

Evaluation Evidence

A: Dialogue and evaluation approaches

Project Management Team

- A large core project management team comprising BBSRC, NCoB, UKRI, a Sciencewise Dialogue Engagement Specialist (DES), the delivery contractors Basis Social and the independent evaluator met weekly. Additional team members (process designers, communications officers, the SOIF team) joined at key points.
- All inputs, including key documents were coordinated via a dedicated share site (Teams) which proved useful for sharing design materials and in final reporting for version control (although confusions still arose over the many iterations of the final report).
- NCoB led on project management (reflecting that their contribution included a higher proportion of time in-kind) and was responsible for convening, coordinating and reporting back to the Oversight Group (OG), communications and organising the launch webinar: both commissioners were responsible for setting the overall framing, reviewing technical content, recommending specialists and signing-off materials and the final report.
- The combination of governmental and third party commissioners had advantages in providing other routes for publication which avoided the need to secure a No10 grid place.
- Basis Social and their collaborators SOIF were responsible for detailed dialogue and materials design, participant recruitment, briefing of specialists, running public workshops, analysis and reporting. Basis brought considerable experience from their previous work with NCoB on the mini dialogue in 2021.

Oversight Group

- A large (19-strong) Oversight Group (OG), chaired by Sarah Mukherjee of the Institute of Environmental Management and Assessment (IEMA) brought a wide range of stakeholder perspectives from across the food, farming, animal research and scientific communities. The group included representatives from:
 - [Academic and learned societies](#) - Universities of Edinburgh, London School of Hygiene, Scottish Rural Colleges, Royal Society of Biology and the Royal Society
 - [Representatives of food and farming businesses](#) - National Farmers Union (NFU), European Animal Breeders (EFFAB)¹ and ASDA.
 - [Government departments and agencies](#) - Defra and the Food Standards Agency (FSA); and
 - [The third sector](#) - Food Foundation, British Nutrition Foundation (BNF), Royal Society for Prevention of Cruelty to Animals (RSPCA), Soil Association, Rare Breed Survival and BeyondGM.
- The group met online (three times) and contributed as follows:
 - In **OG1 – 29th April on Zoom** – 15 attendees discussed their terms of reference (agreeing that individuals should be ambassadors for the approach, not necessarily for the findings or what NCOB/BBSRC choose to do with them), endorsed the

¹ EFFAB joined for the second meeting as a result of a gap on a commercial breeding perspective identified by other OG members at the first meeting.

objectives and were keen to set the dialogue about GEFA within a broad understanding of the food systems and the future global challenges it faces. They also advised on quotas and screening questions for participant recruitment.

- **OG2 – 24th May on Zoom** – 15 attendees reviewed the overall design and made constructive comments on the initial framing, the types of farmed animals covered in the stimulus (broadening from poultry to pigs and fish farming), and wording on the animal welfare ‘freedoms.’ The group also confirmed that they were happy with the big future drivers for the food system to be covered in workshop 2.
- **OG3 – 10th August on Zoom** – 13 attendees had lively discussions on the interim findings, key messages, and the proposed structure of the final dialogue report. Members then had opportunities to submit written comments on the second and third drafts of the final report.
- **11 OG members contributed as specialists** via pre-recorded video or live presentations or in discussions with small groups.
- In addition to reviewing the framing, information shared with participants and several iterations of the final report, about half of the OG members took an active role as specialists or contributors of content. Half the members recorded short vox pops, suggested content on GEFA applications, policies or regulation; half a dozen individuals - a mix of food industry, NGO representatives, GE scientists and governmental representatives – participated live as specialists in at least one public workshop. Many OG members also reviewed a final report draft and/or attended the launch webinar.

Detailed Design and delivery

Planning and preparation of dialogue design and stimulus materials

- The design was able to draw on the findings and literature review from NCoB’s previous work supplemented with further review of other sources and materials suggested by the core team and OG members.
- Workshop 1 materials were produced and reviewed by the core team and OG in advance. Designs for workshops 2, 3 and 4 were iterative and produced in the two weeks between workshops, partly in response to the questions and types of specialists that participants identified, within the agreed overall design framework. All Basis stimulus materials were shared after each workshop on a dedicated share site (Engagement HQ) so that participants could review them in their own time.
- SOIF ran a half-day future foresight workshop (12th May, online and face-to-face) to surface potential challenges for the future food system. The workshop explored 50 drivers narrowing down to about a dozen key global and UK challenges. The outcomes were used to frame four key challenges for the food system (environmental and climate change, nutrition and health, social and economic) which informed a pre-recorded video and slide deck for small group discussions in the first half of workshop 2.
- Basis also worked with the developers of an innovative tool (INCA) designed to capture wider quantitative and qualitative feedback on issues discussed in workshop 1. Respondents had access to the pre-recorded video shared in workshop 1 as context for their ‘discussions’ with an AI bot. This element was designed to be fun and, by asking

more detailed questions prompted by participants' responses, to generate data which would help understand areas of consensus and disagreement amongst the main dialogue participants.

Figure A.1: Dialogue design



Participant recruitment

- Roots, recruitment agency, recruited the 80 participants well in advance (April for mid-May) against an OG-approved brief. This reflected UK demographics (age, gender, ethnicity, and income levels with an expectation that some of the lower income cohorts would include food bank users). The online format allowed the mix to include those living in rural/coastal and urban/suburban areas across England, Scotland, Wales, and Northern Ireland.
- The OG also helped frame screening questions designed to ensure that the group reflected different lifestyle choices (omnivores through to vegans), religious beliefs and attitudes towards using animals in research.
- All participants received a staggered thankyou/incentive payment of up to £250 for attending all sessions. Although they were also expected to complete pre-tasks between workshops (see below), these were not part of the incentive payment. Basis made provision for tablets and wi-fi access to be made available to those who needed it or to prevent digital exclusion of anyone who wanted to take part.
- After workshop 1 a small group of participants (8) were recruited to backfill gaps as a result of no-shows for workshop 1. New recruits, and any participants who missed workshop 2 and wanted to re-join, were brought up to speed via online catch up sessions.

Workshop design

- Participants attended four workshops (a total of 12 hours across three 2.5-3 hour sessions and one 4-hour session with a 45 minute lunch break) on Saturday mornings over an eight-week period (see *Figure A. 1*).
- Sessions built from a broad exploration of the UK food system and animal's place within it (workshop 1), to likely future challenges and scenarios for farming systems and how GEFA might fit in (workshop 2) to exploring 14 potential GEFA applications for different purposes (workshop 3), and finally to reflecting on how future use of GEFA in the food system might be governed and regulated (workshop 4).
- GEFA hubs on Engagement HQ (for participants and OG members respectively) were designed as repositories for logistical details, stimulus materials, and an opportunity to continue their conversations. Participants were expected to undertake pre-tasks as follows:
 - **Pre-workshop 1** - uploading self-filmed videos of their attitudes to food and animals in the farming system. Contributions were edited into a short vox pop video to set the scene for opening discussions in small groups.
 - **Pre-workshop 2** - a short survey (including four formative evaluation questions) on Engagement HQ and using the INCA AIbot tool to get feedback from up to three family and friends.
 - **Pre-workshop 3** - reviewing the INCA findings (139 respondents) and reflecting on statements which came out of the discussions around potential farming system solutions in workshop 2.
 - **Pre-workshop 4** – completing a survey reviewing the range of views expressed about the GEFA applications explored in workshop 3 (completed by 62 out of 70 attendees).

Evaluation approach

The evaluation was both formative and summative.

- During the scoping stage the team leader attended regular core team and OG meetings and took part in the SOIF future foresight workshop. Feedback was provided on dialogue designs, the recruitment specification and stimulus materials to ensure they reflected the objectives and best practice experience from previous dialogues.
- During the fieldwork four URSUS observers attended all public workshops, each sitting with a small group of 4-6 participants in silent listening mode. Over the four workshops we had the chance to see most specialists and all small groups twice. We assessed good practice against an agreed protocol. Reflections were fed back to the core team in wash up sessions or regular meetings after each workshop.
- Formal participant feedback was also collected via formative questions in the Basis survey after workshop 1 (25 responses out of 72 participants) and via an online survey (SurveyMonkey) with the link shared at the end of Workshop 4 (52 respondents of 70).
- Since the final dialogue report publication we have interviewed core project team members (6) and Oversight Group members (10). We have also run a short online survey for OG members (5 responses) in Summer 2023 and carried out desk review and had contact with Defra policy makers to assess policy impacts.

B: How the dialogue design and delivery met Sciencewise best practice principles

Best practice principles	Assessment of how this was met
<p>Recruitment and retention of a diverse mix of participants</p>	<ul style="list-style-type: none"> • The initial recruitment of 80 participants fully reflected the brief with a good mix across all characteristics including ages (20 from each of 18-29, 30-44, 45-59, 60+ groups), gender (Female 41, Male 38, Nonbinary 1), ethnicities (reflective of the UK population overall but with individuals from Black and mixed backgrounds slightly below (14 compared to 20 target) and from Asian and Arab backgrounds slightly above quota (14 compared to 10 target). • The group also included a good mix of: <ul style="list-style-type: none"> ○ food preferences (50 regular meat eaters, 19 pescatarian and flexitarians and 11 vegetarians/vegans); and ○ attitudes towards the idea of humans using genetic science on farmed animals (31 pro, 22 neutrals and 27 against). • A surprisingly high number of no shows for workshop 1 (8 out of 80, 10%) and drop out from the original 72 for workshop 2 (20%) appears to have been due to a combination of family reasons, sickness. The time gap between recruitment and the first session, and timings on Saturday mornings coming out of lockdown may also have played a part. The recruitment agency recontacted no-shows for workshop 2 and to encourage them to re-join (9 had valid reasons). • Catch up sessions before workshops 2 and 3 helped bring participants up to speed on what they had missed and we saw that mixing them in with small groups - who then stayed together across all sessions - helped them to gel well. However, the decision not to mix groups between sessions meant that some became very small (4 or less) and some participants felt they were missing out on hearing from those from different backgrounds or with different values. • The 70 who completed all sessions appeared very engaged: specialists noted in their closing remarks how they were <i>'enormously impressed'</i> by the participants, their <i>'engagement'</i> and their <i>'thirst for knowledge.'</i> • Provisions for addressing digital exclusion were not needed and participants were well enough versed in using Zoom not to require any prior tech coaching.
<p>Sufficient time for meaningful deliberation</p>	<ul style="list-style-type: none"> • Within each workshop the build from the plenary introduction, through unprompted discussion of the topic in small groups, to more structured discussions once participants had heard more information on the topic, worked well and kept participants engaged. • Overall timings of 2.5-3 hour workshops felt about right to the majority of participants and allowed sufficient time for small groups to cover the content without feeling rushed. • We did not explicitly ask (and no one commented after workshop 1) about whether scheduling on four Saturday mornings during early summer was convenient. However, it seems likely that the elapsed time and commitment over so many weekends while emerging from Covid lockdowns was a contributory factor in drop-out rates. • A 5-minute comfort break for the first workshops proved too short, with some disabled or less mobile participants feeling rushed and expressing anxiety; based on evaluation feedback the 10-minute breaks (and 45 minutes for the 4-hour workshop) worked better. • The 'prompt' questions in the design guide mostly worked to encourage naturally flowing conversations but during workshop 3 the questions were clumsily worded and some groups wasted time trying to understand what they were being asked which cut into the time for discussions. • Workshop 4 design and materials would have benefitted from more time. The information shared on current and future governance and regulation of animals from research to marketed GEFA products was rather dense and some participants found

	<p>it overwhelming. The session felt rather rushed and did not produce detailed reflections on how policy should be developed: this was not a stated dialogue objective and so it did not impact on the overall quality of the dialogue, but did mean that the final session did not provide as satisfying a closure as it might have done. Instead, the dialogue might have benefitted from a final exercise or discussion session (either within workshop 4 or as a shorter standalone session) which allowed opportunities for participants to test the emerging findings and explore how far they agreed with them.</p>
<p>Information shared with participants was engaging and pitched at the right level providing enough information without overwhelming them</p>	<ul style="list-style-type: none"> • The mix of audio visual (self-filmed videos by participants and OG members, pre-recorded videos with voice over produced by Basis) and written (slide decks) shared with participants gave them a broad understanding of the food system, livestock farming and how GEFA might be used. Many participants reported finding the footage and images of farming systems eye-opening, or even shocking, and this prompted quite a few to do their own research and bring it into the small group discussions. • Capturing participants top-of-head thoughts on food and animals from content they uploaded to Engagement HQ before the first workshop edited into a short video worked really well to make the process feel participant-led and to let people share their initial views as ‘consumers’ before steering them to think more as ‘citizens’. • Short vox pop videos recorded by OG members and edited together for the first workshop proved a cost effective and efficient way of setting the scene and demonstrating the range of perspectives for workshop 1. Some OG members interviewed would have liked to contribute but were unable to do so due to the tight deadlines or uncertainty about how the clips would be used. • Videos prepared by Basis included images and footage (from the BBC and Which?) and animations, and were high quality, pitched at the right level, accessible (with both words and voice over) and engaging. In a few cases the voice over was a bit fast, the background music too loud or wi-fi issues made the content difficult to hear but this was addressed in later materials. In a few cases (workshop 2) the material was quite dense, but slide decks talked through by facilitators broke down the main messages and participants were able to review them on Engagement HQ in their own time. • Some OG members felt they did not have time to comment on materials in detail and, perhaps as a result, resorted to challenging the data or pointing out where they felt there were gaps during workshop 2 (e.g. on modern breeding techniques or how climate impacts were presented). This caused some confusion to participants which Basis sought to address by sharing a short primer on data sources which also highlighted areas which might be contested amongst specialists. This approach seemed to restore participant’s confidence in the process and in their own abilities to come to views where the information seemed to be contradictory. Hearing the lived experienced of others in their small groups (e.g. of the farming system) also helped. • Some groups benefitted from dedicated notetakers and together with informal facilitator notes these informed a recap during the introduction to the following session. Participants seemed to find this a useful reminder after a two-week break. • In the final Workshop (governance and regulation) the materials tried to cover too much and gave a rather disjointed picture of the regulations in place from lab to marketing of produce leaving some participants feeling overwhelmed: nevertheless they still felt confident in calling for robust legislation and ongoing citizen involvement in GEFA governance. • By the end, the vast majority of participants felt well enough informed to feel they had made a useful contribution on whether and how GEFA might be used.
<p>Professional and effective facilitation meant all participants felt</p>	<ul style="list-style-type: none"> • We saw, and interviewees agreed that the facilitation was professional and effective. Facilitators appeared well briefed and their role was clear and manageable (with simultaneous notetakers available in some groups, and no expectation that facilitators would take visible notes). They were able to focus on creating a warm atmosphere and picking up on non-verbal clues, encouraging quieter participants to step forwards and more dominant personalities to step back and making sure that groups gelled.

<p>valued and able to contribute</p>	<ul style="list-style-type: none"> • Survey respondents unanimously agreed that the facilitation was professional, independent, and effective and that they had been treated with respect, whatever their background. Most also felt they had been made to feel comfortable and could make their views heard in the small groups (only 3 were unsure or did not agree). • We observed most participants were very engaged, actively listening to stimulus and each other, often picking up on each other's points, including those made in previous sessions. Groups generally gelled. A few individuals (mainly middle aged white males) had a tendency to dominate conversations but facilitators ensured that quieter participants, including new joiners for workshop 2, also had space to contribute. • Most facilitators were able to help restate participants' points to check or clarify their meaning and to ask prompt questions to surface the underlying reasoning, and to bring off-topic discussions back on track by prompting on the relevance to GEFA. • In a few cases the discussion guide prompts were overly complex (wordy questions that were difficult for participants to decipher) and this prevented the natural flow of conversation. We observed experienced facilitators who anticipated the issues and were able to reword questions but also a few less well prepared facilitators who lost valuable time trying to help their groups understand what was being asked, rather than deliberating around their responses. • On occasion, participants would have benefitted from seeing their conversations captured (as they would have been on flipcharts in face-to-face dialogue) so that they could refine meanings and explore any contradictions or trade-offs.
<p>Specialists introduced participants to a broad range of perspectives and sometimes introduced new ways of thinking about the issues</p>	<ul style="list-style-type: none"> • About 16 independent specialists (including 10 OG and core team members) participated in live sessions. While there was a good gender mix overall there was a tendency for gender to be reflected in positioning on GEFA and some participants perceived that men were more pro-GEFA and women (mainly representing NGOs) were more sceptical. <i>"[specialists] really helped my understanding, but I wish in our group we had more representation from the female specialists and the specialists who are more on the 'against' side of genome editing as we only had males who mainly worked in the science or were 'for' genome editing so may have been more biased"</i> • Not all participants were able to hear from all specialists. During the early workshops, the logistics for moving participants around proved clunky: specialists often dropped in and out suddenly and without introduction: <i>"It would have been nice to have the specialist introduced at the beginning of the session or when they changed - because sometimes the specialist did not speak - and it would have been good to have maybe an introduction of a few sentences from the specialists."</i> These issues were largely addressed for later workshops. • Specialists had been briefed to be in listening mode, but to ask or answer questions which would help move discussions on when asked to do so by facilitators. At workshop 2 a few specialists were asked to speak informally without notes or slides. This worked well for giving an oversight of the policy context, but less well for sharing technical content: the level information was pitched at, use of scientific jargon, and lack of any visuals made it difficult for many participants to follow, although the presentations did stimulate discussions in small groups. • We observed that specialists were engaged and interested in what participants said, and one interviewee really valued <i>"The opportunity to discuss the research that I have been involved with a cross section of the British population. It was both extremely informative and enjoyable."</i> • Sometimes specialists felt they could have contributed more if the role had been more clearly defined. Sometimes facilitators seemed unaware what specialists could contribute or even that they were "in the room". Some reported: <i>"We were trying to respond to what different facilitators seemed to be comfortable with"</i> and variously described the experience as <i>"a baptism of fire," "slightly nerve racking,"</i> with several feeling <i>"people were not quite sure what we were there for."</i> A few made inappropriate comments (e.g. <i>"that's not the right question."</i>) • We noted that some interventions had a real impact on small group deliberations (e.g., RSPCA in endorsing ASPA , GEFA scientist analogy of a key and lock for

	<p>addressing animal diseases, questioning of stimulus material facts etc.) but since not all participants heard the same things it was not possible to trace this in the analysis.</p> <ul style="list-style-type: none"> Participants generally found their inputs helpful but would have liked to hear more from them: <i>"I don't think we actually heard enough from the experts to be honest. I think we should have heard a lot more from them and there should have been far more Q and A opportunities."</i>
<p>Getting the most out of online meetings and digital tools</p>	<ul style="list-style-type: none"> The large size of the group (72 participants) and lack of time built in to address initial joining issues (names, audio etc.) in workshop 1 led to some 'glitches' in bringing all participants into plenary and moving them to their breakout groups. Broadband and tech issues sometimes affected the sharing of films and facilitator screens in both plenary and breakouts but by workshop 2 minor tweaks (pre-testing by facilitators, letting participants in earlier, checking their sound and cameras as they joined, contingencies for sharing materials etc.) made the process smoother and more welcoming. <p>The design included many innovative elements:</p> <ul style="list-style-type: none"> A dedicated share site (Engagement HQ) for participants worked well as a repository of information and for individual deliberation. Participants were comfortable using the Engagement HQ site and the vast majority reported it was helpful for reviewing documents and to complete pre-tasks. They described the site as <i>"Easy to navigate. Great for referring back - and had all the links on it. Very well set out."</i> And the information as <i>"succinct, informative and gave a great recap of what was covered in previous meetings."</i> Participants were motivated to complete homework tasks between workshops (62 out of 70 completed the pre-workshop 4 task) even though their payments were not linked to doing so. <i>"Not something I logged into unless there was a pre-task to do, but when I did I enjoyed being able to see other people's responses afterwards too."</i> Many participants also appreciated an individual reflection exercise (after workshop 3) on Engagement HQ: <i>"[It] helped to crystalize one's thoughts and feelings developed during live sessions."</i> Several found this exercise a welcome opportunity to see what others beyond their small groups were thinking. Dedicated share sites (Teams) for the core team and OG proved an efficient means of sharing information, coordinating inputs and tracking comments on the report. This was particularly important in drafting the final report where the many comments received (150 from the OG alone) could be tracked and all core team members could have access to the latest versions. This generally worked well until the final stages when multiple versions led to some confusion in tracking that all comments made by the commissioners had been taken into account. An exercise using an innovative AI bot (INCA) provided proof of concept that such tools can generate additional evidence at relatively low cost. INCA worked well as a fun, but more formal, approach to capturing data from a 'homework task' (collecting feedback after the first workshop from friends and family). In this case respondents saw the introductory stimulus video but did not benefit from the 'dialogic' elements of talking to others. The exercise generated a mix of quantitative and qualitative data (139 additional responses, an average of two per workshop participant) in a format that could be analysed on an equal footing with workshop transcripts. The views expressed seemed to chime with what dialogue participants felt halfway through the first workshop before they had fully made the transition to thinking as citizens rather than consumers. Disappointingly, the findings were only reported in a short annex and not much reflected in the findings of the main report, meaning that they did not add as much value for money as they might have done. A future foresights workshop helped to identify future challenges for the global food system but the design did not lend itself to developing future scenarios for how GEFA might be used. Partly due to time pressures, the visioning exercise did not include external stakeholders (as the commissioners had expected) but instead relied on core team members. This limited the extent to which the process was able to draw on stakeholder's expertise to develop futures scenarios that incorporated GEFA in the way that the commissioners had hoped. Instead, the task fell to the Basis project director between workshops 1 and 2: the tight timeframe left little

	<p>opportunity for the OG to comment. As a result, several OG members questioned whether the scenarios were the most relevant ones for exploring how GEFA might be used.</p>
<p>Analysis and reporting which captured participant's voices and reflected them in the final report</p>	<ul style="list-style-type: none"> • All plenary sessions and breakout group discussions were digitally recorded and transcribed enabling analysis of the video, audio and chat. A few sessions in each workshop also had notetakers taking simultaneous notes off-screen. Facilitators also took their own informal notes to provide immediate feedback on key discussions in each workshop. • The design included some elements which generated evidence on areas of consensus and disagreement (such as INCA) but this was not fully integrated in the analysis • Basis used a proprietary analysis tool to analyse workshop transcripts, surveys, INCA and homework tasks completed on Engagement HQ and this made it possible to analyse thousands of data points and pull out core themes. However, the breadth of the framing, volume of evidence and time pressures to deliver a first draft by mid-September allowed little time to stand back and organise the findings thematically and present them in a way that put the participants' - rather than the authors - voice front and centre. • The very different experiences in the small groups could have added to the depth and richness of the analysis. The choice to run the small groups effectively as mini dialogues could have generated an additional layer of evidence on what the main influences had been on evolving views within each small group. The informal notes taken by facilitators, together with small group transcripts could have been used to greater effect. • Between late August and the launch on 12th October, the core team worked closely on various iterations of the final report. OG members reviewed an early version: while a near final version was reviewed for tone, language and accessibility by five public participant volunteers (who received a thankyou payment). • All members of the core team invested far more time and energy – over and above what had been budgeted for – in getting the final version to a standard which reflected the quality of the process. • But core team and OG interviewees unanimously agreed that the final report was very rich, well-structured, polished and reflected participants' voices. And that some big messages emerged from what one described as: "<i>a big report with something for everyone.</i>" The foreword signed by senior management of both co-commissioners added weight and credibility.

C: Evaluation feedback from participants

Participant feedback (25 of 75 respondents completed on Engagement HQ)							
1.	I understand the objectives for this public dialogue and how Nuffield Council on Bioethics and BBSRC will use the findings.	strongly agree	tend to agree	Neither	tend to disagree	strongly disagree	don't know
		6	16	3			
2.	The information shared today was clear and easy to understand.	strongly agree	tend to agree	neither	tend to disagree	strongly disagree	don't know
		12	10	2		1	
	1 participant reported that they only had audio, no video for all films – others that they were able to address issues but that it took up some valuable discussion time.						
3.	I felt comfortable and heard.	strongly agree	tend to agree	neither	tend to disagree	strongly disagree	don't know
		15	10				
	<i>"It was moderated very well."</i> And <i>"Felt fully included."</i>						
4.	Was there anything that made you feel that you couldn't take part fully in today's session? If so please tell us so that we can help sort this out before next time.	<p>16 responses – most saying no problems and that they enjoyed the sessions e.g.:</p> <ul style="list-style-type: none"> <i>"I enjoyed the session and look for the following sessions."</i> <i>"Apart from all the technical hitches it was very well run."</i> <i>"I think the facilitators are trying their best to get people's point across and keep the session flowing."</i> <p>One had a problem but it didn't detract:</p> <ul style="list-style-type: none"> <i>"My mute button wouldn't unmute and the moderator let me continue on chat so I didn't miss out which was very helpful"</i> <p>Several observations on how their experience could be improved:</p> <ul style="list-style-type: none"> <i>"The audio for my groups videos did not work so we had to all rely only on the images. we also had 2 participants not fully partake in the session, one disappeared and the other was really rude and not paying attention even taking phone call throughout so it ended up being me and 1 other participant just having a conversation with the moderator meaning we lost out in hearing further viewpoints on certain topics which was frustrating as this was all really interesting."</i> <i>"The feedback on our contribution in the for group from the moderator could be more enthusiastic and welcoming."</i> 					

Participant feedback after workshop 4 (52 responses out of 70 participants on SurveyMonkey)

Q1 The balance of time spent hearing new information about GEFA and discussing the issues in small groups felt about right

Strongly agreed 55.7% (29), tended to agree 38.5% (20), neither 5.7% (3)

Comments on the balance and amount of info

- *More information would have been useful and to have key points available for reference during discussion - we did have this for the last workshop and it was really helpful*
- *Since the purpose of the sessions was to enable the participants to express their thoughts, concerns and opinions the time distribution was ideal.*
- *very positive and interesting discussions*
- *It was super helpful to be in a small group - and also the SAME group - because this allowed us to follow on with our thoughts from the previous discussions.*
- *Some of the discussions were a bit rushed because there were complex issues to unpack. This was unfortunate when people were discussing the kinds of regulatory frameworks and approaches they wanted to see.*
- *format worked well*
- *I loved our group and it put forward some valuable points and discussions from diverse backgrounds.*
- *I would have liked to have heard more from the representatives from RSPCA and other welfare groups during the workshops.*
- *Discussion groups all well led and plenty of opportunity to put opinions across.*
- *There was never too much time but occasionally we were having to push through and maybe curtail a conversation.*
- *Keeping the same people in the smaller groups was great as it sparked rich conversations.*
- *There were some moments where we had to move on, but overall I feel that everyone had their say.*
- *It made it more personal and it was helpful to do that.*
- *When the subjects were more complex it all seemed a bit rushed*
- *everything was amazing*
- *was ran brilliantly the moderators were fantastic*
- *still not enough information*
- *Was good to be in the same breakout room for more in depths discussions*
- *I feel our group still had much more to say although we did talk in much detail*

Q2 The facilitation has been professional, independent, and effective.

Strongly agreed 78.8% (41), tend to agree 21.2%, (11)

Facilitation

- *My group facilitator was very effective in drawing out ideas from the group members and used periods of silence to allow participants to assemble their thoughts before speaking.*
- *very professional and well managed with advance reminders & follow-up*
- *The facilitation has been amazingly supportive. Having a follow up telephone call before each meeting has felt incredibly inclusive. The pre-tasks have been well thought out - to include all the material we needed - and although I felt I had struggled with one or two pre-tasks mainly due to the wording of the questions "chime" I am hoping that I answered the questions.*
- *I found the facilitators to be constructive and effective at trying to extract information that was pertinent to the discussion.*
- *Some facts I felt were incorrect or lacked detail & quite a few came across in a biased way.*
- *Very well organised and great moderators and well broken down content on the day.*
- *Everything was organised and I was able to access the meetings without a problem. The moderators were also effective in keeping the discussion orderly, respectful and on track.*
- *Great*
- *I think it was really good when facilitators asked for specific people's opinions rather than allowing anyone to speak- it allowed us to hear everyone's perspective.*

	<ul style="list-style-type: none"> • <i>from tech support to moderators and experts were all professional, helpful and friendly</i>
<p>Q3. Everyone has been treated with respect, whatever their background. Strongly agreed 92.3% (48), tend to agree 7.7% (4)</p>	
<p>Everybody treated equally</p>	<ul style="list-style-type: none"> • <i>Our group had a wide range of age and ethnicity, a balance of gender and of technical and life experience.</i> • <i>excellent participation and balance</i> • <i>Absolutely. We all were given the opportunity to speak our viewpoint - everyone was respectful - as there were times that I had a different viewpoint than my peer group - but I felt in a safe environment to speak up and offer my viewpoint and also it was enjoyable to hear differing viewpoints to myself.</i> • <i>Very good and there certainly wasn't any discrimination that I was aware of.</i> • <i>Certainly in my group I thought so.</i> • <i>Sometimes I was aware that my views may have been different from the others in my group but I always felt accepted and listened to</i> • <i>Yes and all were respectable to everyone's views, however different they were</i> • <i>Even when there was disagreement people remained respectful.</i> • <i>XX our moderator was excellent at making sure everyone was included</i> • <i>The break-out groups might have been moderated better allowing everyone to speak by raising hand maybe.</i> •
<p>Q4. Facilitators were able to make sure that I felt comfortable and could make my views heard in the small groups. Strongly agreed 86.5% (45), tend to agree 7.7% (4), neither 3.8% (2), strongly disagreed 1.9%</p>	
	<ul style="list-style-type: none"> • <i>I think it was really good when facilitators asked for specific people's opinions rather than allowing anyone to speak- it allowed us to hear everyone's perspective.</i> • <i>Sessions very well managed.</i> • <i>Our facilitator was good at teasing out the essence and summarising what the participants were saying.</i> • <i>Great effort was taken to ensure contributions from everyone in the group, and people were listened to respectfully.</i> • <i>very professional and good time management</i> • <i>The facilitators have been amazing. Everyone got a say and for questions we fell "silent" on - these were then re-read and explained so that we could process them and give an answer. For the questions we struggled on - the facilitator was very supportive.</i> • <i>This was definitely the area I felt was the best part about the research project. Dan ensured that each of us had the opportunity to speak and share our opinions, made our views feel heard and respected and asked brilliant follow up questions to responses</i> • <i>We were all given equal opportunity to talk and offer our opinions.</i> • <i>I felt some participant's opinions were more welcomed and sometimes I felt my opinions weren't important and overlooked. I felt cut short and other participants were allowed to talk and talk and talk</i> • <i>Yes, all were mindful and gave everyone an opportunity to contribute and probed appropriately when needed</i> • <i>I felt there was enough time for me to speak and I felt listened to.</i>
<p>Q5. Hearing from specialists has been helpful in answering my questions and helping me think through the issues. Strongly agreed 76.5% (39), tend to agree 17.7% (9), neither 3.9% (2), tend to disagree 1.9%</p>	
<p>Specialists</p>	<ul style="list-style-type: none"> • <i>Specialist info was really useful, it would have been great to have had a specialist available throughout all of the discussion</i> • <i>They were helpful in clarifying some of the topics about which my knowledge/ understanding was weak.</i> • <i>I feel more informed than I did before the project.</i> • <i>I think it would have been helpful to have a description of the specialist's field on their zoom name. The introductions were helpful but it can be hard to remember everyone</i>

	<ul style="list-style-type: none"> • <i>Very balanced and well-informed to create informative insights and clarity</i> • <i>Hearing from the specialists was a real positive - it would have been nice to have the specialist introduced at the beginning of the session or when they changed - because sometimes the specialist did not speak - and it would have been good to have maybe an introduction of a few sentences from the specialists. The specialists that did speak were definitely of benefit - giving an insight to aspects that I was unfamiliar with.</i> • <i>Experts have been honest in answering our questions, even when they have been uncomfortable for them. Very much appreciated!</i> • <i>This really helped my understanding, but I wish in our group we had more representation from the female specialists and the specialists who are more on the 'against' side of genome editing as we only had males who mainly worked in the science or who were for genome editing so may have been more biased</i> • <i>I found these to be extremely useful and also helpful. They were reassuring when it came to ethical questions especially Penny from the RSPCA.</i> • <i>If only there could've been a specialist present in each group all the time.</i> • <i>I didn't hear enough from the animal welfare specialists as per my answer in#1</i> • <i>It was very helpful to hear from the specialists who visited the groups I was in</i> • <i>Although I did still feel some suspicion when an expert answered my questions, I felt suitably informed.</i> • <i>Gives the whole picture.</i> • <i>I don't think we actually heard enough from the experts to be honest. I think we should have heard a lot more from them and there should have been far more Q and A opportunities,</i> • <i>Yes, sometimes the experts helped me take things in more than the material to view</i> • <i>I appreciate that it is hard to get speakers from all sides, but it was a shame that we didn't have any speakers who were/are radically opposed to genome editing</i>
<p>Q6 I found the microsite (Engagement HQ) a useful way of reviewing what we covered in the Zoom sessions and providing further reflections between workshops Strongly agreed 68.6% (35), tended to agree 25.5% (13), neither 5.9% (3)</p>	
<p>Microsite</p>	<ul style="list-style-type: none"> • <i>Very useful! The labelling/order of the videos for the workshop was slightly confusing but that could just be me. There was only a forum/discussion open for workshop 1 so I wasn't sure if that was where we should go to comment.</i> • <i>I did not follow up all the reviews but those that I did were helpful as a reminder of what we had discussed.</i> • <i>This was great. Easy to navigate. Great for referring back - and had all the links on it. Very well set out.</i> • <i>Helped to crystalize ones thoughts and feelings developed during live sessions</i> • <i>I've been involved in research before but not had the support of Engagement HQ as in this case where we can review what has been covered. The whole of the workshop has been exemplary from day 1.</i> • <i>Not something I logged into unless there was a pre task to do but when I did I enjoyed being able to see other people's responses afterwards too.</i> • <i>It would have been good to have a summary and overview sent via email each week as well.</i> • <i>The information in the site was succinct, informative and gave a great recap of what was covered in previous meetings.</i>

Q7. I felt well enough informed to have made a useful contribution on whether and how GEFA might be used in the future.

Strongly agreed 52.9% (27), tended to agree 43.1% (22), neither 3.9% (2)

I felt well enough informed to feel that I have contributed valuable opinions on how GEFA might be used in the future

- *I would have liked to hear more about the actual process involved in research stages of GE animals, what stage the industry is at currently and the potential risks. Also, to have more explanations on the science or links to get my head around the concept a bit more easily.*
- *I found some of the science washed over me at times but I was able to understand most of the technical terms.*
- *I didn't have a lot of time outside of the workshops to do as much research as I would have liked*
- *Initially my understanding of the details was sketchy but by the end of the four sessions I was confident that I understood sufficient to be able to express a fact- based opinion.*
- *I would have liked to hear more about the actual process involved in research stages of GE animals, what stage the industry is at currently and the potential risks. Also, to have more explanations on the science or links to get my head around the concept a bit more easily.*
- *I think that there could have been more time spent on the regulatory aspects - this felt rushed, to me (particularly given that the week before had been a double-workshop).*
- *Videos and available information were very useful*
- *The slides in relation to GEFA were informative and gave me the basis to be able to process and make an evaluation on the topics discussed.*
- *Hopefully, decent contribution*
- *I've absolutely loved being involved and would love to be further involved in future discussions.*
- *This a highly complex and controversial area, but I think it was explained to us as well as it could have been.*
- *Still lots to think about! It was very helpful to have all this information and we probably need time to process what we have learned and discussed - some of the options I expressed were hesitant because I had not had long enough to think them though carefully - gut reactions!*
- *It probed me to do a bit more research on the subjects before the workshops, great insight*
- *While the information shared was enlightening and useful, I felt there wasn't enough information on the potential cons of GEFA to make a fully informed decision.*

Q8 The public should be involved in research to inform decision of this type

Strongly agreed 96.1% (50), tended to agree 1.9% (1), neither 1.9% (1)

- *The greater the involvement of the public the more the policy makers will be aware of the concerns of the general population.*
- *Yes, as it is the public it will affect ultimately.*
- *I would like to know that the public will continue to be involved, going forward.*
- *Really positive contributions to understanding how others feel about the various discussions and future food production, farming and environment*
- *As the public are going to be the consumer - and there are so many layers to this type of "project" - ethical, diversity, health, environmental, cost, regulatory, transparency - it is paramount that the public are involved in research - because without their support the project in relation to them being a consumer could very well fail.*
- *Public involvement and transparency of this process is paramount*
- *By involving the public, we become educated and able to make informed decisions. This is invaluable in spreading accuracy rather than rumour!*
- *Very, very important!!!!*
- *Absolutely essential - the general public will be the end-users so need to be fully informed at all stages, with plenty of well-publicised opportunities to have their say. As a former educator can I ask that the Plain English Campaign is consulted about any documentation produced, please? Far too many "consultation documents" in science are at a level of English that excludes far too many from beneficial understanding. Link: <https://plainenglish.co.uk/>*
- *Surveys, clinical trials, awareness through media and newspapers.*
- *I am extremely grateful to have had this opportunity to learn more and to think about this with some better knowledge and understanding*
- *At the end of the day this will impact the life of the general public, so they should have a significant involvement with the research.*

Q9. Confidence that NCoB will take findings into account in advice to government

52 responses show overall very high levels of confidence – an average of 73 on a slider of 0 (no confidence) to 100 (fully confident).

What, if anything, did you find most valuable?

- *Being given insight into the current animal farming industry and GE industry. What might be possible and having specialists talk about it. Being heard, hearing a diverse range of people.*
- *Feeling informed and being able to offer my opinions.*
- *Thinking about the ethical dimensions between human needs and animal welfare.*
- *The range of experts to offer their advice and the level of professionalism of the moderators*
- *Dispelling any thoughts about the possible Frankensteining of animal farming*
- *A large group of diversified people and the fact that it was spread over time to understand and digest the subject and develop thoughts and opinions based on the workshop interaction*
- *To have a voice. To feel like my opinion matters. To be exposed to views different than my own. To hear guest speakers who are experts in their own field.*
- *Being given insight into the current animal farming industry and GE industry. What might be possible and having specialists talk about it. Being heard, hearing a diverse range of people*
- *Hearing the well-founded cautious and healthily sceptical views of so many of the other participants*
- *Being able to be informed about this topic and then be able to share our varied opinions*
- *Other people's opinions and views on the information provided and how this could become a part of the future.*
- *Realising how small peoples knowledge of the food chain is.*
- *Reviewing the past workshops when doing the pre-tasks.*
- *A wide range of viewpoints allowed very comprehensive discussion.*
- *The varied background of the participants allowed differing opinions to be voiced*

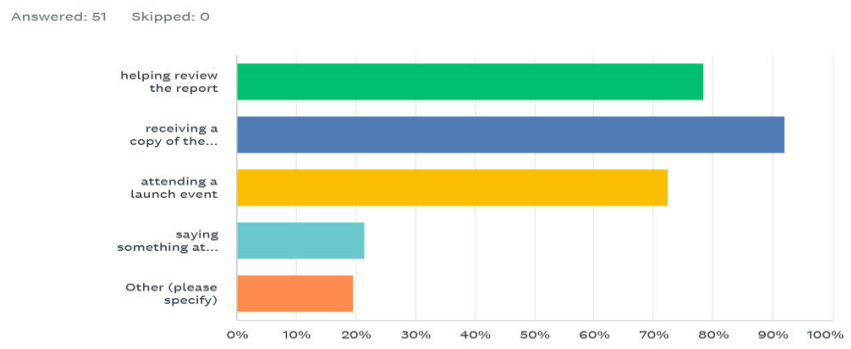
	<ul style="list-style-type: none"> • <i>Hearing about genome editing and novel foods. It has been an extremely enlightening and educational experience.</i> • <i>I believe that the engagement of the general public is vital in today's society. Public dialogue workshops.</i> • <i>The information we were given. The specialists. Hearing the views of others Benefitting from the knowledge of others in my group.</i> • <i>Great insight and education with easy-to-digest content.</i> • <i>Hearing other perspectives that helped my critical thinking further and learning more about GEFA and the policies surrounding it, which I would not have heard otherwise.</i> • <i>It showed you the path of genome editing which it will take.</i> • <i>I learned a great deal about an extremely important subject affecting mankind for future generations.</i> • <i>Learning from other people within the groups which sparked me to ask questions I may not otherwise have thought about.</i> • <i>Hearing a wide variety on insights and opinions.</i> • <i>The facts and figures were what I found most interesting things I did not even realise were happening.</i> • <i>Learning about it all was an eye opener.</i> • <i>All the information received.</i> • <i>I now feel more informed and feel a little more knowledgeable about this topic.</i> • <i>Being able to discuss with others as it triggered other thoughts as well.</i> • <i>Gaining more information on a subject I was very unaware of prior to this research</i> • <i>Understanding the processes and speaking to the people who are actually doing the research to get their perspectives.</i> • <i>Hearing other people's views on the subject and learning about GM technology.</i> • <i>To hear different views, and be able to express my views and experiences and to feel that they matter.</i> • <i>I appreciated learning new perspectives from fellow participants, and from the experts.</i> • <i>The chance to engage in conversation about something that is of huge effect to us individually and globally.</i> • <i>Hearing other people's views, whether we agreed or not. The broad spectrum of people involved.</i> • <i>Informative videos.</i> • <i>Learning about how labelling is used on products and how animal care is really undergone.</i> • <i>The utilisation of moderators and experts.</i> • <i>Expert views.</i> • <i>Gain knowledge,</i> • <i>Providing more information on the topic.</i>
<p>What if anything could have been done differently?</p>	<ul style="list-style-type: none"> • <i>Really happy on the format and how respectfully everyone was treated.</i> • <i>I would like an opportunity to follow up on this again in 6 /12 months</i> • <i>I think the process was well thought out and well handled</i> • <i>Happy with the framework as is.</i> • <i>I think it was done well and I enjoyed it.</i> • <i>Nothing, happy with how it was conducted.</i> • <i>More information on why this research is being done, how it will be used and by who.</i> • <i>(See above comment) the amount of time spent on the regulatory aspects of genome editing. I would have liked more information about this, and/or time to discuss the issues.</i> • <i>Seeking the thoughts/ideas of livestock farmers whose activities will be affected by the proposed techniques.</i> • <i>The only thing that may have be done differently is maybe have more clarity around the pre-task questions. This is the only thing that I felt I stumbled with but overall this was a brilliant experience. Thank you to everyone who produced such an extensive and insightful research survey.</i> • <i>Not having the same specialists in more than one workshop in our group and having a more varied selection of specialists brought into our group (for example, in our group we had some of the same specialists in workshop 2 and 3 and would have liked to</i>

have had the opportunity to have some of the other specialists instead of the same ones again)

- Nothing!
- Facts to be put across with more detail and in a non-biased way. The fact about GM Foods being fed to animals in the UK in workshop 4 lacked any other information (pets or farmed animals? what % of animals?). The facts in workshop 1 about area per pig was put in a very biased way & didn't say what % exceed that space but gave the impression that all have that minimum amount.
- Possibly a little more time to discuss some of the items, at times, mid-sentence we had to move on to the next content because of the time constraints
- Go through our homework tasks together; get everyone's opinion, value, and respect it and not just a few select few.
- I know time is a big problem, but final information at the end within the bigger group could do with tidying up a little. But that's the only comment I have about this it's been amazing.
- Providing more scientific information about GEFA i.e. pros and cons, quantifiable data, etc.
- More discussion around possible negatives of the technology and other alternatives which could be used
- Nothing I can think off except maybe on the longer workshops to have the break a bit more in the middle and not have 1 workshop as long as it was
- More time to read the slides and maybe gain access prior to the zoom meetings to be able to digest the information.
- Maybe another session/longer sessions. there was a lot that could have been explored more.
- I felt week 3 from 10am to 3pm was a bit too long of a session.
- I appreciate that it is hard to get speakers from all sides, but it was a shame that we didn't have any speakers who were/are radically opposed to genome editing. Also to have speakers from outside the UK to compare and contrast their legislation, parameters and experiences.
- I can't think of anything specific.
- Found the slides easier to follow than some of the videos.
- Making use of the chat function if Wi-Fi is cutting out speech
- Having different kinds of videos would have been nice, there was a lot of text to read I found
- Slightly longer sessions
- More relatable terminology
- More videos
- Offering opportunities for further reading on the engagement platform

Let us know if you would like to be involved further

Please let us know if you'd like to on being involved in any of the following ways:



- Are there other ways to get involved in similar research?
- Would be interested in attending the launch event, as long as it's online
- Attending the launch event via video recording
- Future discussions and debate

	<ul style="list-style-type: none"> • <i>Would like to be involved in as much as possible & happy to engage with the public & farming industry.</i> • <i>Further research such as clinical trials, surveys, helping to raise awareness of genome editing in all sorts of places, work, churches, schools, etc</i> • <i>Joining in on any more workshops or outreach projects in this field.</i> • <i>Would very much like to participate in future studies regarding genome editing and be kept informed of policies in the future if possible</i>
<p>Comments from participating specialists</p>	<ul style="list-style-type: none"> • <i>I am a very strong supporter of this approach. Conventional public opinion polls are of little use in obtaining nuanced views that can genuinely help to guide policy. People need to learn enough to have better informed views and gain insights into the potential consequences of different approaches. It was really encouraging to see how much people had learned and how enthusiastic they were about taking part, finding out more and continuing to be involved</i> • <i>I know this is a highly complex and multi-faceted issue, and you are the experts in public consultation, but I do have a couple of comments from my perspective. The existing regulatory framework could have been better explained, particularly around the ASPA. In the groups in which I was present, the reason for regulating the creation of lines was not explained, nor was GMO regulation. I was surprised that there was no mention of the GE (PB) Bill, and what difference this might make! People struggled with questions around the sorts of regulations and safeguards they would like to see, and I think this was because they had not been given enough time and information. More separation was also needed between consumer- and animal welfare-related regulations.</i>