

Case Study

Food system challenges

A public dialogue on food system challenges and possible solutions

Vital statistics

Commissioning body:

Government Office for Science (GO-Science) and Which?

Duration of process:

October 2014 – August 2015
(11 months)

Total public participants involved:

49

Total stakeholders involved:

27

Total experts involved in events:

2

Cost of project:

£72,000 total

Sciencewise contribution = £36,000
plus £6,000 funding of the external evaluation

The food supply chain is facing unprecedented challenges prompting a re-examination of how food is produced in the UK and globally. Global population is forecast to exceed 9 billion by 2050, leading to a higher demand for food and putting further pressure on finite resources. The food system already faces multiple environmental (water, pollution, waste, climate and biodiversity), health (obesity, food safety), animal welfare and security issues. Future climate change will exacerbate many of these issues and put additional pressure on world food supplies.

Studies on public attitudes around agricultural technologies (agri-tech) had mainly been quantitative and explored fairly broad technologies. The benefits of having a more in-depth and analytical insight into people's underlying values and thought processes was recognised as a necessary input to shaping multi-million pound research and innovation strategies in the food sector.

Therefore, this dialogue project was developed in partnership by the Government Office for Science (GO-Science) – with support from Sciencewise – and Which? to bridge the gaps between government initiatives looking at global and UK food security challenges, the restricted understanding of consumers regarding the different approaches that are possible and limited consumer input into policy.

Policy maker view

“Really valuable piece of research which needs to be listened to and responded to by government.”

Advisory Group member

“Has come at a useful time and positive that it landed with a new government interested in new ideas.”

Government Management Group member

“Likely to be slow burn...it's a solid body of evidence that people will come back to.”

Commissioner

Influence on policy and policy makers

The key results of this dialogue project have been presented by GO-Science and Which? to ministers and directors in key departments (including the Department for Environment, Food and Rural Affairs (Defra), Department of Health (DH) and the Department for Business, Innovation & Skills (BIS)) and agencies (including the Food Standards Agency). While the results have already influenced some thinking, it is still early for specific policy impacts to be identified. However, the independent evaluation of the project suggests that the dialogue results will begin to have significant impacts over the period to the end of 2016 through the following routes:

- Feeding findings on public attitudes to food system challenges into Defra, the Global Food Security programme, the Food Standards Agency and DH policies and strategies (e.g. the 25-year plan for food and farming)
- Influencing research and innovation priorities within the Global Food Security programme and Centres for Agricultural Innovation (when they are launched). The dialogue project has contributed a nuanced understanding of the hierarchy of factors at play when the public is weighing up the risks and benefits of different types of technology



Background

The sustainability issues facing the food supply chain are well known to government, the food industry, researchers and non-governmental organisation (NGOs) in the food sector. However, recent work by NGOs showed that consumers can be poorly informed about food, that most consumers were unaware of many sustainability issues and that many people are disconnected from food production.

In parallel, the Government's Chief Scientific Advisor's first annual [report](#) on risk and innovation looked at the importance of understanding the factors that make innovative technologies more or less acceptable to the public. Previous studies on agri-tech had mainly been quantitative and explored fairly broad technologies. They found that attitudes mainly came down to how people weigh up the risks and benefits. The benefits of having a more in-depth and analytical insight into people's underlying values and thought processes was recognised as a necessary – but, so far, relatively limited – input to shaping multi-million pound research and innovation strategies in the sector.

The challenge in the food sector is that the potential solutions are so diverse. Consequently, it is first necessary to inform members of the public about the breadth of challenges that the food system faces so that they can consider the breadth of options and the individual technologies within a wider context.

Therefore, this dialogue project was developed in partnership by GO-Science and Which? to bridge the gaps between government initiatives looking at global and UK food security challenges, the restricted understanding of consumers regarding the different approaches that are possible, and limited consumer input into policy. The partnership commissioning approach offered an unusually wide opportunity to inform:

- Government policy-making and policy-making processes
- Academic food systems research through the Global Food Security programme
- Industry-led research through the Agri-Tech Leadership council (now the Agri-Food Technology Council) and the Centres for Agricultural Innovation
- Research and campaigns by consumer-interest organisations, such as Which? and others

During the course of this dialogue project, additional policy opportunities have arisen including the Government's 25-year plan for food and farming (expected in early 2016), the DH's Obesity Strategy and the Food Standards Agency's work on Our Food Future.

- Making the case for the usefulness of well-run public dialogues in delivering open, balanced and nuanced opportunities for the public to participate meaningfully in shaping research and innovation agendas. On the basis of this dialogue project, the need for public dialogue has become a central plank of the narrative for GO-Science's five-year plan
- Providing a legacy of materials and lessons on how to communicate food sustainability issues in an accessible and engaging way.

The timing of the final dialogue report was delayed four months from the original deadline (expected at the end of March 2015). However, all stakeholders agreed that publishing after the General Election has maximised the report's impact and that the timing was right for all the key policy processes.

Key messages from the participants

“Biggest benefits in the detail of insights rather than the headlines.”

Government Management Group member

Participants were very surprised at the food system challenges presented to them. After hearing about some of the challenges facing the food system, participants generally felt that the wider sustainability issues needed to be addressed. These included:

- The impacts of food production on climate change, biodiversity and resources (including water)
- The impacts of climate change on food production, food safety and public health in terms of how food is produced
- Making it easier to make healthy choices
- The level of waste in the food system
- Ethical issues of food production including how animals are reared
- Taking scarce resources through imports from developing countries.

Overall, none of the solutions considered during the workshops was rejected out of hand, although some were approached with a much greater degree of caution and need for reassurance. In considering the range of potential solutions, participants reached for behavioural solutions first as they considered this was something they could do something about. However, they recognised that the extent to which they could change their behaviour was, to some extent, limited by the products available to buy. Solutions that were of a more technological or scientific nature were acceptable but with differing degrees of support. For example, participants felt that processes they had never heard of (such as irradiation and chlorine washing) and far-reaching technologies (such as genetically modified (GM) and laboratory-produced meat) needed to pass a number of tests before they would become acceptable, including:

- Robustness
- Independent oversight of safety
- Safeguards that the technology was being developed for the wider good rather than exclusively for industry profit
- The same result could not be achieved by alternative means.

Participants recognised they could not address the food system challenges alone and expected government to take the lead in bringing about change by:

- Ensuring that the food industry tackles the issues facing the food system by providing leadership and through greater regulation of farming, manufacturing and production processes
- Ensuring that food products have more informative labelling so that consumers can make better informed choices
- Helping consumers to make affordable, sustainable food choices
- Providing general awareness-raising campaigns and demonstrating how people can change their food buying behaviour so that it is more sustainable.

As there was some distrust of the food industry and government to commit to addressing the issues of food sustainability, participants wanted to see an independent body that acted as a ‘consumer champion’. They expected this champion would be an independent organisation and would:

- Determine the best way forward to address sustainability issues
- Take into account consumer priorities and the need for radical change
- Monitor the long-term effects of food system changes in terms of food safety, impact on public health, impact on the sustainability of farming and food production, and other ethical considerations.

The dialogue activities

The objectives for the public dialogue were:

- To inform government decisions about future policy and research priorities on the role of innovative production technologies in the UK food supply, particularly the implementation of the 2013 Agri-Tech Strategy through Centres of Agricultural Innovation and the Global Food Security Programme
- To explore public and consumer awareness and perspectives of current food supply problems, challenges and opportunities
- To explore public and consumer attitudes to potential solutions (including types of food production methods, new technologies or other solutions in the context of demand-side approaches and waste reduction) that could be used to address the challenges of food supply and sustainable intensification
- For the GO-Science Risk team, the Leadership Council of the Agri-Tech Strategy and the Global Food Security (GFS) programme to have a more in-depth understanding of:
 - Consumer awareness, and knowledge of food production methods and new technologies
 - How consumers perceive the potential risks and benefits of different technologies
 - A small number of innovative technologies and approaches in detail
 - How consumers feel about demand-side approaches/solutions to food security challenges
 - The wider social elements that determine the conditions of consumer acceptability

This dialogue project was unusual in that it was delivered through a partnership between GO-Science and Which?. It was also unusual in that it had a two-tier governance mechanism with a wide range of internal and external stakeholder input, which was set up before the delivery and evaluation contractors were appointed:

1. A Government Management Group chaired by GO-Science met first in July 2014 and included Defra, the Food Standards Agency, Biotechnology and Biological Sciences Research Council (BBSRC), BIS and the DH. The Group met again in December 2014 to finalise the choice of case studies, and to suggest sources for the stimulus materials, talking heads videos and the range of food system solutions to be covered in the dialogues. A final meeting in May 2015 reviewed an early version of the final dialogue report and agreed how the report should be launched post-election
2. An external Advisory Group was set up and chaired by Which? and included about 12 core members. The first meeting agreed the broad scope of the project and identified key challenges in the food system. The second meeting (October 2014) refined the choice of case studies and the broad dialogue event designs. The third meeting (held electronically) reviewed the first draft of stimulus materials. A fourth meeting took the form of individual telephone briefings by Which? and GO-Science to share the key findings.

The process was delivered by a core project management team comprising GO-Science, Which? Sciencewise, and the dialogue and evaluation contractors.

A pilot stage of two group discussions was held in London comprising 16 participants from a range of demographic backgrounds to test the initial discussion format and materials.

The main dialogue workshops took place in London, Cardiff and Paisley in January and February 2015. Participants met on two consecutive Saturdays and took part in deliberative workshops that lasted for the full day. In total, 48 public participants were involved. The dialogues included discussion around three types of everyday products – chicken, meat and wheat – as a means of anchoring the discussion in real-life behaviour. The participants were selected to reflect a broad range of individuals in terms of age, gender, social grade, educational attainment, family status, ethnic background and geographical locality.

The first day of the workshops explored participant priorities for food shopping and their unprompted views about the challenges facing the food system. This was followed by materials (detailed handouts and video clips from a range of experts on food issues) that introduced a wide range of food system challenges for discussion.

The second day of the workshops explored whether participants had changed their attitudes or behaviour towards food buying. This was followed by discussions about a wide range of potential solutions to the challenges facing the food system. For example, for red meat, this included eating less meat and eating different cuts of meat, through to eating insects as a different source of protein and laboratory produced meat. Participants were then asked to draw up an action plan and to assign tasks for the various parties in the food system.

A pre-task was used before the first workshop and between the first and second workshop to help people think about their own food shopping behaviour.

Two months after the workshops, a follow-up telephone interview was undertaken with 18 participants (who had given consent to be contacted) to explore their reflections and attitudes after they had had time to think about them more in an everyday setting.

What worked especially well

Overall, this was a small project with potentially wide-ranging policy impacts. The balance of the framing and choice of case studies, the quality of stimulus materials, the considerable learning that participants took from dialogue events and the quality of the analysis will make this project a good demonstrator for what can be achieved through public dialogue to manage risk in these research and innovation areas. Participants were genuinely shocked to learn about the sustainability challenges of current consumption and production patterns. Many reported during the dialogues themselves or in follow-up telephone interviews that they had changed their behaviour, particularly by eating less meat and reducing waste. The main messages from the dialogue were not surprising or newsworthy to policy makers, but the rich detail on how the public balanced risk and benefits, and what underpinned these opinions, were expected to be useful in many specific policy areas.

Collaborative commissioning – the novel partnership between a Government department and Which? consumer organisation has worked very well in terms of broadening the framing of the project, harnessing expertise and resources, and spreading the project management burden. Establishing a good working relationship, and the enthusiasm and time committed by the core management team were key elements of success.

Two-tier governance mechanism – the combination of an internal cross-government policy group and an external Advisory Group has been very effective in ensuring the credibility and robustness of the project (particularly in framing and providing balance), and increasing its potential for medium-term policy impact. With more resources and time, it would have been useful to bring the two groups together or further develop bilateral relationships with the commissioners to maintain momentum within the Advisory Group.

Providing access to broad and balanced expert voices for all participants – for this dialogue project (with its breadth and depth of issues and technologies to be covered, and strongly held views of stakeholder on appropriate solutions) using talking head videos proved an efficient and cost-effective way of getting the same balanced expertise ‘in the room’ in all three locations. Specialists within the commissioning teams were able to answer questions ensuring that all participants felt their questions had been answered.

What worked less well

Timing – developing accessible and balanced stimulus materials for a broad, but detailed, dialogue project is extremely challenging. In this case, significantly more time was required from the core management team and Government Management Group than expected. Initially conceived as a six-month project, the timeframe proved tight for producing stimulus materials and a final report suitable for wider dissemination. However, all parties agree that this benefited the project. Going forward, it is important to agree the extent to which the commissioned agency may fulfil the role of specialist technical input at the outset, and factor in the time and expertise that may be needed to supplement this by the commissioning bodies.

Contact details

Commissioning bodies

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Which?

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Reports

Full project and evaluation reports available from Sciencewise on www.sciencewise-erc.org.uk/cms/uk-food-system-challenges-and-the-role-of-innovative-production-technologies-and-other-approaches-in-meeting-these/