE SUMMARY

1.1 Introduction

On behalf of the Department for Business, Innovation and Skills (BIS), Sciencewise initiated a horizon-scanning project designed to identify the areas of policy considered as a priority for public dialogue over the coming 5 to 10 years. Sciencewise worked with the Centre for Science and Policy (CSaP) at the University of Cambridge to hold a workshop in March 2013 to gather the views of a wide range of those involved in policy making on the emerging areas.

A public dialogue project was designed to complement the CSaP workshop by carrying out a deliberative dialogue with the public to fully develop and understand the views of the public on the emerging areas of policy and those which are considered by the public as priorities for future public dialogue. This was intended to help to develop a list of policy issues likely to face the UK Government in the next five to ten years, of scientific and technological developments likely to intersect with those issues, on the public views on the priorities for future dialogue with the public and of public questions and concerns that might be raised on the basis of those intersections.

In summary the public dialogue was intended to:

- Complement and support the CSaP workshop in considering a range of emerging policy areas involving science and technology
- Input to BIS on strategic priorities for science and society activities
- Input to the Sciencewise programme on prioritisation of future programme activity.

1.2 Context

The project was initially conceived as one part of a multi-stage project that would feed into a stakeholder workshop (27 March 2013), co-hosted with the Centre for Science and Policy (CSaP) at the University of Cambridge, intended to determine policy concerns for which dialogue should be prioritised in the next five to ten years. The 'CSaP workshop' involved participants comprising individuals from UK government departments, the research councils, the Royal Society and other constituents of CSaP's network.

Because of issues of timing, the order of these events changed, meaning that instead of public determinations of S&T priorities feeding into an expert workshop, the reverse was true. Whilst it would have been very interesting to have pursued a more 'bottom-up' approach we believe that this change in sequencing was not in any significant way detrimental to the overall inquiry. It is worth also noting that the findings of both scientific and public workshops were intended to feed into a final workshop for parliamentarians to be co-ordinated by the Parliamentary Office of Science and Technology (POST) later in 2013.

1.3 Methodology

The stated objectives of the evaluation were:

- to provide an independent assessment of the dialogue project's credibility, effectiveness and success against its objectives, covering both the dialogue processes and their outcomes (including an assessment of impacts on policy and those involved);
- to contribute to increasing the effectiveness and use of public dialogue

The objectives for the evaluation, and the ways in which the evaluation would meet its aims were:

- to gather and presenting objective and robust evidence of the activities, achievements and impacts of the project in order to come to conclusions
- identifying lessons from practice to support capacity building across Government, and the wider development of good practice in public dialogue.

This evaluation covers both the process of the project (e.g. what was done and how well it worked) and the impacts of the project (e.g. what difference did the project make). It makes consideration of seven key questions:

- Has the dialogue met its objectives?
- Has the dialogue met standards of good practice (Sciencewise principles)¹?
- Have those involved been satisfied with the dialogue (value to them)?
- How successful has the governance of the project been, including the role of advisory panels, stakeholder groups and the Sciencewise support role?
- What difference/impact has the dialogue made?
- What was the balance overall of the costs and benefits of the dialogue?
- What are the lessons for the future (what worked well and less well, and more widely)?

Four main processes were used to operationalize the different criteria a) participant questionnaires, b) ethnographic observations, c) documentary analysis, d) interviews with participants involved in the dialogue process.

In this evaluation we have responded to the sponsor objectives and seven key aspects noted above but and also situated the evaluation of elements into a broader, normative perspective - the 'meta-criterion' of 'translation'. This concept comes from Horlick-Jones,

¹ Sciencewise Expert Resource Centre (2008). *The Government's approach to public dialogue on science and technology*. <http://www.sciencewise-erc.org.uk/cms/publications/>

Rowe and Walls (2007). It essentially states that, for an engagement (deliberation) exercise to be effective, there should be *comprehensive and accurate translation of information throughout the process*, starting from the *communication of the aims of the event sponsors* through to the *communication of relevant (e.g. scientific) information to participants*, the *appropriate manipulation of the engagement process to ensure proper understanding and information elicitation/ exchange between participants*, and the *appropriate recording, aggregation and summarising of participants views*. Our experience is that there is frequently ‘mistranslation’ between the various stages of a dialogue event, which can be due to *inappropriate facilitation, information provision, data recording, information display*, and so on. The translation criterion generally subsumes many other criteria noted in the academic literature and elsewhere (e.g. transparency, representativeness, impact, resource sufficiency), and it ultimately relies upon the achievement of the sponsor’s stated objectives – the achievement of which can only be attained through efficient translation from the start of the process (communication of objectives to the project contractor) to the very end. Thus, establishing the quality of ‘translation’ requires the documentation of an audit trail linking the various elements of an engagement process, using evidence from various methods to comment upon the quality of the interactions. Deficiencies in the process (places of mistranslation) are ultimately identified and provide ‘lessons for the future’.

1.4 Record of events

An initial inception meeting held in London at the offices of Ricardo-AEA (lead contractor for the delivery of the Sciencewise programme) was followed by three public dialogue workshops, sequentially in London, Manchester and Cambridge. A final reconvened workshop drawing together selected participants from the previous London and Cambridge workshops completed the workshop series.

EVENT	LOCATION	DATE
Inception Meeting	London, Marble Arch Offices of Ricardo AEA	04.02.2013
Dialogue Workshop 1	London, Borough Offices of Ipsos Mori	27.04.2013
Dialogue Workshop 2	Manchester	11.05.2013
Dialogue Workshop 3	Cambridge, Homerton College	18.05.2013
Reconvened Dialogue Workshop 4	London, Borough Offices of Ipsos Mori	25.05.2013
Delivery of draft report		06.07.13
Delivery of draft evaluation report		26.07.13
Project ‘wash-up’ meeting		31.07.13
Delivery of final report		02.08.13
Delivery of final evaluation report		16.03.14

1.5 Value and benefits to those involved

- As we record below in our overall findings, the workshop series should be viewed as successful in having yielded significant socially oriented insights otherwise absent from scientists' adjudications of science and technology research/policy priorities. Public interpretations of priorities emergent from the workshops ought to be regarded as valuable for not only enriching the contextual basis of these and by importing an alternative values-framework into the prioritization process but in improving the robustness and credibility of the prioritization process.
- Beyond the outputs and thereby value and benefits gained from public involvement in advising Government on science and technology research/policy priorities, the dialogue ought to be recognised for its contribution more holistically to further cementing the value of dialogue for policy processes, in so much as it served to empower public citizens and further the claims of participatory democracy.
- The immediate value of the workshop to participants is plainly evident throughout their multiple accounts, yet was also, conspicuous throughout the workshop series and manifest within participants' level of engagement, enjoyment and appreciation of being involved and included within the process.
- We have indicated throughout that the project has been enormously successful for the degree of new learning it has sponsored – among all those involved and not only the participants. From our own perspective, as evaluators, we are especially interested to learn more of the difficult interface and/or tension between participants' estimation of public dialogue for policy processes as an essential facet of *democratic* citizenship and science governance and yet vacillations in their confidence apropos the impact of the process on Government decision-making. This is clearly something that needs to be tackled. Where this project has been successful in linking participants with science, additional or parallel work is required in linking participants with government.

1.6 Dialogue impacts

- Fundamentally, the project as an exercise in demonstrating the significance and value of public dialogue on the policy process has been enormously rewarding:
 - For yielding important socially-grounded/oriented insights and value-frameworks dictating the prioritization of science and technology investment and on the basis of a construction of 'public-need' as articulated by members of the public themselves.
 - For thereby also, extending the parameters in the process of prioritization of government spend in R&D beyond a sense of 'what counts' dictated by scientific/policy elites.
- The dialogue has also served as an exercise in active citizenship, with all participants across the workshops, relishing the opportunity to be involved and included in such

debate; and as a process of experiential learning with all those involved discovering much about science and technology; policy-making processes; about the views of the public (and thereby the diversity and plurality of views held by other participants); and ways with which science and technology are ubiquitous components of public citizens' everyday lives.

- Finally, the dialogue has emphasised that Government and executive decision-making processes and the link between these and public dialogue exercises is not sufficiently transparent or discernible to dialogue participants.

1.7 Overall findings

- Our overall determination as to the quality and efficacy of the dialogue process is highly positive. We observed a series of highly successful deliberative events, where the standard and quality of dialogue and dialogical interactions was high and where participants were provided an excellent framework and optimum conditions with which to engage each other and navigate what was quite often complex subject matter.
- Workshops benefitted from a high level of detail and informational exchange –yet this was neither overly technical and in danger of disengaging or alienating participants nor overly simplistic or ‘dumbed-down’. The ‘pitching’ of information and its matching to participants needs was well-planned, thoughtful and complementary.
- Participants were well-scaffolded throughout the dialogue process; were provided a safe and secure environment with which to openly share their ideas and opinions without fear of appearing foolish, ignorant or open to the reprisal of others. Indeed the dialogue process throughout was characterised by good-will among participants and general sense of bonhomie. The role of the facilitators was integral to this, in generating and maintaining a relaxed, trusting, respectful, good natured and good humoured, and enjoyable dialogue experience among all participants. We did not witness in our observations or through the accounts of participants in exit-poll data, any sense that their dialogue experience was unsatisfactory, unpleasant or for that matter not rewarding. Indeed, in most instances participants reflected that their workshop experience had been highly enjoyable and fulfilling and had bolstered their appreciation not only of science and technology developments (R&D) and science policy issues, but their own everyday interface with these.
- The workshop series was therefore a huge success in building links, instructional bridges if you like, and sustainable connections between participants' social and scientific lives. It might be too far a stretch to claim the workshop series was an exercise in ‘reconciling’ lay and expert communities – indeed, there were frequent occasions where participants appeared confused, if not dumbfounded, by the suggestions of their scientist counterparts. However, what the series did plainly

achieve was in illuminating scientific concerns and relativizing them to the world of public citizens.

- Furthermore, this process of engagement was successful as an exercise in the democratization of science governance, where the invocation and inclusion of the public voice yielded significant insights, missed or otherwise unavailable to the scientific perspective.
- Participants in this context clearly relished an opportunity to listen and be heard and to have their say on matters they would ordinarily perceive as out-of-their-grasp yet as the workshops revealed were, in most instances, an integral component of their everyday lives.
- The role of the facilitators as science/dialogue brokers should not in the context of this project be underestimated. Where facilitation teams may quite reasonably struggle in translating complex scientific information, not least where time to do so is impoverished, to lay communities, the contractor in this context ought to be commended for consistently facilitating participants' dialogue journey and process of discovery yet without a degree of intervention or 'hand-holding' that might stifle the creative imaginations of participants or their ownership of the dialogue process.
- The facilitators' multi-faceted role as custodians of fair, inclusive and equitable exchange; as catalysts of dynamic and creative dialogue and in part choreographers of process was in our estimation very well balanced. Facilitators were supportive without suffocating; provided leadership without leading; and appeared true in their interpretation of participants' contributions.
- Furthermore, we observed genuine skill among the facilitation team when working with difficult and domineering participants. They demonstrated in these instances an ability to cauterize the potential of participants' sabotaging or derailing the dialogue process, yet in such ways which still managed to engage and not segregate more boisterous or troublesome individuals.
- One of the most interesting aspects of the project was the dichotomy of (participants') scepticism regarding the penetration of the dialogue findings on Government decision-making processes and simultaneous assertion of the democratic value of citizens' participation through dialogue. Curiously, this dichotomy featured more in open conversation than in participants' responses to our questionnaire, where they were asked to comment on what they perceived as the impact of the project on Government decision-making.
- In terms of the dialogue process as an educative exercise, participants spoke frequently of the value gleaned from group interactions- from the dialogue process itself: from speaking and listening; the cementing of an ideal of a democratic community of practice.
- Perhaps the greatest impediment to the dialogue process identified by workshop participants and ourselves as evaluators was the handicap of time and there

arguably being an imbalance between the amount of time one might reasonably expect of participants to engage in substantive deliberative dialogue and the sheer volume of items for discussion. The facilitation team performed admirably under such constraint and given the intensity of the deliberative workload it would have been unreasonable and most likely unproductive/ineffective to have further extended the workshop day. The time allowance provided for each workshop was in this case in our estimation, optimum.

- The reconvened workshop was a particular success in responding to prior concerns of a time deficit and by allowing continuation of discussion that had previously suffered early cessation. Ironically, and as might be expected, there was nevertheless statement of repetition and overlap from participants. However, such repetition was not profligate but significant for consolidating and enriching findings; for plugging gaps in knowledge; illuminating understandings and generally extending the trajectory of dialogue.
- The single reconvened workshop was we believe also a better use of time and resource, than might have been had each individual workshop been followed up.
- The selection of participants for the reconvened session – based on the contractor’s estimation of who had previously been most engaged – was successful in that they were clearly the best candidates-for-the-task in reflecting on and reviewing the previous workshops. Indeed, the contractor’s own selection of participants matched our interpretation of who would best placed for this final stage activity.
- Our only slight disappointment in terms of selection for the reconvened workshop was that no-one from the Manchester workshop attended. Of course, we appreciate issues of geography, cost and limited likelihood of attendance by those coming from farther away. However, the involvement even of only one or two representatives from Manchester might, we imagine, have further profited the exercise.

1.8 Lessons for the future

- It seems a trite observation but a necessary one nonetheless that the precise management of time remains an important yet impossible aspect of good public dialogue. In nearly every respect, the contractor as we have previously stated, managed the restrictions of time with aplomb: evidenced within the sound governance of workshops; sound preparation of all workshop materials; excellent grasp of scientific information and methods of communicating these. However, the sheer volume of material to be covered set against the limits of what might be expected of participants in terms of assimilation and synthesis, meant that the level of deliberation and meaningful engagement was arguably more superficial, or at least surface than deep.
- Whilst the facilitator created the conditions for relatively free and open dialogue, a need to marshal participants’ dialogic contributions was enforced and exacerbated

by the myriad of topics. Indeed in many respects, that so many topics were covered is in itself a major success of the workshops.

- To expand on this point, a key feature of the projects' success was the extent of participants' learning through their exposure to multiple informational resources. It may be too often, that publics are recruited in public engagement exercises purely as a resource of opinion. Of course, there is no doubting the significance of what publics' contribute through dialogue, but dialogue is more than consultation. In this regard, we would recommend that this particular project be used as an example illuminating the value of dialogue as a process of multi-lateral, multi-agency learning. Multi-lateral in that the forms of learning were varied and included learning not only about the scientific subject matter but individuals relationship to it; and learning about public citizen's relationship to governance and their role (albeit if seen only in a ceremonial less substantive capacity) in contributing to this.
- We would also suggest that this project provides an excellent example in the use of reconvened meetings – not so much as the second and discrete instalment of a dialogue exercise, but as an opportunity for critical reflection and deeper engagement.

2. Workshop Exit-Poll Analysis

a. London 27.04.2013

Questionnaire Findings: *All workshop participants completed the questionnaire returning twelve completed questionnaires. [n= number of respondents selecting answer]*

1. Headline Summary

- ↪ The majority of respondents (n=9) were, as a result of information preceding the workshop, clear to what it would be about.
- ↪ Respondents provided a rather more mixed picture in respect of why they had been invited to the workshop, with almost half stating not being clear as to why they had been invited.
- ↪ Respondents were unanimous in confirming that the aims of the workshop, and the whole process of which the workshop was a part of, were clearly explained from the outset.
- ↪ All respondents, bar one who claimed to be *unsure*, felt that the public participants involved in the workshop had been appropriate.
- ↪ The majority of respondents stated that no one in particular was missing from the event. Only one respondent recommended the inclusion of a specific group: *teachers or people who work with children*.

- ✚ The vast majority of respondents stating having had an opportunity (*all* n=8 *most* n=2) to have their say. Only two respondents stated being only able to say *a little* of what they had wanted to say.
- ✚ A small majority of respondents (n=7) claimed that there was insufficient time in the workshop to discuss all that needed to be covered.
- ✚ Only one respondent stated an important issue NOT discussed in the workshop (see below).
- ✚ The majority of respondents stated experiencing some measure of learning as a consequence of the workshop (*a lot of new things* n=5; *a few new things* n=5).
- ✚ A number of respondents stated being either unsure (n=5) whether the workshop had caused to change their views on the issues in any way or felt that the workshop had not changed their views in any way (n=3).
- ✚ Two respondents stated that co-participants provided an influential source of information shaping their views.
- ✚ The majority of respondents (n=9) stated that final summing-up accurately reflected what was discussed at the workshop.
- ✚ All but one respondent stated feeling that the workshop was well run.
- ✚ A successful group dynamic and effective facilitation were identified by respondents as among some of the best things about the workshop.
- ✚ *Time*: a lack of; pressure; and mismanagement appears as the most prevalent criticism of the workshop identified by respondents.
- ✚ The majority of respondents claimed to be either *very* (n=8) or *fairly* (n=2) satisfied with the workshop overall.
- ✚ Better time-management was advocated most frequently by respondents as an aspect of the workshop for future improvement.
- ✚ Respondents were less clear on the influence of the project on the Government's decision-making regarding science and technology, with the greatest proportion of respondents (n=5) identifying the *limited influence* of the project in such regard.
- ✚ However, the majority of respondents attached some degree of importance (very important n=2; important n=3; moderately important n=5) to the public being involved in helping the Government develop strategic priorities in science and technology through similar forms of participatory deliberation.
- ✚ Just over half of all respondents correlated their experience of the workshop with personal impacts of: being *more convinced of the value of public participation in such matters* and as being *more likely to get involved in similar events in the future*.

Question 1: *Was it clear from the information you were sent before the workshop what it would be about?*

Yes	n=9
No	n=3
Unsure	-

Question 2: *Was it clear to you from the information you were sent prior to the workshop why you were invited?*

Yes	n=6
No	n=5
Unsure	n=1

Question 3: *Were the aims of the workshop, and the whole process of which the workshop is a part of, clearly explained from the outset?*

Yes	n=12
No	-
Unsure	-

Question 4: *Do you think the public participants involved were appropriate for the workshop?*

Yes	n=11
No	-
Unsure	n=1

Question 5: *Who do you think was missing from the event, if anyone? (All answers verbatim)*

No one (x2)

No one really – good range of people

I don't think so

N/A(x3)

Maybe teachers or people who work with children

Question 6: *During the workshop, did you have the opportunity to have your say?*

I said all I wanted to say	n=8
I said most of what I want to say	n=2
I was only able to say a little of what I wanted to say	n=2
I didn't get a chance to say anything	-

Question 7: *Was there sufficient time in the workshop to discuss all that needed to be covered?*

Yes	n=5
No	n=7
Unsure	-

Question 8: *Do you think there were any important issues that were NOT discussed in the workshop, but which should have been? What were these?*

Yes	n=1
No	n=7
Non complete	n=4

Question 9: *Did you learn anything new from the workshop?*

I learnt a lot of new things: <ul style="list-style-type: none"> How to share space wisely: opposing opinions do not necessarily lead to conflict (good facilitation) Other people's views and opinions Other people's priorities and opinions Politics. Government are not regulating half the things I thought 	n=5
I learnt a few new things: <ul style="list-style-type: none"> How things can be lost in discussion It would be important for the public to hold more of these workshops More general information as science as a whole 	n=5
I'm not sure I learnt anything new	n=2
No I didn't learn anything new	n=2

Question 10: *Did taking part in the workshop change your views on the issues in any way?*

Yes, I changed my views a lot	n=2
Yes, I changed my views a bit	n=2
I'm not sure whether I changed my views or not	n=5
No, I did not change my views in any way	n=3

Question 11: *What information (from speakers, from written material, from other participants etc.) made the greatest impression on your views? (All answers verbatim)*

My team
That we were asked to explain what the government should do, as opposed to what we think they WOULD do
Really intelligent participants made it really enjoyable
All [material] very good

Question 12: *Do you think final summing-up accurately reflected what was discussed at the workshop?*

Yes	n=9
No	n=2
Unsure	n=1
There was no summing up	-

Question 13: *Overall, do you think the workshop was well run?*

Yes	n=11
No	-
Unsure	n=1

Commentary

But need to time-manage more efficiently

Very well facilitated to support and manage lively discussion

Question 14: *Overall, what was the best thing about the workshop?*

Discussion

The debate and discussion

The pair/trio working

The other group members were really nice and friendly and opinionated

The whole thing

Nice people – well informed

It was very interesting to see the subjects being discussed

Meeting like-minded people and listening to their views

Being able to have your say

The discussion facilitated by the leader, Lauren. She is very good at asking questions that draws important information.

Lauren, our group leader and hearing the opinions of our group

Stimulating ideas and conversation among participants

Question 15: *Overall, what was the worst thing about the workshop?*

Time

Length of time

No breakfast

The length of time in individual sessions

Nothing

Challenging opinions that were very different from my personal view (a good thing really!)

Too many issues

N/A

Some of the members of the public

A 9.45 start!

Non-complete (n=2)

Question 16: *How satisfied were you with the workshop overall?*

Very satisfied	n=8
Fairly satisfied	n=2
Neither satisfied or dissatisfied	n=2
Not very satisfied	-
Not at all satisfied	-
Unsure	-

Question 17: *How do you think an event like this could be improved upon in the future?*

More discussion

Smaller groups. More in-depth discussion

Shorter session

Handouts

The day was very long so maybe it could be done in two parts

Not sure if it can

More days/time

More time for discussion

Time management

Perhaps a little more time

Question 18: *What influence, if any, do you think this project will have on the Government's decision-making regarding science and technology priorities?*

Considerable influence	n=2
Some influence	n=3
Limited influence	n=5
No influence	n=1
Unsure	n=1

Commentary

Don't think we are listened to

Government doesn't tend to have the publics' best view at heart

I'm not sure if it will have an actual effect

Research is important but there are other factors such as economics that can be more influential in decision-making

They don't listen . . . ever

I feel the government will only hear what they want

It will be difficult to recognised the influence

Question 19: *How important do you think it is that the public are involved in helping the Government develop strategic priorities in science and technology through events like these?*

Very important	n=2
Important	n=3
Moderately important	n=5
Of little importance	n=1
Not important	n=1
Unsure	-

Commentary

For our public safety

Everything that affects my life should be something I am consulted on

The Government should reflect the people

The communication between Government and public should always be improved

We pay tax

Takes the public involved and increases awareness

Our views are sensible and need to be heard

I really welcome involvement at this level

These workshops need to be more thorough

Question 20: *Has your experience of taking part in the project, resulted in any of the following impacts on you personally? (Put a cross in as many boxes as are relevant to you, or leave all the boxes blank)*

I am more convinced of the value of public participation in such matters	n=7
I am more likely to get involved in events like this in future	n=6
I am more likely to get involved in discussion of other science-related issues	n=2
I am more likely to get involved in discussions of policy-related issues	n=3
I am more likely to recommend participation of this kind to others	n=5

b. Manchester

Questionnaire Findings: *All participants completed the questionnaire returning fifteen completed questionnaires. [n= number of respondents selecting answer]*

1. Headline Summary

- ✎ The majority of respondents (n=12) were, as a result of information preceding the workshop, clear to what it would be about.
- ✎ The majority of respondents (n=12) were also clear as to why they had been invited to the workshop.

- ↪ All but one respondent confirmed that the aims of the workshop and the whole process of which the workshop was a part of, were clearly explained from the outset.
- ↪ All respondents felt that the public participants involved in the workshop had been appropriate.
- ↪ A large number of respondents either did not complete (n=7) or stated that no one was missing from the event (n=7). Only one respondent recommended the inclusion of a specific group: *a Government official*.
- ↪ All respondents, bar one, stated having had an opportunity (*all* n=11, *most* n=3) to have their say. This question featured one non complete.
- ↪ The vast majority of respondents (n=13) claimed that there was *sufficient* time in the workshop to discuss all that needed to be covered.
- ↪ Seven participants stated that there were no issues not discussed in the workshop, but which should have been. This question also generated a high number of 'non completes' (n=8).
- ↪ The majority of respondents stated experiencing some measure of learning as a consequence of the workshop (*a lot of new things* n=8; *a few new things* n=3).
- ↪ A large number of respondents stated the workshop had caused to change their views on the issues: *a lot* (n=1) and *a bit* (n=9).
- ↪ As in the previous workshop in London, Manchester respondents identified interactions with co-participants and the dialogue process itself as an influential source of information shaping their views.
- ↪ The majority of respondents (n=13) stated that final summing-up accurately reflected what was discussed at the workshop.
- ↪ Respondents were unanimous in stating that the workshop was well run.
- ↪ Respondents frequently identified an opportunity for open dialogue as one of the best things about the workshop.
- ↪ A few respondents criticised the workshop for being too long. However six respondents claimed that there were no negative aspects to the workshop. A further three respondents did not complete.
- ↪ The majority of respondents claimed to be either *very* (n=11) or *fairly* (n=3) satisfied with the workshop overall.
- ↪ Better time-management and a shorter workshop were the two recommendations made by respondents as an aspect of the workshop for future improvement. However four respondents claimed that there was nothing they would change for future purposes, while six respondents did not complete the question.
- ↪ Respondents were divided in terms of what they identified as the influence of the project on the Government's decision-making regarding science and technology, with the majority of respondents attributing *some* (n=5) or *limited* (n=4) influence. Two respondents however stated believing that the project would have no influence on Government decision-making.
- ↪ However, the majority of respondents attached some degree of importance (*very important* n=11; *important* n=3) to the public being involved in helping the Government develop strategic priorities in science and technology through similar forms of participatory deliberation.

- ✎ A large number of respondents correlated their experience of the workshop with personal impacts of: being *more convinced of the value of public participation in such matters* (n=9) and as being *more likely to get involved in similar events in the future* (n=10).

2. Results

Question 1: *Was it clear from the information you were sent before the workshop what it would be about?*

Yes	n=12
No	n=2
Unsure	n=1

Question 2: *Was it clear to you from the information you were sent prior to the workshop why you were invited?*

Yes	n=12
No	n=2
Unsure	n=1

Question 3: *Were the aims of the workshop, and the whole process of which the workshop is a part of, clearly explained from the outset?*

Yes	n=14
No	n=1
Unsure	-

Question 4: *Do you think the public participants involved were appropriate for the workshop?*

Yes	n=15
No	-
Unsure	-

Question 5: *Who do you think was missing from the event, if anyone?* (All answers verbatim)

No one (x3)

No one we had a good mix

N/A (x3)

Government official

Question 6: *During the workshop, did you have the opportunity to have your say?*

I said all I wanted to say	n=11
I said most of what I want to say	n=3
I was only able to say a little of what I wanted to say	-

I didn't get a chance to say anything	-
---------------------------------------	---

Question 7: *Was there sufficient time in the workshop to discuss all that needed to be covered?*

Yes	n=13
No	n=1
Unsure	-

Question 8: *Do you think there were any important issues that were NOT discussed in the workshop, but which should have been? What were these?*

Yes	-
No <ul style="list-style-type: none"> There was a wide range of subjects and everything was covered 	n=7
Non complete	n=8

Question 9: *Did you learn anything new from the workshop?*

I learnt a lot of new things: <ul style="list-style-type: none"> Views around policy and healthcare Greater understanding of how science impacts on everyday life Different technology that is out there and what it can do. Other interesting points of view Social understanding Views of younger persons It made me more aware of the subjects About how much technology I use everyday How much science affects our lives 	n=8
I learnt a few new things: <ul style="list-style-type: none"> Where science is used and how often 3D printing 	n=3
I'm not sure I learnt anything new	n=3
No I didn't learn anything new	-

Question 10: *Did taking part in the workshop change your views on the issues in any way?*

Yes, I changed my views a lot	n=1
Yes, I changed my views a bit	n=9
I'm not sure whether I changed my views or not	n=3

No, I did not change my views in any way

n=2

Question 11: *What information (from speakers, from written material, from other participants etc.) made the greatest impression on your views?* (All answers verbatim)

The visual information and discussion

Speakers were informative but views of others were interesting

Frank discussions

Distrust of the Government

The wide knowledge the public have that I have probably taken for granted

Explanation of issues I was unsure of

Getting other people's viewpoint and reasons why

How the things in our lives are affected and what we as the public can do about that

Question 12: *Do you think final summing-up accurately reflected what was discussed at the workshop?*

Yes

n=13

No

-

Unsure

n=2

There was no summing up

-

Question 13: *Overall, do you think the workshop was well run?*

Yes

n=15

No

-

Unsure

-

Commentary

A lot of time given for people to air their views

Excellent

Discussion leaders were easy, approachable and understanding of our views

Well presented, relaxed

Question 14: *Overall, what was the best thing about the workshop?*

Interacting with others regarding issues and feeling that your opinion matters

Not boring

Relaxed, friendly people – easy to talk to

Sharing ideas, listening to other people's ideas and thoughts

You were kept interested and involved at all times

Working with different members of the public and realising what science and technology we use in day to day life

Hearing different viewpoints and discussing them

Open opinions/chance to discuss views/opinions openly

Hearing other people's views

The interaction between people

Speaker- knew a lot about this field

The information was thorough and the speakers listened and gave good feedback

Group involvement

Question 15: *Overall, what was the worst thing about the workshop?*

Perhaps too long

Quite heavy going all day – limited coffee breaks. Lunch was late and not suited to everyone's tastes

Too long

Lack of time to discuss certain issues

Being on a Saturday

Maybe slightly long towards the end

Nothing x3

N/A x3

Question 16: *How satisfied were you with the workshop overall?*

Very satisfied	n=11
Fairly satisfied	n=3
Neither satisfied or dissatisfied	-
Not very satisfied	-
Not at all satisfied	-
Unsure	-

Question 17: *How do you think an event like this could be improved upon in the future?*

More coffee breaks – heavy going sessions

Make it about an hour shorter

More time

It was well run and I don't think it needs improving

It's okay as it is

Shorter breaks

N/A x2

Question 18: *What influence, if any, do you think this project will have on the Government's decision-making regarding science and technology priorities?*

Considerable influence	n=2
Some influence	n=5
Limited influence	n=4
No influence	n=2
Unsure	n=2

Commentary

I don't think the government listen to the general public

Cynical as to how much the opinions expressed will shape the way government choose to prioritise their spend in the next 15 years

Information around public opinion is important

I'm unsure until receiving summary

I think the Government have their own ideas about things and that decisions have already been made. I think asking the public's opinion just ticks a box.

Very sceptical as to how much notice the Government actually takes. Hope that I am wrong . . . ?

I would like to think that it would have influence but have a very low regard of the current Government and their ability to listen to the general public.

Too many doors to get through

Governments do not listen

I hope there will be influence – the end summing-up was reassuring

Question 19: *How important do you think it is that the public are involved in helping the Government develop strategic priorities in science and technology through events like these?*

Very important	n=11
Important	n=3
Moderately important	n=1
Of little importance	-
Not important	-
Unsure	-

Commentary

Science and technology is such a big part of our lives – it has an impact on everybody. It is important that the public are involved in developments as it affects everybody.

The public and future generations are of utmost importance to the future developments in science and technology.

Too much happens without any understanding

Would like to have meaningful say about issues

Because, we, the public, pay their salaries

The Government needs to know the public's views in order to act upon them

Need to change ways the Government run

The public have life experience and would very much like to be involved and are concerned on how things are run

Question 20: *Has your experience of taking part in the project, resulted in any of the following impacts on you personally? (Put a cross in as many boxes as are relevant to you, or leave all the boxes blank)*

I am more convinced of the value of public participation in such matters	n=9
I am more likely to get involved in events like this in future	n=10
I am more likely to get involved in discussion of other science-related issues	n=6
I am more likely to get involved in discussions of policy-related issues	n=4
I am more likely to recommend participation of this kind to others	n=6

c. Cambridge Workshop 18.05.2013

Questionnaire Findings: All participants completed the questionnaire returning fifteen completed questionnaires.

[n= number of respondents selecting answer]

1. Headline Summary

- ↪ The majority of respondents (n=10) were, as a result of information preceding the workshop, clear to what it would be about.
- ↪ The vast majority of respondents (n=14) were also clear as to why they had been invited to the workshop – only one respondent claiming not to be.
- ↪ The vast majority of respondents (n=13) stated that the aims of the workshop and the whole process of which the workshop was a part of, were clearly explained from the outset.
- ↪ There was complete agreement among respondents that the public participants involved in the workshop had been appropriate.
- ↪ Compared to the previous workshops in London and Manchester, respondents provided a greater number of suggestions in terms of who might have been missing from the workshop, which included: an older and broader demographic, a scientific expert and . . . the Prime Minister!
- ↪ All respondents, stated having had an opportunity to say (*all* n=10, *most* n=5 of) what they wanted to say.
- ↪ A small majority of respondents (n=9) stated that there was *sufficient* time in the workshop to discuss all that needed to be covered. Three respondents claimed there was *insufficient* time to discuss all that needed to be covered.
- ↪ Just over half of those respondents (n=6) who responded to being asked whether they felt there were issues not discussed in the workshop, but which should have been (n=4 non completes), provided thematic suggestions which included: ethics, drug use and regulation, and the role of the EU.
- ↪ All but one respondent stated experiencing some measure of learning as a consequence of the workshop (*a lot of new things* n=9; *a few new things* n=5). Learning ranged from new scientific knowledge to improved understanding of policy and regulatory process and the diversity of public opinion.
- ↪ A large number of respondents stated the workshop had caused to change their views on the issues: *a lot* (n=2) and *a bit* (n=8).
- ↪ As in the previous workshops in London and Manchester respondents identified interactions with co-participants and the dialogue process itself as an influential source of information shaping their views.
- ↪ The majority of respondents (n=13) stated that final summing-up accurately reflected what was discussed at the workshop.
- ↪ Respondents were unanimous in stating that the workshop was well run.

- ↳ Respondents frequently identified an opportunity for open, equitable and well organised dialogue as one of the best things about the workshop.
- ↳ A lack of time and intensity, in terms of workload, of the dialogue and an issue of contextualization and clarity were deemed to be some of the worst aspects of the workshop.
- ↳ The majority of respondents claimed to be either *very* (n=8) or *fairly* (n=7) satisfied with the workshop overall.
- ↳ A shortened topic load and thereby workshop; a greater spread of interactive elements; and a broadened participant demographic were among the recommendations made by respondents as aspects of the workshop for future improvement.
- ↳ A small majority of respondents (n=9) felt that the influence of the project on the Government's decision-making regarding science and technology would be limited. A lot of cynicism in such context was evidenced within respondents' additional commentary.
- ↳ However, the majority of respondents attached some degree of importance (*very important* n=8; *important* n=4) to the public being involved in helping the Government develop strategic priorities in science and technology through similar forms of participatory deliberation.
- ↳ A large number of respondents correlated their experience of the workshop with personal impacts of being *more likely to get involved in similar events in the future* (n=10). Just less than half of respondents (n=7) however claimed being *more convinced of the value of public participation in such matters* as a consequence of the workshop experience.

2. Results

Question 1: *Was it clear from the information you were sent before the workshop what it would be about?*

Yes	n=10
No	n=1
Unsure	n=4

Question 2: *Was it clear to you from the information you were sent prior to the workshop why you were invited?*

Yes	n=14
No	n=1
Unsure	-

Question 3: *Were the aims of the workshop, and the whole process of which the workshop is a part of, clearly explained from the outset?*

Yes	n=13
No	n=1
Unsure	n=1

Question 4: *Do you think the public participants involved were appropriate for the workshop?*

Yes	n=15
No	-
Unsure	-

Question 5: *Who do you think was missing from the event, if anyone?*

Older persons – over 65s might have different opinion of science and technology

Older people

No one in particular – was a good variety of public here

Perhaps a broader demographic. Everyone was pretty liberal

Homeless people

N/A

Right balance

Male and female over 50?

Perhaps people who had different ideas about the importance of science in society – some opposition

David Cameron

Expert opinion to clarify speculation from general public

Non complete (n=4)

Question 6: *During the workshop, did you have the opportunity to have your say?*

I said all I wanted to say	n=10
I said most of what I want to say	n=5
I was only able to say a little of what I wanted to say	-
I didn't get a chance to say anything	-
Non complete	-

Question 7: *Was there sufficient time in the workshop to discuss all that needed to be covered?*

Yes	n=9
No	n=3
Unsure	n=3
Non complete	n=1

Question 8: *Do you think there were any important issues that were NOT discussed in the workshop, but which should have been? What were these?*

Yes	n=6
<ul style="list-style-type: none"> Perhaps more emphasis on ethics is required in some issues. Asking people to forget their moral compass can be difficult Pharmaceutical industry and its corruption i.e some substances are illegal in order for pharmaceutical manufacturers to make more money Drug use Government's input on public safety with regards to food, chemicals released EU and its role Animal and nature conservation 	
No	n=5
Non complete	n=4

Question 9: *Did you learn anything new from the workshop?*

I learnt a lot of new things:	n=9
<ul style="list-style-type: none"> Nanoparticles; semi-permeable membrane 3D printers do exist. Science and its effects on all of life. Major issues governments need to affect Stuff about how Government is carried out and how policy is prioritised Better knowledge of connection between science and tech All the issues the Government need to address Specific features about environmental issues and technological advances e.g 3D printers I learnt how science really does impact my day to day life Nanoparticles and nanotechnology, fracking Different people's opinions on various issues. 3D printing 	
I learnt a few new things:	n=5
<ul style="list-style-type: none"> Statistics on global warming Innovation People do want to have their say on issues, yet can disagree wildly The Queen 'owns Antarctica'! 	

I'm not sure I learnt anything new	n=1
No I didn't learn anything new	-
Non complete	-

Question 10: *Did taking part in the workshop change your views on the issues in any way?*

Yes, I changed my views a lot	n=2
Yes, I changed my views a bit	n=8
I'm not sure whether I changed my views or not	n=3
No, I did not change my views in any way	n=2

Question 11: *What information (from speakers, from written material, from other participants etc.) made the greatest impression on your views?*

Speakers were very vocal and made it clear

The stimulation of innovation from a young age through education

Other participants

Proven information

Seeing what members of the public would categorise as more or less important compared to how I would

Realising that a lot of what's on people's minds simply isn't on the agenda

The fact sheets were concise but informative

New developments/what's changing and why it needs to

The different opinions and values from the participants

I am now aware of the actions taken to tackle things like natural disasters

I think the speakers were informative, unbiased and kept a good balance

Others participants' views

Question 12: *Do you think final summing-up accurately reflected what was discussed at the workshop?*

Yes	n=13
No	-
Unsure	n=2
There was no summing up	-

Commentary:

Really brief could have spent more time on this

Different groups meant the outcomes were somewhat divergent

It was hard for everyone to agree so lots of compromise – sometimes didn't reflect correctly

Maybe a little short of time at the end – but a permanent record exists thanks to photos and written record

Question 13: Overall, do you think the workshop was well run?

Yes	n=15
No	-
Unsure	-

Commentary:

Good people

Staff were friendly and encouraged debate

Speakers made it easy and clear to perform discussions

Question 14: Overall, what was the best thing about the workshop?

Knowledge on government issues

To meet people with similar views

Meeting people with differing views

Giving an opinion, being listened to . . . coffee!

Exchange of views

Getting an overview of various areas in the subject field from other people in my area

People who ran it spoke well and knew what they were talking about. Got to give your own views on aspects

£65, meeting cool people and being asked to be involved in something so important

Most of the information discussed and shown was important to our life and making the world a better place to be

Learning what government issues are and possible new developments in technologies

Enjoyable and informative. Able to have my say on issues

Sarah was very clear, funny and provoked our views

Everyone's input was well considered and accepted and we were all included in discussion

Well organised, good flow – breaks well timed

Interaction with other people and hearing their views – was important to them

Question 15: Overall, what was the worst thing about the workshop?

Idea that really the answers were expected to reinforce salient idea, rather than genuinely change thinking

Some aspects that you don't know or have interest about could seem overwhelming

Out of context comments which were a waste of time

Lack of expertise

Public speaking

Not enough time to pursue different ideas

I felt a lot of the workshop was based on knowledge of the subject which I didn't have. I wasn't really aware it would be so intense.

Some things we were asked to vote on were unclear

Unsure

Not enough time to go into detail on everything – maybe less issues/more time per issue

N/A x3

Non complete (n=2)

Question 16: *How satisfied were you with the workshop overall?*

Very satisfied	n=8
Fairly satisfied	n=7
Neither satisfied or dissatisfied	-
Not very satisfied	-
Not at all satisfied	-
Unsure	-
Non complete	-

Question 17: *How do you think an event like this could be improved upon in the future?*

Population ideas/input paramount

Better food spread – although it was still nice

Maybe not such a long day. Maybe condenses into a shorter day

Perhaps, a larger intro

Broader demographic

More time to discuss in-depth

Less topics to discuss at one time

More interactive activities maybe

Less breaks

Less sitting down, smaller groups, being outdoors a little

Shorter!

Beanbags, a bar, hugs, shorter, more cash!

Non complete (n=3)

Question 18: *What influence, if any, do you think this project will have on the Government's decision-making regarding science and technology priorities?*

Considerable influence	n=1
Some influence	n=5
Limited influence	n=9
No influence	-
Unsure	-

Commentary

It depends on how it is conveyed to the Government and the right people

There is so much information to pass through with varying response from participants. I sometimes believe politicians do whatever they want instead of listening to the public – political distrust.

Seems to have agreed on the most important issues affecting the population.

I think the 'powers that be' already know exactly what to do, but they have to do these exercises reluctantly (I hope I am wrong).

Focus groups tend to gain limited insight.

Does the government really listen to public opinion?!

Purpose? Just to back up opinions of experts.

I think it's hard to tell. I hope our views are taken forth.

It's all well and good giving opinions but as I said during the discussion, the Government is a front and the public believe what they are told on the news and through the media, so 'the man' has the last say. Public opinion is meaningless in this day and age – especially young people's.

*I don't think the Government will take into account a small group of the public's views – larger yes.
Sceptical to whether or not this is a scheme for the Government to appear like they're listening when they're actually not.
Not sure our views will affect anything in the long run*

Question 19: *How important do you think it is that the public are involved in helping the Government develop strategic priorities in science and technology through events like these?*

Very important	n=8
Important	n=4
Moderately important	n=2
Of little importance	n=1
Not important	-
Unsure	-

Commentary

We need to have a say

To help move forward in developments and strategy in overall Government strategy

The public should have a say in almost all things that will affect us

To feel part of the decision-making process

We the people, elected the Government to represent our views

Iraq war, banking crisis, faith in democracy and what democracy may entail when fully fledged

I believe some strategies should be discussed with the public – e.g localised energy supplies

It is important, however sometimes the public can hinder radical changes

By raising awareness

It's our views that should count

When I see the changes discussed I will happily change my opinion in a positive way

Most people (maybe even me) don't know enough to positively contribute

Question 20: *Has your experience of taking part in the project, resulted in any of the following impacts on you personally? (Put a cross in as many boxes as are relevant to you, or leave all the boxes blank)*

I am more convinced of the value of public participation in such matters	n=7
I am more likely to get involved in events like this in future	n=11
I am more likely to get involved in discussion of other science-related issues	n=6
I am more likely to get involved in discussions of policy-related issues	n=8
I am more likely to recommend participation of this kind to others	n=8

d. London Workshop (Reconvened) 25.05.2013

Questionnaire Findings: *All participants returned questionnaires. Eleven questionnaires were completed and returned by participants. 4 participants were drawn from the previous London workshop; 7 participants were drawn from Cambridge. For what we interpret as a geographical reason, no participants from the Manchester were invited to the reconvened London workshop.*

[n= number of respondents selecting answer]

1. Headline Summary

- ↪ All respondents stated that the aims of the workshop: how it linked with the previous workshop and overall aims of the project, were clearly explained from the start.
- ↪ The majority of respondents stating having had an opportunity (*most n=8; all n=3*) to have their say..
- ↪ Respondents were slightly unclear as to whether there had been sufficient time in the workshop to discuss all that needed to be covered: three respondents stating there had been insufficient time; three other respondents stating being unsure. Five respondents however stated that there had been sufficient time to discuss all that needed to be covered.
- ↪ The majority of respondents (n=9) stated that all important issues were discussed in the workshop. Only two respondents made recommendations for topics which they felt had NOT been discussed (see below).
- ↪ Whilst five respondents stated having learnt a lot of new things, four respondents stated being unsure as to whether they had learnt anything new.
- ↪ Respondents habitually stated that co-participants provided an influential source of information shaping their views.
- ↪ The majority of respondents (n=9) stated that final summing-up accurately reflected what was discussed at the workshop. However two respondents stated that there was no summing up.
- ↪ All respondents stated feeling that the workshop was well run.
- ↪ An opportunity to further speak, be listened to and heard; and recap on areas where there hadn't been sufficient time in the first workshop were listed by respondents as among some of the best things about the workshop.
- ↪ A lack of time and was the most prevalent criticism of the workshop identified by respondents.
- ↪ The majority of respondents claimed to be either *very* (n=7) or *fairly* (n=4) satisfied with the workshop overall.
- ↪ A greater investment of time was advocated most frequently by respondents as an aspect of the workshop for future improvement.

- ↳ Respondents stated that the reconvened workshop provided an opportunity to meet people from other workshops and further explore other opinions. There was some sense that as a smaller cohort of participants the workshop was more focused – and friendly. This latter sentiment, however, was no doubt the consequence, as was confirmed by participants, of having already established acquaintances.
- ↳ All but one respondent stated that having a reconvened workshop drawing participants from the previous workshops in London, Manchester and Cambridge had been worthwhile.
- ↳ Respondents were largely ambivalent as to whether participation in the workshop had resulted in any change to their views and those articulated after the previous workshop.
- ↳ All those responding to question 16. stated, further to their experience of both workshops, believing that public involvement in helping the Government develop strategic priorities in science and technology (through such deliberative exercises) was to some extent important (*very important* n=8 ; *important* n=1 ; *moderately important* n=1). One respondent did not answer the question.

Question 1: *Were the aims of the workshop: how it links with the previous workshop and overall aims of the project, clearly explained from the outset?*

Yes	n=11
No	-
Unsure	-

Question 2: *During the workshop, did you have the opportunity to have your say?*

I said all I wanted to say	n=3
I said most of what I want to say	n=8
I was only able to say a little of what I wanted to say	n=
I didn't get a chance to say anything	-

Question 3: *Was there sufficient time in the workshop to discuss all that needed to be covered?*

Yes	n=5
No	n=3
Unsure	n=3

Question 4: *Do you think there were any important issues that were NOT discussed in the workshop, but which should have been? What were these?*

Yes	
<ul style="list-style-type: none"> ▪ How much weighting input to these 	n=2

<i>focus groups in the decision-making process? How much say does the public really have?</i> <ul style="list-style-type: none"> ▪ <i>What the government are 'really' up too!!</i> 	
No	n=9
Non complete	n=

Question 5: *Did you learn anything new from the workshop?*

I learnt a lot of new things: <ul style="list-style-type: none"> ▪ <i>I learnt that the government will do what they want and not what the public want</i> ▪ <i>Scientific data management</i> ▪ <i>Robots and new technology</i> ▪ <i>Awareness, difference of opinion, how people form an opinion</i> 	n=5
I learnt a few new things: <ul style="list-style-type: none"> ▪ <i>About other people's perspectives/opinions</i> 	n=1
I'm not sure I learnt anything new	n=4
No I didn't learn anything new	n=1

Question 6: *What information (from speakers, from written material, from other participants etc.) made the greatest impression on your views?* (All answers verbatim)

I think overall, everybody's input made me evaluate each topic more broadly

General consensus on important issues from others. The issues were difficult (on the sheet) because they were never an 'all good' or 'all bad'

Looking at the matrix there seemed to be a general agreement on priorities

The flip charts and previous material helped jog my memory from previous workshop

That we are all generally on the same page with what concerns us about the future

*It was finding out about what other participants' views – know how the general public think
Combined matrix from all previous workshops*

Other participants formed my views greatly as they are the ones experiencing the effect of government decisions the most.

Question 7: *Do you think final summing-up accurately reflected what was discussed at the workshop?*

Yes	n=9
No	n=
Unsure	n=
There was no summing up	n=2

Question 8: Overall, do you think the workshop was well run?

Yes	n=11
No	-
Unsure	-

Commentary

We had enough time to discuss everything equally and there was no feeling of being pressed for time

Very well run and enjoyable

Question 9: Overall, what was the best thing about the workshop?

Summary of previous discussion

Re-evaluating the previous topics and having our say once again

The chance to hear others' opinions and go over things which perhaps required more discussion

Hearing my peer's opinions and being heard. Discovering that my priorities were (in general) shared by my peers- feeling my voice was being heard

The flip-chart discussions as a large group focusing on previous groups

Like the first group, it was the opportunity to voice my opinions

Small group; feeling heard and good to hear others views – everyone seems on the same page

Have a second chance to have your say and to hear from people in another part of the UK

Seeing the people in the last session and having my say in what I forgot to say last time

Confirming what was discussed in previous workshops

Being able to express our opinions in an accepting open environment

Question 10: Overall, what was the worst thing about the workshop?

Not covering enough of each subject

Repeating a lot of what we had already mentioned in the previous workshops – how beneficial the day was

Too rushed again

The lunch was limited selection-wise

Too little time to discuss in depth

Realising that in fact it's not always possible to come to a decision

Question 11: How satisfied were you with the workshop overall?

Very satisfied	n=7
Fairly satisfied	n=4
Neither satisfied or dissatisfied	-
Not very satisfied	-
Not at all satisfied	-
Unsure	-

Question 12: *How do you think an event like this could be improved upon in the future?*

No priority matrix – I don't feel it is a significant organisation of the information gathered

Maybe only need a smaller group of people – run through your summaries from workshops and ask then does it reflect the overall thoughts of the group?

More time, better lunch, more variety – perhaps over several days

More time!!

By bringing together people from other backgrounds

More challenged views from the speaker . . . play 'devil's advocate'

A larger demographic as the majority of the participants were from Cambridge

More time over more days!

Question 13: *How did today's workshop compare to the previous workshop? (e.g development of ideas, types of conversations, organisation and facilitation etc.)*

Compared to the first, it was mostly focused on the way we discussed things not what we were discussing

Repeating conversations we had previously at last group

Overall it was good, well run

Similar but I felt it was less 'guided'

Meeting other people from other workshops

It felt like more of a revelation session

More opinions discovered from other groups

Today's workshop was more focused but I still feel some people were confused between 'informing' and 'involving' the public (But it had been well explained by the facilitators).

Felt better today – smaller more friendly group; better when people know each other – more relaxed

Smaller group- I could get my opinions across

Same kinds of thing- needs more time and less topics

Question 14: *Do you think it has been worthwhile for a selection of participants drawn from the previous workshops in London, Manchester and Cambridge to meet and be involved in a second and final workshop?*

Yes	n=10
No	-
Unsure	n=1

Commentary

So we could evaluate our ideas

Because you could get to hear from other parts of the UK

To clear up any remaining issues

Balanced group with considered opinions

New ideas and opinions heard – to feel there was an accurate summation of ideas

Because we need to compare different backgrounds to eliminate cultural bias

How much more has been added further to what was discussed at previous workshops?

Question 15: Has participation in today's workshop resulted in any change to your views, and those expressed in the previous workshop on:

a. Public consultation in matters of science and technology

Yes	n=5
No	n=5
Unsure	n=1

Commentary

I have already agreed on the idea that public consultation is important but not quite the way it should be done

Because I have heard other arguments for and against a particular issue

More issues to consider in the UK and wider world regarding food, energy

I understood more of why some subjects we shouldn't be involved in

b. Public consultation for the purpose of policy-making

Yes	n=3
No	n=5
Unsure	n=2

Commentary

Difficult to determine what the public needs to be involved in

Some issues that I had previously thought needed public consultation I have revised my thoughts on

The public should be informed on what is happening in our society

Question 16: In light of your experience of both workshops, how important do you now think it is that the public are involved in helping the Government develop strategic priorities in science and technology through events like these?

Very important	n=8
Important	n=1
Moderately important	n=1
Of little importance	-
Not important	-
Unsure	-

Commentary

People want to

Given the variation in opinions, government would do well being advised in the most useful opinions

Need to know what the public are concerned about and how our future should look. We need to feel like we have a say.

It's important for Government to know our views

People want to be heard

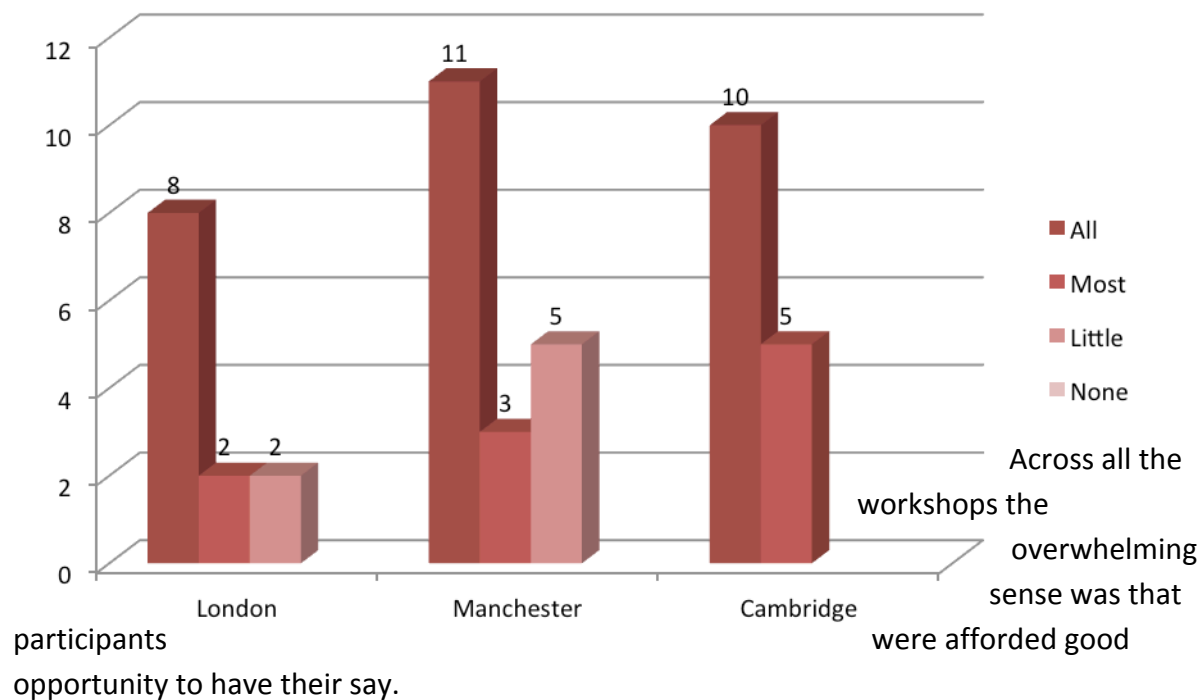
Realise how much these decisions can affect our lives

I feel the government have a responsibility to pull the nation together as a community to make us feel 'human' and not puppets/robots.

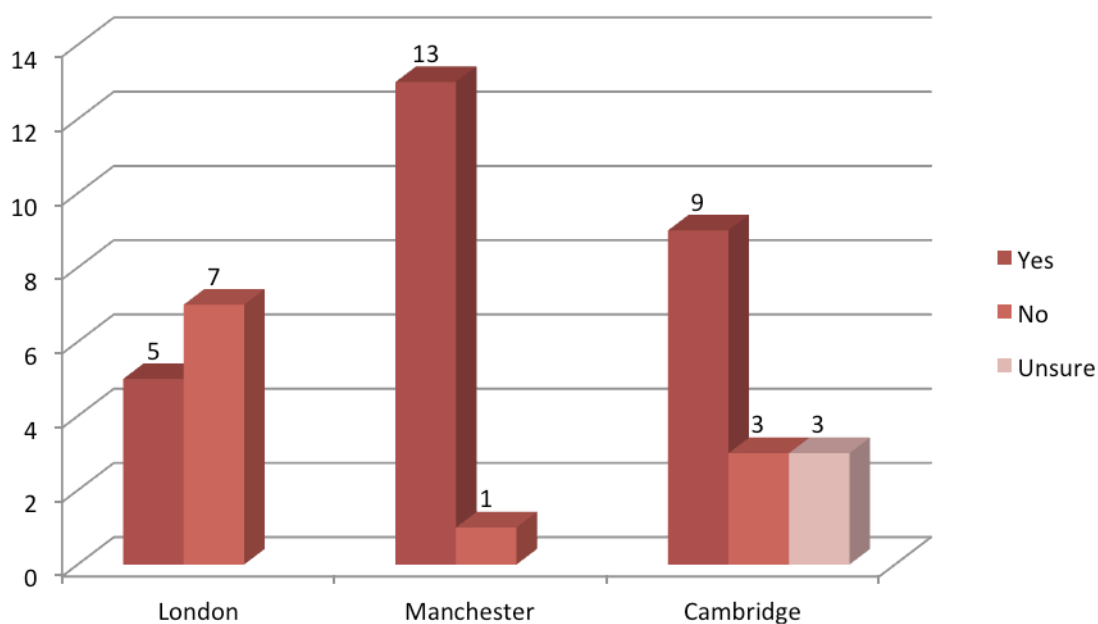
This is being democratic

e. Workshop Cross-Comparisons

i. During the workshop did, you have an opportunity to have your say?



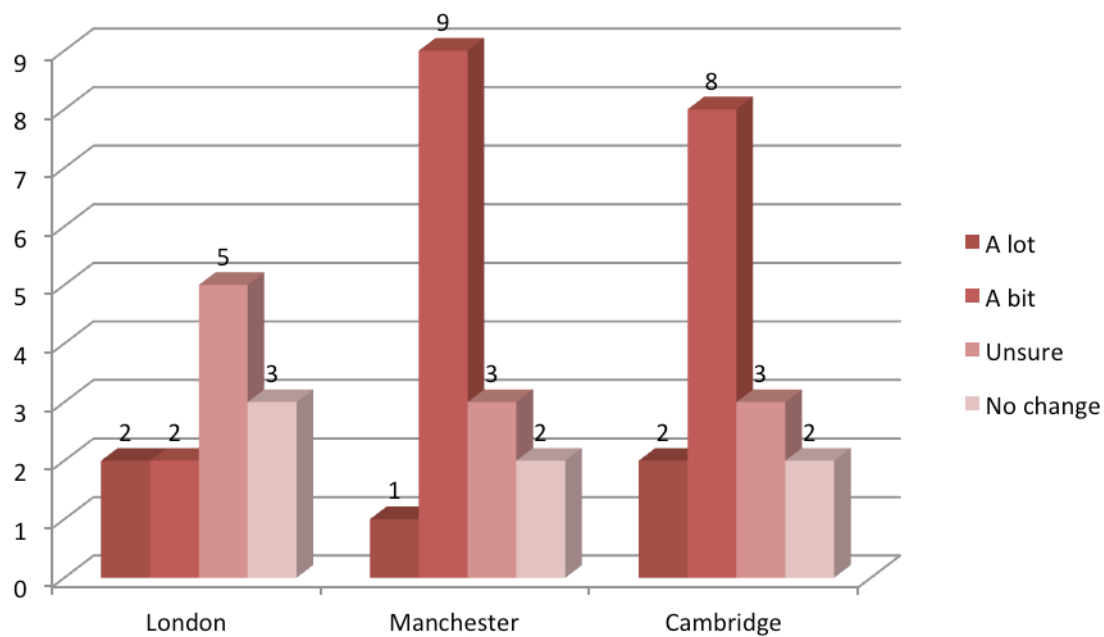
ii. Was there sufficient time in the workshop to discuss all that needed to be covered?



Whilst the vast majority of participants in Manchester felt that they had been provided sufficient time to cover all that needed to be covered, participants in London were decidedly

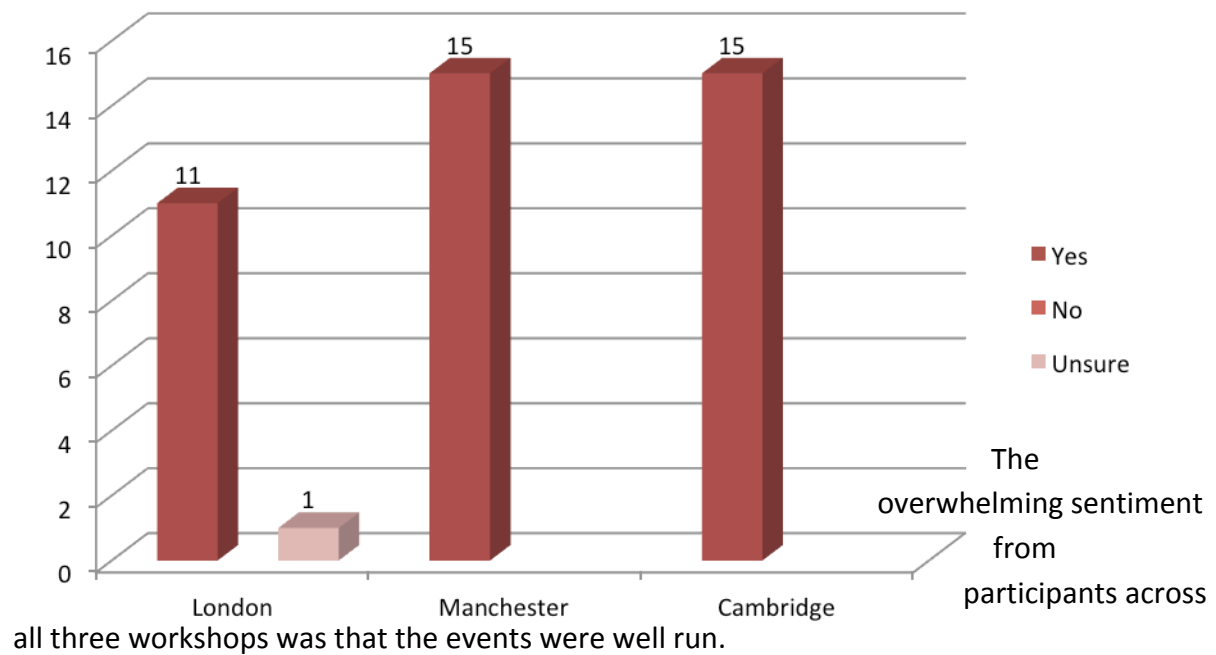
less convinced. Cambridge participants tended to more closely follow their Manchester counterparts. This may be partially explained by the refinement of the process and facilitators becoming more fluent in managing the dialogue process within a difficult time context.

iii. Did taking part in the workshop change your views on the issues in any way?

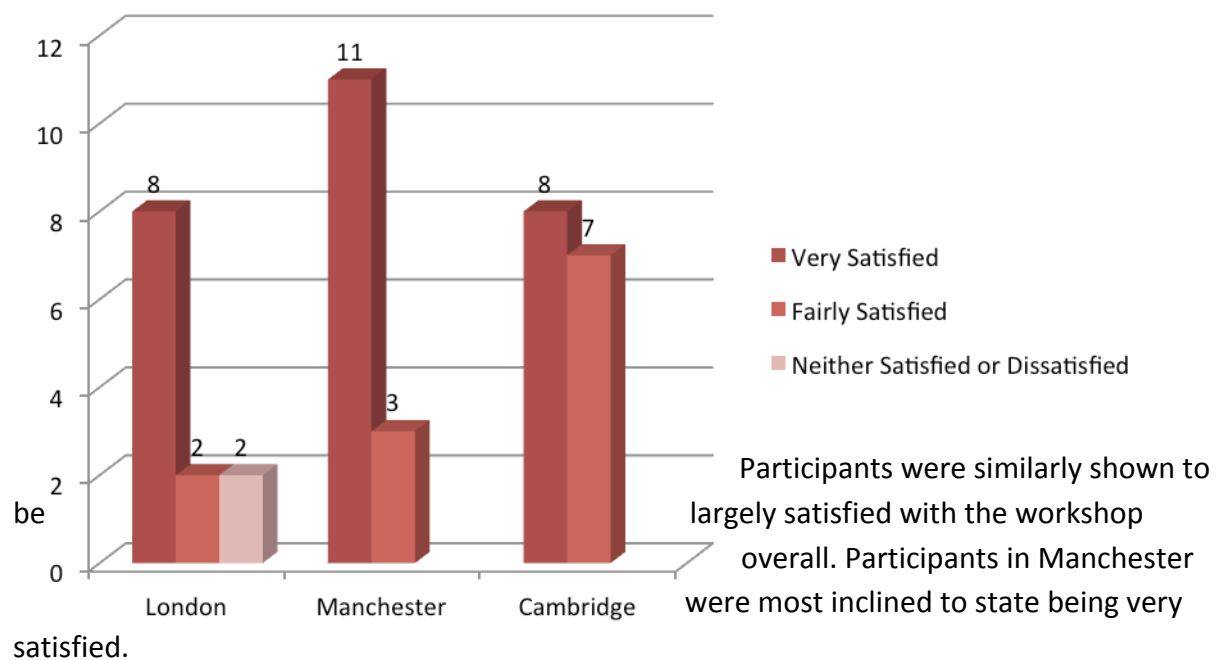


Few participants stated *a lot* of change in views as a consequence of participation across the workshops. However a comparatively large number of participants in both Manchester and Cambridge stated experiencing 'a bit'. Participants at the first London event were rather less convinced of the impact of the workshop in changing their views.

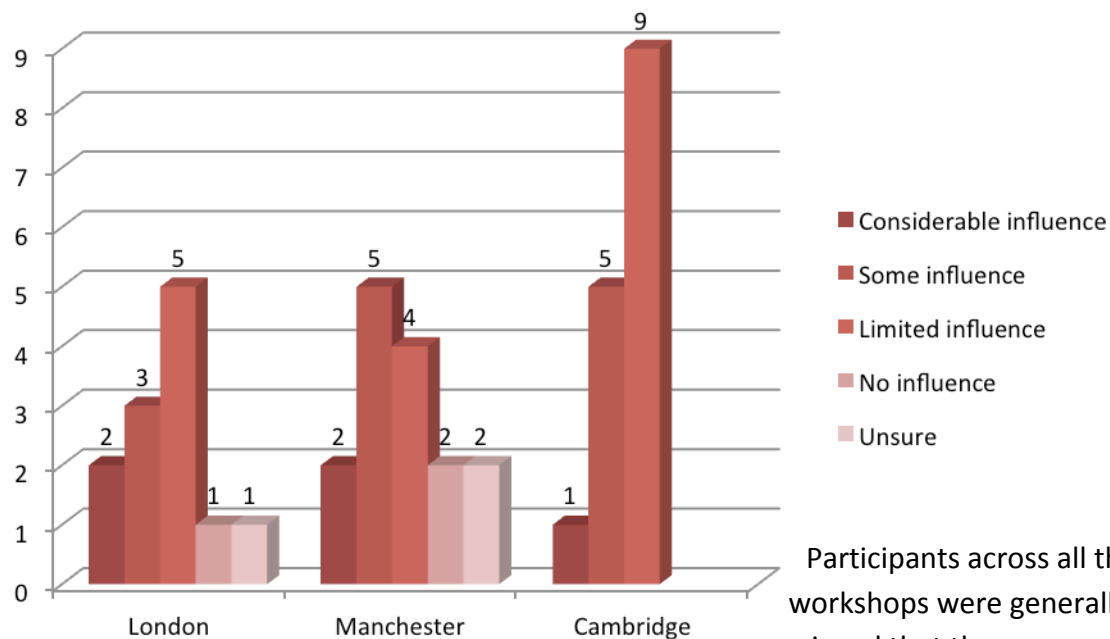
iv. Overall do you think the workshop was well run?



v. How satisfied were you with the workshop overall?



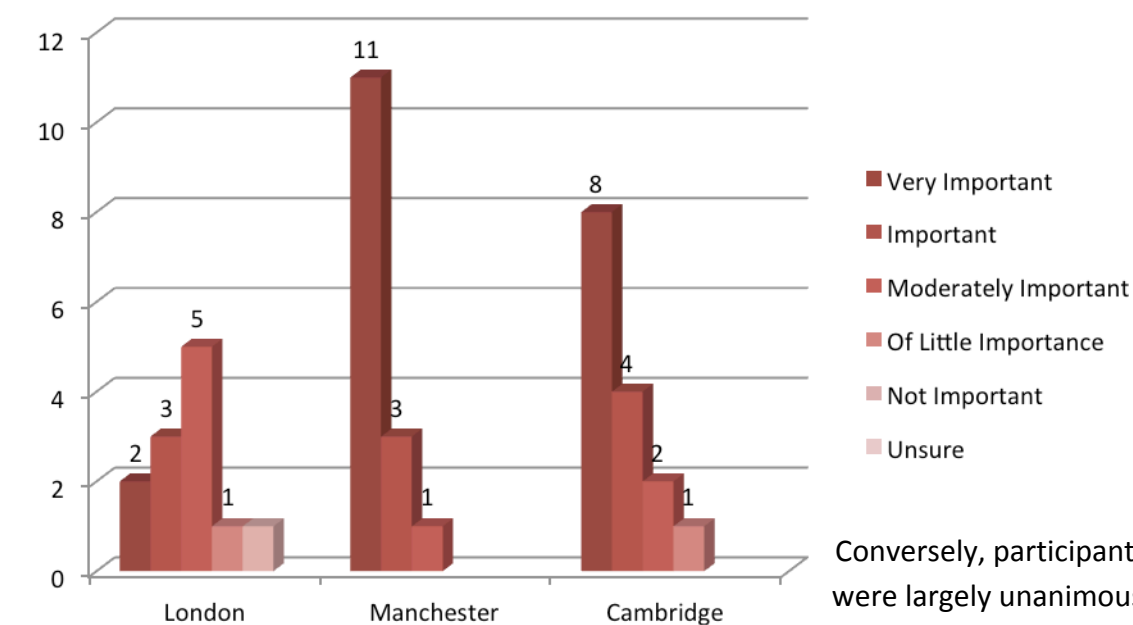
vi. What influence, if any, do you think this project will have on the Government's decision-making regarding science and technology priorities?



Participants across all three workshops were generally unconvinced that the process would

have any influence on Government decision-making. Doubt of this kind was ostensibly highest in Cambridge where a small majority of participants stated that the project would have *limited influence*.

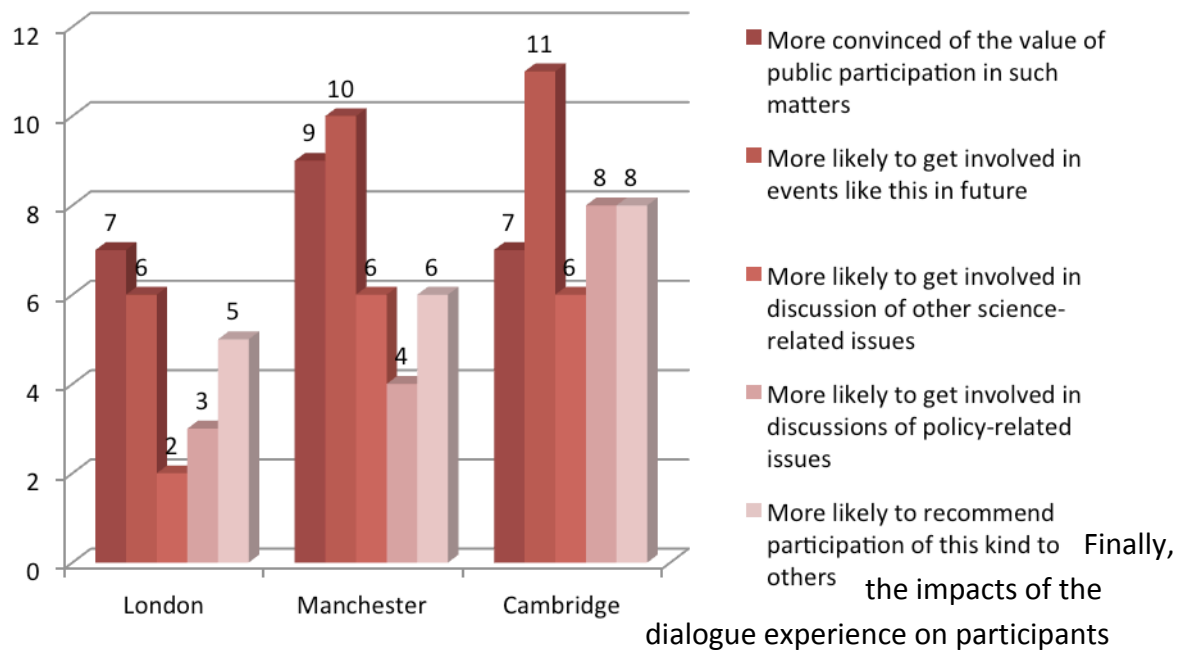
vii. How important do you think it is that the public are involved in helping the Government develop strategic priorities in science and technology through events like these?



Conversely, participants were largely unanimous the workshops in assigning some

level of important to dialogue events. This was truest in Manchester where a majority of responding participants stated that dialogue events were very important in helping the Government develop strategic priorities in science and technology.

viii. Has your experience of taking part in this project resulted in any of the following impacts on you personally?



revealed a mixed picture. Based on 42 respondents across three workshops:

55% of respondents stated that they were now more convinced of the value of public participation in such matters.

64% of respondents stated that they were now more likely to get involved in events like this in the future.

33% of respondents stated that they were now more likely to get involved in discussion of other science related issues.

36% of respondents stated that they were now more likely to get involved in discussions of policy-related issues.

And **45%** of respondents stated that they were now more likely to recommend participation of this kind to others.

3. Ethnographic Observations

The following section details our observations of all four of the dialogue workshops. In the main our observations reflect a highly successful, well organised and well facilitated process whereby the translation: multi-flow and generation of ideas was fair, neutral and equitably arranged. Sound protocol was in place for data capture through the use of multiple scribes across the workshops, pre-empting any prospect of data loss. In addition, workshops were audio-recorded.

1. London public dialogue workshop

Overview

In our observation of the first of three 'public' horizon-scanning workshops, facilitated by Ipsos Mori, we found broad evidence of an effective and rewarding dialogue process, fulfilling many of the Sciencewise good dialogue guidelines and our own meta-criterion of 'translation'. The workshop was generally skilfully managed with information and participants handled sensitively, fairly and impartially. Facilitators demonstrated a clear grasp of topic areas, as 'once-removed' experts, and consequently, fluency and poise as both disseminators and orienteers.

The breadth of topic areas covered; the volume of associated reading/informational material; and restrictions of time however enervated the potential for deep and/or more prolonged or substantive deliberation. Whilst the group successfully engaged and remained engaged throughout the workshop with the topic areas, an opportunity for deep engagement and the emergence of more profound exploratory insight was routinely hindered by an urgency to cover all bases. This is particularly striking given that much, if not all of the workshop focused on participants engaged in imagining future priorities.

Nevertheless a good mix of engagement activities, which included at the very end a line-up of thematic priorities, ensured that participants remained enthusiastic and energized throughout, - a particular achievement given the considerable time commitment. We ought also in this regard, attribute much of the success of the workshop to the application, energy and creativity of the participants themselves to the challenge at task, which was uniformly and consistently high.

Summary Points

1.1 The workshop was held at the offices of Ipsos Mori in Southwark and ran for a duration of 6 hours (10-16.00hrs). The workshop was attended by 12 public participants, of mixed sex, age and ethnic profiling. The workshop was also attended by two members of the Sciencewise team: Programme Manager of Sciencewise and the appointed Sciencewise Dialogue and Engagement Specialist (DES), two external observers from the BBSRC and DECC and the evaluator. The Ipsos Mori team consisted of two principal facilitators and two note-takers, though one of these left at the lunch interval as a consequence of ill-health.

1.2 The plenary location was airy, light and spacious and appeared optimally arranged for interactive group-work: allowing for freedom of movement, engagement and collaboration without personal encroachment – yet similarly without compromising the kinds of proximity integral to establishing a successful group dynamic and audibility.

1.3 Participants coalesced around a central console of three tables upon which were a number of informational/stimulus materials and were seated in a bloated horse-shoe towards a power-point screen and the main presenter. Members of the Sciencewise team and one external observer were seated discretely on one flank and the evaluator and another external observer seated directly behind the horse-shoe. The relative abundance of non-participating members did not seem to inhibit, imbalance or in any way adversely impact deliberative and dialogue process or cause participants to moderate or censure their behaviour as objects of exhibition or as ‘goldfish-in-a-goldfish bowl’. As will be described, careful and explicit explanation of the various roles of workshop members (participating and non-participating) by the primary facilitator, and an emphasis on observers as observing process less persons, served to effectively pre-empt and cauterize any suspicion from participants that they themselves were the foci of attention – though of course they were unavoidably and necessarily so.

1.4 The workshop began punctually with participants welcomed into the plenary room. Participants were treated to a thorough introduction to Ipsos Mori, Sciencewise, and the other non-participating observers.

1.5 A special point was made on the part of the lead facilitator in impressing upon participants: the significance of the workshop as an exercise in participatory ‘public’ deliberation; the workshop as an opportunity for participants to have their say on the issues under discussion; the value attributed to their opinions which should be articulated freely yet respectful of others, without prejudice or fear of reprisal from honest and open expression.

1.6 At an early stage, a participant asked who was commissioning the workshop. The Sciencewise Programme Manager was then invited by the lead-facilitator to provide an account of Sciencewise and reconfirm the design of the workshop as an exercise in participatory deliberation and public dialogue – with reference made to evidence of better policy making through dialogue.

1.7 A comprehensive and clear description of the various strands of workshop activity was thereafter provided by the lead-facilitator; as was evaluation and exit-poll questionnaire flagged up. Firm reference was made to the significance of getting public engagement into the early stages of the policy making process.

1.8 An ice-breaker session with participants asked to speak in pairs, and in one case a group of three, as a get-to-know, and opportunity to early identify participants’ own history of

science based experiences, then ensued. After a short 3-4 minute period, participants were invited to introduce their participants back to the whole group. This was useful and successful in establishing open exchange, good humour and a spirit of co-operation between participants. Introductions were useful not only in participants beginning to feel at ease, finding reassurance in participation but in preliminary link-work: situating the personal/scientific interface, science in the everyday and as the ordinary: 'technology is everything and everywhere'; 'my phone is my best friend'.

1.9 This series of good humoured introductions provided an early sense that this would be a co-operative, reciprocally involved, invested and enthusiastic group.

1.10 The focus of the workshop as an opportunity for public participants to have their say, as an 'authentic' exercise in participatory deliberation; and as a special investment in gauging public opinion was made explicit and reiterated throughout the workshop: an important aspect in confirming to participants the legitimacy and 'authenticity' of the process. The Sciencewise DES's framing of the workshop as one significant aspect of an overarching consultation was also significant for ascribing public contributions with the same measure of importance and influence: certainly by intimating an equal weight of authority with the preceding science-based CSaP workshop. This appears as an important intervention, seeding participants' confidence and sense of self-efficacy in adjudicating and contesting the proposals promulgated by their scientific counterparts.

1.11 Participants were then split into two smaller groups, led by the principal and co-facilitator, and were led to various 'science sections' dotted around the room, consisting of headed but otherwise blank flipchart paper, which post-it notes were used to subsequently populate – eliciting specific ideas for consideration or 'shout-outs' germinating from what in both groups were predominantly energized discussions.

1.12 Facilitators ably managed the contributions of participants, who were by and large keen to be heard and express their opinions. Some among the two groups were, as per norm, slightly more confident, persuasive, and influential in orchestrating the group dynamic and steering conclusions, than others. We noticed one particular imbalance in one of the groups caused by the over-exuberance of one member, who was reallocated by the facilitators to the other group, whose dynamic better complemented his obvious enthusiasms. It is unclear, as to whether this was a strategic move on a part of the facilitation team. Regardless, the effect was beneficial with members of the initial team finding greater fluency in voice and a stronger basis for co-operative, equitable and collaborative problem-solving.

1.13 The energy and enthusiasm of both groups appeared on occasion to make the job of facilitation difficult and concurrently compromised the proficiency of reportage – with facilitators regularly having to ask for pause and quiet. Whole group dialogue would also occasionally fragment into multiple self-contained conversations between group members.

A concern herein is the extent of information haemorrhage. Though voice-recorders accompanied discussion throughout the day, the quality of recording and range of voices captured may have been compromised by the number, volume and diffusion of conversation strands.

1.14 Facilitators were however largely successful in ‘shepherding’ participants; getting them back on topic; and in diffusing the din of crowded and tangential dialogue. A sense of self-sovereignty among break-out groups would also sporadically intensify where facilitators would leave their groups for consultation, checking timing etc. This we suspected, and was subsequently confirmed, featured as a part of the facilitation team, learning/honing their time management and using the workshop – as a pilot session.

1.15 Summing-up of each section response was effective and an important stage in verifying the accuracy of the facilitators’ reportage. Delimiting the potential for mistranslation, the facilitators were also attentive in confirming they had captured the ‘true’ sense of participants’ elicitations.

1.16 One significant issue for the facilitation team was in contending with the wealth of discussion points - the facilitator habitually notes that it is ‘very difficult not to get into deep-discussion’. There is a cognate sense therein that the level of deliberation effected in the workshop may be restricted to only surface (and potentially superficial) imaginings.

1.17 The contextual/informational basis of much of the workshop as an exercise in imaginaries may also have been not as ample or deep as might have been desired. Though the group as a whole was highly successful in projecting technoscientific futures, concentration on only a few headline priorities might have been more successful, not least in providing firmer or more substantive ideas. As it was, ideas were a little more scatter-gun if enormously varied and rich.

1.18 As a result of the sheer number of proposals on the table, consideration was both lightning and light touch. The imbalance between the volume of proposals and inadequacy of time also caused on occasion to stifle debate, with the facilitators having to interrupt momentum generated by inter-group contestation. This also caused the deliberative process to seem a little jerky and stop-start. Just as conversation started to enliven and expand it was necessarily extinguished.

1.19 The independence and/or flexibility with which participants elected choices may have also been improved or enriched where electing occurred in open and closed balloting. As it stood, where the two groups were asked to elect priorities, the manner in which decisions were made was rather forced and imbalanced, with participants clearly deferring or surrendering their own priorities for the benefit of group consensus.

1.20 Space was well used, and the airiness, brightness of the plenary room was conducive to plenary sessions. However the breakout room for the group led by the second Ipsos Mori

facilitator, was far less conducive to the in-the-round, set-up of the former. The break-out room, as base-camp for the second sub-group was also noticeably colder, an aspect vocalised by participants. The board-room style was also arguably less conducive to a creative interactions. This group however was notably successful and managed with real panache by the facilitator who performed admirably in prompting, steering and catalysing the creative and imaginative energies of the group – a comment reiterated in exit-poll data.

2. Manchester public dialogue workshop: summary observations

2.1 The event was well run, both in terms of raw organisation (event running to time, on schedule etc.) and as a deliberative event, with plenty of opportunity of the participants to actually *participate*. Due to the number of topics under discussion, the ‘informative’ aspects of the event were necessarily brief – but the materials used to introduce each ‘horizon scanning’ topic were accessible and enabled discussion.

2.2 On occasion, the participants did seem unsure about the question that they were actually being asked. For example, the discussion of energy security was (unfortunately) titled, Keeping the Lights On (as in, what are the technological and political challenges to maintaining Britain’s energy supply). This was misinterpreted by many of the participants as ‘Keeping the Lights On... wastes energy’, and so what should have been a discussion of public involvement in decision making around questions of energy supply and security became a discussion of what people could do as individuals, i.e. people should not keep the lights on in rooms that they are not using.

2.3 Perhaps springing from this particular misunderstanding, or perhaps there was a systemic misunderstanding of the notion of ‘public involvement’ – in which the participants’ imagination of the democratic process was limited to the macro (elections) and the micro (individual) action – the idea that the question under discussion was ‘what can we as individual members of the public do?’ recurred repeatedly.

2.4 The facilitators were quick to correct these misunderstandings, though they would reappear right until the final discussion.

2.5 The final exercise, in which participants were asked to locate the topics under discussion on a chart with two axes – one representing the degree to which the public should be involved, the other the degree to which government should make the topic a priority – was a good idea, but perhaps didn’t work as well as possible. The topics tended to cluster at the top right hand corner, i.e. high on both axes, which meant that the chart was perhaps not as informative an exercise as it could have been. Perhaps if the topics had been given a ranked independently for both of these axes (in other word, on each only one topic could be rated a 10, one a 9, etc.), producing a set of co-ordinates which would then produce a graphical representation of the deliberation, the distribution of topics would be more informative.

Nevertheless, the process was well run, with plenty of opportunity given for participants to debate the location of each topic (though the problem described in point 3 kept recurring).

3. Cambridge public dialogue workshop 18.05.13

Overview

The third of the public dialogue workshops was located at Homerton College, Cambridge and in a large, bright and airy room in a conference centre. All dialogue work occurred in this one room. Though something of a maze both to the conference centre from the main entrance and to the room itself, directions were clear and well sign-posted. Participants were treated upon arrival to conference centre and within its reception area to refreshments of tea/coffee/biscuits.

The workshop was facilitated by two members of the Ipsos Mori (IM) team and an IM scribe and was attended by a Sciencewise representative. Also in attendance was a doctoral student – whose thesis was a study of Sciencewise as a learning organisation.

The workshop began on time and promptly at 10am with the principal facilitator providing comprehensive and clear guidance as to the context, aims, objectives and aspirations of the workshop.

Summary points

3.1 Clear explication to the purpose/mission of the workshop; the dialogue process; the context of the workshop as part of a series of other dialogue workshops. Mention was also made of a final reconvened workshop to be held in London, drawing selected participants from across the three preceding workshop groups (London, Manchester, Cambridge). An introduction to dialogue for policy purposes and the role of Sciencewise was also provided with a short account from the attending Sciencewise representative. This consisted of a full explanation of the Sciencewise mandate and the role of the Department for Business, Innovation and Skills (BIS) as its funder. The Sciencewise representative also introduced notions of the science and society interface and made special effort in emphasising the importance and integralism of the public voice in the generation of best policy and as a component of best-practice in policy-making.

3.2 The principal facilitator then made further reference to the significance attributed to participants' dialogical contributions, and therein the diversity and plurality of these, stating:

'We want to understand the range of views'

'Your views are important and we want to hear what you're saying'

'It [the workshop findings] might influence policy'

3.3 It was confirmed that Ipsos Mori would write a final report, based on the workshop findings which would be presented to Sciencewise to use to advise government.

3.4 Participants were also at the final stage of introductions informed that the workshop would be recorded by audio, but that all dialogue contributions would be subject to anonymity. Participants were asked as a group to provide consent. There were no objections.

3.5 The introduction, confidently and effectively provided by the principal facilitator was on several occasions interrupted by the late arrival of participants, causing the facilitator to have to recap, but with little in the way of adverse effect – merely as we imagine, frustrating.

3.6 The workshop introduction was followed with the principal facilitator 'setting-the-scene', asking participants to reflect back twenty years ago – and what in science, technology and engineering terms hadn't happened: examples included: no Channel Tunnel, no Human Genome breakthrough etc. This was used as the basis for participants to think on and speculate on what the next step might be and crucially what kinds to scientific R&D government might want to prioritise. Inference was made at this point to the plethora of scientific issues warranting consideration and by way intimated the difficulty of the task set for participants.

3.7 At 10.23am participants were split into two groups. We observed some difference between the approach of the facilitators – to be entirely anticipated and largely with little impact – such as the use of introductions by one (not the other): where participants were grouped in pairs and asked to learn a little about their partner and their relationship with science in order to subsequently feed-back to the whole group: an important ice-breaking and familiarisation exercise enabling participants' confidence, sense of self-efficacy as visible (and therefore legitimate and licensed contributors) and fluency in collaborative enterprise as well as contextualizing through personal vignettes their relationship/kinds of interactions with science. The use of introductions by the one facilitator provided for more fluid and confident progression to discussion of workshop topics and whilst requiring an initial investment of time, was instrumental in bonding the breakout group as a 'team', in making participants known, fostering acquaintances and points of personal reference. By comparison the other facilitator had to invest more in enticing more quiet participants into the dialogue – though ultimately succeeded in doing so.

3.8 Where we identified minor resistance among some participants from getting involved in discussion:

'I'm part listening, part day-dreaming . . . I'll say something when I've got something to say'

We also observed gentle and positive persuasion on the part of the facilitators in encouraging participants to get more involved:

‘It’ll be great to hear from you’

3.9 What we might think of positive coercion to participate and affirmation of the participant and their views as important and valued, resulted in said individual becoming much more relaxed and confident in the process and ultimately one of the more vocal participants.

3.10 Both facilitators demonstrated commitment and success in personalizing the dialogue process for individuals, achieved in part by such simple terms, as repeatedly addressing each participant by name and drawing on participants’ own experiences or life-histories of science. The degree of personalization evidenced within the workshop, also served, we believe, to increase participants sense of proximity to the topics and degree of ownership over the process of deliberation.

3.11 Having one single room as opposed to a plenary and break-out room proved at once advantageous as well as slightly problematic. Having two separate groups in close vicinity caused a lot of noise, could cause distraction and inhibition – especially where one group was being more vocal or loud, not least with breakouts of laughter – and made it difficult on occasion (especially as an evaluator) to clearly discern what participants within a group were saying. Concurrently, by locating both groups in the same room, the workshop benefitted from a lively dynamic and energy which we would suggest motivated all parties – not least where one group suffered from dips in concentration, focus and/or energy.

3.12 Given the variety of topics under discussion a need for speed in terms of participants’ deliberation was prerequisite however not necessarily easily nor always attainable. Faced with this challenge, we believe the facilitators at this workshop were exemplary for steering participants and whilst allowing some substantive discussion around topic areas, not dwelling on these.

3.13 Whilst participants were well guided in their discussion with discussion itself constrained by the sheer number of topic areas and stricture of time, they were not overly regulated. Discussion was accordingly structured and well-signposted yet not overly proscriptive. Participants were for instance advised:

‘You don’t need to put your hand-up. Just jump in’

3.14 Good dialogue etiquette was observed across both groups and also when in plenary, with participants being patient and generally respectful of each other, even where opinion differed or clashed.

3.15 In one of the break-out groups, one participant was seemingly intentionally disruptive, frequently causing the group to veer off topic and onto more profound, esoteric discussions

which had little to do with the dialogue as a process of publics' prioritization of science/tech needs. The group however was patient with the individual, though evidently, as the workshop wore on, their frustration and dissatisfaction with his behaviour became more conspicuous. The facilitator in this instance ought also to be congratulated for skilful management of an awkward individual and in managing to keep discussion focused and on course.

3.16 Generally, speaking the workshop much like its London-based predecessor was characterised by the *honhomie* among group participants, a willingness and enthusiasm in their participation, a sense of genuine purchase on the topic under discussion, and whilst some would question the efficacy and legitimacy of the exercise as an instrument determining the policy process, felt that their involvement in the process was entirely worthwhile if not essential. The goodwill among participants was also evidence in such simple ways as the sharing by participants of a bag of sweets.

3.17 Interactions between group members as mentioned, were well-spirited and evidence a sense of participants not only engaging seriously with the topics but also enjoying themselves:

‘Can’t we just load the information straight onto our brains . . .’ (laughter)

3.18 The knowledge levels among group participants varied, but we would suggest from our observations that the majority of participants had a good grasp of most of the topics under discussion and were able to make connections to their own life-worlds and everyday experiences. Others, were more knowledgeable and therefore more forthcoming in providing questions – often rhetorical – and therefore in stimulating and energizing group discussion. The confidence of some participants also on occasion resembled ‘soap-boxing’ or a tendency to flaunt knowledge – yet this might be explained as a sign of a participant’s investment in discussion and as a condition of making links.

3.19 Evidently, much of the discussion focused on the socialisation of science, or the social contexts in which participants would interface with and understand the application of science. The method of participants’ prioritisation must be understood in this context.

3.20 Whilst on the whole, participants were well scaffolded throughout the process there were occasions where questions stimulating discussion could have been simplified or reduced from threads of questions, to one question at a time. Where lines of questions were multi-barrelled, participants seemed to struggle to appropriately respond – not knowing how to sequence their responses or remember which questions were being asked.

3.21 Participants were also on occasion unsure as to why they were addressing certain topic themes – greater explanation or reference might have been made to or reiterated throughout the workshop to the preliminary CSaP workshop and the election of science topics under discussion by scientific authorities.

3.22 At 11.45am participants were asked to vote for their top priority: science issues/societal issue by placing a green-dot next to topic areas that had been transcribed by facilitators onto flip-charts. Many participants took their time in reviewing the kinds of topics that had been articulated. Having made their choices, participants engaged others asking: 'what did you vote for'. This followed through into the break-time discussion.

3.23 After the comfort-break, previous break-out groups were mixed, with three changes in each group. We failed to observe any new introductions for the benefit of new members.

3.24 Further activities included dividing break-out groups into teams of two in pursuit of a single priority. We felt that this was successful in providing participants greater space and opportunity to deliberate and vocalize their personal beliefs without feeling compelled to conform to whole-group consensus.

3.25 The difference in the nature between the two groups became increasingly marked as the workshop progresses, with the group featuring a certain disruptive member, requiring far more interjection and facilitation. Conversely the other sub-group was far more self-managed and less requiring the intervention of the facilitator.

3.26 At 1.27pm the facilitators called for lunch. During the lunch break, lasting approximately 40 minutes, we had an opportunity to talk with three of the participants and gauge a sense of their impression of the workshop. One of the participants we spoke to was identifiable for his disruptive influence. Participants in this context were entirely open if not almost brutally honest. They reflected that the motivation for their involvement in the workshop was respectively: entirely incentivised by the financial reward; was the only way with which to influence government and contribute to decision-making processes (this individual claimed not to vote: 'not because I don't care but because I don't believe in the process'). We also gained an insight into the 'disruptiveness' of one participant who stated that he had grown sceptical as the workshop had gone on that the dialogue was a mechanism supporting evidence 'cherry-picking'; was an exercise in spray-on evidence; and that participants were being forced in their selection of topic options. The latter suggestion, we as evaluators, would entirely refute, as the exercise whilst structured within pre-established themes and subject to the constraint of time, was undoubtedly an exercise in participatory deliberation and citizens engaged in a process of democratic decision-making.

3.27 After the lunch-break, we observed a typical energy-dip among participants. This would have been a good point for a post-lunch energizer however with a running-clock and the morning session having over-run scheduling was especially tight. The afternoon session was characterised by the dialogical fatigue of participants, especially evidenced in one group, where facilitation was more necessarily constant. A post-lunch dip in energy was further compounded by what many participants referred to as the 'intensity' of the activity.

3.28 As in previous sessions, participants were asked to align their priorities: this time on a grid marked by two intersecting scales: more – less important issue; important- less important for citizens to have a voice.

3.29 The two facilitators took two different approaches to this activity: one passing over responsibility of voting to the group, the other facilitating voting and taking charge of assignment of votes. The latter approach proved more successful: if only in steering participants towards consensus.

3.30 In a final plenary session, facilitators fed back the results. One alternative way of doing this would have been to assign the role of commenting rapporteur to group members. Because the feedback was transmissional, no further discussion occurred – though as our fieldnotes reveal, the palpable relief from an exhausted cohort of participants was more than palpable.

4. London final reconvened public dialogue workshop

Overview

A final reconvened workshop was held at the Ipsos Mori offices in Borough, London. The meeting provided an important and value-added opportunity with which to: a) continue the dialogue with (selected)participants from two of the three preceding workshops (London and Cambridge); b) provide validation of results interpreted from participants’ contributions at previous meetings; c) identify other aspects of public input not identified/articulated at previous meetings; d) identify participant perceptions of the workshop experience.

Much like the previous workshops and the project as a whole, this reconvened meeting was distinguished by: the excellence of the contractor in the context of facilitation of the dialogue process – their ability to scaffold, motivate, enthuse and get the best out of participants and in their presentation of complex, and quite easily disengaging information in ways which were engaging and not inhibitive yet concurrently did not ‘dumb-down’ or reduce content to over-simplification; participants themselves as a ‘near-as-might-be’ representative sample able to effectively and efficiently respond to a high-demanding process of deliberation and prioritisation in scientific R&D/science policy – in making connections between scientific and social worlds, even where the former appeared obtuse or other-worldly; and finally the significance of these connections in prioritising science R&D and science policy on the basis of *public* less *scientific* perspectives. In the context of ‘making the connections’ and consolidating a science and/in society nexus, we commend this workshop and in turn the whole dialogue process of which it is a part. In addition we believe that there is huge value in a reconvened meeting of this sort, where as an exercise in critical self-reflection, public citizens are able to (re)consider the choices they have made and re-engage with the process that culminated in these choices. In other words, the

purpose of a reconvened meeting is in extending, enriching and fundamentally, continuing the dialogue process and thereby in recognising the vacillatory nature of public citizens' value-systems and the changing terms of reference that influence their choices.

The workshop was facilitated again by two IM facilitators, a scribe was also present, as was a Sciencewise representative. Ten public participants attended.

Summary observations

4.1 The workshop began with an excellent ice-breaking exercise where participants were asked to reflect on what interesting things had happened to them that week. One respondent stated being most surprised as to having been invited back to a second workshop and asked what the criteria had been for selection. The principal facilitator responded that the criteria was based on, 'people we thought were thinking and had their own point of view and who enjoyed speaking to one another'. Integrated into this ice-breaker, in our opinion rather seamlessly, participants were asked to reflect on their workshop experience: what they had found interesting. Participants stated:

- i. 'The most interesting thing about the workshop was the contrasting views'
- ii. 'I found people's opinions and views rather interesting'
- iii. 'Even though it was six hours, it felt like two'
- iv. 'Everyone had such strong opinions'
- v. 'Quite a lot of paranoid feeling'
- vi. 'I saw quite a lot of things on the news which made me go 'Ahhhhhhh''
- vii. 'The group made me quite stressed'
- viii. 'Seeing the same opinions'
- ix. 'Liked giving my opinion'
- x. 'I thoroughly enjoyed because I listened . . . When I went home I was looking for things'
- xi. 'Opened my eyes to a lot of things going on in the world . . . thinking more on these things'

These participant observations of the workshop process demonstrate that participants: found educative value in the diversity of opinion, yet concurrently if conversely, were impressed or surprised by the homogeneity of participants' outlook; were able thereafter to make correlations with what they had discussed in the workshop with what was going on in the world (as encountered through watching a news programme); had found the intensity of the experience demanding, if not stressful.

As evidenced in ix-xi, participants also analogized prior workshops as an opportunity with which to speak, to listen and to contribute in ways which participants found illuminating, enriching and which extended their interest.

In reference to what aspects of the workshops participants enjoyed less, only one significant concern was relayed, which referred to the difficulty encountered by participants in electing choices: ‘ . . . when we have to choose either/or, I found it really difficult’.

Throughout this reconvened workshop, participants were asked to consider themes drawn from previous workshops – evidently with different themes across all three.

Participants were asked to reflect on their prior experiences and what motivated participants’ deliberative and dialogue strategies: ‘Were people thinking about themselves first and society later?’

Participants responded:

- i. ‘I felt strongly about agriculture, others in the group were less interested’
- ii. ‘Sometimes it was a little bit of a battle – some with very strong opinions were not aware of how strong their opinions were’
- iii. ‘For me, I waited for the dominant people to finish and then I’d put my two pence in’
- iv. ‘Reassuring and uplifting when you hear someone else having this same sort of opinion.
- v. ‘I knew more about agriculture . . . my argument was different to them. I had to consider this when making decisions’
- vi. ‘No one looked at the positives’
- vii. ‘We’re spoon-fed the negatives’
- viii. ‘Whatever we decide the government has their own agenda’
- ix. ‘At least they’re actually carrying it out’
- x. ‘I think our views can influence the way things may change’

Participants were also asked to consider the overarching societal and external effects impacting on the kinds of choices individuals might make within a deliberative exercise such as the horizon-scanning project: such as the social/cultural/political/economic contexts of any period of time – economic recession; bird-flu epidemic; media portrayals.

Finally participants considered the mechanisms for dialogue and the potential for undertaking the workshop process online – this received a mixed response. Participants identified mainly limitations to exporting dialogue online:

- i. ‘Impersonal’; ‘Not substantial’; ‘People say things [online] they would never say in face-to-face settings’
- ii. And in promoting face-to-face dialogue: ‘People have enjoyed hearing other people’s views’; ‘People want to feel they are being heard’

At the end of the workshop, participants were provided a fresh account, delivered by the Sciencewise representative as to what will happen next. Reference was made to a workshop to be organized under the auspices of the Parliamentary Office of Science and Technology

(POST). Another reference was also made by the IM principal facilitator to Government departments ‘really wanting to know what the public wants’.

One final comment from participants in part by way of response: ‘We’d like to know the result . . . to see whether we’ve been listened to or not’.

4. Impacts and Issues

Overview

In an effort to determine the relative strength, success and overall contribution of the project in terms of informing decisions around Government science priorities, we consulted with two primary stakeholders representing The Department for Business, Innovation and Skills (BIS) and Sciencewise, respectively. Interviews were highly focused on what respondents identified as the particular strengths and impacts of the project. They did also focus on what respondents saw as aspects of the project that might have been done better.

Overall, interviewees supported an opinion of the project as a successful process, which had generated and was influencing the emergence of ‘practice-based’ impacts. These relate to and are illustrated in Figure 1 as the increased status of horizon-scanning activity for science policy and public involvement therein; new or strengthened claims for public dialogue across policy concerns; public dialogue in contextualizing scientific insight/input and identifying gaps.



Figure 1: Project Impacts

Discussion

The strength of the public dialogue project was viewed in the context of its association with the horizon-scanning workshop co-ordinated by CSaP:

'The Sciencewise project was able to make sense of the horizon-scanning event and brought the findings of that to a usable point . . . 'Ipsos' were successful in corralling a lot of information from quite a complex process.'

'It produced a lot of useful things . . . forward thinking for use by those in the policy sphere.'

It was recognised by the BIS representative that the project had purpose and contribution as a value-added exercise, potentially ameliorating the insight into science policy prioritization gained from the CSaP workshop:

'Getting the public views adds context to the scientific element. It might well help to expedite the process and identify gaps.'

In the latter context, participants' contributions were deemed to be 'new and quite powerful'.

By way of comparison with the CSaP workshop, the dialogue project was also considered for having generated more immediate or immediately discernable impacts:

'The dialogue produced a more substantive impact than the CSaP workshop.'

It was, however, felt that it was too soon past the point of the project's completion to make credible and authoritative determinations of the project's more significant contribution(s) and impact(s) upon the policy community. The emergence of project impacts was seen to be delayed by the lack of a clear policy owner and therefore delay in the appropriation of the project's findings:

'It's too early to tell of impact and influence. We're at the early stage of using the outputs. The project has no one policy owner but multiple owners not all of whom have been engaged in the same process.'

Whilst many of the impacts of the project were deemed to be nascent or in a phase of slow emergence, interviewees were unequivocal in stating what they believed to be the certain contribution of the dialogue to the policy-making process in terms of it having 'credibility, use and relevance'. However, the project as a dialogue focused on multiple issues and was deemed to be 'not as powerful as a topic-specific dialogue':

'It didn't have the same amount of depth you get with a single topic dialogue. It provided more of a sense-check than in-depth deliberation.'

One other issue identified by interviewees focused on a lack of interface and/or disconnection between the CSaP workshop and the public dialogue project:

'It was frustrating that the processes went on independently. We would have benefitted from a more integrated process. These should have been brought together as a single project.'

Nevertheless, in the context of impact on the sponsor and co-ordinator, it was felt that the project had generated important new learning about public attitudes to public dialogue and ideas for co-ordinating future dialogue exercises:

'It helped Sciencewise learn about public attitudes into further public dialogue.'

'It has fed into Sciencewise's own thinking and learning, informing decisions about who we need to bring together.'

The project was also seen to have facilitated not only new learning but a new corpus of evidence furthering the claims of public dialogue as an important, if not essential, aspect of science governance:

'It's provided evidence with which to lobby Government divisions. It's given us evidence of the demand among the public. It's also become a significant tool for advocating for engagement.'

It was felt in these terms that the dialogue project had set a precedent for public dialogue within policy horizon-scanning and established a need for more frequent horizon-scanning activity more generally:

'It's set the tone for horizon-scanning on a more regular basis . . . In the immediate context it has increased dialogue with foresight and horizon-scanning teams. Further public involvement in horizon-scanning can only be a good thing and can add value.'

Parliamentary Office of Science and Technology (POST) Workshop.

A follow-on event to the CSaP workshop and public dialogue project was a lunchtime (12.30-2pm) workshop, held on the 22nd October 2013 (Committee Room G, House of Lords) and organised by POST, for parliamentarians focused on *Identifying the Science and Technology Dimensions of Emerging Public Policy Issues Through Horizon Scanning*.

Whilst we were not aware of the timing of this event nor did we receive invitation nor anything in the way of event-feedback, we have been informed by members of the Sciencewise team that the event provided an opportunity to further disseminate the dialogue project's findings and generate wider discussion among parliamentarians as to the merit of public involvement in science 'emergent issues':

'The information shared with parliamentarians opened up more discussion for its sense of being different. It certainly seemed to get more people talking about involving the public and dialogue adding value and providing something different.'

'It got people talking not only about outcomes but the role and value of public input.'

In terms of the translation of public participants' insight (and the value of their contribution) into the mind-set or consciousness of policy-makers, the POST event represents an important step in legitimizing citizen participation in dialogue for policy purposes and potentially counteracting and/or neutralizing the cynicism of some dialogue participants who complain of the public's marginalization from Government decision-making.

CONCLUSION

We would like to thoroughly recommend this dialogue project as one well conceived, that admirably handled constraints of time, changes in remit and scope; was very well facilitated; engendered a culture of co-operative knowledge share; and creative imaginations among participants; and ultimately yielded important insights into the prioritization of science and technology from the social/cultural perspectives of public citizens.

The project has also been seen by those responsible for its co-ordination and delivery as *impactful*, in initial and on-going contexts. It has been identified especially for increasing the status of public dialogue within horizon-scanning activity and across policy concerns. It has also contributed to best-practice in public dialogue for policy purposes.

Finally, the project has revealed issues pertaining to the transparency of the policy-making process and a sense of distance between public citizens and Government. The project has also answered this concern by further raising the significance of public dialogue as a mechanism not only for more robust but more transparent policy and policy-making process. This then provides another step in the *opening-up* of Government.

March 2014

Annex A: The Observation Schedule

Observational Schedule

NB The following schedule suggests aspects to observe that are related to the 'translation' concept. The schedule is expressed in the form of various questions: the observer should seek to answer the questions and provide explanation/ evidence for their answers.

Information Comprehensiveness (*Do the sponsors provide full information to participants?*)

- Do the sponsors clearly state the aims of the event at the outset?
- Do the sponsors clearly elaborate on an agenda?
- Do the sponsors clearly explain to participants what is expected of them (defining their task)?
- Do the sponsors explain how they have selected participants/ why they are there?
- Do the sponsors explain what will follow from the event (i.e. what feedback they might expect and what will happen with the output from the event)?

Information Appropriateness/Fairness (*Do the sponsors fairly frame the problem or is there any evidence of bias in terms of information provision/ recording/ translation?*)

- At the outset, do the sponsors provide a fair summary of the subject being considered, or do they provide a particular slant, bias or frame that might lead some perspectives to be focused upon at the expense of others?
- Does the way in which information is collected suggest any particular bias (beyond, say, randomness)?
- Is the process managed in such a way that bias is introduced in terms of the information that is considered or recorded (e.g. participants with one position allowed to speak at the expense of those with another position)?
- In any summing up, is there any bias in the reporting of the output from participants?
- Is participation fair, or do some participants have much greater opportunity to speak and influence than others (whether due to facilitator bias or event logistics)?

Process Limitations to Effective Translation

- Is there sufficient time for participants to consider all the necessary information, provide all necessary information, and think about this information? Are certain debates unnecessarily cut short because of time limits?
- Are there any information resource limitations that hinder the effective consideration of the topic of debate? That is, are participants asked to discuss an issue or solve a problem on which it is clear that extra information might have been made available (report findings, academic evidence)?

- Are there sufficient resources (personnel, tape recorders etc.) to enable the full output from the event to be recorded, or do such resource/logistic deficiencies ensure that there is only a partial recording of output, or imperfect recording of information?

Information synthesis

How is the various information outputs synthesized, and are there any apparent inefficiencies? For example, how are competing priorities compared and contrasted? How are pro and con arguments set against each other? How is such information displayed to participants – and is it in a way that may help or hinder them from synthesizing different points of view? [For example, are there whiteboard or computer screen displays of pro and con lists? Are accurate ‘minutes’ taken? Is there any form of voting process to confirm participants’ aggregate views?]

NOTE: We have not reproduced the questionnaire as a separate annex as this is clearly discernible from analysis of the exit-poll data.