Evaluation of the public dialogue exercise to inform the development of the Babraham Institute's science and public engagement strategies

Final Report: December 2015

Contents

Executive summary

The Babraham Institute (BI) is a world leader in life science research, generating new knowledge about the biological mechanisms underpinning ageing, development and the maintenance of health and wellbeing. In May 2015 it commenced a public dialogue project:

- To engage in dialogue with civil society and other stakeholders and a balanced sample of lay public about the challenges and big questions relevant to BI
- To gain insight and understanding from the public and civil society that will inform and influence both scientific and public engagement strategies
- To raise awareness and highlight the importance of BI and its science with stakeholders
- To gain an understanding of how the public and stakeholders view BI's work
- To demonstrate best practice in openness / responsiveness and social responsibility.

The public dialogue process was commission by BI and the Biotechnology and Biological Science Research Council (BBSRC), with support from Sciencewise[1].

Icarus has undertaken an evaluation of this process. An evaluation framework was developed to provide the over arching structure for the evaluation and included the evaluation questions and evaluation methodologies. Evidence has been gathered from stakeholders (including BI staff, project advisors and the public participants) at key stages throughout the dialogue process.

Overview of the public dialogue process

Ipsos MORI delivered public dialogue workshops during summer 2015. Two initial workshops were held with a total of 43 members of the public in July, one in Birmingham (attended by 18 members of the public and four BI scientists) and the second in Cambridge (attended by 25 members of the public and seven BI scientists). A further workshop was reconvened in Cambridge in mid September for all participants of both initial workshops (attended by 41 members of the public and seven BI scientists). Purposive sampling was the approach used to recruit participants; the intention was to select a cross section of people who were largely reflective of the local population. A final report of the findings from the process was published in November 2015 and shared with stakeholders at a dissemination event in the same month.

The underlying premise for the design of the dialogue workshops was that the initial workshop would familiarise participants with BI's work, so it would be possible at the reconvened workshop to engage in more detailed deliberations about the decisions

[1] Sciencewise is the UK's national centre for public dialogue for policy making involving science and technology issues, and is funded by the Department for Business, Innovation and Skills (BIS). See www.sciencewise-erc.org.uk

BI would be taking. Key dialogue questions were posed to guide the deliberations in all the workshops.

Workshop	Key dialogue questions
Initial workshops	How can BI's fundamental bioscience help people lead long and healthy lives?
Reconvened workshop	How should the Babraham Institute prioritise its scientific work? How can Babraham Institute engage most effectively with the public?

There were three sets of players in the governance of the public dialogue project.

Group	Description and membership
Initial workshops	Internal governance and accountability - BI's Institute Strategic Priority leads, grant holders, the Director and Communications Manager
The Advisory Group	A BI organised group of stakeholders mostly known to BI; met twice during the public dialogue project; were invited to the final dissemination meeting
The External Stakeholder Group	An Ipsos MORI organised group of external stakeholders many of whom previously unknown to BI whose key purpose was to comment on the stimulus material[2]; met once during the public dialogue project; were invited to the final dissemination meeting.

The design of the public dialogue workshops

The evaluation has provided evidence to affirm that the overall design of the public dialogue process was effective in generating opportunities for good quality conversation between BI scientists and members of the public. The core objective of the dialogue project was set out in a format understood by the public and the materials used were neither too technical nor too simplistic. The key findings from the evaluation about the design process for the project are as follows.

- *Establishing a key question that summarises the public dialogue objectives in an understandable format is a key step.*
  The core purpose of the dialogue activity was crystallised into a format that was easily understood by the public participants and which provided a focus for the workshop design process – it helped keep the process designers on track. However some concerns were raised about whether this question needed further refinement to ensure it reflected BI's core activity in basic science (rather than translational research), in order to ensure the results could be effectively aligned with BI's science strategy.

- *Engaging a broad audience with relevant expertise to help inform the process design adds value.* External stakeholders, BI scientists and Advisory Group members all helped frame the stimulus material and workshop design. There

[2] Members from: Worldwide Cancer Research, MRC, Wellcome Trust, British Society for Immunology, Understanding Animal Research, Centre for Ageing Better, Cambridge Enterprise, Stem Cell Institute, Research Councils UK, GSK, ITV News, The British Geriatrics Society, Cambridge Cancer Centre

were challenges in capturing everyone's insights for several reasons: the scientists were keen to ensure that the information was technically correct; BI wanted to ensure the breadth of its work was included in the stimulus materials; there was a tendency by some scientists to over estimate the baseline knowledge of the general public. Ultimately it was important for a single body to take the final decisions about the shape of the design, in this case the BI project team working alongside Ipsos MORI.

- *Stimulus materials should be tested with a non-technical audience.*
  This step was initially overlooked in the BI public dialogue process design but was added prior to finalising the materials. This was key to ensuring the materials make sense, and are at a level that will provide a reasonable depth of understanding to inform constructive debate, without being overly technical or in danger of unduly 'dumbing down' the material in a patronising fashion.

Assessment of the public dialogue activities

The evaluation has found that the key activities were sufficiently engaging in style, content and structure to generate good quality dialogue. The evidence identifies learning in relation to using a variety of exercises and techniques to meet a range of learning styles. It affirms the value of briefing expert contributors (scientists) in their roles and in the use of homework tasks as a way of re-connecting participants to the subject matter between workshops. The key evaluation findings about the structure of the public dialogue activities are as follows.

- *Workshop locations need careful consideration to ensure they can align with the parameters of the agreed sample.*
  There were noticeable differences in the baseline scientific / research knowledge between the participants at the two locations; overall those from Cambridge were more knowledgeable. The selection used a purposive sampling methodology and was intended to be reflective of the local population. Had the intention been to reflect the UK population as a whole then this approach would not have been appropriate.

- *Workshop structure should include varied activities to reflect the different learning styles.*
  The principal methods used in the dialogue project was facilitated group discussion, leading to considerable chunks of time being spent sat in discussion groups in the BI public dialogue workshops. Through observation the majority of people appeared engaged with the deliberations but this style of working is not suited to everyone; ideally it would be combined with more active forms of learning, such as interactive and participative exercises. Where more interactive approaches were planned during the process, some groups due to time pressure dropped these exercises, and this had the potential to impact on the usefulness of the data generated from those parts of the workshop.

- *Breaking into smaller groups for discursive sessions maximises participation.*
  Participants worked in sub groups in all of the BI public dialogue workshops. A smaller number of people makes it is easier for the less vocal to take part, and a more straightforward task for the facilitator to try and engage everyone.

- *Good quality stimulus materials stimulate interest in the topic and focus discussions.*
  Considerable effort was made within the project to develop the stimulus materials for the workshops – the case studies, slide sets, handouts and task descriptions. These appeared to support the learning and deliberations and to be of interest to the participants.

- *Homework tasks can help people remain engaged in the topic between workshops.*
  A homework task was set for participants to complete in the period between the initial and reconvened workshops. Participants need to be briefed well about why they are being asked to complete the homework; how much is expected of them; and the homework should be accessible to everyone (everyone should receive it and it should not be overly reliant on internet access). A high proportion of participants did complete the homework fully or partially and could describe how they found it be a useful exercise.

- *It's important that everyone involved in the workshops is clear about their role.*
  The BI scientists were given both verbal and written briefs beforehand, and a further verbal briefing at the start of each workshop. This helped ensure they were clear about their role and the balance they were being asked to achieve between contributing their technical expertise to the workshops, while not dominating the deliberations and ensuring their inputs were understandable to the public participants.

Reflections on the effectiveness of the public dialogue activities for people's participation

The evaluation has evidenced the value of involving well informed technical experts in workshop deliberations with members of the public. This has produced benefits for both the public participants and the scientists involved. This contribution, together with well-pitched stimulus materials, enabled participation and led to willingness among members of the public to take part in similar events in the future. The key findings of the evaluation about the effectiveness of the public dialogue activities are as follows.

- *The content of dialogue activities needs to be pitched at a level that engages the participants and piques their interest.*
  The content of the BI public dialogue workshops was pitched at a level that a significant majority of participants could understand. As a result they felt able to participate in the deliberations during the initial workshops and could build on

this to start reaching conclusions about BI's work in the reconvened workshop. The 'translation' from scientific language into a form understandable by those encountering it for the first time was largely extremely effective, and the quality of the conversational contributions from the BI scientists was generally accessible and engaging.

- *A 'quality control' process is required to ensure the case study material is presented in a consistent style and level of detail.*
  Where participants are being asked to make decisions about prioritising different topics, for example, then it's key that the material is presented to them in a consistent fashion. It's not possible to say definitively to what extent to which this may have impacted on the results of the BI public dialogue process, but there have been some concerns raised about an inconsistency in the style of the case studies and the way in which they were presented by the facilitators.

- *There are substantial benefits in including technical experts in workshop deliberations.*
  More BI scientists attended the workshops than were originally advised by Ipsos MORI. This proved beneficial from two perspectives: 1) the public appreciated meeting the scientists and hearing from them directly about their work; 2) the scientists enjoyed taking part and engaging in deliberations with members of the public.

- *Purposive sampling is credible for in-depth public dialogue exercises.*
  Despite concerns from BI scientists, the purposive sampling methodology was successful in recruiting a sufficiently varied group of people to elicit a range of perspectives to contribute to the workshop deliberations.

Project resourcing and governance

The original cash budget for the dialogue was £80,000, with an additional £5,500 provided to extend the number of participants from 30 to over 40. Further resources came from the BI staff time and input from stakeholders to the Advisory Group and the External Stakeholder Group. This was more costly than the one way communications public engagement activities usually used by BI. It has however affirmed the value to BI of this investment through generating findings that have the potential to support the Institute in future planning and further pubic engagement. The evaluation has evidenced the value of engaging stakeholders from a broad range of backgrounds in the governance of the process and of the support and commitment of senior management. The key findings of the evaluation about the resourcing and governance of the project are as follows.

- *Senior management's commitment and visibility to the project is vital in securing internal 'buy in' and support, as well as the engagement of external stakeholders.*
  The BI Director was closely involved in the public dialogue project and this helped create internal support and commitment.

- *There are substantial benefits from involving people with a broad range of technical disciplines in the design process and governance.*
  There was significant value to the BI public dialogue process as a result of engaging stakeholders from a range of disciplines and organisations in the Advisory Group and the External Stakeholder Group.

- *There are resource demands associated with good project governance and management.*
  In the case of the BI project the resourcing of Advisory Group and the management of the project overall was more time consuming than expected.

Potential impacts of the public dialogue project

The findings about the potential impacts of the public dialogue project can be described as 'a work in progress'. Given the short timescale between production of the findings report and the impact research there has been little opportunity for impacts to come to fruition, nor for stakeholders to have a clear picture of how the findings can be utilised. However, the dissemination event for stakeholders highlights how bringing people together in this way led to constructive deliberations on the dialogue process and the findings, both for BI and for attendees' organisations. The following summarises the key findings at this early stage.

- *The potential for the findings to influence the content of BI's science strategy are limited.*
  There is a lack of detail and specific direction in the findings from the public dialogue project that could directly influence the content of the science strategy. For example, the 'key takeaways' from the final report regarding the science strategy are relatively generic, and some of the public views were contradictory. Also, BI's science strategy has to be aligned with BBSRC's strategic priorities so there is limited scope for change. However, there is a very clear and significant message for BI that underpins its overall strategy: that is, the public are genuinely interested in and supportive of the need for curiosity driven science like that undertaken at the Institute.

- *There is potential for the findings to influence the decision-making processes for the science strategy.*
  There is potential for the findings to influence the decision-making processes for the science strategy, specifically by applying the principles that were developed following the deliberations and exercise at the dialogue workshops: there are six scientific principles and two governance principles.

- *There is findings have already influenced BI's public engagement strategy.*
  There has been a substantial amount of learning for BI about this new form of public engagement for them, and there is significant scope for the public dialogue project to influence the public engagement strategy as a result. There is information from the dialogue to inform BI's activities at three levels of engagement: communications, consultation and participation. BI has already

drafted a new public engagement strategy that incorporates recommendations from the public dialogue process, which will be published in 2016.

- *There is potential for the findings to influence the policies or work of other organisations.*
  There are a number of things that have already happened that demonstrate the potential for the findings of the public dialogue process to influence the policies or work of other organisations. For example: representatives from ten organisations, including BIS and BBSRC, attended the dissemination event and were engaged in deliberations about the findings from the project; the findings have been shared with the EU LIFE programme and received a very positive response; the British Society for Immunology is interested in the work and sees the opportunity for it to inform their work in a number of ways; Cardiff University has included BI in a grant bid as a direct result of the public dialogue project.

- *The findings have the potential to influence the strategic direction of BIS and BBSRC.*
  The findings include messages that have some significance for BIS and BBSRC. These are: that the public supports the use of public money to support fundamental research and values it alongside translational research; and the public trusts scientists to take decisions about where their research priorities should lie.

Main benefits of the public dialogue project that were identified by stakeholders

The evaluation has identified a clear and significant message for BI that will be of value in future planning: that the public are genuinely interested in and supportive of the need for curiosity driven science like that undertaken at the Institute. The project has provided insights for BI into the public's views on fundamental research, particularly the confirmation that the public can understand and appreciate the importance of the Institute's work, and boosted the confidence of BI that it is able to hold informed conversations with the public about its work.

The overwhelming majority pointed to the insights into the public's views on fundamental research that the project elicited, for example: *"knowing the opinion of the general public and their appreciation of basic research and their support for it"* (external stakeholder group member)*; "reinforcement that what we're doing is important and that we're going about it in a way the public approves of"* (Advisory Group member); "*that we listened to the public and found that what we do is not a million miles away from what they want us to do*" (BI project team member).

Also significant were comments that related to the benefits for BI of having undertaken this pilot project.

Conclusions

In general terms the public dialogue project has achieved what it set out to do and can be judged as a success. In moving forward BI should consider how it formally responds to the final report. This poses a series of questions and recommendations to BI and, for the sake of completeness, it is recommended that the Institute publishes a response that indicates how and / or if it will deal with each one.

While the project was not successful in producing findings to inform the content of BI's science strategy, there is scope to influence how decisions about the science strategy are taken, and the learning has already been included in the new public engagement strategy for the Institute.

1. Introduction

1.1 Background

The Babraham Institute (BI) is a world leader in life science research, generating new knowledge about the biological mechanisms underpinning ageing, development and the maintenance of health and wellbeing. In May 2015 it commenced a public dialogue project with the following objectives:

- To engage in dialogue with civil society and other stakeholders and a balanced sample of lay public about the challenges and big questions relevant to BI
- To gain insight and understanding from the public and civil society that will inform and influence both scientific and public engagement strategies
- To raise awareness and highlight the importance of BI and its science with stakeholders
- To gain an understanding of how the public and stakeholders view BI's work
- To demonstrate best practice in openness / responsiveness and social responsibility.

Ipsos MORI delivered the public dialogue workshops over the summer period 2015. Two initial workshops were held with a total of 43 members of the public in July, one in Birmingham and the second in Cambridge. A further workshop was reconvened in Cambridge in mid September for all participants of both initial workshops. Participants were also asked to complete some 'homework' in the intervening period. A dissemination event for stakeholders was held in November 2015 to share the findings of the public dialogue project.

The public dialogue project was commissioned by BI and the Biotechnology and Biological Sciences Research Council (BBSRC)[3], with support from Sciencewise[4].

This report presents the findings from the evaluation of the dialogue project.

1.2 About the evaluation

Icarus was commissioned to undertake an evaluation of the public dialogue project, covering all of its activities and including: governance; stakeholder engagement; public dialogue activities; the key questions addressed by the public; methods of recording, analysing and reporting on the public discussions; activities to disseminate

[3] BBSRC is the lead funding agency for academic research and training in the biosciences at universities and Institutes throughout the UK.

[4] Sciencewise is the UK's national centre for public dialogue for policy making involving science and technology issues, and is funded by the Department for Business, Innovation and Skills (BIS). See www.sciencewise-erc.org.uk

and use the dialogue results; and any other relevant activities affecting the impacts, value and credibility of the dialogue results.

The evaluation was formative and summative in its nature, and ran alongside the dialogue project. It was conducted independently and Icarus aimed to ensure that our activities did not compromise or unduly influence the design and delivery of the public dialogue. We did however use the evaluation evidence to intervene on what we describe as 'red flag' issues – that is, where the project was proceeding in a way that could significantly compromise its capacity to deliver its aims.

Icarus designed an evaluation framework that ensured the evidence was both relevant to the evaluation objectives and was collected in a rigorous fashion.

This evaluation activity was concerned with responding to a series of questions embodied in the evaluation framework, as follows. These addressed the areas of interest to BI and Sciencewise and ensured a full picture of the project's progress and achievements could be established by considering both *what* happened and *why*.

Table 1: The public dialogue project evaluation questions

Question	Evaluation question
Impact questions	
1a	To what extent has this dialogue process delivered its objectives?
1b	To what extent are the outputs from this process (report/s) fit for purpose and helpful for BI?
1c	To what extent do the findings from this process have the potential to influence policies, planning and decision-making?
1d	Has the public dialogue project generated stimulus material that will be of future benefit / use to BI?
1e	Have there been any unplanned or unexpected impacts from the dialogue process?
1f	To what extent have public participants taken value from their participation; learnt anything new; believe their views will be impactful?
1g	Having taken part in the dialogue, are the public more or less willing to be involved in future dialogue initiatives?
1h	What learning has there been from the dialogue process that could inform and improve future dialogue processes, both for BI and for other Institutes / organisations?
1i	To what extent are BI scientists and others more willing / enthusiastic / confident to take part in public dialogue processes in the future?
Inputs questions	
2a	Were the objectives of the dialogue project the right ones to best ensure that the public's views and concerns are fed into BI's strategies for science and public engagement?
2b	Have the inputs (time, money, resources) to the process been sufficient to deliver the project objectives?
2c	Has the project provided good value for the resources invested?

Question	Evaluation question
2d	Have the different management and delivery elements worked well and complemented each other's roles?
2e	Has the governance / management of the process been adequate to ensure a process that is well run and supported?
2f	What was the approach to diversity / sampling / recruitment (and numbers) of the participants? Were the right people there, and the right sort of numbers of people to be credible in taking account of the results of the dialogue?
Process questions	
3a	To what extent have public participants been able to engage with the content and contribute their perspectives on these complex issues?
3b	Have the dialogue activities been appropriate and engaging?
3c	Have there been any process design, delivery or reporting challenges? Is there scope for future dialogue processes to learn from these?
3d	Did the process design offer the best way to satisfy the objectives of the results of the dialogue project and ensure the results of the dialogue were credible to those using those results?
Context questions	
4a	To what extent has the process related to and complemented other dialogue processes on similar issues, and have opportunities for joint learning been sought?
4b	To what extent has the process related to and complemented other BI processes for developing the science and public engagement strategies?

These questions have been applied across a number of evaluation activities that have been completed across the duration of the public dialogue project and as outlined in the table below (see also Appendix 1).

Table 2: Evaluation activities

Activity	Purpose of the activity	Participant description	Evidence generated
Inception meeting (28/05/15)	To establish the parameters and logistics of the project.	BI project team (Heads of BI's Strategic Programmes and Grant Holders, the Director, Communications Manager), Sciencewise (apologies from BBSRC)	Observation notes
Researcher Day (04/06/15)	Workshop type sessions with BI researchers to outline the project and seek their view about the dialogue project key question/s and relevant case studies to include in	Cohort of researchers available to give their input, mostly PhDs, Post Docs and 9 Group Leaders	32 end of event feedback forms completed (from 34 participants): 94% return Summary paper

Activity	Purpose of the activity	Participant description	Evidence generated
	the stimulus material.		(completed by Ipsos MORI)
Project team teleconference (09/06/15)	Regular update call about the progress of the project.	BI project team; Ipsos MORI	Observation notes
Set up meeting / interview with Linden Fradet, BI project lead (17/06/15)	To understand more about why and how the dialogue project was set up by BI.	-	Interview notes
Advisory Group meeting (17/06/15)	To advise BI on the dialogue process and supporting materials and to help ensure that the project is far reaching, accessible and targets all relevant stakeholders, and that dialogue material is comprehensive, balanced and accessible to the lay audience.	BI organised group of stakeholders mostly known to BI	Observation notes 3 end of event feedback forms completed (from 5 attendees): 60% return
(External) Stakeholder Group meeting[5] (03/07/15)	To support Ipsos MORI in the production of accessible, balanced stimulus material that is accessible to the lay audience.	Ipsos MORI organised group of external stakeholders many of whom previously unknown to BI	Observation notes 8 end of event feedback forms completed (from 8 attendees): 100% return
Public workshop Birmingham (18/07/15)	Public dialogue workshop.	Members of the public recruited by Ipsos MORI; BI researchers; Ipsos MORI facilitators	18 end of event feedback forms completed (from 18 participants): 100% return Observation notes

[5] In the BI public dialogue project this group is referred to as the Stakeholder Group. To avoid confusion in this report we are using the term External Stakeholder Group. We use the term 'stakeholders' throughout this report as a generic description to include all those involved in the project: BI project team, the wider BI scientific staff team, members of the Advisory Group, and members of the (External) Stakeholder Group.

Activity	Purpose of the activity	Participant description	Evidence generated
			4 online surveys completed by BI researchers (from 5 researchers): 80% return Review of Ipsos MORI's interim findings report
Public workshop Cambridge (19/07/15)	Public dialogue workshop.	Members of the public recruited by Ipsos MORI; BI researchers; Ipsos MORI facilitators	25 end of event feedback forms completed (from 25 participants): 100% return Observation notes 6 online surveys completed by BI researchers (from 6 researchers): 100% return Review of Ipsos MORI's interim findings report
Advisory Group meeting (08/09/15)	To advise BI on the dialogue process and supporting materials and to help ensure that the project is far reaching, accessible and targets all relevant stakeholders, and that dialogue material is comprehensive, balanced and accessible to the lay audience.	BI organised group of stakeholders mostly known to BI; members of BI project team	Observation notes 1 online feedback form completed (from 4 attendees): 25% return
Reconvened public workshop Cambridge (12/09/15)	Public dialogue workshop.	Members of the public recruited by Ipsos MORI; BI researchers; Ipsos MORI facilitators; BBSRC; Sciencewise	40 end of event feedback forms completed (from 43 participants; 3 blank forms were handed in): 93% return Observation notes

Activity	Purpose of the activity	Participant description	Evidence generated
			6 online surveys completed by BI researchers (from 7 researchers): 86% return
Project team teleconference (20/10/15)	Regular update call about the progress of the project.	BI project team; Ipsos MORI	Observation notes
Stakeholder dissemination event (18/11/15)	Meeting of invited stakeholders to share the findings of the public dialogue process.	Members of the External Stakeholder Group; Advisory Group; Ipsos MORI; BI project team; Sciencewise; BIS; John Innes Centre; BBSRC	Observation notes
Impact research	Online surveys and structured telephone interviews to establish impact of the public dialogue process.	Online surveys to: 1. Internal stakeholders - BI researchers who took part on the Researcher Day or the public dialogue workshops, ISP leads not being interviewed. 2. External stakeholders – members of the External Stakeholder Group and the Advisory Group not being interviewed. 3. Follow up survey to public participants. Structured telephone interviews with: 2 x Advisory Group members; 2 x External Stakeholder Group members; Ipsos MORI lead; 6 x BI project team.	4 online surveys completed by internal stakeholders (from 43 distributed): 9% return 3 online surveys completed by external stakeholders (from 16 distributed): 19% return 5 online surveys completed by public participants (from 39 distributed): 13% return[6]

[6] Contact details were requested from the public participants at the end of the initial workshop they attended for the purpose of distributing this follow up survey; not everyone gave contact details. Ipsos MORI later asked participants how they wanted to receive the survey and one person requested a hard copy to be posted to them.

There was one significant constraint on the evaluation of the public dialogue project that should be noted. The resources available for the evaluation meant it was not possible for Icarus to take part in many of the project's frequent project management telephone meetings. A key decision was taken during one of these meetings to put back the date for publishing the final dialogue report by a month, but the timescale for the evaluation was not similarly extended despite our request for this to happen. This meant that the time we had for reviewing the potential impact of the project was limited to a very short window of time, very soon after the publication of the report, and thereby allowing little time for stakeholders to be have read the report or identify impacts and reflect on the findings. The poor response rates to the online impact surveys to internal and external stakeholders (see Table 2 above) therefore reflect the short amount of time the surveys were open (one week) and the proximity to the publication date of the final report on the public dialogue process (the surveys were sent out the day after publication of the report), and, as a consequence, the data is not sufficiently reliable to analyse and draw conclusions from it.

1.3 Using this report

This report is the final evaluation report. It builds on two earlier reports: the first was a baseline assessment that outlined stakeholders' key expectations of the public dialogue project, produced in July 2015; the second was an interim evaluation report that primarily examined the process design and delivery, produced in September 2015.

This report starts with a summary of the public dialogue process. It then moves on to assessing the detail of the dialogue process and how it was managed before considering what impacts the process has had or may have. The final Section makes some key concluding comments.

2. Outline description of the dialogue project

2.1 Researcher day

The Researcher event was held in June 2015. Three sessions of one and half hour duration were held on the same day at BI, with the following objectives (as articulated by Ipsos MORI in their agenda for the day):

- Explaining the dialogue: numbers, participation, structure, where and when; role of Ipsos MORI, the evaluators, advisory group and researchers on the day
- Establishing what the public need to know at a minimum to have an informed discussion about the basic science.

There were four key elements under discussion: explaining the public dialogue research; the role and consideration of the dialogue question; reflecting, summarising and prioritising themes to discuss with the public; indicators of success. A total of 34 people took part across the three sessions.

2.2 The Advisory Group

BI established an Advisory Group with the purpose of providing advice and guidance on the dialogue project. People representing seven organisations were invited to join the group from: London School of Economics, Centre for Science and Policy, British Society for Research into Ageing / Cardiff University, Nuffield Council for Bioethics, BBSRC and Sciencewise. The first meeting was held in June 2015 to provide early input into the design of the workshops and to comment on the stimulus materials. A second meeting was held in September 2015 around the time that the interim dialogue findings report was published; members engaged in discussion about the content of that report and advised on invitees for the dissemination event.

2.3 The External Stakeholder Group

Ipsos MORI convened an External Stakeholder Group to support them in developing accessible and balanced stimulus material, and to input into the workshop design. The group met once, in July 2015. Fourteen people were invited to join this group, from a wide range of organisations, many of whom were previously unknown to BI: Worldwide Cancer Research, Medical Research Council, Wellcome Trust, British Society for Immunology, Understanding Animal Research, Centre for Ageing Better, GlaxoSmithKline, Cambridge Enterprise, Hills Road Sixth Form College (Cambridge), Stem Cell Institute, ITV, Cambridge Cancer Centre, Research Councils UK and the British Geriatrics Society. Of these eight people attended the meeting and a further five were consulted by telephone.

2.4 Overview of the initial workshops: Birmingham and Cambridge

Two initial workshops were held in Birmingham and in Cambridge. They took place over consecutive days on a July weekend, and ran from 10.30am – 4.00pm. Ipsos MORI recruited the workshop participants from the two local areas (see Section 4.2 for more information). Participants were paid an incentive of £80 to attend the initial workshop. Eighteen members of the public attended the initial workshop in Birmingham; 25 members of the public attended the initial workshop in Cambridge (a total of 43 public participants).

The workshops were designed around a key question: "**how can BI's fundamental bioscience help people lead long and healthy lives?**" This question was developed by Ipsos MORI and the BI project team and was tested at the BI Researchers' Day in June and again at the External Stakeholder Group meeting in July. It was designed to provide a focus for the dialogue, and to reflect the project objectives in a way that the participants could understand.

Ipsos MORI produced a detailed discussion guide for each of the workshops. This outlined the timetable, the purpose of each activity, the materials that supported each individual session, as well as the prompts and questions the facilitators should use to guide the deliberations. A piece of homework was given to participants to complete between the initial and reconvened workshops.

The following table outlines the overall structure of the initial workshops. For most of the day the public participants were split into two smaller discussion groups; BI scientists sat in on the deliberations, responding to questions and making contributions when asked to do so by the group facilitator or members of the public. A total of 14 scientists were involved across the three workshops – four at the initial workshop in Birmingham, seven at the initial workshop in Cambridge and seven at the reconvened workshop in Cambridge. Ipsos MORI provided a facilitator and note taker for each group.

Table 3: Initial workshop structure

Workshop 1 session	Content
Session 1:	Ageing and health – probing participants' views about what ageing means with prompt questions such as: - when does it start? - what are the physical, emotional and social dimensions? - what is an old person? Further deliberation around what maintaining health means in the context of ageing with prompt questions such as: - how can scientists help people lead long and healthy lives;? - how can people help themselves to lead long and healthy lives? - if science could do one thing to help us have lifelong health and wellbeing, what would you want? A quiz to help participants consider what they already know about

Workshop 1 session	Content
	bioscience.
Session 2:	Scientists talking about their work to each group, emphasising the concept of 'curiosity driven science' and responding to questions.
Session 3:	Case studies – a substantive constituent of the day working through 9 case study examples illustrative of BI's work*. The facilitator talked through the written materials provided to the participants, responded to questions alongside the scientists present, and tried to prompt on a set of probing questions: - which area of work seems most relevant? - who would this work benefit? - how could this science be put to use in a way that would do most good? - how can it contribute to maintaining health and wellbeing?
Session 4:	A discussion focusing on the epigenetics case study.
Session 5:	An introduction to how BI uses animals in research. This was touched on briefly and participants were told they would return to it in the reconvened workshop.
Session 6:	Priorities and principles – the 2 groups ranked the case studies according to a set of parameters provided by the facilitators. One group ranked according to the value of the case studies to them as individuals. The other ranked according to the value of the case studies to tax payers.
Session 7:	Final plenary discussion.

* The case studies were as follows. Each one had an accompanying handout, briefly describing the area of work, and some 'what next' questions posed by BI scientists working in each field:

- The important biological switch, P13K
- Cells can recycle themselves, autophagy
- Vectibix, an antibody to use against cancer
- Can we train the body to kill cancer?
- What do chromosomes really look like?
- Why don't vaccines work so well for older people?
- Epigenetics, DNA is not your only destiny
- Animal research
- Looking at the way our cells age by growing yeast.

2.5 Overview of the reconvened workshop: Cambridge

A single reconvened workshop was held in Cambridge on Saturday, 12th September to which all of the participants from the initial workshops were invited, taking place from 11.40am to 4.30pm. Transport and travel expenses were provided for those travelling from the Birmingham area and participants were paid an incentive of £90 to attend. 41 of the 43 participants from the initial workshops attended the reconvened workshop.

In addition to re-visiting the key question from the initial workshop that asked how BI's work could help people live long and healthy lives, the reconvened workshop provided a focus on the future, asking participants two further simple, but important questions.

"**How should the Babraham Institute prioritise its scientific work**?"

"**How can Babraham Institute engage most effectively with the public**?"

The design of the reconvened workshop provided opportunities to explore these key questions, and the table below outlines its overall structure. For most of the day the public participants were split into four smaller discussion groups in two separate breakout rooms. BI researchers sat in on the deliberations, responding to questions and making contributions when asked to do so by the group facilitator or members of the public. The headlines from each exercise were shared in plenary sessions in each of the two breakout rooms. Ipsos MORI provided a facilitator and note taker for each group. Each group was made up of a mix of participants from the initial Birmingham and Cambridge workshops.

Table 4: Reconvened workshop structure

Reconvened workshop session	Content
Session 1:	Meeting each other and the scientists - participants introduced each other after a brief conversation and shared something interesting they had learnt from the initial workshops or the homework tasks. The BI scientists introduced themselves and discussed their career paths and aspirations.
Session 2:	Future priorities – feedback given to participants about what they had identified as important principles for BI's work in the initial workshop and discussed. Participants then worked in small groups of five or six to draft a Mission Statement for BI. The Mission Statements were then shared with the other groups in that room.
Session 3:	Discussion of the funding of basic research at BI – facilitators presented information establishing the proportion of Government spending on basic research, and the sources of funds accessed by BI, and then led a

Reconvened workshop session	Content
	discussion about implications for BI's strategy and the best use of public funds
Session 4:	Animal research – presentation of facts about the use of animals within BI's work and guided discussion to probe participants views on the following questions: - how acceptable is animal research? - what conditions would you place on the use of animals in scientific research? - what regulation would offer you reassurance regarding animal welfare? - how should BI communicate about their work with animals? - what are your thoughts on the three 'R's principles (Replace, Refine, Reduce) that guide animal research in the UK? - how should the risk of harm to animals be balanced with the potential for scientific discovery?
Session 5	Public involvement – session exploring participants' views on the BI collaboration with other scientists or groups and the most effective and appropriate way of engaging the public with BI's research. Questions used were: - what is the purpose of BI engaging with the public? - why would scientists do it? - why would the public want to be involved? This session used three interactive exercises[#] in addition to guided discussion: a) participants identify approaches and techniques (from a list) they believe would be effective in engaging the public b) participants choose one of the Case Studies from the initial workshops and generate ideas for how the public could be engaged in that Case Study c) participants use post-it voting to indicate the degree to which they believe the public should be involved in different stages of a BI research project

[#] Time constraints affected the degree to which these exercises were completed on the day. While all four groups completed exercise c), only two of the four groups completed exercise a) and one (briefly) undertook exercise b).

2.6 Dissemination event

The dissemination event was held in November 2015 on the day of the publication of the final report from the dialogue project (although participants had received a copy in advance of the meeting). Held in London, invitations were extended to members of the Advisory Group and the External Stakeholder Group, as well as others that BI and their advisers considered would be interested in the results of the dialogue

project. Ten organisations (plus BI, Ipsos MORI and Icarus) were represented at this meeting: University of Cardiff, BBSRC, Sciencewise, John Innes Centre, BIS, Wellcome Trust, British Society for Immunology, Research Councils UK and Understanding Animal Research. The agenda for the event combined a presentation summarising the main findings of the report with round table discussion on a number of key points:

- What stood out for people in the report
- Establishing the group's thoughts on the implications of the report for BI
- Considering next steps for BI and / or participants' own organisations.

3 Reflections on the design of the public dialogue workshops

3.1 Introduction

In this part of the report we focus on the effectiveness of the workshop design and how that in turn impacted on the scope of the dialogue process to achieve its objectives.

This assessment relates to the process questions in the evaluation framework as well as some of those relating to the impact of the dialogue, specifically evaluation questions 1a, 1d, 3a, 3b, 3c and 3d.

Question	Evaluation question
Impact questions	
1a	To what extent has this dialogue process delivered its objectives?
1d	Has the public dialogue project generated stimulus material that will be of future benefit / use to BI?
Process questions	
3a	To what extent have public participants been able to engage with the content and contribute their perspectives on these complex issues?
3b	Have the dialogue activities been appropriate and engaging?
3c	Have there been any process design, delivery or reporting challenges? Is there scope for future dialogue processes to learn from these?
3d	Did the process design offer the best way to satisfy the objectives of the results of the dialogue project and ensure the results of the dialogue were credible to those using those results?

The findings are based on the immediate post workshop feedback of public participants, the online surveys completed by the BI scientists who attended the workshops, our observation of both the design process and the events, and the impact research (online surveys and interviews).

3.2 The workshop design process

3.2.1 The underpinning dialogue question

The key focus for the initial workshops was what is a relatively straightforward key question – "**how can BI's fundamental bioscience help people lead long and healthy lives?**" – within a very complex and technical context. It was articulated in this way to provide a 'hook' that participants could relate to and understand that there is a link between themselves and BI's work. This key question was re-visited at the beginning of the reconvened workshop: participants were asked to consider how BI could achieve this through choosing priorities within its scientific work and how best the Institute could engage with the public in the future.

It's not altogether clear whether this was the right or the most useful question to pose. While the majority of stakeholders who commented on it thought it was a useful and workable starting point, a few people thought more attention should have been paid to creating a more focused question that was better aligned with the kind of work undertaken at BI, and this could be achieved by considering the kinds of topics or specific questions it would have been useful to BI for people to comment on.

It has been suggested that the question was not unanimously popular at the Researcher Day because it was somewhat suggestive of translational research rather than fundamental research and it therefore wasn't the best way to get feedback for the science strategy. Reservations were also expressed at the External Stakeholder Group meeting, with concerns being voiced about a misalignment between the question and what BI seemed to want to find out from the public dialogue process.

Setting a research question like this is clearly not straightforward. Fundamentally however it should provide the framework within which the detail of the process is designed, and be the reference point for each activity within individual sessions.

3.2.2 Presenting complex material to a lay audience

There is a real challenge in providing sufficient information to enable the public to participate in meaningful deliberations, and in a form that is accessible. The general principle underpinning the process design was therefore to give participants a lot of background information about BI's work, and the chance to discuss and interrogate it, during the initial workshops. They would then be in a position to start the reconvened workshop with a level of understanding that would enable them to take part in more focused, constructive and meaningful deliberations.

As a result, considerable time and attention was given to producing useful and useable stimulus materials for the initial workshops, specifically the set of nine illustrative case studies that were selected to show the range of BI's work. Throughout the case study design process there was a degree of tension between the requirements of scientists, who wanted to ensure the materials are technically accurate and who assumed that the public's level of knowledge was higher than it is, and the process designers who are experienced 'translators' of complex science for a lay audience. This required some sensitive 'brokering' by the BI project lead. This is all part of the organisational cultural shift that public dialogue exercises containing highly technical content commonly require, and there is nothing to suggest that this dynamic process of negotiation has been anything but a positive opportunity to build awareness among the relevant scientists about what is required for a public dialogue project.

One aspect of the design that appeared to have been overlooked for the initial workshops was the piloting of stimulus materials with a non-technical audience – all of the engagement was with those from the science community who were advising on what *they thought* the public would understand. Icarus raised this as a potential

weakness following the External Stakeholder Group meeting in July, particularly given the fact that the two public workshops were to be held back to back with little scope for tweaking or refining materials in between. Both Ipsos MORI and BI took action on this issue and found opportunities to test the materials with lay people.

It is a testament to the successful design of the materials that between two thirds and three quarters of the initial workshop participants stated that they were able to make sense of the complex subjects that were covered sufficiently well so that they could contribute to the workshop as much as they wanted; no-one said they found it hard to understand the issues and the discussions.

The design process for the reconvened workshop was similarly detailed. Since this was the final opportunity to gather credible input to BI's science and public engagement strategies it was crucial to ensure the stimulus materials and discussion guide for the day were sufficiently focused. A significant potential limitation for the reconvened event was the shorter timeframe that was required to accommodate the participants travelling from Birmingham.

Advice about the workshop design was sought from the External Stakeholder Group and the Advisory Group for the initial workshops, and from the Advisory Group for the reconvened workshop.

Table 5: Process design good practice and learning

Process design: good practice and learning summary
Each of the following points summarises good practice points for public dialogue projects that have become evident as a result of the BI project evaluation findings. The narrative beneath each heading describes how this was manifested in the BI project.
• *Establish a key question that summarises the public dialogue objectives in an understandable format.* The core purpose of the dialogue activity was crystallised into a format that was easily understood by the public participants and which provided a focus for the workshop design process – it helped keep the process designers on track. However some questions have been raised about whether this needed further refinement to ensure it reflected BI's core activity in basic science (rather than translational research) and could therefore produce results that would be better aligned with BI's science strategy.
• *Engaging a broad audience with relevant expertise to help inform the process design adds value.* External stakeholders, BI scientists and Advisory Group members all helped frame the stimulus material and workshop design. There have been challenges in capturing everyone's insights while remaining aligned to the public dialogue objectives and ultimately it's important for a single body to take the final decisions about the shape of the design, in this case the BI project team working alongside Ipsos MORI.
• *Test stimulus materials with a non-technical audience.* This step was initially overlooked in the BI public dialogue process design but was added prior to finalising the materials. This was key to ensuring the materials make sense, and are at a level that will provide a reasonable depth of understanding to inform

constructive debate, without being overly technical or in danger of unduly 'dumbing down' the material in a patronising fashion.

3.3 Assessment of the public dialogue activities

3.3.1 The dialogue format

The overall format of the dialogue project – initial workshops in two locations (Birmingham and Cambridge) and reconvened events in each location – was originally suggested by Sciencewise and included in the invitation to tender for the delivery contractors, with the caveat that tenderers could offer an alternative format in their proposals. None of the tenderers did offer an alternative, which infers that they considered this to be a logical approach for a project of this nature.

While there are clear merits in mixing groups in a reconvened event the compromise was a shorter workshop day for the reconvened event to accommodate what was a quite significant travel time from Birmingham to Cambridge. However there is no evidence to suggest that this had a negative impact on the participants or the workshop outputs.

Where stakeholders have questioned this format their comments have been focused on using Cambridge as one of the locations. During the public dialogue project it became evident that the Cambridge cohort of public participants were generally more knowledgeable about science and research institutes (because of the profile of these in their locality) than those who attended the Birmingham workshop. This had two key effects:

- It has been suggested that the Cambridge participants did not reflect the levels of scientific / research knowledge of the population as a whole and that it might have been better to select a different workshop location
- The more developed baseline knowledge of the Cambridge participants allowed for more in depth deliberations and analysis and resulted in more sophisticated recommendations for BI around areas such as governance.

This situation had not been anticipated in the planning of the public dialogue.

3.3.2 The workshop structure

An overview of the structure of the workshops is described in Tables 3 and 4 above. Both workshops (initial and reconvened) followed a similar overall pattern and had the following features:

- Split into smaller working / discussion groups for much of the day – comprising two groups for the initial workshops and four groups for the reconvened workshop – with several opportunities for full group plenary sessions

- A substantial focus on inputs from facilitators, followed by guided discussion around a series of prompt questions, for lengthy periods
- BI scientists on hand to input to discussions as necessary, responding to participant and facilitator questions, providing technical clarifications
- Little use of interactive exercises with the participants
- A large amount of content to cover / objectives to meet.

The following table summarises our assessment of this overall approach.

Table 6: Assessment of the overall workshop structure

Approach	What worked	Challenges
Main group split into smaller working / discussion groups	• Gave more opportunity for everyone to contribute to discussions. • It was a more easily manageable group size for the facilitator. • It was easier to guide the deliberations to conclusions / agreements than with a bigger group.	• 'Noise pollution' when two groups were close by in the same room. • Groups did not finish the discussions at the same time / reach the same point in the deliberations, so it was not always straightforward to co-ordinate bringing them together for joint discussions / plenary sessions.
Facilitator guided discussion for substantial periods of time	• Clear discussion guide and prompt questions for the facilitators to follow. • Good stimulus materials used for each group ensuring consistency of content. • Interesting stimulus material helped ensure participants' concentration over long periods of time.	• Required all facilitators to have familiarity with the content / stimulus materials – it was evident that facilitators' knowledge and ability to keep the interest of their groups was not consistent and some were better than others. • During initial workshops the prompt questions for the case studies did not work very well; participants were being asked to make judgements about individual components before they had heard everything – and this led to some frustration. • Required concentration from participants over a long period of time, sitting in one place.
BI scientists on hand	• A substantial investment of staff time - demonstrated BI's commitment to the public	• Potential for the deliberations to follow a thread started by a scientist rather than the

Approach	What worked	Challenges
	dialogue project. • Good briefing (in advance and at the start of each workshop) ensured the scientists were clear about their role and how they should input to the workshops. • Provided technical input to clarify facilitator / participant queries and ensured the scientific content / debate remained accurate. • Gave a 'face' to the work of BI / scientists – made it more real for the participants.	discussion guide. While this did happen it took the deliberations into areas not anticipated in the discussion guide but that were also useful.
Variety of interactive exercises	• In the initial workshops, ensured that participants received enough information to enable them to start engaging in constructive deliberations, particularly in the reconvened workshop.	• Participants sat for long periods of time, engaged in the same activity (guided discussion). • Suits certain learning styles, but not all – for some participants this may not have been the ideal way of learning and may explain why a few participants found it difficult to take part in the workshops. • The reconvened workshop included more interactive exercises but of these, some were omitted when time was running out potentially affecting the scope for clear agreements to be reached.
Large amount of content	• In the initial workshops the case studies / stimulus material were a good tool to provide an overview of what is a large and complex field of work.	• Both workshops were rushed at times and content / exercises were omitted.

The overall structure was generally appropriate for the requirements of each workshop – for the initial workshop to get participants familiar with BI's work, and for the reconvened workshop to engage in more detailed deliberations about decisions BI would be making. However, there are areas that would have benefited from a different approach (as outlined in Sections 3.3.3 – 3.3.5 below).

3.3.3 The case studies

We recognise the tricky balance BI faced in making sure all of their interests and each of the four Institute Strategic Programmes (epigenetics, signalling, immunology and nuclear dynamics) were represented in the case studies. There was also a related argument that lay people could not discuss the Institute's strategy without such an in-depth understanding of what BI does.

However the number of case studies (nine) was to dictate the format for the initial workshop and formed a significant part of content of the day. One stakeholder commented that they thought this focus on the case studies, and thereby the science of BI, was a compromise that took too much time that could otherwise have been used for deliberations that could ultimately make a positive contribution to BI's strategies.

There is a good case to suggest that slightly fewer case studies would have made the time more manageable and would have freed up time for more deliberations, and would still have given a sufficient breadth of coverage of BI's areas of research. In addition, it would have relieved the participants from sitting and engaging in the same style of activity for a considerable period of time: "*it pushed people to their limits"* (BI project lead).

Fewer case studies would have allowed time in the initial workshop for more use of interactive exercises, with participants working together on tasks. This would have had several benefits: the format would be more varied; the reliance on facilitators having knowledge of a large number of case studies would be diminished; and a broader range of learning styles among the participants would have been accommodated.

Some concern has also been raised about the effects of the nuanced differences between the presentation / style of the individual case studies. The argument has been made that the public may have prioritised case study topics because they were written in a more engaging style, with a narrative that related to people's personal circumstances, or presented in a more interesting fashion by the facilitator. What this demonstrates is the need for a rigorous quality control process to try and mitigate against differences of style impacting on participants' level of interest in the different topics.

3.3.4 Workshop venues

The evaluation has not generated substantial feedback concerning venues and the working spaces for participants. From conversations at the events, participants offered generally positive feedback regarding the venues and the refreshments provided. Challenges were observed regarding noise pollution between groups in the venues for the initial workshops and at the reconvened workshop, although the level did not significantly compromise the work during the sessions. It was notable however, that two groups in one room at the initial Cambridge workshop and at the

reconvened workshop chose to re-arrange their tables to place a greater distance between themselves and the other group in the room.

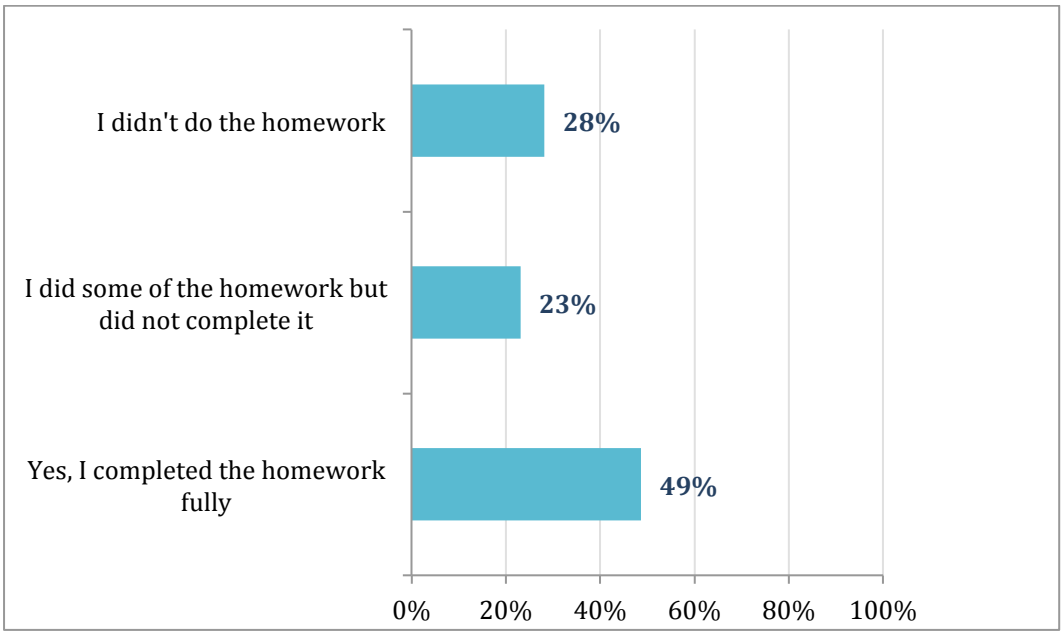
3.3.5 The homework exercise

All of the participants at the initial workshops were asked to complete some homework in the intervening period before the reconvened workshop. This was comprised of three tasks:

- To look at the www.immunearmy.babraham.ac.uk website with a friend or family member and to ask them three questions about their understanding of the content
- To do some research online on the topic 'how science can help ageing'
- To interview a friend about their experience of ageing.

Our understanding is that the homework task was set to help reinforce the learning from the initial workshop in participants' minds, and help keep it fresh for the reconvened workshop. Just under half of the participants completed the homework fully, with around another quarter doing some of it but not completing it.

Figure 1: Participant feedback to the survey question – "did you complete the homework task that was set?"



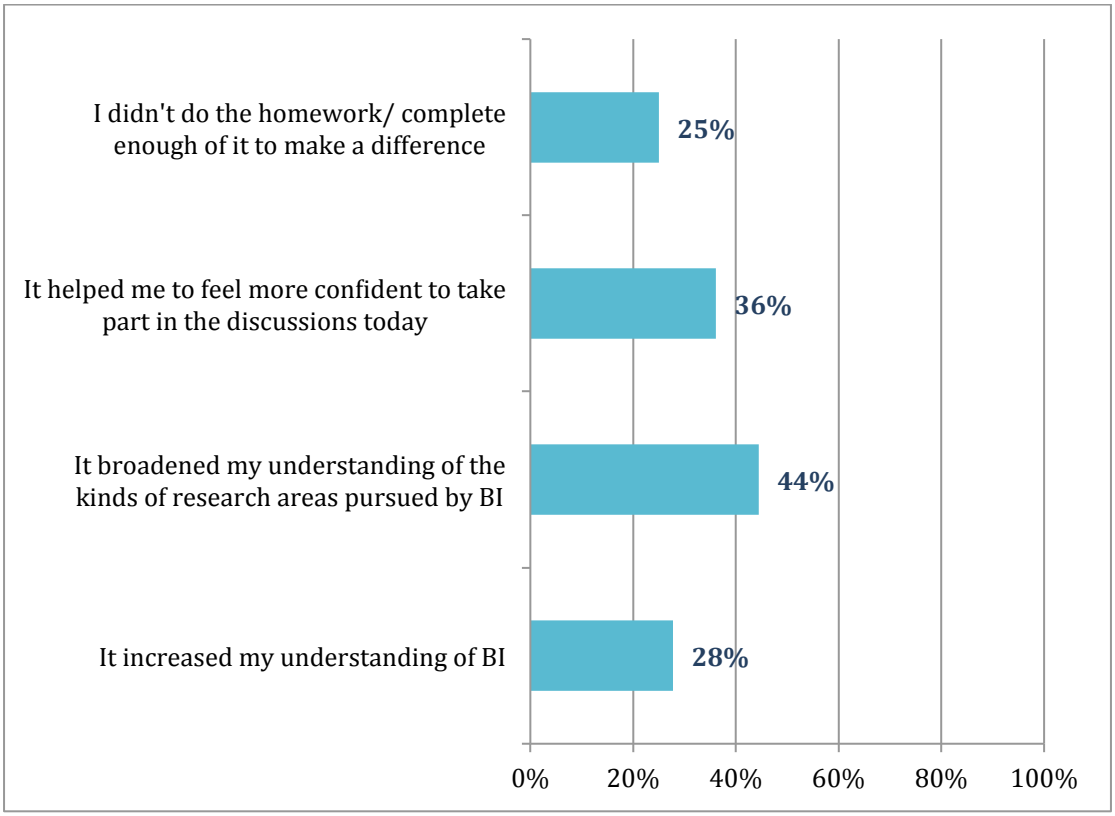
Eight of the 11 respondents who said they did not complete the homework said this was because they did not receive it - at the Cambridge workshop the Ipsos MORI team did not have enough hard copies of the homework task and stated that they would email it out to those who were not able to take a copy. Ipsos MORI has confirmed that this was done so it is not clear why people believe they did not receive it. Only three people did receive the homework but did not complete it and

their explanations for this were: not enough time, it was too complex, and one person did not have access to a computer.

Altogether 28 of the 41 respondents completed the homework in full or in part. Their reasons for doing so fall into two broad categories – they engaged with the homework because they had found the initial workshop interesting, or because they thought it was a requirement / necessary for attending the reconvened workshop: "*I was interested to know more*"; "*thought I had to complete it*". There were also several comments that indicate people did not know exactly what was required of them – for example, should they be finding out enough information to fill the response boxes, and they didn't know how much time they should devote to the homework task.

While it is unclear whether everyone did receive the homework task, the levels of completion (full or in part) suggest that there was a relatively high level of engagement with and interest in the public dialogue process. This is useful because it added value to people's participation in the process as outlined in the following chart.

Figure 2: Participant feedback to the survey question – "in what ways has the homework contributed to your understanding?"



During the reconvened workshop, participants briefly reflected on their completion of the homework task when introducing themselves or their neighbour to the group. However, the content of the homework was not particularly used or further

referenced in the workshop, nor was it made clear how Ipsos MORI or BI would use it as part of the wider reflections on the project. This may have been valuable; it would have made completion of the homework feel like a more worthwhile exercise, and that the work done by participants had been recognised and validated.

3.3.6 Briefing the BI scientists

BI was committed to involving as many scientists as possible in each workshop and challenged Ipsos MORI's advice to include fewer. This reflected the Institute's aspiration to improve scientists' confidence and willingness to engage in public engagement activities. A total of 14 scientists attended across the series of three workshops.

All of the scientists who attended the initial public workshops and / or the reconvened workshop were happy with the briefing information they received beforehand – this was a combination of written guidance and an introductory session with the BI project lead. In turn this ensured they were clear about their role: "*my understanding was that I should answer any questions in a clear non-patronising way and without trying to influence the participants"; "I was prepared to talk and give opinions when it mattered, and the briefing material made it clear what role we were supposed to have".*

Table 7: Dialogue design good practice and learning

Dialogue activities: good practice and learning summary
Each of the following points summarises good practice points for public dialogue projects that have become evident as a result of the BI project evaluation findings. The narrative beneath each heading describes how this was manifested in the BI project.
• *Workshop locations need careful consideration to ensure they can align with the parameters of the agreed sample.* There were noticeable differences in the baseline scientific / research knowledge between the participants at the two locations; overall those from Cambridge were more knowledgeable. The recruitment used a purposive sampling methodology and was intended to be reflective of the local population. Had the intention been to reflect the UK population as a whole then this approach would not have been appropriate.
• *Workshop structure should include varied activities to reflect the different learning styles.* Considerable chunks of time were spent sat in discussion groups in the BI public dialogue workshops. Through observation the majority of people appeared engaged with the deliberations but this style of working is not suited to everyone; ideally it would be combined with more active forms of learning, such as participative and interactive exercises. During the public engagement discussion at the reconvened workshop these exercises were dropped by some groups due to time pressure and this had the potential to impact on the usefulness of the data generated from those parts of the workshop.
• *Breaking into smaller groups for discursive sessions maximises participation.* Participants worked in sub groups in all of the BI public dialogue workshops. A smaller

number of people makes it is easier for the less vocal to take part, and a more straightforward task for the facilitator to try and engage everyone.

- *Good quality stimulus materials stimulate interest in the topic and focus discussions.* Considerable effort was made to develop the stimulus materials for the workshops – the case studies, slide sets, handouts and task descriptions. These appeared to support the learning and deliberations and to be of interest to the participants (see also Section 4.3).

- *Homework tasks can help people remain engaged in the topic between workshops.* Participants need to be briefed well about why they are being asked to complete the homework; how much is expected of them; and the homework should be accessible to everyone (everyone should receive it and it should not be overly reliant on internet access). A high proportion of participants did complete the homework fully or partially and could describe how they found it be a useful exercise, but the structure of the reconvened workshop only briefly referenced the homework task and it was not clear how the completed homework would be used by BI.

- *It's important that everyone involved in the workshops is clear about their role.* The BI scientists were given both verbal and written briefs beforehand, and a further verbal briefing at the start of each workshop. This helped ensure they were clear about their role and the balance they were being asked to achieve between contributing their technical expertise to the workshops, while not dominating the deliberations and ensuring their inputs were understandable to the public participants.

4 The effectiveness of the public dialogue workshops

4.1 Introduction

This part of the report moves on to consider how the design and delivery of the public dialogue workshops impacted upon people's ability to take part and engage in the deliberations in some more detail. We also look at what effect this had on people's willingness to take part in similar activities in the future, and their level of confidence in BI's commitment to taking note of the workshop findings as they set their science and public engagement strategies. The findings are based on the immediate post workshop feedback of public participants, the online surveys completed by the BI scientists who attended the workshops, our observation of the design process and the events, and the impact research undertaken through interviews and online and they relate to the following impact evaluation questions and inputs question: 1a, 1b, 1c, 1d, 1g, 1h, 1i and 2f.

Question	Evaluation question
Impact questions	
1a	To what extent has this dialogue process delivered its objectives?
1b	To what extent are the outputs from this process (report/s) fit for purpose and helpful for BI?
1c	To what extent do the findings from this process have the potential to influence policies, planning and decision-making?
1d	Has the public dialogue project generated stimulus material that will be of future benefit / use to BI?
1g	Having taken part in the dialogue, are the public more or less willing to be involved in future dialogue initiatives?
1h	What learning has there been from the dialogue process that could inform and improve future dialogue processes, both for BI and for other Institutes / organisations?
1i	To what extent are BI scientists and others more willing / enthusiastic / confident to take part in public dialogue processes in the future?
Inputs questions	
2f	What was the approach to diversity / sampling / recruitment (and numbers) of the participants? Were the right people there, and the right sort of numbers of people to be credible in taking account of the results of the dialogue?

4.2 The participant sample

The public participants were recruited to the workshops using a purposive sampling methodology which was designed to recruit people who broadly reflected the ages, gender and socio-demography of Birmingham and Cambridge respectively. The participants were recruited on the street and from a database of contacts by Ipsos MORI recruiters using a screener to ensure the sample was as required, and which filtered out those with a close connection to the subject matter of BI and anyone actively involved in anti-animal research campaign groups.

Feedback about the range of participants was generally very positive – that the sampling was successful in recruiting the right number of and a wide range of people, broadly reflective of the local populations. However a couple of reflections on the sample from interviewees are interesting to note:

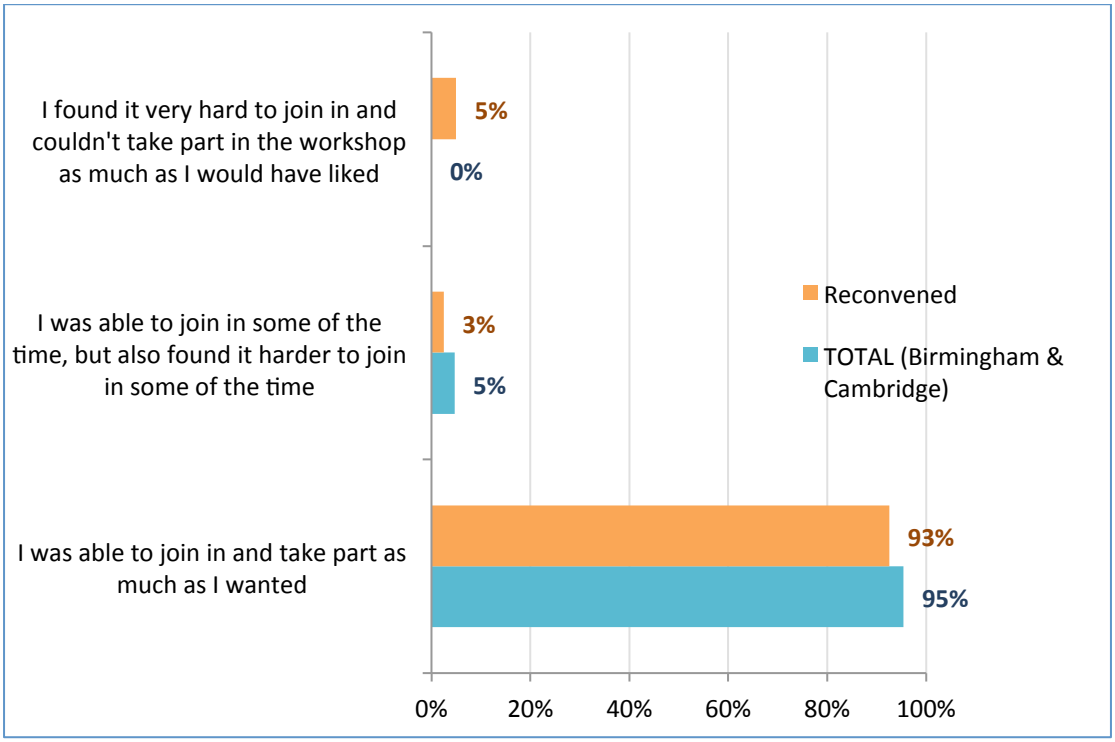
- The ethnic mix of Birmingham attendees did not reflect that of the city, particularly that there were no participants of Asian descent
- The high ratio of unemployed attendees at Cambridge was surprising given the high employment rate of the city.

One tension evident throughout the project was the size of the sample. For scientists like those at BI who are familiar with large scale and quantitative research, the small number of participants was an area of doubt – they were concerned that the results could not be credible or robust, for example: *"the project and report is only able to raise awareness in a limited scope as the dialogue was with a small sample"* (key stakeholder impact survey respondent). Of those interviewed however, the majority did change their view as a result of being involved in this project; seeing the qualitative, deliberative process re-assured them that the results were broadly indicative and that a larger number of participants would not have significantly altered the results.

4.3 Levels of participation

We have outlined the individual sessions in each of the workshops in Section 3 above, and have provided a critique on the overall approach and style. Critically however, what matters is whether the participants felt they could engage effectively with the workshop content and make constructive contributions to the deliberations and exercises. The following table shows the degree to which they felt able to fully take part in the workshops.

Figure 3: Participant feedback to the survey question – "overall, did you feel able to take part in the workshop fully today (combined results for initial and reconvened workshops)?"



These results suggest that the workshop design, for both the initial and reconvened workshops, was effective in enabling people to take part fully. Comments from participants include: "*the group was well led and everyone was encouraged to participate throughout*"; "*it was an open discussion, easy to interact*". Where people have commented on why they couldn't join in as much as they would like they have described the difficulties of taking part when other people were more vocal.

This level of engagement was similarly evident during our observations of the workshops, and in feedback from the BI scientists present (see also Section 4.4.2 below).

4.4 Participants' reflections on the workshops

Participants were asked to comment on what they found to be the most interesting parts of the day, and which were more difficult or challenging.

4.4.1 What members of the public found most interesting

For the initial workshops the responses about what was most interesting were wide ranging across most of the topics that were covered – "*the P13K was interesting*"; "*the ageing process, genes, genetics, disease*"; "*growing of yeast and the cost*"; and "*all of it*".

For the reconvened workshop a significant proportion of participants who responded to this question (40%) found the session on animal testing, and how animals are used by BI, to be the most interesting part of the day. This suggests that the decision to more substantively re-visit the topic in this workshop was a good judgement by BI; they had wanted this included due to their commitment to the Concordat on Openness on Animal Research[7] and to reflect their commitment to openness on this topic.

Other notable areas of interest were:

- Meeting the BI team and speaking to the scientists
- Understanding and discussing why and how BI wants to engage with the public
- Discussion about funding and the relative importance of fundamental bioscience.

4.4.2 What members of the public found most difficult or challenging

It was also the case that for the initial workshops most of the topics covered during the day were challenging for one person or another. However, almost a third of those who responded to this question from the Cambridge workshop found the final ranking exercise the most challenging - this was an exercise where the groups were invited to rank the individual case studies. Their reasons for this generally reflected a concern about being 'forced' to make decisions when they felt they had insufficient / incomplete information from which to make an informed decision. While this point was not made in the Birmingham participants' feedback so strongly, we certainly observed a similar discomfort around taking such bold decisions here too, and a similar comment was made by one of the scientists present "*we were asking people to make decisions on things when they didn't feel properly informed... so I feel like we need to properly inform people*". It's probably not that there was a problem with the activity, it's likely that the participants found the transition from being passive members of a group discussion to decision-makers, at a time when they were still processing considerable amounts of information, a challenging prospect.

No specific themes emerged for the reconvened workshop around what people found most difficult or challenging; the survey respondents have identified a spread of topics across most areas covered during the day.

4.4.3 What the scientists thought about the workshops

When invited to comment on what they thought were the best aspects of the workshops the scientists' responses mainly focused on the overall structure of the day, for example: "*the opportunity for the participants to ask questions about science in general and the cases being presented was very positive*"; "*it all went well - in particular talking about the individual research projects*"; and "*I think overall the day worked very well*".

[7] See http://www.understandinganimalresearch.org.uk/policy/concordat-openness-animal-research/

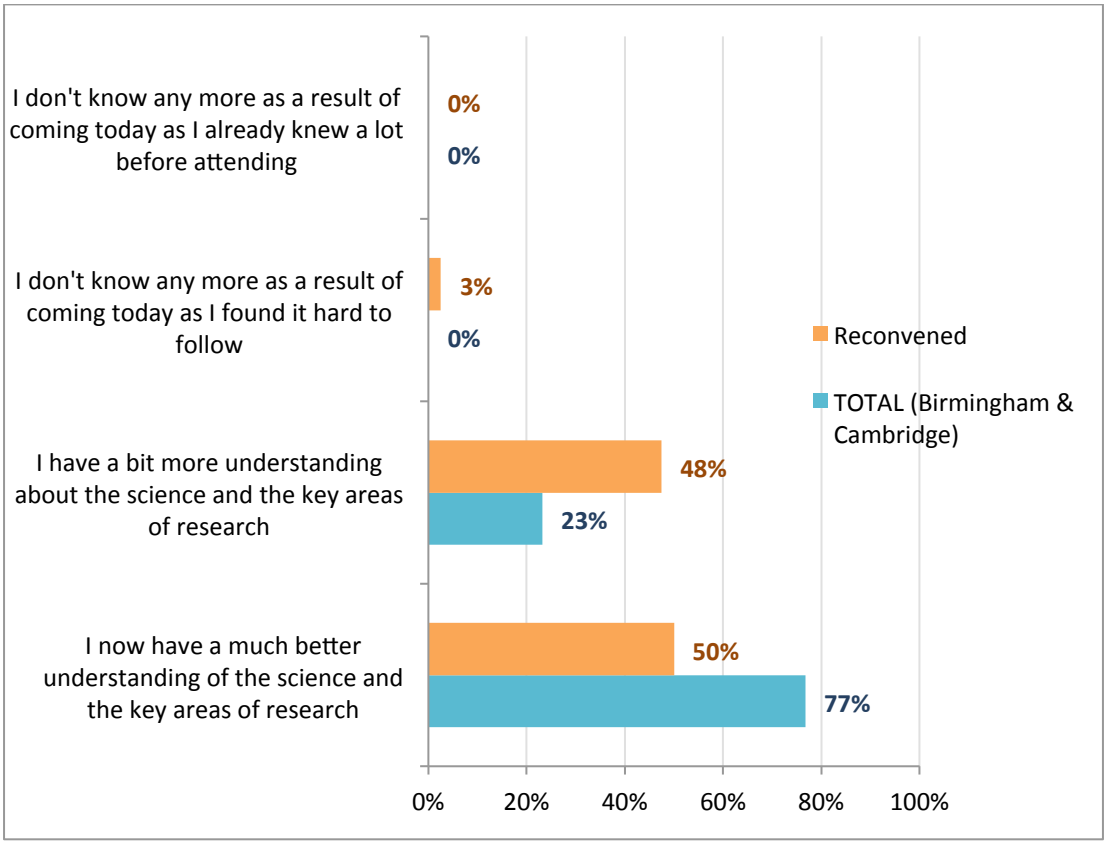
There were no negative comments about the stimulus materials from the scientists' immediate feedback, suggesting that the time invested in ensuring the materials struck a good balance between technical accuracy and lay understanding generated good products from their perspective. Two respondents suggest that the reconvened workshop would have been improved by allowing more time for discussions and participants' questions, reflecting our observation that timings in this event were, at times, under pressure.

4.5 Increasing understanding

4.5.1 Increasing the public's understanding

As highlighted above, a key focus for the initial workshops was to increase understanding among the participants about BI and the kind of work it carries out. The following figure illustrates the extent to which this happened.

Figure 4: Participant feedback to the survey question – "to what extent has the workshop today increased your knowledge or understanding of the science and the key areas BI researchers?" (combined results for initial and reconvened workshops)



This shows that participants did learn a significant amount during the initial workshops. The content appears to have been pitched at about the right level to engage participants' interest and impart new information. It is worth noting that only one person said they hadn't learned anything new because they found the day hard to follow.

4.5.2 Increasing the scientists' understanding

An underlying purpose of the public dialogue process for BI was to involve its scientists in a different approach to public engagement and to break down some of their barriers around appreciating the public's understanding of and interest in their work.

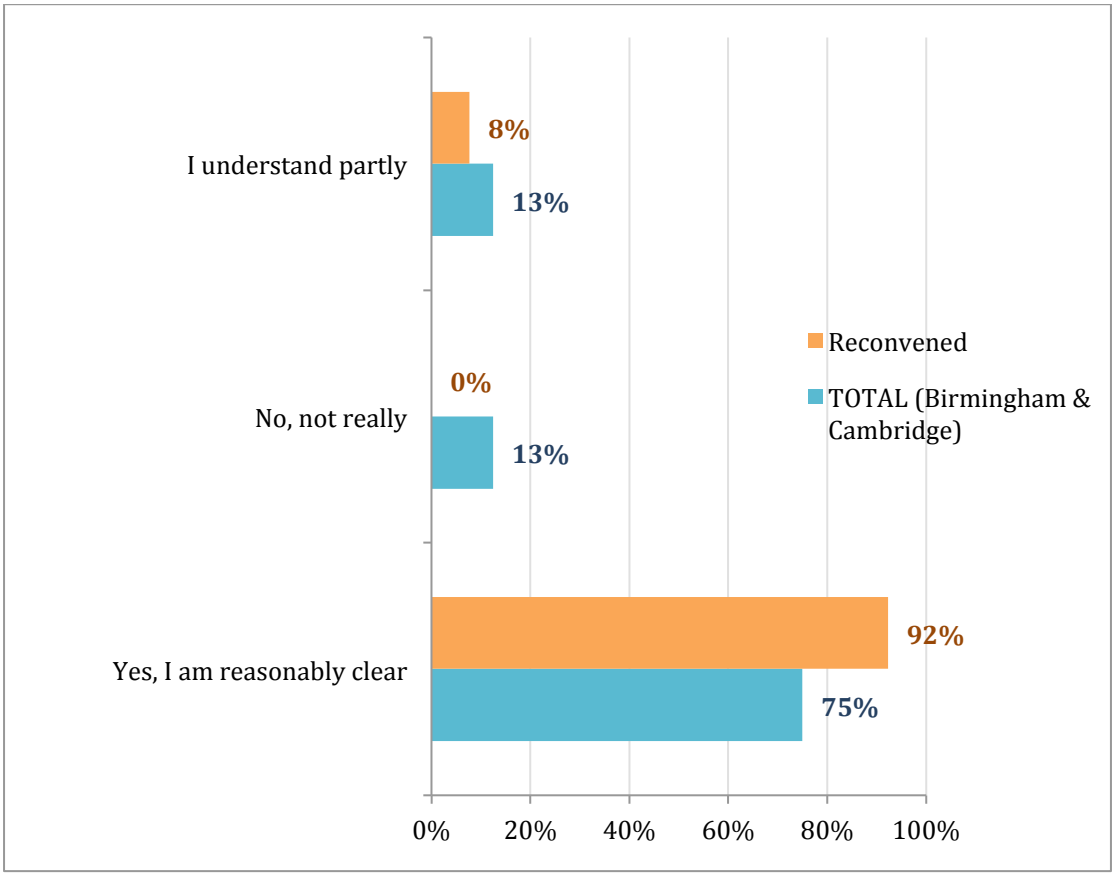
The majority of scientists reflected that the participants in the workshops were more engaged than they had expected them to be, and were also more interested in the science: "*I was not quite sure what to expect but was pleasantly surprised by the level of engagement and interest*"; "*more engaged than I expected – very interested – lots of debate – different points of view – but constructive debate*". Only one scientist expected more of a challenge from the public participants: "*they took up the information very well, maybe too uncritically. I thought we would be challenged and questioned more*".

Given the low response rate to the online impact survey to internal stakeholders it is not possible to establish the extent to which the project has built on scientists' willingness and confidence to engage in public dialogue activities. However, there is some optimism on this question among the stakeholders who were able to comment on this during their interview; they described the enthusiasm and commitment they observed among scientists who attended the workshops and commented that they hoped this would have an ongoing impact on those who had been involved; *"it was extremely successful in mobilising scientists to get involved…this was a 'big win'"* (BI project team member); *"the scientists were 'pulled out of their bubble'"* (Advisory Group member).

4.6 How the workshop findings will be used

The members of the public have been asked if they understand how BI will use the results of the workshops, as shown below.

Figure 5: Participant feedback to the survey question – "do you understand how the results of the workshop will now be used by BI?" (combined results for the initial workshops and reconvened workshops)



It's a positive indication that the information given to participants about how the results of the workshop would be used by BI was clear, given that levels of understanding were high after the initial workshops, and this grew further following the reconvened workshop.

BI's stated intention to use the findings is one part of the picture; the other is the level of confidence that exists about whether this will happen, as summarised in the table below.

Table 9: Participant feedback to the survey questions – "to what extent do you think BI will take account of the public's views form this workshop in developing their science strategy / public engagement strategy?" (reconvened workshop)

Strategy	Response: I think they will	Response: I think they won't	Response: I don't know at this stage
Science strategy	79%	3%	18%
Public engagement strategy	85%	0%	15%

This suggests that there is a high level of confidence among the public participants that BI will take account of the findings from the workshops. The comments in response to these questions show that people believe that BI wouldn't have embarked on such a process if they didn't have the intention of making use of the findings: "*otherwise, why would they put on the workshops?*"; "*they seem to value our opinions*"; "*scientists have taken the time to attend*".

Following the reconvened event the views of scientists indicate a degree of uncertainty about how the dialogue process findings can feed into BI's science strategy. We return to this point in Section 6.2 below.

4.7 Participants' willingness to take part in similar events

At the end of the reconvened workshop participants were asked about their willingness to take part in similar events again in the future. 90% said they would be 'more willing' to come to another dialogue event, 82% said they would be 'more likely' to take an interest in the science discussed / ageing well. These results suggest that members of the public had felt engaged with both the style and content of the workshops they attended, and that no-one had been completely put off either dialogue or science as a result of taking part: "*I thought it was fascinating*"; "*was really interesting and have gained more knowledge about science, and willing to further knowledge*"; "*because it was interesting and a relaxed environment that was good for asking questions and discussion*"; "*the extra cash was a bonus*".

4.8 Future use of the stimulus materials

It was hoped that the stimulus materials created for the public dialogue project would be beneficial for future public engagement work undertaken by BI. A significant amount of time was committed to ensuring that the relevant BI scientists were happy that the case study information was sufficiently accurate, while presented in a language that was understandable to lay members of the public. This appears to have been successful given the degree to which participants felt able to engage with what was detailed technical content (see Section 4.3 above).

Future uses for the materials have been identified: putting the case studies on the BI website; using them with school groups; building new activities around the case study material.

4.9 Demonstrating openness, responsiveness and social responsibility

One of the objectives for the public dialogue project was to demonstrate best practice in openness / responsiveness and social responsibility. This was accomplished to a degree simply by instigating this project, and also by using external and independent facilitators, and by allowing open discussions on all aspects of BI's work.

Of particular note was BI's commitment to an open and frank conversation about the use of mice in their research, and, as highlighted in Section 4.3.1, this was a topic that proved to be of particular interest to members of the public. Stakeholders were generally surprised by the degree to which the public participants understood why it is necessary to use animals in research and that they saw it as an acceptable practice when carried out ethically and in a well-regulated environment.

Table 8: Dialogue activities good practice and learning

Dialogue activities: good practice and learning summary

Each of the following points summarises good practice points for public dialogue projects that have become evident as a result of the BI project evaluation findings. The narrative beneath each heading describes how this was manifested in the BI project.

- *Pitch the content at a level that engages the participants and piques their interest.*
  The content of the BI public dialogue workshops was pitched at a level that a significant majority of participants could understand. As a result they felt able to participate in the deliberations during the initial workshops and could build on this to start reaching conclusions about BI's work in the reconvened workshop. The 'translation' from scientific language into a form understandable by those encountering it for the first time was largely extremely effective, and the quality of the conversational contributions from the BI scientists was generally accessible and engaging.

- *A 'quality control' process is required to ensure the case study material is presented in a consistent style and level of detail.*
  Where participants are being asked to make decisions about prioritising different topics, for example, then it's key that the material is presented to them in a consistent fashion. It's not possible to state definitively to what extent this may have impacted on the results of the BI public dialogue process, but there have been some concerns raised about an inconsistency in the style of the case studies and the way in which they were presented by the facilitators.

- *There are substantial benefits in including technical experts in workshop deliberations.*
  More BI scientists attended the workshops than were originally advised by Ipsos MORI. This proved beneficial from two perspectives: 1) the public appreciated meeting the scientists and hearing from them directly about their work; 2) the scientists enjoyed taking part and engaging in deliberations with members of the public.

- *Purposive sampling is credible for in-depth public dialogue exercises.*
  Despite concerns from BI scientists, the purposive sampling methodology was successful in recruiting a sufficiently varied group of people to elicit a range of perspectives to contribute to the workshop deliberations.

5 Project resourcing and governance

5.1 Introduction

In this part of the report we focus on the governance and resourcing of the public dialogue project. This assessment relates to the inputs questions in the evaluation framework, specifically evaluation questions 2b, 2c, 2d and 2e.

Question	Evaluation question
Inputs questions	
2b	Have the inputs (time, money, resources) to the process been sufficient to deliver the project objectives?
2c	Has the project provided good value for the resources invested?
2d	Have the different management and delivery elements worked well and complemented each other's roles?
2e	Has the governance / management of the process been adequate to ensure a process that is well run and supported?

The findings are based on the findings of the impact interviews with stakeholders.

5.2 Resourcing

The cash budget for all elements of the public dialogue project was £80,000, comprised of £20,000 contributions each from BI and BBSRC, and with £40,000 matched funding from Sciencewise. An additional resource of £5,500 was provided to extend the number of participants from 30 to over 40.

Additional resourcing was in the form of staff time, from BI to a significant degree, and from a range of people from stakeholder organisations who contributed time to the Advisory Group or External Stakeholder Group.

BBSRC's original position was that the budget was at the lower end of what would be required for a public dialogue project. The general view of interviewees is that, given that this was a pilot project for BI, then it was probably necessary to spend this amount in order to get the work done. There is no sense that there were shortfalls in the budget nor that anything didn't or couldn't happen because the budget wasn't available.

It is hard to judge 'value for money' at this stage. While a couple of interviewees do feel it was a lot to spend per participant there is otherwise a general sense that the information generated has some utility and it will only be possible to know how useful that has been once some time has elapsed: "*it is a lot of money but it is backed up by the reporting and evidence and mechanisms for governance*" (BI project lead).

5.3 Governance

There were three sets of players in the governance of the public dialogue project:

- The BI project team – BI's Institute Strategic Priority leads, grant holders, the Director and Communications Manager
- The Advisory Group – a BI organised group of stakeholders mostly known to BI[8]; met twice during the public dialogue project; were invited to the final dissemination meeting
- The External Stakeholder Group – an Ipsos MORI organised group of external stakeholders many of whom previously unknown to BI whose key purpose was to comment on the stimulus material[9]; met once during the public dialogue project; were invited to the final dissemination meeting.

The input of each of these teams has added value to the process. Being able to tap into the expertise of people with a range of technical backgrounds (via both the Advisory Group and the External Stakeholder Group) has proved useful, both in terms of guiding the project and informing the design of the stimulus material.

Inevitably the people that are useful to a process are already busy and time poor. There is therefore a balance to be struck when engaging them; they need to feel they can make a useful input and have genuine influence in order to commit their time to another organisation's project. It is not surprising therefore that people found it hard to attend the two Advisory Group meetings. The discussions at each meeting were useful and instructive for BI. However, organising the meetings and ensuring the members remained engaged regardless of whether they could attend, was more time consuming for the BI project lead than had been anticipated at the outset of the project.

The position of the internal project lead is vulnerable in this kind of project – there is potential for them to feel pulled in numerous directions and lacking support internally. However, there has been nothing but praise for the organisational capacity and level headed approach of the BI project lead. Equally important has been the Director's level of commitment and visibility in this project; this was critical in securing both internal support and external stakeholder engagement.

At critical times in the process there were frequent project management telephone conferences between the BI, Ipsos MORI, Sciencewise and BBSRC. While these were necessary to move the project forward at the pace required, their frequency was a problem for Icarus. It was impossible for us to join all but a very few of these calls due to the relatively modest budget for the evaluation. Key decisions were therefore taken without consultation with us, or without due regard for their impact on the evaluation.

[8] Members from: BBSRC, Sciencewise, Centre for Science and Policy, British Society for Research into Ageing, Cardiff University, CASE / UCL, London School of Economics, Nuffield Council for Bioethics

[9] Members from: Worldwide Cancer Research, MRC, Wellcome Trust, British Society for Immunology, Understanding Animal Research, Centre for Ageing Better, Cambridge Enterprise, Stem Cell Institute, Research Councils UK, GSK, ITV News, The British Geriatrics Society, Cambridge Cancer Centre

Table 9: Resourcing and governance good practice and learning

Resourcing and governance: good practice and learning summary

Each of the following points summarises good practice points for public dialogue projects that have become evident as a result of the BI project evaluation findings. The narrative beneath each heading describes how this was manifested in the BI project.

- *Senior management's commitment and visibility to the project is vital in securing internal 'buy in' and support, as well as the engagement of external stakeholders.*
  The BI Director was closely involved in the public dialogue project and this helped create internal support and commitment.

- *Public dialogue can be more costly than other public engagement approaches.*
  The public dialogue exercise was more costly than other public engagement approaches employed by BI. However this investment was necessary to achieve the depth of deliberation that was achieved, and has resulted in findings that can be of use to BI and others.

- *There are substantial benefits from involving people from a range of technical disciplines in the design process and governance.*
  There was significant value to the BI public dialogue process as a result of engaging stakeholders from a range of disciplines and organisations in the Advisory Group and the External Stakeholder Group.

- *There are resource demands associated with good project governance and management.*
  In the case of BI project the resourcing of Advisory Group and the management fo the project overall was more time consuming than expected. The project team took key decisions without consultation with Icarus even when they would have significant impact on the evaluation.

6 Potential impacts of the public dialogue project

6.1 Introduction

This part of the report examines the impacts of the public dialogue project, including those that are evident already and where there is potential for impacts to be realised in the longer term.

The findings here can be described as 'a work in progress'. Given the short timescale between production of the findings report and the impact research there has been little opportunity for impacts to come to fruition, nor for stakeholders to have a clear picture of how the findings can be utilised.

We focus on the key impact questions here: 1b, 1c, 1e and 1h.

Question	Evaluation question
Impact questions	
1b	To what extent are the outputs from this process (report/s) fit for purpose and helpful for BI?
1c	To what extent do the findings from this process have the potential to influence policies, planning and decision-making?
1e	Have there been any unplanned or unexpected impacts from the dialogue process?
1h	What learning has there been from the dialogue process that could inform and improve future dialogue processes, both for BI and for other Institutes / organisations?

Instrumental to the degree to which the public dialogue project can exert influence and create impacts is the quality of the final report and the clarity of the key messages contained within it, given it is the culmination of the process and incorporates the input of all the stakeholders who contributed to the design and took part in the dialogue process[10]. The general view is that the report is well written: for example, "*it is a nice anecdotal picture of what people's views are…showing the spectrum of people's opinions"* (member of the Advisory Group)*; "the content is a faithful reflection of what was discussed"* (member of the BI project team); *"it is quite digestible"* (BI project lead); "*I really liked how each section identifies the key findings and messages in the boxed text..the language is accessible and the report is well laid out"* (internal stakeholder impact survey respondent).

However, for some of the interviewees the findings don't go as far as might have been expected, or desired; that the views expressed don't go beyond the obvious and did not drill down in sufficient depth to give BI much of a steer on setting its science strategy in particular.

[10] The report is available at: http://www.babraham.ac.uk/files/download/16a97a3f4a8a8f2

These contrasting perspectives are examined in more detail in the remainder of this Section of the report.

6.2 The extent to which the public dialogue project can influence BI's science strategy

6.2.1 Distinguishing between the potential to influence content and the potential to influence decision-making

BI is currently drafting its science strategy, ready for submission to BBSRC in the first half of 2016. Following the reconvened event (online feedback survey sent to scientists three days after the workshop) the views of the scientists who attended indicated a degree of uncertainty about how the dialogue process findings could feed into BI's science strategy. Two appeared cynical that it would be possible to directly feed into the strategy, for example: "*we should emphasise that the scientific expertise lies within the scientists and groups leaders at BI; making changes to strategic priorities from the outside goes against this fundamental insight"*. Two others confirmed that the participants' expressed confidence in the kind of science done at BI is a positive outcome, for example: "*it has definitely informed me what the public expect from our science and scientists*". The two final views focus on the potential to undertake further public dialogue activities; "*maybe consider having more events where the public can have the opportunity to find out more of what we do and ask questions*".

This theme of uncertainty continued once the final report was published. It is worth making a distinction at this point between views about the potential of the findings to influence the *content* of the science strategy, and their potential to influence the *decision-making process*.

6.2.2 Influencing the content of the science strategy

The majority of stakeholders interviewed believe the report has limited potential to influence the content of science strategy, although it should be noted that they all highlighted how it is still early days and that work to align the dialogue project with the strategy setting process has yet to commence.

The reasons why stakeholders see limited potential to influence the science strategy revolve around several inter related themes.

i. Most notable is the lack of detail and specific direction in the findings that could directly influence the content of the science strategy. For example, the 'key takeaways' from the final report regarding the science strategy are relatively generic:
    - *Participants wanted Babraham to work to combat inequalities in health outcomes because they felt that illnesses and diseases are inherently unfair in their effects. They wanted this even though they understood that fundamental science is not the same as medical research.*

- *Focusing on epigenetics was seen as a priority by participants.*
- *Babraham could consider ageing research in its social context (i.e. not simply as a biological process).* (Final report, page 12)

ii. The public participants were uncomfortable about being asked to prioritise different areas of BI's work because they didn't feel they had sufficient knowledge to do so. They expressed their trust in the scientists to take the right, informed decisions about where priorities should lie.

iii. Where areas of work have been prioritised there is some doubt about the validity of this exercise. These concerns reflect the point made above in ii. and that made earlier in this report about the potential for the way in which individual case studies were written and presented to influence how people responded to them.

iv. The public's views are somewhat contradictory in places and do not therefore offer a steer to BI in setting the science strategy. For example:
   - Participants were enthusiastic about and recognised the importance of fundamental research. However, they also wanted BI to engage in work that would contribute towards combatting illness or disease.
   - Participants were sceptical about the relationship between publicly funded fundamental research discoveries leading to profitable commercial applications for private companies. However, some wanted BI's work to bring commercial benefits to the Institute.

v. There is limited scope to influence the science strategy due to the fact "*we are working within very tight funding constraints"* (Project Advisory Group member). BI is tied to the strategic priorities of BBSRC and has to align its science strategy with those to a significant degree; this severely limits BI's capacity do anything that is not a key target for BBSRC.

Despite these apparent limitations there is a very significant and clear message for BI that underpins its overall strategy; that is, **the public are genuinely interested in and supportive of the need for curiosity driven science like that undertaken at the Institute**. Interviewees have reflected on how they entered into the public dialogue process with little understanding of what the public might think, and with some concerns that the public might be resistant to the concept of fundamental research. It is therefore re-assuring for them to know that there is such strength of feeling among participants and, moreover, to have this evidence from the public dialogue process to underpin their discussions and negotiations with third parties and with funders particularly.

6.2.3 Influencing the decision-making processes for the science strategy

The final report outlines six scientific principles that were developed following the deliberations and exercises at the dialogue workshops, as well as two principles for governance (final report, page 18).

As might be expected from the commentary above, the scientific principles are broad in their range. For example: "*research should be fundamental, in-depth and a 'building block' to wider knowledge…choose projects with potential for greatest increase in knowledge"; "be fair, helping the greatest number and / or the most vulnerable…and provide outcomes which are distributed fairly".* The governance principles embody two key ideas: that BI should deliver projects that are in the public interest and which reflect the scientific principles; that BI should open itself up to more scrutiny and this may mean taking account of a number of different voices.

The feedback suggests that these principles have some scope to influence how BI takes the decisions that inform the development of the science strategy, although it is not clear at this stage what this will look like in practice: "*the scientific principles will be of most use and can certainly inform BI at a strategic level"* (BI project lead).

6.3 The extent to which the public dialogue project can influence BI's public engagement strategy

The public dialogue project was a pilot for BI. It was an opportunity to test out a different way of engaging the public; one that was about a two way process of deliberation where *"the public were more in control"* (BI project team member) and which contrasted with BI's traditional approach of one way communications in its public engagement activities.

The feedback suggests that there has been a substantial amount of learning for BI about this new form of public engagement they have tested, and there is a significant scope for the public dialogue project to influence the public engagement strategy as a result: *"the public dialogue project has given BI an insight into the differences between public dialogue and science communications"* (BI project team member). Some of this learning is embodied in the 'key takeaways' from the final report around ongoing public engagement activities (final report, page 37). There is information there to inform BI's activities at three levels of engagement: communication, consultation and participation. Bi has already drafted a new public engagement strategy that incorporates recommendations from the public dialogue process, and it will be published in 2016.

6.4 The extent to which the public dialogue project can influence the policies or work of other organisations

There are a number of things that have already happened that demonstrate the potential for the findings to influence the policies or work of other organisations. For example:

- Representatives from ten organisations, including BIS and BBSRC, attended the dissemination event and were engaged in deliberations about the findings from the project[11]: *"what was reported back at the meeting was fascinating and insightful"* (External Stakeholder Group member)
- A representative from the John Innes Centre (which is also undertaking a public dialogue project) attended the dissemination event and the scope for potential joint work was identified
- The findings have been shared with the EU LIFE programme and received a very positive response
- The British Society for Immunology is interested in the work and sees the opportunity for it to inform: their public engagement work; their work on ageing which is a key interest for BSI; the work of the newly created Policy Department particularly around the important message about public support for fundamental research
- Cardiff University has included BI in a grant bid as a direct result of the public dialogue project
- Strathclyde University has asked for BI's advice to inform its own public dialogue project
- The Guardian has published an article on the Nurse Review of UK Research Councils where BI's public dialogue project was referenced as an example of good practice of public involvement[12].

During both the dissemination event and the interviews a significant point was made about where the findings *should* be used to exert influence. There was a very strong view that some aspects of the feedback from the public could not influence what BI does because it is so tied to the priorities and BBSRC and BIS (see Section 6.2.2 [v.] above). Therefore those findings should be shared with those who create this strategic framework to influence their priorities – the two stand out messages for them to hear are:

- The public supports the use of public money to support fundamental research and values it alongside translational research
- The public trusts scientists to take decisions about where their research priorities should lie[13].

[11] University of Cardiff, BBSRC, Sciencewise, John Innes Centre, BIS, Wellcome Trust, British Society for Immunology, Research Councils UK, Understanding Animal Research

[12] See http://www.theguardian.com/science/political-science/2015/dec/01/nurse-review-where-is-the-vision-for-public-involvement

[13] These messages are derived from both the dissemination event and the impact interviews.

We should note here that the dissemination event was a feature that is not common in other Sciencewise funded public dialogue projects. There is a general sense that this was an extremely useful meeting, one that engaged the attendees in constructive discussion about the findings of the process in particular and how they can have an impact for both BI and attendees' organisations.

6.5 Summary of the main benefits of the public dialogue project that were identified by stakeholders

Stakeholders were asked to identify what they saw as the main benefit for BI of undertaking the public dialogue project. The overwhelming majority pointed to the insights into the public's views on fundamental research that the project elicited, for example: *"knowing the opinion of the general public and their appreciation of basic research and their support for it"* (external stakeholder group member)*; "reinforcement that what we're doing is important and that we're going about it in a way the public approves of"* (Advisory Group member); "*that we listened to the public and found that what we do is not a million miles away from what they want us to do*" (BI project team member).

Also significant were comments that related to the benefits for BI of having undertaken this pilot project, for example: *"getting the Institute to go out there and do it"* (BI project team member).

Table 10: Potential impacts summary

Potential impacts summary
• *The potential for the findings to influence the content of BI's science strategy are limited.* There is a lack of detail and specific direction in the findings from the public dialogue project that could directly influence the content of the science strategy. For example, the 'key takeaways' from the final report regarding the science strategy are relatively generic, and some of the public views were contradictory. Also, BI's science strategy has to be aligned with BBSRC's strategic priorities so there is limited scope for change. However, there is a very significant and clear message for BI that underpins its overall strategy: that is, the public are genuinely interested in and supportive of the need for curiosity driven science like that undertaken at the Institute. • *There is potential for the findings to influence the decision-making processes for the science strategy.* There is potential for the findings to influence the decision-making processes for the science strategy, specifically by applying the principles that were developed following the deliberations and exercise at the dialogue workshops: there are six scientific principles and two governance principles. • *The findings have already influenced BI's public engagement strategy.* There has been a substantial amount of learning for BI about this new form of public engagement for them, and there is significant scope for the public dialogue project to influence the public engagement strategy as a result. There is information from the dialogue to inform BI's activities at three levels of engagement: communications,

Potential impacts summary

consultation and participation. BI has already drafted a new public engagement strategy that incorporates recommendations from the public dialogue process, which will be published in 2016.

- *There is potential for the findings to influence the policies or work of other organisations.* There are a number of things that have already happened that demonstrate the potential for the findings of the public dialogue process to influence the policies or work of other organisations. For example: representatives from ten organisations, including BIS and BBSRC, attended the dissemination event and were engaged in deliberations about the findings from the project; the findings have been shared with the EU LIFE programme and received a positive response; the British Society for Immunology is interested in the work and sees the opportunity for it to inform their work in a number of ways; Cardiff University has included BI in a grant bid as a direct result of the public dialogue project.

- *The findings have the potential to influence the strategic direction of BIS and BBSRC.* The findings include messages that have some significance for BIS and BBSRC. These are: that the public supports the use of public money to support fundamental research and values it alongside translational research; and the public trusts scientists to take decisions about where their research priorities should lie.

7 Conclusions

Our overall assessment of the BI public dialogue project is that, in general terms, it has achieved what it set out to do (see Section 1.1) to a significant degree. It has engaged with members of the public through a deliberative process and has sought to understand how the public views its work, while building the public's understanding of what it does. Openness and transparency have been demonstrated by the fact the project has taken place, and that the dialogue has been independently facilitated and none of the difficult issues have been avoided. Findings and learning from the process have already influenced BI's public engagement strategy, but there is less confidence that they can similarly impact on the content of the science strategy. The good practice and learning from this project that has been highlighted throughout this report has the potential to inform both BI's future public dialogue work and that undertaken by other organisations.

We have a real sense that BI entered into this project with a willingness to experiment and engage the public in a way that was wholly new to them. It was a pilot project and there was a degree of uncertainty for the BI project team about how it would evolve, whether their aspirations were realistic, and what it could achieve.

While the project has been notably successful in a number of ways, the BI project team and other stakeholders have expressed some disappointment about the potential for the findings to influence the content of the science strategy, which appears to be limited at this stage. It is not altogether clear to us why this situation has occurred. Was it unrealistic to expect the lay public to move from a very low baseline of knowledge to a fairly sophisticated level of decision-making with so little input? Was the process design entirely fit for purpose? Was there too much focus on building the public's understanding of individual topics to the detriment of time deliberating on key questions? Was the underpinning research question the right one to achieve what was required? Was there enough clarity about what the choices and the options for the science strategy actually were?

It is likely that there was a combination of all of these factors at play to a greater or lesser degree. What this reinforces is the need upfront in a project to have a clearly articulated vision that sets out, in some detail, the desired outputs and outcomes from the process. Generic statements don't provide sufficient structure when it comes to designing the detail of the dialogue process and the situation can easily arise where the outputs don't provide what was originally envisaged. In this instance it would have been helpful to have drilled down on the specific questions that BI would have found it useful to get the public's perspective on to directly inform the content of the science strategy. Once these questions were in place it would have been a more straightforward task to design the pathway that takes participants from their baseline knowledge to a position where they can respond effectively to those questions. There are of course caveats and parameters that still need to be taken

into account – crucially, what the resources are for the work, what it is possible for the public to influence, and what they cannot influence due to external factors.

BI now has an opportunity to test out the degree to which our assessment has been an accurate prediction of the potential to utilise the public's contributions. The findings have been published at the start of the process for producing BI's science strategy and there is a real time opportunity to establish how much they influence both the content and the decision-making in the strategy setting process.

In moving forward BI should consider how it formally responds to the final report. This poses a series of questions and recommendations to BI and, for the sake of completeness, we would recommend that the Institute publishes a response that indicates how and / or if it will deal with each one.

Appendix 1
List of sources of evidence

Icarus baseline assessment, published July 2015
Observation notes, management telecall, 09/07/15
Observation notes, management telecall, 15/07/15
Participant feedback forms, Birmingham initial workshop
Observation notes, Birmingham initial workshop
Participant feedback forms, Cambridge initial workshop
Observation notes, Cambridge initial workshop
Scientists' online feedback survey, initial workshops
Observation notes, Advisory Group, 08/09/15
Advisory Group online feedback survey
Participant feedback forms, reconvened workshop
Observation notes, reconvened workshop
Scientists' online feedback survey, reconvened workshop
Ipsos MORI's interim findings report
Icarus interim evaluation report, September 2015
Observation notes, management telecall, 20/10/15
Observation notes, dissemination event, 18/11/15
Internal stakeholders' online impact survey
External stakeholders' online impact survey
Interview notes, 11 key stakeholder impact interviews
Ipsos MORI's final findings report