

APPENDICES



Food Standards Agency
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OUR FOOD
FUTURE

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TNS BMRB

Food Standards Scotland
For safe food and healthy eating



1. Appendices

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1.1 Aims of the research

Globally, we are facing a range of challenges in terms of providing a growing population with a sustainable, secure supply of safe, nutritious, and affordable high-quality food – in the context of diminishing farmland and natural resources, and whilst also tackling global climate change. These challenges have significant implications for consumers, in terms of food price spikes¹, quality of diet, and emerging food technologies, amongst other issues.

There are a growing number of potential solutions put forward to tackle some of the global food security challenges ranging from new technologies for increasing production with improved environmental benefits; modelling different global consumption patterns; to investigating innovations in food production. Consumers are not necessarily supportive of or comfortable with these developments when informed about them² - but given current levels of awareness in the general public on these issues, consumers are unable to voice their concerns.

An important part of the FSA's strategy is the idea that consumers have the right to the best food future possible, and should be empowered and informed to be active players in shaping that system. The FSA wishes to place the consumer voice at the heart of discussions about future of food, supporting consumer decisions around how new innovations fit with their values, and which innovations deliver net benefits.

The overarching aims for this work were to bring the consumer voice to the heart of civil society conversations about food, as well as establish a credible starting point for further dialogue with consumers about emerging risks, issues and questions posed by food systems. This focus on core **consumer values** was key to the research design – with the idea that once established, these could have wider applicability to other food issues consumers may face in the future.

Rather than taking a broad approach to a vast and complex topic area – spanning climate change, food security, and global co-operation – the research focussed in depth on a targeted number of topics in relation to

¹ <http://www.ifpri.org/publication/2011-global-hunger-index>

². Which? and the Government Office for Science: *Public dialogue on UK food supply challenges and the role of innovative production technologies and approaches in meeting these*, TNS BMRB, August 2015

the future of food. These key topics were drawn from previous research conducted by TNS BMRB³; a Rapid Evidence Assessment conducted by AD Evidence and Analysis⁴ as a preliminary to this work; as well as guidance from FSA and project stakeholders. Specifically, the five key topics were:

- 1) Food production and areas related to increasing yields
- 2) Food systems and global supply chains
- 3) Food innovation, covering a number of technological solutions currently in development or relatively close to application
- 4) Food authenticity: mislabelling, food crime and fraud
- 5) Health and nutrition: the challenge of how to feed a growing population a healthy, nutritious diet

This focused approach allowed researchers to explore nuanced tensions in public views; to challenge and deepen views via discussion, debate and reflection; and to explore views on trade-offs and consumer priorities in relation key factors including pricing, nutritional quality, sustainability and security, acceptability of technology, provenance and local supply.

Ultimately, the deliberative workshops fed in to the following research objectives:

- 1) Understand consumer **awareness, perceptions, assumptions, concerns and aspirations** around the current food system and the future of food;
- 2) Establish the **principles** and **values** most important to consumers in the future, by exploring **trade-offs in depth** between various factors (e.g. between affordability and sustainability);
- 3) Explore how new **innovations fit with consumer values**, and which innovations deliver net benefits;
- 4) Exploring whether and how **enhancing participants' knowledge and understanding** of the issues causes them to take a more active interest in the food they, their families and friends purchase and consume

³ Which? and the Government Office for Science: *Public dialogue on UK food supply challenges and the role of innovative production technologies and approaches in meeting these*, TNS BMRB, August 2015; FSA *Strategy 2015-2020*, TNS BMRB March 2014; Global Food Security (GFS) Programme – *A survey of public attitudes*, TNS BMRB 2012; and GFS Programme – *Exploring public views*, TNS BMRB 2012

⁴ AD Research and Analysis is an independent research company founded by Andrew Darnton. As a preliminary to this project, a literature review was conducted in order to identify gaps in existing literature relating to consumer perceptions of the future of food, helping to inform the selection of topic areas for this project.

1.2 Overview of the research design

TNS BMRB undertook a multi-phase, mixed-method approach to this research. An initial scoping phase, comprised of an online forum discussion and a quantitative Omnibus survey, fed into the development of materials for the main stage of qualitative deliberative workshops, which were reconvened over two waves. This approach allowed for iterative development of materials across the different phases of research, as well as continuing refinement of the direction of questioning, in order to respond to emerging hypotheses and allow for the triangulation of findings within and across the different phases of research.

Further details of the methodology for each of the stages of the research are outlined in the following sections.

1.3 Scoping Phase: Qualitative Online Forum

1.3.1 Approach and rationale

Before producing stimulus materials and final discussion guides for the deliberative workshops, TNS BMRB conducted an online qualitative research forum in order to:

- explore responses to some of the key themes and sub-topics that were to be included in the deliberative materials, in order to identify productive ways of introducing and discussing these
- gain an initial understanding of consumer perceptions of the key topics, in order to inform and triangulate our understanding of the findings from the deliberative workshops

Participants in this stage of research were invited to join an online discussion board where they responded to questions and probes from the research team, and provided their responses to a variety of different stimulus materials. This online methodology meant that a wide range of stimulus could be tested with participants to review a wide range of detailed stimulus materials. The online approach meant that participants were able to review the materials in their own time, and without moderator guidance – giving a clear indication of which areas were easiest (or more challenging) for participants to understand, and which subject areas were most engaging.

Stimulus materials in the online forum were divided into 4 sub-sections, according to the 4 key themes of the research that had been identified when the forum was launched: food production, food systems, food authenticity and food innovation. For each sub-section, participants were asked to upload a video explaining their initial, unprompted thoughts about the topic area, and to record a follow-up video once they had reviewed and responded to the stimulus information. This allowed us to see how participants' views developed as they learnt more about each of the topics, and to see which elements of the stimulus were most successful at engaging participants and generating discussion.

The qualitative data collected in the online qualitative research was entered by researchers into a central analysis framework, containing a summary of the key emerging themes and points of interest from the video submissions and text comments. This preliminary analysis then fed into researcher brainstorming discussions to inform the development of materials for the deliberative workshops.

1.4.2 Sample and analysis

Twenty-two participants from across the UK (from regions including London, Dudley, Birmingham, Leeds, and Newcastle) were recruited to take part in the online research, in order to gain feedback from participants with a wide range of demographic backgrounds, whilst still keeping the size of the forum manageable for the moderators. The sample was designed to reflect a mix across key demographic variables, and participants were paid an incentive of £45. The sample table indicating the breakdown of demographic details among the participants in the online research is included below.

Table 1.1: Demographics of qualitative online forum participants

Gender	
Male	11
Female	11
Age	
18-34	7
35-54	9
55+	6
Ethnicity	
White	18
Net BME	4
SEG	
ABC1	11
C2DE	11
Total	22

1.4 Scoping Phase: Online quantitative survey

1.4.1 Rationale and approach

Qualitative research identifies a range of emergent issues as well as common themes and key differences between different types of participants, but is not designed to be extrapolated to a wider population than the research sample. For this reason, the scoping phase of this project also included a quantitative survey in order to measure consumer expectations of the 5 key topic areas in the future of food: food production, food systems, food innovation, food authenticity and health. The quantitative survey allowed for a comparison of participants' current assessment of food in the UK with their hopes and expectations of the future of food, as well as to provide some initial guidance around sub-topics likely to prove interesting for further discussion in the deliberative workshops. Combining these qualitative and quantitative methodologies within the scoping phase allowed for findings to be triangulated across the different modes, in order to allow for a more robust and rigorous analysis.

Participants were asked to provide an unprompted response about what they perceived to be the greatest challenge in relation to the future of food. Then, within each of the topic areas, participants were asked about their level of concern in relation to key sub-topics, and whether those

issues were likely to become more or less prevalent over the next 10-20 years.

After completion of the survey, the results were analysed alongside the qualitative data from the online forum in order to produce a topline report, outlining current consumer understanding and expectations against each of the 5 key topic areas, in order to inform development of the materials for use in the deliberative workshops.

1.4.2 Sample design

The quantitative element of the research consisted of a 10-minute online self-completion survey, conducted using the TNS Omnibus.

Respondents were invited by email to take part in the survey according to a sample quota based on age, gender and country of residence. Quotas were designed to represent the general population, with targets sourced from the ONS Mid-Year Population Estimates 2014. The breakdown of the achieved sample is shown in the table below.

Table 1.2: Demographics of quantitative online survey respondents

Gender	
Male	668
Female	715
Age	
16-24	181
25-34	245
35-44	240
45-54	259
55+	458
Region	
England – North	308
England – Midlands	222
England – South	545
Scotland	99
Northern Ireland	98
Wales	111
SEG	
ABC1	785
C2DE	598
Parents	
Yes – Children	350
No	1033
Total	1383

Omnibus sample is drawn from the Lightspeed Research (a sister company of TNS) online access panel that has around 200,000 members in Great Britain. LSR builds online panels worldwide, and, on behalf of its clients, conducts market research with those panels and panel partners. The online panels are recruited and maintained according to rigorous standards to ensure quality and representative sampling.

After participants have been recruited, the data is then weighted in order to match the population of the UK – because the profile of the Online population does not match the GB population.

Weighting is based on working status, age within gender, size of household, household composition (i.e. whether children are in the

household), and newspaper readership. The weights were calculated through careful comparison of the profiles of those with internet access at home and those without. By weighting the data in this way, it is possible for the Omnibus to ensure it is representative of the population of Great Britain, rather than only of the Online population.

1.5 Phase 2: Reconvened Deliberative Workshops

1.5.1 Approach and rationale

In order to meet the FSA's objective of supporting consumers to feel empowered and involved in the discussion relating to the future of food, a deliberative methodology was chosen for this research project. Using this methodology ensures that participants have the time, space and information that they need in order to fully explore and discuss subject areas that can be complicated and little-understood.

The deliberative approach for this project made use of recorded testimony from experts and detailed, educational stimulus materials providing context and in-depth information to inform participants' discussions. While group discussions do have some limitations, such as the potential impacts of group effects on discussion, the workshop setting also facilitates systematic and in-depth testing of complex stimulus materials with consumers, with researchers present to unpick the drivers of responses. Deliberative workshops therefore provide a deeper understanding of attitudes than traditional focus group discussions: uncovering existing levels of knowledge; and providing a deeper understanding of how people respond to additional information.

By running reconvened sessions, with a two-week break in between, participants are given time to fully digest the materials that they have been shown in the first week and are able to return to the second workshop after a period of further consideration and completion of homework activities. During discussions in the second wave of the deliberative workshops (focusing on responses to a range of proposed scenarios for the future of food) moderators are therefore able to draw upon participants who have given a significant period of time to consideration of the issues at hand, and who have been provided with information to help frame the context for the scenarios.

1.5.2 First Wave Workshops

The first stage of the deliberative workshops involved 8 participants each and lasted for 3 hours, in order to allow participants time to digest and respond to a wide range of highly detailed stimulus material, and to establish rapport with other members of the group in order to ensure a productive group dynamic in the full-day workshops in the second stage of the research. By recruiting 8 participants for each workshop, it was possible to sub-divide the group at different points during the workshop, giving all participants equal chance to voice their thoughts and opinions, and ensuring that any particularly vocal participants did not dominate the discussion.

The workshop began with an open-ended discussion about the changes in relation to food that had been seen in the past 20-30 years, and the changes that participants expected to see in the future of food in the coming 10-20 years.

After this freeform discussion, participants were provided with a rapid overview of food security issues and some of the more complex themes that would be covered in the second wave workshops, including the complexity of the food system and the different roles and powers of different individuals and organisations within the food system.

The primary aim of the first wave of workshops was:

- 1) to understand consumers' spontaneous levels of understanding about the challenges that may be faced in the future of food, and consumers' current expectations of the future of food;
- 2) to explore consumers' responses to detailed information about the potential impacts of food security challenges on the consumer;
- 3) to provide consumers with information that will be useful in understanding some of the themes and topics contained within the food future scenarios that formed the focus point of the second workshops.

In order to keep participants engaged and thinking about the issues relating to the future of food in between the two workshops, participants were asked to complete a homework task. Participants were provided with a small booklet which contained a series of prompts for participants to use in 'interviews' with friends and family members about the future of food. These interviews offered participants the opportunity to engage in the deliberative process as 'researchers' themselves, whilst also providing a

tool to further explore the breadth of opinion on the subject with those in their circles.

1.5.3 Second Wave Workshops

The second stage of the reconvened workshops lasted for 6 hours, each bringing together approximately 16 participants from the previous wave. The second workshops were designed to last for a full day in order to give participants sufficient time to fully immerse themselves in the different scenarios that were the focus of the workshop. In each location, the two separate groups of 8 participants from the previous wave were combined in order to create the larger group for the full-day workshop. Combining the two groups ensured that the rapport between participants established in the first wave could carry into the second workshop, whilst also providing the opportunity to fully explore any differences in opinions that had emerged between the groups.

After a discussion of the homework task and the key information from the first workshop that had been particularly impactful, the remainder of the discussion focused on exploration of a variety of different scenarios that were developed following the scoping stage in order to encourage participants to consider a range of possibilities about the future of food.

The scenarios for the workshops were not designed to present accurate predictions of how the future might look, but instead to provide participants with a tool to consider their priorities for the future of food and to discuss a variety of trade-offs that were presented within the scenarios. Each of the scenarios was designed to push certain trends to an extreme, in order to encourage participants to consider the degree to which these circumstances were acceptable or unacceptable, and what might need to be done in order to encourage or prevent such a scenario from taking place.

As a preliminary to the development of the stimulus materials to be provided to participants, existing scenarios relating to the future of food were reviewed in order to ensure that the different 'worlds' presented to participants reflected current thinking about the future of food. These included scenarios created by the Food Ethics Council⁵, Chatham House⁶

⁵ [http://www.foodethicscouncil.org/uploads/publications/FECscenariosreport\(web\)_0.pdf](http://www.foodethicscouncil.org/uploads/publications/FECscenariosreport(web)_0.pdf)

⁶

<https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Global%20Trends/bp0508food.pdf>

and the European Union's Joint Research Centre⁷. The scenario developed by the Food Ethics Council focuses on two key drivers of potential change:

1. the attitudes and values of consumers in relation to food (ranging from scenarios in which the public see food as an expression of their values, ideals and identity through to scenarios in which the public sees food purely as a practical means of satisfying their needs)
2. the influence of international power structures on the food system (ranging from scenarios in which today's developing nations have become increasingly influential as world players through to scenarios in which the UK and other European countries maintain their economic strength and global influence)

Using this existing thinking as a framework, new scenarios were developed for use as stimulus material. As in the Food Ethics Council scenario, the scenarios developed for this research operated on a set of axes reflecting two key drivers of change:

1. as in the Food Ethics Council scenarios, the horizontal axis reflects the attitudes and values of consumers – scenarios on the left side of the axis are those in which consumers place a high value on food and are more engaged in the food system; those on the right side of the axis are scenarios in which consumers take a more functional approach to the consumption of food
2. the vertical axis reflects the complexity of the food system on a global level – scenarios on the higher end of the axis reflect those in which pressures on global food production mean that supply chains are shorter; scenarios on the lower end of the axis are those in which the global food system continues to be interlinked and complex, with food coming from across the globe

Figure 1.1 Visuals of the scenarios used in workshops

⁷ http://ec.europa.eu/food/safety/docs/final_report_scoping_study_en.pdf



The four scenarios presented to participants were:

- 1) **Local Growers:** Smaller scale, local food production that is focused on trade within the UK and EU. Local food producers, often small businesses, play an important role in the food chain. There is less technological innovation and the UK is more vulnerable to failures in the local food supply chain.
- 2) **Inventive Foods, Intensive Farming:** Rise of developing nations means UK/EU needs to grow more food itself – government supports the UK food industry, and relax regulation on use of some processes to maximise production efficiency. Enhanced foods provide nutrients to ensure that diets are well balanced.
- 3) **myHYPERMARKET™:** Food will be imported to the UK from around the globe. Large corporations play a big role in global trade, because they are able to produce food in countries across the world. Regulation of the food system is more complex, but corporations provide open data and give consumers access to information about their supply chains.
- 4) **InstaFood:** Global demand for food increases, and technological innovation is used to maximise efficiency of production. Transnational corporations hold power in the food system. Consumers' diets are

designed to sustain them rather than to maximise health – and there are issues of obesity and malnutrition in society.

1.5.4 Sample

Workshops were held in London, Belfast, Cardiff, and Edinburgh in order to achieve coverage across the United Kingdom. The sample was designed to reflect the spread of the local population in each of the research areas, as well as coverage across the following variables:

- **Gender** – roughly equal ratio of male and female
- **Age** – a range reflecting general population
- **Ethnicity** – include mix of ethnicities in each group (approximately 10% of total sample)
- **Rural / urban** – including a range of locations reflecting local and surrounding areas in the sampling locations

These demographic variables were chosen in order to ensure a broad variety of views within the groups, to facilitate a productive dynamic for discussion. During the screening process, participants were also asked about how informed they felt about scientific and technical issues, including climate change, nanotechnology and chemicals in food – in order to limit the selection of members of the public who were already highly engaged with the subject areas that were going to be covered in the workshops.

During the first wave of fieldwork, two separate workshops of 8 participants were conducted in each location. In the second wave, these two groups of participants were combined into a single workshop in each location. Participants were paid a £40 incentive for their participation in the first wave, and a further £100 for their participation in the second wave.

A full demographic breakdown of the participants involved in the workshops is provided in the table below:

Table 1.3: Demographics of participants in qualitative workshops

Location	Cardiff	London	Edinburgh	Belfast
Gender				
Male	6	8	7	8
Female	9	8	7	8
Age				
18-34	6	8	4	5
35-54	5	4	5	8
55+	4	4	5	3
Ethnicity				
White	13	11	13	16
Net BME	2	5	1	0
SEG				
ABC1	9	11	9	13
C2DE	6	5	5	3
Total	15	16	14	16

All recruitment was managed by TNS BMRB's in-house qualitative field team, who are specialists in social research to inform Government policy and practice, and in recruitment for the Food Standards Agency specifically. All recruiters are members of IQCS (Interviewers Quality Control Scheme), adhere to MRS guidelines at all times, and have signed data security agreements in line with ISO27001 the data accreditation held by TNS BMRB.

Field managers were fully briefed on the project and provided with detailed recruitment instructions and a screening questionnaire in order for the recruiter to assess participants' eligibility to take part in the research. Participants were identified using a mix of database and 'free-find' techniques, where contacts are identified using 'on the street' recruitment.

1.5.5 Qualitative Analysis

Following the completion of the workshops, qualitative analysis of the data collected drew on a range of evidence sources, including: materials produced during the group research; researchers' recall of the research

sessions; audio-recordings of the group sessions; and researchers' in-session notes.

Our qualitative analytical approach is iterative and inductive – building upwards from the views of respondents – incorporating elements of 'grounded theory' analysis. Analysis initially took place informally during fieldwork itself; as our research team worked closely together throughout the fieldwork period, feeding back headline findings to each other as groups were conducted. This allowed moderators to take account of learnings from how the previous sessions had worked in order to inform the emphasis needed for each of the stimulus materials and particular lines of questioning. Additionally, analysis of the first wave of workshops was able to inform the development of materials and discussion guide for the second wave of workshops.

Our formal analytical process following each wave of workshops began with researchers' individual analysis of their own research sessions against a set analysis framework agreed with the steering group and FSA's social research team. In this document, researchers summarised their data from each group (including verbatim quotes) against key research objectives, and began to form initial overarching hypotheses and insights.

Following individual-level analysis, two group brainstorm sessions were held, one after the completion of each wave of workshops. These brainstorms were led by the project manager and included the full research team. The final brainstorm was attended by members of the FSA's Consumer Engagement team, who were invited to contribute their views and recall of the research sessions.

In these brainstorming sessions, we interrogated findings across the full data-set to identify points of commonality and difference; discussed and debated any initial hypotheses around audience differences and key findings.

2. Research Materials

2.1 Quantitative Survey Questionnaire

Q1 : Initial Thoughts : Challenges of Food in the Future

Open

We would like to explore your thoughts and concerns about food in the future.

Thinking forward to Britain in 10-20 years' time, what do you think might be the biggest problems (if any) that we face in relation to food?

Please write as many things as come to mind - but please separate each point you make with a comma (,)

Scripter notes: Please code separately all points the participant suggests

Q2 : Crime : Food Risks and Crime

Matrix

Thinking about food on sale in Britain today, how do you feel about each of the following topics...

Random

	Highly concerning	Somewhat concerning	Not very concerning	Not concerning at all	Don't know	Don't care about this
Mislabelling (e.g. country of origin being different to that on the packaging)	<input type="radio"/>					
Contamination (e.g. unwanted substances present in food)	<input type="radio"/>					
Adulteration of food (e.g. adding water to 'bulk up' meat products)	<input type="radio"/>					

Scripter notes: Randomise order of statements and flip scale (but always keep Don't know/ Don't care on the right)

Q3 : FutureCrime : Future Food Risk and Crime**Matrix**

Thinking ahead to Britain in 10-20 years' time, do you think that these issues will become more common, less common, or that there will be no change?

Random

	More common	No change	Less common	Don't know
Contamination (e.g. unwanted substances/ingredients present in food)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adulteration of food (e.g. adding water to 'bulk up' meat products)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mislabelling (e.g. country of origin being different to that on the packaging)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scripter notes: Randomise statements, flip scale (but keep Don't Know / Don't care on the right)
(keep same order of statements as Q2)

Q4 : Production : Food Production**Matrix**

Thinking about food in Britain today, how do you feel about each of the following topics...

Random

	Highly concerning	Somewhat concerning	Not very concerning	Not concerning at all	Don't know	Don't care about this
Additives in food (e.g. sweeteners being added to food or preservatives being added to food)	<input type="radio"/>					
Fertilisers used during food production (e.g. using a nitrogen fertilizer to provide crops with nutrients)	<input type="radio"/>					
Pesticides used during food production (e.g. using a herbicide to kill weeds)	<input type="radio"/>					

Scripter notes: Randomise order of statements and flip scale (but always keep 'Don't Know/Don't care' on the right)

Q5 : ProductionProblem : Food Production Problem**Multi coded**

And why are you concerned about the use of fertilizers and/or pesticides?

Select all that apply

Random

- 1 I believe they can cause pollution to land and water
- 2 I believe they can cause short-term health problems (e.g. poisoning)
- 3 I believe they can cause long-term health problems (e.g. cancer)
- 4 I believe they can be harmful to wildlife

Scripter notes: Only show this question to those who (in Q4) specified fertilizers OR pesticides as somewhat concerned / highly concerned

In question text, name only the relevant issue(s) (fertilizers and/or pesticides) selected in the previous question

Q6 : FutureProduction : Future Food Production**Matrix**

Thinking ahead to Britain in 10-20 years' time, do you think that these practices will become more common, less common or that there will be no change?

Random

	More common	No change	Less common	Don't know
Additives in food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fertilisers used during food production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pesticides used during food production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scripter notes: Randomise order of statements and flip scale (but always keep 'Don't Know' on the right)

(keep same order of statements as Q4)

Q7 : System : Food Systems**Matrix**

Thinking about food in Britain today, how do you feel about each of the following statements...

Random

	Highly concerning	Somewhat concerning	Not very concerning	Not concerning at all	Don't know	Don't care about this
Over a third of British food is imported from abroad	<input type="radio"/>					
The different steps by which foods are produced, processed, and transported can be very complicated	<input type="radio"/>					
The price of food in Britain is affected by changes in the global economy	<input type="radio"/>					

Scripter notes: Randomise order of statements and flip scale (but always keep 'Don't Know/Don't care' on the right)

Q8 : FutureSystem : Future Food System**Matrix**

Thinking ahead to Britain in 10-20 years' time, do you think that these practices will become more common, less common or that there will be no change?

Random

	More common	No change	Less common	Don't know
Britain will import even more food from abroad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The steps involved in producing, processing and transporting food will have become even more complicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
British food prices will be even more sensitive to changes in the global economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scripter notes: Randomise statements, flip scale (but keep Don't Know on the right)

(keep same order of statements as Q7)

Q9 : Innovation_1 : Food Innovation**Matrix**

Below we've described some possible scenarios about food in Britain in the future. How do you feel about the scenarios described...

Random

	Highly concerning	Somewhat concerning	Not very concerning	Not concerning at all	Don't know	Don't care about this
Meat grown in laboratories will be available in some supermarkets	<input type="radio"/>					
Chemicals in packaging materials will extend the shelf-life of food	<input type="radio"/>					
Man-made additives will be developed that can add health benefits to food	<input type="radio"/>					
Farming will need to become more intensive in order to sustain the global population	<input type="radio"/>					

Scripter notes: RANDOMISE WHICH OF Q9 and Q10 PARTICIPANTS SEE FIRST

Randomise order of statements and flip scale (but always keep 'Don't Know/Don't care' on the right)

Q10 : Innovation : Food Innovation

Matrix

Thinking about Britain in 10-20 years' time, how likely or unlikely do you think these possible future scenarios are...

Random

	Very likely	Somewhat likely	Very unlikely	Don't know
Meat grown in laboratories will be available in some supermarkets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemicals in packaging materials will extend the shelf life of food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Man-made additives will be developed that can add health benefits to food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farming will need to become more intensive in order to sustain the global population	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scripter notes: RANDOMISE WHICH OF Q9 and Q10 PARTICIPANTS SEE FIRST

Randomise order of statements and flip scale (but always keep 'Don't Know/Don't care' on the right)

Keep statements in same order as Q9

Q11 : Health_1: Health and nutrition

Matrix

Thinking about food in Britain today, how do you feel about each of the following statements...

Random

	Highly concerning	Somewhat concerning	Not very concerning	Not concerning at all	Don't know	Don't care about this
An estimated 2 in 3 (66%) of UK adults are overweight or obese, due to poor quality diet.	<input type="radio"/>					
It is becoming increasingly difficult to feed the world's growing population	<input type="radio"/>					
Cheaper, processed foods tend to be less healthy.	<input type="radio"/>					

Scripter notes: Randomise order of statements and flip scale (but always keep 'Don't Know/Don't care' on the right)

Q12 : Future_Health : Future Food Health**Matrix**

Thinking ahead to Britain in 10-20 years' time, do you think that these issues will become more common, less common or that there will be no change?

Random

	More common	No change	Less common	Don't know
UK adults will be overweight or obese, due to poor quality diet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Families will not have the skills or knowledge to ensure their diet is healthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheaper, processed foods will form a large part of people's diets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scripter notes: Randomise statements, flip scale (but keep Don't Know on the right)

(keep same order of statements as Q11)

2.2 Qualitative Discussion Guide – Wave 1 Workshop

FSA Our Food Future

Topic guide v4

Research objectives

- 1) To better understand consumer awareness, perceptions, assumptions, concerns and aspirations around the current food system and the future of food, to inform the delivery of the FSA's strategic plan for 2015-20;
- 2) To engage consumers in a dialogue on the future of their food, enhancing participants' knowledge and understanding of the issues such that they take a more active interest in the food they, their families and friends purchase and consume;
- 3) To inform the planned FSA 'Our Food Future' summit, which will bring together an interdisciplinary group of experts to discuss the impact of changes to the food system on consumers.
- 4) To establish a credible starting point for further dialogue with consumers about emerging risks, issues and questions posed by food systems, and partnerships with other actors in this field.
- 5) To understand consumer priorities and understanding of 5 key topic areas:
 -) Food Production
 - a) Food Systems
 - b) Food Innovation
 - c) Food Authenticity
 - d) Health

Materials/prep:

- Test audio / video
- Observer guidelines
- 4 x A3 stimulus packs (1 between 2), 8 x participant workbooks, 8 x homework tasks

Key Questions	Stimulus materials	Approx timing
1. Introduction		15 mins
<p>1.1 CHAIR introduction</p> <ul style="list-style-type: none"> • Introduce TNS BMRB – independent research company; research carried out on behalf of FSA • Steering group/FSA (if present; TNS if not) to introduce research <ul style="list-style-type: none"> ○ Purpose is to engage the public in a dialogue about the future of food, to understand what views and aspirations of what the future of food in the UK should be. Findings will feed into a summit on the Future of Food that will bring together experts and decision makers ○ TNS moderator will explain that it's ok if it's not a topic they think much about currently – we are speaking to a wide range of people, and are interested in the general public's views ○ No right or wrong answers – we want to keep things engaging and have open conversations. We genuinely want to know where you don't understand things and we want to hear your questions too ○ Principles of dialogue: please don't speak over each other; we want to hear everyone's views; feel free to disagree with others but please respect their opinions ○ Introduce participant workbook: a place to jot down their thoughts <i>if they want to</i> (we won't collect in) • There will be a break in the middle • Moderator to explain role of observers <ul style="list-style-type: none"> ○ We have a number of colleagues who will be observing the sessions (introduce them), they are working with us on the project and should just blend into the background ○ FSA to introduce themselves and explain that they are there to listen to consumers, and answer questions they might have about the role and work of the FSA • Confidentiality – their views will be used, but not identifiable • Recording – audio recordings only available to the research team • Video (London and Belfast only)– explain that there will be an opportunity to take part in some filming after the second workshop – we will tell you more at the end if you are interested • Length of discussion: approx. 3 hours; introduce timings (including breaks) and agenda for the session • Housekeeping <p>1.2 Group introductions and icebreaker</p> <ul style="list-style-type: none"> • Participants introduce themselves to the group <ul style="list-style-type: none"> ○ Name 		<p>10 mins</p> <p>5 mins</p>

<ul style="list-style-type: none"> ○ Who they live with – partner; number / age of children ○ What they do ● Icebreaker: What is your favourite dish? And where does it come from? (e.g. ingredients from supermarket; take-away from local restaurant) 		
2. Responses to pre-task		20 mins
<p><i>The purpose of this section is to get participants thinking about the changes that have occurred in food over the past 30 years – laying the groundwork for them to consider the kinds of changes they might expect to see in the future.</i></p>		
<p>2.1 Discussion of pre-task</p> <ul style="list-style-type: none"> ● Summary of responses to pre-task question: <i>“What do you think has been the biggest change in relation to food in the past 20-30 years? What do you think someone from your parents’ generation would say?”</i> <p><i>Flip-chart initial responses</i></p> <ul style="list-style-type: none"> ○ Changes that have been positive ○ Changes that have been negative ○ Differences between participants views and those of their parents’ generation ● Note any emerging themes ● Which changes do they think have been the most noticeable / had the most impact: <ul style="list-style-type: none"> ○ On individuals / consumers ○ On society at large (<i>if possible to say</i>) ● Which changes do they think they (or their parents) might have expected 20-30 years ago <ul style="list-style-type: none"> ○ Are these expectations different from how things did turn out ○ If so, why ● Do they think these changes are permanent, or reversible ● What has caused/driven these changes (<i>spontaneous then probe if needed</i>) <ul style="list-style-type: none"> ○ Government regulation ○ Consumer demand ○ Businesses/food producers ○ Technology ○ Global trade 	<p>FLIPCHART : Biggest changes in the past</p>	<p>20 mins</p>
3. Top of mind concerns, aspirations and assumptions about the future of food		30 mins
<p><i>The purpose of this section is to explore people’s spontaneous concerns, aspirations and assumptions about the future of food, to help understand current perceptions, expectations and level of awareness</i></p>		

<i>about some of the current and future trends in food.</i>		
<ul style="list-style-type: none"> • <i>After thinking about the changes that we have seen over the past 30 years, we want people to consider the future of food in the next 10-20 years</i> • Interpretation of 'future of food' – what this might mean <p><i>Ask participants to split into two groups, and to discuss among themselves: Spontaneous discussion of the future of food – what they expect or imagine the future of food in 10-20 years' time might look like</i></p> <ul style="list-style-type: none"> ○ What will have stayed the same ○ What will be different ○ What challenges we might be facing ○ What hopes they have – what might have improved <ul style="list-style-type: none"> • <i>During discussion, encourage participants to think as broadly as they would like to. There are no 'right' or 'wrong' predictions, and we're interested to hear everything that they think could be a change in relation to food. They can draw on things they've heard in the media, or that they know from their education. Equally, they can also provide best guesses based on what they know about food today, and the discussion we've just had about changes in the past.</i> 	<p>Can note down in workbooks (pg 1)</p>	10 mins
<ul style="list-style-type: none"> • <i>Participants to reconvene and both groups to outline what they have discussed against the key points above – moderator to flipchart</i> • Discuss the futures presented by the groups: <ul style="list-style-type: none"> ○ Any shared expectations about the future of food between the two groups ○ Any key differences • <i>For each topic raised, probe fully to understand what this means to them:</i> <ul style="list-style-type: none"> ○ How they know about this / why they have these expectations ○ How confident they feel that this is the case / how much they feel they know about it • Overall – based on futures discussed: <ul style="list-style-type: none"> ○ What some of the implications might be for how they shop / the food they eat ○ What might be responsible for these changes i.e. what might cause these changes 	<p>FLIPCHART Possible future changes</p>	10-15 mins

<p>Prioritisation</p> <p><i>Participants to pair up to decide on the three topics that they think would be the highest priority issues for them in 10-20 years' time (up to participants to decide what a 'priority' is – could be most concerning, most exciting, most in need of investment, etc.)</i></p> <ul style="list-style-type: none"> • After decisions made, participants to discuss as a whole group what their priorities are: <ul style="list-style-type: none"> ○ Why are these most important / highest priority ○ Do these priority areas have anything in common ○ Does anyone have any disagreement with their ranking, why <p><i>(Probe fully on what participants are taking into account when making comparisons between the different issues)</i></p>	<p>Can use workbook if useful</p>	<p>5-10 mins</p>
<p>4. Reaction to stimulus overview of food security</p>		<p>30 mins</p>
<p><i>The purpose of this section is to introduce some detail regarding the main challenges relating to food security and the future of food, in order to set the context for the rest of the discussion</i></p>		
<ul style="list-style-type: none"> • Introduce video – “Although our modern food system brings with it several benefits, including a wide range of choice for consumers and food that comes to us from all over the globe, there are also a wide range of challenges that may arise in the future regarding our food production and supply. Tim Benton has made a video for us, he is the Champion for the UK’s Global Food Security Programme – which looks to ensure that important research is carried out on food security. He’s also a leading researcher on findings more sustainable ways to farm for food. He’s based at the University of Leeds.” • Reminder of workbook to jot down any notes if they want – anything they find interesting, confusing or have questions about <p>Show TIM BENTON OVERVIEW OF FOOD SYSTEM CHALLENGES VIDEO – presenting the big issues in relation to the environment, food supply and public health in a general presentation</p> <p>[If not video from TB, introduce ALL STIMULUS A at this point that gives an overview of potential future food challenges, and go through each of the 4 areas]</p> <p>Discussion of the issues and challenges outlined in Tim Benton’s presentation</p>	<p>STIMULUS – TIM BENTON VIDEO</p> <p>Participant workbook – note there is a page for different issues discussed</p>	<p>10 mins</p> <p>5 mins</p> <p>10 mins</p>

<ul style="list-style-type: none"> • First reactions <ul style="list-style-type: none"> ○ Anything surprising ○ What stood out most <p><i>Explain now we will go through some of the issues in more detail, starting with Food Security Challenges.</i></p> <p><i>For each topic use probes below to help participants think about how these challenges play out in real world situations / might affect them</i></p> <p><i>Facilitator to probe on each issue at a time, and participants to use Hand-outs A (PAGE 1 food security only)</i></p> <ul style="list-style-type: none"> • Food Security – ensuring that all people have access to sufficient, safe and nutritious food, and some of the challenges presented <ul style="list-style-type: none"> ○ Whether they had heard of ‘food security’ before ○ How different from changes discussed previously <ul style="list-style-type: none"> ▪ Which areas are new <p><i>Responses to the ideas in the stimulus (go through each box in turn):</i></p> <ul style="list-style-type: none"> • Idea of increasing demand for food • Increasing demand for meat in developing countries • Production is not sustainable • Idea that food prices are volatile <p>And explore for each:</p> <ul style="list-style-type: none"> ○ Whether new/surprising to learn this ○ How much of a problem do they think this is / how concerned are they ○ Any emerging questions or concerns <p><i>Moderator to briefly explore other issues raised in video:</i></p> <ul style="list-style-type: none"> • Obesity and diet related illness <ul style="list-style-type: none"> ○ Refer back to video - increasing obesity rates and fewer people eating a balanced diet ○ Any emerging questions or concerns • Climate Change having an impact on food production <ul style="list-style-type: none"> ○ Whether ever thought about link between climate change and food security, in terms of: <ul style="list-style-type: none"> ▪ Contributing to carbon emissions 	<p>Hand-out A page 1, on food security</p>	<p>5 mins</p>
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<ul style="list-style-type: none"> ▪ Making it more difficult to grow food <p>(If needed refer back to video – idea that you can have a ‘bad year’ for crops in lots of places in the world at the same time – check understanding of this, and initial response)</p> <ul style="list-style-type: none"> • Any questions or concerns about information heard 		
BREAK		15mins
6. Introduction to issues informing discussion of scenarios		50 mins
<p><i>The purpose of this section is to provide consumers with information about some of the different topics that will feed into the scenarios to be discussed in the next workshop. Specifically, to explore: responses to the idea of complexity in the supply chain and perceptions of risk – and to introduce and explore reactions to roles and power relationships amongst players in the food system.</i></p>		
<p><i>Explain that we’re now going to look at several current-day trends in food that may have implications for how the future looks. Please note up-front that some of these issues are quite complex, but we will have more time to spend on them in the next wave to answer any questions – at this point we just want to introduce some of the ideas and get their initial thoughts.</i></p> <ul style="list-style-type: none"> • Introduce stimulus [<i>map of the world and a chocolate bar – asking consumers to consider where they expect the ingredients would come from</i>] <ul style="list-style-type: none"> ○ Where they would expect the ingredients to come from (add stickers) ○ Responses to second page of stim – showing where the materials do come from (<i>spontaneous responses, then probe</i>) <ul style="list-style-type: none"> ▪ Response to range of locations involved ▪ Response to the combination of ingredients from across the world ▪ Any surprises, whether ever considered before <p><i>Explain: now we want to think about not only where ingredients come from, but all the stages involved in producing food. Give out stimulus C and let respondents look through some of the journeys for a few minutes – explain there are 3 different examples to choose from, if they can look at one and report something back:</i></p> <ul style="list-style-type: none"> • Ask individual respondents to report back something interesting or surprising (particularly any who have been quieter) <p><i>Read through stimulus C2 on Food System, that is it a summary of some of the stages and process involved:</i></p> <ul style="list-style-type: none"> • Reactions to system complexity 	<p>Participant workbook has pages if needed</p> <p>STIMULUS B: Global ingredients map Stickers</p> <p>STIMULUS C – Food Journeys</p> <p>C2 – Food</p>	<p>5 mins</p> <p>20 mins</p> <p>10 mins</p>

7. Concluding discussion		20 mins
<i>The purpose of this section is to arrive at a summary of concerns, aspirations and expectations about the future of food after discussion of stimulus materials</i>		
<ul style="list-style-type: none"> • Summary of discussion so far – what has been the ‘big picture/take-out’ in terms of the discussion we’ve had (everyone to say one thing) • Based on all information discussed so far – <ul style="list-style-type: none"> ○ What has been most surprising ○ What has been most concerning ○ What the biggest opportunity for the future might be ○ What would they be most interested to learn more about • What do they think will be the biggest change in relation to the future of food • What is most important to them about the future of food • What key questions have emerged that they would like answers to in the next wave • At this point, do they think they will change any of their behaviours in relation to how they think about food, or buy food 		
8. Next steps		5 mins
<ul style="list-style-type: none"> • Does anyone have any other points to add • Explain the homework task – participants to speak to some friends/family members about their hopes and fears for the future of food, and take notes in the provided booklet • Completing the Icarus evaluation form (moderator/Icarus rep to distribute, give participants time to complete, and collect in order to send on to Icarus) • (In London and Belfast only) Explain about filming by Malt; an opportunity to take part in a short filmed interview that may be used for marketing purposes by FSA, and at the Future of Food summit – collect names for opt-in • Remind about dates for the next wave <p style="text-align: center;">Thank and close</p>	<p>Homework task</p> <p>Evaluation form</p>	

2.3 Qualitative Discussion Guide – Wave 2 Workshop

FSA Our Food Future

Topic guide Wave 2 V1

Research objectives

- 6) To better understand consumer awareness, perceptions, assumptions, concerns and aspirations around the current food system and the future of food, to inform the delivery of the FSA's strategic plan for 2015-20;
- 7) To engage consumers in a dialogue on the future of their food, enhancing participants' knowledge and understanding of the issues such that they take a more active interest in the food they, their families and friends purchase and consume;
- 8) To inform the planned FSA 'Our Food Future' summit, which will bring together an interdisciplinary group of experts to discuss the impact of changes to the food system on consumers.
- 9) To establish a credible starting point for further dialogue with consumers about emerging risks, issues and questions posed by food systems, and partnerships with other actors in this field.
- 10) To understand consumer priorities and understanding of 5 key topic areas:
 -) Food Production
 - a) Food Systems
 - b) Food Innovation
 - c) Food Authenticity
 - d) Health

<p>Reflections from wave 1</p> <ul style="list-style-type: none"> • Warm up and ice-breaker: 1) the best and worst food they had over the last two weeks • Rapid sentence completion round-table: What was their key take out from Wave 1: “The thing I kept thinking about since I last saw you all was...” • Homework carousel: everyone in group to feed back – rapid-fire participant flip-chart feedback to get people energised and engaged (5 min max) • Discussion: <ul style="list-style-type: none"> ○ Summary discussion of others’ views ○ How if at all views have changed since wave 1 ○ What most influenced their views • Moderator to remind key points from plenary summary for discussion – <i>Last time we talked a bit about how you think our world has developed in relation to food, a bit about the challenges that food experts say we are facing in relation to food, and a bit about what you thought, hoped and feared happen in the future.</i> • [Moderator stick pre-prepared W1 list of priorities/issues on the wall] <ul style="list-style-type: none"> ○ Whether they still agree/disagree ○ Whether they want to amend anything from their list ○ [Moderator explain the list of priorities can remain on the wall – invite respondents to add to it throughout the day] • Respond to individual questions raised / response to questions from wave 1 	<p>Flip chart homework task feedback</p> <p>Moderator to pre-prepare a flipchart showing summary of discussion from W1</p>	<p>15 mins</p> <p>10 mins</p>
<p>3. BREAK OUT GROUPS Introduction to scenarios 11.05am</p>	<p>BREAKOUT GROUP (8)</p>	<p>1h15 mins</p>
<p>Introduce scenarios</p> <p>[Moderator to introduce the idea of the scenarios: <i>We promised you last time we met that today we’d dig into some of the issues that were raised in a bit more detail – so thinking more about</i></p>		<p>5 mins</p>

<p><i>what kind of food we want in the future and how we want to eat it, and more about the implications of trends around globalisation and complexity, and the potential roles of consumers, Government, industry and regulators – and what you want to see happen around food in the future.</i></p> <p><i>To help us think about that, today we’re doing a bit of game-playing – and we’re all going to think about what it might feel like to live in four very different future ‘worlds’ that offer very different scenarios for how we buy and eat food. It’s important to stress now that we’re not saying these worlds will necessarily happen – we’ve very intentionally pushed things to the extreme! But pushing the boundaries a little bit is a good way of helping us think about what we really want and don’t want, what makes us uncomfortable or excited. And it might help us reflect on any current trends that we do or do not want to see continue into the future.</i></p> <p><i>At the same time, remember what was shown in the video from Tim Benton last week – our food system faces big challenges, and it is unlikely that the future of our food system will look the same as it does today. All of these scenarios respond to those challenges in very different ways.</i></p> <p><i>That’s something that’s really important about today; the decision-makers who will be paying attention to the findings from this work will want to know what really matters to you, in principle. They want to know what you want when you think about the future of our food.</i></p> <p><i>So please – play along – don’t worry too much about whether anything you are seeing is factually accurate or WILL happen – as some of this is a bit out there! Think more about how you would FEEL and ACT if you lived in this world –if this is a world you want to live in – and why or why not.</i></p> <p><i>Moderator to take any questions before we begin.</i></p> <p>NB. Groups will look at 3 scenarios in total, rotated across the groups (order will also be rotated). Any of the sub topics not covered will be introduced in another scenario. All groups to cover scenario A and D.</p> <p>Case study stimulus materials will be available for each scenario to be used if needed (i.e. if participants have questions, or are having difficulty engaging with the sub-topic areas).</p>	<p>Stimulus</p>	<p>5 mins</p>
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<p>3.2 Scenario A</p> <ul style="list-style-type: none"> • Introduce SCENARIO A – talk through the story (Stimulus A, with Stimulus A1 for group to review) and briefly go through Stimulus A2 as a group. • Then break into pairs/threes to break the scenario down a bit. Ask the groups to take the point of view of someone who now lives in this ‘future’, and write out the following sentence completions in workbooks: <ul style="list-style-type: none"> ○ What is most similar to now: <i>The thing that’s most similar to a generation ago (e.g., 2015) is...</i> ○ What is most different: _____ <i>is the most important change, because</i> _____ ○ What concerns them about this scenario: <i>The thing that worries me most about this world is</i> _____ ○ What is most hopeful: <i>The thing that I love best about this world is</i> _____ ○ Overall, how they feel thinking about this world: <i>Living in this world makes me feel</i> _____ <i>because</i> • Group discussion: Moderator flipchart group responses – highlighting: <ul style="list-style-type: none"> ○ Commonalities and differences in opinion – and what drives these ○ Strength of views – what really matters and why • Re-mixed ‘perspective taking’ pairs/threes: discussion of the implications and impact on: 	<p>A, A1, A2</p> <p>Workbook sentence completion and ‘emotion indicators’</p> <p>Moderator to flipchart</p> <p>Participants to make notes in workbook</p>	<p>10 min</p> <p>10 mins</p> <p>10 mins</p>
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<ul style="list-style-type: none"> ○ 'People like me' ○ Other families ○ More vulnerable consumers (e.g., low income, elderly, etc) ○ Other nations <p>Brief discussion: Feedback as a group. General discussion but do touch on the below points (Spontaneous, then probe on implications of) -</p> <ul style="list-style-type: none"> ○ Growing your own / locally produced foods ○ Shorter supply chains – implications ○ Less variety, seasonality, the need to plan meals based on what's available ○ High quality and high cost ○ Vulnerability to disease/crop failure ○ Lack of UK research in agriculture (e.g. to combat some of the issues explored last time) ○ Producers reducing waste 	<p>Moderator to flipchart</p>	<p>30 min (incl. case studies below)</p>
<p>Introduce STIMULUS A3 after or as part of above discussion as appropriate/needed: More detailed information on consumer and farmer support for localised / small-holding farms, shorter supply chains, and consumer confidence vs. sustainability, vulnerability to disease, low R&D. General discussion on:</p> <ul style="list-style-type: none"> ● How would this impact them ● How would this impact consumers in general ● How comfortable/uncomfortable they are with these issues ● What key areas of concern are for consumers and why 	<p>Stimulus A3: implication of shorter supply chains fact sheet</p>	
<p>Introduce STIMULUS A4 after or as part of above discussion as appropriate/needed: Detailed information on potential role of consumers as producers – urban gardening, allotments – an alternative to traditional market economy. General discussion on:</p> <ul style="list-style-type: none"> ● Would any of them consider taking on this producer role? ● How widespread might this be? 	<p>Stimulus A4: consumers as producers fact sheet</p>	<p>5 mins</p>

<ul style="list-style-type: none"> • What is their response to the limitations? • Could this present a genuine alternative to the current food market? <p>‘Write a letter to the past’ exercise: Each participant to take a few minutes to write a brief (half a page max) letter to people living in 2015, to let them know what the future holds and if they want them to DO anything to help bring this future about or avoid it. This could be in terms of their own personal behaviour as consumers, encouraging Government or industry to change things, looking for more information or educating themselves, etc etc. It’s an open exercise – if they think this ‘future’ looks great and there’s nothing to do, then tell the ‘people from the past’ exactly that!</p> <p>All participants to post their ‘letters’ up next to the future scenario – and then head to break. Participants welcome to look at others’ letters during the break.</p>	Letter writing paper	
BREAK 12.20pm		10 mins
4. Scenarios – BREAK OUT GROUPS 12.30pm	BREAKOUT GROUP (8)	1h10 mins
<p>Moderator explain we are going to explore a completely different scenario now – remind this one explores the possibility of more difficult circumstances (compared to first one which was closer to ‘best case scenario’).</p> <p>Scenario D</p> <ul style="list-style-type: none"> • Introduce SCENARIO D – talk through the story (Stimulus D, with Stimulus D1 for group to review) and briefly go through Stimulus D2 as a group. • Then break into pairs/threes to break the scenario down a bit. Ask the groups to take the point of view of someone who now lives in this ‘future’, and write out the following sentence completions in workbooks: <ul style="list-style-type: none"> ○ What is most similar to now: <i>The thing that’s most similar to a generation ago (e.g., 2015) is...</i> 	<p>Stimulus D, D1, D2</p> <p>Workbook sentence completion and ‘emotion indicators’</p>	<p>5 mins</p> <p>10 mins</p>

<ul style="list-style-type: none"> ○ What is most different: _____ <i>is the most important change, because</i> _____ ○ What concerns them about this scenario: <i>The thing that worries me most about my world is</i> _____ ○ What is most hopeful: <i>The thing that I love best about my world is</i> _____ ○ Overall, how they feel thinking about this world: <i>Living in this world makes me feel</i> _____ <i>because</i> <ul style="list-style-type: none"> ● Re-mixed ‘perspective taking’ pairs/threes: discussion of the implications and impact on: <ul style="list-style-type: none"> ○ ‘People like me’ ○ Families ○ More vulnerable consumers (e.g. low income, elderly, etc) ○ Other nations 		10 mins
<p>Brief discussion: Feedback as a group. General discussion but do touch on the below points (Spontaneous, then probe implications of) –</p> <ul style="list-style-type: none"> ○ Processed food with additives to counteract lower availability of healthy food ○ Complex supply chains causing risks for authenticity ○ Cheaper food prices as corporations compete to drive down prices ○ Dietary health issues - obesity 	Moderator flipchart	30 mins (inc. case studies below)
<p>Introduce STIMULUS D3 after or as part of above discussion as appropriate/needed: Detailed information on Corporations Driving Efficiencies</p> <ul style="list-style-type: none"> ● Split into two groups and discuss some of the pros and cons: 	Moderator to flipchart	5 mins

<ul style="list-style-type: none"> ○ Stimulus contains prompts e.g. TNCs push down cost, ensure production is efficient, and there is enough food to eat vs. needing to trust in TNCs (as low visibility of food chain, less UK/EU control over regulation, less consumer power) <p>Introduce STIMULUS D4 after or as part of above discussion as appropriate/needed: Detailed information on Food Authenticity</p> <ul style="list-style-type: none"> ● Split into two groups and discuss implications of food authenticity issues: <ul style="list-style-type: none"> ○ How might it be possible to prevent some of the following types of food fraud? ○ In the highly globalised world, who holds responsibility for preventing this kind of fraud? ○ Are some kinds of food ‘crime’ or inauthenticity more important to tackle than others? ○ How much would they be willing to see cost increase in order to achieve greater control over food authenticity? <p>‘Write a letter to the past’ exercise: Each participant to take a few minutes to write a brief (half a page max) letter to people living in 2015, to let them know what the future holds and if they want them to DO anything to help bring this future about or avoid it. This could be in terms of their own personal behaviour as consumers, encouraging Government or industry to change things, looking for more information or educating themselves, etc etc. It’s an open exercise – if they think this ‘future’ looks great and there’s nothing to do, then tell the ‘people from the past’ exactly that!</p> <p>All participants to post their ‘letters’ up next to the future scenario – and then head to break. Participants welcome to look at others’ letters during the break.</p>	<p>Stimulus D4 – food authenticity</p> <p>Letter writing paper</p>	
<p>LUNCH 1.40pm</p>		<p>45 mins</p>
<p>5. BREAKOUT GROUPS afternoon session 2.25pm</p>	<p>BREAKOUT GROUP (8)</p>	<p>65 mins</p>
<ul style="list-style-type: none"> ● Welcome back from lunch 		<p>5 mins</p>

<ul style="list-style-type: none"> • Comments on the scenario process so far • Any questions/comments? <p>NB Groups will cover EITHER Scenario B OR Scenario C in this session, and any sub-topics/case studies from the scenario not covered. This section includes questions for 2 scenarios – USE ONE SET ONLY.</p> <p>Scenario B</p> <ul style="list-style-type: none"> ○ Introduce SCENARIO B – talk through the story (Stimulus B, with Stimulus B1 for the group to review), briefly go through Stimulus B2 as a group ○ Then break into pairs/threes to break the scenario down a bit. Ask the groups to take the point of view of someone who now lives in this ‘future’, and write out the following sentence completions in workbooks: <ul style="list-style-type: none"> ○ What is most similar to now: <i>The thing that’s most similar to a generation ago (e.g., 2015) is...</i> ○ What is most different: _____ <i>is the most important change, because</i> _____ ○ What concerns them about this scenario: <i>The thing that worries me most about this world is</i> _____ ○ What is most hopeful: <i>The thing that I love best about this world is</i> _____ ○ Overall, how they feel thinking about this world: <i>Living in this world makes me feel</i> _____ <i>because</i> _____ ○ Group discussion: Moderator flipchart responses – highlighting: <ul style="list-style-type: none"> ○ Commonalities and differences in opinion – and what drives these 	<p>Stimulus B, B1, B2</p> <p>Workbook sentence completion and ‘emotion indicators’</p> <p>Moderator flipchart</p> <p>Participants to make notes in workbook</p>	<p>5 mins</p> <p>10 mins</p> <p>10 mins</p> <p>10 mins</p>
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<ul style="list-style-type: none"> ○ Strength of views – what really matters and why ○ Re-mixed ‘perspective taking’ pairs/threes: discussion of the implications and impact on: <ul style="list-style-type: none"> ○ ‘People like me’ ○ Families ○ More vulnerable consumers (e.g. low income, elderly, etc) ○ Other nations 	Moderator to flipchart	30 mins
<p>Brief discussion: Feedback as a group. General discussion but do touch on the below points (Spontaneous, then probe implications of) –</p> <ul style="list-style-type: none"> ○ Rise in UK food production ○ Greater intensiveness of farming in UK ○ New technologies being used to increase production ○ Functional foods/nutraceuticals ○ Greater use of chemicals/additives 		5 mins
<p>Introduce STIMULUS B3 after or as part of above discussion as appropriate/needed: Detailed information on Nutraceuticals, food processed and enhanced with nutrients. Artificially added nutrients/not ‘whole’ food vs. inexpensive and easy to plan.</p> <ul style="list-style-type: none"> ○ What is appealing? ○ What would they not accept? ○ What downsides are most concerning? 	Letter writing paper	5 mins
<p>Introduce STIMULUS B4 after or as part of above discussion as appropriate/needed: Detailed information on government regulation of additives – potential changes in regulation</p> <ul style="list-style-type: none"> ○ Acceptability of changes to regulation ○ Assurances on new technologies 	Stimulus C, C1, C2	10 mins
	Workbook	

<p>‘Write a letter to the past’ exercise: Each participant to take a few minutes to write a brief (half a page max) letter to people living in 2015, to let them know what the future holds and if they want them to DO anything to help bring this future about or avoid it. This could be in terms of their own personal behaviour as consumers, encouraging Government or industry to change things, looking for more information or educating themselves, etc etc. It’s an open exercise – if they think this ‘future’ looks great and there’s nothing to do, then tell the ‘people from the past’ exactly that!</p> <p>All participants to post their ‘letters’ up next to the future scenario – and then head to break. Participants welcome to look at others’ letters during the break.</p>	<p>sentence completion and ‘emotion indicators’</p>	<p>10 mins</p> <p>10 mins</p>
<p>Scenario C</p> <ul style="list-style-type: none"> ○ Introduce SCENARIO C – talk through the story (Stimulus C, with Stimulus C1 for the group to review), briefly go through stimulus C2 as a group ○ Then break into pairs/threes to break the scenario down a bit. Ask the groups to take the point of view of someone who now lives in this ‘future’, and write out the following sentence completions in workbooks: <ul style="list-style-type: none"> ○ What is most similar to now: <i>The thing that’s most similar to a generation ago (e.g., 2015) is...</i> ○ What is most different: _____ <i>is the most important change, because</i> _____ ○ What concerns them about this scenario: <i>The thing that worries me most about this world is</i> _____ ○ What is most hopeful: <i>The thing that I love best about this world is</i> _____ ○ Overall, how they feel thinking about this world: <i>Living in this world makes me feel</i> _____ <i>because</i> _____ 	<p>Moderator flipchart</p> <p>Participants to make notes in workbook</p> <p>Moderator to flipchart</p> <p>Stimulus C3 ‘design labelling / tracing’</p>	<p>30 mins (inc. case studies below)</p> <p>5 mins</p>

<ul style="list-style-type: none"> ○ Group discussion: Moderator flipchart responses – highlighting: <ul style="list-style-type: none"> ○ Commonalities and differences in opinion – and what drives these ○ Strength of views – what really matters and why ○ Re-mixed ‘perspective taking’ pairs/threes: discussion of the implications and impact on: <ul style="list-style-type: none"> ○ ‘People like me’ ○ Families ○ More vulnerable consumers (e.g. low income, elderly, etc) ○ Other nations <p>Brief discussion: Feedback as a group. General discussion but do touch on the below points (Spontaneous, then probe implications of) –</p> <ul style="list-style-type: none"> ○ Prominence of TNCs ○ Wide range of produce available ○ ‘Open data’ about food – lots of information available ○ Consumers putting pressure on corporations ○ More intensive farming abroad <p>Introduce STIMULUS C3 after or as part of above discussion as appropriate/needed: Detailed information on “In this scenario some active consumers have put pressure on large businesses to provide them with data to trace the food they are eating.” General discussion on:</p> <ul style="list-style-type: none"> ○ What information should be available to 	<p>Letter writing paper</p>	
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<p>consumers about their food</p> <ul style="list-style-type: none"> ○ Sort and rank the different kinds of information shown on the stim document <ul style="list-style-type: none"> ▪ Which are most important ▪ Which are least important ○ How should it be communicated to consumers ○ Would they definitely use the information – or ignore it <p>‘Write a letter to the past’ exercise: Each participant to take a few minutes to write a brief (half a page max) letter to people living in 2015, to let them know what the future holds and if they want them to DO anything to help bring this future about or avoid it. This could be in terms of their own personal behaviour as consumers, encouraging Government or industry to change things, looking for more information or educating themselves, etc etc. It’s an open exercise – if they think this ‘future’ looks great and there’s nothing to do, then tell the ‘people from the past’ exactly that!</p> <p>All participants to post their ‘letters’ up next to the future scenario – and then head to break. Participants welcome to look at others’ letters during the break.</p>		
BREAK 3.30pm		10 mins
WHOLE GROUP Summary – groups and plenary		PLENARY GROUP (16) 50 mins
<p>Summary discussion</p> <ul style="list-style-type: none"> • How everyone felt exploring these scenarios <ul style="list-style-type: none"> ○ What stood out to them most ○ What was most concerning ○ What was most surprising ○ Is there anything that now seems important to them that was not before • Return to priorities for wave 1 on the wall <ul style="list-style-type: none"> ○ How their views have changed (if at all) since wave 1 ○ Anything to add to the list ○ Anything that remains really important, and why 	<p>List of priorities with new areas added</p> <p>Flipchart</p>	<p>10 mins</p> <p>20 mins</p>

<ul style="list-style-type: none"> - Evaluation forms - Incentives - Vox-pops (final 10 mins free for this) <p style="text-align: center;">Thank and close</p>		
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2.4 Wave 1 Workshop Stimulus Materials

Food Security and Potential Changes

Food security defined by World Health Organisation as: "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"

Global food **demand** will increase with population – projected to grow from over 7 billion today to 8 billion by 2030.

It is estimated that 805 million people on the planet experience **hunger** on a daily basis - lacking access to key nutrients such as carbohydrates, fats and protein



Soil loss due to **erosion**; environmental **damage**; **over-fishing**; and reliance on **fossil fuel** energy to produce fertilisers and pesticides are all challenges to food security.

Unsustainable methods of production present many risks for the future of the food system – and could make it **less resilient** when climate or economy changes



As income rises in '**developing countries**', global demand for meat and other higher value products increases.

Producing meat is **resource intensive** - more land needs to be set aside to farm animals, and feed and water needs to be used to rear them.



Climate change, energy prices, exchange rates, production costs and resource pressures can all contribute to **volatile food prices**.

This means that the price of food for consumers can be **unpredictable**. For example, in 2008 there were riots in some countries after a sudden rise in food prices.



"The solution is not just to produce more food, or change diets, or eliminate waste. The potential threats are so great that they cannot be met by making changes piecemeal to parts of the food system. It is essential that policy-makers address all areas at the same time."
 - Government Office for Science – Future of Food and Farming Report (2011)

A 1

Obesity and diet related illness in the UK

60% of adults and 30% of children are **obese or overweight**.

Recent estimates suggest **£5 billion** a year is spent on health problems associated with obesity.

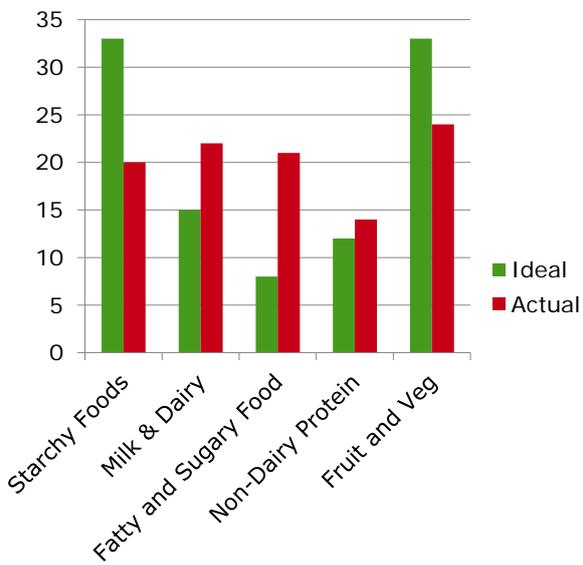
Food insecurity can feed in to obesity problems – fresh foods are **less easily available** compared to **processed** foods containing higher levels of unhealthy fats and sugars.

Very few people eat a **balanced diet**. Overall we consume too many calories.

Obesity can also be associated with other health problems, such as type 2 diabetes and cardiovascular disease.

Obesity is a form of **malnutrition** – which is also indicative of unhealthy diets.

Public Health England's Eatwell Plate Ideals (% of food-type in diet)



A 2

Climate Change

A 2°C rise in European temperatures would impact on food production in a variety of ways.

Although the 'growing season' for some crops might be extended, more frequent heat waves could make **crops less productive**. There could also be greater risk of **drought** and **fires**.



Climate change will also have implications for the production of food from livestock.

Reduction in crop productivity would have a **knock-on impact** on pasture and feed supplies. Warmer climate may also mean diseases spread faster.



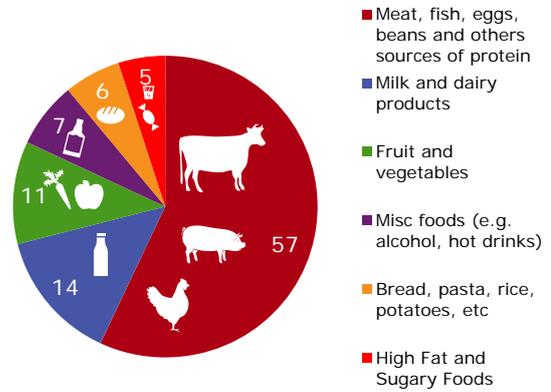
Looking at global greenhouse gas emissions in 2010, livestock (including methane emissions, land conversion and production of feed) contributed 7.1 Gigatonnes of GHG.

By comparison, the GHG produced by global transport in 2010 was 6.86 Gigatonnes.



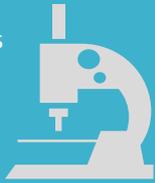
So, on a global basis, emissions from cattle probably exceed car emissions.

CO2 Emissions from different food types



Food Regulation

Legislation on food technologies is often updated as new technologies are developed. In the UK, **the Food Standards Agency** works with local authorities to ensure food law is enforced.



The frameworks that govern food safety are always changing. Within the EU there have been some recent pressures to reduce administrative burden relating to food safety and food supply – which might reduce overall levels of regulation.

The **European Food Safety Authority** requires all food placed on the market to be safe for consumption

Additionally, to protect consumers, new or novel foods are covered under special EU legislation to make sure they are safe to consume.

Some technologies have more **specific regulation**. There are special rules on genetically modified (GM) food and animal feed. This is assessed by the EU and member states approve their use.

For example, Scotland, Wales and Northern Ireland have asked to be excluded from an EU ruling authorising cultivation of GM crops.

There are specific labelling rules for certain technologies. This lets consumers know what has been involved in making their food. For example, foods with GM ingredients or irradiated foods must be labelled.



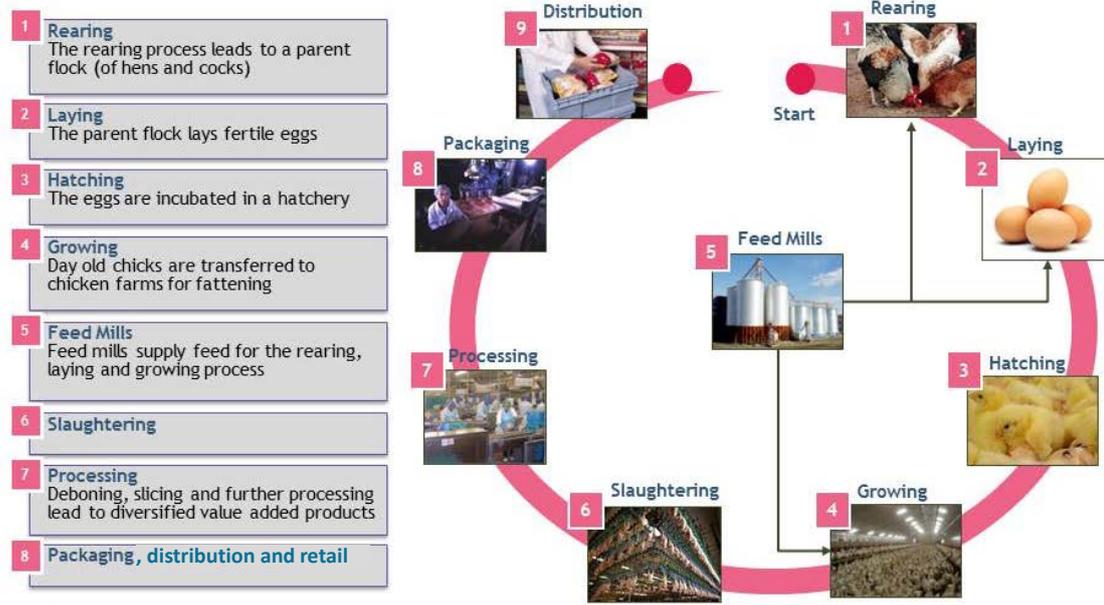
A ⁴



Cocoa – West Africa
Whey – New Zealand
Salt – China
Soya – South America

Milk, butter, wheat and yeast – UK
Sugar – Caribbean
Palm Oil (for vegetable fat) – SE Asia
Calcium Sulphate – India

Specific 'food journeys' - chicken



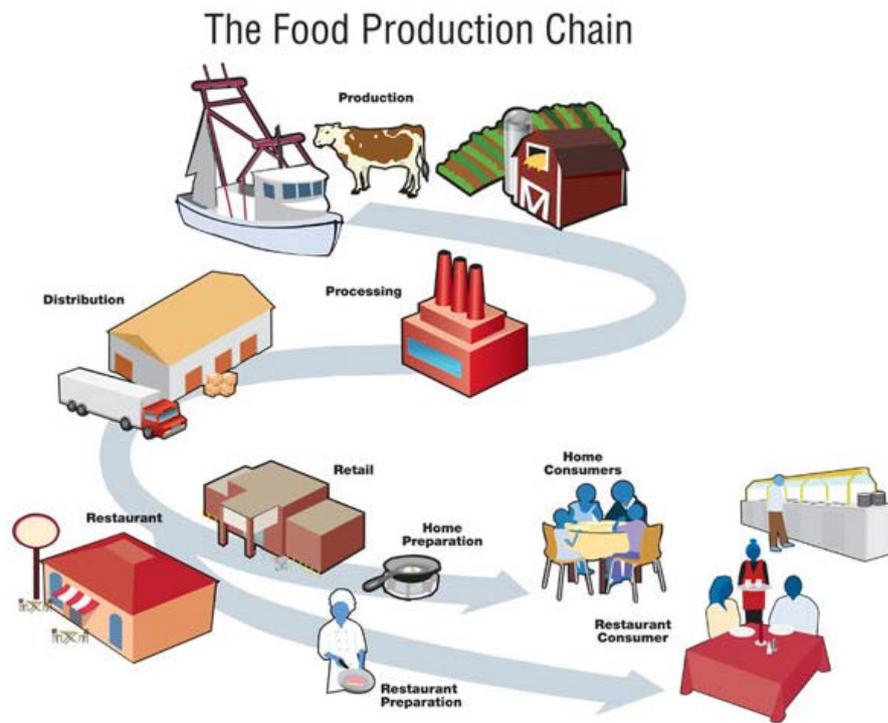
- 1 **Rearing**
The rearing process leads to a parent flock (of hens and cocks)
- 2 **Laying**
The parent flock lays fertile eggs
- 3 **Hatching**
The eggs are incubated in a hatchery
- 4 **Growing**
Day old chicks are transferred to chicken farms for fattening
- 5 **Feed Mills**
Feed mills supply feed for the rearing, laying and growing process
- 6 **Slaughtering**
- 7 **Processing**
Deboning, slicing and further processing lead to diversified value added products
- 8 **Packaging, distribution and retail**



Source: <http://www.scandistandard.com/Global/Scandi%20Standard/Externwebb/Production%20cycle.jpg>

C

Specific 'food journeys' - beef

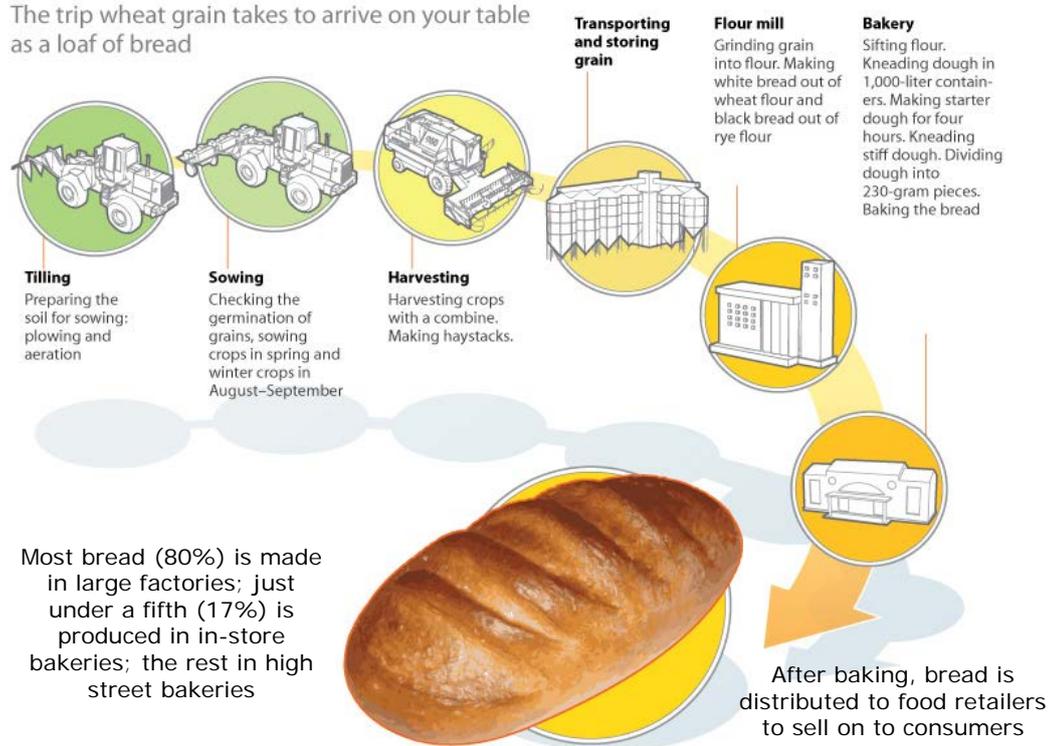


Source: <http://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/production-chain.html>

C

Specific 'food journeys' - bread

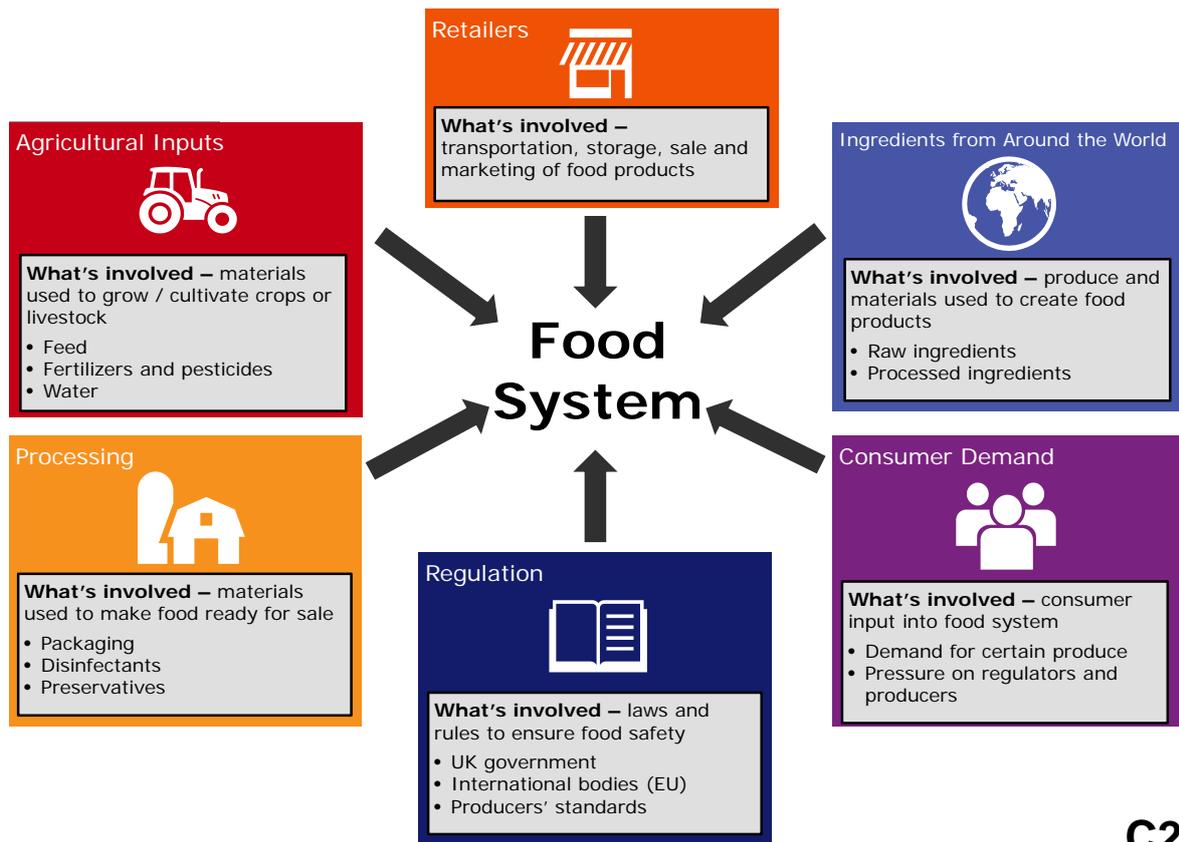
The trip wheat grain takes to arrive on your table as a loaf of bread



RIANOVOSTI © 2010

Source: <http://sputniknews.com/infographics/20100422/158699316.html>

C



C2

Risks associated with increased complexity of the food system



- As the food system becomes more complex, and there are more places, processes, and stages involved in producing food - there are more chances that: *new technologies are used, animal welfare standards are low, food becomes contaminated, crops fail, people commit food 'fraud', or there are negative impacts on the environment.*



- Expanding globalisation allows food and feed to be traded between countries – but with this comes a greater risk of food safety problems crossing borders and becoming global crises – not just local ones.
- As developing nations become more influential, the food safety standards applied in the EU may become less relevant globally.



- EU and UK regulation have been designed to minimise risks in the food system – e.g. through certification, or inspection of food suppliers. Some countries may have less stringent regulations on food safety than we have in the UK/EU.
- Complex food journeys mean it is harder to trace and police what has happened at each stage.

D

Governments

Role might include...

- Set **regulations** to ensure safety of food available to consumers
- Carry out inspections to ensure **compliance** among food businesses
- **Communicate** with public about regulation, food scares, and new food technologies
- Offer **subsidies** to influence production and trade
- **Encourage industry** to act responsibly and innovate

Consumers

Role might include...

- Consumer **demand** is influential – impacts **what** food producers and retailers produce, and **how** they do it
- **Lobby** government, corporations and businesses – e.g. interest groups pushing for sustainable production, or against certain technologies
- **Grow own** food, act as small-scale producers

Corporations

Role might include...

- Fund **research and development** of new production technologies
- Conduct international **trade**
- **Supply** food products to **international** mass market
- **Transport** food across the world
- Set **internal standards** around food safety and production processes

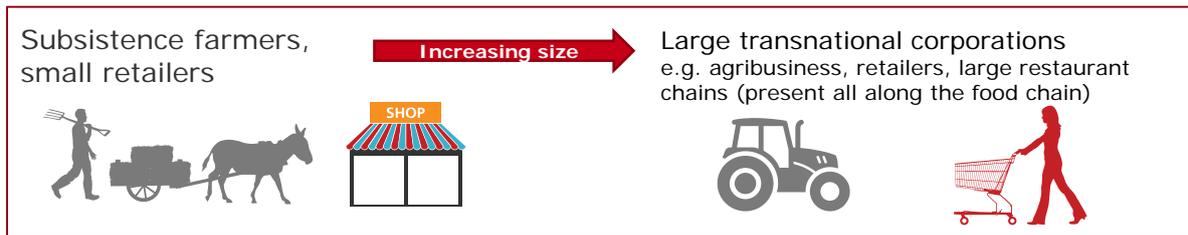
Small businesses

Role might include...

- **Produce** food – on a smaller scale than corporations
- **Supply** food products to **local** supermarkets and retail outlets
- Provide food for **export** by larger corporations
- On an even smaller scale, **Alternative Markets** may operate on a self-sufficient or communal basis

E

Transnational corporations (TNCs) are getting bigger...



Just 4 firms* control 75-90% of the international grain trade



In the UK, 4 firms (Tesco, Asda, Sainsbury's, Morrisons) control 71% of the grocery retail market

TNCs have a huge influence on food systems:

Research into new technologies is expensive. TNCs can afford the investment and then 'own' the technology

TNCs have control over how much they pay their suppliers and farmers – meaning smaller businesses may have little say

TNCs can dictate quality standards, e.g. what vegetables must look like, even if consumers would accept different shapes and sizes

*Archer Daniels Midland, Bunge, Cargill and Louis Dreyfus

References: GoScience The Future of Food and Farming: Challenges and choices for global sustainability
Kantar Worldpanel data: <http://www.kantarworldpanel.com/en/grocery-market-share/great-britain>

Government might be involved in the food system in a number of ways



They can decide what is allowed in food production, e.g. which technology or fertilisers are acceptable



Government can set levels of the quality and safety standards of food produced in the UK



Government can subsidise goods and control who can trade what. This influences prices and farmers, in and out of the UK.



They might influence what food is sold and how. This can be strict (e.g. banning unhealthy food) or 'softer' (e.g. promoting healthy eating)

2.5 Wave 2 Workshop Stimulus Materials

Local Growers



Weekly News

British lambs hit by black-tongue outbreak!



Lamb may be unavailable for months as stocks recalled



A₁

Local Growers – Story

Moderator to read out whilst participants review imagery (Stim A1)

Jane wakes up early to visit her family's allotment, and picks some vegetables to cook for dinner – because she's grown the food herself she knows exactly how fresh they are. On the way home she stops at their local city farm to buy some eggs for breakfast – they're expensive so they'll just have one each, but they're free range and organic. Like most people these days, it's important to Jane that her food is local, high quality, and sustainably sourced.

Later in the day Jane goes shopping – she passes the old super-store in town which is downsizing and selling off some of their retail space. She tends to avoid shopping there anymore – instead she likes to spend her money at some of the local shops, selling produce from nearby UK farmers, as well as European ones – there's a place with some great vegetables today from Italy and Spain, and this area is famous for making cheese. Getting food from further afield tends to be rare these days though, and things like bananas and pineapples are a bit of a treat.

Jane had wanted to make roast lamb for Easter, but there's not much on the shelves that's not really expensive. She's heard in the news that there's been an outbreak of black-tongue amongst British sheep – which is pushing prices up drastically. These kind of out-breaks are becoming more common in the UK, as farmers don't really have the money to invest in new technologies for protecting livestock and crops from disease. Jane decides against buying the lamb - instead she plans an alternative meal – she's used to planning meals around what's available and what's in season.

Jane opts for some organic vegetables – though she has a niggling concern in the back of her mind that just because the label says organic, doesn't mean it is...but it's hard to know. Overall, Jane doesn't mind paying a bit more for wholesome, healthy food, knowing that local farms are supported.

A

Local Growers – What People Might Say

I feel more connected to my food – I know where it comes from and I know more about what is involved at each stage. I feel comforted by the fact that there are fewer steps along the way.



Consumer

I am concerned that small firms don't have the money for research and development into new technology- the food industry has become less innovative.



Scientist

A few decades ago my farm was nearly out of business – I just couldn't compete with the supermarket prices. But now that the UK's importing less food, there's much more of a market for my goods!



Farmer

A₂

What shorter supply chains might look like

Keeping it Local

Global pressures on the food system (including rising **demand in the developing world**, and **restrictions on international trade as tariffs are introduced**) mean a **secure, local** food supply chain is important.



Large corporations have less market share and less power. Smaller and medium sized businesses are more important than ever as food **producers and retailers**, primarily **within the EU**.



Due to pressures on food production, producers seek to **minimise food waste** where possible. **Restrictive rules** about the **appearance** of food **are lifted**.

Possible Advantages

- Easier for consumers to tell where their food has come from
- Easier for consumers to contact / apply pressure to local businesses in order to ensure quality and availability of produce.
- Food production, transport and retail are more efficient due to less need to transport produce long distances

Possible Disadvantages

- Food in small stores is more expensive, due to higher costs of food production
- Less variety of food due to fewer imports from abroad
- Smaller businesses have less budget for researching new food technologies than large corporations
- UK/EU more vulnerable if crop failure/disease outbreaks impacts on food stockpiles

A₃

What role for consumers?

Consumers as Producers

In this scenario, some consumers are increasingly **growing their own food** - in allotments, or on communally owned plots of land.

Some people might **move to rural communities** to take full advantage of this lifestyle.

In cities, the **urban gardening** movement seeks to maximise the use of private spaces such as roof-tops, balconies and even basements as spaces for **growing crops**.

On a large scale, this style of consumer-led food production could present an **alternative to traditional markets**, with consumers **growing and trading** goods without spending money.



Possible Advantages

- Urban gardening allows for human and animal waste products to be recycled for use as fertilizer
- Consumers can judge quality of food they've produced
- Consumers might become more informed about food production

Possible Disadvantages

- Difficult to produce the quantity of foods needed to feed a large population without the aid of intensive farming
- Limited variety of food due to small scale, independent production

A₄

Inventive foods, intensive farming



News Weekly

Food producers in the UK continue to intensify production



Food waste down as efficiencies rise





B₁

Inventive foods, intensive farming– Story

Moderator to read out whilst participants review imagery (Stim B1)

It's the weekend, and Amy needs to visit the supermarket at a nearby town in order to complete her weekend shop. As she moves through the supermarket aisles, a stand displaying a new product from one of her favourite brands catches her eye. The packaging explains that this ready-meal lasagne can be stored for up to three months before eating, and has been enhanced to contain extra vitamins. These enhanced ready meals have become really popular over the last few years, as people have realised how much easier it is to get a balanced diet through supplements and vitamin-enhanced foods.

As Amy drives back through the countryside to her village, she drives through a landscape that is heavily farmed. A few years ago there used to be so many stories in the news about how the growth of the middle-class in Asia and India meant there was less food available to be imported by the UK. But now, government production subsidies have helped support farmers in the UK to have begun to make more intensive use of their land for agriculture in order to make up some of this shortfall in supply. Amy's brother is one of many from her village who have taken up jobs in the food industry. When they catch up at the weekends, he shares his frustrations about how he can support the highest yield possible for his grain production company; his bonus and salary is based hugely on the volume he can deliver, so that his company can meet the strict Government targets.

As she continues her drive, Amy passes a processing plant that is preparing beef that will be distributed throughout the UK and the EU. A lorry is unloading a delivery of chemicals that can be used to wash the meat and ensure it is not contaminated from any potentially harmful bacteria. A few years ago the EU relaxed regulations about the use of chemical washes like these, in order to make production of meat as efficient as possible. Amy thinks this is a big improvement on old practices – back in her parents' generation so much meat was wasted.

Back at home, Amy stocks her fridge with her new purchases, moving the juice drinks she had bought for her daughter Lucy out of the way. These drinks have been specifically enhanced to supplement her medicines and are said to help prevent diabetes. There really is a food to cater to every need!

B

Scenario B - Quotes

I don't necessarily know all the details about how my food is produced. But I know that the government has been supporting food producers to develop new techniques, so I assume it will be safe.



Consumer

I worry about all these new added health benefits – they're so tempting, but what if I miss out on the variety of nutrients from fresh food?



Consumer

The need for more and more food to be produced within the EU has really put the pressure on us as food businesses to come up with innovative solutions. Our nutrient-enhanced products are selling well.



Food Production Company

B₂

Consumers are eating 'nutraceuticals'

Nutraceuticals are foods which **include health and nutritional benefits** – some of these are natural (e.g. probiotic yoghurts) while others have been added by producers. Some of these already exist today.

Imagine that a variety of factors have led to much wider use of these foods:

- Fresh food and nutrients harder to come by due to **pressures on the food supply**
- Poor diet means more people suffering from **diet-related illnesses** like diabetes, obesity
- **New technologies** mean the functional food industry has grown



Possible Benefits of Nutraceuticals



Nutraceuticals might be able to provide a variety of benefits:

- **Health benefits** – at cheaper cost than fresh food
- **Cost savings** for society as public health is improved
- Specialised nutraceuticals might be prescribed as **treatments for certain medical conditions**
- Some may be enhanced to have longer shelf life

Possible Downsides of Nutraceuticals



Nutraceuticals also have potential downsides:

- Consumers may use them to **supplement** an otherwise **unhealthy** diet (less fresh food)
- Wide variety of **competing health claims**
- **Challenging for regulators** to keep up with the fast pace of the global market
- Don't know if you can **trust** the health benefits

B₃

Imagine: new food additives are being used

How additives are regulated

The European Food Safety Authority only allows the use of a new additive if:

- it **does not pose risks** to the health of the consumer at the level of the proposed use;
- there is a **reasonable technological need** that cannot be achieved by other means; and
- its use **does not mislead** and **must have benefits** for consumers.

However – many of the original evaluations to ensure food additives are safe took place **decades ago**. In 2009, the EFSA **began a re-evaluation** of all of the food additives approved for use up to that point – it's due to be completed in 2020.

So far the use of three food colours (including E128) has been **revised** because EFSA's re-evaluation decided that human exposure to these colours is likely to be too high.



Scientific knowledge is always developing, and regulations on additives need to be updated accordingly.

In this future scenario, the need for more efficient food production, and technological development, means that **some techniques previously not allowed are now considered acceptable**.

B₄

myHYPERMARKET™



Weekly News

Consumer group pushes for details on supply chain of supermarket veg





C₁

myHYPERMARKET™– Story

Moderator to read out whilst participants review imagery (Stim C1)

Wayne is planning to visit his dad for his birthday and cook dinner for him, so he decides to visit the local hypermarket to collect his supplies. He begins by visiting the deli counter, where he picks out a pack of gourmet burgers. Taking out his smartphone, he scans the barcode on the label and checks the details that come up on his screen. He can see that these burgers were made from cattle raised on a farm in Massachusetts in the USA, and can read details about when it was slaughtered and shipped to the processing plant. He also learns about the other ingredients, including onions that were grown in Jamaica, and can see where the burgers were processed – a factory in Germany.

Having bought his supplies, Wayne walks down the high street to find the bus stop he needs. The only food shops he passes after the hypermarket are local corner shops, offering cut price local produce – but Wayne expects their food won't match the quality of what he can find in the hypermarket. He wonders why other people would shop there, though realises that some people just don't care where their food comes from, or what's in it.

After the meal, Wayne and his dad watch the news on television. The newsreader is explaining a recent controversy about a land purchase by a transnational corporation, who have purchased a large region of farmland in Bangladesh, a country which is still recovering from recent flooding.

One guest on the programme is arguing that the reason the corporation has purchased this land is to take advantage of rules about the use of pesticides in Bangladesh, which are more relaxed than they would be in the UK – the guest worries that this could lead to further environmental damage in Bangladesh. Another guest argues that the corporation will introduce more efficient farming techniques to the region, such as their DNA-patented crops, which will boost yield and feed more people across the world. Wayne considers using his barcode scanner to check whether ingredients in his food are coming from this region in Bangladesh – if they are, maybe he won't buy from those suppliers in the future.

C

Scenario C - Quotes

I know that food comes from a lot of places. The 'food chain' is definitely complicated. Big brands share so much data, but I'm not sure how to use it. I'd like to know where my food comes from.



Consumer

Big corporations want to find the cheapest and most efficient places to grow their crops and livestock. I can't compete with the global prices, so instead I've had to focus on foods that are particularly well suited to the UK's climate, like parsnips which I can sell as a local speciality.



UK Farmer

The big corporations brought lots of new technology to our farms here in Mali. Our crop yields have increased a lot, but I do worry about the impact it has on our environment here.



Farmer in Mali

C₂

Tracing the food chain

'DNA Barcoding'



In 2014, the Food and Drug Administration in the USA approved the usage of **traceable DNA spray** for use in food.



This creates a 'biological marker' which can be **linked** in a database with **information** such as where a product was farmed, or the date it was processed.

In the event of a disease outbreak or contamination, harmful produce can be **quickly analysed** and the **source identified** – a process that would otherwise take weeks or months.



Sharing 'big data'



In this scenario, consumers demand the traceability of food – and corporations **keep detailed records** of the food processing journey.



Consumers are able to **scan a code** on individual products in order to view this information.

Companies hold data on consumers too – and can target **product recalls** or other **communications** to those who have purchased particular products.



However food is made traceable, someone (government, producers) needs to decide what information to record and what to make available. This information could include:

- Where raw ingredients were produced
- Conditions of labour and wages for producers
- Identity of food producers
- Date when different stages of the food journey occurred
- Quality and safety checks conducted
- What production processes were used
- Recommended recipes
- Ingredients and additives included
- Transportation and storage

C₃

Instafood



Weekly News

Concerns raised about 'bulking' of meat products in supermarkets nationwide





D₁

InstaFood– Story

Moderator to read out whilst participants review imagery (Stim D1)

It's 6pm and Andrew is on his way home from work – his tummy is rumbling. As he walks in the door, he opens his cupboards and is greeted with a sea of choice. He sorts through a wide range of options: dehydrated noodle cups, long-life spagbol, chicken-flavoured protein packs, and vegetable pills. Nothing looks particularly appealing, but he'd like to get dinner done and over. Maybe it's time to check out some new options at the supermarket for a bit of variety – there's always something new to try.

Andrew grabs the yellow-flavoured dehydrated noodle cup and pops it in the microwave, bringing up some funny videos on his phone to entertain himself. He chuckles at some unintentional slapstick humour whilst eating quickly – and is full within minutes. It's a pretty common feeling after his quick meals; they are calibrated carefully to be satisfying. He pats his tummy and wonders if it's time to get a size up in his shirts... he seems to be growing out of the XL he's been wearing the last few years.

Time to call mum, then. She's supposed to be in town tomorrow for a visit and Andrew needs to decide where to meet her. He'd like to avoid her coming to the house if possible to avoid the headache and constant debate. She's got some weird ideas about food and is always making comments about the food in his fridge. "What's in that, you can't even tell!" "It's not very nutritious..." "What if it's contaminated!?" ... She eats the same food as everyone else, of course – but she can't seem to get over her fixation with 'whole nutrients' and 'unprocessed foods.'

Personally, he doesn't see what the big deal is. The food he eats satisfies hunger and gets him through the day – and with all the news stories about heat waves causing crop failures in Europe, he's happy to take whatever he can get. Sure, there's been some reports of fake packaging or foods containing 'mystery meats' and ingredients – but at the end of the day he feels well enough. He can't say it's done him any harm. And food is so much cheaper than it used to be in his mum's day. The idea of saving for 'a nice meal' or a bit of nice meat seems like a bit of a waste of money, if you ask him. Much nicer to spend it on some more phone time or a night out.

D

Scenario D - Quotes

After the riots over food prices a few years back, I think we're all just glad to eat food that keeps us fed. At least the price is back to normal, for the time being.



Consumer

I don't think the quality of the food I eat is as high as it used to be. I haven't seen free range eggs on the shelves for ages now.



Consumer

Our recent acquisition of another food production company in Bangalore means we can continue to provide consumers across the world with the widest range of choice at the lowest possible prices.



Food Production Company

D₂

Corporations Push for Efficiencies



Advantages

- Competition between corporations – all trying to **bring down prices**
- By picking the most effective countries to invest in, corporations are able to produce **high volumes** of food – helps **lessen pressures** on the food system
- Corporations can be truly global, and **link up** global supply chains

Disadvantages

- Efficient production processes can be **lower quality**
- Harder for consumers to know **what's going into** their food – risk of food fraud / inauthenticity
- As the priority is to provide food at low prices, corporations may use **sub-standard** produce
- **Harder for regulators** to police global supply chains
- Less market share for local food businesses

D₃

Food authenticity issues

In this scenario, increased complexity of supply chains mean there are more chances for fraudulent products to enter the market.

It is harder for consumers to know exactly what's in their food when it's sourced from all over the world – and when the main priority is finding food that is easy and cheap to produce.



Meat

- Adding excessive water without declaring it
- Adding beef and other meats to '100% pork sausages'



Alcohol

- Watering down spirits
- Substituting premium brand spirits with cheaper substitutes
- Selling alcohol that has been produced illegally



Concealing processed food

- Not correctly identifying processed meat
- Not indicating where additives have been used



Herbs and spices

- Adding less valuable ingredients into a herb mix (e.g. adding olive leaves to oregano to bulk it up)

D₄