Social Science Review Report by Professor Ragnar Lofstedt

UK Food Standards Agency: What is next for social science?

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Summary

Social science research has been an integral function of the UK Food Standards Agency (FSA) for many years. A dedicated social science research body has been in place since 2007 and the Agency as a whole employs some 23 social scientists. Although the Agency's social scientists can claim a number of successes, ranging from leading the robust process and impact evaluation of the Agency's Food Hygiene Rating scheme to assuring FSA access to high quality social science evidence and advice, the Review finds that the FSA does not have the right social science expertise in-house to meet its current challenges and to deliver its 2020 strategy. Going forward the Agency needs to:

a) Increase the social science capacity within the Agency itself;

b) Ensure that there is more senior support for social science and this can partially be achieved by making the reporting lines simpler;

c) Increase the understanding of how social science can help FSA deliver its objectives and one way of addressing this is to remove the internal silos that presently exists within FSA;

d) Clarify what social science expertise FSA needs in-house and what type of expertise it can bring in externally. FSA is, for example, in some urgent need for internal risk communication and decisions science expertise and the Agency would benefit from external advice with regard to behavioural economics (nudge);

e) Once these recommendations have been implemented the social science team should be relaunched.

1. Introduction

The purpose of this Review is to examine aspects of the Food Standard Agency's (FSA) social science capability. The outputs specified in the terms of reference are:

a) To identify the current social science capability within FSA, in terms of staff and programme-funded activity
b) To identify the nature and scope of social science capability and evidence (in the form of specific issues and projects) that would best support delivery of the FSA strategy to 2020;
c) To assess options for delivery of the above, balancing the risks and opportunities through either a standing internal social science staff resource, or external resource commissioned on an ad hoc basis, or a combination of the two. (FSA 2016d)

The Review draws on 43 face to face interviews (29 internal and 14 external, all off the record and anonymised), a review of relevant social science literature, and examination of the FSA's internal documents on its use of social science research.

2. Social science capability in FSA

Currently, the social science capability in the FSA appears to be concentrated in three different parts of the organisation.

The main source of social science capacity is within the Analytics Unit of the Science, Evidence and Research Division (the social research team). The Unit is comprised of all government analytical professions-economists, social researchers, operational researchers, and statisticians and has 20 social scientists in total. The Analytics Unit was established in July 2015 and is led by the FSA's Chief Economist. The social research team, previously known as the Social Science Research Unit (SSRU) was established by the previous Chief Scientist, Dr. Andrew Wadge, in 2007 to provide social science advice to the Agency (Murcott 2016). At the time the Agency had limited in-house social science expertise (in the form of a 'market research' post in the Communications Team) to either undertake direct research or to understand and analyse the social science research commissioned from external contractors. Today the social research team has four distinct functions:

a) Provide cross-Agency in-house advice to support policy development and evaluation, design and commission and manage research, develop strategic partnerships with other Government departments, academia and research councils. This has included: food campaigns on issues from food waste to microbiological safety; understanding how people prepare food in the home;

understanding public attitudes to emerging food technologies; and public opinion surveys (UK FSA 2016a);

b) Commissioning cross cutting research projects such as the flagship biennial survey “Food and You”. This survey is designed to “provide information on reported attitudes and knowledge relating to food safety and other food-related topics.” (UK FSA 2016b). The fourth survey was completed in September 2016, and the results of this survey are currently being analysed.
c) Act as the Secretariat for the external Social Science Research Committee (SSRC) that is set up: To support the Agency develop its social science capacity by advising how social science can best contribute to meeting the Agency’s Strategic Plans; To advise and critically assess how the Agency gathers and uses social science evidence and advice; To draw on wider expertise as appropriate to provide independent critique on social science based evidence; To keep the Agency in touch with relevant social science activity both in the UK and internationally;
d) To work with other social science research groups across UK Government departments;

The social research team currently has 5 fulltime equivalents (FTEs) compromising a mix of permanent and temporary staff, reporting to Head of Analytics and Chief Economist (Grade 6) who reports to Head of Science, Evidence and Research (Grade 5). The permanent team members are all part of the Government Social Research Service (GSR), one of the Civil Service professions with its own Code of Conduct and professional competency framework to ensure the quality of the work. There is relatively broad social science expertise in the team, including anthropology, economics, geography (human and physical) and social policy. The staff is also relatively junior with only 1.6 FTE grade 7 staff, 1 FTE HEO (currently on a 6 month secondment to the UK Space Agency), 1 FTE fast streamer (HEO), 1 FTE 12 month Sandwich student (AO), and 0.5 of a 2 year FSA/UCL Research Officer (HEO). Team staff felt that they had delivered a wide range of evidence to inform policy development, implementation and evaluation including, for example, leading the robust process and impact evaluation of the Agency’s flagship Food Hygiene Rating Scheme, as well as successful FSA communications activities. In doing so it has worked with a wide range of external academic experts, social and market research organisations and partners including research funding bodies and other government departments across the UK and internationally, helping to develop FSA’s scientific networks and assuring FSA access to high quality social science evidence and advice.

FSA also had an independent external social science advisory committee, the Social Science Research Committee (SSRC). It was established in 2008 and is made up of external academics with social science expertise and lay members, with a primary purpose to provide advice to the Agency about how it gathers and uses social science. Its role and purpose has recently been reviewed and there is a

recommendation to make it an expert departmental committee that focuses on strategic advice and challenge which will help the FSA to apply the latest social science insights effectively to deliver its strategic objectives and understand their impact (UK FSA 2016a).

Finally, there is the Communications Division which has around 30 staff with background and skills ranging from press, digital communications, social media, internal engagement, strategic communications, brand, and insight. They provide standard communication activities with a specific focus on press office and marketing/campaigns. Of the 30 individuals within the Communications division 3 of them see themselves as social scientists: 2 at HEO level and 1 at SEO level. It is interesting that while the other 27 do not see themselves as social scientists they may well have studied subjects such as geography at university, which can provide a strong social science skill set.

In sum, the FSA currently employs around 23 social scientists in total. However, during the interviews for this review I did not encounter anyone outside the Social Science Team who described themselves as a social scientist contributing to the Agency's capability in the area (even within the Analytics Unit itself). Most of them referred directly to the work of the Social Science Team. This suggests they are not necessarily using their experience in their current roles or do not feel comfortable being labelled as social scientists. It may also be because that they are not part of the Government Social Research service.

3. Findings

Perceptions of social science capability

Interviews were conducted to understand how FSA staff and external stakeholders view the use of social science research across FSA as well as the contribution of the Team and the other social scientists to the work of the Agency. Most Agency staff equated social science capability with the Team itself and had mixed views of its effectiveness.

On the positive side, a strength of the Team was identified as being involved on long term projects where they worked closely with external academics (many via joint research calls with ESRC). An FSA official noted: *"I like working with the team. Being involved on a research project in part funded by ESRC and working with external academics on a particular food issue was interesting and rewarding."* There were also positive views of the visiting research fellowships that the team organised. These enable the team to bring in external academics (usually at post-doctoral level), in part sponsored by the university supplying the academic, to FSA. As an FSA staff member said: "*The research fellowship mechanism was just brilliant. I had*

an excellent academic come from LSE to work with my unit on a specific task and I could not be more pleased." This view was shared by an external academic who had worked with FSA: *"In an era where policy impact is increasingly important it is vital that universities work with government agencies such as FSA. It is a win-win. We give them cutting edge social science expertise and in return we have our postdocs exposed to the real policy world."*

Less positive views came from a number of other internal stakeholders. Senior FSA staff were concerned that the Agency was not using social science expertise (both in-house as well as external) effectively. A senior executive noted: *"I believe in the importance of social science but it has to be done in the right way. Just now this is not the case. I really don't understand what the social scientists are doing and how they are helping the Agency with its main mission."*

Other senior FSA staff questioned the Social Science Team's engagement with the Food and You surveys. One individual noted "*The Food and You surveys are very expensive and I am unsure what value they add. The surveys are more geared to generating academic papers than they are to understanding our customers. Is this something that the UK taxpayer should continue paying for?"*

Other staff were sceptical and also lacked knowledge about what the team was actually doing for example, Communications Division staff, in particular, felt the team should be carrying out more short-term research rather than longer-term projects, which they felt did not contribute to current policy issues. A member of the Communications team noted *"SSRU should be doing research that helps UK consumers and not academics. At times I don't think they understand what their core mandate is."*

This lack of understanding is unfortunate as Communications Division staff are working on issues where the team could provide support. For example, the recent acrylamide campaign "Go for gold" did not seem to be drawn on existing academic research (e.g. Lofstedt 2003, 2013). When the campaign was launched there was significant criticism in the media regarding the lack of concrete estimates of potential cancer risks caused by acrylamide found in burnt toast and other overcooked carbohydrates. An external academic, Professor David Spiegelhaler, commented on the campaign: *"…FSA provides no estimate of the current harm caused by acrylamide, nor the benefit from any reduction due to people following their advice. To be honest, I am not convinced it is appropriate to launch a public campaign on this basis."* Had the communication team consulted the social science team, the team could have reviewed the literature on other agencies handling of acrylamide (e.g. the Swedish Food Agency's 2002 episode) where there were few clear statistics on the actual risks prevented.

There was also some confusion over the role and purpose of the Team and how to access its inputs. Several Agency staff interviewed said, for example, they could benefit from help from social scientists but were unclear who to ask. One FSA official noted: *"We were working on an important project where I could have done with some social science advice. After completing the project I realized far too late that this exact topic is something that the social research team could have helped me with."* And another official noted: *"I have not interacted with the social research team. I don't really know what they do or how they could help either me or the organisation as a whole. What is their value add?"*

Engagement of the Social Research Team with the wider agency

There also appears to be a lack of engagement between FSA management and the team. Although members of the social science team have provided individual inductions to all new Board members some staff felt that interaction with members of the senior management was lacking. As one official noted:

"With the previous Chief Executive and with Andrew Wadge as Chief Scientist, we briefed senior management three times a year or so. The new management team doesn't ask us to brief them. It is as if the unit does not exist." One explanation of why the team have not actively engaged with FSA senior management is the limited capacity of the Chief Scientific Adviser. Since Andrew Wadge stepped down as Chief Scientist, the position was reduced to a half time role, with the current Chief Scientific Adviser being only 0.5 FTE. So the role does not have the same amount of time for outreach to the broader agency that Dr.Wadge had.

The limited capacity and seniority of the social research team could also contribute to this. As noted above the unit has only 5.1 FTE with more junior staff who, while having a social science background, may not have the skills and experience to effectively communicate with the rest of the Agency.

The majority of the FSA senior staff interviewed also felt that the team had outgrown its usefulness to the organisation and were not clear what it was delivering for the Agency. As one FSA official noted: *"When the Unit was first established by Andrew Wadge it was very much needed. We got rigorous social science analysis rather than more marketing studies. This is no longer the case. The Unit is small and almost insignificant and many of the competing groups including communications have their own social science expertise."* Also "*The Unit needs to make its mark. I am unclear what the social scientists actually do. They should be more proactive in reaching out to the other functions within the Agency." "Right now the Unit is not fit for purpose. Either it should be axed or renewed - maybe by making it bigger with more senior members. We do have a problem that needs to be sorted."*

What was striking when conducting the interviews was how the internal staff associated social science with the Team, even though there are more social scientists within the Agency (n-18) than actually within the Team itself (n-5). There also appears to be some internal FSA confusion on who is doing what in terms of social science. Hence, most of the comments reflected here dealt with the so called "Team" rather than social science capacity more broadly. This was a view not shared by the external individuals interviewed, however. They too had mixed views.

Internationally, FSA appears to have a strong reputation. One German regulator noted: *"From a social science perspective FSA is a strong organisation. They have been very active in the Paris Risk Group and even hosted one of our meetings at their offices a few years ago."* One Swedish regulator concurred*: "I have only praise for the use of social science within the FSA - they are utmost professionals and at times I wish we had some of their expertise within our own Agency."*

British observers, however, were more critical. One professor at a Russel Group university noted: *"FSA like all agencies are not especially well placed when it comes to understanding or using social science findings to help shape their policy making. The external social science research that they fund is seen as weak academically and they appear to be unable to handle food alarms in a proper way—just look at the acrylamide case."* These views were also held by a leading UK academic psychologist: *"FSA's procurement process must change. They are funding social science research with little value to anyone. What the Agency needs to do now is to identify who are the best social science research providers and work with them rather than fund yet another low quality research project."* This was also echoed by a senior UK regulator: *"FSA pioneered calls for greater transparency and openness and in the early days post BSE they were able to win back the public's trust, but those glory days are over. FSA is seen as a rather weak regulator and I wonder whether this in part is due to the social science capacity being cut back as a whole."* Finally, one former regulator noted: *"FSA does not appear to be as strategic as it was in the past. Their external communications are not as joined up as it could be and I understand their social science capacity is not as integrated compared to other agencies of similar size."*

4. Discussion

Social science capacity in government: experience from elsewhere

In order to make recommendations for this review it is useful to consider experience from elsewhere. A range of researchers have looked at the use of social science within government agencies and departments. They generally concluded that social scientists can make a significant contribution by framing risk related topics for public

surveys which can make results more reliable (Wendling 2012). Or as Haimes argues: *"The social scientist has the broad range of theoretical and epistemological resources and interests that assist him/her to make further sense of situated practices, by asking questions that go beyond those that are immediately apparent in the situation itself."* (Haimes 2002, p.107).

Social scientists are also vital in helping to explain why certain risk topics become socially amplified while others do not (Kasperson et al 1988; Pidgeon et al 2003). They can explain, for example, why the BSE (Mad Cow) scare had such major repercussions for the UK while other issues such as acrylamide in food do not. In this case the amplification surrounding the BSE scare was driven in part by a lack of trust in Government, feeding cows bone meal and other animal derived products when they are herbivores, and the risks being seen as involuntary (Lofstedt 2005; Ratzan 1998; Slovic 1987; 1993; 2000). At the opposite end of the spectrum there is acrylamide, which is seen to be a natural hazard rather than a technical one and which is seen to be largely a voluntary risk (Lofstedt 2003).

Social scientists can also help broaden the debate to help organisations make better sense of risk controversies (Jasanoff 1998; Renn 1998; Stirling 1998). In a seminal study Brian Wynne showed, for example, that sheep farmers in Cumbria had a better understanding of the radiation risks associated with the Chernobyl accident than the natural science experts based in London (Wynne 1996). By involving the sheep farmers in understanding the radiation levels of Cessium in sheep meat, Wynne opened up the debate dominated by natural scientists and added a further dimension to the topic. Social scientists also bring in specialist research skills on public engagement and communications. These range from effective focus groups, in-depth interviews and participant observations (Wendling 2012).

This does not mean, however, that social scientists are well integrated into risk assessment and management agencies. In an in-depth study based on more than 100 interviews with regulators in Europe and North America, Cecile Wendling found that it was not easy integrating the social science expertise with other groupings, arguing: *"…in most cases, social scientists are not centrally involved in the risk assessment process. Rather social scientists are called in at the end of the process to make sure the discourse of the agencies meets the expectations of the population"* (Wendling 2014, p. 9). However, to complicate matters somewhat her interviews also showed that many natural scientists fear the involvement of social scientists will prevent them from reaching consensus. She argues:

"Social sciences are often seen as a hindrance to compromise. Indeed, it is already difficult enough for hard sciences experts to find an agreement; adding social sciences would only complicate the process." (Wendling 2014, p. 11). This suggests that not only careful thought and planning but also active strategies are needed to integrate social scientists in risk assessment and management agencies.

Experience from government agencies in other countries

There are a range of models for accessing social science expertise across government agencies which FSA could consider as part of a new approach. For example, in the US Food and Drug Administration (FDA) there has been strong collaboration between internal and external social scientists leading to the development of multi-authored evidence based user guides, covering everything from health literacy issues to warnings and disclosures (Fischhoff et al 2011). The Agency also worked together with social scientists in both testing and adopting food recall notices (Fischhoff 2017) as well as establishing evidence based benefit-risk frameworks (US FDA 2009 and 2013). The FDA has a number of internal groups that provide social science support that collaborate with external researchers. One such group is the Consumers Studies Branch attached to the Centre for Food Safety and Applied Nutrition. This Centre has six individuals, of which three have PhDs (in agricultural economics, psychology and sociology). For such successful collaborations to work, however, there must be support from the senior leadership, and with the FDA this has been the case (Fischhoff 2017).

The National Board for Housing and Planning in Sweden is an example where there is no in-house social science expertise and all risk communication / marketing / research is outsourced to external consultants. The Board's risk communication effort on radon levels in homes seems to have suffered from this. As there is no in-house social science memory the consultancies have repeatedly reinvented ways to communicate the risks associated with radon (e.g. Nordisk kommunikation 2005) rather than reviewing and learning from the numerous published articles on the topic (e.g. Bostrom et al 1992; Svenson and Fischhoff 1985) which show that communicating the risks associated with radon needs to consider that it is seen to be a natural rather than technological hazard. This has had quite significant implications for the Agency in its ability to achieve its government set strategic objectives (i.e. that by 2020 radon levels in all dwellings will be lower than 200Bqm3 air-, Swedish National Board of Housing and Planning 2010).

The European Food Safety Authority (EFSA) is somewhere between the USFDA and the National Board for Housing and Planning in Sweden with regard to the use of social science expertise. One of EFSA's core mandates, since its establishment in 2002, is 'to ensure that the public and interested parties receive rapid, reliable, objective and comprehensible information in the fields within its mission'. Recognising the lack of internal dedicated social science expertise, in 2003 an external risk communication advisory board was established to both provide advice regarding how the Agency's communication team could handle food scares presently being amplified by the media (e.g. cloning of animals), but also to constructively critique ongoing communication activities with EFSA itself (be it handling of genetically modified foods or the sweetener aspartame). In the period 2003-2012 EFSA had a number of risk communication successes (e.g. Lofstedt 2006 and 2008). In 2014, EFSA discontinued the external risk communication advisory board

as the senior management team felt the need to review how social science could be incorporated into the Agency's work. EFSA today is running a few projects on risk communication and consumer insights and is actively trying to build its internal social science capacity. EFSA is also re-considering whether an external risk communication advisory board could add value, in addition to sharing of best practice with national authorities in member states.

5. Conclusions

The review findings, and assessment of other countries' approaches, suggest that FSA does not necessarily have the right social science expertise in-house to meet its current challenges and to deliver its 2020 strategy. For example, the lack of engagement between the Communication Division and the Social Research Team appears to have undermined the potential success of the recent acrylamide campaign. Had the team been more actively involved, and with relevant capability e.g. behavioural economics expertise in place, they could have advised the communications team on more effective strategies along the lines of the 'Nudge' approach, employed successfully across other UK government departments in recent years. Successful "nudges" have ranged from getting people to pay their bills on time to persuading homeowners to install insulation in their homes (Thaler 2015).

Another core social science area that the Agency could benefit from is decision science. US FDA's experience suggests this is vital for Agencies who are both consumer facing and deal with possibly controversial topics (see Fischhoff 2013, 2017). Another area of expertise that supports effective risk assessment and management that the Agency should consider accessing is risk communication. These disciplines will be essential if the Agency is to achieve the objectives in its 2015-20 Delivery Plan: *"To help support the specific objective that consumers can make informed choices about what to eat, we need to continue to work with consumers, businesses, regulators and others in government and outside to understand what helps people make informed decisions, and to develop the information and other tools which are needed to support this." (UK FSA 2016c, p.5)*.

The interviews with internal and external stakeholders also suggest that the social science team cannot, as currently structured, provide in-house expertise on broad social science issues, either through its own staff or effectively commissioning external expertise.

To be clear, social science expertise needs to be seen as central within the Agency's mission. This is not the case today. For example, the social sciences can input to all three stages of risk analysis (which is truly the core function of FSA) as defined by Codex Alimentarius. With regard to risk assessment social science expertise is needed with regard to framing issues as well as applying appropriate processes and

governance (see also US NRC 2009). In the area of risk management social science knowledge is needed everywhere from relative social acceptability of risk to effective mitigations (UK Royal Society 1992). Finally, in the area of risk communication social scientists can help explain why some risks are socially amplified and others attenuated, and also assist in evaluating past risk communication messages, an area often neglected by staff working in Government agencies (for background readings see Fischhoff et al 2011; US NRC 1989).

6. Recommendations

My recommendations to address the issues are set out below and fall into four main areas

1. Increasing the Social Science capability in the Agency
2. More senior level support for social science, and
3. Increased understanding of how social science can help FSA deliver its objectives
4. Clarifying what social science expertise FSA needs in house and what type of expertise it can bring in externally

1. Increasing the Social Science capability in the Agency

This could be through strengthening the social science team or mainstreaming. Given the current limited appreciation of the role or the contribution of social science across FSA, I would recommend the strengthening of the Team as a mainstreamed resource may struggle to be heard. The social science team is currently under resourced and does not have the right expertise in-house. It needs to increase its capacity in the broader range of social science disciplines identified above (behavioural economics, decision science and risk communication). This would mean an increase in staff from its present 5.1FTEs to a team of 8-10 FTEs. This growth could come from internal transfers from other parts of FSA, as well as 2-3 interns from academia for a two-year period (at post-doctoral level with skill sets which will be of use to FSA, be it risk communication or behavioural economics). Academic secondees could be funded either by ESRC grants or university research impact grants.

The team also needs a full-time head who is at least Grade 6 level to effectively manage the team and engage with FSA senior management and work with the Chief Scientific Adviser on raising the team's profile. This envisioned level Grade 6 should not be a pure academic per se, but rather more of a senior facilitator and an internal and external networker.

The team would also benefit from being seen as providing reputable evidence based policy advice to consumers, which will in turn help FSA's reputation. Enhanced staff capability would help achieve this, but senior and visible leadership would be needed as well. Related to that, the Agency may wish to commission a thorough academic review of the usefulness of the Food and You surveys.

2. **More senior level support for social science**

The reporting lines for the team need to be clarified and made simpler. There are simply too many levels of reporting making it difficult for the team to get its voice heard. Divisions also appear quite siloed and it seems that only limited cross fertilisation of ideas is taking place. To address this the Agency could establish a "Cabinet" (or a beefed up Private Office) type structure which reports directly to the Chief Executive and Chair with a role to both brief and strategically advise these two individuals. The "Chef de Cabinet" (principle secretary) would have executive capacity and be tasked to think strategically and tactically. This individual would be in charge of making the links between the Chair/Chief Executive and the other members of the organisation. The head of social science team should report into the Cabinet, ideally to the Agency's Chief Scientific Adviser.

Increasing time commitment of the Chief Scientific Advisor to 4 days rather 2.5 days would also demonstrate increased support for a science based approach to the Agency's work. Science is at the core of what everything the FSA does. A four-day position will ensure that the CSA will be able to have at least 0.5 day for open surgery (office hours) for internal scientific staff to meet the Chief Adviser and support the team to get its voice heard at the senior management level.

Transferring the Secretariat role for the proposed revitalised SSRC from the team to the new Cabinet would also liberate more resource in the team to undertake work based on the SSRC inputs rather than serving as an administrative function for it.

3. **Increased understanding of how social science can help FSA deliver its objectives.**

The social research team has low internal visibility. It needs to have a proactive cross agency engagement strategy that could include having more resource to conduct and hold workshops and seminars on its work, with guest speakers on new and emerging trends in social science research relevant to FSA. It could be relaunched with a social science day, where members of the team present to FSA staff the current areas of work and how they can contribute to the overall FSA Delivery Plan. If this was successful it could become an annual event and expand to include external academics and other food policy agencies (e.g. US FDA).

Internal silos in FSA need to be addressed. For example, during the interviews for this review it became clear that the Team and the Communications division did not know what each other were doing. Improving cross-divisional working could help avoid future situations such as the Communication division's acrylamide campaign which was not informed by the existing risk communication experience on the issue. To help improve joint working there could be short term staff secondments between the Team, the Communication division and other areas e.g. for six months. This would help improve understanding across the Agency about what the Team can contribute and enable social science staff to better understand wider FSA business and vice versa.

4. **Clarifying what social science expertise FSA needs in-house and what type of expertise it can bring in externally**

Much of FSA's total social science capacity needs to be in-house. The Communications Division, for example, needs to develop strategic risk communication expertise with some urgency. FSA cannot afford any more acrylamide type incidents. Similarly, the social science team should bring in expertise in decision sciences. In this ever more complex world of food scares and supply chain management (e.g. Elliot Review 2014), internal decision science expertise is much needed. That said, with regard to behavioural economics (nudge) that expertise could be purchased externally. The UK Behavioural Insights Team would be most able to assist the Agency with any case studies / consulting work in this sector. The Agency, however, must be careful in out sourcing too much of its social science needs externally. As was seen in some of the interviews the Agency has not always been an intelligent customer when it comes to making the most out of externally sourced social science research. The FSA's social science research procurement process needs to be properly evaluated. It is unclear whether the UK's leading food social scientists are the ones bidding for FSA call for tenders. Hiring a Grade 6 and beefing up its internal social science capacity will address this issue to some degree, but if the Agency plans to continue to spend a large amount of tax payers' funds on social science research more needs to be done. Firstly, the research that the FSA seeks to commission should be conducted by the best possible provider. Secondly, once the research has been conducted it needs to be properly externally peer reviewed as a matter of course either via some form of an agreement with ESRC or via the new proposed external social science committee.

5. **Relaunch for social research team**

To help communicate this refreshed approach and gain support across FSA and beyond, the team will need to set a clear agenda on the key social science topics that FSA needs to be considering in its work. This could be supported by an international "Social Sciences for Food Safety summit" in London for regulators, policy makers, social scientists and others active in the social science space. Given

the time to make the above changes this summit could take place in autumn/ winter 2017.

References

Bostrom, A., Fischhoff, B. and Morgan, M.G. (1992) 'Characterizing mental models of hazardous processes: A methodology and application to radon'. *Journal of Social Issues*, Vol.48, p.85-100.

Brook Lyndhurst (2014) *Acrylamide in the home: Home-cooking practices and acrylamide formation*. London: Brook Lyndhurst.

Elliot, C. (2014) *Elliot Review into the Integrity and Assurance of Food Supply Networks: Final Report*. London, Crown copyright.

Fischhoff, B (2013) 'The sciences of science communication'. *Proceedings of the National Academies of Sciences*, Vol.110, p.14033-14039.

Fischhoff, B. (2017) 'Breaking ground for psychological science: The US Food and Drug Administration'. *American Psychologist*, Vol.72, p.118-125.

Fischhoff, B., Brewer, N. and Downs, J. (Eds) (2011) *Communicating Risks and Benefits: An evidence-based user's guide*. Washington DC, US FDA.

Fischhoff, B. et al. (1978)'How safe is safe enough? A psychometric study of attitudes towards technical risk and benefit'. *Policy Studies*, Vol.9, p. 127-152.

Haimes, E. (2002). 'What can the social sciences contribute to the study of ethics? Theoretical, empirical and substantive considerations'. *Bioethics*, Vol.16, p. 89-113.

Jasanoff, S. (1998) *The Fifth Branch: Science advisors and policy makers*. Cambridge, MA. Harvard University Press.

Kasperson, R., Renn, O. and Slovic, P. et al. (1988) 'Social amplification of risk: A conceptual framework'. *RiskAnalysis*, Vol. 8, p. 177-187.

Lofstedt, R.E. (2003) 'Science communication and the Swedish acrylamide alarm'. *Journal of Health Communication*, Vol. 8, p. 407-430.

Lofstedt, R.E. (2005) *Risk Management in Post Trust Societies*. Basingstoke, MacMillan.

Lofstedt, R.E. (2006) ‘How can we make food risk communication better: Where are we and where are we going?’ *Journal of Risk Research*, Vol. 9, p. 869-890.

Lofstedt, R.E. (2008) ‘Risk communication, media amplification and the aspartame scare’. *Risk Management*, Vol. 10, p.257-284.

Lofstedt, R.E. (2013) ‘Communicating food risks in an era of growing public distrust: Three case studies’. *Risk Analysis*, Vol. 33, p. 192-202.

Lofstedt, R.E. (2017) ‘The communication of radon risk in Sweden: Where are we and where are we going?’ *Journal of Risk research*, forthcoming.

Murcott, A. (2016) ‘Research/ethics environment in social and human food sciences: debates, constraints, limits and lessons’. *Anthropology of Food*, Vol. 10.

Nordisk Kommunikation (2005) *Hur kommunicera om radon? Rapport som stod for informationskampanj*. Stockholm, Nordisk Kommunikation.

Pidgeon, N., Kasperson, R. and Slovic, P. (Eds) (2003) *The Social Amplification of Risk*. Cambridge, Cambridge University Press.

Ratzan, S. (Ed) (1998) ‘The Mad Cow Crisis: Health and the public good’. London, UCL Press.

Renn, O. (1998) ‘Three decades of irks research, accomplishments and new challenges’. *Journal of Risk Research*, Vol. 1, p.49-71.

Slovic, P. (1987) ‘Risk perception’. *Science*, Vol. 236, p.280-285.

Slovic, P. (1993) ‘Perceived risk, trust and democracy’. *Risk Analysis*, Vol. 13, p. 675-682.

Slovic, P. (2000) *The Perception of Risk*. London: Earthscan.

Spiegelhalter, D. (2017) *How dangerous is burnt toast?* Cambridge, Winston Centre.

Stirling, A. (1998) ‘Risk at a turning point?’ *Journal of Risk Research*, Vol. 1, p. 97-109.

Svenson, O. and Fischhoff, B. (1985) ‘Levels of environmental decisions’. *Journal of Environmental Psychology*, Vol. 5, p. 55-67.

Swedish National Board of Housing and Planning (2010) *God bebygg miljo-Utvardering av delmal for god inomhusmiljo-resultat fran projektet BETSI*. Karlskrona, Swedish National Board of Housing and Planning.

Thaler, R. (2015) *Misbehaving: The making of behavioral economics*. New York, W.W. Norton and Company.

Thaler, R. and C.Sunstein (2008) *Nudge: Improving decisions about health, wealth and happiness*. New Haven, CT. Yale University Press.

UK Food Standards Agency (2013) *Slaughterhouse social science project*. London, UK FSA.

UK Food Standards Agency (2016a) *Triennial Review of six FSA Scientific Advisory Committees*. London, UK FSA.

UK Food Standards Agency (2016b) *Social science and consumer research*. London, UK FSA.

UK Food Standards Agency (2016c) *Science, Evidence and Information Strategy. 2015-20 Delivery Plan*. London, UK Food Standards Agency.

UK Food Standards Agency (2016d) *Social Science Review: Terms of reference and scope.* London, UK Food Standards Agency.

UK Royal Society (1992) Risk: Analysis, perception and management. London: UK Royal Society.

US Food and Drug Administration (FDA) (2009) *Strategic Plan for Risk Communication*. White Oak, MD, FDA.

US Food and Drug Administration (FDA) (2013) 'Structured approach to benefit-risk assessment for drug regulatory decision making'. *Draft PDUFA V implementation plan (2/13)*. Washington DC, US FDA.

US National Research Council (NRC) (1989) *Improving Risk Communication*. Washington DC, National Academy Press.

US National Research Council (NRC) (2009) *Science and Decisions: Advancing Risk Assessment*. Washington DC, National Academy Press

Wendling, C. (2012) 'What role for social scientists in risk expertise?' *Journal of Risk Research*, Vol. 15, p. 477-493.

Wendling, C. (2014) ‘Incorporating social sciences in public risk assessment and risk management organisations’. *European Journal of Risk Regulation*, Vol. 5, p. 7-13.

Wynne, B. (1996) ‘May the sheep safely graze? A reflexive view of the expert-lay knowledge divide’. In Lash, S., Szerszynski, B. and Wynne, B. (Eds) *Risk, Environment and Modernity: Towards a new ecology*. London, Sage. p. 4-83.