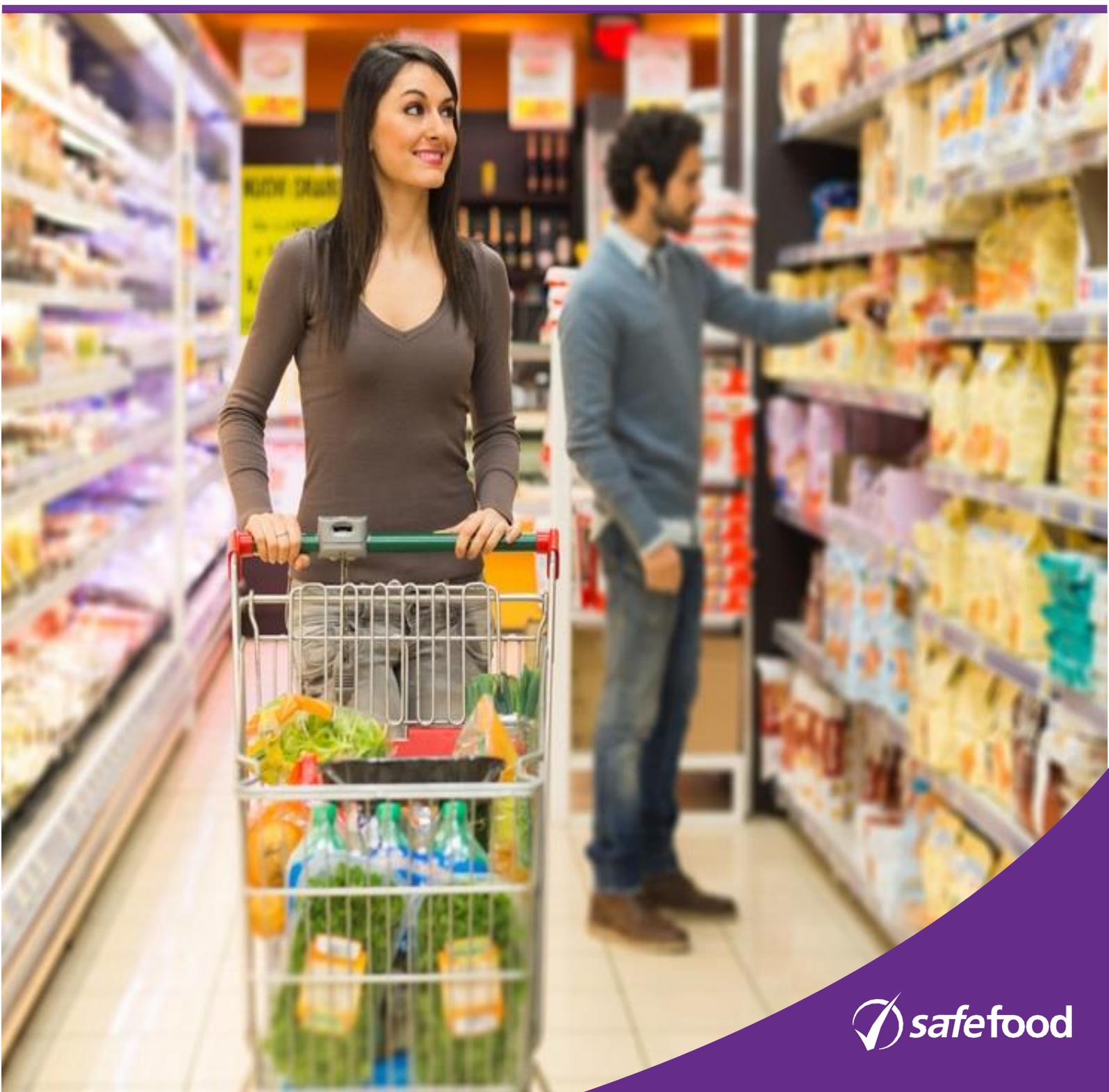


Trust makers, breakers and brokers in the food system



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Foreword and acknowledgements

In recent years citizens and consumers have become increasingly concerned about how food is produced and the potential risks this might present to them and society. This report, based on a research project funded by **safefood**, explores how various stakeholders respond to critical food incidents, or food crises, with regard to trust building and repair. The findings inform a set of recommendations of relevance to a range of stakeholders including media, industry and regulators.

The principal researchers were Dr Seamus O'Reilly, Professor Mary McCarthy and Dr Edel Kelly at the Department of Food Business and Development, Cork University Business School, University College Cork, together with Professor Michael Calnan, School of Social Policy, Sociology and Social Research, University of Kent, and Professor Andrew Fearn, Norwich Business School, University of East Anglia.

This research built on previous work on trust in food supply chains, led by Flinders University, Australia. We are grateful for the opportunity provided by **safefood** to engage with Professor John Coveney and Dr Annabelle Wilson, School of Health Sciences, Flinders University. The principal researchers acknowledge their input to research design and data analysis during workshops held, and look forward to future collaborative work.

The researchers are most appreciative for the participation of 50 interviewees who contributed greatly to this research as they gave their time freely and engaged in an open and forthright manner. We are also grateful for excellent work done by Adrienne Dockrell during the data collection phase, an invaluable member of the team.

The interest shown by Dr Aileen McGloin, **safefood**, and her active engagement throughout the project is greatly appreciated, as is the support offered by Dr Gary Kearney, Clodagh Flavin and Gillian Fox at **safefood**.

Executive summary

The prevalence of food crises arising from intentional and non-intentional actions of producers (participants) in the food supply chain – importers, manufacturers and outlets – has brought trust in the food system to the forefront of consumers’ minds. During such a crisis, consumers may reflect on their trust in the food system and question the motivations and competencies of stakeholders in the food system.

The overall aim of this research was to discover how key stakeholders contribute to building, maintaining and rebuilding trust in the food system on the island of Ireland. To explore goals and responses to critical food incidents, the reactions and behaviours of 3 stakeholder “cohorts” or groups – media, industry and regulators – are examined in a qualitative study involving 50 participants.

An innovative methodology was adopted to take into account the processes involved as a food crisis develops and the path it takes. Prompted by the work of Wilson and colleagues (2013), a “vignette” – a scene that summarises the typical nature or features of a topic – was used to create a hypothetical scenario of a critical food incident that provided the conditions necessary to explore decision making as an incident unfolds.

The analysis highlights the importance of organisational goals in responding to risk incidents. Regulatory agencies are concerned with consumer protection. They have designed protocols (rules to be followed in certain situations) and procedures anchored in scientific evidence and bounded by regulation to attain this goal. Consumer trust is a positive “by-product” of focussing on this goal. The food industry’s goal is to minimise the negative outcomes (for health and consumer confidence) of any incident. Goal alignment between industry and regulatory agencies is evident when the incident in question is critical.

For industry, regaining trust not only depends on responses during the incident but also on trust in the brand before the incident. Media – television and radio programmes, newspaper articles and so on – seek to inform the citizen or consumer of risks associated with food and to attribute blame. In doing so they may act as a prosecutor pursuing the case in the public domain. In addition, conflict between the need for accuracy and precision – the hallmarks of scientific evidenced-based reporting – and for creating interesting and engaging stories may arise. This leads to various representations of issues by different stakeholders. As a result, a natural tension arises between the media and the other stakeholder cohorts.

There is strong evidence to support the fundamental role of protocols and procedures in delivering on a set of strategies that guide industry and regulators through critical food incidents and form the basis for trust building in the longer term. When implemented these support rapid (within the constraints of existing systems and tests), measured responses. The media also follow a particular way of operating. They establish newsworthiness based on multiple sources of information and frame stories based on the characteristics of the incident, their audience and their reporting genre. Social media now plays a significant role in determining a story’s newsworthiness and content. This report puts forward a set of recommendations that respond to the key issues and challenges identified.

Key project recommendations

The recommendations arising from this study are framed around the key strategies identified for trust building among food supply chain actors. These recognise the value of existing strategies and practices, while also acknowledging the ever-changing environment within which the food industry operates and thus the need for vigilance and a culture of continuous improvement. They also comment on the role of the stakeholder groups addressed in this study – media, industry and regulators.

1. Strengthen engagement and relationship building among stakeholders along the food supply chain.
 - Based on the learning that larger companies have gained from past incidents, identify actions that support the use of procedural and “relational”, or trust-based, governance mechanisms by all supply chain actors (with a particular emphasis on small and medium-sized companies).

[INDUSTRY LED]

2. Build on learning gained from the use of crisis management protocols and procedures.
 - Ensure that supply chain actors across the island of Ireland recognise the need to have in place robust crisis management protocols and procedures, including supportive monitoring and guidance by relevant agencies.

[AGENCY LED]

3. Be consistent.
 - Ensure consistency in the application of best practice within and outside of a crisis.
 - Be vigilant in the monitoring of the supplier base.
 - Apply continuous improvement principles to reduce risk on an ongoing basis.

[INDUSTRY LED]

4. Enhance understanding of food system issues within and between groups.
 - Provide ongoing support for inter-regulatory authority and agency activities, including “horizon-scanning” networks (to monitor the industry’s environment and anticipate future changes) and knowledge-building networks.
 - Provide ongoing support for regulatory and agency input to supply chain actor information and learning networks.

[AGENCY LED]

5. Improve responsiveness in times of crises and be more proactive when out of crisis.

- Engage with digital technology experts to build shared information platforms (based on structured data) to facilitate real-time mapping and tracking, and when necessary rapid tracing, of ingredients and products.
- Investigate the applicability of “big data” (complex, high-volume data analysis) approaches to establish supplier behaviour patterns.

[COLLABORATIVE]

6. Address transparency, credibility and education of consumers in relation to the food supply chain.

- Assess the value and relevance of structured supply chain data (i.e. highly organised data, for example, on the source and movement of ingredients along the supply chain) to consumers. Take advantage of the convergence of digital technologies to support more interactive access to, and use of, user-friendly data (e.g. allow consumers see, in real time, how long a food is in the supply chain).
- Design interactive content informed by gamification methodologies – computer game design and technology – to promote a more “holistic”, or complete and interconnected, understanding of the food system by consumers and media.

[COLLABORATIVE]

7. Further enhance openness and transparency in the food supply system through engagement with the media stakeholder cohort.

- Engage with the media when not in crisis mode, to familiarise them with food system issues through a series of seminars, workshops and webinars in addition to online resources.
- Ensure regulatory and other agencies have the resources they need to provide information to a diverse media community. Particular emphasis should be placed on the increased prevalence of non-specialist journalists and digital media (for example, make available of summary information kits on food supply chains and the broader food system).
- Share interactive content with media stakeholders.

[AGENCY LED]

8. Protect the consumer, maintain reputation and strengthen transparency and credibility.

- Establish an industry-wide voluntary code of practice for reporting incidents and suspected incidents and sharing intelligence on food fraud and defence in association with the relevant agencies (for example, the Food Safety Authority of Ireland Food Fraud Task Force and the Food Standards Agency’s National Food Crime Unit).

[INDUSTRY LED]

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1 Introduction and background

Introduction

During a critical food incident consumer, trust in the food system can be undermined due to attention being drawn to an increased risk to health and safety and questions raised about the integrity of the food supply chain. This can result in a significant fall in sales of products implicated in the incident, in the short term. In the longer term the result could be an increased level of distrust in the food system. Mitigation (efforts made to reduce negative effects) of such risk occurs, on an ongoing basis, through public and private monitoring of supply chain practices by implementing a set of protocols and procedures.

Attention during a critical food incident is focussed on

1. The cause(s)
2. The motivation, intentional or not
3. The way the crisis is revealed or discovered, including how key influential actors respond and behave.

How stakeholders deal with these areas impacts on trust both during and after the incident. Importantly, while the overall impact of a critical food incident for industry is negative, the longer-term impact can vary based on responses and behaviour during the incident. Within this context, trust building is seen as a communicative process through which the managing and bridging of vulnerability and uncertainty enables action (Möllering, 2005).

A critical food incident falls within Motarjemi's (2014) definition of a food crisis: "... a predicted or unpredicted event which represents an immediate or future significant threat to an organisation, its employees, consumers, and the public at large." This definition presents a level of uncertainty or risk for a range of stakeholder groups as well as consumers, with potential legal, social, environmental and economic implications.

This report

1. Provides an insight into the goals and practices of key island of Ireland (IOI) stakeholder cohorts during a critical food incident
2. Outlines strategies employed by key stakeholders
3. Explores implications for trust in the food system
4. Highlights key challenges.

To explore goals and responses to critical food incidents, the reactions and behaviours of 3 stakeholder cohorts – media, industry and regulators – are examined in a qualitative study. "Qualitative" research relies on observations and insights drawn, for example, from focus group discussions or role playing. In this

research an unfolding vignette, or typical scene, based on a hypothetical critical food incident was used to draw out participants' actions and reactions as new information became available.

Background

Context

Food and eating represent an integral part of the everyday lives of all citizens. The habitual character of people's food behaviours generally results in little thought being given to safety when acquiring, preparing and consuming food. However, when the media draw attention to violations of good practice within the supply chain, citizens reflect on these practices and question what they assume (believe) or take for granted about the safety or authenticity of the foods they consume. They may reflect on the trust that they have placed in the food supply system, the motivations and competencies of food industry stakeholders, including government and government agencies, and the consequences of the violation on, for example, their own and others' health and wellbeing.

This can result in short-term, and sometimes dramatic, changes in people's practices (such as a drop-off in product sales) and a more permanent change in how certain foods, brands, food companies, governments and government agencies are perceived. For example, good becomes judged as bad, honest as deceitful, reliable as unreliable. Those viewed as protecting the interest of society may be seen as protecting the interest of business. Importantly, failures within the supply chain can cause "disproportionate" responses from a public health risk perspective (Regan et al., 2015) for example, significant loss in confidence in the whole food system. In addition, while consumption of affected products may recover, the memory of a crisis can show itself in a more critical, distrusting consumer. As a result, with each crisis consumer confidence is undermined further and trust diminishes. It is not surprising that substantial effort is made to minimise citizens' exposure to real or perceived food risks.

Risk management and good standards of practice can minimise the number of food safety incidents; indeed, such practices prompted Bánáti (2014) to suggest that the European food chain "is one of the safest in the world". However, with the ever-increasing complexity of the global food supply chain, food incidents now occur with some regularity. A review and analysis by Manning and Soon (2016) draws from recent work in this area (Global Food Safety Initiative, 2014; United States Department of Agriculture Food Safety and Inspection Service, 2014; Spink and Moyer, 2011) that highlights the prevalence of both intentional and unintentional modifications of food (food fraud, defence, safety and quality) that need to be addressed in a food control system.

The Chinese melamine milk (2007/2008) and European Union (EU) horsemeat (2013) scandals represent significant cases of food fraud that attracted global media attention. The 2011 contaminations of fenugreek sprouts with *Escherichia coli* 0104:H4 (resulting in 54 deaths across Germany) and cantaloupes with *Listeria monocytogenes* (resulting in 43 deaths across the United States) (Matthews, 2014) focussed much public attention on food processing practices and the complexity of the supply chain.

Regardless of the need for robust food systems that build and maintain trust and are designed to prevent harm, it is now recognised that food crisis events are inevitable and there is a need to strengthen the

capability to react to this vulnerability in the short term (Reilly, 2013). A useful definition of vulnerability includes not only the level of exposure to risk but also the capability to respond to this (Bailey, 2015).

Trust and communication

It is not surprising that food risk has been brought to the forefront of consumers' minds and consequently trust in the food system may have been eroded. Trust appears to be an important factor where there is uncertainty and a level of risk, whether low, moderate or high (Jones, 1998). Trust can be viewed as a dynamic, complex and multi-layered concept that involves rational and emotional dimensions and is guided by past experience (Dapiran and Hogarth-Scott, 2003; Aung and Chang, 2014).

Zucker's (1986) typology (a system to divide things into different types) of trust provides a useful starting point to appreciate the complexity of this construct by distinguishing the bases on which trust is formed. Zucker suggests that, from an organisational perspective, trust is created through a range of mechanisms:

1. **Process-based.** This mechanism is associated with past or expected exchange between parties. It represents a social system of shared commitment between the trustor (the party that is giving their trust) and the trustee (the party that is being trusted). This involves the buyer having direct experience with the supplier (e.g. repeat purchases from the same seller.)
2. **Institution-based.** This mechanism links to formal societal structures involving individual or organisation-specific attributes or intermediary systems. This trust arises from a reliance on professionals/intermediaries (e.g. regulators) and an expectation that they have a duty to act professionally
3. **Characteristic-based.** This mechanism is based on personal and social characteristics. Normally there is an alignment between the buyer and seller based both holding similar values (e.g. moral or ethical values around organic production)

In recent years consumers' increased disconnection from their food supply (both geographical and psychological distance) and associated lack of knowledge of the food supply chain has shifted the bases upon which trust is given from a process-based trust toward institution-based trust (e.g. assurance schemes) and character based trust (e.g. organic philosophy) (Meyer et al., 2012). However, Offe (1999) has defined trust as "the belief that others, through their action or inaction, will contribute to my/our well-being and refrain from inflicting damage upon me/us". Considering the disconnection between people and the food supply chain, it comes as no surprise that trust in food supply chain actors is typically low, with 35% and 38% of EU citizens expressing trust in food retailers and manufacturers, respectively (Eurobarometer and the European Food Safety Authority [EFSA] 2010). In contrast, EU citizens express relatively high levels of trust (64%) in national and European food safety agencies (Eurobarometer and EFSA 2010). This suggests that personal knowledge-based trust is being replaced by "institutional" trust.

Clearly trust has been earned (or lost) as a result of reactions to various breaches of good practice by food supply chain actors. This draws our attention to the characteristics of the trustee in determining levels of trust. McKnight and Chervany's (2001) review of published literature relating to trust highlighted that, while

there are multiple disciplinary perspectives through which trust is viewed, there is recurrent reference to the trustee characteristics of

1. Competence
2. Benevolence (intention and caring)
3. Integrity
4. Predictability.

These characteristics are, at least in part, judged on the basis of past actions. For example, various studies have highlighted the positive impact of quick and transparent reaction by regulatory and other authorities. Möllering (2005) considers the notion of “competence trust”, where the trustor and trustee have compatible interests. In this context trust is seen as a communicative process through which the managing of vulnerability and uncertainty enables action, where this would otherwise be unlikely.

It is evident that trust-building, maintenance and repair models need to respond to the fundamental types of trust and its psychological and social dimensions.

In the main, consumers rely on media, both traditional and social, to provide them with relevant information on an unfolding food crisis. This makes media an important conduit of information between stakeholders and consumers (Ward et al., 2011). The media may ultimately guide the agenda of concern amongst the public: they frame or set the agenda on what we, the public, should think about in terms of the nature of the problem being portrayed as a food crisis (McCombs and Shaw, 1972).

Placing greater emphasis on a particular crisis and the dimensions of a crisis increases the level of importance or relevance of these for the public. How a crisis is translated into a story by a journalist, and the way it is framed, can result in too much emphasis being placed on specific aspects of the crisis and not enough on others. This framing is also based on how the journalist, in negotiation with their editor, makes sense of the world (Henderson et al., 2014).

Unsurprisingly, therefore, the media have a critical role in how a crisis is understood by the public (Hornig, 1993). Inevitably the construction of the newsworthy story and the emphasis of the narrative affects who is implicated, held accountable and trusted. Certainly the focus in the media tends to be on looking for an individual or agency to blame (Henderson et al., 2014). That said, the public are not simply led by the media. While a person’s reaction to newsworthy stories varies according to the information provided, and the character of the issue, it is also shaped by sociocultural contexts and individual characteristics (including existing knowledge and trust levels) (Greehy et al., 2013 De Vocht et al., 2015).

However, *who* communicates *what* and *when* to the media remains central. Wilson and colleagues (2014) suggest that professionals should proactively approach the media to help influence the agenda that is set and ensure a balanced focus on relevant and important issues. This addresses the idea that, in the absence of accurate and appropriate information, for crises that may be considered newsworthy, the media will create a story based on what is available and thus may focus on sensational elements that heighten public

concern and fear (Henderson et al., 2014). A proactive approach may reduce the likelihood of antagonistic relations with the media (Löfstedt, 2003) and helps rebuild trust when it has been eroded (Löfstedt, 2005).

To support a more proactive, dynamic engagement between the public and stakeholders, Löfstedt (2010) put forward risk communication guidelines. He suggests these could steer the media, industry and regulators away from risk sensationalism, erosion of trust and thoughtless (“knee-jerk”) reactions that could ultimately lead to regulators establishing poor policies (Löfstedt et al., 2011). Löfstedt’s (2010) communication guidelines provide a useful platform for considering the likely public responses given certain conditions. These guidelines take account of

1. The characteristics of the hazard (for example whether it is natural or manmade, voluntary or involuntary, viewed negatively or feared or not)
2. Those most affected (for example, vulnerable groups such as the elderly, or pregnant women)
3. The communicator (whether they are trusted or not) and the population that information is being communicated to (whether a “high trust” or “low trust” environment exists)
4. The likely response of the media based on these characteristics.

At another level, organisations must consider *who* makes *what* decisions and *for whom* during a crisis. Hale and colleagues (2006) draw attention to the need to investigate internal decision-making processes deployed by crisis management teams. They acknowledge the way decision making during a crisis differs from other organisational decision-making contexts. Therefore, studies investigating decision making during a crisis need to take account of both internal processes and external engagement.

All of these observations suggest that good standard operating practices for dealing with a food scare or crisis exist and offer a foundation to ensure high standards of crisis management and communication. However, risk communication recommendations offered to date are based on retrospective evaluations of crises (that is, looking back on past events) through assessing media and public responses and collecting accounts from decision makers in various stakeholder organisations. Explanations and reasoning for approaches and actions taken at the time are prone to “sanitisation” (making the activity or situation appear better than it was, or more acceptable) and rationalisation (justification of actions or decisions taken). Therefore, studies that simulate such events may provide particularly useful insights into crisis management decision making.

The overall aim of this research was to discover how key stakeholders contribute to building, maintaining and rebuilding trust in the food system on the IOI. An innovative methodology was adopted to take into account the processes involved as a food crisis develops and the path it takes. Prompted by the work of Wilson and colleagues (2013), vignettes were used to create hypothetical scenarios that provide the conditions necessary to explore decision making as an incident unfolds.

2 Project aim, objectives and methods

Aim

The aim of this research was to provide insight into how key stakeholders contribute to building, maintaining and rebuilding trust in the food system on the IOI.

Trust is essential for any form of social relationship and particularly for “exchange relationships”. (In an exchange relationship one party gives a benefit to another, in the expectation of receiving a benefit in return.) This is highly significant in consumer interactions with the food industry. Over the last number of decades, due to a variety of food scares and crises, consumers have become increasingly concerned about the risks posed by food consumption. As a result, consumers question the trustworthiness of the industry and those who oversee it. Evidence suggests that trust in food systems is being eroded, thus an understanding of how to build, maintain and rebuild trust is essential.

Objectives

Specifically, the study objectives are to

1. Explore and understand trust in food systems in an era of intensive globalisation
2. Explore why and how food-related organisations (food supply chain actors and representative organisations) develop, maintain and rebuild consumer trust in response to food scares and bad publicity
3. Identify and document the current perceptions of the role of media and public relations (PR) agents that guide their practices in response to food crises
4. Trace and explain the practices and procedures followed by institutional actors (the regulatory authorities) to build, maintain and rebuild trust in food systems
5. Identify key strategies used for trust building, maintenance and repair.

Methods

Most studies to date have primarily reviewed communication strategies after a crisis has passed. While real-time analysis of communications can be conducted, it is rather difficult to gain access to key influencers during a crisis to investigate factors impacting their decision making.

1. To address this, our study used a vignette to portray a hypothetical scenario that provided the conditions necessary to explore decision making as a crisis unfolds.

The vignette design followed good practice as described in relevant scientific literature, including

- A real-life scenario
- Clear format and presentation
- Congruence (compatibility) of the participant's with the vignette

(Bradbury-Jones et al., 2014; Paddam et al., 2010; Richman and Mercer, 2002; Hughes and Huby, 2002; Gould, 1996).

To achieve these criteria,

- The scenario was checked by a scientific expert to ensure it made sense and was realistic.
- Display cards and supply chain illustrations were used during interviews.
- The scenario was adapted according to the participant's role (e.g. the scenario was adapted to reflect how each cohort (media, industry and regulators) would receive this information). This method proved useful because it drew out the reactions and responses of key stakeholders as the hypothetical scenario was revealed. It also promoted a natural flow in the conversation.

2. A broad range of respondents with a variety of specific roles was required for this study, so a "purposive" sampling approach was used.

This means the research respondents were selected to fulfil the research scenario as best as possible, rather than at random. A sampling "frame" – a list of possible participants, or respondents, to draw a study sample from – was developed for the IOI to ensure good representation in each cohort.

3. This supported data collection from in-depth interviews held with respondents from the range of stakeholders who included, for example,

- Media – Contributors across broadcasting (television and radio programmes), in print (newspaper, journal and magazine articles) and online. Respondents included editors, journalists (classified as specialists, generalists or columnists), those publishing online, social media, and PR agents.
- Industry – Actors along the supply chain (ingredient suppliers, manufacturers, retailers and food services), from both small and large enterprises.
- Regulators – Key representative organisations, agencies and regulators.

- As suggested by Guest and colleagues (2008), to increase the likelihood of “theoretical saturation” (that is, when the most data has been collected and the theory fully developed) a target of 12 participating experts was set for each cohort. This was achieved. However, the regulatory cohort is rather broad-ranging; only a small number of actors in this group have specific decision-making and communication remits (areas of responsibility and authority to act).
- In all, 50 respondents were recruited for in-depth interview (see Table 1).

4. A common interview guide, informed by Wilson and colleagues (2013), was designed to investigate decision making and practices and procedures followed by stakeholders, as well as interaction between them, during a critical food incident.

This guide included the unfolding vignette and more general questions to or draw out perspectives on trust. It was adapted to fit with the characteristics of each stakeholder cohort. The aim was to discover current practices and responses to crises, and opinions on trust, among the targeted stakeholder cohorts. The guide used in interviews with food manufacturers is presented as an example in Appendix 1.

5. Pilot interviews commenced in autumn 2015 and the survey concluded in spring 2016.

Face-to-face interviews were conducted and recorded using a handheld device. In one case a telephone interview was conducted. Interviews lasted between 40 minutes and 1 hour, 55 minutes. The average interview time was 1 hour, 10 minutes.

The recordings were transcribed (typed out), made anonymous by removing recognisable personal details, and returned to participants. The respondents had an opportunity to review the transcripts over a one-month period before they were used for analysis.

Table 1 Stakeholder cohort respondents

Stakeholder Cohort	Number Of	Types of respondent
Media	20	Journalists (specialists, generalists, columnists) Editors, producers Presenters, broadcasters Bloggers
Industry	17	Retailers (quality assurance, sourcing and buying) Manufacturers (ingredients, branded and retailer own-) Representative groups PR agents
Regulators	13	Agencies Food safety policy and promotion Enforcement and standards Representative groups
Total	50	

6. A qualitative (exploring) approach to data analysis was adopted.

This involved multiple data coding phases: open coding (labelling and defining categories according to their properties) followed by axial coding (a way of relating the categories or concepts to each other) leading to the detailed development and integration of categories (Strauss and Corbin, 1990).

Analysis was carried out within each category (each cohort) at first, because of the many respondent categories and types involved. This was followed by a cross-category analysis, which included the development of “strategy statements” used in the final phase of the research (a member check).

Data analysis was supported by the NVivo™ version 10 computer software package.

7. The final phase of the work, a member check, involved the development of a series of statements that reflected common strategies employed by the various cohorts when dealing with consumer trust issues.

The strategies were identified during the qualitative analysis axial coding phase. To confirm this analysis, and the relevance of these strategies, each of the original participants were presented with statements containing illustrative examples and were asked to indicate their agreement or disagreement with these strategies.

The illustrative examples were tailored to each cohort's characteristics. Following each strategy statement, respondents were invited to comment on the relevance of this to them. In addition, participants were asked to rank the importance of these strategies when in a crisis and out of crisis. Parts of this questionnaire are presented in Appendix 2 as an example.

The questionnaire was distributed to all in-depth interview participants (number [n] = 50) using Qualtrics™ survey software. The response rate was 66% (n = 33). Descriptive analysis (frequency of responses and mean, or average, scores) and content analysis (the systematic evaluation necessary to reach a valid conclusion) of the data was completed.

An additional purpose of this stage was to make sense of these strategies as they applied to each cohort, through use of the both sets of qualitative data (member check and in-depth interview data).

3 Discussion and key findings

Findings are divided into 2 main sections. The first addresses the organisational goal and practices of each of the cohorts during a critical food incident. The second presents an overview of the key strategies used across the cohorts.

While the fundamental goals of stakeholders during a critical food incident are similar across the cohorts, how each addresses their goal differs in line with their mission and orientation (their attitude or intention).

Similarly, while many of the strategies pursued are similar across cohorts, how these are put into action varies.

Organisational goal and practices of stakeholder cohorts during a critical food incident

Media stakeholder cohort

The overall goal of the media is to maintain and build their customer base through their reputation for providing clear, relevant and credible information to the public on issues of personal, regional, national or international importance. This approach helps the media to gain and keep a loyal, trusting audience.

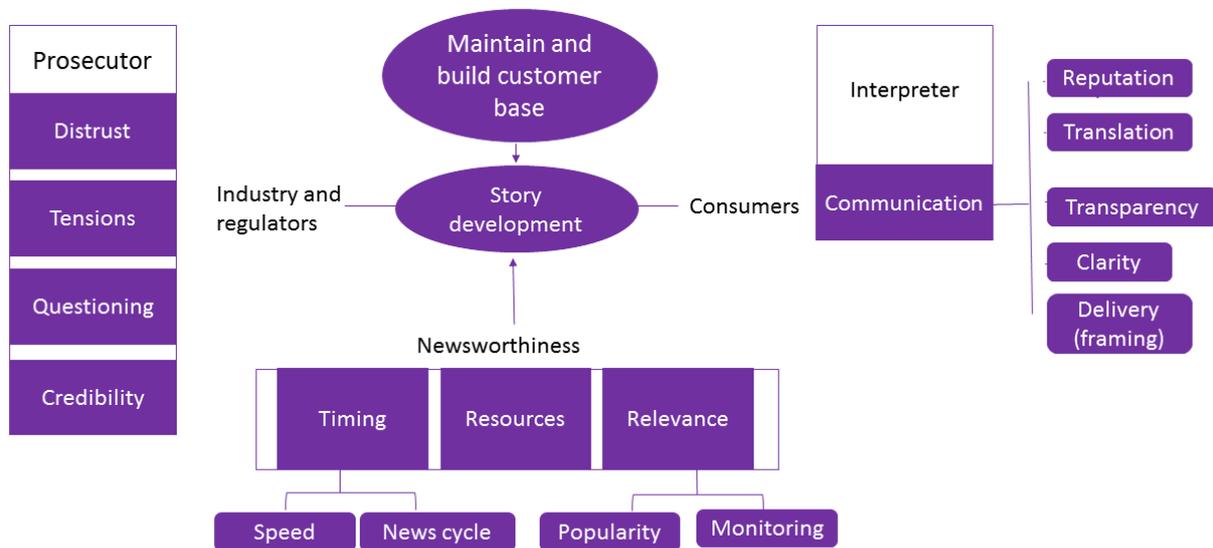
What defines such information varied within the cohort; the focus and content of a story can vary depending on the media type. Decisions on what to report are also framed by a desire to build and protect their reputation and brand:

Oh, it would do, yes, I mean you wouldn't run a story that you think may or may not be true even if, say, there was no legal implications on the basis that, "Oh, it's a good story. It may or may not be true but it doesn't matter because they can't sue us." You still wouldn't do it because, you know, if it turns out it was completely wrong, you would be reminded of it either by other media, or some readers might say "You had that completely wrong". And if you do that, you undermine your own brand as well.

(Media 19, Journalist)

Figure 1 illustrates the perspective of the media on critical food incidents. The figure shows how story development is driven by consideration of "newsworthiness", while the media acts as both prosecutor and interpreter in their engagement with industry and regulators and with consumers.

Figure 1 Media perspective on critical food incidents



Media as prosecutor – engagement with industry and regulators

Throughout the process the media act like prosecutors. They work in an impartial manner by questioning information they receive, evaluating its credibility and relevance and proceeding to reveal the facts regardless of the consequences:

You've got to tell it as you see it and without fear of losing favour with any particular quarter and that can be an uncomfortable position to take but it's the right one.

(Media 3, Online)

During a critical food incident, reporters seek to gather a body of evidence from which the story is built. They, along with editors and producers, act out roles as investigators, interpreters and prosecutors when discovering information and communicating this to readers and listeners. Investigating is central to this. They view themselves as being responsible for delivery of the truth to the public and acting on behalf of the consumer to ensure people can make an informed judgement or choice:

I think it's a journalist's role to hold institutions and organisations in government and everyone else to account, to shine a light in the corners, to keep the public informed. You have to work in the public's interests rather than government or anyone else's and, I suppose, get the truth and maybe get the story behind the story (the story behind the press release) and always to be fair and balanced, to give everyone an equal say. To present both sides of the story without opinion, without prejudice and to be fair and balanced.

(Media 4, Editor)

I think what the media is, is a watchdog, is a guard dog for this kind of thing.

(Media 20, Journalist)

The media claim that they do not seek to influence opinion either positively or negatively but rather that they try to get to the truth. In doing this they aim to ignore “waffle” – extra, irrelevant material – and recognise when they are being deceived. Importantly, responses to their initial queries strongly influence the degree to which the media aggressively pursue a story and the extent to which they target individual companies. Unfocussed, extended responses and bland, uninformative press releases issued by industry and regulators lead to a more determined pursuit of unanswered questions and the search for the “real story”.

Stories tend to emerge from either a press release or announcement, or from “whistle-blowers” (informers) or rumours. In each case there is a need to “stand up” the story’s newsworthiness and direction. Initially the focus is on establishing if there is “a case to answer”. “Standing up” the story involves gathering evidence from various sources and liaising with the programme or publication’s editor to determine if a case is to be answered: should the story be pursued?

Where the story emerges from an unofficial source, emphasis is first placed on corroboration (finding supporting evidence) and assessment of consequences of the incident on citizens. Where the story arises from official sources the journalist looks beyond press releases to answer questions such as

- What steps are regulatory authorities or industry taking to alert the public? (“Whose fault was it, and did they react quickly enough?”)
- Has the company has tried to cover anything up?
- Is there an interesting business person behind the crisis who has a past record of cutting corners? (“If we can depict him as an evil boss trying to poison babies or whatever ...”)
- Is this a problem that affects an entire system?

Of course, these questions are also relevant to stories that emerge from unofficial channels. In addition to seeking out who is to blame, the extent of the impact of the incident on public or sections of the public is a key consideration for the media.

They will on day one outline a minimum of facts. They will say they are taking precautionary measures, there is no need for the public to have any great fear, all necessary steps are being taken, and there’s no need for panic, that’s the first step when they are rounding and “circling the wagons” around the industry, and around exports and around production and supermarkets and what’s going to have to be withdrawn. And it’s a well-worn path at this stage, it’s the giving of information is incremental and normally it starts by giving minimal information and reassurance to the public that there’s nothing to worry about, for the most part, that would be.

(Media 1, Broadcaster)

Figure out who the bad guy is and finger this person in terms of “This is the mansion that the evil food producer has built based on ...”

(Media 19, Journalist)

Like any prosecutor, the media do not take information from stakeholders at face value. They continually question the motivation of those providing the information, under the assumption that there is an overriding desire for self-preservation. While questioning and interrogating all information sources, it appears that some

journalists have an established network of sources that they can rely on to help build their story. While making use of their networks of sources, journalists keep a professional distance to protect their impartiality (the ability to be fair and unbiased) and their reputation for honesty.

Regardless of their networks of sources, journalists will want to speak to all potential “suspects” and “witnesses”, especially senior company executives and other high-profile figures relevant to the incident. Consequently, the industry approach of communicating through a single spokesperson or a PR company creates frustration. In addition, this approach may heighten suspicions when information is not made readily available, and so inspire the investigative reporter to continue their pursuit of the truth with even more energy. This response provides a clear example of an overriding inclination of the media to distrust food supply chain stakeholders (industry) and government agencies (regulators).

You kind of know spin when it's coming at you. And sometimes the spin that you get can inform you in your approach. So you might take the information and then not necessarily use it, but it informs you on how you continue to approach a story. Or if they're telling you this then they're obviously covering up that. And so you go after that.

(Media 19, Journalist)

The public's response is taken into account in determining whether the case is worth pursuing. When looking for evidence journalists search social media and other online sources to find victims, gather expert opinion and identify angles of interest, such as sources of public outrage and insecurity. “You can generally tell by what people are talking about on Twitter and Facebook.” This gives journalists a sense of the public's interest in the story and specific angles that may be pursued. It also allows news users to become involved in the news-making process. Pursuit of the story continues as long as it is considered newsworthy: “We continue to write about it if we feel there is still a level of anger out there.”

Twitter would be really important now, getting stories out there. It also helps yourself in following the story, the lead that you mightn't have. Somebody might say something: “This happened to me.” And then you'd have a contact that you can ring up and talk to.

(Media 6, Journalist)

Media as interpreter – serving their market

The media seek to inform their audience through relevant and interesting accounts of events, and to alert them to any risks they may be exposed to: “We have a responsibility to tell the consumer there is a problem.” Informing the audience includes the use of attention-grabbing headlines, online “tasters” (short news articles or previews of longer news items) and use of real-life examples.

As part of their interpreter role the media explain and add to information provided by other stakeholders, translating the facts into plain, or “layman's”, language. Increasingly the digital world offers an interactive environment that enhances the translation and story development, through rapid feedback on the public's understanding of the issue, the topics that need further clarification and areas of interest:

But it's really having your own website makes such a big difference ... it provides feedback on how many people are on your story ... it teaches us how a headline works and what our readers are interested in.

(Media 20, Journalist).

The media see their role as “deciphering” (decoding) information released by other stakeholders and “contextualising what is happening”.

... they often only give you kind of the bare minimum, and you have to go for the wider detail to kind of get the whole story, to get that full narrative that people can relate to.

(Media 19, Journalist)

The media try to make the story relevant to people, so that they can get a clear sense of, and identify with, the issues. This is very much about “human interest”. While it is clear that all media representatives believe their role is to tell the truth and get to the bottom of the story, the angle of the story may vary considerably according to the target market’s interests or needs. This can lead to some reporters and media organisations having a rather narrow focus, while others report more broadly and encompass the perspectives of a range of stakeholders.

The content of the story, while true, is delivered or framed to meet with specific audience demands. This is shown by the degree of variation in focus and content relating to a specific incident that is evident in the public domain. For example, specialist journalists appear to focus on detail and explanation rather than on breaking (uncovering) the story in a sensational manner:

*Somebody who is a specialist, like me, is never going to break a story like that. Somebody else is going to because it is going to appear in social media and there’s going to be a ***storm. So all I ever try to do is, when the storm was going and people asked me, “What can you tell us about this story?” that I was able to explain it.*

(Media 1, Specialist and Broadcaster)

Both truth and sensationalism may vary according to a journalist’s perspective. While all use examples to create context and make the core aspects of the story relevant, how these are used differs by type of media and the market served.

Table 2 summarises the main goal and practices of the media stakeholder cohort, and the strategies used by this group.

Table 2 Goal and practices of the media stakeholder cohort, and strategies used

Goal and practices of the media stakeholder cohort, and strategies used
Goal: Maintain the reputation of the media and the trust and loyalty of their audience.
<p>Strategies</p> <ul style="list-style-type: none"> • Provide clear, relevant and credible information to the public on issues of personal, regional, national or international importance. • Inform the public of the risk they are exposed to and reveal who is to blame for this. • Create an interesting story through the translation of the facts into plain, or “layman’s”, language.
Practices: Seeking out, evaluating and translating information into interesting, relevant stories.
<p>Strategies</p> <ul style="list-style-type: none"> • Gather evidence and confirm the story: <ul style="list-style-type: none"> ○ Speculative search: Gauge the likely truth of a story based on initial responses of key informants. ○ Confirmatory search: Establish the facts. Confirm the story is credible with a reliable source (where possible, with multiple sources). <ul style="list-style-type: none"> - Make use of existing contacts to get information. - Use digital media to source stories and experts. - Seek views from all relevant stakeholders. - Try to get to senior executives of companies to comment on the role and responsibility of their company in the incident. • Engage with readers: <ul style="list-style-type: none"> ○ Get the story out quickly. ○ Bring consumer’s or reader’s needs to the forefront. Highlight the risks to the public. ○ Translate the story into language that is easily understood by reader or listener. ○ Use social media to “tee up” the story or gauge the level of interest in the story. • Generate interest in the story: <ul style="list-style-type: none"> ○ Provide online “tasters”. ○ Create attention-grabbing headlines. ○ Use emotive language. • Build the story: <ul style="list-style-type: none"> ○ Assume that someone is to blame. Investigate to get to the guilty party. ○ Seek out new angles on the story and use new informants as time goes on. ○ Doggedly pursue lines of enquiry by assuming that there is a hidden story to be uncovered. ○ Focus on human interest. Use real-life “case studies”, “victim experiences” and public opinion to bring life to the story. ○ Hold audience interest in the story by using personal accounts, attributing blame, using emotive words and providing background context. • Close the story: <ul style="list-style-type: none"> ○ Stop reporting on the story when it is no longer considered newsworthy – when it has no further impact and there is nothing new to reveal. ○ Revisit the story at a later date, if desired, to report on the actions of companies or agencies in addressing any problems that were highlighted.

Trust issues and challenges among the media stakeholder cohort

The story-building process is time-sensitive as each reporter scrambles to be the first to uncover the unfolding story. “Everything would be dropped” to achieve this. Given this focus, tensions emerge between the media and other stakeholders that impact on how reporters respond during a crisis and on their overall disposition.

The first of these relates to timing and authenticity (truth). Reporters are seeking to be first with the story while also ensuring that the story is authentic: “If you don’t go with it and [a media competitor] goes with it, no one ever knows that you had the story and you are behind the 8-ball.” This tension has become more acute due to new media channels and the ability to publish or communicate news immediately. As a result, print journalists often publish a short online version of the story and follow this with a more detailed story in their newspaper the next day: “That would be on the top of the website ... I would expect to have a pretty comprehensive story for the next day’s paper.”

The second area of tension relates to the need for openness from the other key stakeholders. The media are suspicious that these stakeholders are not revealing the full truth, even though they give the appearance of openness. Using a single spokesperson to interact with the media compounds this view, along with the time it can take to confirm that there is a problem (due to the nature of some of the verification tests that might be conducted by government agencies to confirm the source of the problem).

The characteristics of the journalist (for example, specialist, investigative, generalist) can influence the direction of the story. Some (for example, crime correspondents) are only interested in stories where wrongdoing by supply chain stakeholders is suspected. Others (for example, agricultural and food industry correspondents) are interested in the broader story. Journalists’ motivation in pursuing a story can be fundamentally different and consequently the questions they ask and types of information they seek can vary widely. This in turn colours the tone of the final story: “You know, it is the *way* you write about the drug problem ...”

Reporters seek a balance between making the story engaging and interesting, and not sensationalising it. However, within the context of writing the story, the disposition is towards revealing the “the bad guy”, which reflects the assumption that there is a guilty party. The media see it as their role to question rather than accept what is presented to them, so there is a natural tendency towards a “disposition of distrust”. Cases of fraud and criminality attract the interest of a range of journalists, including crime reporters, amongst whom this disposition is amplified.

The impact of digital media is significant in shaping the direction of stories, particularly in sourcing stories and informants and measuring the impact of, and interest in, the story. Digital media also enables the reporter to be first, or among the first, with the story. However, while it is seen as a useful tool in developing the story, it also represents a challenge for reporters.

In particular, the traditional media recognise their changing role and need to redefine and consolidate their position in an information-rich environment populated by contributors who claim to be “experts”, by amateur reporters and by fake news. In this regard, the connection between mainstream journalists and their audience has taken a turn towards “participatory” journalism. This encompasses online reporting and information exchange, and has led to the audience (news users) becoming more involved in generating news content.

It is likely that this type of immediate feedback will evolve into more developed forms of participatory journalism. The mainstream media will increasingly harness news users’ desire to express their views and experiences (for example, through citizen’s blogs, online polls, storytelling), by integrating these into “whole news stories” (similar to an opinion piece from a columnist in the past). When building the whole news story journalists can make it more relevant by providing links to background and other useful sources, such as food companies, government departments and agencies. This allows the news user to access the raw data should they wish to investigate the story further and possibly participate in the news-making process.

Table 3 highlights some of the key trust issues and challenges arising among the media stakeholder cohort.

Table 3 Trust issues and challenges among the media stakeholder cohort

Trust issues and challenges among the media stakeholder cohort	
Media’s trust issues arising from practices	<ul style="list-style-type: none"> • Media’s natural “disposition to distrust”. • Media see it as their role to question. • They view delayed responses by other stakeholders as attempts to create and present a story that is not entirely true. • They ask for clarity and relevance in responses from industry stakeholders.
Challenges: Finding their place in a changing communication environment	<ul style="list-style-type: none"> • Deciding which lines of enquiry to follow. • Addressing the increasing pressure to report the story in real time: Balancing timing of story (being first) with accurate reporting. Getting confirmation of information. • Impact of digital technology and social media on “traditional” media: Online searches shaping direction of story. Changing relevance and role in a digital world.

Industry stakeholder cohort

A crisis can be very damaging to a company's reputation. Their main goal as a crisis breaks is to protect their reputation, and their overriding concerns are consumer health and safety and customer relations. As a critical food incident unfolds specific damage limitation measures are taken and attempts are made to identify who is responsible. Industry recognises that a negative atmosphere will exist while a crisis is ongoing because, by definition, there is a suspension of consumer's trust during a crisis:

Some people say to you that every negative has a chance to be a positive. Let me just tell you straight, it's a negative. It's how you act, it's how you behave, it's how you perform that just somehow goes back to giving you some level of credibility but let's just be clear, when you count up the brownie points at the end you are in negative.

(Industry 4, Manufacturing)

Clear protocols and procedures guide an organisation's responses to a critical food incident. These follow a "crisis management" approach:

1. There is an initial focus on mobilisation of a cross-functional (inter-departmental) response team when the event occurs.
2. Crisis management protocols are followed during the event.
3. Closure of the issue and recovery of the company's performance and reputation are the focus following the crisis.

The response team mobilisation protocols specify

- The response team members
- How team members are contacted
- How they communicate
- Where they assemble (the "war room" or "bunker")
- Team members' roles and responsibilities. ("There are incident teams that have got standard incident procedures that say all the way through what we should do.")

This mobilisation and planning phase is typically complete within 12 hours or less of the event occurring: "The first few hours are critical."

Similarly, crisis management protocols established and followed during the event specify

- Types and quality of information gathered and used ("confirmation in writing from the supplier", "done some homework this is what's happening so you know this is the Gospel [not hearsay]")
- Internal communication channels – how and what to communicate with other people in the company (for example, senior management who are not members of the crisis response team)
- External-facing activities – how the company will contact and explain itself to, for example, its suppliers, customers and the authorities
- External communications – how the company will communicate with the media and public (for example, using a spokesperson: "We have a single point of contact.")

Independent voices such as regulatory authorities play an important role in achieving closure, or moving on quickly from an incident: “Oh, a huge role, massive role, because the consumers look at the **safefood** or look at the Department of Health to say, ‘Yeah, do you know, it is good to go back to eating beef,’ (or whatever).” “It starts and finishes with the regulatory authority.” Thus, industry actors tend to focus on the recovery aspect of the final stage, “restoring consumer confidence, customer confidence and shareholder value”.

There is also evidence of review activities being conducted that aim to learn from the incident; for example, revising supply chain management strategy and practice, including supplier and customer relationship management: “What are the key learnings out of this?” “We brought in outside consultants ... after this to understand and pick over what happened.”

We have a process internally with a response team system, right, so usually I would lead it. You identify pretty much all of the key players within the business, so the way we work is usually within probably within the first 12 hours we have the team in place and our plans in place and we’re actually working.

(Industry 14, Retailer)

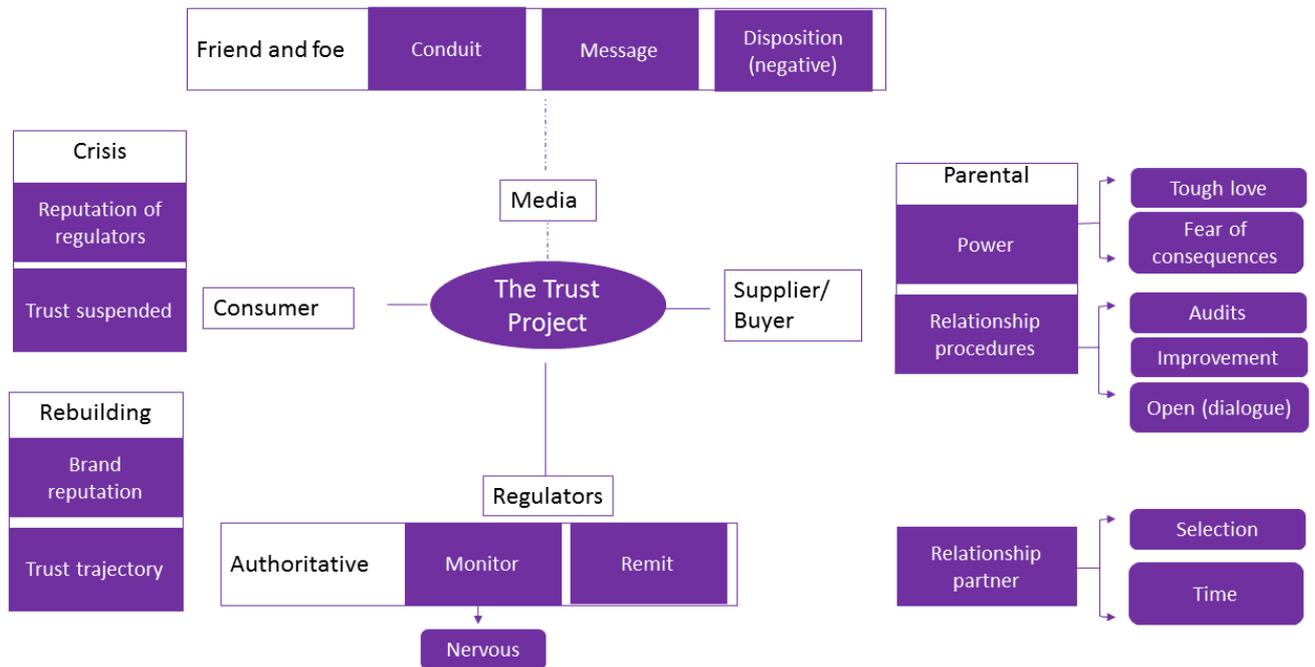
Given the somewhat inevitable character of critical food incidents, crisis management planning – the capability to react quickly and effectively – is seen as essential to supplying the market for food:

Hugely important. They’ve happened before, they will happen again, and if a company is not at this stage fully aware of everything they must do instantly, and most importantly not so much what they must do, but whom they should contact when there is a very real problem.”

(Industry 1, Representative Body)

Figure 2 provides an overview of the trust dynamic from an industry perspective, illustrating the multiple interactions and variety of issues that need to be considered when addressing a critical food incident.

Figure 2 Industry perspective on the trust dynamic



Consumer trust

Interaction with the consumer during a critical food incident is framed by a suspension, a temporary lack, of trust. Given this negative environment, the initial phase focusses on minimising consumer health risks. The hope is that, after the crisis, the procedures and practices evident during it will be judged positively by consumers. These practices involve immediately stopping the movement (transporting) and use of all affected products and associated. The appropriate authorities will be notified, depending on the nature of the incident.

Once an incident has been confirmed (whether inside the company or not) the company moves to a notification stage where the information is revealed to the public and the media. While reluctant to do so, companies may need to speculate about possible events and consequences, or have to react to unfolding events before clear confirmation of the facts becomes available: “Sometimes it’s a suspicion, and you must tell, so we would follow that protocol.” As a result, the announcement of a product withdrawal generally comes from industry. Where industry is slow to act, the regulator will enforce product withdrawal.

Indeed, admission of wrong-doing by industry actors is seen as key to dealing with the crisis at hand quickly and effectively. “Prompt disclosure, prompt and open, honest disclosure” is also fundamental to later efforts to rebuild trust. Should the incident continue, with further revelations being made, consumers find themselves on a “trust roller coaster”. Hence there is a recognition among industry actors that, while investigations “don’t always take a straight line”, open and honest provision of information (when known), together with communication of the measures being taken to rectify the situation, is of the greatest importance:

I think maybe the first reaction is, so they've got over the first bit of news, which is OK, right, that's good, they're taking stuff off the shelves. Now they're telling me there's other stuff that I thought I was OK with but now I'm not because they've changed their mind; they

don't know what they're doing so I don't trust them now for a moment again ... so I would say the trust factor can be managed more effectively if the vacuum of doubt is kept tight. So what I mean by that is if you suddenly realise no, actually, its bad news we've got, we're telling you about more bad stuff that's gone on, come in very quickly after that with "here's what we're doing about that now".

(Industry 14, Retailer)

While the overall objective is rapid organisational and supply chain recovery (resilience), the initial focus is on consumer safety and health. There is recognition that a company's initial response influences consumer trust in their products in the longer term. Therefore, it is only in the aftermath of the crisis that businesses pursue reputation-building measures with customers and consumers (closure and recovery phase). These measures are designed to

1. Communicate how the incident has been addressed (including any mistakes that may have been made), to take trust back out of suspension
2. Remind consumers of the inherent value in the company's products and previous trust in them, and so encourage customers to buy them again.

In this way, industry actors seek to take advantage of previous consumer trust in their products and "brand equity" – positive consumer perception of a brand name – through marketing campaigns. This highlights the nature of trust; it is built over the long term but may be lost in a moment. Once the "moment" or breach has been addressed, efforts to rebuild trust are based on previous trust levels held by consumers:

What we would do is try to do is accentuate the characteristics of our brand in a positive way to reassure the consumer, so if you trust us about this stuff, trust us over here now, too.

(Industry 4, Manufacturing)

Given this, the current downward trajectory of consumer trust in the food supply chain is of concern. It appears that this deterioration of trust is due to much more than a single incident. Although product sales may fall dramatically during a crisis, they can return to previous levels afterwards. Industry actors may consider this behaviour simply "fickle", but it masks a more fundamental degeneration in consumers' stocks of trust in the longer term.

Supply chain relationships and trust

Trust between supply chain actors is also generated over time. Trust building is evident in the interplay between procedural and relational trust-building mechanisms (e.g. root cause analysis following the identification of a non-conformance incident set within a broader continuous improvement framework and ongoing dialogue), both during a critical food incident and during the normal course of business interactions.

The buyer's expectation is that a supplier would tell them if a problem was suspected and under investigation. It is recognised that such a disclosure trusts that the buyer will not then react negatively and punish the supplier or use this information to their own advantage: "You only tell somebody you trust your problems." Such trust is built over time through regular conversation that in turn creates an atmosphere of open dialogue: "It's not even a conversation, it's just a continuing conversation, it's ongoing, it's dialogue."

During the critical food incident, industry seeks to establish how and why the incident occurred. Both procedures and relations within firms and along the supply chain are essential to establishing, assessing and addressing critical incidents. The ability to do this is primarily dependent on the buyer's supplier accreditation and auditing (checking) processes.

While a company's response may seek to take advantage of relationships developed along the supply chain, it is strictly governed by protocols and procedures: "When the customer says to me, 'Tell me ...', I'll go, 'I am sorry'. I'm upfront about it; here are the facts as I understand them, and I cannot deviate from it." However, good supply chain relationships can speed up data collection and thus decision making. This is particularly helpful as there is considerable pressure to identify as quickly as possible the origins of the problem, the nature of the risk to public health and the traceability of affected ingredients within the supply chain.

If you're managing the crisis properly you've got to be able to get what you need within reason when you need it, so if we make a decision here that we've got to get all of our suppliers to confirm this ingredient is in their product within the next 24 hours, if that's what's important that's what'll happen.... Well we did there [dioxin scare], and I could map pretty much every hour of that for the 4 days, but the Saturday before that was called we had our 3 main meat suppliers here with us that morning going through scenarios.

(Industry 14, Retailer)

At a more fundamental level, good relations and open dialogue are considered important in preventing critical food incidents, for example a supplier's disclosure and discussion of a need for an alternative source of an ingredient. Even so, there is often a fear of a negative response to such admissions, especially within unequal supply chain relationships that can exist between small and large businesses.

It is evident that supplier accreditation and auditing processes may be used as a procedural mechanism only (a control-based approach) or as part of a broader relationship management process. The latter seeks to build relational trust and uses regular audit and supplier "scorecard" feedback sessions as improvement opportunities. The scorecards track improvements that have been made. They also record and draw attention to the reoccurrence of defects. (This can challenge the truth of the analysis of the incident's root cause and corrective measures taken.) The feedback sessions seek to share problems and challenges emerging. In this way the buyer enacts a "parental" role as they guide and support an improvement-oriented culture based on openness, but when necessary punish the supplier (likened to "tough love").

We found recently that paprika came from [an unaccredited source]... They're delisted. We have to do that, absolutely we have to. Because if we give them a rap on the knuckles or something, it's not enough. So they then have to work very hard to get themselves back in a trust situation and back onto our accredited supplier list. So if they had said to us, "Look, our paprika supply line is run dry," or, "We have a challenge there and we need to source here," we would have worked with them to get this company on the accredited supplier list. So it was quite disappointing.

(Industry 6, Manufacturer)

This demonstrates that disregarding an accreditation-based procedure is a major violation. On the other hand, the buyer considers a supplier's disclosure of a problem (in this case the challenge of adequate supply from accredited sources) an indication of trust.

While procedural mechanisms such as audits and quality control tests are essential, there is also a recognition that a level trust is implicit in food industry supply chain relationships: "No matter what you do, unless you want to put your own person in their supply chain, no matter what you do, you can still be exposed." As such, these mechanisms apply to incidents that are inadvertent or unintentional. They do not apply to intentional acts motivated by criminals, which are in the realm of food fraud and food defence.

I think this is an implicit trust element. People don't go in and go, "I'll take the unsafe option, it's 50 cent cheaper, let's risk it for a biscuit shall we? A bit of salmonella, a bit of weight loss, this could be good!" You know, it's an implicit trusting.... it's a non-negotiable, isn't it, because it's an implicit trust.

(Industry 1, Retailer)

Regulator role

It is evident from the discussion above that regulators play a key role during and after a critical food incident. "Natural" tensions exist between regulators and the food industry: "Yeah, if we had an issue, the Department of Agriculture could just come and close down the business, come in here and turn off the lights, basically." In spite of this, there is recognition of their role as an independent expert body and their neutral stance within the industry. This generates a high level of consumer trust in them, hence the importance of their role in the "closure" phase of a critical food incident.

Given the general decline in trust in the food supply chain, the role of regulatory and other agencies in maintaining consumer trust in the food system is also noted; for example, "**safe**food, in terms of some of the communication pieces on an ongoing level, on a maintenance level."

So the expectation would be thatyou know, going back to the committee or whatever the case may be, the Food Safety They are the experts.

(Industry 5, Manufacturer).

A retailer can go out and say, this is what it is, and we'd be right in what they're saying, but it doesn't have the national standing. We might go in on the back of an FSAI [Food Safety Authority of Ireland] statement or we might refer to the FSAI on our website but we're not necessarily a national authority even though we've hopefully access to similar information.

(Industry 14, Retailer)

It is also recognised that regulatory and other agencies have much broader issues to deal with during a critical food incident:

Because they – because it's a government organisation, they have so much else to be looking at. Like, they've to take into account the entire [meat] industry, they have to take

into account the entire supermarket, do you know? They have an awful lot more to worry about than what we have.

(Industry 5, Manufacturer)

Media tensions

As illustrated in Figure 2, while industry sees the media as an important conduit for getting information to consumers, their general disposition towards them is negative. Indeed, industry views their relationship with the media as difficult. This is based on past experience and nervousness: “The sensationalism happens ... believe me, I have lived through this.” Personal experiences or observations on media portrayals of food incidents in the past foster a “fear” of the potential consequences of a media determined to (from an industry perspective) convey a sensational, blame-focussed story of the incident. This reflects the lack of control the industry feels it has over the content and tone of reports in some sections of the media.

Sensationalist, my view of the media would be, from previous experience, they tend to portray the retailers as the big bad bullies in all of this, you know.... I think they would be very sensationalist about it as they were about horsemeat.

(Industry 13, Retailer)

Legal and economic consequences and loss of brand reputation can all be reduced or amplified by the tone and focus of media reporting. Industry focusses on damage limitation and tries to provide fact-based information that is bounded by what is currently known. In contrast, the focus of the media is to provide a range of perspectives; they also add other information that may be more loosely related to the incident and represents emotional (“human interest”) as well as factual content. This creates tensions between the groups, particularly because industry’s desire to communicate only factual current information results in the use of a single spokesperson reading from a prepared statement (a “script”). The need of the media for immediate information and continual updating is seen as creating unreasonable demands on industry, and lacks appreciation of the time it can take to establish the facts:

My biggest problem always is having to give an instant response to somebody like a television crew, who will say, “We are on our way to you. We need a comment on this, we will be with you in 30 minutes,” and I’m trying to make sense of it, and this has happened.

(Industry 1, Representative Body)

Table 4 summarises the main goal and practices of the industry stakeholder cohort, and the strategies used.

Table 4 Goal and practices of the industry stakeholder cohort, and strategies used

Goal and practices of the industry stakeholder cohort, and strategies used
Goal: Protect the reputation of industry through good practices.
<p>Strategies</p> <ul style="list-style-type: none"> • Build a reliable supply base: <ul style="list-style-type: none"> ○ Develop strong relationships with customers ○ Establish and maintain a good reputation in the marketplace. • Establish and use clear procedures and protocols, and be seen to follow these during a critical food incident.
Practices: Follow procedures and protocols.
<p>Strategies</p> <ul style="list-style-type: none"> • Initiate company crisis protocols: <ul style="list-style-type: none"> ○ Communicate with all relevant people within the company (crisis response team members and other internal contacts) and in the supplier and buyer companies (external contacts). ○ Communicate with the appropriate regulatory authority (the initial risk assessment will determine which one). ○ Begin the process of gathering all required data. • Identify the issues that need to be addressed: <ul style="list-style-type: none"> ○ Clearly define the role of all personnel. ○ Task individuals with securing the relevant data and set a timeframe for returning this. ○ Make decisions based on established facts. • Communicate: <ul style="list-style-type: none"> ○ Communication with all stakeholders is governed by clear protocols. ○ Communicate with the media through a single spokesperson. ○ Present the facts available. ○ If responsible, admit this. • Customer-facing activities: <ul style="list-style-type: none"> ○ Decide whether customers are to be alerted in suspected cases (risk assessment will determine this). ○ Present facts, when known, to customers. ○ Resist buyer’s requests for the supplier organisation to address the media on their behalf. Resist buyer’s requests for the supplier organisation to address the media on their behalf ○ Create and encourage an open dialogue with the customer to build a trusting relationship, when not in crisis. • Regulator-facing activities: <ul style="list-style-type: none"> ○ Make relevant regulatory bodies aware of the incident. ○ Work closely with the regulator throughout the crisis by providing all relevant information. • Supplier-facing activities: <ul style="list-style-type: none"> ○ Establish whether the supplier has followed the processes detailed in the supplier approval agreement they have made with the company. ○ Get written confirmation when a supplier gives a verbal notification of a suspected incident. ○ Create and encourage an open dialogue with suppliers to build a trusting relationship, when not in crisis

Trust issues and challenges among the industry stakeholder cohort

Trust building and maintenance is an ongoing process. Behaviour before and during the crisis influences trust. Trust is suspended during an incident, and companies rely on protocols and processes to guide them through the crisis; however, supplier track record and reputation may impact on the implementation of these (e.g. availability of data in the forms required).

Thus the past is important, in terms of establishing protocols and procedures (from required food traceability protocols, through supplier approval processes, to more advanced supplier relationship management) and in relation to the track record of the supplier. How the parties act and interact during the crisis also impacts on trust in one another afterwards.

The complicated nature of global supply chains is considered a key challenge – in particular, the number of tiers or levels, the number of suppliers and the variety of ingredients involved. Food traceability and supplier management processes were highlighted as being critical in risk management (that is, risk reduction, mitigation or off-setting, and crisis management). In addition, there is a need to improve consumer understanding of the nature of the global food supply chain and the systems already in place to protect their safety:

I don't think the customer is probably – well, they are probably not as educated as they could be, right? And that leads on to the fact that they are not aware of how much work and how many systems and processes and procedures there are to keep what they eat safe. And when you think about the amount of food people eat on a daily and weekly basis, on a yearly basis, the levels of food poisoning are very, very low.

(Industry 13, Retailer)

A critical food incident may have both long-term and short-term effects. Initial changes in consumption patterns (such as a drop in product sales) can represent consumers' immediate responses to new negative information. Preferences, habits and additional information communicated over time can lead consumers back to previous consumption levels. This journey back towards pre-crisis consumption behaviour can be supported and accelerated through marketing and promotions.

In spite of this, it is recognised that consumer trust in the food industry is on a downward trajectory. This is due in part to successive food scares, and the long-term impact of these on consumers' stocks of trust. Thus, consumer trust in regulators is of increasing importance. Indeed, sometimes industry actors prefer that regulators take the lead in communications during a crisis because they are perceived as an independent and expert authority. Industry stakeholders also recognise the value of the guidance offered by regulators and agencies both in and out of crisis.

Demands for information from within the supply chain and from external parties place significant pressures on industry actors. The actors lose control of the information when it is revealed publicly as it is open to interpretation, by the media in particular (for example, through the "angle" of the story, or how it is "framed"). Initial "holding" statements issued by industry or the regulator may indicate an investigation is underway. While the media are viewed as a useful communication channel to reach consumers through, their interest in

uncovering and presenting a sensational story is of particular concern. As communication from industry aims to alert or assure rather than alarm, they see media interests and goals as not aligning with theirs.

Industry are acutely aware of the need to respond quickly to a crisis – the media will build a story around any delay between a problem being identified and the public being alerted. Hence industry is inclined to limit engagement with the media and to adopt a controlled stance when doing so – for example, by communicating only through a spokesperson. Public relations professionals' services are often employed to support this communication with the media.

Industry adopt a “one voice approach” (using a single spokesperson or point of contact) and press releases and remarks are confined to the facts available. This is typically regarded by the media cohort as the “official line” being taken, or “spin”.

Table 5 highlights some of the key trust issues and challenges arising among the industry stakeholder cohort.

Table 5 Trust issues and challenges among the industry stakeholder cohort

Trust issues and challenges among the industry stakeholder cohort	
Industry’s trust issues arising from practices	<ul style="list-style-type: none"> • Trust is suspended during a food crisis, by definition, so industry must rely on procedures and protocols to protect their reputation. • Regulators step into the “trust vacuum” that has been created, because they are seen as an independent and expert authority. • Industry distrusts the media.
Challenges: Managing a supply chain crisis	<ul style="list-style-type: none"> • Dealing with a media that wish to sensationalise the story. • A company’s reaction time on discovering a supply problem, and the integrity of its data, are largely dependent on procedures such as required food traceability and supplier approval processes. (This could be improved by encouraging more open dialogue with suppliers when out of the crisis.) • Supplier relationship building and management before and during a crisis. • Managing the flow of products and information in complicated global food supply chains, especially in relation to minor ingredients.

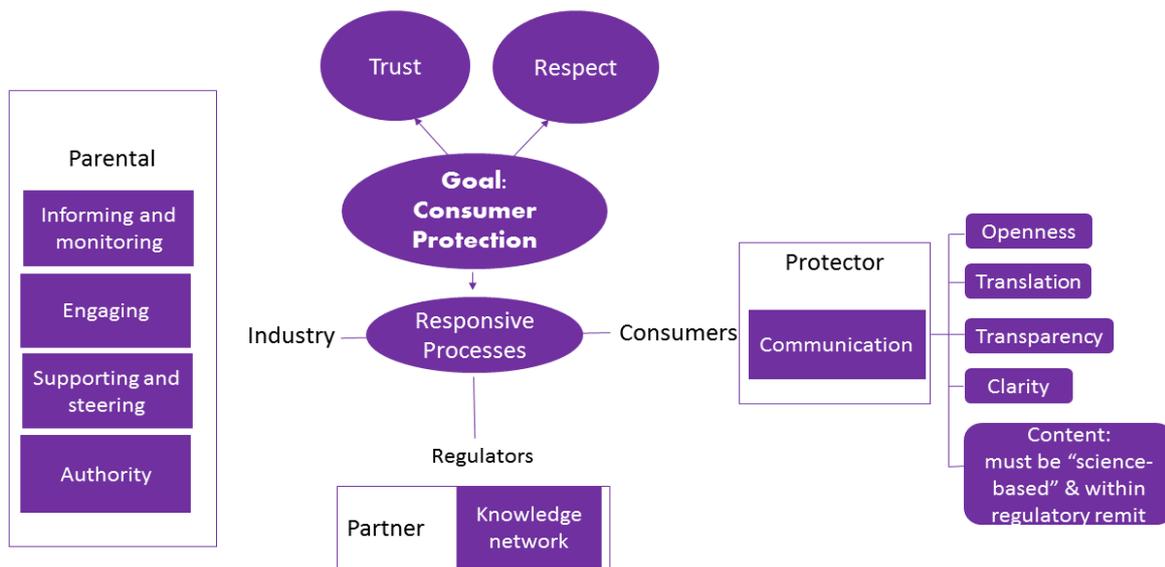
Regulator stakeholder cohort

This analysis is based primarily on the responses of those who have a direct role in decision making and communications around critical food incidents.

Regulators see their main goal as protecting consumer health, and operate within the confines of this clear remit. They view themselves as being held in high esteem and seen as a trusted and respected pillar in the food system by supply chain stakeholders, the media and the general public. This reputation, they believe, has been built on a strong track record. Delivering on their primary goal through the application of science, clear and open communication, and being authoritative but fair in all their actions is fundamental to this reputation.

Figure 3 illustrates the dynamic nature of the relationships and interactions between regulators and other stakeholders.

Figure 3 Regulator perspective on their goal, roles and outcomes



Regulators are positioned as the central coordinating actor in the food system during a critical food incident. A well-established responsive process is in place for dealing with such incidents, with capability to carry out risk assessments quickly considered essential. Their regulatory remit frames the process of gathering and evaluating information and responding to the incident. Since all decisions made are based on evidence (“science-based”), within a risk assessment framework, where necessary these are made on an incremental basis, as time goes on.

Regulators aim to share information promptly with supply chain stakeholders, the media and the general public. They recognise the need to respond accurately, clearly and quickly to queries. To establish what has happened and how the incident has occurred, they build knowledge through their networks of experts, internally and externally. The experts provide evidence upon which decision making is based during a crisis.

The regulator who has primary responsibility uses their expert network to investigate the incident. Typically a control team is established by the lead organisation. This facilitates communication within and between authorities and agencies (nationally and, where necessary, internationally), as well as engagement with independent experts on the risks and necessary responses. Much of this is established in protocols and procedures; for example, the requirement to use relevant data collection networks (such as through environmental health officers, other medical professionals and hospitals).

Look, the communications internally in terms of the outbreak control team and getting the information to the [regulator], and out to the [Health Service] and the Local Authority, is critical.... [We] will be moving back and outwards to other organisations, other authorities.... we have a service contract with them in relation to food safety. So they are the leaders, and what I would say is that there is a protocol in place.

(Regulator 7)

Regulator as protector – putting consumers first

As the protector of the consumer, regulators are principally concerned with the potential for harm to human health, and so they seek to assess the risk once an incident is identified or they are notified. They immediately initiate supply chain mapping to identify the source and extent of the contamination at product, ingredient and entire supply chain tier levels. They also begin laboratory testing of samples. Both activities may take time to produce results and so early decisions may be based on an initial “profile” of the risk.

The delay in obtaining and confirming data presents key challenges in terms of when and how information is released to the public. Where necessary, regulators operate under a precautionary principle – “better safe than sorry”. While industry actors may consider this as the “nuclear option” – the most drastic action to take – regulators are guided by their safety-focussed remit and the best scientific information available.

The regulator’s message to the public may change over time as they continue to assess and clarify the scale and impact of the risk (the consequences for public health and likelihood of population exposure to the risk). This presents a challenge in terms of public confidence in their communications. To address this, regulators emphasise that their announcements are based on the best scientific evidence currently available. Overall, their expectation is that their “trustworthy” reputation stands on this scientific foundation as well as their clearly communicated independence from all vested interests:

Yes, it would be letting consumers know what the regulator’s role in the entire food system is so that they can trust us that we are working for consumers, you know, that the consumers are our primary focus.

(Regulator 5)

We don’t overreact.... this is what we know from the scientific information we have available to us. Based on this information, this is the decision that we have taken.

(Regulator 2)

In protecting the consumer there are defined roles and responsibilities within the regulator cohort. Many of these are set out in formal service contracts or arrangements. These ensure that monitoring and reporting processes are embedded in the everyday practices of these actors within the food system. Revealing the results of this monitoring process online sets an open tone for the wider food system and enhances consumer confidence.

In addition, “memoranda of understanding” are used by different agencies to facilitate and support discussion of issues of mutual interest. These agreements support clarity and transparency within the broader regulatory community.

Regulators try to communicate clearly with consumers. Essential to this is their role in translating scientific information into language that is easy to understand. The informed public can then respond in an appropriate

manner to critical food incidents. To deliver on this goal, typically a “communications response group” is set up, including phone “hotline” and online “live chat” teams to answer queries promptly.

Regulators view the media as an essential channel for communicating risks to the public. They proactively engage with the media in the early stages of an incident to get information out quickly. They also use their online presence (websites, Twitter feeds and so on) to communicate directly with the general public.

Tensions inevitably arise between regulators and the media. Media see it as their role to question information provided to them and to find out who is to blame. In addition they operate under highly demanding time pressures. Regulators, confined by their remit, restrict themselves to the release of scientifically verified information. They must wait for scientific results, and will not speculate publicly on outcomes.

An increasingly diverse media adds to this challenge. They generate a variety of questions from a range of journalists, from the technically competent, or specialists, to generalists with limited understanding of the topic: “They are all wide ranging ... and then you have to reply to someone on 144-character Twitter!”

Regulators try to avoid creating an “information vacuum”, as the media will fill this space by making any delay in communication the subject of the story instead. When faced with a flood of queries, announcing the time of the next release of information and using online resources to update it regularly are both importance practices.

There is also a variety of actors within the regulatory cohort. Clearly defining the roles of the different authorities and agencies active during a critical food incident is seen as crucial, to avoid frustration among the media and ensure a consistent message is sent out. To achieve this, communication is made through a nominated “lead” authority. The other authorities and agencies will provide input to the lead authority, who will communicate with the media.

They want someone to kick, “So who let this happen?” you know? Is this a fault of the company, is it a fault of the regulator? So they want someone to attach blame to.

(Regulator 5)

You know people are very busy but we are going to come out at 10 and 4 o'clock every day and give an update, so that at least people aren't left in a vacuum thinking the worst.

(Regulator 3)

The first thing we do in any of these instances, we establish who the lead authority is.... they will produce the lines and we will all follow those lines, basically, to take and point things towards [her] to do with the press.

(Regulator 6)

Social media and other digital platforms have changed the way regulators and agencies interact with consumers and the general public. They provide a direct link with people, facilitate interaction and promote openness and transparency. While demanding in terms of resources, regulators see this as an opportunity to interact directly with the public, bypassing the traditional media’s “filter” (their angle).

We try and proactively work social media and things like that. So perhaps in the past it is very challenging in a fast-moving incident, to sometimes actually be able to adequately communicate your position, and perhaps we are hopefully moving away – if we don't know something then I think we are moving towards being able to say that we don't know something, rather than saying nothing. So I guess it's about being open and transparent as well you should be free enough to be open to say what you know and what you don't know.

(Regulator 2)

Regulator as parent – overseeing industry

When a critical food incident occurs regulators immediately engage with industry actors to map the supply chain and identify the source and extent of the incident. On this basis they take necessary measures to contain the impact on consumer health and safety. They act within their regulatory remit to impose sanctions (restrictions or bans) on supply chain actors during and after the incident. In the aftermath of an incident, regulators provide information to the public on the responses to the problem and the safety of the type of products involved.

The regulators' relationship with industry could be described as “parental”: monitoring, controlling, and guiding and (where necessary) sanctioning food supply companies. The relationship is framed by legislation that governs both the point at which food companies must inform the regulator when a food incident has occurred and how the regulator responds and acts. As a result, tensions can arise:

So the industry trusts us to use science to assess the risk to consumers. If we believe the risk to consumers is so grave or so high that we need to pull the product off the market we will then work with the company and either the company will recall the product or the ingredient or we will do it. But most cases we would expect the company to do it and most companies would do it, I suppose the majority of companies.

(Regulator 1)

During a crisis the regulator may engage with industry in small groups or individually, particularly in the early stages. It is the responsibility of the company to supply all relevant information to the regulator so that the risk to consumers can be quantified; however, for smaller businesses this can be challenging, particularly given the short timeframe and the complicated nature of global food supply chains. To address this, where necessary, the regulator can facilitate support for companies facing difficulties in gathering and organising the relevant data.

Meetings between regulators and affected businesses may happen “behind closed doors” – that is, the public and wider industry may not be made aware of this interaction. The aim, ultimately, is to establish the nature of the incident and assess the risk to consumer health, which is always the priority.

Then call a food incident liaison, a liaison meeting where she brings in the industry to tell them what's going on here, and that's a 2-way exchange of information. It's not coming in and giving them a good talking to, it's bringing them in and talking

to them about, you know, how widely has the soya bean [been distributed], what's its origin, you know, what other companies are likely to have used this, and it's used as the initial gathering.

(Regulator 6)

In the smaller companies where they don't necessarily have the internal capability to do a lot of that we will support them.... regardless of whether you are a small company or a big company, whether it's local, regional, national or global and the outcome will be the same.

(Regulator 1)

To facilitate openness and engagement, regulators also work with companies outside of critical food incidents. This may include interactions with small industry groups or individual companies on relevant issues such as food safety, supply chain integrity and regulatory requirements. A 2-way flow of information is considered critical to understanding the challenges and requirements associated with delivering safe food to the market. This information exchange improves regulators' understanding of the food industry context. It also provides an opportunity for regulators to communicate current and emerging regulatory requirements. Regulatory authorities and agencies also engage with various industry representative groups to provide technical and scientific expertise.

Following an incident, regulators contribute to repairing consumer trust in the food system. This is achieved through the continued implementation of existing protocols and procedures, and by working with other national and international stakeholders to address emerging risks. Regulators also publish extensive information online to enable companies to comply with regulations. This provides a trusted source of information on food regulation matters and facilitates companies in developing and deploying relevant strategies. Such visible interaction of regulatory agencies with industry helps to strengthen a culture of prioritising food safety within the supply chain.

Table 6 summarises the main goals and practices of the regulator stakeholder cohort, and strategies used.

Table 6 Goals and practices of the regulator stakeholder cohort, and strategies used

Goal and practices of the regulator stakeholder cohort, and strategies used
<p>Goal: Protect consumer health</p>
<p>Strategies:</p> <ul style="list-style-type: none"> ● Use the best science available to identify and reduce risks. ● Encourage open dialogue and engagement with relevant stakeholders. ● Communicate information clearly and promptly. ● Ensure robust monitoring of the food supply chain.
<p>Practices: Follow established procedures and protocols when a critical food incident is suspected or confirmed</p>
<p>Strategies:</p> <ul style="list-style-type: none"> ● Follow a set of defined processes to address a critical food incident. ● Work within the boundaries of the regulatory remit and current science-based evidence: <ul style="list-style-type: none"> ○ Put consumer health and safety first. ○ Impose sanctions if a company breaks the law. ○ Confine (limit) comments and responses to queries in line with the regulatory remit. ○ Put science at the forefront of the decision-making process. ○ Work with other agents of the state. ○ Gather and evaluate information and respond to the incident according to the regulatory remit, which frames this process. ● Gather the evidence to quantify the risk to consumers: <ul style="list-style-type: none"> ○ Initiate scientific tests. ○ Work with companies to identify the source of the risk. ● Make decisions based on the unfolding evidence: <ul style="list-style-type: none"> ○ Always base decisions on the best available current scientific evidence. ○ Make decisions that serve the best interests of consumers. (Sometimes decisions may be viewed by industry as the “nuclear”, or most drastic, option.) ○ Make decisions about the level to which a risk alert should be escalated according to the precautionary principle – “better safe than sorry”. ● Set up a crisis management team with experts: <ul style="list-style-type: none"> ○ Get expert input on the risks and necessary responses. ○ Use relevant data collection networks (for example, environmental health officers, other medical professionals and hospitals). ● Evaluate evidence: <ul style="list-style-type: none"> ○ Based on an initial profile of the risk, make decisions on how to progress. ○ Consider public health as critical to this evaluation. ○ Continue to clarify the scale and impact of the risk. (Assess the consequences for public health and likelihood of population exposure to the risk.) ● Undertake supply chain mapping for the contaminated product or ingredient. <ul style="list-style-type: none"> ○ Set up a “communications response group”: ○ Aim to communicate efficiently, effectively and clearly. ○ Set up phone “hotline” and online “live chat” teams. ○ Respond to all queries promptly.

- Engage with the public and media:
 - Get information out quickly.
 - Put consumers' needs at the forefront.
 - Highlight where the risks are for the public and how they should respond.
 - Ensure clear communications. Translate the information into language that is easily understood by target audiences.
 - Update the public and media regularly with any new information.
 - Operate on the principles of openness and transparency.

Trust issues and challenges among the regulator stakeholder cohort

Given their clear goal – to protect consumer health – regulators do not see it as their role to build consumer trust in the food system; however, trust in the food system emerges as a by-product of their activity. They prioritise clarity in their communication to the consumer, and base this on verified scientific evidence.

The tests and procedures needed to verify the risk can take some time. One challenge is to reduce this time through developing and using reliable, rapid testing techniques and improved supply chain traceability systems. Global food supply chains are complicated in nature, due to the number of tiers and suppliers and the variety of ingredients. This means rapid mapping of numerous supply chain flows that may be associated with the risk is necessary, to ensure a full picture of its consequences for human health.

The system by which they buy their foodstuffs these days, that is through large multiple supermarkets, has been fundamentally changing, and that is a fundamental change from even 30 years ago when food was much more locally sourced, locally produced, prepared in a different way, consumed in a different way. And it is a complex socioeconomic debate. And there are other external factors, of course, like the cost of living.

(Regulator 12)

Societies and cultures have evolved alongside food systems. Modern consumers have become increasingly disconnected from the origins of their food, and the processes used to produce and distribute foods that fit with current lifestyles. This lack of appreciation or knowledge of well-established supply processes can result in dramatic responses to particular food incidents. Thus, there is a need to inform consumers about the management and monitoring of food supply chains. This should help to build awareness of food system complexity arising from the choice provided by global food supply chains. Enhanced awareness of supply chain operations could provide context for consumers, and so better equip consumers to interpret user-friendly supply chain data published by regulators. Sharing such information could improve transparency and increase the public's understanding of the food system.

The prime importance of consumer safety and health has led regulatory authorities to react to and escalate incidents that have a scientifically established risk. However, consumer trust in the food system may be impacted negatively by other breaches than those strictly defined as food safety or health risks. This became evident during the horsemeat contamination scandal. Consideration of what consumers may consider a breach of trust or a more fundamental cause for concern is likely to be of increasing importance in developing their understanding of and trust in the food system:

Horsemeat ... we would have thought, it's not a food safety risk, so therefore it's deemed to be a lower incident, but look at horsemeat – it was huge and it's shaken everything up. And it was those other things that needed to be considered.

(Regulator 3)

Table 7 highlights some of the key trust issues and challenges arising among the regulator stakeholder cohort.

Table 7 Trust issues and challenges among the regulator stakeholder cohort

Trust issues and challenges among the regulator stakeholder cohort
<p>Regulator’s trust issues arising from practices</p> <ul style="list-style-type: none"> • Trust is a “by-product” of actions, an outcome of the processes put in place to achieve the primary goal of protecting consumer health. • Public trust in regulators’ information and oversight is: <ul style="list-style-type: none"> ○ Built on openness and transparency ○ Due to use of “good science” and clear, rational communication. • Regulators need to build and maintain respect in their relations with the media, by: <ul style="list-style-type: none"> ○ Providing information promptly ○ Referring queries to other agencies if the media’s questions are outside the scope or remit of the regulator ○ Publishing and regularly updating information online. • Regulators need to build and maintain confidence and respect for their role among the industry cohort, by: <ul style="list-style-type: none"> ○ Proactively engaging with and supporting supply chain stakeholders ○ Sanctioning rule breakers. ○ Addressing issues of integrity (safety) in complicated global food supply chains.
<p>Challenges: Managing a supply chain crisis</p> <ul style="list-style-type: none"> • Balancing the natural tension between the time it can take to produce complete, verified (science-based) information and the need to respond quickly or immediately to the potential for harm. • Building and maintaining interactive relationships with supply chain stakeholders to facilitate efficient data collection. • Maintaining open and interactive relationships with media to improve understanding of delays. • Using social media to communicate quickly and effectively.

Key strategies employed across stakeholder cohorts

Introduction

The analysis of in-depth interview data identified 9 key strategies across all 3 stakeholder cohorts: be transparent; be credible; be responsible; follow protocol; be proactive; be consistent; collaborate with

stakeholders; educate stakeholders; build reputation. (In addition, “Put the food consumer first” was identified as a fundamental strategy for the industry and regulator cohorts.)

Based on this analysis a second phase of data collection was undertaken. This aimed to establish the significance of the strategies within each cohort and their relative importance and meaning to the different cohorts.

The member check survey confirmed the relevance of the identified strategies. The majority of respondents (see Table 8) agreed with statements that these strategies are important to consumer trust building and repair. Protocols and transparency were considered important to strategy across the 3 cohorts, with all other strategies considered important to most respondents.

Table 8 Results of member check survey on stakeholder agreement with statements about the importance of key strategies

Key strategy	Percentage (%) agreeing key strategy is important			
	Total respondents (n = 33)	Media (n = 13)	Industry (n = 12)	Regulator (n = 8)
Be transparent	100	100	100	100
Be credible	94	100	83	100
Be responsive	97	100	92	100
Follow protocol	100	100	100	100
Be proactive	97	100	92	100
Be consistent	88	92	92	75
Collaborate with stakeholders	97	77	100	100
Educate stakeholders	97	100	92	100
Build reputation	97	100	92	100

The mean (average) scores awarded for each strategy are presented in Table 9 and highlight their relative importance to the different stakeholders. Generally, education, collaboration with other stakeholders and building reputation, while important, are ranked the lowest. Transparency and credibility are the most important to all stakeholders. However, the rankings must be considered in light of explanations given by respondents: these clearly describe the importance of all strategies to their actions before, during and after a crisis and in matters relating to trust.

Table 9 Mean scores for importance of the key strategies when in and out of crisis

Strategy	Total mean score		Media		Industry		Regulator	
	In	Out	In	Out	In	Out	In	Out
	Importance in crisis or out of crisis							
Put consumers first					2.90	3.00	2.30	3.10
Be transparent	3.30	3.76	2.54	2.38	3.42	4.50	4.38	4.87
Be credible	3.71	4.30	2.62	2.85	4.50	4.92	4.25	5.75
Be responsive	4.49	7.06	4.15	6.69	4.33	7.30	5.25	7.38
Follow protocol	4.64	4.67	4.62	4.69	4.33	4.92	5.13	4.25
Be proactive	4.79	4.52	4.31	3.77	5.00	5.33	5.25	4.50
Be consistent	5.94	6.27	5.62	6.15	6.50	6.17	5.63	6.63
Collaborate with stakeholders	6.64	6.15	6.38	5.77	6.67	6.75	7.00	6.75
Educate stakeholders	7.54	6.12	6.46	5.61	8.58	6.50	7.75	6.38
Build reputation	8.42	6.70	8.31	7.08	8.75	6.58	8.12	6.25

In the case of industry, the importance of responsiveness during a crisis was ranked among the top strategies. However, it is interesting to note that the mean score for this strategy drops, compared with other strategies, when out of crisis.

The use of the key strategies, and their meaning and relevance to each of the stakeholder cohorts, are outlined here.

Follow protocol

It is clear that part of industry and food regulators’ core responses during a critical food incident follow a set of well-established protocols. These protocols support the systematic quantification of the risk, tracing the source and cause of the problem, and communication practices within the organisation, between stakeholders and with the media.

Protocols facilitate rapid responses as the crisis unfolds. Within industry the immediate focus is on the quantification of the risk to health and identification of where the contaminated ingredient is within the food system. In addition to the contaminated batch, all other batches of the ingredient are identified along with other ingredients from the source company. The level of integration of information technology supporting such “tracking back” (traceability) can vary across organisations. At the more advanced level, information on ingredients held by the supplier and buyers is shared through directly accessible systems. This can mean that

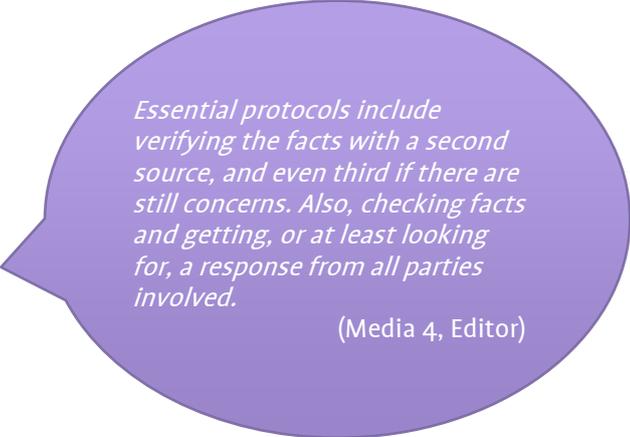
the supplier is a “user” of the buyer’s information system. This level of integration enables real-time provision of information as well as rapid corrective action processes. The implementation of the necessary actions around the food incident can be supported by software packages.

Following the company’s protocol ensures that, within the organisation, all relevant personnel are notified that there is a potential problem and are put on alert, teams are assembled and responsibility for specific activities assigned. Additionally, the protocol specifies rules on contacting suppliers and buyers during a crisis. This ensures that the company maintains control throughout the crisis; by ensuring order, the crisis team can make decisions based on best available evidence and actions are taken as appropriate.

The PR agency is also alerted and is put on notice to act on behalf of the company. Communication protocols specify who has a remit to engage with whom. Although a dedicated team decides on the steps necessary to address the risk, the organisation will “*speak through one channel*” (their spokesperson). When the possibility of a consumer health risk has been identified the relevant food agency is alerted along with the company’s customers. Using traceability data, supply of the suspected product is withdrawn. If the risk is confirmed, the company will issue a press release for its branded products; the retailer will issue a press release for own-brand products.

Similarly, food regulators and agencies follow protocols – they activate a crisis management plan when a critical food incident occurs. This plan is governed by their remit, and so they resist the pressure to comment on food incident issues beyond this remit. Their decisions must be based on evidence, and press releases and responses to the media and other stakeholders confined to facts as established at the time.

Media consider following good protocols and procedures as “good practice”, especially in relation to corroboration of a story. This practice supports other strategies (indeed principles) such as transparency, credibility and consistency. However, the nature of procedures and protocols tends to vary by type of media (for example, “pushing the edge of the legal envelope”). In addition, some journalists may feel pressurised to be first with the story and may struggle to balance accurate reporting with the need to provide “content” to an “always on” media.



Essential protocols include verifying the facts with a second source, and even third if there are still concerns. Also, checking facts and getting, or at least looking for, a response from all parties involved.

(Media 4, Editor)

Be transparent

Transparency emerges as a fundamental strategy for all stakeholder cohorts. For example, regulators issue information as it becomes available to them, so action may be taken as soon as facts are confirmed. They employ the precautionary principle (“better safe than sorry”) in considering risk to consumer health. Industry actors seek to develop strong relationships along the supply chain that will ultimately lead to transparency.

Cover-ups/wooliness reveals itself very quickly and is far more detrimental to reputation in the long-run.

(Industry 1,

them with their main organisational goal or mission.

Transparency with consumers relates to disclosure of information as it becomes known. While transparency is considered an important strategy, there is also a view that, given the complexity of many issues concerning the global food supply chain, information should be interpreted (translated) for the public. This should help the public gain some understanding of the consumer choices being made on their behalf. Regulators recognise the challenge presented to consumers in accessing, navigating and understanding multiple sources of information and advice on food safety and consumer health. For this reason, interpretation of data is a key consideration when pursuing a strategy of transparency.

It's not ideal but better than, we would never wait for the whole list of all products that are affected.

(Media 8, Journalist)

For the media, transparency relates to both their approach to journalism and their mission to highlight the issues for their audience. Transparency in the media’s approach is established through citing various sources of information to corroborate the story and presenting contrasting views and opinion. This approach seeks to demonstrate a balanced and thorough investigation. In turn, this supports the truth (or falsehood) of claims made about how the incident happened, what the motivations were behind it and where the blame lies, along with the negative impacts experienced by consumers and others.

Readers must know that they can trust the information we deliver. They need to know that it's unbiased.

(Media 8, Journalist)

PR companies are employed to ... promote campaigns, to make something as glossy as possible and sell it. It is then the journalists' job to kind of see past all that.

(Media 4, Editor)

Be credible

An important element of navigating through a crisis, from an industry perspective, is to be credible (believable).

Within this context one of the key elements to this is “to tell them the truth”. The “truth” includes what is

known and acknowledges what is yet to be confirmed. An efficient and

effective crisis response and management team working to address the

problem is key to communicating confidently and precisely. This action is

typically supported by the engagement of a PR company and allowing

relevant agencies to speak to the media on

issues relating to the crisis.

Credibility during a crisis is the

foundation upon which trust is

rebuilt in the aftermath of a crisis.

Regulators’ credibility is essential to

their ongoing activity and the position of

trust they hold. This is strongly supported by the use of scientific evidence

and impartiality in their investigations. Consumers must feel confidence that

regulatory authority has the expertise, skills and ability to respond to and manage critical food incidents, thus

protecting them and their families. Regulators are willing to assist industry in their response to a crisis (for

example, in tracing the source of the contamination); however, they will enforce the rule of law as necessary,

and communicate this to the public clearly.

As media “seek the truth” they start with the assumption that the full

truth is not presented by other actors; they consider that press

releases always have a particular angle, or “spin”. Journalists sift

through the offered version of events, questioning it until they get

an “acceptable answer” and find “the story behind the story”. This

approach builds their credibility with their audience.

I do not believe one should stand back – with nothing to hide we are best placed to provide accurate and timely information – in conjunction with independent bodies

(Industry 4, Manufacturer)

Consumers must feel confidence that regulatory authority has expertise, skills and ability to respond to and manage incidents – thus protecting them and their families.

(Regulator 2)

I don't think the public believes the company's spin ... I'm not sure I believe the cause unless it is verified in some way.

(Media 11, Blogger)

Be proactive

Industry actors adopt a risk management approach that has the primary aim of reducing and where possible removing exposure to risks. This includes supply chain management

[We] have a Quality Assurance Committee. We have annual review of protocols. We employ the "Plan, Do, Check, Act" cycle with regard to routine activities. We constantly monitor and plan for emerging issues.

(Regulator 10)

measures to identify and address failures, through quality control checks and balances, before they become an issue for the consumer. In spite of this, supply chain incidents or breaches are seen as inevitable and so mitigation and coping (crisis management) are considered essential capabilities.

Speed of response is essential to manage a detrimental situation - you won't have time to work out new communication protocols once something goes wrong.

(Industry 2, Representative Body)

Advance planning – establishing protocols and procedures – is of fundamental importance to crisis management. These help industry actors anticipate and respond to consumer concerns as they emerge. Regulators and other agencies adopt similar approaches to risk management, including surveillance and monitoring in the food supply chain. It is interesting to find that both regulators and industry seek to learn from critical incidents, to improve crisis prevention and management.

A proactive stance characterises the journalistic mission. They aim to uncover stories; when a story “breaks” the journalist will try to discover the full story as quickly as possible and will investigate beyond the spokesperson’s message or press releases. To do this, they monitor social media and other online conversations in addition to using their more traditional network of sources.

Now if you see a trend coming through, you follow that angle as well.

(Media 2, Broadcaster)

Collaborate with stakeholders

Industry actors work with buyers and suppliers, engage with representative organisations and also make use of various knowledge networks. They look to regulators for guidance and seek their expert opinion.

*... an official press release
.... They often only give
you the bare minimum ...
so it's a case of knocking
on doors and phoning
people up.*
(Media 14, Journalist)

In turn, regulators work closely with industry to trace the source of contaminated ingredients and products, and to identify the causes of food incidents (for example, by establishing a rapid response team to map the supply chain and alert consumers and other stakeholders).

Media seek to engage with other stakeholders rather than collaborate with them. Indeed, in many respects, for the media collaboration is to be avoided as it risks giving away hard-won information to their competitors.

Media engagement includes interaction through established lines such as press conferences with regulators and other relevant agencies, government departments, representative bodies and PR companies employed by industry actors. When investigating, media engage with a network of sources (including independent experts and media contacts abroad where there is an international perspective to consider). They also call on various stakeholders by phone or in person (“door-stopping”). It is essential for media to engage with stakeholders as they “can’t tell the full story without doing so”. However, they do so with a “healthy degree of scepticism”.

Be consistent

The pursuit of consistency is evident in the action and practices of both regulators and industry. Clarity on food safety and supply issues and processes enables consistency in actions and responses during a crisis. For

*Our procedures and
systems work so we
are confident in our
ability to control our
own measures.*
(Industry 3, Food
Service)

industry, testing of traceability systems and product recall approaches supports consistency in actions during a crisis; the organisation can also gain some confidence in their ability to respond effectively to critical food incidents.

Regulator and industry approaches to communication with the media also display characteristics of being consistent. Their messages are concise, while still getting the desired points across. The focus of these messages is to communicate factual information and not opinion or speculation.

In addition, using the crisis response team to manage the incident and, in the case of industry, nominating a single spokesperson on the crisis, supports consistency in what is communicated. The goal is to stay within the boundaries of core facts. Even if these are embellished (sensationalised) by the media in the development of their story, industry and regulatory actors stick to the facts as known to them.

Consistency is also supported through food supply actors “not panicking” during the initial phases of the crisis; a calm approach is possible because protocols are in place. This enables rational decision making about responses given (or not) to the diverse range of queries received during a crisis.

*Some businesses aren't
huge so they may not
know what to do. It can
be part of our job as well
to help them through it.*
(Regulator 1)

Openness, clarity and using science (what is known) to direct communication are the hallmarks of the regulators' consistent approach to dealing with critical food incidents. They maintain a clear boundary between what they will and will not comment on. Similar to the industry stakeholders, regulators deal in facts, and not opinion or speculation. A well-established set of protocols and procedures provides a strong basis for a consistent approach to decision making and communications during a crisis.

For the media, consistency is related to the principles of balanced (fair) reporting and corroboration of the facts of a story – “otherwise we won't win the trust of readers”. Editors and producers in the print and broadcast (“traditional”) media tend to play a key role in this process, in establishing newsworthiness, building the story (ensuring it “stands up”) and deciding how it will be portrayed. For example, they decide whether the story deserves a whole page or a 2-page spread, and whether to include photographs, an opinion piece from a columnist or quotes from independent experts. Legal opinion may also be sought before publishing.

The process of story corroboration is not complete without contrasting views and opinions from various sources. The challenge for the media today is in considering and consistently balancing the wide range of views that are held or voiced by an increasingly critical and somewhat cynical society, in relation to a complex global food supply chain.

I'm reasonably able to assess risk, assess percentages and all this. Unfortunately, not everybody in journalism is, and with kind of alarming things, kind of [tabloid] school of risk.

(Media 7, Broadsheet)

Part of our training was to have a least 2 sources in the story, and 2 sides; that's not always possible, and sometimes you don't need, not 2 sides but a dozen sides.

(Media 1, Broadcaster)

Educate stakeholders

Regulators take a number of approaches to informing and educating consumers and other stakeholders. A range of stakeholder discussion groups have been formed by agencies. These aim to facilitate engagement on issues and challenges associated with supplying safe food to the market, and emerging regulations. Regulators work to enable consumers to make informed decisions, by conveying clear, concise and timely messages (based on scientific evidence) that can be accessed through a range of channels. They also provide support to small and medium-sized enterprises in addressing food safety issues. Providing online resources on the range of food safety issues further enhances the transfer of knowledge.

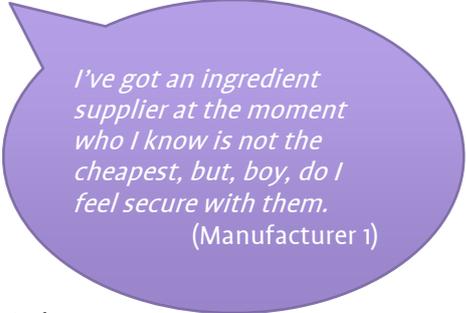
For industry, education of stakeholders is not a highly ranked strategy in or out of a crisis. However, it is important for industry to share expertise and engage in problem-solving activity with supply chain partners. In general, they see education of the consumer as falling under the description of “marketing communication” that aims to enhance consumers' understanding of food products. Industry can “inform but not educate”, and supports consumer decision making in this way.

The media also consider informing the consumer, rather than education, a key contribution of their profession. They seek to translate what are often unexciting or plain scientific statements from other stakeholders into clear and engaging narratives. They build stories that are both interesting and informative using real-life examples and experiences to connect with their audience (“a grandmother or grandfather who got sick or has concerns, or a mother with kids”) and translate scientific language into relevant and

understandable messages. The degree to which the story sparks interest and entertains rather than informs may change as the story unfolds. This may also be influenced by the nature of the story. In addition, specialist journalists raise questions about the ability of some elements of the media to translate scientific press releases accurately.

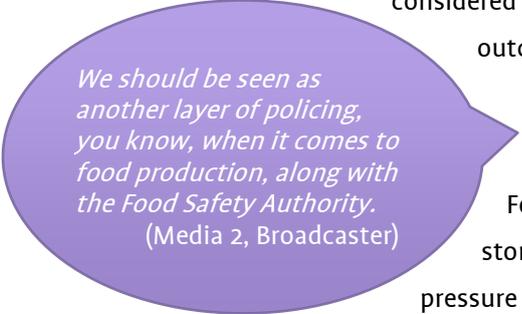
Build reputation

Reputation within the food supply chain is of the highest importance to industry, in how they are perceived and in relation to the reputation of their suppliers and customers. Reputation is not confined to transactional activity (buying and selling). It is built on behaviour and expertise displayed in a number of areas such as track record, new product development, innovation, sharing expertise, level of communication within the organisation, and frequency and content of communication. Hence it is not “just traded” but built over time. In comparison with other stakeholders, industry



I've got an ingredient supplier at the moment who I know is not the cheapest, but, boy, do I feel secure with them.
(Manufacturer 1)

considered reputation with consumers less as a strategy and more as an outcome of consistency and credibility upon which a communication platform is built, along with conventional marketing and brand building.



We should be seen as another layer of policing, you know, when it comes to food production, along with the Food Safety Authority.
(Media 2, Broadcaster)

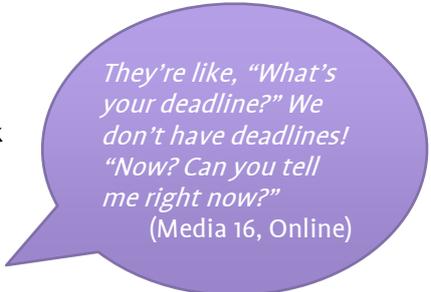
For media, their track record with regard to the integrity (truth) of stories they have covered builds reputation. This creates an ongoing pressure to uncover stories of importance to their market or target

audience. The investigative nature of journalism builds this reputation for integrity. It is characterised by pursuing the story without fear or favour and in asking questions that others may not: “The media is always looking for the negative angle, but it’s our job”.

Be responsive

The industry and regulator cohorts consider responsiveness as a key crisis management strategy. As evident from the analysis, timeliness of response is governed by communication protocols: industry confines their communication to the facts, and regulators’ communication follows on from an evidence-based decision-making process.

While good practice protocols require the media to corroborate stories, there is a conflict between the time this takes and the pressure to break the story first. This is compounded by time pressures arising from publishing stories online immediately. The traditional rhythm established by print and broadcast media deadlines (for example, the “prime time” news slot or the early edition of a newspaper) has now given way to “always on” digital media. There are various concerns within the media community regarding the temptation to take “shortcuts” when researching a story. “The real story only emerges after following all lines of investigation”, and hence there are concerns about the amount of misinformation that is spread by ill-informed writers from diverse media sources.



They're like, "What's your deadline?" We don't have deadlines! "Now? Can you tell me right now?"
(Media 16, Online)

4 Conclusions

Stakeholder goals

This analysis highlights the importance of organisational goals in responding to critical food incidents.

- Regulatory agencies are concerned with consumer protection. They have designed procedures and processes anchored in “good science” and bounded by regulation to attain this goal. Consumer trust is a positive “by-product” of focusing on this goal.
- The food industry’s goal is to minimise the negative outcomes (for health and consumer confidence) of any incident. Goal alignment between industry and regulatory agencies is evident when the incident in question is critical in nature. For industry, regaining lost trust not only depends on responses during the incident but also on trust in the brand before the incident.
- The media seek to inform the citizen or consumer of risks associated with food and will seek to attribute blame. In doing so they may act as a prosecutor pursuing the case in the public domain.
- Overall, a similar set of strategies are employed by the 3 stakeholder cohorts. However, the strategies are implemented in accordance with organisational goals and the context or situation.

Trust

All actors across the stakeholder cohorts are concerned about consumer trust. However, their organisational goals and approaches vary. This impacts on trust between the stakeholders and on consumer trust in them. While the notion of “trust” is strong among all cohorts, how this is built and developed, and with whom, also varies.

- For industry, trust relates to reputation or brand loyalty that has been established with customers or consumers. While they acknowledge that consumer trust is suspended during a crisis, they are acutely aware of how their actions during the crisis impact on rebuilding this trust in the aftermath. This suggests that trust-repair activities, although not an immediate concern, commence at the outset of the incident. Industry distrusts the media and are cautious in their interactions with them. To avoid misinterpretation of data (or delays in releasing data), industry uses PR agencies to respond to queries and keeps to a fact-based script in all communication with the media and public during a crisis. Given the ongoing importance of reputation within the food supply chain, both procedural and relational trust-building mechanisms are employed while not in crisis.
- Media see their role as seeking out the truth. Their natural inclination is towards a “disposition of distrust” that assumes the full truth has not been shared; hence they ask questions and “establish” the real

truth. In doing so, they serve their audience as an independent, truthful and reliable reporter. In enacting this role, the media need to catch and hold their audience's attention. This, together with their investigative stance, results in a strong emphasis being placed on creating an interesting, relevant narrative, highlighting risk and identifying the guilty parties. To maintain audience interest, the media introduce real-life experiences and "new angles" when building the story.

The media's appetite to probe and investigate is opposed by industry's insistence on sticking to the known facts and use of a single spokesperson as a point of contact. In this way, media's mission to establish the truth beyond the facts presented to them can place them in conflict with industry. For their part in this relationship, industry perceive media as sensationalising the facts and risks and so have developed a distrust of the media.

- Regulators are concerned with protecting consumer health. They see consumer trust in them as a "by-product" of fulfilling their role within the food system. Ultimately this approach can lead to long-term consumer trust in the food system. Industry recognises the importance of regulators as independent monitoring agents and enforcers of standards. Thus, while they express concern about the demands placed on them by regulators, industry understands the need for food safety regulation and enforcement. In addition, given that trust in the food industry is suspended during a crisis, consumer trust in the regulator is central to bringing closure to the crisis and moving on quickly. Their impartiality is key, and regulators' past history of addressing critical food incidents in an open and scientific manner provides reassurance to consumers.

Challenges

- A significant challenge in addressing any critical food incident arises from the extended and complex nature of global food supply chain structures. Mapping product and information flows in such supply chains is time-consuming, particularly with regard to minor ingredients such as spices. The challenge for industry is to put in place cost-effective monitoring and management processes that provide real-time information in times of crisis and (more importantly) support food supply chain integrity in the long term. This also strains industry's relationship with the media as delays in responding to queries invigorate the investigation and may well prolong the crisis.
- Trust can be fundamentally undermined by cases of food fraud and criminality due to the intentional nature of such acts. This type of incident is of particular concern and interest to the public and consequently can draw significant media attention. Regulatory and other agencies have a clear role to play in ensuring accountability in the food supply system. They are also vital in maintaining the checks and balances that help prevent risk arising from incompetence and malicious acts of contamination. In addition, industry need to ensure that they "weed out" offending actors in the food supply chain through sharing information on rogue behaviour.
- Media expectation of rapid responses to queries arising following an announcement or suspicion of a critical food incident presents a challenge for regulator and industry stakeholders. The scientific tests required to confirm contamination often take time. This can be taken by some elements of the media as a delaying tactic designed to protect the company. The time taken to complete traceability exercises compounds this suspicion, which can be fuelled further by non-specialist journalists reporting (inaccurately or sensationally) on food incidents. Therefore, interactions with the media must take into account the increasing diversity of

journalists and media channels with varying levels of knowledge on food systems and thus a wide range of information needs.

- While consumers and citizens are forefront in the goals and actions of all stakeholder cohorts, the focal point of the stakeholders' organisational goals varies. Consequently, each pursues their own agenda in addressing a critical food incident. Regulators adopt an independent position; media take an interrogating stance; industry seeks to identify causes and put forward a coherent, fact-based response. This results in a natural tension between stakeholders and in particular, between the media and the other two cohorts. This is because the media see their role as questioning and challenging the information provided (or not provided), on behalf of citizens. This tension, when functional, "keeps the system honest". Such investigation and interrogation, while challenging for industry, has been typically set within a code of conduct.
- In recognising this, and given developments in social media and the broader digital world, which is laden with opinion, it is likely that journalists and editors will continue to have an important (even critical) role. Increasingly this includes acting as "gatewatchers" – collecting and providing real-time analysis of digital media content (including user-generated material, citizen journalism, participatory journalism and verifiable sources) to ensure balanced reporting. In this way, the traditional function of journalism in making sense of the world is all the more important in a digitally empowered world.
- There is also an interesting interplay between the role of user content in determining newsworthiness of the story (what other people are saying online) and evaluating the credibility of this when building the story. Indeed, with the rise of development of participatory journalism, the media actors of today can position themselves to capitalise on the interest of many media users wishing to become actively involved in the story. Recognition of the evolving nature of journalism from solely a "gatekeeping" role – deciding what is newsworthy on behalf of the public – to one that also involves "gatewatching" to see what the public are already interested in (as coined by Bruns, 2005) should inform future stakeholder communication strategies.

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6 Appendices

Appendix 1

Fieldwork instrument: Industry (manufacturing)

<p>Thank participant. Introduce project. Inform them of the process. Part one is a 4 stage unfolding hypothetical scenario with intermittent questions and part two contains more general questions.</p>	
<p>Scenario</p>	
<p>Stage 1</p> <ul style="list-style-type: none"> - Your senior lab technician notifies you that they have just identified contaminated soy protein isolate during routine testing of raw ingredients. - The contaminant is potentially hepatotoxic, containing a toxin that causes acute liver disease. Medical advice suggests the toxin can be fatal in vulnerable groups such as children, pregnant women and older people. This ingredient is used in a broad range of your products. - The source of the contaminated ingredient is one of your main suppliers. 	
<p>Initial questions</p>	<p>Probes [asked if not address in core question]</p>
<p>To what extent is this a likely scenario?</p>	<p>Why? If not likely: how could this possibly occur?</p>
<p>Would this be viewed as a significant issue for your company? If yes, what are the most significant features and what would concern you most about this scenario?</p>	<p>Why?</p>
<p>How would your company respond to this information?</p>	<p>Who do you communicate with? Why? [internally/externally]?</p>
<p>What issues, if any, of public trust in the food supply chain are considered at this stage?</p>	<p>Why?</p>
<p>Stage 2a: It is now confirmed that a number of your company's products on retail/food service shelves contain this contaminant.</p>	
<p>How would this be viewed within your company, what are the most significant issues, what would concern you most about this?</p>	<p>Why? What are the potential consequences for your company at this stage?</p>
<p>How would your company respond to this information?</p>	<p>Who do you communicate with? Why? [internally/externally]?</p>
<p>What issues, if any, of public trust in the food supply chain do you consider at this stage? How are these issues addressed?</p>	<p>Why?</p>
<p>Given this development how is interaction with the media managed?</p>	<p>Who would deal with the media/ press releases in this case? Where do you source information for press releases? What details would your company focus on? What is the main goal in providing this information?</p>
<p>How do you think the media would react to this information?</p>	<p>Why do you think that?</p>

How do you prepare for such reactions?	
<p>Stage 2b:</p> <ul style="list-style-type: none"> - The FSAI now confirm that the contaminated ingredient was also used by other Irish companies and, as a result, wider product recalls are issued. The source of the contaminant is a Brazilian ingredient supplier (Ix). - Furthermore, contaminated products have been on sale from one company (Mz) for the past two months under their brands, as well as retailer and catering brands. - You have also found out that your supplier (Sy) has, in the past two months, sourced product from the Brazilian ingredient supplier (Ix) [see visual]. 	
How would this be viewed within your company, what are the most significant issues, what would concern you most about this?	<p>Why?</p> <p>What are the potential consequences for your company at this stage?</p>
How would your company respond to this information?	<p>Who do you communicate with? Why? [internally/externally]?</p>
<p>What issues, if any, of public trust in the food supply chain do you consider at this stage?</p> <p>How are these issues addressed?</p>	<p>Why?</p>
<p>How does the involvement of other manufacturing companies influence your actions?</p> <p>Would you interact with other affected companies?</p>	<p>Why?</p> <p>IF YES, what type of interaction?</p>
<p>Given this development, would your interaction with the media change?</p>	<p>Who, What & Why?</p> <p>What is your company's role in responding to the media?</p>
<p>How do you think the media would react at this stage?</p> <p>What media channels are the most effective during a crisis such as this one?</p> <p>Would this vary very much from those used in your regular interactions with consumers and the general public?</p>	<p>Why?</p> <p>Why? Are you targeting specific groups?</p> <p>What regular channels are used when not in crisis mode? [social media]</p>

<p>Stage 3 [Last stage] In continuing their coverage of the story, the media draw attention to various issues, such as:</p> <ul style="list-style-type: none"> ○ The safety of food due to global sourcing of ingredients, ○ The use of cheaper vegetable protein in meat products, ○ Ongoing developments in GM production. <p>In covering these issues, some reporters highlight what could be considered as extreme cases.</p>	
Are the media likely to react in this way?	Why? How do you prepare for & react to this?
More generally, do you think the media act responsibly when communicating on food crises? How would you describe your relationship with the media?	What do you think the media believe their responsibilities are during a food safety crisis? [Does this vary across type of media?] What is the role of trust, if any, and how do you develop and maintain this?
<p>[I would appreciate it if you would now consider a few general questions].</p>	
Throughout our conversation we've mentioned a number of stakeholders, now thinking more generally: Who are your key stakeholders (include any we may not have mentioned)? How important are these relationships? How do you build and maintain relationships with these stakeholders? What role does trust play in building and maintaining these relationships?	Why? What strategies are used in this regard? What do you do on an ongoing basis to maintain that trust? To what extent do you trust your suppliers? What does trust mean?
Do you use any specific mechanisms to maintain consumer trust in the food system on an on-going basis? What is your view of the current activities of regulators and statutory bodies in building and maintaining consumer trust?	What is their role in repairing trust? Could industry and these regulators & statutory bodies work to improve this?
What is the role of supply chain actors ¹ in: (a,b,c) What is the role of representative groups ² in: (a,b,c) a. Trust building (with consumers about food) b. Trust maintenance (with consumers about food) c. Trust repair (with consumers about food) Is it important that consumers trust you/ your organisation? ¹those producing, processing and retailing food ²those representing consumers and industry	How do you see consumers express trust in your products? Would that trust protect you during a food safety crisis where your products are not directly implicated?
What are your thoughts about current levels of consumer trust in the food supply chain? How could they be increased? What do you see your role to be in this? Returning to the media, more generally would your company use social media? Do the media have a role in contributing to consumer trust in food system? Who in your opinion are the custodians/wardens of food safety in the supply chain?	If no, why not? Are you targeting consumer groups?
Could you give me an example of a real life scare you were involved in?	
How would you like things to work between food industry and reporters/media during a crisis?	How close is this to the reality you have experienced?

Appendix 2

Member Check Survey – illustrative excerpts

Q1.1.

Welcome to the UCC member checking survey.

We are now in the second and final phase of the research project. The aim of this phase is to inform responses during a critical food incident and more generally responses to build/maintain and repair consumer trust in the food system.

Similar to phase one the data will be kept confidential and available only to project researchers. Unique identifiers will be assigned to each participant response and no reference will be made linking individuals and statements. A short report will be provided to participants post-analysis.

The survey should take approximately 20-25 minutes. It is structured in three blocks, you are asked to select an appropriate response for each question. You are also provided with an opportunity to respond in a text box provided below each question, your comments and suggestions are most welcome. Click on arrow at the bottom of each screen to bring you through to the next page and please note you must respond to all multiple choice questions before moving forward.

The first block contains profiling questions. The second block elicits agreement or disagreement and ranking of 10 strategy statements, during a critical food incident and on a daily basis. The final section asks you to identify your level of agreement with strategy and belief statements.

Please do not forget to click on final link to submit answers.

Background

Where do you currently operate from?

- Republic of Ireland
- Northern Ireland
- Republic of Ireland and Northern Ireland

What is your current role?

Which of the following groups would you mostly align your organisation with?

- Media
- Industry
- Regulation

Media_Strategy Statements

In order to uphold consumer interest when it comes to food it is important that we are transparent.

Examples of transparency:

Quote and cite information sources.

Present a range of perspectives on the story to the public.

Agree

Disagree

Unsure

If you would like to provide further comment about why you think the strategy is or is not important in your field please do so below:

In order to uphold consumer interest when it comes to food it is important that we have protocols and procedures in place.

Examples of protocols and procedures:

Presence of and compliance with standards of conduct.

Establish good practice (e.g. corroboration) and editorial rules.

Agree

Disagree

Unsure

If you would like to provide further comment about why you think the strategy is or is not important in your field please do so below:

In order to uphold consumer interest when it comes to food it is important that we are credible.

Examples of being credible:

Use accurate and well researched trusted sources of information.

Interpret scientific information correctly.

Agree

Disagree

Unsure

If you would like to provide further comment about why you think the strategy is or is not important in your field please do so below:

In order to uphold consumer interests when it comes to food it is important that we are responsive.

Examples of being responsive:
Provide timely, quality information.
Keep our readers/listeners well informed.

Agree



Disagree



Unsure



If you would like to provide further comment about why you think the strategy is or is not important in your field please do so below:

On a daily basis (not in times of a critical food incident such or food recall), what strategies do you consider most important for upholding consumer interests when it comes to food?

Please rank the following strategies in order of importance (1 being most important, 9, being least important).

Be transparent

Have protocols and procedures in place

Be credible

Be proactive

Collaborate with stakeholders

Be consistent

Educate stakeholders and consumers

Build your reputation

Be responsive

Are there any other strategies that you might consider important for upholding consumer interests when it comes to food on an on-going basis? If yes, please specify.

In times of crisis (for example during or immediately after a critical food incident or food recall), what strategies do you consider most important for upholding consumer interests when it comes to food?

Please rank the following strategies in order of importance (1 being most important, 9, being least important).

Be transparent

Have protocols and procedures in place

Be credible

Be proactive

Collaborate with stakeholders

Be consistent

Educate stakeholders and consumers

Build your reputation

Be responsive

Are there any other strategies that you might consider important for upholding consumer interests when it comes to food after a critical food incident? If yes, please specify.

Any additional comments on strategies to uphold consumer interests when it comes to food are welcome here.

7 Publications

“Responding to food scares: Using scenarios to uncover decision-making in the eye of the storm”, 20th International Symposium on Logistics, Bologna, Italy, July 5–8, 2015. [Paper]

“A matter of trust: Stakeholders’ perspectives of the consumer”, IUFoST 2016 Dublin – the 18th World Congress of Food Science and Technology. [Abstract]

“A new media landscape: Implications for managing food supply chain crises”, The Food and Drink Conference and Exhibition 2017, September 13th, CityWest, Dublin. [Presentati

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