

Participatory Governance and Institutional Innovation [PAGANINI]
Contract No. CIT2-CT-2004-505791.

Anne Loeber, Maarten Hajer

WORK PACKAGE 5:

LEARNING AFTER THE EVENT
ASSESSING THE INSTITUTIONAL ROLE OF CIVIC
PARTICIPATION AFTER FOOD SCANDALS AND FOOD SCARES

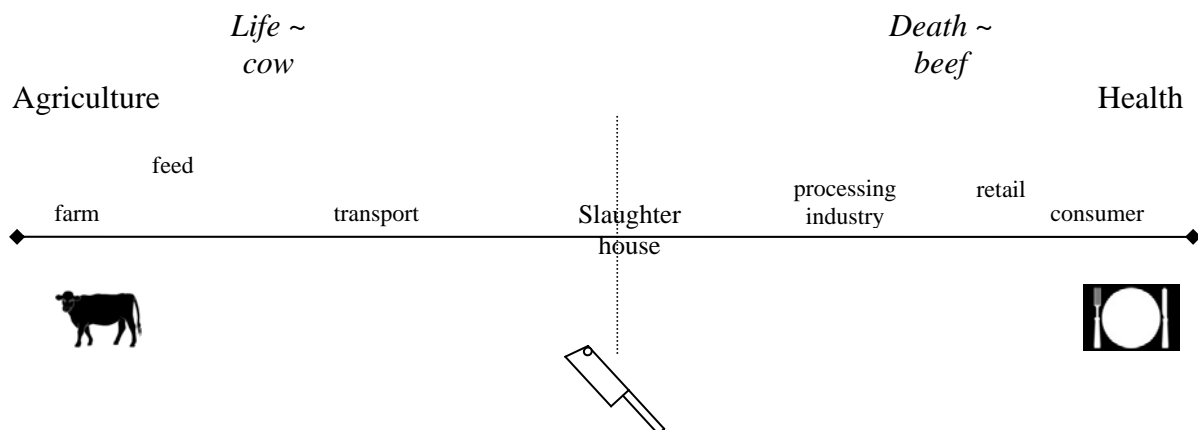
0. Executive summary	4
Acknowledgements	9
1. Introduction	10
<i>Analytic approach adopted</i>	11
<i>Observations and analysis</i>	14
<i>“Learning after the event”</i>	16
<i>Inferences</i>	17
2. The BSE-story in its contexts	26
2.1 The BSE-story in brief	26
<i>The British developments</i>	27
<i>Meanwhile on the mainland</i>	33
<i>Developments on the level of the EU</i>	35
2.2 Food as an object and product of (de-)regulatory dynamics	38
<i>The United Kingdom</i>	39
<i>The Netherlands</i>	41
<i>Germany</i>	44
<i>The European Union</i>	45
3. Food, chains and prions: the construction of food safety before and after ‘the event’	50
3.1 The ‘discursive landscape’ connecting food, agriculture and health in pre-BSE days	50
3.2 Dislocatory dynamics: scientific developments, transnational governance and BSE	56
3.3. Discursive shifts after ‘the event’: re-framing the agriculture – public health interface	68
<i>Food and the human body: food safety as a discursive novelty</i>	69
<i>Food and the environment: prions connecting agriculture to health</i>	72
<i>Food and ethics: new roles and identities</i>	78
3.4 A newly developing discursive landscape connecting food, health and agriculture	84
4. Novel institutional designs for risk governance in the post-BSE era	86
4.1 Institutional re-arrangements in the UK	87
<i>The FSA</i>	89
4.2 Institutional re-arrangements in the Netherlands	94
<i>The VWA</i>	95
4.3 Institutional re-arrangements in Germany	102
<i>The Bfr and the BVL</i>	104
4.4 Institutional re-arrangements at the level of the EU	108
<i>The EFSA</i>	112
4.5 International, private and non-governmental forces in the public field of food	114
<i>International stipulations and dynamics</i>	114
<i>Private sector regulation</i>	118
<i>Non-governmental organisations and social movements</i>	120
4. 6 Changes (and continuities) in the regulatory regime of food safety in Europe	123
5. Learning after the event: participation in governing the production and safety of food	131
5.1 Participation in oversight: democratisation of the supervision on food safety	132
<i>The FSA’s ‘openness’ policy; Open Board Meetings</i>	133
<i>Discussion</i>	138
<i>A ‘24-hours Ministry of Food Safety’ in the Netherlands</i>	141
5.2 Participation in political judgment: innovations in the production and assessment of knowledge and values in regard to governing food production and safety	144
<i>Discussion</i>	146
<i>Novelties in participatory political judgment and knowledge production: building on initiatives of stakeholders</i>	148
5.3 Food risks, knowledge production and political judgement under conditions of uncertainty: an example of ‘learning after the event’ from the FSA practice	152
<i>Making sense of atypical scrapie in the Board Meeting of the British Food Standards Agency, June 16, 2006</i>	153
5.4 In conclusion	158
6. Conclusions	162
<i>Inferences in regard to the concept of participatory governance</i>	165
<u><i>Novel modes and functions of participatory supervision</i></u>	169

Novel modes of participatory knowledge production and political judgeme.....	172
7. List of interviewees.....	178
8. References.....	181
9. Appendix A.....	201
<u>Literature review of the research field</u>.....	201
<i>Implications for the present research project.....</i>	<i>204</i>

0. Executive summary

This research project focused on the institutional response to the emergence of so-called ‘mad cow disease’, Bovine Spongiform Encephalitis (BSE). It investigated the changes (*and* continuities) in the regulatory regime of food production and consumption in four ‘regulatory nodes’, the UK, the Netherlands, and Germany, and the EU. BSE was shown to be the starting point of waves of reform, in the UK and elsewhere. Contrary to the academic literature we found no evidence of a ‘break away’ from the old regime. We argue that the re-arrangements in the food safety regime that resulted from the management of BSE should be interpreted as the expressions of ‘a system repairing itself’. Moreover, we argue the institutional innovation should be understood in conjunction with broader dynamics such as privatisation and globalisation, and a re-appreciation of the concept of ‘the public’ and of what counts as relevant *and* legitimate knowledge in the policy process.

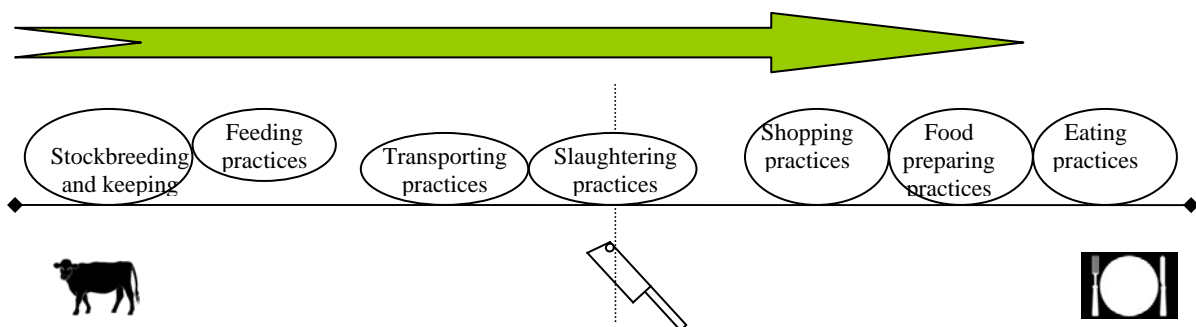
From sector to chain process. One of the most fundamental changes that occurred was the break with a sectoralised approach to food safety. BSE, for once and for all, put the interconnection between what previously were the domains of ‘agriculture’ and ‘public health’ on the policy agenda. After BSE this was conceived of as an interconnected ‘food chain’.



Post-BSE food chain conceptualisation: 'from farm to fork'

After BSE the 'food chain' metaphor became the dominant way of framing and organising food safety issues. Indeed, 'farm-to-fork' discourse was the basis for the institutionalisation of EU policies. Hence BSE led to a 'fusion of discursive horizons' in the fields of food production and food safety.

From bureaucratic control to public supervision. 'Farm-to-fork' discourse emerged for managerial reasons. Following the food crises 'tracing and tracking' was high on the agenda. Yet we show that this also led to an opening up of the closed management system to consumer concerns.



The food chain: inescapably involving the consumer to consider ethical aspect of agriculture

The influence of the public made itself felt discursively as the ethical themes became part of policy making concerns. This 'mainstreaming' of public concerns was facilitated by the fact that the public got more opportunities for 'public supervision' of decision making processes post-BSE. In all four regulatory nodes we see the creation of new possibilities for citizens and consumer groups to 'track and trace' decision making, whether it are the open board meetings of the British FSA, the Dutch

'consumer platforms', the Dutch/German internet debates, or the live streamed board meetings of the EFSA scientific committees.

BSE as a 'dislocation' of institutional practice. The institutional innovations should not be attributed to BSE only. Yet BSE was a more powerful 'dislocatory event' in comparison to other 'food scares' e.g. salmonella, dioxins or animal diseases hitting the agricultural sector (Food and Mouth disease, bird flu). We argue this was, first of all, because BSE was a 'zoonosis': an animal disease that potentially 'travelled' to humans. This strongly disrupted the institutional set up of treating agriculture and public health as separate domains. Furthermore BSE was a fundamental challenge because its pathogen agent ('prions') seemed to escape the analytic tools available for assessing and managing food-borne diseases. The prion hypothesis provided hardly any stepping stones as to how to proceed. BSE did not fit in the dominant outlook on pathogens and their routes for transmission, and thus escaped the analytic tools available for assessing and managing associated risks all together. Secondly, BSE exposed the limits to the existing risk assessment and risk management systems that were not only organised sectorially but also nationally. After BSE risk assessment and control procedures came to be organised at a horizontal level (across governments, government departments and agencies) and across multi-level policy arrangements (between member states and the EU). This is now institutionalised in the 2006 EU Food Law.

Institutional innovations & participatory governance. The research brought to the fore many institutional and conceptual innovations. The relevant policy question for us is how the new institutional arrangements allowed for more public participation. We argue that several new arrangements first and foremost functioned to *broaden the scope and range of opportunities for varieties of people to 'speak legitimately' within the context of governance.* This works two ways: they allow for a broadening as well as a strengthening of the legitimation basis to governmental action

which previously was provided solely via the involvement of representative bodies such as Parliament. This broader legitimacy base we label 'throughput legitimacy'. In light of the complex transnational entanglements of food production and the thus inherent complexity of safety policies, we recommend a further analysis of the ways in which this throughput legitimacy can be extended. The more so as food has become a truly politicum after the BSE-crisis. We observe the strong manifestation of a *discourse of moralisation* which upsets the logic of policy making as separate from public involvement.

Interestingly, we observe how it is notably *European* food-related policy, elaborated from a public health and consumer perspective, that opened up possibilities for public concerns over issues such as animal welfare, 'ecological' versus 'industrial' food production techniques and food safety to get their expression both in policy discourse and in binding policy making measures. Metaphors such as 'farm-to-fork' or 'food chain' became policy concepts organising regulation as well as shaping new policy discourse. At the same time we point at the fact that all policy measures were informed by the (continued) desire to organise food safety control on the basis of 'sound science'.

The future of the governance of food is not in simply creating 'more' possibilities for citizens to engage in policy deliberation. While it is most certainly true that the sector is in need of strong regulatory attention (especially given its fully transnational make-up), the challenge is to create the conditions under which experts, politicians, stakeholders and the public can create optimal co-operation in a mutual control and knowledge production. We think institutional innovations such as the open access to the meetings actively 'produce' citizenship while engaging experts in science-based, policy-oriented deliberation. Similarly, it creates a setting in which individual firms have less possibility to evade control as being seen (post hoc) to try and cheat the system can lead to severe 'punishment' by an increasingly powerful citizenry. The phenomenon of 'citizen on stand-by' (cf. Hajer 2003, Verhoeven, 2006: 87; compare

Schudson, 1998), is a powerful force *even* when these citizens are *not* watching the show. It is a mode of political participation that enables them to switch to the mode of 'citizen', as soon as they feel triggered to be involved. The described activities to enhance transparency may be considered events that help individuals choose their moment and subject for "becoming politically active". We suggest that the idea of an extended legitimacy of regulation is in developing this idea of a 'throughput legitimacy'.

Acknowledgements

This report was written by Anne Loeber and Maarten Hajer. The authors are grateful to all those who so generously agreed to be interviewed in the context of this project. The project in its early stages benefited from fruitful discussions on BSE and food safety regulatory change with Katharina Paul, ASSR PhD candidate at the University of Amsterdam; the authors are grateful for her co-operation in sharing interview data on the German case. The authors furthermore are much obliged to dr. David Laws, MIT/University of Amsterdam, for kindly sharing his expertise and creative thoughts in joints reflections on BSE and the democratisation of food safety control on various occasions throughout the duration of this project. In addition, they thankfully acknowledge the assistance in the transcription of interviews and the collection of research material by Chantal Laurent, Sander van Haperen and Wytske Versteeg.

1. Introduction

This research project takes the so-called mad cow disease, Bovine Spongiform Encephalitis (BSE), as a point of departure to investigate the changes (*and* continuities) in the regulatory regime of food production and consumption in Europe in the decades that have passed since the disease's clinical signs were first noticed in 1986. Inquiries in this project focus on the food regulatory regimes of the UK, the Netherlands, and Germany, and the EU (referred to as regulatory nodal points). With 'regulatory regime' we refer to the *discourses* dominating the governing practices in the public energy fields of food production and consumption, as well as to the *institutional arrangements* in which these discourses crystallised over time.

The BSE story itself is as well-known as it is complex. Numerous publications on the novel brain disease have transpired in the odd 20 years after its first identification. Regardless of the specific perspective endorsed, all of these speak of what may be considered the factual backbone of the story: how the first clinical signs, observed in cows in Sussex, United Kingdom in 1986, alarmed farmers and puzzled scientists; how considerable time passed before scientists and policy-makers were able to develop an understanding of the disease and its causes that enabled them to potentially formulate policy measures; how these were long in coming since the UK government's policy on the issue for a long time centred on the message that British beef was safe to eat; and yet how in 1996, in the face of mounting evidence to the contrary, the Secretary of Health had to publicly announce that there was a possible link between BSE and a newly found variant of the human equivalent of the brain infliction, Creutzfeldt-Jacob Disease (nvCJD). The ensuing public turmoil and the varieties of steps taken to deal with that unrest as well as with BSE as such, both in the UK and on the European mainland have been the topic of many analyses, in particularly from a political science perspective (see Appendix 1 for a literature overview).

In retrospect, BSE is viewed by many as the starting point of waves of reform, in the UK and elsewhere, which came out in specific institutional re-arrangements and in processes of re-framing food issues. To be sure, BSE was certainly not the sole instigator of these developments. In different countries, moreover, its 'first pebble in the pond'- status is rivalled by other agricultural mishaps, such as by the 'dioxin crisis' of 1999 (when large amounts of carcinogenic dioxins were found in chicken and pig feed) in the Netherlands (Laurent, 2006). Yet, BSE served as a catalyst and prime mover with regard to many of the changes that surfaced since the 1990s. One particular characteristic that makes it stand out is that in contrast to other outbreaks of food-borne diseases such as Salmonella, or cases of large-scale food and feed contamination, BSE did not fit the dominant outlook on pathogens and their routes for transmission. This caused the phenomenon not only to pose a problem to policy-makers vis-à-vis food production and consumption practices, but to regulatory science as well. BSE is particularly of interest because of its capacity to defy existing regulatory frameworks. In that light, it presents a relevant case to the PAGANINI project which set out to investigate processes of governance and institutional innovation in policy areas concerned with dimensions of life and nature that are, because of their socio-political, moral *and* technical complexity, only to a limited extent under human control.

Analytic approach adopted

Conducted as part of the 6th EU Framework Programme for Research and Technology, the PAGANINI project – on Participatory Governance and Institutional Innovation – subscribes to the idiom of (scientific and political) 'co-production' (Jasanoff, 2004) as a relevant mode of thinking systematically about the ways in which human beings come to grips with their world (cf. Loeber et al, 2005). In line with Jasanoff's (2004, 2005) framing of late-modern society's disturbances as crises in the production

of political and scientific authority, the BSE-story told here is one of a 'dislocation' (Laclau 1990; cf. Paul, 2005) of dominant discourses.

The developments following BSE's first construction as a disease that potentially affects both cattle and humans are here presented as series of moments of epistemological and regulatory uncertainty. In such moments of dislocation, the usual, taken-for-granted modes of thinking about nature (food, cattle, meat) are quasi-lifted out of their hinges. At such times of dislocation, we argue, claims will be made that the existing institutional order is unable to deal with the newly emerging issue. Whether or not such dynamics set in motion a 're-ordering' of the regulatory regime depends on the concrete interaction in such times of dislocation, and is the object of empirical investigation.

In the empirical research, a discourse-analytic approach is adopted. Approaching an issue in terms of discourse implies a focus on the way particular 'occurrences' become 'events', and are loaded with meaning. This research of the way in which meaning gets produced is crucial for understanding to what extent a particular regulatory regime is challenged by a particular occurrence. Rather than seeing a sequence of events such as those following the initial observation and naming of BSE as a 'given' that has to be explained by an additional, meta-discursive framework proposed by the researcher, the research treats these events as a series of situated practices in which the discursive categories by which BSE was made sense of, were constructed. The focus of the research hence is on the sites where the discourses underlying the food regulatory regimes become manifest, and where the immanent conflicts between the constructed discursive categories are expressed. The settings where these manifestations occur themselves are considered of relevance as they form the stage where the act of politics, in both scientific representation and policy framing, is performed. The stage co-constructs both contents and participants (it transforms actors into participants) as it e.g. enables some to speak with influence and renders the contribution of others as less significant or even beside the point. Likewise, it allows the utterance of

some types of arguments with influence and often inhibits the formulation of others.

Cultural and organisational differences between nations produce different settings, and therewith different 'risks' and different modes of risk assessment and risk management. It is important to note, therefore, similarities and difference in the contexts of the three countries discussed here (the UK, Germany and the Netherlands). Aspects such as 'national styles of regulation' (Vogel, 1986) or styles of using scientific expertise (Renn, 1995) are not of relevance as a mere backdrop against which the phenomenon of BSE presented itself. Rather, BSE and the risks involved in its manifestations were constructed together with the way in which in a country science and politics interact.

Observations and analysis

What has come to the fore through adopting a discourse-analytic approach is a story about how BSE disrupted the existing food regulatory regimes in the EU. Moreover, what used to be by and large indirectly related regimes of regulation became more linked through the way in which the BSE phenomenon was approached. BSE heightened the awareness of the cross-sector nature of food and food safety issues. The report claims it did so, basically, in two ways. Firstly, it made governments fail to live up to the 'promise of control' implied by the institutional arrangements designed to ensure food safety, and stirred public awareness of that failure. Secondly, it fundamentally challenged the categories, standards and procedures by which the practices of food safety control were given shape. After all, as BSE did not fit in the dominant outlook on pathogens and their routes for transmission, it escaped the analytic tools available for assessing and managing associated risks all together. Furthermore, it brought to the fore that risk assessment and control procedures at a horizontal level (across governments, government departments and agencies) and across multi-level policy arrangements (between member states and the EU) did not match.

With the ensuing introduction of uncertainty (the possible fallibility of control) into the domain of risk management (which is based on the calculable and hence controllable probability of danger), BSE contributed to an opening up of the regulatory regime. Firstly, it contributed to the creation of entry points for actors who did not traditionally have access to the strata involved in governing food safety. With these, other 'regimes of justification' (cf. Boltanski and Thévenot, 2006) than the usual 'sound science' principles – although these did not themselves lose their justifying power – found a place in deliberation practices on food safety. The report discusses how with the introduction of non-state actors and extra-scientific considerations in the formal arrangements for the governing of food safety (notably in the UK), the prevailing classical-

modernist vocabulary of neutrality and rationality was first challenged and then over time changed.

Secondly, in line with these dynamics, BSE contributed to an opening up of the regulatory regime by unsettling the institutional framework that had been called into being during the 20th century for dealing with the public aspects of the production and consumption of food. The framework was, and still is to some extent, characteristically divided into a series of arrangements set-up to deal with agricultural production, animal health and veterinary care on the one hand, and a set of arrangements for dealing with human health, food safety and food-borne disease management on the other. It was precisely this institutional differentiation between the – predominantly agricultural – regime of meat production on the one hand and the regime of health policies on the other that allowed BSE to go unnoticed for so long. BSE highlighted that the distinction between the institutional arrangements for dealing with agriculture and public health coincided exactly with the boundaries set between life (livestock) and death (meat). As a zoonosis, that is, an animal disease that may affect humans, BSE impacted both spheres – agricultural production and public health – and set in motion a landslide in the organisational landscape. More than any economic or managerial consideration about ‘chain management’ had been able to do before, BSE notably emphasised the need to gear both parts of the institutional framework towards each other. The institutional changes, it is posited here, reflect and feed into the discursive dynamics at play in the field, characterised by a struggle for hegemony between what is here referred to as a ‘rationalisation discourse’, which roots in the human health side of handling food, and a ‘moralisation discourse’ which originates in the agricultural side of dealing with food production, where it rivalled the technocratic rationalisation discourse that long dominated the agricultural field.

“Learning after the event”

These two developments – the opening-up of the regulatory regime to non-state actors and non-scientists on the one hand and the re-arrangement of the institutional settings regarding agricultural production and human health on the other – make the BSE / food scares case link together the two core themes of the PAGANINI project: ‘participation’ and ‘life’. It is in view of this connection, that institutional innovations that took place in the aftermath of BSE’s first framing present a relevant topic in this research project.

The institutional changes that took place to some degree enabled citizens to play various roles (consumer, stakeholder, expert, vigilant, and so on) in the formal organisation of the deliberations on food, food safety and food production. The ways in which such civic participation became organised varies largely among countries, institutional fields and topics. Sometimes participation was organised in a stand-alone, one-off event such as in the ‘debate on the future of food’, a joint effort of the Dutch and German ministries of agriculture in the fall of 2001. Sometimes the involvement is more structural, e.g. having been made a constant factor in the organisation of political judgement on food safety in the UK.

While the differences between the instances of civic participation that took shape in the aftermath of BSE are immense, they all involve ways for transforming meanings and identities that are a supplement to, or – as was the case in the UK – to some extent a replacement of the then regular modes for ordering food safety control. The description of the quintessence of what happens in terms of the transformation of meanings and identities refers to the definition of *learning* provided by Wenger: “As we define [our] enterprises and engage in their pursuit together, we interact with each other and with the world and we tune our relations with each other and with the world accordingly. In other words, we learn” (1998: 45).¹ Emphasising that learning is a way of doing, of acting and interacting collectively, Wenger points out that it always takes place in a

“historical and social context that gives structure and meaning to what we do” (1998: 47).

The changes in the social context as well as the changing processes of meaning giving in the post BSE-area, and the ways in which these interact, are a focal point of attention in this project. The learning that took place ‘after the BSE event’ (the title of this research project) was an expression of, as well as an incentive to, the institutional dynamics that unravelled in the four regulatory nodes under scrutiny here (the UK, Netherlands, Germany and at the supranational level of the European Union), and was equally a manifestation and cause of the changing discourses dominating the governing practices involved. The title of this research project then refers not to ‘the’ lessons learnt from the BSE-episode (or any other particular food scare) as such. Rather, it points at the changing modes of acting and reflecting on food safety issues, and the changing contexts in which that was done. While mutually shaping one another, some of these ‘precipitated’ as institutional innovations.

Inferences

So how to make sense of the developments described? Three threads run through our report. **Firstly, the report argues that given its ‘defiance and escape’ from state-organised food safety control, BSE stroke at the roots of the existing ‘biopolitical’ ordering of society.** The ‘incarnation of reason’ in state-formation (see Work package 1, Loeber et al. 2005) and in the dialectic between state and science that characterises Modernity (the historical period starting with the introduction and societal application of the insights of modern science in the 18th century) was seen to fail. The rationality incorporated in the then-current arrangements for food production and safety control proved insufficient to protect life (of both humans and cattle) and BSE at the time indeed seemingly entailed a promise to take thousands of lives.² As a result, *the institutional arrangements for governing the public consequences of food production and consumption themselves became the object of political conflict*, which

culminated particularly in a re-designing of food safety regulatory settings.

With these changes – which were produced by various types of dynamics among which but not solely BSE and other food scares – the historically grown relation between the individual and the state changed significantly. In this particular relation, which according to Foucault developed from the 18th century onward, the latter was characteristically focused on administering and optimizing the individual human body, and on the management of populations (hence the phrase ‘bio-politics’). With the experienced loss of control of ‘society’ over ‘nature’, e.g. in the face of BSE, the ‘disciplining’ of bodies and populations involved in bio-politics, such as through food policies, changed. As a zoonosis, BSE was seen to cut through the classificatory schemes that modernist institutions use to routinely separate the realm of the animal from that of the human. Beyond the concrete implications this had for the institutional framework by which the governing of agricultural production and public health was organised, it fundamentally affected the practices of separating the ‘natural’ from the ‘social’ by which the modern world is produced (cf. Latour, 1993, 1999). As the act of classification profoundly shapes human relationships with the natural world (Oerlemans, 2002), the events created room for a redefining of the balance between various discourses at play. Interestingly, this resulted simultaneously in a re-emphasising of the distinction between fact and value (science and politics), e.g. in the newly institutionalised approach to risk on the level of the EU (separating risk assessment from risk management), as in a growing appreciation of the idea that, in the words of Jamison and Wynne, (1998, p.9) “the natural and the human are inextricably intertwined and mutually defining.” To this development speak the increasing attention for such diverse topics as animal welfare, nutrition and well-being, and the moral responsibility of taking care of ‘planet earth’ and future generations – dynamics often captured with the phrase ‘sustainable development.’

Secondly, in spite of these developments and BSE's 'dislocating' qualities, basically food safety was and – 20 years after the first identification of BSE – still is being treated in terms of the original regime, namely on an essentially scientific, modernist basis. 'Sound science' as a source of legitimate and effective state activities in regard to food safety control is, as said, actually re-emphasised. At first glance, the dynamics set in motion by the BSE phenomenon and other food scares may be designated as the mere expressions of 'a system repairing itself'. Yet taking a closer look, the resilience of what have been designated 'high modernist institutions' in the theoretical discussion informing this research project (PAGANINI'S Work package 1; Loeber et al, 2005) is apparently derived largely from *a new governance logic that is being developed in- and outside these institutions*. While there is no evidence of an entire 'system innovation' that overhauls all modernist practices and institutions in the field of agriculture and public health, there is ample evidence of new and innovative approaches to governing life-political issues under early 21st century economic, ecological and geo-political conditions.³

The ways in which the regulatory regimes were innovated differed between the countries studied. It is observed that the differences between the UK on the one hand, and the Netherlands and Germany on the other hand may be explained by the extent in which the BSE issue was framed. In the UK, BSE was cast in terms of a 'secrecy / trust' discourse whereas in both the Netherlands and Germany, the issue is embedded in a 'scientific evidence / 'voorlichting' (extension / informing the public) discourse. This may account for the differences found in the characteristics of the institutional innovations that took place in all three countries after the BSE events. In the UK, these innovations entailed a far-reaching institutionalisation of novel participatory practices in processes of political judgement on food safety issues, whereas in the Netherlands and in Germany the institutional re-arrangements in contrast involved a move towards a further emphasising of risk assessment in regard to food safety as an essentially *non-political* activity.

Interestingly, while the ensuing emphasis on microbiological food safety points at a strengthening of the bio-political ordering, it is worth noting that the disciplining through microbiological food safety policies is increasingly the responsibility of private sector parties rather than the state. Food production and consumption issues are increasingly driven by private sector regulations. The dynamics of globalisation and privatisation trigger questions about the legitimacy basis for social ordering ('disciplining') through food policies ('who are you to meddle with my food?') and food-related knowledge ('who are you to tell me what is right, or healthy?').

Thirdly, consequently, even though the BSE-event did not imply a fundamental break-away from the high modernist approach to governing food and food safety, some major dynamics were set in motion at the four nodal points investigated in the context of this research. We observe increasing diversification:

- There is an observable tendency towards enlarging the regulatory sphere through including non-state actors in arrangements for food-related risk assessments and control, and through including extra-scientific views in processes of political judgement as a source of legitimacy for governmental action. This is observed notably in the UK;
- In the practice of food safety management and communication the multiple rationalities of consumers are increasingly acknowledged. Rather than as a trait inherent to a particular quantity and quality of foodstuffs, risk is now more and more being conceptualised as a resultant of a specific combination of food-based pollution with specific consumer-related characteristics (e.g. age, or genetic disposition) and group-related consumption patterns and ways of life;
- A lesson drawn from these dynamics – as is done e.g. by the British Food Standards Agency – is that consequently, not only risk communication but also risk assessment must be diversified.

There remains a local differentiation but it goes hand in hand with a transnational convergence ('Europeanisation') of other aspects:

- The case material shows that the harmonisation resulting from EU intervention does *not self-evidently lead to a standardised understanding* of (BSE and other food related-) risks, *nor to similar arrangements for food safety control*; the implications of the BSE event and other food scares and 'crises' in the final decades of the 20th century among the countries under scrutiny are quite diverse.
- Yet in spite of the many differences between the countries and their food risk control regimes, we can observe an *increasing convergence in the approach to dealing with food-related risks and uncertainties*. This is very much a result of intensified interaction in the European Union notably among the experts professionally involved in the assessment of food-related risks.

We also see changes in the realm of participatory governance and citizen – expert interaction:

- While citizen involvement and expert involvement are traditionally often seen as a zero-sum trade-off when it comes to enhancing a society's democratic quality⁴, the material collected here suggests that the food crises have led to meaningful interactions between citizens and experts in various novel ways, notably in the UK (in regard of food safety) and the Netherlands (in regard to agricultural practices). While in the UK notably regulatory science vis-à-vis food safety has developed towards more society-oriented practices, in the Netherlands in particular a democratisation of the deliberations on the future of agriculture, and on specific agricultural practices in the light of the concept of sustainable development is observable. Organised through varieties of specific projects or joint efforts of research institutes, farmers and other stakeholders who focus on rural dynamics, interactions between scientists, policy-makers, citizens and other

professionals come to bear on agricultural policy to such an extent that one may speak of governance in view of agriculture as taking place in series of society-based practices.

- o The sheer variety of designs and combinations of actors in which these interactions take shape defy the attempts, so commonly practiced in the literature on public administration and policy analysis (e.g. Arnstein, 1969; Pröpper and Steenbeek, 1998; Van der Heijden et al., 2007) to capture these in 'ladders of participation' or other taxonomies of actor-roles and 'ownership' of the deliberations and their outcome. Rather, the observations urge us to reconsider the very grammar used to describe participation in governance. The findings from the empirical work lead us to conclude that post-BSE innovations in the food safety and agricultural regulatory regimes under scrutiny come out notably in *new types of participatory knowledge governance* which are observed to serve particular functions: a) a democratisation of oversight, that is, of the 'public scrutiny' of political judgment and decision making, resulting in what is dubbed here 'throughput legitimacy'; and b) a democratisation of processes of political judgement involving knowledge concerning food production and food safety, by which characteristically varieties of knowledge bases (scientific, professional, experience-based e.g. by consumers, etc.) are juxtaposed (rather than opposed) in the deliberations on these issues (thus acknowledging what is called here the "dissilience of knowledge"). The first type of participatory governance are thought to contribute to an increase in the legitimacy basis for governmental action, the second type in the development of 'robust' practical knowledge.

Main lessons drawn are that these developments are to the advantage of *the quality and 'resilience' of governance*. The 'British model' (having

consumer members to sit on scientific advisory boards, being transparent about the way scientific advice is processed into political judgements *and* being open about possible conflicts of interests) as well as the Dutch experiments with 'learning for a sustainable agriculture', however diverse, indicate that society-oriented and society-based practices of participatory (knowledge) governance

- do not detract from the advantages of an expert-based model of policy advice; yet
- are conducive to learning, by allowing a confrontation between the scientific rationales in expert-led advice with other, extra-scientific rationales endorsed by non-scientists and non-state actors involved in the deliberations;
- enable democratic control on the accountability of those involved in processes of political judgement and of the legitimacy of their claims;
- offer a practical option for breaking away from the oligarchic tradition of interest-group consultation in discussing policy-advice with societal actors;
- enable 'bystanders' and observers (among them experts themselves) to recognise themselves as manifest publics.

Observed is that in regard to food safety control *the issues of responsibility and accountability present a major problem*: the traditional role of governments of guaranteeing a secure and safe food supply to feed a nation's population is at odds with the shifting balance between public and private control of food safety and food quality. The decreasing institutional 'thickness' that results from processes of privatisation (themselves derivatives of a neo-liberal agenda) implies a diminishing 'institutional buffer' to absorb the waves of shock and public outrage that occur in the wake of yet another meat scandal or food scare. It is found that the increasing tendency towards 'transparency' yet, through the

dynamics described, which result in throughput legitimacy, may make up for the loss of resilience resulting from that.

In line with the above, the British approach to risk assessment and management appears to have a noticeable *dampening effect on media hypes*: various ‘occurrences’ that might have become media ‘events’ following the institutionalisation of the FSA did not create loud media coverage.

In that light too, it is interesting to note that as policy-relevant knowledge on food production and food safety is produced in the interaction between scientists and non-scientists (among them policy-makers) – and the knowledge’s authority finds a footing and a basis for legitimacy in extra-scientific aspects of its production process – issues of *accountability and legitimacy* take on an additional layer of complexity *in a multilevel governance* setting. At the root of this complexity is the notion of scientific uncertainty, that is, the acknowledgement in scientific knowledge production that our ability to know risks and capture them analytically is limited (cf. Laws and Hajer, 2006: 418). BSE among other events appears a major force in making scientific uncertainty a constitutive characteristic of food-oriented regulatory science and thus in enhancing reflexivity about the conditions under which truth claims are produced (Beck et al, 1994). Indeed, the idea underlying both the British FSA approach and in the Dutch ‘learning for sustainable agriculture’ projects is that the better knowledge is linked to the particulars of problem owners in a specific place and time, e.g. through the involvement of consumer representatives or farmers in knowledge production, the stronger its claims to truth as well as relevance (cf. Nowotny, Scott and Gibbons, 2001).⁵ Yet an emphasis on contextualised and localised knowledge in national policy-making stands on a tense footing with the need for universalised knowledge demanded in transnational policy-making (e.g. as in the context of the EU body for risk assessment, the EFSA), which continues to build on the principles for

guaranteeing academic quality as a basis for its legitimacy. Consequently, *scientific uncertainty and multilevel governance appear to be mutually shaping*. The conflicting imperatives in knowledge production (via a temporal and a spatial dimension) affect not only the room for manoeuvring of individual member states in view of EU policy developments but also challenge the authority of a policy's knowledge base.

A lesson drawn from the above may be that in regard to the design of arrangements that are intended to give shape to the ambition of more 'participatory' governance, *the legitimation issue* (rather than efficiency-related ambitions regarding the abatement of a knowledge deficit or an implementation deficit) should be the *dominant concern*.

These conclusions and inferences are elaborated in more detail in chapter 6 of this report. They are based on an account of the BSE-story, presented in chapter 2, that is told and analysed from the perspective of the discursive categories in which BSE was talked about, and its 'dislocatory power', that is, its ability to upset the dominant framing of zoonoses (chapter 3), from the perspective of the institutional re-arrangements following the dislocation of hegemonic discourses (chapter 4), and from the perspective of its implications for governance and in particular for the various manifestations of 'participation' therein, some of which resulted in institutional innovation (chapter 5).

2. The BSE-story in its contexts

In March 2006, the EU issued a press release announcing the lifting of a ban on the export of British beef.⁶ This decision may be considered symbolic of an overall regulatory victory over the cattle disease Bovine Spongiform Encephalitis (BSE), which led the EU to impose the ban exactly 10 years before. Interestingly, in the same month another EU press release spoke of the increasing suspicion of the occurrence of “BSE in sheep”. Even though the tests set up in the context of an EU-wide surveillance programme on ‘transmissible spongiform encephalopathies’ (TSEs) in ruminants was yet to be completed, the press release said: “Whatever the final test findings show, there is no risk to public health, as the sheep did not enter the food and feed chain and strict animal health measures are applied to all farmed ruminants.”⁷ While it was the same laboratory which had first coined the name ‘BSE’ in 1986 for some unusual degeneration of cow brain tissue, and the reassurance with regard to possible public health worries sounded quite similar to the original public statements in view of the cattle disease. Are we back to square one? We think not. The world of food safety is radically different from the one that was faced with the ‘BSE-scare’ 20 years earlier. The first part of this chapter presents the BSE-story as it unfolded in that period. The second part discusses the ‘contextures at work’ at the time, which influenced and co-shaped the BSE-events, and which in turn were influenced by the BSE-affair.

2.1 The BSE-story in brief⁸

In December 1984, UK farmer Peter Stent contacted a vet in Petersfield, Hants, as he worried over one of his cows. “She’d lost weight. She was looking unwell and her back was up in the air”, the vet later said in a BBC-series called ‘Mad Cows and Englishmen’. The vet thought the situation “really spooky” as the problem seemed to spread to other cows, and there was no response to treatment.⁹ After loosing 9 of his cows, the farmer sent the 10th victim to a local ministerial laboratory, from which the cow’s

head was sent to the Central Veterinary Laboratory (CVL) in Weybridge. The junior pathologist on duty that day was “excited” to find indications of spongiform encephalopathy in the material under her microscope (tiny holes in stained sections of the brain): “What was exciting that this was in a cow.”¹⁰ The supervising senior pathologist who later had a look at the material in contrast did not make a connection with scrapie, and he put the observed anomalies down as resulting from toxic poisoning (cf. Phillips et al, 2000 [BSE-inquiry] vol. 3, pars 1.7 to 1.17). Much later, in November 1986, this pathologist, Gerard Wells, was the first to write about a possible “bovine variant of scrapie”, a report he drew up in view of an outbreak of some unknown disease in cattle in Kent. In this report, the findings from the Stent farm cow however were not mentioned.

The British developments

Officials at the Ministry of Agriculture, Fisheries and Food (MAFF) were first informed unofficially through conversations between the veterinarian experts in Weybridge and related research institutes, and civil servants of the Animal Health Division of MAFF. The Under Secretary for Animal Health at the time later stated:

I first heard of BSE in December 1986 ... [i]n the course of briefing ... on current issues ... [A]pparently [the vets had] discovered a new disease. This disease had as yet no name, and very little was known about it. Only a very few animals had been found to be infected. The vets were trying to establish the nature of the disease but it was clear nothing could be done until more had been learned. ... By early June it was felt enough was known to make it possible to report to Ministers. ... The record of [the] meeting and [underlying] minute of 5 June bring out clearly the tension between on the one hand concern to stop the disease in its tracks and on the other hand the need to avoid action which might prove disproportionate to the problem. Disproportionate action could not only inflict serious damage on the UK's valuable export trade but could also expose the Ministry to a legal challenge (Cruickshank, oral statement to BSE Inquiry 12/06/98, quoted in Phillips et al 2000: Statement No 75 - www.bseinquiry.gov.uk/files/ws/s075.pdf).

The minutes referred to here, was a paper of June 5, 1987 written by the Chief Veterinary Office at Weybridge, Rees. The paper posited that “[t]he Secretary [of State] will wish to be aware of this development since the disorder could have potentially serious implications, not only domestically but for UK exports” (Rees 1987; cited in Van Zwanenberg and Millstone

2005:83). Meanwhile the issue was being discussed among scientists in the UK and elsewhere as well, and several hypotheses as to the nature and origin of the disease were advanced. An exchange of laboratory material between Weybridge and the Neuropathogenesis Unit (NPU) in Edinburgh led the latter to conclude in October of that year, that the brain lesions found in the affected cows were the results of a “prion disease”, a family of afflictions to which scrapie in sheep and a degenerative brain disorder in humans, Creutzfeldt-Jacob Disease also belonged (for a further discussion of the prion-concept, see below).

Characteristic of the class of diseases grouped under the heading of the prion hypothesis is that very little is known about the supposed pathogenic agent, the way in which it conveys information from cell to cell and the means and patterns of its spread. Scientific uncertainty as to the possible implications for human health was sufficient reason for the officials of the Ministry of Agriculture to not inform their colleagues at the Department of Health (DoH) immediately:

We discussed whether the new disease might affect humans. This was felt to be unlikely, given that scrapie had been present in the country for several hundred years and did not affect humans but it was clear that the possibility could not be ruled out (Cruickshank, oral statement to BSE Inquiry 12/06/98, quoted in Phillips et al 2000: Statement No 75 - www.bseinquiry.gov.uk/files/ws/s075.pdf).

Seventeen months lapsed until, in March 1988, the Health Department was formally notified. Consultation between MAFF and DoH led to the installation of an expert committee on the subject, dubbed the Southwood Working Party after the zoologist that chaired it. The Committee posited after several months of consultation with veterinarian and human health specialists, and other experts in fields potentially related to BSE, that

- BSE was a so-called *zoonosis*, that is, an animal disease transmissible to humans;
- that the disease had been spread through animal feed containing so-called ‘meat and bone meal’ (MBM), that is, waste material from the slaughtering industry;

- that young animals and hence possibility humans appeared highly sensitive to TSEs and hence that the use of certain animal tissues – brain, spleen, spinal cord and so on – should be banned from use in baby food, and preferably, all human food (Southwood, final report, June 1989).

A ban on using material such as brain tissue, spinal cord and spleen was instated, in spite of the fact that many government officials found the scientific evidence to legitimize such a drastic step limited (Van Zwanenberg and Millstone 2005:140).

In 1990, another expert committee was set up that would in particular provide scientific information in response to specific medical issues relating to spongiform encephalopathy, the Spongiform Encephalopathy Advisory Committee (SEAC). The committee consisted of both veterinarians and human health specialists; its precise composition being discussed in heated debates between MAFF officials and those of DoH (cf. Van Zwanenberg and Millstone 2005:134). The SEAC group confirmed a statement by the Minister of Agriculture that “beef is safe” (a statement that the minister, John Gummer, underscored by feeding his daughter beef burgers in front of the British press in May 1990). At that time, however, a cat was reported to have died of a previously unknown feline variant of the scrapie-like disease. Media coverage of the feline case (“Mad Max”) stirred societal unrest, a situation which the Chief Medical Officer later described as a “rapidly escalating panic” (Acheson, statement to BSE Inquiry, quoted in Phillips et al 2000, vol. 6, par. 4.542).

However, public concern proved justified when in 1995 Creutzfeldt-Jakob Disease was diagnosed in an hitherto unsuspected segment of the population (namely among the –very – young). In that year, three human victims died from what was apparently a new variant of CJD (hence the abbreviation ‘nvCJD’). Scientific knowledge could no longer be appealed to to exclude the possibility of a possible spread of the cattle disease to

humans. On March 20th 1996, UK Health Secretary Dorrel publicly announced the likelihood of a link between the cattle inflection and nvCJD. The suspected link between the veterinary and the human disease put the BSE affair in an entirely new light. Until then it had been framed as a specific *agricultural* policy problem that posed a threat to the economy, now it was formally recognised as a major threat to *public health* in statements by the government. With the formal framing of BSE as a threat to human life, new policy measures to control the disease and its effects on human health were set in place, and a sense of urgency arose to drastically re-think the food production and related regulatory arrangements. A first measure that was taken was to ban cattle older than 30 months from sale as food for humans. In line with recommendations of the EU Scientific Veterinary Committee, the removal of the parts of cattle and sheep most likely to carry BSE pathogenic agents (the aforementioned part, now referred to as "Specified Risk Material") was made obligatory by law. Furthermore, the practice of feeding meat and bone meal to farm animals (cattle, sheep, pigs and chickens) was banned by law from August 1996 onwards.

Box 2.1 BSE in numbers: beef production and meat consumption

Beef production and exportation was seriously impacted by the BSE-event, notably in the UK. As concerns beef consumption, various sources claim that consumption rates in the EU dropped at the time of the announced possibility of a link between BSE and nvCJD, although they apparently soon recovered (Aarts, 2001; *NRC* 28-11-2000; *Het Parool* 29-12-2000). Support for this claim to some extent is found in the FAO data on *beef production* for the domestic market and for export in the countries under investigation here. Obviously, the amount of beef produced for export in the UK was reduced considerably. Interestingly, the domestic market in the UK indeed seems to recover quite fully, while in Germany, for own use and export, the market is consistently falling.

Bovine Meat Domestic Supply in metric tons	1986	1996	2003
UK	1,254,741	892,326	1,243,781
Netherlands	240,545	333,685	332,134
Germany	1,827,005	1,357,234	966,440

Bovine Meat Exports in metric tons	1986	1996	2003
UK	176,325	75,120	15,883
Netherlands	354,378	399,206	397,567
Germany	618,358	417,063	465,716

Source of both tables: FAO¹

Considering available data on *meat consumption* in general for the countries under scrutiny in this research, yet, the overall consistency of the figures, rather than sudden changes, catches the eye. Interestingly, only in the Netherlands at the time of ‘the announced link’ (1996-1997), there is a steep drop in meat consumption observable. In the UK, there is a comparable drop between 2002 and 2003.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
EU	-	-	-	93.946	93.753	92.883	96.277	97.700	95.759	95.891	97.740	-
Uk	76.872	74.272	76.587	78.287	76.357	76.999	78.341	80.401	80.963	82.585	85.191	68.308
Nl	90.963	89.388	90.242	89.294	95.966	82.718	85.191	83.6996	84.441	86.798	87.062	83.034
G	93.996	95.584	93.075	92.092	91.475	90.132	93.383	93.991	90.745	87.984	88.366	100.705

Meat consumption per capita in kg (i.e. human consumption divided by the number of inhabitants as according to official statistics as at 30 June). Source: Eurostat¹

In order to learn from the “history of the emergence and identification of BSE and new variant CJD” in order to come to judge the policy action taken (Phillips et al, 2000 [BSE Inquiry] vol. 1), in 1998 the British government asked for a thorough inquiry into BSE and BSE-related policy-making up until then. One of the conclusions in the subsequent Phillips-report (after its first author Lord Phillips, chair of the inquiry committee) was that, although communication and coordination between various bodies involved (MAFF, DoH, the Southwood Working Party and SEAC) had been

seriously flawed, no particular institution or individual was as such to blame for the way BSE had been dealt with (cf. Abell, 2002; BBC, 2000).

The perceived need to reconsider the ways in which the regulation of food and feed issues were formally organised and managed was fuelled by the Labour opposition to the conservative government at the time. The Labour Party manifesto for the 1997 general election spoke of a Food Standards Agency (FSA) to replace existing regulatory arrangements. In his capacity as leader of the opposition, Tony Blair asked for an inquiry report that would provide the outlines of such an agency. This so-called 'James report' was available when Blair came into office. Its recommendation to establish a non-departmental public body to deal with food safety was adopted by the new Labour government. The James report provided the blueprint for an institutional overhaul, arguing that a substantial structural and cultural change was imperative not only for the government to "regain public trust", but also to improve the coordination between various governmental bodies charged with food safety policy. It strongly suggested ending MAFF's dual responsibility, that is, to split up its tasks regarding food production (agriculture; tasks in representing industry interests) and food safety (consumer interests) (even though formally MAFF was never accused of having acted in the interest of industry as the expense of consumers' safety; Millstone and van Zwanenberg 2002).

As one of his first formal decisions, once in office, Blair established an interdepartmental Ministerial Group on Food Safety in June 1997. Subsequently, an interdepartmental working group between MAFF and DoH was set up, headed by Geoffrey Podger to re-organise and fuse those parts of both organisations to eventually form the operational core of the new agency (cf. Fleischer, 2005). Furthermore, new legislation was prepared and a draft Food Standards Bill in January 1999 passed in late 1999 as the new 'Food Standards Act'.

A White Paper building on the James report then translated its conclusions in concrete policy proposals, of which implementation began early 2000. In 2001, the break-up of MAFF was a fact and a start was made with the

establishment of its successors. Among these were the Department of Environmental and Rural Affairs and Food (DEFRA), and the Food Standards Agency (FSA) for which Podger came to be the first chief executive.

Meanwhile on the mainland

On the European mainland, BSE was long seen as a purely British problem. Only when in a country a genuinely 'domestic' case of BSE was identified – which was the case in the Netherlands in March 1997 and in Germany in November 2000 – there too developments towards a re-thinking and re-arranging of the food production and food safety regulatory regime were set in motion.

Initial measures taken to deal with BSE were based on a 'containment' logic, intended to keep the problem confined within British borders. The Netherlands and Germany for instance had banned British meat and bone meal as livestock feed as of August 1989. Shortly after that, in Germany, also the imports of cattle from the UK were prohibited (first of animals born before July 1988, the date of the UK's MBM feed ban; soon after of all cattle older than six months of age). In November 1989, the central government asked the German States (*Länder*) to restrict trade in British beef, permitting only certified BSE-free meat of which the spinal cord was removed (a measure preceding the worldwide ban on UK beef). When eventually the EU ban was installed, Germany adopted the EU controls and ceased its own unilateral action (Dressel, 1999).¹¹

Other measures taken in both countries included strict controls on a separate handling in the compounding industry of feedstuffs for ruminants on the one hand and for poultry and pigs on the other, so as to prevent cross-contamination. The use of meat and bone meal in feed was banned, and a registration system for cattle was installed in both countries in 1994.¹² Furthermore, in compliance with ruling of the European Commission, fattening calves imported from the UK were specifically marked (with a red ear tag) as British, and were kept separately from

other animals during transport, to be fattened in isolation. After the British had formally confirmed the possible link between BSE and nvCJD, more stringent measures were taken. The Dutch Minister of Agriculture decided, in March 1996, to have all British calves in the country killed and their carcasses destroyed (Van der Most and Smit, 1999). In addition to control measures regarding live animals, also measures with regard to beef and beef products of British origin were re-viewed. Already from August 1990 onward, in response to ruling of the European Commission, imported British beef attached to the bone was submitted to specific inspections. Initially the import of British meat from farms that had been free of BSE for at least six years was allowed. By 1996, however, trade and transport of beef and beef products from the UK to other member states was prohibited altogether and the total ban described in the introductory paragraph was a fact.¹³

As was the case in the UK, in both the Netherlands and Germany, the institutional framework for food safety regulation was reformed. In the Netherlands, the Food and Consumer Product Safety Authority (VWA) was established, and was charged with the monitoring the safety of food and consumer products *as well as* with the health and welfare of animals. It combined tasks with regard to risk assessment in regard to these issues with risk communication (cf. Heres et al, 2005).

In Germany, as in the UK, the Ministry of Agriculture underwent a thorough reorganisation that was directly linked to the occurrence of BSE. The Ministers of Health and of Agriculture were sent home. A new ministry was formed to take on various tasks that had hitherto been scattered between the ministries of economic affairs, of health, and of agriculture. Notably, the new Federal Ministry for Consumer Protection, Nutrition and Agriculture (BMVEL) was to combine responsibilities for agricultural affairs, food safety control and the protection of consumer interests (Reisch, 2003). In addition, in line with recommendations made by the Federal Commissioner for Efficiency in Public Administration, Von Wedel, who had been commissioned to provide an analysis of the strengths and

weaknesses of the regime and to provide suggestions for improvement, in 2001, the Federal Institute for Consumer Protection and Veterinary Medicine (BgVV) was split up into two institutions for food safety control. The newly established Federal Institute for Risk Assessment (BfR) was assigned tasks with regard to scientific research in relation to food safety issues; later risk communication tasks were added to this assignment (interview WP5-3; 15-8-2006). The Federal Agency for Consumer Protection and Food Safety (BVL) was assigned the task of developing early warning systems and systems for ensuring the traceability of products. The legal status and division of responsibilities was organised via the new the 'Consumer Protection and Food Safety Bill' which was passed in March 2002 (cf. Fleischer, 2005).¹⁴

Developments on the level of the EU

On the level of the European Union, BSE also induced (together with other agricultural and food safety scandals of the 1990s) dynamics to replace the existing 'patchwork' of rules and regulations in the food production and food safety regulation area with a more comprehensive approach, which was to cover both areas in an integral manner. In 1999, a Directorate-General for Health and Consumer Protection was set up, to deal with this topic. Commissioner David Byrne initiated the development of a new piece of encompassing legislation, the General Food Law, which was gradually put into force between 2002 and 2006. The new legislation set rules in regard to food safety. The guidelines covered the "traceability of food products", the withdrawal of dangerous food products from the market and requirements applicable to imports and exports. The guidelines oblige those involved in the production and handling of food and feed to keep track of information on the name and address of the producer / supplier, the nature of the products and the date of transaction, to which end he/she must set in place a system for the be systematic registration of all products handled. This information must be

kept for a period of 5 years and must be made immediately available to the competent authorities on request.

The new EU regulation also envisioned the establishment of a new institutional body, the European Food Safety Authority (EFSA), which was to integrate the work of a range of scientific committees on food and feed related issues, and to make the processes of national and international risk assessment more transparent and better geared to one another. The EFSA was established formally in January 2002. The FSA (UK), the VWA (NL) and the BfR (G) were to serve as the national counterparts to the European food safety institute.

Central principles underlying the General Food Law are the concepts of 'traceability' and "food operator responsibility". The notion of traceability pertains to the idea that all those involved in the production, processing, dissemination and otherwise handling of foodstuffs ("food and feed business operators"), must make sure that all foodstuffs, animal feed and feed ingredients can be traced right through the food chain "from farm to fork" (i.e., from the farming sector to processing, transport, storage, distribution and retail to the consumer). Each business unit (producer, processor, importer and so on) must be able to identify the businesses it supplies or is being supplied by. This rule-of-thumb incorporated in the General Food Law became known as the 'one-step-backward, one-step-forward' approach.

In January 2005, the EU formalised the guidelines which would help make the regulation operational, and facilitate harmonisation of the Law's implementation in all member states. The details for making this requirement operational were left to the member states, where such instances as the FSA, the VWA and the BfR/BVL were placed in charge of coordinating national policy making on the subject and for reporting on implementation control. However, in legal terms, food and feed operators are at all times themselves responsible for his/her part in the 'food chain' and for keeping track of the information outlined above: "All food and feed business operators are responsible for the safety of the food that they

produce and put on the market. The guidance document clarifies that operators are responsible for the activities under their control” (EU press release IP/05/113, 31-1-2005).

Recently, the EU completed this ‘hygiene package’ with requirements regarding animal welfare. In the Treaty of Amsterdam of May 1999 a special “protocol on the protection and welfare of animals” was included, which obliges the EU to take welfare requirements of animals into full account when formulating and implementing Community legislation. This statement was reinforced in the Treaty establishing a Constitution for Europe signed in October 2004. These intentions now were translated into concrete legislation on animal welfare in the context of the new food safety regulation.¹⁵

Meanwhile, with regards to BSE, a next major step was made in the summer of 2005, when the EU presented a so-called “reflection paper”¹⁶ which proposed – given the “significant overall decrease in the number of cases of the disease across the EU” – a phased relaxation of BSE measures for the short, medium and long-term. Such a relaxation “would have a positive impact on the competitiveness of farmers and industries in the EU” while not detracting from the guarantees on consumer safety, and rebalance the effort put in fighting BSE compared to the dealing with newly emerging threats to animal and human health, such as avian influenza.” The paper emphasised that all amendments should be based on scientific advice, and should have full backing of the member states. To that end, discussion rounds with member states were set up. The eventual lifting of the embargo of British beef and cattle, as announced in March 2006 (see the introductory section of this chapter), is part of the envisioned ‘normalisation’, based on the increasingly shared understanding that BSE in cattle, and the associated risks for human health, are now under control.

2.2 Food as an object and product of (de-)regulatory dynamics

The sense of control over BSE of recent is produced by a rather differently organised regulatory regime than was in place when the alarm bells firstly tolled over TSE in cattle. In the time span lapsed, the *discourses* dominating the governing practices in the public energy fields of food production and consumption changed as did the *institutional arrangements* in which these discourses crystallised. These changes will be described and analysed in chapter 3 and 4 respectively. The core findings there will be that given the 'dislocatory power' of the events reconstructed above, policy-makers, scientists and a large variety of parties involved in the regulation of food safety were faced with the need to 'find their feet again', and that the way in which they did so produced various new administrative logics at the four regulatory nodes under scrutiny in this project. The differences produced are built around context-specific concepts that dominate local discourses, on national differences in styles of regulation (cf. Vogel, 1986) and on differences in the way in which scientific expertise is used (Renn, 1995). In turn, they themselves feed into the dynamics at play.

The national 'contextures at work' may be (and often are) considered an explanatory factor in an analysis of regional differences in e.g. the organisation of the newly established food safety institutes. Below, the regulatory and cultural differences between the countries included in this study therefore will be discussed. Yet, the dynamics of 'globalisation' and privatisation connect markets and regulatory frameworks in such a way that historical, cultural differences in the science-policy and science-society interactions may be considered of diminishing relevance. Moreover, discourses, cultures and styles of government do not present a mere backdrop against which issues or facts such as BSE-related risks present themselves. Rather, they are themselves constitutive forces in the construction of the phenomena discussed.

The United Kingdom

In the UK, at the time BSE in cattle was first identified, food safety was a shared responsibility between the institutional arrangements governing issues in respect to human health, and those in charge of agricultural production. Yet in practice, food safety control was closely tied up with the latter arrangements. These were generally understood as serving the interests of the food production sector at large. Van Zwanenberg and Millstone (2005) describe the 'cosiness' of the relation as follows:

The official regulatory regime controlling food safety in the UK ... served to partially protect some of the interest of consumers and of the food trade, but mainly in those areas where they coincided. It was in the interest of neither producers nor consumers for food products to be so severely contaminated that they caused adverse effects that occurred rapidly ... [so] that they could be traced back to the products and producer(s) responsible. ... What emerged was a regime that focused on controlling those food-borne risks that could reliably be attributed, using available scientific techniques, to identifiable causes. In the absence of scientific proof of a causal link to a specific risk, the regime typically declined to regulate. (2005: 48).

The connection between food safety control and the representation of interest of the food producing sector was formalised in the structure of the Ministry of Agriculture, Fisheries and Food (MAFF), established in 1955. MAFF thus embodied the dominant framing of food safety as being principally the responsibility of industry, along with the production of food (Barling and Lang 2003; Bartlett 1999). Minimalist state interference was sought, most notably under subsequent conservative governments, be it that in regard to the advancement of industrial interests, the government took a more pro-active stance. In all accounts of MAFF in academic articles on BSE, and in the conversations held on the topic in the context of this research project, the organisation's strong ties with the agricultural business community at the time are stressed. The representation of interests of the sector expanded to include the interest of food processors (from the 1960s onward) and of food retailers (in the 1970s and 1980s) (Cannon 1987). Yet the straightforward inference which may be drawn from such observations that MAFF played the ball of industry needs to be nuanced, observers note (e.g. interview WP5-20; 18-7-2006).

Perhaps more than a conscious strategy to protect farmers' interests against all odds, the Ministry's 'muddling-through' approach vis-à-vis BSE, which was later found inexcusable, might have been informed by a 'culture of secrecy' that characterised the organisation. In a depiction of the UK regulatory regime, Halfmann (2003) sketches an elite community of people sharing a background in exclusive educational centres, and relying on the argued reasonability of regulatory action (rather than on solid scientific proof or legalistic procedures). Halfmann posits that "The key principle is not simply exclusive access to the regulators for the business community, but a more subtle system of co-optation, *that leads to easier access to regulators for parts of the business community*" (2003:377; italics in the original). The restricted access to those in a position of judging and decision making, the implicit rules of dividing 'insiders' and 'outsiders' and the cornerstone position of a misty concept as 'reasonability' results in, the author argues, a 'culture of secrecy':

Those who do not belong to [the network of co-opting members of the elite] face the high walls of secrecy that surrounds English regulatory decision making. ... High levels of secrecy that included the technical details of the regulatory evaluations more than anything else carefully shielded off critical deconstruction of the science involved. The daily work of organising the boundary [between science and policy] was primarily a task for people to perform, rather than the objectified and formalised tests and protocols of [e.g.] the US (Halfmann, 2003:378,380).

This image of a 'secretive' operating culture is underscored in the discussions held in the context of the present research. As a former employee of the Ministry of Health spontaneously phrases the culture at MAFF:

When I was in the department of Health, some of my colleagues were called to meetings at the then ministry of Agriculture, and they were passed papers. They were given papers as they entered the room, and were told you must hand these back before you leave here. Secrecy, this is hush hush. ...Traditional civil service culture in the UK has been in the past that we've been asked to, I know from my previous civil service experience, if the press get on the phone and they say we want you to talk to *Farming Today* or whatever, that the traditional approach has been oh no we don't do that. We have to go through our press office. They will [field] all queries with the media, and usually perhaps a minister might make a statement or whatever. (Interview WP5-6; 5-7-2006)

An interpretation of the traditional regulatory regime, in particular as being in place at MAFF in terms of a '*culture of secrecy*' gives depth to the information on how the interface between science and policy in regard to agriculture and food safety was organised in the UK at the time of the first identification of BSE (elaborated in detail in Chapter 3). This added to the problems caused by the (geographical and cultural) segregation of the institutes responsible for human health and those responsible for animal health (discussed in Chapter 4). It were these problems that the newly installed Food Standards Agency explicitly set out to resolve.

The Netherlands

The 'system of co-optation' between farmer organisations and the ministry of Agriculture was less subtle in the Netherlands. The Dutch situation is characteristically described as a neo-corporatist system (Frouws, 1994). This 'system' proved very successful; in spite of its small size, the Netherlands became the second largest exporting nation of agricultural produce. The culture of consultation and negotiation (also referred to as the Dutch *polder* culture) arguably contributed to the agricultural business community's strength. In the post-World War II period, government, the agricultural business community and its representative organisations and agricultural research institutes grew into a tight knit network.

The first and foremost concern in agricultural policy in the post-WWII era was to secure food availability to feed the nation's population, given the relatively small amount of land available, and the disease-prone soil.¹⁷ The sector, in pre-BSE days dominated by the Agricultural Board (*Landbouwschap*), the knowledge infrastructure and the governing institutions developed a favour for a technocratic problem solving approach for dealing with these challenges. The Agricultural Board played a pivotal role in agricultural practice and policymaking both as a sparring partner for the ministry and as a organisation representing farmers' interest. Ever since its installation in 1954, the Ministry accorded this corporatist umbrella organisation great influence on the formation of

policy and provided it with strategic information. In exchange, the agricultural organisation offered its co-operation in implementing policy regulations.

An 'iron triangle' of the Ministry of Agriculture, the Agricultural Board (and other agricultural business community's representative and branch-organisations) together with specialists in Parliament¹⁸ developed, to become the heart (and fist) of the sector. Another triangular cornerstone in the sector was the so-called 'OVO-triad', a Dutch acronym for research, information and education. This consisted of various ministerial divisions of agricultural research (the so-called DLO institutes; *Dienst Landbouwkundig Onderzoek*) and the Agricultural University of Wageningen.

Recent years show some profound changes, in the philosophy endorsed and in the network's institutional arrangements. A major change in the agricultural network's institutional arrangement was the dismantling of the Agricultural Board. Financial considerations formed the main incentive to gradually hive off its managerial tasks to various Commodity Boards for agricultural produce (*productschappen*). This development was a cue to reconsider its representational function as well. It was decided to concentrate the representation of the primary producers' interests in one representative body. In 1995, the farmers' organisation LTO-Nederland was called into being as a successor to three major farmer representative organisations. The newly installed body took over the Agricultural Board's representation tasks. Consequently, LTO-Nederland became a major sparring partner in matters of agricultural policymaking. Furthermore, it gained a profound influence on the agricultural practice in the Netherlands by means of its infrastructure of regional organisations and local study-groups in which farmers actively participate.

With the loosening up of the iron triangle in the late 1980s and 1990s, other ministries, non-agricultural interest groups and Members of Parliament that did not belong to the Standing Committee on Agriculture gradually gained influence in agricultural policy formation (cf. Loeber,

2004). At the same time, food companies and the agricultural business community came to increasingly influence the agenda of the research institutes in the field. With the financing system of research changing fundamentally as the conglomerate of DLO research institutes was being privatised, moreover, the research agenda was no longer determined by the governmental agricultural agenda and the underlying ideas about the nation's interests. Instead, the food processing industry acquired a decisive position in setting the agenda. The central government's economising on general funds spent on university research enforces this development.

Regardless of these changes, the dominant culture at the Dutch Ministry of Agriculture is still generally described as technocratic and 'juridical', that is, as a culture which puts a strong emphasis on the juridical aspects of governing, and on the implementation and upholding of regulation (Interview WP5-26; 27-6-2006). The *technocratic stance*, which used to be informed by the rationalist approach to agriculture, now is found to conveniently match the EU's approach to agricultural policy, which itself has strong technocratic tendencies, and which increasingly affects national agricultural policy-making, so spokesmen say. As a result, there is now a discrepancy experienced between high-spirited policy ideas of a more generic nature, phrased in terms of e.g. a sustainable developments and 'integral management', and down-to-earth policy measures designed to deal with very practical situations, which are cast in precise technical terms. Consequently, it is "often unclear which visions lie behind certain regulations. There are certain images behind [something], but they cannot always be retrieved at the [practical, policy-making] level where we operate" (Interview WP5-26; 27-6-2006). Rather than 'secrecy', as used to be the case in the UK, in the Netherlands, it is 'un-clarity' that at times shields from view the political dynamics at work in agricultural policy-making.

Germany

Germany followed its own trajectory. Here too the basic power structures have been described by observers in terms of an 'iron triangle' (e.g. Waskow and Rehaag, 2004). Closely tied up with this orthodox power structure was a *technocratic, rationalist approach* to farming, which for long dominated agricultural practice, quite similar to the Dutch situation. Here too a strong division of labour and notably a specialisation in farming practices was observable, as a result of this approach.

It was with the installation of the new Ministry, the BMVEL, that an alternative vision on agriculture first got such a formal institutional basis. The minister that took office, Renate Künast, was from the Green Party. The take-over of power by the Green party's philosophy's supporters in the wake of the German BSE-scare¹⁹, is described by authors such as Lowe et al., 2003, as a tipping of the power balance, as a result of the iron triangle's failure to come up with a trustworthy answer to the fears and problems stirred by BSE²⁰:

Forced by the problem of legitimacy, the established policy network, which was closely connected to farmers' interests, was unable to present acceptable solutions. With the appointment of Renate Künast the beliefs and the solutions of the Agrarian Opposition and the environmental movement gained access to agricultural policy making (Lowe et al., 2003).

The focus of the policy ideology of the post-BSE-scare agricultural policy was expressed in the the Green Party's and the social democrat's (SPD) programmes in the shape of a re-definition of the European common agricultural policy (CAP). Whereas the two main areas of agricultural expenditure within CAP (the so-called 'pillars' of the common policy) concern market and income support measures on the one hand, and rural development on the other, the left-wing German parties pled for a new agrarian policy which took as its 'pillars' *i)* consumer protection and transparency; *ii)* support for quality in conventional agriculture; *iii)* support for organic farming; and *iv)* support for perspectives in bio-energy and other income alternatives. Accordingly, a steady stream of agricultural

policy innovations was set in motion, with the active support of the new Ministry.²¹

In Germany, of course there is an additional complicating factor that gives particular meaning to the notion of 'multi-level governance'. Specific to the German situation (as compared to the other two countries discussed here), is that the enforcement of food, animal and public health regulations is the prime responsibility of the States (*Länder*).²² Even when legislation takes place on the federal level, the control on implementation is organised on sub-national level. In regard to the supposedly fundamental change in German agricultural policy, this too had a cushioning effect. Not all States were prepared to follow the federal government into this 'Wende'. Notably Bayern and Baden-Wuerttemberg did, but other states, in particular the former DDR-states, continued to consider agriculture as basically industrial production by large farms thriving on High External Input (artificial fertilizer and pesticides) practices.

The European Union

The common agricultural policy (CAP) that the member states originally developed in the 1960s and 1970s, put an emphasis on protecting the European farmers' competitive position, notably by providing producers financial assistance for the growths of certain, specified categories of crops. The success of the emphasis on production enlargement and specialisation was such, that by the 1970s, a dual problematic began to surface. On the one hand, signs of environmental deterioration started to show (signs which were, by the way, by many actors involved in agriculture not linked to agricultural practice at that time). On the other hand, overproduction became a structural phenomenon, which proved a problem mainly for the EC as the Community compensated farmers for surpluses of major farm commodities. As the CAP became a burden on the Community's budget, it created pressure for reform (Ackrill, 2000).

In the early 1990s, the common agricultural policy took on a more flexible approach to stimulating rural development. The new policy centred around two so-called pillars. One pillar was basically a continuation of the traditional CAP, including market-related subsidies to farmers, surplus disposal schemes and export subsidies. Yet, new was that farmers got more leeway to change their production schemes according to market developments without losing their right on subsidy. Rather, a condition for income aid now was that farmers had to respond to market fluctuations and consumers' changing priorities: "The new CAP takes consumers' and taxpayers' concerns fully into account, while giving EU farmers the freedom to produce what the market wants" (EU brochure, Anonymous, 2004). This is a development that may be designated as 'chain reversal': the emphasis in deciding on the course of action in rural development and production schemes no longer was put on the supply side but rather on the demand side.

The second pillar, which in the early 1990s was still only rudimentarily developed, consisted of a set of measures that aimed at encouraging environmentally sound farming practices, improvement of food quality and assistance to the development of difficult farming areas in the EC. This second pillar was at the basis of later CAP reforms which moved away quite fundamentally from the original production enhancing approach: in March 1999 an 'Agenda 2000' for CAP Reform was agreed on which spoke of such themes as comprehensive rural development, environmentally sensitive production methods, and animal welfare.

Box 2.2 BSE in numbers: identified BSE cases

Data on incidences of diseased cattle (TSE in cows) and humans (nvCJD) speak most forcefully of the dynamics in the BSE-affair. Throughout the period described (1986-2006), the causes of BSE and the patterns of its spread were highly debated. The risk involved for human health was a topic of speculation and great scientific uncertainty.

Number of identified BSE cases	1987 and before	1989	1991	1993	1995	1997	1999	2001 ¹	2003	2005
UK	446	7 228	25 359	35 090	14 562	4 393	2 301	1 202	611	225
Nl (by year of confirmation)	-	0	0	0	0	2	2	20	19	3
G (by year of confirmation)	-	0	0	0	0	2 (imported cases)	0	125	54	32

Source: OIE¹

Food as a key issue in privatisation and globalisation dynamics

In addition to national and supranational policy-making dynamics, have processes of globalisation restructured the energy field substantially over the past two decades. Globalisation here refers to the last step in the constant scaling up of the cycle of food production and food consumption. Even the map of the production process of the most ordinary products – such as a yoghurt dessert or a steak – have been shown to be continental or indeed supra-continental in scale. In addition, the different parts of the long ‘chains’ of production and consumption got increasingly geared to one another.

The rapid rationalisation of food production in the post war decades implied a need to constantly cut costs and search for (cost-)optimal locations for the production of (particular elements of) a food product. That triggered the development of control systems set up to monitor food safety and guarantee public health. In addition, large-scale campaigns by environmental organisations (such as the Greenpeace campaigns against GMO foods), made the ‘average’ consumer become more and more scrupulous in regard to food products, and sensitive to health claims and health aspects of food. Because of the increasingly critical consumers, producers tended to strengthen their grip on the production conditions of raw materials and semi-manufactured ingredients. In order to guarantee certain quality standards, raw materials were increasingly produced on the

basis of contracts. As a result, producers of raw materials and semi-manufactured products too have become increasingly confronted with end-users' demands.

With the technical means to do so, the food industry became a fore-runner in experimenting with self-regulation systems (cf. Henson and Caswell, 1999). With reference to international standardisation developments such as those mentioned (Codex, WHO indexes), the food industry has outlined its own safety control and quality monitoring systems. While characterised by a fierce competition and by relatively frequent acquisitions and amalgamations between firms, the industry found it in its interest to design assessment and qualification schemes that allowed for product and process comparison and a guaranteeing of quality standards.

Among the most widely implemented systems is the so-called HACCP (hazard analysis critical control points) system, which present a systematic for hygiene control. The system, which was originally designed in the context of space exploration programmes, entails an assessment of every stage or step in a production of handling process, detailing for each the 'critical elements', i.e. those aspects of that stage or step that are prone to failure. On the basis of this assessment, for each element safety measures are elaborated. The associated control system subsequently is a systemised check on whether in all steps and stages, all precautionary measures (e.g. production workers wearing hair nets or white coats in certain stages of the production process) are implemented. Supermarkets and other larger retailer businesses in Europe adopted the HACCP as its standard system for quality and hygiene control.

While formal regulations concerning safety and health aspects of foodstuffs are among the most stringent parameters influencing the developments in the industrial food sector in general, in turn the quality standards and private regulations developed by the food industry strongly affect (inter)national legislation. Being initially the standard for retailers only, in 1995 the HACCP system was made compulsory in the food

processing sector, and by 2005, under the influence of the EU General Food Law, it was also made the standard hygiene code for slaughter houses to comply with. At the time, voices were raised that pleaded for a compulsory adoption of the HACCP system in the primary sector too. That has not yet been formalised but quite a number of farmers already organised their quality control practices on the basis of this system.

Box 2.3 BSE in numbers: human casualties

The initial estimations as to the prospect number of deaths in the human population resulting from BSE were very high (13 million estimated in 1998 for the UK alone in the next 50 years; Ghani et al., 1998). In subsequent years, the estimations were adjusted with a more optimistic ring. In 2000, calculations resulted in 136,000 deaths expected (Ghani et al, 2000). More recent prognoses based on worst-case scenarios expect a maximum of 8000 new cases of nvCJD per year in the UK, while the most probable estimation is 80 new cases per annum until 2040 (Ghani et al., 2003). Yet uncertainty as to the potential numbers of victims in the near future remained (and remains¹) high.

Number of identified nvCJD victims	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
UK	8	9	13	20	16	29	21	15	16	6	7	5	n.d.
NL				0	0	0	0	0	0	0	1	0	1
G				0	0	0	0	0	0	0	0	0	

Incidence rates on human casualties linked to nvCJD, per year of notification.¹

Thus in the flow of events, the BSE story unfolded. From a ‘British agricultural problem’ BSE grew out to be a major driving force behind fundamental regulatory change in regard to governing food production and food safety in the UK, the Netherlands and Germany, and at the level of the EU. In the next chapter, the discursive dynamics are explored which were both constitutive of the flow of events as shaped by it.

3. Food, chains and prions: the construction of food safety before and after ‘the event’

The BSE-story in the previous chapter is told as a story of food production changing into one of food safety. The newly established institutions that were set up in the wake of the BSE-scares in different countries and on different levels of government focused mainly, given some nuances, on the safety of food. Underneath this narrative, which carries the mark of ‘hindsight logic’, are the discursive dynamics through which the very notion of ‘food safety’, and in particular the microbiological reading of that concept, got so prominent. In these discourses and the way they crystallised over time, the BSE-story came out. The institutional re-arrangements that followed these developments are discussed in chapter 4. Here the discursive dynamics at play in the construction of food safety and the notion of prions is explored.

3.1 The ‘discursive landscape’ connecting food, agriculture and health in pre-BSE days

Among the countries under scrutiny here, some considerable similarities may be observed in the dynamics that characterised the developments in agriculture, public health and food safety as public policy issues. Traditionally, in all three countries under investigation, farmer representative organisations formed strong alliances with national governments, and thus presented (in various configurations) a considerable power-basis. The hand-in-glove relation between representatives and government was based on the idea that food production and notably *food security* was a concern of the state, while at the same time being the obvious interest of the “agricultural sector”.

Government involvement with agriculture by and large began to take shape from the second part of the 19th century, when an industrialising Europe felt a growing need to organise rural area production in such a way that it could feed its urban-based labour forces. In the Netherlands, for instance, in 1886 an Agricultural Commission was established under

pressure of the primary sector itself. Its installation marked the end of a long period of *laissez-faire*. The Commission's recommendation formed the starting point for the development of an elaborate cluster of institutes for the production and dissemination of advanced knowledge and technology which became the driving force of agricultural development in the Netherlands (Bieleman, 2000: 13-19).

The idea of *food production as state responsibility* was reinforced by World Wars I and (notably) II. Taking again the Netherlands as illustration²³: the first post-WWII Minister of Agriculture (and later European Commissioner), social-democrat Sicco Mansholt, sought to ensure that the domestic food production would be sufficient to feed the Dutch population, and that food would be available at affordable prizes. His ambitions ("honger, dat nooit meer" [hunger, never again!]) set the agricultural business community's mission. A detailed agricultural policy was introduced, based among other measures on product subsidies, to ensure that both objectives were reconcilable. Key to the policy was a focus on the *modernisation of agriculture* towards a knowledge- and technology-intensive and labour-extensive production system, with an emphasis on spatial concentration and specialisation (cf. Bos and Grin, 2007). The approach of systematic *rationalisation* and modernisation of agricultural practices led, firstly, to a separation of tasks and roles between knowledge producers and planners on the one hand (academics, scientists) and artefact producers (farmers) on the other, whereby the former group played a decisive role in regard to directing new developments and market orientations in the primary sector. Secondly, it resulted in a progressing separation between different kinds of production processes, between animal production and crop cultivation, and in an even further specialisation between these (e.g. in the Netherlands between a pig fattening industry on the one hand, and cattle producers on the other, which later split up between meat production and dairy production). Virtually no 'mixed farms' remained (Bieleman, 2000; for an overview of similar developments that took place in the UK; see Martin 2000).²⁴

With the break away from the traditional farming concept, based on locality and on self-sufficiency of the community, the metaphor of a *chain* of food-production related elements came to the fore. The chain at the time did not yet link up food-producers and related actors all over the world. Rather, it indicated the relationship between agricultural ministry cum knowledge institutes and primary producers; a relation conceived of as being unidirectional. The direction in which to head was determined by the state, at a national level – and slightly later on, with the conception of the CAP (of which Mansholt is considered to be one of the major architects) on the level of the EU; policy plans were then implemented (through active subsidising of both research and production) by the Agricultural Board, research institutes, and once informed via “extension services” (!), by the farmers. With the growing mechanisation and rationalisation, farming business more and more concentrated on its specialised primary tasks, and other players – ancillary industries, specialised knowledge institutes, processing industries – acquired a more prominent position in increasingly longer and more complex *food chains*.

Due to the changing (perceptions of the) relationship between state and market (“rolling back the state” (cf. Gaebler and Osborne 1992; Stewart and Walsh, 1992); and the central government’s ambitions of economising, in the 1980s and onward, food companies and the agricultural business community came to increasingly influence the agenda of the research institutes. The state-dominated focus on guaranteeing a sufficient food supply for the nation (and in countries such as the Netherlands, on ensuring a steady national income from exporting agricultural produce) gradually shifted. State-initiated and production-oriented stimuli for change and innovation changed to market-initiated and consumer-oriented dynamics. This process of “*chain reversal*” (in Dutch: *ketenomkering*) comes out empirically in the changing financing system of agricultural research.

The way in which research relevant for agriculture and food production is financed in the Netherlands may serve as an example: the governmental research institutes (DLO), which were *'the motor'* behind state-aspired innovation and modernisation were gradually privatised, and were affiliated with the organisational structure of a financially equally privatised Wageningen University (which organisations now operate together under the heading of "Wageningen - University and Research"). In addition, the agricultural knowledge extension infrastructure was changed profoundly. The governmental institute which in the post-war period was the main channel for disseminating knowledge from the (ministerial) research institutes to farmers (Dienst Landbouvoorlichting, DLV) was privatised in the first half of the 1990s. A new structure for knowledge dissemination was set up in its place. The "Information and Knowledge Centre - Agriculture" (IKC-L; later re-organised into so-called 'expertise centres') was installed to act as "the eyes and ears of the Ministry of Agriculture" (Loeber, 2004). It was to provide extension institutes, among which the privatised DLV, with information on agricultural policy and at the same time to provide the Ministry with information on developments in the sector. Thus, the once top-down approach to agricultural knowledge production and utilisation was now replaced by a more interactive exchange of information.

Yet, this *reversed* dynamics were equally informed by a rationalisation approach as its state extension origin, now combined with a neo-liberal agenda of having the market decide on the course of action (and oddly embedded in the ever so prominent EU policies for subsidising agricultural production). The rationalisation discourse, which drew on a utilitarian vocabulary, was only marginally challenged by discourses rooting in the conglomerates of Romantic Conservatism as well as socialist 'back-to-nature' perspectives. For Germany, these have been captured with the image of *Wald im Kopf*, that is, of the woods 'internalised' in men's outlook onto life. As Van Dieren (1995) writes about the German word for the environment:

'Umwelt' means much more than 'environment'. Umwelt represents a combination of progressive and conservative concepts, in an often paradoxical mixture. The Umwelt movement encompasses almost everything that is critical and emancipatory, a cacophony of green feminism, pacifism, and alternative science, new life styles and critical consumerism, an alliance that cuts right through the German society and ... including – as a queer appendix – the old romantic conservatism (Van Dieren 1995: 227; trans. J. Eberg, 1997).

A UK equivalent may be considered the ideas underlying the 'rambling movement', the regional and national movements for preservation and access to footpaths, which thrived on a combination of "early socialist ideas and non-conformity; Christianity, ... [and enthusiasm for] popular botany and natural science" (Trentmann, 2000: 516 reviewing Taylor, 1997). Romanticised notions of rural life persistently inform the British debate on agriculture and the environment, which are often conceptualised in terms of a *rural-urban divide*, institutionalised in the 1947 Town and Country Planning Act that separated cities from countryside in terms of planning.²⁵ In the Netherlands, the validation of such a divide, or categorisation, is reflected in the perceived superiority of the Western (urbanised) parts of the country (and its inhabitant) over those of the rural East, North and South. As concerns the romanticism associated elsewhere with rural life, in the Netherlands that was by and large absent; if at all, the preservation and conservation movement rather was inspired by Christian notions of prudent stewardship (cf. Van der Windt, 1995).

In contrast to the field of agriculture, mid-19th century voices pleading for formal regulation of food as a public health issue were less 'successful' in resulting in a strict government-oriented institutionalisation. The pleas were motivated by different considerations. Increasing insight in the causes and spread of diseases led doctors of medicine to argue for sanitary measures and food safety regulation. In the UK, in addition, zealous supporters of abstinence-oriented movements, believing in 'teetotalism' (total abstinence of alcohol by everyone) urged for regulations to preserve 'the purity of food'. Furthermore, public officials

were considering regulation in order to prevent fraud (Draper and Green, 2002).

Some institutionalisation took place. In Britain, in 1860, the Adulteration of Foods Act was ratified and in 1875, the Sale of Food and Drugs Act was adopted. The latter implied that local inspectors were given the means to actually check the quality and safety of foodstuffs sold. Subsequently, fragmented, additional regulation was formulated each time a large-scale food poisoning inspired a sense of urgency to do so. A similar development took place in the Netherlands and Germany. Here too, regulation of food and food safety was largely fragmented, and inspired mostly by one-off cases of food poisoning or related concerns. A legal basis for the development of a regulatory framework was laid in the second half of the 19th century, within various Acts on government control on public health issues, and the penal code. As was the case in the UK, the 'purity' of foodstuffs became an issue for concern, and by the turn of the 20th century, control agencies to monitor compliance with safety regulations and to act on case of foodstuff. The reason for the difference in these dynamics was that, traditionally, *responsibility for foodstuffs* was perceived of lying primarily with the individual ("*Man ist was man isst*").

Food as a topic of public health policy re-emerged an issue for formal political concern only in the 1980s and 90s (cf. Smith, 1991). The label *food scare* was first used in 1988, when the salmonella epidemic spread in the UK, in both eggs and media, and stirred a lot of commotion (Roslyng, 2005).²⁶ In the Netherlands, the 'honour' of being the first food scare of a series of food pollution and animal disease cases that got the public eye concerned a case of dioxin in milk, resulting from waste incineration plants in the vicinity of cattle in the late 1980s. Interestingly, that development was then framed as an 'environmental scandal' (Eberg, 1997). The next time the carcinogenic substance was making the headlines, when it was found in animal feed in 1999 (Laurent, 2006), the dioxin crisis was a 'food scare'.

3.2 Dislocatory dynamics: scientific developments, transnational governance and BSE

The very notion of 'food scares' may be considered a product of scientific developments, in combination with various dynamics towards transnational governance. All sorts of scientific and technical possibilities in regard to the production, preservation and transportation of food allowed for a *de-coupling* of the place of food production from the location of food consumption. The neo-liberal rolling-back-the-state agenda of governments such as Reagan's in the US, Thatcher's in the UK and Lubbers' in the Netherlands, which projected the globalisation of markets into a goal in itself, fed into these technological developments.²⁷ The development of food safety *control technology* played a crucial role in abstracting food consumption from its production process.

Food safety and quality control technology enabled the regulation of food trade. It built²⁸ on the early, 19th century focus on protecting the *purity* of food. As explained by the FAO, "science had begun providing tools with which to disclose dishonest practices in the sale of food and to distinguish between safe and unsafe edible products" (FAO/WHO, 1999). Once developed, in turn, technological possibilities for checking the quality of food stimulated national and supra-national food regulation, such as crystallised in the Codex Alimentarius, the food sector's main reference point for standardising product definitions, food safety and food quality on a global level.²⁹

The phenomenon of '*food scares*' itself too may be understood in view of the progressing scientific knowledge, in combination with dynamics towards multi-level and private sector dominated governance and changes in life style. As the techniques for testing food samples improved, rapid detection tests for various types and subtypes of bacteria were developed which enabled local authorities to swiftly establish the extent and nature of bacterial infestation. The rapid results in turn improved the possibility to actually link cases of food poisoning to a particular source of contamination (and the time and place it was consumed).

As a result,

... the issues in food were becoming more prominent, because of salmonella, campylobacter, [and other] food hygiene problems, contamination problems. People were [always] finding examples of you know – the obvious mouse in a package of something, but I mean [now, this] sort of incidents were being reported actively. (Interview WP5-27; 19-7-2006)

The rapid test results also allowed the media to 'make a case' of such instances, especially if it concerned high profile incidence like wedding parties with large numbers of people involved:

The research would influence journalists, and journalists would also be talking to the scientists. Then it's very public and also the Department of Health needed [to] start issuing advice to people. And so ... the health ministry got to issuing advice to do things like 'make sure you cook your eggs before you use them'. And probably the roots of that will go back further, I mean government has probably always provided advice on things like vaccination and, you know, nutrition and pregnancy ... so that wouldn't have been new. But the [egg business] and the context for it I think were probably quite new. (Interview WP5-27; 19-7-2006)

As related by informants to this research project, the growing number of incidences of food poisoning caught the attention of the consumers movement in the UK, at a time when it was just about able to free up resources to focus on the subject. Previously, the consumer movement had concentrated largely on acting as a countervailing power against the farmers lobby in view of EU agricultural policy. For the UK, the EU most notably was of relevance for its farm subsidies. Therefore, with a ministry responsible for both agriculture and food, emphasis was put on agriculture, and MAFF was negotiating in Brussels notably about price support. The consumer movement, in contrast, focused on campaigning for a reform of the common agricultural policy. Once some progress in that field was made, insiders posit, it could afford to spread its means and concentrate too on food and food safety (interview WP5-27; 19-7-06).

In the Netherlands, a similar development is observable, be it that there, the focus on food and food safety was initially inspired most notably by environmental damage and its possible impact on food quality. Notably scandals about dioxin in milk in the mid 1980s led to outbreaks of public concern and intense media coverage (Eberg, 1997). These were later followed by incidences concerning E. coli infections and salmonella in the

mid 1990s and an outbreak of Classical Swine Fever in 1997-1998. BSE in the Netherlands thereupon peaked in 2000, and was followed by an outbreak of foot and mouth disease in 2001, the discovery of residues of a synthetic hormone, MPA, in pig feed in 2002, and an epidemic of Avian Influenza in 2003, and again dioxin, now in pig and cattle feed. Possibly because of the on-going stream of information about food and health risks, also the outbreaks of animal diseases were, in spite of contradictory scientific evidence, to a greater or lesser extent perceived by the public as a threat to the safety of meat in terms of human health. The scientific language that came with these dynamics enabled scientists and consumers alike (regardless of the scientific truth claimed with these statements) to relate food to direct, personal, physical risk, allowing them to see one event of poisoning in view of another.

When 'seeing-as' failed: prions and the discursive construction of a novelty

Within these food scares producing dynamics, BSE stood out. It failed to fit the categories available for producing truth. The first claim to scientific truth was based on an analogy. To the junior researchers at the CVL in Weybridge who investigated the brain tissue from the cow from the Stent farm, the resemblance with a TSE such as scrapie was striking (and "exciting"; see her account as quoted in Chapter 2). The junior pathologist observed 'scrapie in a cow', that is, an unfamiliar phenomenon (spongiform plagues in cattle) as an instance of a familiar class (scrapie as a disease affecting sheep).³⁰

A corresponding development took place in mainland Europe, once word came out that there was a new disease affecting livestock. The first reaction was based on a framing of the threat as a typical 'list A' disease, that is, as belonging to the category of animal inflictions that may spread rapidly and that may have serious socio-economic consequences and / or consequences for human health. The list, which is set-up and kept up-to-date by the OIE (Office International des Epizooties) therefore plays a

major role in trade and trade-related disputes and discussions in regard to animals and animal products. Arguably all initial responses to BSE in the Netherlands (and possibly also Germany) – in the previous chapter described as ‘containment’ policies – were based on the list-A classification (interview WP5-30; 10-8-2006). These actions were inconsistent however with the original ‘scrapie in a cow’ truth claim, as scrapie is not a list-A disease and its known to spread via very specific and non-rapid ways.

In spite of the verdict of the Neuropathogenesis Unit (NPU) in Edinburgh that the symptoms found in cattle were to be understood as the effects of a *prion* disease, protection measures for viral diseases were taken, mainly as no other regulatory rules were available. In this institutional void, the ‘rules of the game’ had to be made up all along with the development of scientific insight in what was happening. The trouble was that with scrapie being such a ‘low-key’ phenomenon at the time (1986-1987), there was hardly any game: there were hardly any scientists working on prion diseases (interview WP5-27; 19-7-06).

On top of that, there was no legally binding commitment, such as a formalized interpretation of the ‘precautionary principle’, that obliged the UK government to switch from the course taken until then – ‘BSE is not-transmissible to humans’ – unto a focus on zoonotic transmissibility. The decision *not* to ignore it was a *moral* one, that is, a decision based on the perceived moral obligation of a government to act in the interest of the well-being of its nation, both in terms of public health and, now that the word was out, in the light of protecting its agricultural business community.

The question was how?

The prion hypothesis itself provided hardly any stepping stones as to how to proceed. It is inconsistent with animal disease and zoonoses control protocols, such as on OIE’s list A, as the latter reflect the dominant assumptions in orthodox biology and theories of infection, and prion diseases supposedly don’t. ‘Prion’ is an artificially constructed word introduced by Stanley Prusiner (1982) for proteinaceous infectious particles (infectious protein), to indicate the so-called ‘protein only’ hypothesis (building on work by a scientist called Griffith in the 1960s).

This hypothesis holds³¹ that proteins may themselves function as a pathogenic agent, causing diseases without viruses or other alien living bodies entering the body of the diseased human or animal. Prions are understood to be unusually 'folded' proteins (dubbed scrapie PrP), which triggers other, normal PrP to copy its pathogenic shape. In this process, nervous cells are being destroyed, resulting in a specific substance that settles as plaques in the brain, which can be seen under a microscope (similar to plaques found in Alzheimer patients) (cf. Gezondheidsraad, 1996).

As there is no 'alien body' entering a host, prions do not provoke an immune response. Consequently, the current lines of thinking about treatment are rendered irrelevant. Furthermore, known practices of treating infections and preventing spread are of no value: prions cannot be destroyed by the usual methods employed in the slaughtering industry, hospitals, the home kitchen and so on, for guaranteeing safety of food or medical products. It was only when the 'prion' hypothesis got commonly accepted and endorsed, that policy measures other than those directed at containment in the usual sense could be considered.³²

The decision to adopt the prion-hypothesis as a basis for policy measures was a political one, and not undisputed. The German case may serve as an example of the political aspects of the scientific debate. As observed by one of the informants to this project in view of the German case: "... Minister Funke and most veterinarians within the authorities did not *want* to find BSE and they opposed the measures wanted by the EU" (Interview WP5-9; July 2006).³³ After all, in April 1996, the director of a veterinary research institute had stated in a meeting of the German farmer representative organisation DBV quite literally that 'Germany is BSE free'. And in 1997, Germany applied for the status as a 'country free of BSE', a request denied by the Scientific Veterinary Committee of the EU. Before 2000 there were only very few German scientists and veterinarians thinking that the country might have BSE too. In addition they thought

that BSE would not infect human beings. The political controversy was fuelled by, and mirrored a scientific one:

In Germany we had a dispute about the TSE agent. [Z] did not believe the prion hypotheses whereas I in 1996 published an article that demonstrated that it could not be [due to] a virus or virino. K. and R. were like Prusiner strong supporters of the prion hypothesis. With regard to TSE risks for humans [Z] and I saw such risks whereas R. and K. did not until 1996 when the first cases of nvCJD were published. ... Today [July 2006] we still have several scientists in Germany who deny that BSE is infectious. (Interview WP5-9; July 2006)

Only the identification of the first German BSE-case forced the Ministry in Germany to seriously consider the findings from prion-focused research:

Leading politicians felt that it might be a good idea to follow scientific advice as a sign of a more sensitive policy. But as always they chose the scientists by whom they wanted to be informed. Therefore most of the changes [in this respect were] nothing more than a facade. (Interview WP5-9; July 2006)

The institutional embedding of the scientists was by and large of influence on their scientific views or at least their statements about these. As the spokesperson, an independent German TSE researcher, continues:

Among the most experienced German TSE scientists I was the only one knowing about the German meat and bone meal problem and other safety problems. The others were very specialized scientists dealing nearly exclusively with academic questions, whereas I was interested in the consequences of law loopholes and the practice in farms and feed industry for our TSE safety. This I had in common with Dr. [X] and Dr. [Y], but they did not know so much about the TSE science at that time. A special case was Prof. [Z], who was an extremely experienced scrapie scientist, knowing more than any other German scientist about TSE. [Z] must have had relatively close contacts especially to British scrapie scientists. He was concerned about the possibility that humans might become infected by BSE and even scrapie. But as a professor at the Robert-Koch-Institute unfortunately he was not allowed to speak in the public as he wanted. His position was difficult and the signals he sent to the public were difficult to understand.

For the UK case, Van Zwanenberg and Millstone (2005) report similar disputes. There, the public unrest in response to media coverage on such cases as the cat suspect of TSE influenced the scientific controversy, as did media reports on scientists' concerns over BSE and the possible risks to human health:

'At the moment, we are just standing around and waiting to see if humans start to die,' Dr Stephen Dealler, a consultant microbiologist, told a closed meeting on infectious diseases in Manchester on Friday. His comments came after a senior Government health adviser, Sir Bernard Tomlinson, refuelled the controversy over Bovine Spongiform Encephalopathy (BSE) by saying he would not eat beef burgers or meat pies 'under any circumstances' because of unknown effects on

humans. ... A survey of 16 leading scientists by the Times yesterday found that seven, including Sir Bernard, had either stopped eating beef or were being more careful about the beef products they consumed. (*The Observer*, 12-3-1995)

This is interesting as apparently, in contrast to the scientists cited here, the policy-makers used the lack of scientific evidence as an excuse not to act:

And I remember so well, when the whole issue of BSE began [here in the UK]... they always used to say there is no scientific evidence that this disease can pass to humans, our scientists ... etcetera. And that was their protection they thought that if there was no scientific evidence, then they could afford to ignore it. (Interview WP5-13; 19-7-2006)

The controversy – whether to act, policy-wise, on public health or not – could not be settled on the grounds of scientific principles:

Yes, one should understand that from a historical perspective. Scientists in Britain have – at least some of them – given a warning. Yet others said: „O well, I don't see what's the issue here“, while that depended strongly on their own risk perception. Which for each obviously was different [Die da auch jeder unterschiedlich hat]; also among scientists. Obviously. You see, toxicology after all is not [the kind of] a simple 'yes' or 'no' science. There are many in-between cases, and those are obviously differently assessed. (Interview WP5-8; 16-8-2006; my translation)

In retrospect, the human casualties of the previously unknown variant of the equivalent disease in men are considered to be eventually decisive for setting the direction of regulatory science and policy-making definitely onto the prion hypothesis:

When the BSE-crisis occurred, we saw quite clearly vCJD as an indicator (FSA employee; minutes Open Board meeting 16-6-06).

And compare:

... [then] the threat to humans was, was relatively new, whereas what they had been discussing was the threat to the agricultural industry, farmers, ... animals themselves, but they were looking at it more from an animal perspective not from a human perspective. [When] a few people started to die, then although it wasn't absolutely clear that they had got the disease from eating beef, ... they were beginning to realize that there was a human issue here. (Interview WP5-13; 19-06-2006)

The lack of scientific proof of the prion hypothesis was not considered a problem, or a failure, among scientists in general. As underscored by a German observer:

I believe that science in general reasons that it are *politics* that have met with a crisis. It is not for me to judge, but probably science is in this respect not self-critical. And surely for very natural reasons so. It is after all not the task of the sciences to posit statements that are correct for a longer period of time; rather, the sciences' task [Aufgabe] is to time and again develop new theses. And the bottom line then is not that that a particular thesis should be 'correct', yet that it initially seems sound to some extent, and that one on that basis can build [an argumentation] and can discuss. Science is a discourse. An only in the second place the basis for a fact. (Interview WP5-7; 15-8-2006; my translation)

Eventually, in the early 2000s, a glimpse of 'proof' was observed, as one informant relates:

The only real guidance, the only real certainty that it came from beef I suppose is ... when there was a cluster of cases, five people in one [area] all of whom had bought beef from a butcher, and because he was a [specialised] butcher, he had the skills to take brains out of beef and sheep heads, and he used to sell it, not many people eat that but some people do, some older people did. And what transpired was ... he would use a knife, and he would then wipe the knife, and then he would use that knife to cut of ordinary beef or ordinary meat, and it contaminated it. And what nobody knew ... was that [prions] so incredibly bond to metal, and you couldn't wash them of, you can't even sterilize them of, and therefore ... It was only really when that came up, you had a direct connection. (Interview WP5-13; 19-7-2006)

Whether or not there was sound evidence to support the prion hypothesis, the *adoption* of the hypothesis implied that known control mechanisms of veterinarian diseases were inapt, and the regulatory regimes regarding the health of cattle fell short of providing answers. Furthermore, it implied that the categorization of the disease as a mere veterinary infliction had to be recast as a zoonosis and an unpredictable one as well. Given the unexplained deaths of young people from a new variant of CJD, the analogy with scrapie in sheep, a prion disease as well that had been around for ages, fell short of providing guidelines as to what to do. It is at this point that *uncertainty* was felt to replace 'risk' as an organizing principle in the control of food-born diseases.

In this light, it is interesting to note that implementation of the most prominent BSE-abatement measure, the 'Over-Thirty-Months rule', had become a policy option only after a 'quick test' on BSE had been made available by a Swiss pharmaceutical. Implementation was not only seen as a technical, but also a symbolically meaningful tool available for restoring a sense of order and displaying a firm grasp on the BSE-developments.

The employment of the 'BSE quick test' is a symptom of the technical regime produced by the scientific uncertainty on the causes and spread of BSE. It however could not help revealing that the grasp was less firm than hoped for: from the policy-measures taken upon the identification of an infected animal, it became obvious that two types of scientific 'logic' were politically enacted and defended simultaneously. As a critical Dutch writer / journalist observed, on the one hand, huge amounts of money were spent on changing the feed and rendering industry, while at the same time, all cattle from farms where a mad cow had been detected were destroyed, along with the cow's off-spring. These logics he identified as inconsistent and exposed the scientific uncertainty underlying policy actions:

'[It is just] to be absolutely sure' explained the subsequent ministers of agriculture. But one might just as well destroy all cattle of the neighbouring farm. Or throw cows in the water to see whether they stay afloat. (Van Zomeren 2001; my translation)

Assessing the risks involved: divergent views on proportionality

In view of how to assess and evaluate the perceived risks involved in BSE to public health, interestingly, there are some crucial *differences between the UK-case on the one hand, and the Dutch and German cases on the other.*

In the UK, the issue was framed as one of trust, that is, of trust in the government and scientific authorities to speak the truth about issue that concerned the health of the public at large and to do their utmost to keep it from harm. That trust was lacking, apparently (at least, according to Lowe et al., 2003; Boin and 't Hart, 2000, but see Forbes, 2004³⁴). Many relate that the suspected relation between MAFF and the food industry and agricultural lobby was found inexcusable (e.g. Interview WP5-20; 18-7-06). If not intentionally and maliciously, the interests of consumers were at least in danger of being overlooked by the institutional embedding of those in charge:

Putting consumers first was ... ensuring that the interests of consumers were protected over the economic interests of farmers and food producers. ... I think it is also important to realize that within the food safety staff at the ministry of

agriculture, that was their position anyway. The difficulty was that they were part of a ministry whose overall primary objective was to advance British agriculture. (Interview WP5-20; 18-7-06)

The effects of that obstacle were likely amplified as a result of the 'secrecy' experienced in the communications of MAFF:

[It] was a very ministerial model where by definition ministers tended to announce what they wished to do. And if people objected they might have some opportunity to make representations, but nobody was in any doubt that the decision was already taken before the matter was made public. And it was I think very clear, and it was true from the BSE-crisis that a number of people who had a legitimate interest simply been ignored during making policy. (Interview WP5-36; 18-7-06)

There was at least the suspicion that those who were in a position to link the two types of knowledge and insights together, would do so in the light of the interests of the either the food industry or the agricultural industry. Among the many regulations and laws regarding either the production of meat or the protection of the consumer, there were none concerning the protection of consumers against prion-diseases based on the consumption of beef and other cattle-derivatives. *This institutional 'void' had to be dealt with at the same time the scientific and governance-questions had to be answered.*

What probably was not very helpful in this respect too was that at the time, the very sites where information provided through the scientific committees on human and veterinary aspects of the disease were simply lacking. There was no forum, no formal 'stage' were to discuss BSE as a zoonosis:

I mean at that stage, there was no forum as far as I can recall where, and if you like, BSE would have been discussed. ... So I mean at that stage, I think it's fair to say they still thought that BSE was a disease of cattle. They didn't think that it had any human implications and they could go on thinking that as in Weighbridge, because they never came in touch with anybody who might say, hey come on you know what about scrapie in sheep? ... [which was] the only thing they could link it to in that stage. ... my opinion would be that there was no forum in which the relevant people would ever have come together. (Interview WP5-27; 19-7-2006)

In other words, there was no institutional 'middle ground' between the moral responsibility of the state to 'do something about BSE-risks for people', and the commitment to scientific principles of those who were the

most knowledgeable on the particularities of the new TSE phenomenon. The institutional void may very well be considered a part of the 'passive' trust that is presupposed in the formal organisation of government central, which is central to many accounts of the BSE-story in the UK, if not its cause.

In contrast, in the Dutch and German cases, the issue of trust, the findings in this project indicate, did not play a decisive role. Whereas most informants on the UK case speak of a decrease in trust, interviewees on the Dutch and the German case do not use that vocabulary, or even explicitly address the topic in the negative:

[When] they [in Germany] discovered these few cases ... then there was an uproar. But this was more fear of this unknown disease and not so much mistrust in the administration and the government. Because this has never been a topic here in Germany. So all these commissions that did not work in the UK, they were not necessary here. So we didn't have a history of misconduct and so on. So this uproar, or that people were so upset was [about] "what can we eat?". Of course all the retailers had a large problem and they couldn't sell their meat anymore, and they had to create hotlines and internet pages and they sent pamphlets to every household to explain and they put up quality control systems to make sure that every goes ok. So there were a lot of initiatives on that level. And of course two ministers had to quit their job. So on that level we had consequences but it was not a general mistrust in the government. (Interview WP5-11; 6-7-2006)

And on the Dutch situation in relation to BSE:

Maybe it was trust [that there was no big public outcry over BSE in the Netherlands]; maybe also that there is transparency [grote openheid]. I remember that in '86 ...in Europe, because of Chernobyl, when that radio-active cloud precipitated, and came down in many places. In the Netherlands, we simply said: 'Listen, radio-active dust has been coming down; you should know that you better not eat such and such products in the coming months.' But we were among the few countries that actually said so. In that sense, the tradition [of openness / transparency] is quite old. (Interview WP5-17; 30-6-2006)

The observation that trust in the government in the UK context of the BSE affair holds a different meaning than in the Netherlands (and probably Germany), which is based on the interviews held in the context of this project, is supported by a count of the number of articles in the media in both the UK and the Netherlands, which feature a combination of the words 'BSE', 'trust', and 'government':

British media	261
Dutch media	64

Table 3.1 No. of articles featuring the combination 'BSE, trust, government', from 1-1-1996 to 1-1-2007.³⁵

Probably because of the public outcry in the UK, where the concern over BSE was cast in terms of distrusting the state, the perceived need to act in view of public health *in spite of* a lack of scientific evidence was more urgent than in both the Netherlands and Germany. In these countries, scientific considerations were the major framing-grounds for the issue. As a consequence, the proportionality of the measures taken to protect the general public from BSE-related risks is appreciated quite differently compared to the British perspective:

During the BSE crisis, all demands – by way of precaution – were set very highly, right from the start, super-high. We don't look at whether this is necessary, we just do it because ... it all comes down on trust, of course, but also because it is a way of doing things. You may cut down [the stringent measures] afterwards but then you have to build up nuanced knowledge. Scientific research – the natural sciences – has shown that in principle [these] could in several respects be cut down, but that is a highly sensitive issue. And understandably so, as the consumer at the time was considerably worried over food safety. (Interview WP5-26; 27-6-2006)

Take for instance BSE. That of course remains an outstanding case. That we, in Western society, have invested tens of billions if not hundreds of billions to prevent a disease which has caused up until now if I am correct 160 to die. Very unusual. Very unusual indeed. (Interview WP5-15; 7-6-2006)

Food has always been a very sensitive topic. ... BSE has triggered fear and ... Insanely how many measures have been taken to abate that fear. Instrumental, budget-wise; it has cost I believe some 40 billion in Europe to contain BSE. That is in no way in proportion compared to the numbers of deaths caused by smoking or traffic. Hence it is merely the perception of the risks [rather than] the real risks. And in the perception of risks there is a lot of differentiation. Food of course is bound to be [a victim of] perceptions; when you eat something bought from the shelf you presume it is safe. Whereas if you smoke, you know it is bad from the start. ... BSE in all its extremes is an exemplary case in that respect. If only someday, that is looked into in detail, how stupidly we have handled that ...! (Interview WP5-35; 7-6-2006)

Compare too the comments of a leading Dutch scientist recorded in a newspaper at the time:

The BSE-approach costs billions, but leads to nowhere. F. van Knapen, professor veterinary health at the University of Utrecht emphasis he posits this in his role as a scientist. 'What politicians and food producers concoct is up to them, but from a scientific point of view, the attention for BSE is extremely over the top. Give me a

billion out of that enormous budget, and I resolve the much more serious Salmonella problem. No problem at all' (*Trouw*, January 12, 2001).

The differences as to the extent to which the issue of trust is considered of relevance may help explain the varying ways in which the institutional void (or, ambiguity) in the various countries was dealt with. The 'secrecy / trust' discourse in which BSE was embedded in the UK resulted in considerable institutional innovations in terms of governing food safety and enhanced participation, whereas in both the Netherlands and Germany, the embedding of the issue in the 'scientific evidence' and 'voorlichting' [extension, public information] discourse (characteristic for Dutch agricultural policy-making) is reflected in the absence of major changes in regard to the participation of non-state and / or non-scientific actors in deliberations on food safety issues (see chapter 4 and 5).

3.3. Discursive shifts after 'the event': re-framing the agriculture – public health interface

The dynamics described above – technological developments together with the shifts towards a privatisation and internationalisation of food quality control regulations, as well (we shall argue below) the BSE-event as such – unsettled the dominant discourses that had settled in the post-WWO, pre-BSE years in both the fields of agriculture and of public health. They *re-settled* in a way, it is argued below, that speaks of a fundamental reinterpretation of life, in terms of the connection between the body and the environment, and with it, in terms of the relation between individual responsibility and collective responsibility. Three different forces can be seen to influence these dynamics:

- a) the discourses at play in the area of public health came to influence those at play in the field of agriculture and vice versa, linked-up together in a way that was not done previously, with the notion of 'prions' as a linking-pin;
- b) the discourses at play in the various countries within the EU came to influence one another more than had previously been the case: the

BSE affair strongly affected internal trade relations (and caused the EU to take recourse to a traditional instrument – closing borders – that seemed oddly out of place in modern Europe) which incited the EU to identify an entirely new role for itself, which came to bear strongly on the developments in the member-states;

- c) while, in addition to these transnational dynamics, discourses developed under the influence of regional differences in the ('pre-BSE') discursive landscape.

These forces at play resulted in a re-framing of food as a safety issue, in a re-framing of food as an environmental issue and, because of a newly conceptualised interlinking between the two in a framing of food as a moral or ethical issue rather than, and in addition to its framing as an economic issue cast in the rationalisation discourse that of old dominates the policy area of food production. Below, these developments will be discussed in detail.

Food and the human body: food safety as a discursive novelty

Literature on BSE and other food scares more or less self-evidently speak of the events discussed in terms of 'food safety'. So do too the informants in this research project, as well as the policy documents addressing food issues. Discussing the topic it seems as if it has always 'been there'. Closer scrutiny reveals that was not the case; in fact, the phrase 'food safety' came to dominate the public discourse on food only in the past decade. An analysis on the basis of a written media-database (LexisNexis) presents the following indication of its increasing use and popularity:

	1-1-1987 – 1-1-1997	1-1-1997 – 1-1-2007
<u>UK</u>		
The Economist	16	127
The Observer	30	196
total	46	223
<u>NI</u>		
NRC Handelsblad	2	243
De Volkskrant	4	386
total	6	629

<u>G</u>		
Berliner Zeitung	0	186
Der Spiegel	0	46
total	0	232

No. of articles in written media featuring the phrase 'food safety' [*voedselveiligheid / Lebensmittelsicherheit*]; comparison between period 1) 1-1-'87 to 1-1-'97 and 2) 1-1-'97 to 1-1-2007.

Further analysis indicates that the British discourse affected food-discourses on the mainland: with BSE, it 'conquered' notably the Netherlands and to a lesser extent Germany:

	<i>i</i>	<i>ii</i>	<i>iii</i>	<i>iv</i>
<u>UK</u>				
The Economist	6	16	44	26
The Observer	7	41	41	22
total	13	57	85	48
<u>NI</u>				
NRC Handelsblad	2	5	34	144
De Volkskrant	1	5	24	86
total	3	10	58	230
<u>G</u>				
Berliner Zeitung	0	0	5	62
Der Spiegel	0	0	2	11
total	0	0	7	73

Table 3.3 Use of the phrase 'food safety' [*voedselveiligheid / Lebensmittelsicherheit*] in leading written media in the UK, the Netherlands and Germany, periods *i*) 1-3-1994 – 1-3-1996, *ii*) 1-3-1996 – 1-3-1998, *iii*) 1-3-1998 – 1-3-2000, and *iv*) 1-3-2000 – 1-3-2002

How to interpret these data? Of course, the data are not intended to claim that the newspapers' interpretation represents the 'entire' debate, nor to compare the British, Dutch and German sources used here in terms of their quality or accurateness. Rather, the examples are chosen in such a way that they present a comparable image of how the food discourse in any of the countries under scrutiny changed over time, the numbers providing an indication of the increase in the use of the phrase 'food safety' in the identified periods.

When read in this manner, it is striking to see how the notion of 'food safety', while having its roots in British food talk, comes to dominate

notably the Dutch discourse on food after the year 2000. That is the time when the country is troubled by various crises in the agricultural sector, including BSE (see chapter 2) , and the GMO–debate hits hard. The Dutch animal disease disasters are framed in terms of food safety, and so are the preliminary discussions on how to handle chemical pollution of foodstuffs. In Germany too the phrase of ‘food safety’ is embraced to discuss the BSE crisis that hits the country.

In the UK, apparently, ‘food safety’ is no newspeak in the two years immediately preceding the ‘announced link’ between BSE and nvCJD (in March 1996) yet it is not very prominently present in the written media. Interestingly, it is virtually absent in the years 1988-1989 (for the news media investigated here, only 1 hit) while that was the time of the Salmonella upheaval designated the ‘first food scare’ (Roslyng, 2005). It is about this time, yet, that the origins of the phrase can be traced, namely in the way *the consumer movement* in the UK began to frame food issues and the role of government therein:

[It was in] 1987 ... the first time really that consumer organizations were *looking at animal health legislation, and saying what are the implications for consumers of all of this*. And I mean I suppose we were beginning to ask questions in an area that was directly affecting human health, and you could see it was directly affecting human health *because of the increasing salmonella incidents*. ... So particular, I suppose because there was a tradition here of some of the women’s organizations [concerned about bottled] meat products ... you wouldn’t find any [body]... really well informed about [botulism] ... how you might be at risk form it. But most people would know about salmonella, many people now know about e. coli, which was hardly identified at that stage. So I think it’s fair to say *there was just a climate where consumers in the food area were beginning to look at food safety, and particularly the links between animal health and public health*. And the context for that was really interest in food hygiene and food poisoning, and at the same time you know this new disease was discovered. And I mean I think that there was pressure throughout the nineties to get answers to questions, but government at that stage in the UK was very secretive. (Interview WP5-27; 19-7-2006; my emphasis)

In the fall of 1989, a bill was passed that increased the minister’s powers to destroy suspect food and close down unhygienic retailers; legislation dubbed the ‘food-safety bill’ (*The Economist*, 25 November, 1989). The influence of the British consumers’ movement, notably in respect to the concerns for the effect of animal diseases on human health – in addition

to the government’s “secrecy” as has been observed above – cannot be underestimated. It was to have an echo and amplifying effect in how first the corporate sector, and then governments (including the EU), came to view consumer – producer relationships, namely as integrally connected, with ‘food safety’ as a major organising principle.

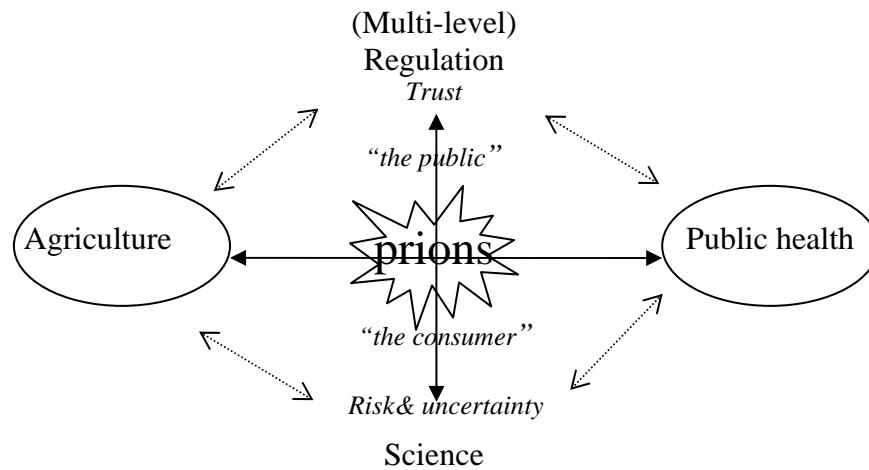


Fig. 3.1 ‘Prions’ dislocating and connecting various institutional fields and discourses

Food and the environment: prions connecting agriculture to health

Another major discursive shift to be observed in the post-BSE era is that which features a ‘food chain’ metaphor. The metaphor of course has a long-standing history in terms of portraying the *hierarchical* relationship between animals and men as a source of proteins and other nutrients. In that biological reading, it gained considerable weight in conveying the detrimental effects of pollutant accumulation (‘PCBs from plankton to ice bear’). Under the influence of BSE and other ‘food scares’, notably including GMO-related discussions, the metaphor not only became a key concept in the framing of food issues, but also took on some entirely different meanings. Again, an article count and analysis on the basis of several leading written media at the time provides an indication for this observation:

UK	<i>i</i>	<i>ii</i>	<i>iii</i>	<i>iv</i>
----	----------	-----------	------------	-----------

The Economist	5	14	13	24
The Observer	30	54	45	68
total	35	68	58	92
<u>Nl</u>				
NRC Handelsblad	20	35	50	71
Trouw	14	30	47	71
total	34	65	97	142
<u>G</u>				
Berliner Zeitung	0	0	2	30
Der Spiegel	0	0	3	23
total	0	0	5	53

Table 3.4 Use of the phrase 'food chain' [*voedselketen/Nahrungskette*] in leading written media in the UK, the Netherlands and Germany, periods *i*) 1-3-1994 – 1-3-1996, *ii*) 1-3-1996 – 1-3-1998, *iii*) 1-3-1998 – 1-3-2000, and *iv*) 1-3-2000 – 1-3-2002. (For the British search corrected for 'fast food chain')

A detailed analysis of the use of the phrase in Dutch media reveals that the meaning of the metaphor changes with time. Take for instance its use in *Trouw*, a leading Dutch newspaper known for its 'beyond-the-hype' research studies and reflective journalism. Of the 14 entries in the first period (1994-1996), 13 referred to the biological meaning of the word, while 1 was intended to convey a different meaning (in this case, the social status of a particular group of people). In the second period (1996-1998), BSE enters the scene. Of the 30 entries, 16 refer to the biological interpretation in the traditional sense of the word, of which 6 are specifically related to GMOs. In another 10 entries, the phrase is used in regard to BSE.

It is here that one can observe a first alteration in the biological interpretation. Of course, its BSE-related use comes close to that of describing substances as pollutants in the sense of 'matter-out-of-place'³⁶ entering the food chain and being passed on from one species to the other (and/or, as in the GM-case, from one generation to another as well). Yet, a crucial difference here is that the 'polluting space' is considered limited, being localised between feed production plant and slaughterhouse. If only there the 'chain' of pollution is broken, the danger involved is averted. It is in this light that the phrase's use to indicate an entirely different interlocking of entities in place and time can be understood, namely that

referring to the *horizontal* linkage of producer to consumer. In this period that meaning of the phrase is first observed, e.g. in *Trouw* (June 27, 1996) “from farmer to consumer”); and in *NRC Handelsblad* (February 20, 1998) in a description of an exposition of photographs depicting food as transforming from a poultry farm chicken to a snack in an airport Marriott-hotel lunchroom.

This interpretation of the phrase is rapidly gaining momentum in the following two-year period, as spokesmen of the corporate sector are quoted saying that they desire a total control of the ‘food chain’ :

To have the food chain entirely in our own hands, so as to restrict risks to a minimum. That is the gig wish for the cattle- and fish feed company Nutreco. The recurring feed scandals, with the dioxin crisis as a recent all-time-low, have made the firm even more aware of the need for that. ‘It is more than a desire’, replies Antoon van den Berg, director of Nutreco’s animal products division, ‘it is our basic philosophy. The supermarket chains are strongly pressurising us to supply safe food. Food of which the origins are clear, which is traceable back to all suppliers [toeleveranciers]. Our customers demand that, so that is what we do. To link the farmer to the consumer is therefore our task [opdracht]’ (*Trouw*, December 31, 1999).

Of the 47 ‘food chain’ entries in this newspaper in this period, 15 refer strictly to this ‘total control’ meaning of the phrase, without any reference to BSE, such as:

The biological [i.e. ecological] food chain has to grow up quickly (*Trouw*, June 26, 1999)

Another [person] tolls the alarm clock and predicts that [as a consequence of the Millennium bug] the phones will be dead for prolonged stretches of time and the food chain will be interrupted [onderbroken] (*Trouw*, June 22, 1999).

In the last period inquired into here (March 2000-2002), of 71 entries, 15 convey this meaning of the phrase (of the others, 28 refer to the food chain in relation to BSE, bringing together the biological with the organisational interpretation of the phrase – it will be remembered that this is at the height of the Dutch BSE ‘scare’ – while only 13 are used in the strict biological framing of the metaphor (“man standing at the end of the food chain”; *Trouw*, March 29, 2000). In February 2002, the newspaper quotes a research institute concluding that “in five years, the world-wide food chains will be controlled by ten big players” (*Trouw*,

February 19, 2002). Here, the metamorphosis of the metaphor is complete: not only do the multinationals take control over the streams of good and money that dominate food production world-wide; they also control the language by which thoughts concerning these issues are expressed. As phrased by the Nutreco director quoted above: "In the Netherlands, there is a lot of resistance among farmers against vertical integration. They fear that the free market will disappear, that farmers no longer are master of their own home. But we really want this new structure. Not because I am an activist, but because the market commends it" (Van den Berg in *Trouw*, December 31, 1999; our translation).

It is in this respect that the notion of risk in relation to food takes on a different meaning. Food production is now seen as something that can be 'secured' ("defended") by defining risk on the level of the 'chain' as such, i.e. on the aggregate level of the organisational units by which the transactions between primary producers and ancillary industries are connected to the consumer. There is now talk of the possibility of a "closed food chain" (*Trouw*, April 7, 2001), and of "the extent to which the food chain is vulnerable to bio-terrorism" (*Trouw*, October 11, 2002). The phrases by which this projection of a defensible chain is conveyed indicate yet another discursive shift. Whereas there is no mentioning of the concept (or any of its equivalents³⁷) prior to 1995 in the newspaper database, the media as well as policy-documents are came to discuss food safety as an issue defined "from farm to fork".

Thus the *metaphor of the food chain transformed* from a depiction of vertical, hierarchical bonds between species, to an image of horizontal, interdependent ties between economically and organisationally separated units; a collection of units which is, please note, amenable for control.³⁸ With this framing, a novel way of rationalising agricultural practices and consumption was conceived.

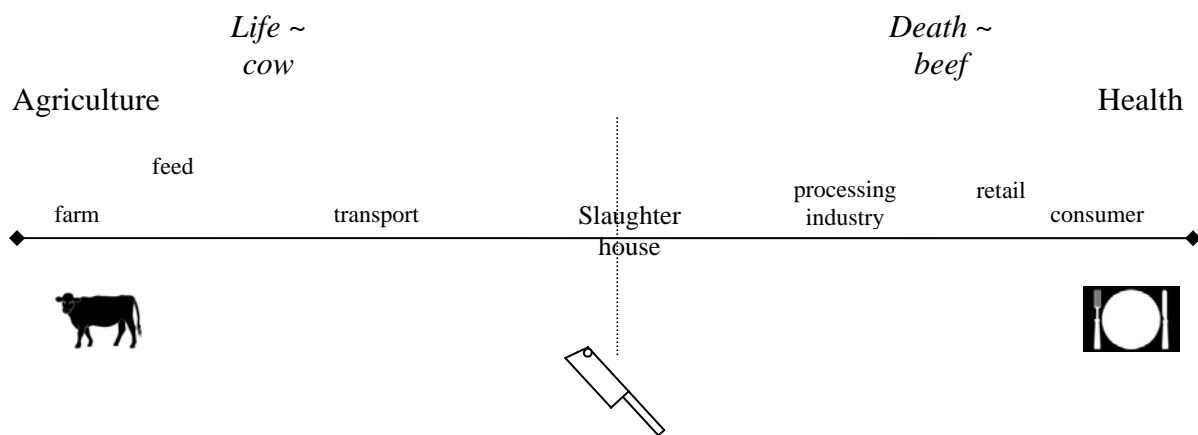


Fig. 3.2 Post-BSE food chain conceptualisation: 'from farm to fork'

Among the issues that came to be re-framed in the process of re-conceptualising the food chain, was the topic of environmental implications of agriculture. The BSE-dynamics and the ensuing (and facilitating) attention for 'food safety' shifted the power balance between the rationalisation and modernisation discourse regarding agriculture, and an environmentalist perspective on the use of nature (land, plants and animals), in favour of the latter. Yet, as it so happened, the environmentalist discourse was fitted into the framing of individually defined, 'bodily' safety. As Lowe (2003) posits "Amidst deep public concern about food safety, organic farming was hailed as BSE-free by the environmental movement, several politicians and the mass media (e.g. Künast 2001). This led to a steep rise in demand for organic meat which rose sharply in price. In this period, many German consumers temporarily abandoned either their normal meat-eating habits or their normal cost-sensitivity, turning instead to expensive organic food or even exotic meat such as ostrich steak. Driven by the public demand for more information about food safety, the mass media started to scrutinise the agricultural business community more closely. Until BSE the German public had shown little interest in, or awareness of, the way the sector worked and how it was supported (Eurobarometer 2000)" (Lowe (2003: 14).

This 'leap' from a concern for the body to a concern for nature surrounding the human body (the "environment"; *Umwelt*) is reflected in what in Germany came to be known as the *Agrarwende* (agricultural turn), the shift in policy (and notably policy rhetoric) that characterised the plans of the coalition that came in office after the BSE-affair peaked in the country. Newly installed *Bundeskanzler* Schröder phrased his views on the changes made imperative by BSE as "the end of agriculture as we know it" (Schröder in the *Telegraph*, January 11, 2001). The outlook on environmental concerns expressed in this perspective essentially is an anthropocentric one. Indeed, the new agricultural minister, Renate Künast remarked "I am campaigning for a new agriculture. An agriculture which is once again backed by the people" (Künast, 2001; cited in Lowe, 2003).

In the UK, arguably, the move to combine the environmental department and the department for agricultural affairs into one ministry, resulting in the installation of DEFRA (Department of Environmental, Rural Affairs and Food) in 2001, was an expression of similar notions on what rural affairs should look like. In the Netherlands, interestingly, the political agenda nor the institutional landscape underwent such major changes (see chapter 4). Yet, the agenda of the ministry of agriculture as well as that of various major research institutes on agricultural and environmental issues changed. Debates and research projects were launched under such titles as "socially acceptable husbandry", and "the future of intensive animal farming" (see chapter 5).

It is worth noting that within these and comparable deliberations, hence, the issue of social (= collective) responsibility vis-à-vis animals in agricultural practices as well as for the quality of ecosystems, was *related to* the individual's (= consumer) responsibility for personal health and purchasing and consumption practices.

Illustrative of the discursive shift linking up and mainstreaming both previously non-dominant discourses (that of the individual, conscious consumer, as in the *countercuisine* ; cf. e.g. Belasco, 1989, as well as that

of collective responsibility for the environment, as through ecological farming) is the change of name of one of Britain's leading consumer organisations, the National Food Alliance, into 'Sustain':

They've changed their name too, because they were doing much more on environmental issues and sustainable production, in food and pesticides, that wide range of issues. ... They ... have particular campaigns that they're running. There's one on children and food in particular, which covers things like advertising food to children and food in schools and so on. They work a lot on health claims and a number of other projects, perhaps more on the sustainable food and production side. (Interview WP5-5; 6-7-2006)

In other words, in the post-BSE days, the post-1960s discourse of collective accountability for the environment was linked up to a discourse of individual responsibility, through the carrying-capacity', so to speak, of the farm-to-fork, 'stable-to-table' metaphor. As a consequence, the BSE-event gave way to a newly defined discussion on the ethics of food production, often cast in a narrative of (non-)sustainable agriculture.

Food and ethics: new roles and identities

The discursive horizontal integration of various groups of actors operating in 'the food chain' brought along, and was an expression of, new assumptions regarding the roles of each of these in relation to one another. Furthermore, it integrated public health discourses with discourses regarding agriculture. Two more or less contradictory, potentially clashing discursive dynamics regarding food and ethics were thus set in motion.

On the one hand, the farm-to-fork speak tallied with the development of 'chain reversal' described in chapter 2, whereby the role of the demand side in agricultural production was emphasised instead of the supply side. The rationalisation of agriculture (in terms of cost-effectiveness and molecular reductionism – e.g. as in agricultural research being organised on the basis of the adagio "getting more out of the same plant" (Interview WP5-21; 19-12-2006) – now reached beyond the food companies (financing an increasing lump of agricultural research) into the realm of the consumer. The consumer's (perceived) wishes became a leading

organisational principle for setting up research and other interactions in the chain (“our customers demand it from us”); whereby wishes were perceived of as being framed in terms of ‘food safety’, and safety was perceived of as the absence of a (microbiological) threat to physical, bodily health.

One indicator of these dynamics is that the safety control system that was developed (rather: adopted) by retail companies (HACCP; see chapter 2.2) was made obligatory in three successive stages for an increasingly larger part of the food chain: in 1990, it was formalised for the entire retail sector; in 1995, it was made obligatory for the food processing industry as well, and with the full implementation in 2006 of the General Food Law, its application area was extended to include the slaughterhouses (see fig. 3.3).

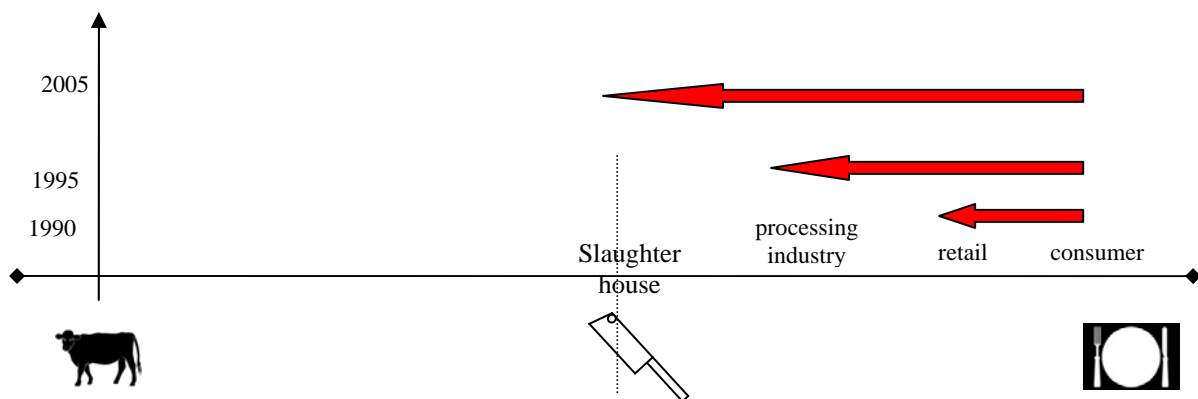


Fig. 3.3 The food chain and safety control: progressing increase in the space submitted to HACCP regulation

As observed in chapter 2, in the preparatory discussions and debates designing what came to be the General Food Law, voices were raised pleading for a compulsory adoption of the HACCP system in the primary sector too. In other words, some argued for the adoption of an instrument designed and implemented in view of securing human physical safety beyond the slaughterhouse, to be applicable to the handling of food (beef)

while it was still part of a living animal (cow). That has not as yet materialised, yet informants to this project indicate that some farmers already organise their quality control practices on the basis of this system. And even if they do not do so (“I couldn’t be bothered; too much hassle”), some express a sense of urgency to produce with the well-being of the consumer of the farm’s products in mind:

It is in the interest of the agricultural business community itself too, obviously, that the quality and trustworthiness of food is of an undisputed level. ... It is of the utmost importance, not only for the consumer but also for the sector itself. We are, the Netherlands, the second largest exporter of agricultural produce, and that evidently implies that there are huge economic concerns as stake. The moment you hit the news with some scandal or another, your export position is impacted immediately. I can tell you all kinds of tear-jerking stories about how important food safety is and all that. That is true of course, but obviously notably because of the enormous economic weight attached to it. (Interview WP5-12; 20-6-2006)

In addition to being entrepreneurs producing agricultural goods, the ‘farm to fork’ metaphor thus attributes an explicit identity to farmers as producers of *food*. In this role, then, responsibility for public health issues is put onto farmers as well, an assumption on which new regulatory practices (e.g. making the sector responsible for controlling its own compliance with safety regulations; see chapter 4) came to be built. A statement of an emeritus professor of medical microbiology, Sir Hugh Pennington, on the abatement of BSE may serve as an example: “A difficulty here, however, was that many farmers ... do not see themselves as providing food.” (*Risk&Regulation* 2006: 15).

In addition to the farmer’s economic responsibility, the linking of both realms of practice – food production and food consumption – heaps a moral responsibility for the consumer’s well-being on the farmer’s shoulders. Through the adoption and formalisation of (initially private-sector based) regulation, increasingly actors in the business of producing, handling, processing and distributing food are attributed an identity as defenders of the public interest, namely in regard to public health. Vice versa, it attributes to consumers the identity of risk managers, on a

rational basis (a declaration of contents in detail on products, is considered basis for “correct” decision making on consumption). On the other hand, strikingly, at the very time it linked the ‘rational consumer’ to practices of rational (and hence, ‘safe’, that is, under controlled conditions as far as possible) agricultural production, the new farm-to-fork speak opened up for a qualitative jump towards considering the ethical aspects of agricultural production. In the very moment it drew the consumer into the economic chain of food production and forced to adopt an active role, is adorned him or her too with an identity as citizen, to be held responsible on moral grounds for the ethical aspects of the production of his/her food. The ethical discourse draws on non-utilitarian conceptualisations of the relation between man and animal, as well as on an understanding of the physical world as vulnerable and in need of protection. Issues such as animal welfare, environmental care, and integrated rural development got emphasised as topics for deliberation also in the arenas traditionally focused on rationalisation of agricultural production, such as the EU and the ministries of agriculture of member states.

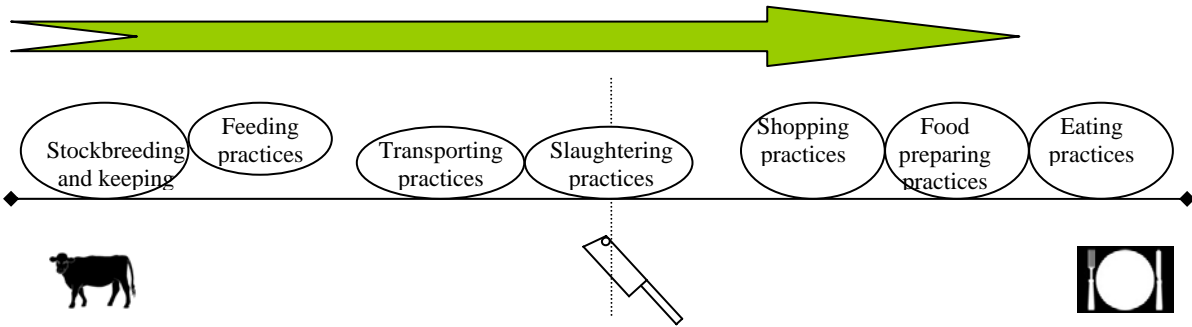


Fig. 3.4 The food chain: inescapably involving the consumer to consider ethical aspect of agriculture

In other words, BSE helped mainstream a discourse that expresses the inextricable entanglement of animal and human life, a discourse that not self-evidently tallies with (and at times clearly clashes with) the science-based, rational approach to dealing with food that roots in the health area. Frictions resulting from the two-track agricultural discourse become concrete in debates on specific policy issues.

The Dutch minister of agriculture's concern over the potentially counterproductive effects of prospect EU measures regarding animal welfare on food safety and animal health may serve as a case in point.³⁹ The minister gave an assignment to a research institute to look into the matter in response to questions asked in Parliament in a debate on the White Paper on Animal Welfare (*Nota Dierenwelzijn*), asking for a "positive analysis (oriented too on identifying options to enhance animal welfare through resolving food safety problems) [in the face of] the tension between welfare and food safety".⁴⁰

Furthermore, the difficulties in matching the two ways of framing agricultural issues and ethical responsibility come out quite straightforwardly in the agricultural policy-discourse of recent. While with the 'sustainable development' phrase inconsistencies and frictions can still be massaged away somewhat, the more recent popularity (at least in the Netherlands) of the notion of "prudent stewardship" in agricultural parlance brings potential frictions in both readings of collective responsibility explicitly to the fore. In a letter to Parliament, the Dutch cabinet expressed its position in these matters in almost biblical terms:

The earth and nature have been bestowed on us; we may make use of these in order to live prosperously, healthy and safely. Yet we will have to pass her (sic! 'the earth') on to subsequent generations, for them to live too prosperously, healthy and safely. In view of our fellow men [naasten] and generations that come after us we carry a responsibility. The earth has been given to us to manage [beheren], to labour and to keep safe [behoeden]. Sustainability and stewardship are all about here and there, about now and later (Letter of the Dutch cabinet to parliament, June 4, 2005)

Other such discursive moves found in the communications of the Dutch agricultural ministry seem to indicate an increasing emphasising of the

ethical aspects of agriculture and the responsibility of the individual and the collective towards nature (a 'moralisation' discourse) at the cost of the traditional rationalisation discourse. Among these is e.g. the minister positing that "the consumption of food is a moral act."⁴¹ This statement is quite remarkable as it reflects a progressing of the moralisation discourse, which here roots clearly in the agricultural part of the food chain, beyond the 'slaughterhouse demarcation line' into the bulwark of rationalism, the realm of food and public health. Furthermore, it is completely opposite to the dominant discourse conveying that "agriculture is an economic sector just like any other" as the same Minister has been reported saying (Interview WP5-31; 27-3-2006). Also the more recent portrayal of rural areas as a "consumption space" (Veerman, 2006) may be interpreted in this light.

Yet, the question of course is whether these statements are a mere expression of an individual minister's views and perspectives, endorsed perhaps by a smaller or larger group of civil servants and MPs focusing professionally on the agricultural business community in one country, or whether these speech acts are conveying wider discursive shifts. Fact is that the views expressed here seem to mirror the views on food that have informed notably the recent meat-related legislation on the level of the EU. As voiced by the European Commissioner for Health and Consumer Protection and Food quality, David Byrne: "The three key issues highlighted [here] – 'Safe, Sustainable and Ethical' – must be central to our whole approach to the food chain, whether in the primary production sector, the food processing sector, the distribution chain, or even at the final preparation and consumption phase."⁴² An empirical analysis of the terms by which food issues are being framed in the written media in the three countries investigated here may provide a more systematic basis for assessing the 'discursive landscape' connecting health and agriculture in the post-BSE era.

3.4 A newly developing discursive landscape connecting food, health and agriculture

From the above, it becomes clear that while BSE and other ‘food scandals’ were incentives to an increasing rationalisation in the food chain, they also incited an opposite development, namely the tendency towards taking into account the ethical aspects of livestock production. Both developments drew attention to the consumer side of the ‘food chain’ but on the basis of fundamentally different premises. How do the two orientations relate to one another; what is their relative weight? Are there differences observable between the countries investigated here?

An analysis of the discourses as expressed in leading written media for the three countries results in the following observations⁴³:

Food consumption framed as	/ a safety issue		an environmental issue		an ethical issue	
	1970-1995	1996-2006	1970-1995	1995-2006	1970-1995	1995-2006
UK	490	1317	1284	1592	340	1505
NI	30	432	352	961	67	193
G	1	147	1	454	1	15

Table 3.5 Changes in the framing of ‘food’ + ‘consumption’ in relation to ‘safety / safe’ [*veiligheid / veilig; Sicherheit / sicher*]; ‘ethics / ethical + moral / morality’ [*ethiek / ethisch; moreel / morele; Ethik, ethisch; Moral / moralisch*], and ‘environment’ [*milieu / Umwelt*] in leading written media in the UK, the Netherlands and Germany, periods i) 1-1-1970 – 31-12-1995, ii) 1-1-1996 – 31-12-2006.

Elaborated in a trend analysis (see Appendix 2), these findings enable the following observations:

As comes as no surprise, in the UK, the issue of food has been framed in terms of safety all along, while in the Netherlands and in Germany that framing was virtually absent. In the ‘post-BSE era’ the following discursive shifts are observable: although increased in absolute terms, the attention

for food safety in the UK increased by a factor 2.7 only, whereas in the Netherlands it did so by a factor 14.4. In Germany, food and consumption became notably framed as an environmental issue [by a factor 454 as $x1 = 1$], whereas food as a safety issue did gain a little in relative weight. Already in the first period investigated, food and consumption in the Netherlands were framed as an environmental issue; the changes therein are, in spite of the observations above, relatively small (factor 2,7). Interestingly, these data indicate that notably in the UK, in the post-BSE years, food and consumption have been re-framed as an ethical issue (factor 4.4); in comparison with the changes in the Netherlands (2,9) and Germany, that is a comparatively considerable change.

These discursive shifts precipitated in the shape of changing institutions. The next chapter discusses how these dynamics came out in various institutional re-arrangements.

4. Novel institutional designs for risk governance in the post-BSE era

A central tenet in the way the story is reconstructed in the previous chapter is that BSE is seen as *connecting* areas of practice – of governing, of the production of knowledge, goods and services – that previously operated more or less along side one another. Obviously, also prior to BSE and other scary food events did these not exist in complete isolation. The Dutch concept of *ketenomkering* (chain reversal) for instance illustrates that also in the pre-BSE days, the food producing companies, retailers and food-related research institutes were considered closely linked-up to one another. Yet, at the time of BSE's first identification, historically grown institutional and cultural boundaries between the various compartments of the BSE-energy field were still firmly in place. BSE, it is argued here, presented a clear and unavoidable incentive to re-consider these boundaries. As comes to the fore in the analysis of the food safety and 'farm-to-fork' discourses, it is only by then that the (reversed) 'food chain'-conceptualisation started to fully include consumers' concerns about the health aspects of food and feed.

In this chapter, the institutional responses to BSE's 'connecting' powers are described. The public (and private!) energy fields which BSE impacted, and in which it got shape, consisted of the policy area of agriculture and of public health, the corporate sector operating in these areas as well as governmental institutes and numerous societal organisations, among them environmental organisations and consumer organisations.

With 'food safety' now a common denominator (rather than 'food' as such), various dynamics came to challenge extant arrangements and at times amounted to a 'battle over borders' as the previously largely separated institutional worlds of agriculture and public health got integrated. Among these dynamics were developments towards an increase in globalisation and privatisation as well as the developments on the level of the EU, and the bottom-up dynamics of active consumer and environmental movement.

The institutional re-arrangements that took place at the level of the nations-states and of the EU are the most striking expressions of the dynamics that occurred as a result of the discursive changes analysed in the previous chapter. These re-arrangements concern both changes in the design of policy-making bodies (departmental re-organisation of ministries) and of associated institutions for regulatory science in regard to the safety of food.

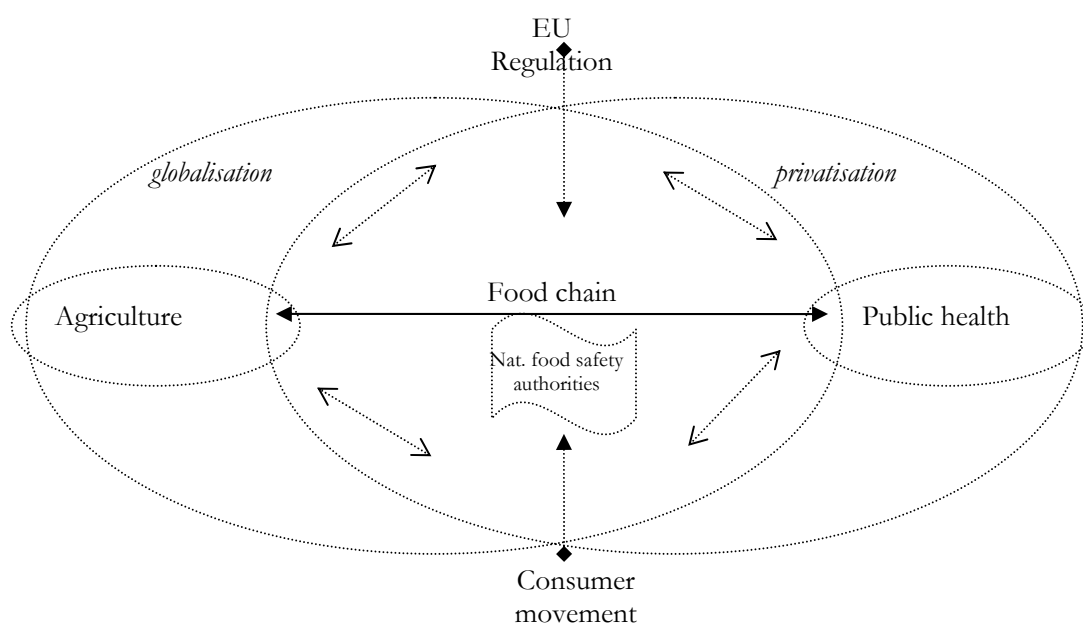


Fig. 4.1 The various dynamics at play in the 'public energy field' of food safety

4.1 Institutional re-arrangements in the UK

In the UK, the post-BSE-outbreak era accounts of what happened, and the search for causes and culprits, focused strongly on the administrative landscape in which agricultural policy-making and regulatory science were given shape. The organisation of scientific and administrative areas responsibility for either the agricultural aspects of food production, or the public health aspects were found to be acting "typically separated" (Van Zwanenberg and Millstone, 1999). Furthermore, according to researchers as Van Zwanenberg and Millstone (1999), there was a cleavage between the management of administrative branches, which were generally run by

officials not possessing a scientific training, and the scientists-led management of scientific branches which tended to have a narrower range of responsibilities.⁴⁴

The Ministry of Agriculture and Fisheries (MAFF) embodied, as said, the dominant framing of food safety as being principally the responsibility of industry, along with that for the production of food (Bartlett, 1999; Barling and Lang, 2003). While restricting state interference with the sector to a minimum, it was e.g. MAFF's initiative to advise ancillary industry to use non-food industrial by-products in compound cattle feeds.⁴⁵ The division of tasks regarding food safety between MAFF and the Department of Health (DoH) depended on ad hoc decision making depending on precedent. In regard to such issues as pesticide and veterinary medicines safety, food standards, chemical safety of food, food labelling and food technology, MAFF had taken the lead, whereas in regard to food hygiene, microbiological food safety and nutrition policy, prime responsibility laid with DoH. Since BSE was formally not considered a zoonosis (a veterinary disease transmissible to humans), up until spring of 1996, DoH obviously had no responsibility with regard to BSE.

The separations thus defined were not only formally a fact, they were also shaped geographically:

[G]overnment was compartmentalized ... So in this mix you've got processors, retailers and enforcement authorities, that is, representatives of the local authority enforcement personnel, and one consumer in there just to show they hadn't forgotten the purpose of this... From '89 that was me and I was there for nine years. And that was how they worked, [all] involved in food, I mean: the staff were separate, the location of the personnel was separate. For example the staff involved in meat ... all the meat hygiene, the meat inspection, anybody involved with meat production and meat processing, [that] staff were all located at [Weighbridge]. So they weren't in central London. We [on the other hand] always met in London, in the headquarters of MAFF. And people who were responsible, they also at that stage separated out science - they also separated out the people responsible for policy from the scientists. Within government they had a policy division, and they had a completely separate science division. So if you like the three [arms] of government itself were separated [makes a drawing]. (Interview WP5-27; 19-7-2006)

Indeed the 'BSE Inquiry'⁴⁶, which was set up under the auspices of Lord Philips on 12 January 1998 concluded that communication and coordination between the various bodies involved in the BSE story (the

two scientific committees, Southwood Working Party and SEAC, and the various governmental institutions, such as MAFF and the Department of Health) had been seriously flawed. Another conclusion was that “[t]hroughout the BSE story, the [government’s] approach to communication of risk was shaped by a consuming fear of provoking an irrational public scare.”⁴⁷ As a result of this fear, risk communication and consumer information had been unsatisfactory in their manner and timing; the Philips report concluded, and advisory committees regarding the BSE problem had at times been ‘used inappropriately’, resulting in critical time delays of policy decisions.

The FSA

The emphasis on consumer information and the need to take consumer aspects more seriously resonated in the recommendations concerning the ‘structure and functions of a Food Standards Agency’ produced by Professor Philip James of the Rowett Research Institute in Aberdeen, on invitation of the then-opposition leader Tony Blair. As described in chapter 2, the formation of a Food Standards Agency was a Labour Party manifesto commitment, and the ‘James Report’ set out the requirements for the establishment of an agency concerned with the protection of consumer health and food safety if the Labour Party would come to office after the coming elections – which it did in May 1997.

The James report was written for Tony Blair personally but “could also then be published as part of the process of establishing an open system of communication and consultation” (James, 1997). The report identified three issues that the new agency was to resolve:

- the potential conflict of interest resulting from the MAFF’s dual responsibility, namely regarding both food production and food safety;
- the fact that food policy and the monitoring of food safety were fragmented among many bodies and were insufficiently coordinated;
- the uneven enforcement of food law throughout the UK.

In line with these suggestions, in June 1997, the food safety responsibilities of MAFF and the Department of Health were brought together in a new agency, the Joint Food Safety and Standards Group (JFSSG). The JFSSG comprised approximately 250 staff members from MAFF and 50 from DoH and was to become the core of the food agency to be, the FSA. With this two-tiered re-organisation, the new Agency managed to cast away the old culture-of-secrecy, as well as to virtually overcome the traditional frictions between MAFF and DoH. As insiders relate:

[W]hat has happened before the agency came into being, there was a kind of a shadow FSA created. It was called the ... Joint Food Safety and Standards Group. So you had the officials from Health, the officials from MAFF, and they were sort of a, into a loose grouping even before the FSA was set up. And then ... when it came together, yeah I think it wasn't without the few sort of initial problems of getting this culture accepted, and developed. And if we're honest, in some ... in some sort of corners of this building there probably are still some people that haven't quite signed up to the [new openness] culture completely, but what I would say on that is that we're working on it you know, it's still an evolving process. (Interview WP5-6; 5-7-2006)

I don't, I really don't think it's [still] an issue. ... it was when I joined at the beginning and I came from, well I moved in the department of Health ... [to] try and ease the process – there was more of a number of people who moved from MAFF than from the department of Health – to try and ease the formation of this intermediate group. (Interview WP5-1; 5-7-2006)

The FSA eventually took shape on the basis of a White Paper that built on the James report.⁴⁸ The proposals of the White Paper were given effect in the Food Standards Act which received Royal Assent on November 11, 1999. The Act provided for the Agency's main organisational and accountability arrangements. It set out the Agency's principal objective of protecting public health in relation to food and the functions that it will assume in pursuit of that aim.

In accordance with the Act, the Food Standards Agency became operational on April 3, 2000 as an independent Government department with offices in England, Wales, Northern Ireland and Scotland. It inherited much of its executive structure and staff members from the JFSSG, but

had considerably more decision power; the formal regulatory powers of the MAFF are minimized (Hellebo 2004: 19; FSA, 2002; FSA 2004).

Appointed as chairman of the new agency was an Oxford scientist, Sir John Krebs. Immediately, this choice stirred concerns as to the credibility of the new institute among consumer organisations – which had hoped for a “strong, credible FSA chairman” (Smith and Meade, 2000), as well as among food scientists who are sceptical about the technical knowledge of the FSA board. Yet, the lack of contacts of the chairman with the food industry – Krebs was known in particular for his work on tuberculosis as a threat to livestock farming – as well as his strong scientific reputation proved an advantage in creating trust in the new Agency (Hajer, Laws and Versteeg, forthcoming). Moreover, consumer organisations rested assured when as Deputy Chair a former consumer campaigner and former member of MAFF’s consumer panel was appointed, Suzan Leather. In addition, the former head of the JFSSG and ‘founding father’ of the new FSA, Geoffrey Podger, was appointed as the FSA chief executive.

The FSA was charged with handling food safety, the protection of consumers’ interests in relation to food, and (jointly with the UK health departments) nutrition. The Agency set out to address food safety issues at every stage of the food production and supply chain. To that end, it commissions and carries out research, it monitors and audits local authority enforcement activities for food law, it enforces labelling and packaging rules, and informs consumers about food safety, food hygiene and nutrition. It regularly carries out formal consultations with the food industry, consumers and other stakeholders.

The FSA’s remit, its position as well as its culture reflected, in other words, a conscious move away from the previous arrangements, contrasting sharply with that of its constituent organisations. One of these itself changed drastically when in 2001, MAFF was replaced by the Department of Environmental, Rural Affairs and Food (DEFRA) (see chapter 2). This new Ministry, nor the Health Department are substantively responsible for the output of the FSA. Instead, responsible

for the agency's overall strategic direction and its compliance with legal obligations is a Board.

The Board is constituted of members who are appointed "to act collectively in the public interest, not represent specific sectors" (cf. FSA website, accessed 5-3-07). Individual Board members are chosen for their relationships to different parts of the food industry and food safety sector and come from different segments of society, ranging from food business to academia. The Board and its chair are assisted by the FSA's staff, advised by scientists organised in and outside some 20-odd independent committees and working groups that provide a scientific basis for the Board's decisions and advise to ministers. In addition, they are advised by varieties of stake holding groups, among which consumers, in multiple ways.

For the FSA, to position itself as an independent yet authoritative and influential organisation is a continual balancing act. As voiced by an anonymous spokesperson in the 2005 Review of the agency (Thornton-le-Fylde, 2005:31): "I think we struggle with the independence issue – making sure we maintain distance but still maintain our relationships." The Review provided a very nuanced image of (the perceptions of) the FSA, and concluded, on the basis of extensive interviewing in various of echelons in the UK in 2004-2005, that indeed stakeholders looked upon the Agency as being an independent voice, from both the government and the industry:

There was a balance between those stakeholders believing the Agency is too aligned to the food industry, and those who feel the Agency is too aligned to consumer groups – suggesting the Agency is actually getting the balance right ... The fact that parts of Government were reluctant to accept the Agency's advice to lift the OTM (Over Thirty Months) rule [intended to deal with BSE], although perhaps awkward or even embarrassing, does go some way towards proving the Agency's independence from Government. (Thornton-le-Fylde, 2005:33, 36 [pars. 4.1.9. and 4.1.17]).

The Review adds that there is some concern about the Agency's credibility which might be hampered as a result of openly discussed differences of

opinion between Agency spokespersons and e.g. the Chief Medical Officers of the Departments. This concern is not shared as such within the FSA, but considerations in terms of contents are consciously and continually weighed in relation to considerations regarding credibility, loyalty and independence. Decisions on these matters are made cases by case, context by context. Interestingly, the FSA staff makes a clear distinction in this regard between domestic deliberations and internationally discusses issues:

[F]or example if we have to make a case in the EU for a particular approach, then it is no good us saying, well we're kind of semi-detached from the UK government. We don't work like that. We'll join up with DEFRA or whoever, and there'll be one UK voice. For example when there was the question of seeking to get the beef ban lifted, and there were ... preliminary discussions particularly with the Germans and the French. ... The FSA [was] asked by DEFRA 'look come and help us in making the case in Bonn to the German scientists about why our beef is OK now, and present your risk assessments and work that's gone through your board'. We joined up with DEFRA internationally ... [a]nd the balance then - we're no longer saying we're an independent voice, we're part of UK government. But here domestically ... for example, when we had the board advise about lifting the over-thirty-months-rule, we published that, we didn't need the permission of the Health minister to do so first. Obviously it's up to ministers whether they accepted our advice, but the publication of the advice we didn't even need to tell them before we did it (Interview WP5-6; 5-7-2006)

In practice, DoH integrally adopts FSA's proposals for food safety regulation. Thus, the prime responsibility over all aspects of food safety is put in the hand of one body. The re-arrangements of departmental responsibilities and division of tasks apparently hence has brought an end to the situation which caused MAFF officials in the early days of BSE to take their time in informing their DoH colleagues. Furthermore, public trust in the 'food authorities' has been recovered (cf. Thornton-le-Fylde, 2005). There is no (formal political) discussion at present about the way responsibilities and tasks have been divided between the two ministries (Van Hoogstraten and Folkerts, 2005).

In the next chapter, the FSA's culture of openness and accessibility will be discussed, as well as its commitment to consumer interest, in view of the notion of participatory governance.

4.2 Institutional re-arrangements in the Netherlands

The institutional arrangements for regulating agriculture, public health and, later, environmental management in the Netherlands from their inception onward got quite neatly divided into separate areas of government which did not have 'much to do' with one another. Under the influence of a growing interest for environmental issues – and a growing power basis for environmental policy within government, as expressed e.g. in the establishment of an Environmental department in 1972 – gradually agricultural (and environmental) policy was 'de-compartmentalised'. Under the influence of growing environmental awareness, linked up to the diminishing power of the 'agricultural iron triangle', the initially strictly separated institutions for different sectors and sub-sectors gradually made place for a more flexible, thematic clustering of arrangements, e.g. under the influence of such ambitions as 'sustainable agriculture', 'integral water management' or 'consumer protection'. As discussed in chapter 2, BSE and other food scandals (dioxins!) were among the triggers to incite change in this process in the 1990s, as were the series of animal diseases that plagued the nation.

One of the most notable changes on the level of the institutions in the Netherlands, which is directly linked to these issues is the change of name of the Ministry of Agriculture. Of old, the ministry had the reputation to take care in particular of the interests of the agricultural business community. Notably after the outbreak of animal diseases that got intensive attention in the media (with imaginatively powerful images of large numbers of dead pigs being removed from farms with shovels and truck), the ministry struggled to broaden its right to existence: "LNV is *not* a farmers' organisation *pur sang*; it is there to serve the entire Dutch society" (Interview WP5-31; 27-3-2006; compare interview WP5-21; 19-12-2006).

Initially, at the end of the 1990s, the concept of "regional development", i.e. of the 'quality of non-urban space' was elaborated as a theme by which the ministry could justify itself vis-à-vis society outside the

agricultural business community. That however intervened too much with the domain of the Ministry of the Environment and Spatial Planning. Then, “rather suddenly”, the notion of ‘food quality’ was coined, which seemed a good idea as it posited the Ministry’s contribution to society at large in line with its traditional focus on the primary sector. Only after the notion had been embraced in various echelons within the Ministry, the matter of overlap / division of tasks and jurisdiction with the Ministry of Public Health was given attention: “it is not ours to claim, it’s the domain of VWS!” (Interview WP5-31; 27-3-2006). Yet the letter ‘V’ in the ministry’s formal abbreviation, which previously referred to Fisheries, now was changed to meaning ‘Food Quality’ (*Voedselkwaliteit*).

The new Ministry of Food Quality could establish its new identity as acting on the interest of both agricultural producers and in the interests of the consumers of their produce. What added to this new-found identity was the fact that the VWA, the Dutch FSA-‘equivalent’ (see chapter 2, and below) brought under the auspices of the LNV. A press release announcing the change of name of the Ministry self-consciously adopted the new phrasing now EU-wide invoked to convey the idea of food safety being an issue for public health *par excellence* (see chapter 3):

The ministry of LNV focuses on the food production chain from farm to fork [van grond tot mond]. ... The transfer of the VWA to LNV makes clear to both consumer and producer that the Ministry of Agriculture is responsible for the entire chain and column of food production, also viewed from the perspective of consumer interests” (press release, Rijksvoorlichtingsdienst, 6-6-2003).

The change of name and the ‘farm to fork’ discourse to which it related did not help much with the underlying struggle, the issue of how to bridge and handle in view of one another consumers’ concerns and the agricultural community’s concerns.

The VWA

In the ‘early BSE years’ the way in the Netherlands food safety was organised institutionally met with severe criticism. Like in the UK, the division of tasks and responsibilities between the agricultural ministry and

that of public health was of equally fluid at the time of BSE in the Netherlands. Responsibility for the safety of meat and meat products was divided between the Ministry of Public Health, under which auspices operated an agency charged with the control of consumer products (the Inspectorate for Health Protection and Veterinary Public Health, *Keuringsdienst van Waren*), and the Minister of Agriculture responsible for an agency charged with the control of cattle and meat (The National Inspection Service for Animals and Animal Products, *Rijksdienst voor de Keuring van Vee en Vlees*, RVV). The latter supervised the implementation of rules and regulations regarding health and welfare of livestock, and safety stipulations in the slaughtering and meat processing industry, and the combating of animal diseases. Among their tasks was the 'ante-mortem' check up, whereby animals are examined in the slaughterhouse, prior to being slaughtered, for visible symptoms of diseases or injuries.⁴⁹

Change was set in motion when in the late 1990s a new agency was envisioned, which would be endowed a modest, coordinating role in regard to food safety issues. Soon it was suggested, in Parliament and elsewhere, to instead design a (Preliminary) Netherlands Food Authority' (*Voorlopige Nederlandse Voedselautoriteit*, NVa) as an organisation with a more fully developed set of responsibilities and tasks, which would not only include food safety issues but which would focus on consumer aspects and product safety in general, and which would have both a coordinating role in regard to policy-making and research activities in those areas as well as having implementing and law enforcing tasks (TK 2001-2002, 26 991 – 59). It was then that a possible fusion of two separate quality control inspectorates was proposed. This body would be posited 'at arm's length' of government, yet would be the responsibility of the Minister to Health (VWS).

With this ambition, the latent discussion between the ministries agriculture and of health regarding the question 'which is responsible for what' flamed up in Parliament. Starting position in these discussions was the division as outlined in 1995⁵⁰, when it was established that LNV had

prime responsibility over animal health and animal welfare, and VWS over public health and consumer protection, and, it was emphasised at that time, over the public health aspects of zoonoses (cf. TK 2000-2001 26 991 – 48; cf. TK 1995, 23 900- 48). This consensus was broken open with the discussions on the later VWA, and the Ministers had to inform Parliament by letter that “we are at present extensively assessing the current division of responsibilities. Alas, finalisation of that trajectory takes more time than expected” (TK 2004-2005, 26 991-115).⁵¹ Some parties, among them the Christian Democrats and the socialist (Labour) party, felt that a new food safety authority should be installed under the sole responsibility of the Minister of Public Health. Other parties were in favour of an organisation modelled after the newly installed Ministry of Consumer Protection, Nutrition, and Agriculture (*Bundesministerium für Verbraucherschutz, Ernährung und Landwirtschaft*) in Germany (see below), thus bringing all responsibility under the auspices of a broadly defined ‘consumer protection’ ministry embedded in the institutional setting of agricultural governance. The latter would have implied a genuine institutionalisation of the *ketenomkering* (chain reversion) of the past two decades.

Eventually, in order to speed things up (and break out of a deadlock) an assignment was commissioned to two independent consultants (Carnegy-Stichting / Rijnconsult) to provide clarity on the issue. On the basis of a research process of in total two months, the consultants advised the Cabinet to concentrate responsibility for the safety of end products and semi-manufactured food products with VWS, and for the safety of “unprocessed” food products – primary production, agricultural raw materials) with LNV. The consultants’ advice, which did not stray too far away from the then-current situation, was adopted but for one major exception: responsibility for meat hygiene and meat controls, which was hitherto divided between the two ministries, was put firmly with LNV (TK 2005-2006, 26 991 – 119). The eventual VWA was charged with the monitoring the safety of food and consumer products and the health and

welfare of animals, as well as with conducting risk assessment in regard to these issues, and with risk communication.

The process of institutionally positioning the new agency is described by one of the interviewees in this project as a “satirical comedy [klucht] in three or four acts” (Interview WP5-35; 7-6-2006). Several insiders relate how initially the VWA was embedded institutionally with the Ministry of health (VWS), possibly as a *zelfstandig bestuursorgaan* ('zbo', that is, an independent governmental body) in a position more or less comparable to that of the FSA. No sooner had that been decided or a change in Cabinet brought the whole thing on the move again. Groups of civil servants and the newly to be installed Minister of Agriculture did their utmost to 'undo' this development (“LNV was really totally *shocked* the moment it was decided it would go to VWS. One was completely taken aback [ontredderd]”).

The envisioned Minister of Agriculture, shortly before he got in office, strongly opposed the institutional construction and made it an issue in the wheeling and dealing process about 'who gets what'⁵² that goes with the construction of a new Cabinet, and ended up having the VWA brought under the jurisdiction of the Ministry of Agriculture.

Subsequently members of Parliament who did not agree started a procedure for a 'Parliament-initiated law' (*initiatiefwet*) to try and ensure that the VWA would be positioned as an independent administrative body after all: “We had all simply not been paying attention, ... there was a little loophole, and then 'bam!', it had happened” (Interview WP5-35; 7-6-2006). According to one of the initiators, the efforts had the informal support of consumer organisations *as well as* major players in the food industry. Yet, over the next two-and-a-half years, the initiative and its underlying intentions “eroded” in the turmoil of political developments, among other reasons because there was a growing feeling of unease about 'zbo's' as an organisational unit for government services as:

[w]e have no damn thing to say about them, while we are still being held accountable for what they do. ... Imagine such a body is placed under the direction of some nitwit [onbenul], who messes up badly; then what should we [politicians]

do? Everybody cries 'one should place [such an institute] at arms' length of government'. But as soon as that is the case, we are all annoyed by the fact that we cannot exercise sufficient control over it. (Interview WP5-35; 7-6-2006)

Eventually, the VWA was brought under the jurisdiction of the Ministry of Agriculture yet was answerable to the two ministers (agriculture and health). Not everybody was happy with this situation. While analyses in commission of the Dutch government indicated that the safety of food in general is considered high (RIVM, 2004), the National Court of Audit (*Algemene Rekenkamer*) concluded that although food in general was "as safe as one can get", animal feed still entailed a major (Algemene Rekenkamer, 2005). This conclusion tallied with earlier findings by the Court that the meat industry is the most risk prone sector in regard to food safety, notably as a result of risks related to the animal feed industry, and as a result of the fact that the agricultural businesses themselves had to pay for the destruction of BSE-risk related organs.⁵³ The Court's 2005 conclusions emphasised that given the construction with two ministers being responsible for food safety, in case of a difference of opinion it was unclear who could ultimately be held accountable. Both ministers in a reaction stated that there was nothing unclear about the situation as responsibilities had been clearly spelled out. The Minister of Justice who also reacted to the report however stated that in his view there was a problem regarding the division of responsibilities, and questioned the VWA's possibilities to uphold its position as independent law enforcement and surveillance agency in case the responsibility for the Minister of Agriculture would be challenged.

A change in law eventually was sought to guarantee a clear-cut separation of tasks. The risk assessment division was formally separated from the law enforcement authority VWA, and reconstructed as a 'zbo' (independent governmental body) in its own right:

We are now independent because we became an Agency [agentschap]. That means that within government, you have your own programme or set of tasks. And for that, one is paid by one or two ministries. Formally, the Ministry of Agriculture is our owner, as every agency must be owned by some ministry. The ministers need to approve of our programmes, of those parts of it that cover their terrain, but the way we organise and implement [the work] is up to us. We are

professionally independent in that respect. ... The owner [Ministry] merely is responsible for the (financial) continuation of the organisation. (Interview WP5-17; 30-6-2006)

The reason for singling out the latter bureau (by some called a 'little bureau' [bureautje] because of its lack of funds for doing research itself) was to have its independence indeed ensured, even though that is considered a mere formality:

Quintessential in assessing risks and the formulation of policy, is that you keep it separated. ... That you do not make your assessment of risks dependent upon [an estimation] of possible [economic and political] consequences. ... But I have never had the impression that that was the case in the Netherlands. With the law, that is now guaranteed. (interview WP5-15; 7-6-2006)

[I]t is real risk assessment that the [separate] division is doing, that can be left under the same umbrella without worry [gerust]; the Minister has no grip on that as it is scientific risk assessment. The Minister does not have any influence on that, and in that way it is arranged by law. So we can hence simply leave it all in one ministry. (Interview WP5-35; 7-6-2006)

The impression that interviewees in this research project gave is that eventually all worked out fine, and that the new VWA set-up, which became fully effective by January 2006, is functioning well *because of* the close ties between those in charge of 'risk assessment, risk arrangement (understood within the VWS as the law enforcement and surveillance division) and risk communication:

Risk assessment and risk communication is very much part of our work. The "strategic triangle" [staff] are all very much in place and the starting point for our way of working. So people who are engaged in risk analysis are also very keen on risk communication. We are very satisfied with the way they are working and acting and asking for our [communication division] support right from the start of their projects. ... Risk communication is in the direct division of surveillance and communication, so risk management is very... We're close on the risk management people. Most of the activities or actions they are taking, in nearly all the cases they have to communicate the actions they're taking. (Interview WP5-17; 30-6-2006)

With the choice to put and keep responsibility for meat hygiene and meat controls, which hitherto had been divided between the two ministries, firmly with Agriculture (TK 2005-2006, 26 991 – 119), the Netherlands took a deviant position within the EU. The EU aspired more uniformity in food safety and control from within the public energy field of public health (see below). Interestingly, the uniformity and coherence of regulations

regarding meat quality control that was intended by the EU as an argument to place the entire farm to fork food chain under a public health regulatory regime was used in defence of the Dutch decision: “the shift of responsibilities [from the Ministry of Public Health to that of Agriculture] is practically do-able as rules concerning the slaughtering of animals and meat quality control form a unified body of regulation, both in terms of political control and in terms of EC-regulation” (TK 2005-2006 26 991 – 119; p.2).

The complex ‘menage-à-trois’ between LNV, VWS and the VWA – “The amount of letters that we have received about that, and the attempts by the Cabinet to explain it all to us, are countless. If only because of that, it is clear that they themselves are struggling with it” (Interview WP5-35; 7-6-2006) – time and again, brings up the question ‘who is in charge of what?’. Having been set-up on the basis of a veterinary inspection service and a consumer goods inspection service, the VWA itself was struggling to find its feet, and to get a clear picture of what it was in charge of. In its mission statement of 2004, for instance, the VWA elaborates its role as implementer and law-enforcing body of international (EU and beyond) and national regulation in regard to food safety. At one point in the text, in a rather down-played way, in an exposé on animal welfare and animal testing, it voices its ambition to itself initiate and co-develop regulation:

The VWA ensures that the regulations protecting the welfare of these animals are adhered to. It also participates in the drafting of the relevant regulations. ... Additionally, the VWA supervises the welfare of (farm) animals with regard to their transport and slaughter (VWA 2004: 43).

Apparently, these initiatives were not met with much enthusiasm by some in the agricultural business community, considering a motion, filed about a year later, by an MP of the Christian conservative party [CDA] to look closely into the “initiating aspirations” of the VWA. In his illumination of the motion, the responsible MP said that

various parties in the corporate sector [marktpartijen] voice the reproach that it is weird [that they] are being confronted with proposals from Brussels, in fields for which we [Parliament] are co-legislator [medewetgever], that have been proposed by the VWA.⁵⁴

His comment was reinforced by an MP of the labour party [PvdA], who added:

In my opinion, it concerns here an agency [agentschap] and it is not up to the VWA to initiate. The VWA does not at all have that legal status⁵⁵ (both quotes Handelingen 2005-2006, nr. 32, Tweede Kamer, p.2209).

Two inferences can be drawn from this. Apparently, firstly, the VWA in the eyes of some had crossed the (unwritten) boundaries of its jurisdiction. Interestingly, it had done so in line with EFSA's aspirations in regard to animal welfare legislation (see below). With the MPs' disapproval of the VWA's modus operandi (portrayed as acting as a kind of 'fifth colonna'), EU interference in Dutch agricultural practices was condemned in one breath. Secondly, it is interesting to note that it were members of the Standing Committee on Agriculture voicing the concern. Their remarks speak of the tension between an understanding of agriculture as a "conventional economic sector", which should not be bothered too much with society's ethical considerations such as animal welfare issues and of agriculture as an area of practices which will have (to be able) to give account to society for its modus operandi. In chapter 5, this aspect of the post-BSE era's changes is looked into in more detail.

4.3 Institutional re-arrangements in Germany

As mentioned in chapter 2, also in Germany the formal arrangements for regulating food production and food safety changed. Here too, a new food standards agency was set up. Furthermore, as was the case in the UK, the Ministry of Agriculture faced a thorough reorganisation that was directly linked to the occurrence of BSE. Specific to the German situation (as compared to the other two countries discussed here), is that the enforcement of food, animal and public health regulation is the prime responsibility of the *Länder*. While legislation takes place on federal level, the control on implementation is organised on sub-national level.

With the identification of the first 'real' (i.e. non-imported) German cow with BSE and the ensuing media circus in November 2000, a sense of urgency developed to re-structure the food regulatory regime. Several relevant institutions, both at the federal level and at the level of the *Länder* were under pressure to respond to accusations of misinformation and lax communication. In response to the criticism, Bundeskanzler Schröder commissioned the 'Federal Commissioner for Efficiency in Public Administration' (Von Wedel) to provide an analysis of the strengths and weaknesses of the regime, and to provide suggestions for improvement. Furthermore, Schröder sent home the Minister of Agriculture as well as the ("very unpopular") Minister of Health. He then moved on to abolish the Federal Ministry for Nutrition, Agriculture and Forestry (*Bundesministerium für Ernährung, Landwirtschaft und Forsten*, BML), in order to form a new ministry to take on all tasks involved in the protection of food and in representing consumer interests. These tasks had hitherto been scattered between the ministries of economic affairs, of health, and of agriculture, and were now to be combined in the new Federal Ministry for Consumer Protection, Nutrition and Agriculture (*Bundesministerium für Verbraucherschutz, Ernährung und Landwirtschaft*, BMVEL) (Reisch, 2003). The eventual installation of a lawyer rather than – as tradition would have it – someone with a background in agriculture as the new minister of the novel agricultural-plus-consumers interest ministry (BMVEL) underlined the radical change in food policy orientation aspired.

The minister that took office, Renate Künast, was from the Green Party and made a fast move forward in giving face and content to the new ministerial organisation in line with the Green Party's and the social democrat's (SPD) policy programme on agriculture. Among the plans developed by both parties was a re-definition of the European common agricultural policy (CAP). Whereas the two main areas of agricultural expenditure within CAP (the so-called pillars of the common policy) concern market and income support measures on the one hand, and rural development on the other, the left-wing German parties pleaded for a new

agrarian policy which took as its 'pillars' i) consumer protection and transparency; ii) support for quality in conventional agriculture; iii) support for organic farming; and iv) support for perspectives in bio-energy and other income alternatives. In line with this perspective, a steady stream of agricultural policy innovations was set in motion, with the active support of the new Ministry.⁵⁶

With the move towards the grand coalition of Christian conservatives (CDU/CSU) and the socialist democrats (SPD) upon the September 2005 elections, the organisation of the federal agricultural and consumer ministry underwent change again. The *Bundesministerium für Verbraucherschutz, Ernährung und Landwirtschaft* BMVEL was now renamed the *Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz* BMELV. In other words, the issue of consumer protection was put last, after nutrition and agriculture. In an interview with the *Süddeutsche Zeitung*, Seehofer, the newly installed minister (with CDU background), said by way of explanation: "We have merely arranged our name according to alphabet. ... Agriculture and consumer protection carry equal weight and do not [form a] contrast. Farmers stand in the service of the protection of consumers" (*Süddeutsche Zeitung*, 14 December 2005).⁵⁷

The Bfr and the BVL

In the same year in which the new Ministry was established, that is, in 2001, the federal commissioner Von Wedel submitted her report with recommendations for re-arranging the food safety regime. These mainly concerned the set-up of the risk assessment and risk management organisations in both the veterinarian and the area of human health. The institutional organisation of regulatory science consisted of a patchwork of institutions that either were organised on *Länder* level, on federal level, or on both. Furthermore, the field had been subject to some intensive re-organisation over the past decades, which did not enhance clarity about the respective responsibilities.

An important actor in the field on the federal level had long been the Federal Sanitary Board (*Bundesgesundheitsamt*, BGA), established in 1975 as an agency under the auspices of the Ministry of Health (*Bundesgesundheitsministerium*, BMG). This agency combined responsibility and tasks in regard to public health and food safety with those related to the authorisation of market introduction plans of new pharmaceuticals. Upon a scandal involving the contamination of blood products, this body had been abolished in 1994 and replaced with three separate institutions, among which the Robert Koch Institute, once an independent research institute in the field of public health, disease control and prevention, that had become part of the (predecessor to) BGA in 1952, and which now, again, continued as a distinct research organisation⁵⁸, and the Federal Institute for Consumer Protection and Veterinary Medicine (*Bundesanstalt für gesundheitlichen Verbraucherschutz und Veterinärmedizin*, BgVV; cf. Fleischer, 2005).

This constellation now made place for a new institutional arrangement for regulatory science in regard to both animal and human health aspects, which was based on the principle of separating risk assessment (i.e. the activities of dealing with risk *scientifically*) and risk management and communication (i.e. activities of dealing with *politically*). The new set-up was in line with Von Wedel's recommendations (Von Wedel, 2001) although this report had not explicitly mentioned two separate authorities for both tasks. The idea of a functional separation between both tasks however, the report legitimised by referring to the European approach and structuring of the handling of risks (Annex 1 cabinet submission of the BMVEL 314-1320-7/1, pp. 1, in Fleischer, 2005). The new bodies were the Federal Institute for Risk Assessment (*Bundesinstitut für Risikobewertung*, BfR) and the Federal Agency for Consumer Protection and Food Safety (*Bundesamt für Verbraucherschutz und Lebensmittelsicherheit*, BVL).⁵⁹

The legal status and division of responsibilities was organised via the new the 'Consumer Protection and Food Safety Bill' which was passed in March 2002. The BfR was set up to serve as the German counterpart to the

newly to be installed European Food Safety Authority EFSA, in a similar position as VWA in the Netherlands (although the VWA considers the BVL its counterpart; “de Duitse VWA”; VWA, 2004). The institute was charged with making risk assessments, whereas the BVL was assigned the task of developing early warning systems and systems for ensuring the traceability of products. More in particular, the BfR is responsible for “the preparation of scientific opinions on food safety and consumer protection ..., for scientific advice to the federal ministries and to the BVL ..., it carries out own scientific research closely related to its activities ..., may serve as a national reference laboratory ... and informs the general public about health risks and other findings and work results” (BfR Statutory Law BfRG2002, section 2 par 1.1-1.12; quoted in Fleischer, 2005). Both institutes, which are headed by a president appointed by the Ministry, are to report to the Minister of Consumer Protection, Nutrition and Agriculture, BMVEL. In relation to the British and Dutch attempts and struggles to organise a risk assessment apparatus that can operate truly independently from Parliament, ministries of agriculture or health (and obviously preferably from industry), it is worth noting Fleischer’s analysis of the Statutory Laws of the BfR and the BVL: “Although the BfR is by statute independent when it comes to its scientific assessments and its research (BfR 2005, p. 1), meaning it is not technically supervised (*Fachaufsicht*) by the BMVEL, several provisions allow direct control and influence by the department (o. A. 2001:10f.)” (Fleischer, 2005: 19).

The division of tasks involved in risk governance into two geographically and institutionally separated organisations is met with mixed feelings by those involved. None of the interviewees in this research project who were familiar with the situation were in favour of the separation, although some did not care much about it:

It does not matter [es ist nicht schlimm] that the two are separated. One simply has to accept it for a fact and to act accordingly. I take a fully pragmatic stance [towards it]. (Interview WP5-3; 15-8-2006)

Others however are less phlegmatic about it and vent their annoyance. As one of these puts it:

I did not think from the beginning that this was a good idea, I must say. ... There is an explosion of new institutions and co-operation obviously is imperative but the fact that they are now independent organisations does not help much. (Interview WP5-28; 15-8-2006)

Apart from the complexities of co-operation, lack of enthusiasm is stirred too by the confusion as to the division of each institute's tasks in practice:

And also the separation of risk management and risk assessment I think is ... not really a doubling of tasks, although in some sense it is. Yet more than anything else it is a constant probing of what our now our competencies, what are the competencies of the BVL. Where must we work together, where might we trespass on their grounds [Wirkungsbereich]. ... And if I then observe how the Food Standards Agency has organised matters, I find that really better. There all is underneath one roof. (Interview WP5-28; 15-8-2006)

The blurred boundary between the two institutions is not a mere nuisance to the organisations' daily routines, as the staff have to cope with the day-to-day problematic of communication and coordination (complicated too because of the spatial differentiation, one is in Bonn the other in Berlin), and some animosity ("Wie sagt X immer so schön? Das sei unsere ungleiche Zwillingsschwester.... Also es stößt natürlich immer wider auf konkrete Probleme, wenn die beiden Institutionen miteinander arbeiten, da gibt es immer Kompetenzgerangel, klar").

The critique more fundamentally questions the division (quite literally intended with the spatial and institutional separation) between the politics and the science of risk governance which in practice apparently does not materialise. The inclination of NGOs such as consumer or environmental organisations to turn to the BfR rather than the BVL for discussing such issues as risk margins and control measures in view of scientific findings speaks of this fact (cf. Paul, 2006). As a BfR spokesperson comments:

[The BVL] may be better known in certain circles, probably in political circles, as they are in charge of saying what really should be done. Yet in all other circles, like those of NGOs, industry and definitely science [people are] much more

interested in our scientific work rather than in whether in the end there is such and such option for action attached to it. (WP5-3; 15-8-2007)

In other words, at least some of those directly involved do not see the benefit of a factual and even geographical division of the science-pillar and the politics-pillar in risk governance. Practical considerations about its undesirability are complemented with a general notion of unease, as the judgements and interpretations involved in risk assessment, and discussions on those judgements, take place more or less 'naturally' in the offices of the BfR, reducing the role of the BVL in practice to that of a mere administrative body. The fact that the risk communication unit has been established recently at the BfR underscores this development. So in spite of the rhetoric of separating science from politics, every-day practice shows that the 'politics' of risk governance at least when understood as the passing of judgments on how to relate scientific information to a public policy framing of a risk-issue cannot be disconnected.

4.4 Institutional re-arrangements at the level of the EU

A comparable effort to functionally separate risk assessment activities from risk management was made on the level of the EU. The aim of dis-integrating science and politics was part of the development of an integrated food safety regulation on EU level, which by and large finds its origins in the BSE-affair.

In May 2001, the EU issued out a Regulation that provided an integral legal basis for all legislative instruments relating to BSE and other TSEs.⁶⁰ All elements in the regulation of BSE (such as the specifications of what counts as Specified Risk Material, the prohibitions concerning animal feeding and the criteria and categorisation involved in the notion of a country's 'BSE status') which were previously scattered⁶¹ in legislation on animal feed, free trade, public health and so on, now were brought together. Interestingly, the Regulation, which objective is "to ensure a high level of public health and food safety" is based on and directly links

to Public Health title in the Treaty establishing the European Community. While taking into account “the latest scientific opinions and the recommendations of competent international organisations (World Health Organisation, Food and Agricultural Organization of the United Nations, International Office for Epizootic Diseases”, it does not in any way relate to legislation in regard to agriculture and livestock production. Yet the link between the two areas – agriculture and public health – was acknowledged to such an extent that it stirred a sense of urgency in regard to a re-thinking of the current agricultural and food safety regulatory regime as well.

This process of re-thinking meandered via a series of papers and communications of the EU – among which a 1997 Green Paper on the “principles of food law” (EU document, 1997) and inspired by the results of the 1997 European Parliament Inquiry Committee on BSE – from emphasizing the protection of the consumer, public health and the free movement of goods within internal market, to elaborating the need for a restructuring of the common agricultural policy in more sustainable terms and for taking into consideration the aspect of animal welfare. These ideas and policy principles were put together in 2000 in a White Paper on Food Safety which outlined a food safety policy that would comprehend the entire food chain ‘from farm to table’.

By that time, the newly formed Directorate-General for Health and Consumer Protection, installed in 1999, had made clear that it meant business when it came to having consumer concerns taken into account in agricultural policy-making. The commissioner in charge Byrne, not only aspired to create a single, transparent hygiene policy on the basis of a flexible legislation but also set out to initiate a “global food quality debate” which he announced at a meeting of the Agriculture Council in spring 2001.⁶²

In regard to the first-mentioned ambition, haste was made with developing a set of regulations, that soon became known as the ‘hygiene package’. This package consisted of four legislative acts and one

directive⁶³ concerning respectively *i)* the general hygiene of foodstuffs, *ii)* the hygiene of foodstuffs of animal origin, *iii)* the official controls on products of animal origin intended for human consumption, and *iv)* animal health rules for products of animal origin for human consumption. The directive enabled a repealing of previously existing legislation on these issues.

From the on-set, the intention was to have the four proposed legislative acts merge into a single set of hygiene policy legislation to order all food “operations” (i.e. food production, processing and dissemination activities in all aspects) and to provide a uniform instrumentation to manage food safety throughout the food chain. In the summer of 2002, agreement was reached in the Agriculture Council in regard to the first part, and several months later the second part was approved of. Eventually, the envisioned total, which by then went under the name of the General Food Law, was enacted in 2005 and was in force from January 2006 onwards (EU Regulation 178/2002; available through <http://europa.eu.int/eur-lex>).

Central principles underlying the General Food Law are the concepts of ‘traceability’ and ‘food operator responsibility’. The notion of traceability pertains to the idea that all those involved in the production, processing, dissemination and otherwise handling of foodstuffs (“food and feed business operators”), must make sure that all foodstuffs, animal feed and feed ingredients can be traced right through the food chain “from farm to fork” (i.e., from the farming sector to processing, transport, storage, distribution and retail to the consumer). Each business unit (producer, processor, importer and so on) must be able to identify the businesses it supplies or is being supplied by. This rule-of-thumb incorporated in the General Food Law is known as the ‘one-step-backward, one-step-forward’ approach.

In January 2005, the EU formalised the guidelines which were to enable operationalisation and implementation of this regulation, and to facilitate harmonisation of the Law’s implementation in all member states. These guidelines covered the traceability of food products, the withdrawal of

dangerous food products from the market and requirements applicable to imports and exports. The guidelines for instance oblige those involved in the production and handling of food and feed to keep track of information on the name and address of the producer / supplier, the nature of the products and the date of transaction, to which end he/she must set in place a system for the be systematic registration of all products handled. This information must be kept for a period of 5 years and must be made immediately available to the competent authorities on request.⁶⁴

The details for making this requirement operational are left to the member states, where among other organisations the FSA, the VWA and the BfR/BVL are in charge of coordinating national policy making on the subject and for reporting on implementation control. However, please note, *in legal terms, food and feed operators are at all times themselves responsible for his/her part in the 'food chain' and for keeping track of the information* outlined above: "All food and feed business operators are responsible for the safety of the food that they produce and put on the market. The guidance document clarifies that operators are responsible for the activities under their control" (EU press release IP/05/113, 31-1-2005).

As mentioned earlier, an important instrument in the operationalisation of the requirements stated is the HACCP hygiene code.⁶⁵ In addition, the Law provides a coherent set of regulations concerning (re-) organization and reinforcement of product quality control, amounting to a Rapid Alert System for Food en Feed (RASFF) that is meant to enable the European Commission and member state governments to act quickly in case food and/or feed safety is considered endangered. The framework also enables procedures for 'recall', i.e. an alert system and legal basis – private and public rights and duties are carefully explicated – to enable swift product withdrawal from the market in such cases. These regulations are grouped via the General Product Safety Directive (GPSD), the purpose of which is to supervise the safety of products and services delivered or made available to the consumer (VWA, 2004). The registration of cases of food

poisoning and resistance development is included, and specific attention has been paid – in the shape of a separate legislative act– to monitoring and control of zoonose pathogens.

The EU gradually brought the entire farm to fork food chain under one coherent regulatory regime. An important step in this process was the presentation of four legislative acts and one directive on the issue as one undividable ‘hygiene package’. This later on was expanded in the framework of the General Food Law, which was fully made effective as of January 2006. This cluster of measures, which focused on the organisation and control of the safety of products from animal origin intended for human consumption, explicitly sought to address the issue of food safety in its total range in ‘one go’, from primary production up to and including the retail trade to consumers.

The development of the new EU food safety regime yet is not finalised. Recently, the EU completed the ‘hygiene package’ with, please note, requirements regarding animal welfare. In the Treaty of Amsterdam of May 1999 a special “protocol on the protection and welfare of animals” had been included, which obliges the EU to take welfare requirements of animals into full account when formulating and implementing Community legislation. This statement was reinforced in the Treaty establishing a Constitution for Europe signed in October 2004. These intentions now were translated into concrete legislation on animal welfare in the context of the new food safety regulation. On 30 March 2006, the first EU-level conference on animal welfare was held in Brussels, where the Commission presented its Animal Welfare Action Plan to member state representatives, international partners and other stakeholders.

The EFSA

The General Food Law provided the legal basis for the new European Food Safety Authority (EFSA), formally established in January 2002. The EFSA was set up to bring under one roof the work previously done by a range of scientific committees and to make the scientific risk assessment process

more public. Rationale for its creation was “to protect public health and to restore consumer confidence...”, to integrate the work of a range of scientific committees on food and feed related issues, and to make the processes of national and international risk assessment more transparent and better geared to one another. In its construction, it aimed at a separation of risk assessment tasks from risk management. The European Commission together with the European Parliament and the Council would be in charge of the latter. Risk management decisions could be based on the scientific advice of the EFSA, and/or of other scientific research.

The EFSA is set-up as an independent body financed by the Community. The EFSA comprises a Management Board, an Executive Director plus staff and an Advisory Forum. Core of its work is done by a number of Scientific Committees and working groups (panels). The Advisory Forum consists of representatives of the member states, meets on a regular basis and is in charge of setting the EFSA’s agenda for research. It keeps in close contact with the national institutes for food safety such as the VWA, the FSA and the BfR. These receive pre-publications of the EFSA’s output so as to enable them to convey the message to their national audiences. In order to further ensure some uniformity in the way the authorities communicate about food-related risks, the chiefs of staff of the communication divisions of the national authorities are part of the Advisory Forum’s working group on Risk Communication.

From its inception, voices were raised pleading for a more overtly political role of the EFSA. A 1999 report commissioned by the Director General of then DGXXIV on how to organise a system for structural scientific advice on food and health risks, which was based on numerous interviews and public hearings, argued for the future EFSA to have a say in risk management (James et al., 1999).

Similar to the German situation, the political levy of risk management is sandwiched, so to speak, between the risk assessment and risk communication tasks performed at the EFSA: there, first, risks are being assessed, then communicated with the European Commission, whereupon

the decisions and control measures taken there are communicated back to the EFSA, to be communicated with the national food safety authorities of the member states. As one interviewee in this project put it:

[I]n many ways EFSA would have been better created as part of the Commission. And then you would have said quite clearly: 'ok, this is part of the overall political approach of the European Union, we're not saying it's unpolitical. What we are saying is, we will keep the science apart so it's independent, it will be transparent, it will be open, you will see the point at which things pass from the science to the politics. (Interview WP5-25; 21-7-2006)

The new institutional design on food issues is seen to bring along an entirely new European governance regime (cf. Chalmers, 2003): "With regard to the [European Food Safety] Authority's institutional make-up, it is impossible to locate it along any conventional national-supranational continuum. It is rather a transnational governance regime which cuts across national/supranational and public/private distinctions, and which both guides and is accountable to scientific communities, national food authorities and civic society" (2003:538). With the separation between the EFSA and the Commission, this novel regime is side-tracked next to, rather than integrated into, the more conventional approach to national-supranational relationships.

4.5 International, private and non-governmental forces in the public field of food

The above described the changes in the national and EU-level supranational institutional arrangements regarding food production and food safety. However relevant, the developments in food safety control are determined largely outside the (supra)national public policy arenas, namely by international food control practices, private regulation and through the influence of other non-governmental forces such as of the consumer movement.

International stipulations and dynamics

As described in chapter 2, early attempts at the control of food safety and food quality on the international level were inspired by a wish to

guarantee the 'purity' of foodstuffs. This focus served the cause of trade, but in line with that, also that of consumer health. After all, the fear of physical harm caused by food united both producers (dreading reputation damage) and consumers (dreading disease or death).

In the early years of the 20th century, the International Dairy Federation was established, for instance, to develop international standards for milk and milk products. This organisation in later years became an important motor behind the development of the Codex Alimentarius, the food sector's main reference point for standardising product definitions, food safety and food quality on a global level. Important partners in the development of the Codex furthermore were the FAO, founded in 1945, to supervise and initiate the development of international nutrition standards, and the WHO, established in 1948, which holds responsibilities covering human health and which has a mandate to establish food standards. With the tendency to 'de-regulate' food production and the emphasising of private sector food safety regulation, scientific international health standards (WHO) tend to become politicised as they are being used as ground for settling trade disputes. Also the decision-making settings in regard to the Codex Alimentarius are arenas where the game of high politics is played.

Worldwide, 153 <other source: 196> countries subscribe to the Codex. The code functions as an aid in processes of legislation in regard to food safety, as e.g. in regard to meat and meat products. Furthermore, in cases of conflict between countries concerning issues of meat hygiene of veterinary inspection, the World Trade Organisation can refer to the code in its attempts at solving it. It may e.g. play a role in the case of a third country requesting access to the European market for its meat products, or for the assessment of a country's export possibilities. The code is expected to be playing a role in future developments of EU regulations on food.⁶⁶

Considering the impact of BSE on the national and supranational regulatory regimes on food production and food safety, and the relevance

of the international regimes for food control, the question seems justified whether the BSE event had an impact on the latter. The answer is, briefly put, 'no', for two reasons. Firstly, at the time changes in the Codex's directions on meat and meat hygiene were possible, during the years that the Codex Committee on Meat Hygiene (CCMH⁶⁷) was last active (which finalised its work in February 2005), BSE was "only a problem to the 25-odd countries of the EU and their main trading partners" (Interview WP5-34; 31-3-2006). Secondly, interestingly, BSE is considered irrelevant as the Codex applies only to foodstuffs, that is in regard to meat, to products derived of an animal *after* it has been slaughtered. The argumentation is that if animals are slaughtered according to the rules set by the EU, there is no reasons to discuss BSE. As long as there is no "*scientific*" evidence that there is a public health risk stemming from TSEs in meat, the subject is not of relevance to the Codex.

This line of reasoning is interesting as it shows in a nutshell how politically-laden any risk assessment in regard to food is, and how closely tied-up the food safety regulations are with the actual practices in which foodstuffs, and their raw material sources, are being handled (whether they take place in the kitchen, the supermarket or in the slaughterhouse, to mention but a few). The Codex's reading of 'food safety in regard to BSE' consists of a whole 'chain' of assumptions: that the cause of BSE and the pattern of spread of its pathogen agent is known, that the risk assessments of the EU are based on that knowledge and are factually correct, that these assessments are translated into policy measures that are correct and feasible, and that slaughterhouses act in line with these policy requirements. As we discussed in chapter 2, however, the scientific basis for regulating BSE is highly uncertain. Furthermore, as is put forward by an member of the BfR-staff on personal title⁶⁸, the effectiveness of the policy measures and directives in regard to the practice of slaughtering cattle is doubted by some. And finally, the daily practice in slaughterhouses in some cases prove to be far from

complacent with the measures stated, as these do not *fit* the actual practice of slaughtering (cf. Hajer, Laurent and Van Tatenhove, 2004).

Still, regardless of the lack of impact on the contents of international standards, BSE did have an impact in the international regime on food safety. As is the case at the level of the EU and of the member states, the connection between agriculture and public health caused by BSE or rather, its framing as an issue connecting farm to fork, set in motion a development by which “suddenly” aspects of animal welfare got on the agenda of the Codex. Two ‘routes’ led to that development. On the one hand, the FAO put it up for discussion, as on the latter’s agenda, ethical aspects of livestock production started appearing and called upon the Meat Hygiene Committee to accommodate ethical aspects within the Codex.. The increasing practice of producing animals with the aid of genetic modification, it was argued, implied the need to start distinguishing in the Codex between meat derived from “conventional animals” and meat derived from “gm-animals”. Furthermore, some Committee members – among them the delegation from the Netherlands – were of the opinion that animal welfare aspects should come to bear on the Codex. That did not happen, and “rightly so, as we should proceed to discuss food in purely scientific terms” (Interview WP5-34; 31-3-2006). Still, in spite of the overall consensus on that basic principle of the Codex, in the eventual new guidelines an aspect of animal welfare was mentioned, namely in regard to the issue of animal transport. It was explicitly confined to being a footnote, “as animal welfare is not part of the terrain of the Codex.”

The second ‘route’ through which BSE impacted the Codex and set in motion the developments just described, is via the increased importance of a specific institute, the International Organisation for Animal Health, OIE. The OIE which keeps a worldwide watch on the spread and development of zoonoses is, unlike the FAO and the WHO, not a UN-accredited organisation. Because of BSE, the institute gained weight, reputation-wise and factual: for overviews of incident rates of BSE

infected cows, always reference is made to OIE's numbers, as a trustworthy source. As is illustrated by the Scientific Panel on Biological Hazards, which concluded on 21 April 2004 that the OIE modelling methodology used to calculate the absolute incidence is statistically sound. This conclusion was drawn upon a request of the European Commission (EC) to the European Food Safety Authority (EFSA) and its Scientific Panel on Biological Hazards for a scientific opinion on the United Kingdom (UK) application to be considered as a 'Bovine Spongiform Encephalopathy (BSE) Moderate risk country', a category designed and defined by the OIE.

BSE hence is likely the cause of the fact that "the OIE has gained a far more important position than a couple of years ago. There is now much more interaction between the OIE and the Codex compared to say ten years ago" (Interview WP5-34; 31-3-2006). The organisation got attention at the CCHM meeting in Christchurch, New Zealand, because of the (draft) code it had developed for "good agricultural practices" to which governments could refer in regard to issues of animal welfare. As a press release later stated, the relation between the OIE and the CCHM had been "clarified" [opgehelderd] during the meeting: "the Codex is concerned with food safety, and the OIE with animal health. Where zoonoses are concerned (animal diseases transmissible to humans), there is of course involvement of the OIE" (LNV newsletter, 2005). It was decided that the Codex will not delegate tasks to the OIE.

Private sector regulation

With reference to developments in international standardisation, the food industry outlines its own safety control and quality monitoring systems. While characterised by a fierce competition and by relatively frequent acquisitions and amalgamations between firms, the industry found it in its interest to design assessment and qualification schemes that allow for product and process comparison and a guaranteeing of quality standards. Among the most widely implemented systems is the aforementioned

HACCP (hazard analysis critical control points), a systematic for hygiene control. The systematic, which was originally designed in the context of space exploration programmes, entails an assessment of every stage or step in a production or handling process, detailing for each the 'critical elements', i.e. those aspects of that stage or step that are prone to failure. On the basis of this assessment, for each element safety measures are elaborated. The associated control system subsequently is a systemised check on whether in all steps and stages, all precautionary measures (e.g. production workers wearing hair nets or white coats in certain stages of the production process) are implemented. The supermarket branch [in Europe] adopted the HACCP as its standard system for quality and hygiene control. In 1995 this system was made compulsory in the food processing sector too, and as said before, by 2005, under the influence of the EU General Food Law, it was also made the standard hygiene code for slaughterhouses to comply with.

The latter development is an interesting one. Until recently, the primary sector was by and large unfamiliar with the HACCP system (*Trouw*, 14 January, 2005). The development to make the hygiene code compulsory in the slaughtering branch is hence not a formalisation of standing practice – as it was in regard to the processing industry – but rather a conscious move towards incorporating the agricultural sector in the regulatory regime of the food processing and trading sector. The Netherlands attempted to have the standard also apply to farmers and the feed industry, but other member states torpedoed that idea. What we witness here is not only that a *private* sector's food regulatory regime is adopted by the governmental regime (which is not at all an unusual move) but also that the bridging between the realms of agriculture and public health which comes across as a historical and difficult step in public governance, in the private sector 'comes naturally'. With the HACCP system, governmental regimes gained possession of a highly sophisticated governance technology.

Now that the emphasis in governmental regulation is put in emphasising the responsibility of private parties for food safety, the question seems justified whether the food sector is indeed capable of self-regulation, and whether and how BSE did affect the dynamics in that field. The answer to that question lies beyond the scope of this report. For an overview of the literature in this field, see Havinga, forthcoming. Two remarks in this respect. As Havinga (forthcoming) shows on the basis of a Dutch case of private regulation of food safety by supermarkets, retailers are among the most powerful players in the 'chain'. They can force food industry and producers to accept food safety standards because of their economic (market) power. The 'real power' in the reverse chain lies not with the consumer, in other words, but 'one step up the chain', with the retailers. On the other end of the chain, the actors there find themselves in an equally weak position: the farmers. Although often ascribed as being creative and enduring – a description which in many case may be correct – the emphasis put in neo-liberal politics on the innovativeness of the primary sector as a source for competition and therefore change towards the agricultural products (and future) as envisioned by consumers may be too naively phrased. As pointed out by an authoritative advisory organisation to the Dutch government, because of the nature of their profession – literally tied to the ground and depending upon seasons and other poorly controllable conditions – it may not be wise to count on them for setting in motion fundamental change towards, say, a sustainable agriculture (SER, 2000).

Non-governmental organisations and social movements

Apart from the specific qualities and roles that are ascribed to consumers or farmers, it is worth noting that both either category is in an economically weaker position than the food processing industry and the larger retailers. It is towards those in particular that consumer organisations and environmental organisations and others (such as the Worldwatch Institute, or the 'anti-globalist' movement) direct their efforts

for gaining influence on the food production and food safety regulatory regimes

At the national level, consumer organisations operate that, as the case material collected for this project suggests, simultaneously reflect and produce the kind of 'national style of food safety framing' that characterises the regular nodes under investigation here. In the UK, the food safety issue (which judging from the media analysis presented in chapter 3 may be considered a British invention) is most distinctively framed as a clear cause for incorporating consumer perspectives in processes of scientific and political judgment on food stuffs and the risks involved in consuming these. The (many!) consumer organisations by and large have their roots in women's organisations. In contrast, the Dutch consumer organisations, even those that originate explicitly in movements towards consumer empowerment (e.g. de Vereniging van Huisvrouwen) frame food safety – albeit adopting the term from the Anglo-Saxon context – almost invariably as an ethical issue, concerning labour conditions ('fair trade') and/or environmental aspects of production and consumption.⁶⁹ The main Dutch consumers' association decided recently to incorporate criteria regarding companies' 'environmental and social performance' in their regular product information. In Germany, characteristically, consumer affairs are framed in terms of 'Schutz', protection, as if organisation and association of consumers may protect them from potential harms and from de-purifying their food. Also the notion of precaution that finds its origins in German regulatory practices (*Vorsorge*), speaks of this orientation. The *Vorsorgeprinzip* entails that governmental authorities attempt to get air of a particular problem at an early stage of its development, and then take preventive measures so as to avoid exposure of German citizens to any possible risk involved (Lenz 2004). Characteristic of policy made in line with this principle is that measures are taken even when it is not completely clear, on the basis of scientific research, whether they should be taken at all in the first place.⁷⁰

With the differences in the way the issue of food safety is framed, conflicts or tensions in view of risk assessments and risk management are bound to develop. The German focus on precaution dictates quite a different approach to risk and safety as does the EU policy-making approach to *evidence*-based regulatory science (cf. Dratwa, 2002).

Such tensions are the cause and topics of food safety deliberations between the member states and the EU. In contrast to the consumer movements at the level of the nation-states, at EU level there are few self-organised consumer organisations. In order to arrange for steady and available discussion partners, the European Commission *created* a European Consumer Consultative Group as a part of Directorate General Health and Consumer Protection.⁷¹⁷² Yet, in regard to food safety, there have been (and are) some 'natural' sparring partners as well.

[W]hen Britain joined the EC in 1973 one of the things both the consumer movement at that time and women's organizations wanted to do was to influence the EU and the Community outwards then and so part of my job working for the women's institute ... was to find out how best to influence the European institution. ... And at about the same time all the main consumer organizations got together in a coordinating committee to share knowledge and experience on what was going on in Brussels. And that informal group, coordinating group became the consumers in Europe group. ... There were links with the Dutch women and with women groups in European countries. ... the consumer movement was very much focused on campaigning for reform of the common agricultural policy. And in a sense you can almost say that once we started making progress on that, then we were able to free up resources in the consumer movement to focus more on food (Interview WP5-27; 19-7-2006).

Interestingly, recently anew generation of consumer movements is developing which operate on a new basis. Not only does a newly established internationally oriented consumer association PEACE, which stands for People, Animal, Earth, Culture and Environment, frame ethical and environmental issues explicitly as consumer concerns. It also has developed a new, "federal" design so as to be able to operate as a "market party" when trying to exercise influence on the corporate sector, aiming at helping, according to its website, "consumers to use their consumers' power to put demands on multinational companies"

4. 6 Changes (*and* continuities) in the regulatory regime of food safety in Europe

Unlike agriculture, until recently, food as a public health issue had not been the subject of intensive, coherent regulation and policy making at state level in any of the countries included in this study, let alone on supra-national level in the public sector. Yet, when it did, food became one of the major organisational foci *and* vehicles for change in European governance.

As came to the fore on the basis of the analysis in the previous chapter, BSE indeed has been a major force in the discursive change towards 'food safety'. In the description of the changes in the institutional arrangements on food safety, BSE too is often mentioned as a major incentive for the re-arrangements. As former Deputy Chair of the FSA has been reported saying:

BSE was our 'foundation food scare' if you like. But it wasn't BSE so much as the way that the BSE epidemic challenged the legitimacy of the institutions of food regulation in the UK (Interview WP5-16; n.d.).

A speaking of the German 'agricultural turn-over' (*Wende*), a German politician put it this way:

So ganz freiwillig war aber auch die Neuorientierung hin zu mehr Verbraucherschutz nicht. Erst die BSEKrise hat den Stein richtig ins Rollen gebracht. [The new orientation on more consumer protection was not a volunteered choice. It was the BSE crisis that has put the changes in motion].⁷³

The novel regulatory regime that came about after the BSE 'milestone' is characterised by two main traits. There is

- a) a shift in terms of contents (the 'new orientation'), that is, the linking of agriculture to public health via food safety and the emphasis on consumer interests; and
- b) a shift in procedures, that is, the novel processes by which science and politics involved in food safety control are being organised so as to ensure legitimacy of food safety control measures.

The development of the 'new orientation' has been described in the previous chapter; the organisational consequences of the shift in contents were elaborated here. Interestingly, the institutional re-arrangements involved themselves brought about changes in terms of contents. The Dutch case may serve as an example. With the VWA having been linked to agricultural ministry LNV at the same time that the traditional responsibilities of the former Cattle and Meat Inspectorate (RVV) – now a part of the VWA – were hived off to market parties⁷⁴, the Agency's very presence within the administrative organisation implied an incentive to re-think the Ministry's core business. The above described struggle over 'who is in charge' was now brought into the confines of the agricultural ministry itself, where it transformed into the question 'what are we in charge of'?

The Minister of Agriculture quite literally posed that question to a research institute in 2004.⁷⁵ A reframing of the ministry's remit and mission was complicated because the new combination of focal points brought along inherent tensions. In Parliament, in a debate on a White Paper on Animal Welfare (*Nota Dierenwelzijn*) that was drafted by LNV, e.g. concern had been voiced that that food safety would *stand in the way* of legislation on animal welfare. Apparently the minister shared this concern, yet hoped to develop solutions to food safety issues that would also have a positive impact on animal welfare, and vice versa.⁷⁶ The remarkable move within LNV policy described in the previous chapter to frame consumption as an ethical issue ("the consumption of food is a moral act"⁷⁷) may be understood as one option to solve the tension. In the UK and Germany the institutional re-arrangements similarly brought along new dynamics in the focus of food safety policy (e.g. regarding nutrition and consumer protection respectively).

Interestingly, neither the development of a *transnational* food safety discourse (as described in chapter 3), nor the development of a novel supranational regulatory regime in regard to food production (EFSA; see above) brought along a standardisation in the new regulatory regimes at member-state level. While the incentives – BSE and other food scares, the

sense of urgency to increase the legitimacy of food safety policy, EU regulation – were more or less similar, the shape of the institutional changes that they inspired varies largely between the countries under investigation here.

In the UK the emphasis was put strongly on incorporating consumer perspectives in food safety deliberations, while in the Netherlands the shift in contents mainly entailed an emphasising of the environmental aspects and ethical aspects of food production. In spite of the fact that in the Netherlands the 'food safety' vocabulary was widely adopted, probably under the influence of British and European developments, the 'trust issue' did not at all play such a prominent role as it did in the UK. Consumer aspects were brought into the deliberations on food production and food safety from the perspective of 'morality' (in view of a company or sector's 'license to operate') rather than in regard to enhancing the legitimacy of those deliberations per se, as had been the case in the UK. And in Germany, food safety affairs were framed, as had been the case before, typically in terms of 'protection' (*Schutz* to protect the body against impurities in foods) and 'precaution' (*Vorsorge*, to avoid exposure of the body to risks).

These differences alone are sufficient to cause conflicts in the deliberation on risk assessment categories and on the principles of a 'EU-wide' appreciation of what a particular risk may entail (cf. Interview WP5-17; 30 June 2006).

It is interesting to note that the focus in *EU* food-related policy has its origins in the policy arena of public health from which it developed towards, and 'conquered' the realm of agricultural policy, whereas on the level of *member states*, the opposite was the case. There, traditionally, food as a policy issue had by and large been approached as an issue of agricultural policy making, while now, it gradually became an issue in the policy arena of public health. The new emphasis on food and food safety elaborated from a public health and consumer perspective, opened up the way for some forces on the EU level for reinforcing earlier phrased

considerations about animal welfare. The concept of the farm-to-table food chain, now shaped by political and economic in addition to biological aspects, provided a forceful metaphor and tool in influencing the 'traditional' EU agricultural policy domain. The CAP has always been among the most powerful forces in the European integration process, strongly affecting and determining the relation between the supranational level and the member states. Change in the field of agricultural policy is slow, on both levels, because of the little leeway that vested interest leave for change. The reframing of agriculture as part of the health domain, opened up possibilities for influencing supranational and national agricultural policies from a consumer perspective *and with that*, from a more ethical outlook on agriculture. BSE notably provided a window of opportunity for change, e.g. as envisioned by the EU Commissioner for Consumer Protection. As the focus in EU food-related policy took the public energy field of health as a point of departure and developed towards that of agriculture, it set in motion a distinctive dynamics in agricultural policy. This met on the level of the member states with the 'chain reversal' rationalisation dynamics, where it strengthened and reinforced non-dominant (moralisation) discourses in the agricultural field. On the level of the member states, where traditionally food was approached in terms of the public energy field of agriculture, in contrast the direction of the forces of change were quite opposite hence from those on supranational level, and entailed a gradual move towards adopting discursive categories originating in the public energy field of health. The simultaneous development in the Netherlands towards framing relevant issues in terms of 'food safety' (see chapter 3) and of reframing the agricultural problematic in ethical terms (sustainable agriculture'', animal welfare, "consumption is a moral act" (voiced by the Minister of Agriculture!) provides a clear illustration of these opposite yet mutually reinforcing dynamics. So while it may seem that the fundamental changes envisioned by some in agricultural policy in the aftermath of the BSE-event stand little chance of being realised because of the dominant forces

in European agricultural policy – as one of the interviewees in this research project commented cynically referring to the rhetoric of the German Bundeskanzler: “[a]gricultural policy is made mainly in Brussels and not in Berlin. Therefore it was impossible to ‘end agriculture as we knew it’ in Berlin” –food scares like BSE indeed has changed the agricultural playing field, yet via the policy area of public health.

Secondly, the quality and contents of national-supranational relationships in view of food safety are changing. Not because “the national element [is taken] out of the discussion”, as the EU Commissioner for Consumer Protection phrased⁷⁸ the future of food safety policy he envisioned in 2001, but rather because the ‘national element’ *is brought into the discussion* yet in a new and constructive way: With the new food quality regulatory regime, many informal moments of exchange and interaction between the food authorities of member states and the EFSA are created, which arguably results (see the analysis in chapter 3) in a new ‘transnational’ discourse on food safety. With the new institutional designs for governing food-related risk, the member states under investigation here have been able to visibly detangle (scientific) food safety management from political, trade-related practices in the sense that the new institutions, because of their formal, juridical organisation and the way they operate, managed to assure the public that ‘politics are no longer played at the expense of science’. Only in regard to food safety control at supra-national level, this is not the dominant impression. Because of the juxtaposition of the EFSA and the Commission in view of food safety management, and the lack of clarity about the nature of the relation between the two, the impression is, as discussion partners in this project indicate, that at EU level there is still a ‘perpetual confusion between trade and food safety’.

In conclusion, one may observe that food safety control ‘after BSE’ indeed has been the subject of major institutional reorganisation at all regulatory nodal points under investigation here. It is interesting to see that while all

were informed by the desire to organise food safety control on the basis of 'sound science', and, because of that purpose, to have it handled by independent agencies, the eventual design defers among countries and EU-level organisation.

In Germany, the Netherlands and at EU-level, the institutional design is informed by the conventional idea that a proper, 'a-political' handling of food safety issues requires a separation between risk assessment on the one hand, and risk management on the other. In Germany, this has led to a physical and geographical separation of the two functions into two separate institutes. In the Netherlands, a similar effect has been aspired by setting up the risk assessment unit as a legally separate agency (an independent governmental body, *zbo*), while the larger organisation within which this unit operates, VWA, handles risk management and risk communication. In the EU, with the EFSA, risk assessment activities have been given a distinct institutional basis, while risk management lies with the European Commission. Only in the UK, the two functions are brought together into one institute, the FSA.

The question obviously is whether the different institutional designs equally manage to realise the underlying idea of 'separating science from politics.' An informed comparative quality assessment of the institutes involved obviously is beyond the scope of this study. However, on the basis of the material collected here, one may conclude that overall, informants to this project consider the new arrangements as principally guaranteeing the independence of institutions handling (food) safety regulatory science. With the juridical and administrative separation of risk handling institutes from ministries responsible for agriculture and trade the (appearance of) 'politics abusing science' in the vulgar reading of the word has been formally and practically been dealt with. As a spokesperson of the VWA formulates the difference between the old days and the current situation: "the [organisation formerly in charge], the Dutch National Inspection Service for Animals and Animal Products], was a club of people focused on export interests; we are in charge of

guaranteeing food safety.” While in the UK, the FSA is formally answerable to the Secretary of State of Health⁷⁹ and in the Netherlands, the VWA to the Ministry of Agriculture, both are “professionally independent” in the way they organise their work.⁸⁰ As observed above, only in regard to food safety control at supra-national level, this is not the dominant impression. Because of the juxtaposition of the EFSA and the Commission in view of food safety management, and the lack of clarity about the nature of the relation between the two, the impression is, as discussion partners in this project indicate, that at EU level there is still a “perpetual confusion between trade and food safety”.

Of a slightly different nature is the observation by many who informed this project, that the politics involved in discussing, say, toxic margins and residue accumulation – in contrast to the ‘high politics, high stakes’ involved in e.g. international trade – are still very much present in the new institutional designs of risk assessment, and *cannot* be eradicated as such.⁸¹ Even though rhetoric and institutional ground rules will have it, ‘separating science from politics’ seems widely acknowledged as an illusion. As a second characteristics of the new risk governance regimes therefore one might observe a changing awareness of how science and politics are linked. Characteristic of the new food safety regulatory regime – with variations among the nodal points studied – are the attempts at creating a new and appropriate basis for organising the ‘inevitable political’ in scientific evaluation in a legitimate manner (for an accurate example of what we mean, see section 5.4). A key notion in these attempts is to organise the science-policy interface in a ‘transparent’ manner. The basic idea is that consumers and producers may see how scientific evidence is related to and translated into policy measures. In contrast to the other food safety institutions discussed here, the British FSA was set up to consciously bring together all different aspects of food safety control under one roof. Because of its abandoning the conventional idea of a separation of risk assessment from risk management and communication, it is notably this agency that has been institutionally

innovative in exploring civic participation in food safety control in order to enhance its legitimacy. These and other expressions of 'participatory governance' in the new food risk control regime are discussed in the next chapter.

5. Learning after the event: participation in governing the production and safety of food

The institutional re-arrangements described in the previous chapter may be considered the precipitation of the discursive shifts identified in chapter 3. At the same time, they provide a new space for contestation and give way to further discursive dynamics. With the conceptualisation and – through the General Food Law – the institutionalisation of the food chain metaphor, rivalling discourses that were concentrated previously at either side of the farmer / agriculture - consumer / public health continuum, now come to influence one another. The resulting dynamics is one of a ‘fusion of discursive horizons’ in the fields of food production and food safety. For instance, the moral issues that played a role in livestock production now more than before found their way to the ‘plate’ of the consumer, so to say, stressing the responsibility of the meat-eater to such an extent that consumption came to be perceived as a ‘moral’ in addition to an economic and a functional act. Similarly, notion concerning rational action in view of efficiency and hygiene that were quite dominant at the ‘consumption’ end of the chain came to increasingly influence the food production side, where they enforced notions concerning proper house keeping and efficiency in business operations and thus helped pave the way for a further rationalisation of farming practices, producing for a “consumer’s market”.

The confluence of varieties of discourses along the ‘food chain’ not only broke new ground in terms of content but also triggered new dynamics in regard to the possibilities and legitimacy of actors to speak to particular issues. Proponent of animal welfare issues for instance gained ground to make their point in circles of retailers; ‘the consumer’ became, literally or virtually, a legitimate and relevant discussion partner for farmers. The on-going liberalisation and the associated privatisation of the regulatory regime of food production and safety strengthened this development in the sense that the opening up of traditional arrangements for political judgement and public scrutiny on issues such as food safety and food

production issues (among which animal welfare, animal health and environmental aspects of consumption and agricultural production) enabled and *required* non-state actors to take part in these activities. It is within this dynamic context of shifting responsibilities and opportunities that one can understand the development towards an 'opening up' of the formal institutional arrangements in the field of food production and food safety as well. This chapter describes instances of this particular development towards 'participatory governance', that concern political judgment and the associated production of knowledge as well as the execution of oversight (supervision).

5.1 Participation in oversight: democratisation of the supervision on food safety

In the post-BSE era, we see that the ways in which a particular function of governance, supervision, is being exercised is changing. The range of actors engaged the supervision of food safety control has become principally broadened, and the possibilities by which , can be exercised have been fundamentally enlarged.

Supervision is an essential element in providing legitimacy to political rule: it concerns the mechanisms to ensure that those in control are themselves being controlled. The supervising of administrative institutions in the formal organisation of politics is institutionalised in legislative bodies. Formal political control as well as the legal framework developed to exercise control over public administration, and the embedding of quality standards in rules and procedures, provide the 'throughput legitimacy' that is implicit in unchallenged policy-making. In civil society, it is notably the media that performs the 'traditional' control function. Issue-specific supervision furthermore is provided by NGOs, focal action groups and so-called independent governmental organisations.

Essential for engaging in supervision is access to information. Traditional channels for information on public administration and other aspects of governing are lately being 'widened': the Freedom of Information Act of

2000 in the UK, and the review of the Dutch 1980 equivalent (Wet Openbaarheid van Bestuur) into an Act with a much wider field of application, including Parliament and the National Court of Audit (the Algemene Wet Overheidsinformatie; AWO) are indications of a new approach to public enquiry. This development is often depicted with the phrase 'transparency'. Transparency as a concept, or metaphor, is however so widely used to describe developments towards openness in government practices, economic accountability, and e-governance and so on, that it requires precise, contextualised description lest it loses relevance.

In the field of food production and food safety regulation as discussed here, we observe a trend towards more transparency similar to that in its wider context. Within this broader dynamics we can identify specific instances of 'opening up' and giving shape to transparency that because of their genuinely innovative character deserve specific attention.

The FSA's 'openness' policy; Open Board Meetings

The most telling expression of this dynamics is provided by the organisational and operational characteristics of the British Food Standards Agency. In stark contrast to the practice of regulation that took place in the UK traditionally in a culture of secrecy, the deliberations involved in the assessment as well as management of risks at the FSA are completely 'open'. The Agency's 'openness policy' encompasses both guaranteeing transparency – enabling others to see and judge the processes of translating science into politics (policy advice) and vice versa (research agenda) – and enabling access, making available all potentially relevant information to whomever is interested.

Among the reasons for this openness approach is the FSA's wish to enact its independence. As one of its core credentials, its independent position comes out through its ability to publish whatever, whenever it is deemed wise or necessary without prior consent of government officials. Furthermore, openness is a key concept in the agency's organisational

cultural and operational standards, having been made – quite uniquely – into a statutory obligation. The two elements in the motivation are closely connected, and it is *precisely through this connection that the FSA was able to develop and maintain, on the one hand, independence from ministries, yet on the other hand, the authority of a governmental body*: Formally, its independence is guaranteed through the Agency's 'non-Ministerial' status (it is accountable through the Secretary of State for Health to Parliament) and through its right to publish all its information and advice independently, including its advice to Ministers: "We are a government department, even though we have an independent voice in government" (Interview WP5-6; 5-7-06). Informally, reputation-wise, it gained its position through a combination of 'honesty' and 'spin' (cf. Hajer, forthcoming 2007).

From the very start, the FSA top was aware of the fact that what matters perhaps more than anything else in regaining trust is the public *perception* of an agency's integrity, and that it was the agency's crucial task to mediate between the general public, experts and policy makers. No longer than a week after the appointment of Krebs, the FSA recruited an eight-strong PR team and a director of communications. These professionals had to construct the FSA's image which would make clear that it is not a toothless watchdog, but that it does have the authority of a governmental body. At the same time, as trust in government was low and had been declining for a long time, the agency yet did not want to be seen as associated with the government and had to demonstrate its independence. As discussed in chapter 2, a main cause of the eroded public confidence had been the pre-BSE attempts by the government to deliver a paternalistic message of expert-based certainty. Openness about uncertainty hence was the very basis of the existence and credibility of the FSA – and PR professionals were needed in order to communicate this honesty.

In order to construct this image, the FSA communication team took an outreaching instead of a defensive attitude towards the media. The crucial

difference in the messages conveyed by the FSA and by MAFF was that the first no longer communicates 'certainty' only, but on the contrary, that it made public honesty about *uncertainty*. As one employee at the FSA put it

John [Krebs] and Suzi [Leather] who are our two principal spokespersons for the media, are both terrific at saying, "I don't know", in a way which is frank and upfront but it doesn't sound ignorant. You NEVER get a politician who says to any question, they will never say, "I don't know the answer". And it would be fantastically good for their personal profiles if some of them did learn to say "I don't know." But we've got it down to an art form now... (Interview WP5-39; 29-5-2002).

The relevance of the particular qualities in public communication that the then-leaders of the FSA displayed is underlined by the fact that five years later, when asked after the grounds on which the FSA got legitimacy and credibility, these are still spontaneously mentioned by interviewees in this research project:

I mean consumer organisations campaigned for a wholly independent agency, which became the food standards agency. But what most people even now don't know, because it's branded itself so well, it is not independent of government, it is a government department, but it doesn't operate like a government department. And I mean that, the fact that I think the public is largely unaware of that is a tribute to John Krebs leadership, and the emphasis they placed on openness and transparency, and the partnership with Suzi Leather (WP5-27; 19-7-2006)

There are many ways in which the FSA gives shape to its aspiration of openness. Amongst other things, the FSA keeps an extensive website via which it publishes all reports, discussion papers and minutes. Most characteristic perhaps of the FSA's openness policy is the arrangement of 'travelling' Open Board Meetings.

Most Board meetings of the FSA are 'open' in the sense that they are literally witnessed by a live audience as well as broadcasted live (and web streamed) on the Internet via 'fly-on-the-wall' technology. The meetings are held "as though the audience didn't exist" (apart from a question-and-answer session at the end). Moreover, the meetings are staged at different parts and sites throughout the country ('travelling') so as to allow a wide audience to come and be a live witness to the meetings. The

website enables the public to read the papers (to be) discussed and thus to follow what is going on and what is being discussed during the meeting. On a number of occasions, the open meetings are prefaced by a closed meeting at which the board are briefed by scientists on the technical details of the issues being discussed. The idea is to have the Board (a significant proportion of which are not specialist scientists) well-informed about the technicalities, so that no time is lost on clarification when engaging in processes of judgment and will formation that are the core of the Board's work.

The pre-meetings with scientists are not intended to "rehearse" the meeting that is later being broadcasted and witnessed. As an FSA employee comments on this issue:

[It is to] get their heads around [to] what this issue is all about. So it was to acquaint them with facts and help their understanding. ... Now I think at the last meeting, that division worked well. I think it did stick to just factual briefing, and then at the open meeting there was a debate. But as you say, can we ever have that pure clinical distinction between factual briefing [and] debate. There's a risk that at the factual briefing as you say, board members could come back and unwittingly the debate starts to happen. And that is the risk, that we acknowledge that to be a risk and that would compromise openness. And there are one or two on the board, one member particularly, ... who is if you like an 'apostle of openness'. And he will sometimes say, oy we're having the discussion, this is wrong, it's a closed meeting, we must not talk in this way, wait till tomorrow, you know. And so there's an awareness of that danger. (Interview WP5-6; 5-7-06)

This kind of remarks (including the ones being quoted in this quote) are characteristic for the self-reflective attitude that typifies the FSA's organisational culture. The double objective targeted with the Open Board meetings, which are set up with both the purpose of making risk assessments and of restoring a sense of trust that 'the public' has in food safety authorities which was supposedly lost over the BSE-affair (cf. Jasanoff 1997, but see Forbes 2004), arguably makes the Board very self-conscious and reflective, continuously reflecting on its attempts at being open. Take for instance the Open Board Meeting of June, 200, where 'openness' itself was on the agenda:

We have been in existence as an agency of six and a half years now. Uniquely we had instituted this requirement – [it is] not an option it is a requirement to be open. I don't think there is another agency that has given that as a statutory obligation. And we, by common consent I think, set the pace for openness in the way

government businesses transacted. Well it's six years on, I don't think we're necessarily the leader anymore, but other people may have a different view about that. And I think it is time over next few months that we had a fundamental review of our approach to openness. Why do we do it? Why, apart from the fact the statute says we have to, have to, what is the purpose of openness? What are the risks of openness? How is openness best delivered? We should, and what risks are there in the way of delivering openness that, and how could we mitigate those risks? We should begin by inviting stakeholders to give us their opening submissions on how we could do it more effectively from their point of view, all stakeholders. And that review should include the work of the agency, in other words the executive, and the work of the board, and it should also look at our relations with the rest of government. So it should look at the executive, the board and the way in which the agency relates to the rest of government. We should keep an open mind about the outcome of that, and it may well be that that work comes back to us we're doing perfectly, and that is great. But we should keep an open mind and consider everything, including the efficacy and cost-effectiveness of open meetings like this, as a way of delivering openness. (Richard Eyre; FSA Open Board Meeting, June 2006; minutes from FSA website)

The FSA's self-critical qualities are as characteristic for the organisation's post-'classical modernist' status (see Work package 1; Loeber et al, 2005) as is its emphasis on openness. The FSA was set up in a situation of 'institutional ambiguity' – that is, in a situation in which the existing rules and norms that shape politics and policy-making with regard to a specific issue are considered problematic and/or unacceptable, while yet there is evidence that clear rules are considered indispensable by the parties involved – and its members were, and are still, conscious of that. The rules of the game are still as much a topic for discussion as are the contents-related issues that the FSA deals with. By consciously stimulating and keeping alive the self-critical competencies, the institute may adjust to the changing nature of the issues (risk, challenges, public calls etc.) that it feels it should address. In that way, the trap of inflexibility and 'institutionalised inertia' that had plagued MAFF at the time when BSE was first (un)identified may be averted.

In that sense, the FSA is very much a 'post-BSE product'. Even when it is not explicitly mentioned, 'BSE' is always there. The 'do's' and 'don'ts' of its operational procedures derived to a considerable extent from the mistakes that were made in the context of the handling of BSE, which are known to all involved and consciously taken into consideration, whereby often reference is made to the Philips report:

I moved in from MAFF, I certainly consider that the whole emphasis of around learning from the foods inquiry from BSE was a big shift you know. And I think we try to keep in mind that this is learned from Philips ... [Also now, when discussing] atypical scrapie, [t]here the Philips checklist is put up, you know: getting the facts right, keeping an open mind, you know, engaging stakeholders.... All these things we try to keep in mind. (Interview WP5-10; 5-7-06)

Discussion

What sets the transparency approach described here apart from the traditional understanding of 'participation' is that here, (non-state) actors that have access to the information shared are NOT enabled or allowed to actively take part in the deliberations. The meetings are held as though the audience didn't exist, apart from a question-and-answer session at the end. Still, we suggest to speak of these practices in terms of '*participatory governance*'. There are two reasons why we suggest to broaden the concept to include these (and similar) forms of (enabling) public enquiry.

A first consideration regards the role of the public as witness (live or via the web cast) to the Board meetings. The live audience present at the meetings not only underscores their public character but also quite literally embodies the 'public' nature of the deliberations. The people attending give a face to the otherwise amorphous concept of 'the public'. Although in terms of actual contents during the meetings their role is restricted to formulating questions at the end of the convening, their visible and audible manifestation bears on the exchanges at the Board's table.

Thus, the public, understood as a non-specified collection of non-state actors, 'participates' by bearing on the regime of justification (the conventions as to whom is allowed to say what under which conditions in specific setting) enacted and reproduced during the Board's sessions. By organising Board's meetings in this way, the public is given a 'face'. By thus constructing an otherwise abstract notion as a literal (physical) part of the space in which the FSA's work can be done, a link is made between the deliberations in (semi-)governmental institutes on issues of food safety and the ways it is being discussed in non-state initiated settings for deliberation. To those present at the Board's meeting table, arguably, *the*

live audiences trigger what Arendt (1968) describes as '*representative thinking*'⁸², that is, as "making present to my mind the standpoints of those who are absent. ... The more people's standpoints I have present in my mind while I am pondering a given issue, and the better I can imagine how I would feel and think if I were in their place, the (...) more valid [will be] my final conclusions, my opinion" (1968:241). As opposed to the solitary nature of thought, in Arendt's view, the exercise of 'representative thinking' yields the kind of knowledge and judgment that reaches beyond the actor's own personal sphere of life.⁸³ The 'inner dialogue' that one thus conduct according to Arendt benefits the quality of the outcome of the analysis or thought. Rather than an inner dialogue partner, in case of the Open Board Meetings, one could argue, the people attending give a face to the otherwise amorphous concept of 'the public'. Their visible and audible manifestation bears on the exchanges at the Board's table.

A second consideration to understand this novel way of democratising supervision in terms of participatory governance is relates to another function of FSA's openness policy: *it enables the creation of a public*. The temporary created setting of an FSA Open Board Meeting create, for the duration of the meeting, a common political identity among otherwise widely varied people, namely as an audience to the deliberations that concern their 'being together as a community'(cf. Mouffe, 1992). The open access to the meetings actively 'produce' citizens while engaging experts in science-based, policy-oriented deliberation. Put differently, the openness policy of the FSA enables people to be 'citizen on stand-by' (cf. Verhoeven, 2006: 87; compare Schudson, 1998), *even* when they are *not* watching the show. And that enables them to switch to the mode of 'citizen', as soon as they feel triggered to be involved. The described activities to enhance transparency may be considered as events that help individuals choose their moment and subject for "becoming politically active" (Loeber 2006; compare Eder, 2000).

The openness practices of the FSA are by no means the only ways in which the democratisation of public enquiry can be given shape. They set a telling example of how it can be done in a state-dominated setting for centralised political judgement and decision-making. Other examples of public enquiry that have been designed in specific reference to BSE (and often the other 'food scares') are the practices of EFSA to web-cast its scientific committee meetings, but also e.g. the Dutch web-enabled public campaign to encourage consumers to 'look into the chain' (*kijk in de keten*), that is, to trace and check who handled the constitutive parts of the food on his or her plate, and the project *ICT-kanskaart voedselveiligheid*, a joint initiative of the Dutch Ministries of Agriculture and Public Health to explore the possibilities of information and communication technology to enhance a public's critical assessment of food safety. This is in fact an extension into the private realm of the transparency concept made operational in terms of 'one step forward one step backward.' Non-state initiated initiatives with a comparable purpose in regard to food production and food safety included amongst others, in the Netherlands, the critical TV programme "Keuringsdienst van waarden", a pun paraphrasing the name of the Dutch safety standards agency VWA's predecessor.⁸⁴

Others such instances in the Netherlands include the development of the main consumers' organisation, the *Consumentenbond*, to systematically inform its members about environmental and social aspects of consumer products, in addition to its regular product information; a decision that was made effective in 2003 with the publications of a 'black list' of companies that failed to provide requested information on such aspects as child labour, animal welfare and the environmental impacts of their product range. Another, more 'extreme' expression of the similar thought, is the central government careful use of 'naming and shaming' as a tool for regulating food safety.⁸⁵

In the latter example, the (e-)governance involved is still being co-ordinated from one particular centre of control, in this case the organisation commissioned by the Dutch government to provide the available and required information. The options for supervision and enquiry yet need not have a centre of control. An example of 'enquiry-without-control-centre' are for instance the book reviews on Amazon, voluntarily provided by readers, or the quality assessments of sellers on eBay provided by buyers.⁸⁶ Advantage of such an 'open source' data base is that the gate keeper's (e.g. the central government's) implicit or explicit standards as to what qualifies as valid and useful information do not limit the range of information and ideas that are made available. In the face of the uncertainties that constitute current risk issues (such as BSE), this may be a sophisticated strategy to enhance the 'intelligence' of food safety regulation. However, it would imply an entirely new role for government in dealing with information and food safety issues which may run into practical and normative objections. The idea and its objections have been explored in an experimental setting for deliberation in the Dutch context of re-thinking food safety control:

A '24-hours Ministry of Food Safety' in the Netherlands

The '24-hour Ministry of Food Safety' was an experiment of Infodrome, a temporary think tank under the auspices of the Dutch Ministry of Education and Science that explored the potential of ICT for the improvement of governance. The experiment was set up to offer a way out of the catch-22 situation with which the Ministry of Agriculture was faced with: while the increasing complexity of food chains and food technology implied a need for improved, co-ordinated information management to ensure the safety of food, consumers seemed to have lost trust in governmental information on food safety all together. A 24-hour 'pressure cooker' meeting in May 2001 (in practice: an evening plus the following day) of nine, carefully selected experts from the food industry, control agencies and consumer organisations resulted in an advice (in the

shape of a draft law) to design a law that entitles citizens the right to be informed about the way a certain foodstuff has been produced. The advice was handed to the Minister of Agriculture during a public debate in which the experts participated together with several members of parliament and self-selected members of the public.

The original question underlying the project was “how to improve the management of information flows on food?”; a question put forward to the organising institute Infodrome by the Ministry of Agriculture. The Ministry was concerned about the increasing complexity of information flows on food – flows that run among consumers, between them and retailers, between these and producers and NGOs, and so on – over which the government could not exercise any influence. That would not pose a problem, if it were not for the fact that the government considered itself essentially responsible for the safety of food, even while it *de facto* is not, and was indeed held accountable for it by citizens / consumers. Yet, the consumer in turn derived his / her information on food from various sources, and expressed a lack of trust in formal, governmental publications on the issue, according to the Ministry.

The suggested solution provided by the ‘24-hours Ministry’ was based on the motto “organised distrust amounts to trust among consumers”. Given the developments in information technology and food production technology, the participating ‘stakeholder-experts’ (“ministrials”) argued, food safety was an issue beyond hierarchical control. As the food safety issue took shape within a network of actors which take turns in being consumer and producer of information, management (governance) had best be structured as the facilitation of checks and balances on competing truth claims: “A more effective approach is to [start treating] the network on food safety as a self-organising system, in which ... consumers, the food industry, government and interest organisations such as Greenpeace, the Consumer Association [the *Consumentenbond*], the Diabetics Association and so on can be held accountable by each other about the

(quality of) information on the production, safety and quality of food [they provide]" (Infodrome, 2001, my translation).

Although the Minister of Agriculture personally attended the public meeting where the suggestions of the 24-hours Ministry were debated, and the text of the draft law was ceremonially handed over to him, there was no subsequent governmental action in line with the suggestions made. The drift of the draft law differed too much from the usual approach to governance endorsed by the national government, which cherished the ideal of "speaking with one mouth" to the public (Interview WP5-32; 10-7-2006).

In view of the discussion on novel participatory arrangements for governing food safety issues, the set-up of the project is not of particular interest, but its outcome is. The resulting draft law designed to entitle citizens the right to know about the origins and production methods of foodstuffs, could enable consumers to adopt the role of watch dog-citizen as discussed on the basis of Schudson (the 'monitorial citizen', see above).

Regardless of the lack of impact, the suggested approach to developing a basis for legitimacy seems to be of great value for organising and assessing participatory governance in the post-traditional age. Given the problems with input- and output legitimacy that may be considered inherent to a post-Eastonian understanding of politics, alternative options have to be explored. These options have to tally with the fact that the once assumed potentiality for unambiguously establishing 'the truth' now is lost (after all, as observed above, specific social orderings and knowledge systems presuppose and reinforce one another). By enabling a public contestation between the different knowledge regimes implicated in the knowledge / wisdom it helps to generate, a quality check as well as a check on the legitimacy of truth claims is build-in. If political judgments are based on dissilient knowledge, we are in need of an infrastructure for information exchange that enables an explication of the different social

logics in which truth claims are constructed. To be sure, at issue here is not the creation of arenas for deliberation as such, which assume that differences in points of view may disappear through argumentation. Rather, establishing a basis for legitimacy requires the creation of moments and sites for public contestation among competing “regimes of justification” (to use Boltanski and Thevenot’s (2006) phrase). Even though these cannot be merged or reduced to one another, they can be assessed for their situational relevance and worth from the perspective of the respective ‘citizens on watch.’

5.2 Participation in political judgment: innovations in the production and assessment of knowledge and values in regard to governing food production and safety

In addition to these innovative ways of democratising public enquiry, there are also instances observable in the ‘post-BSE’ food production and food safety regulation area that *do* involve the active participation of non-state and ‘non-science’ actors in the deliberations held, and in the associated processes of knowledge production and political judgment. The FSA for instance has developed a wide pallet of possibilities to enable stakeholders to have a say in what is going on.

As one of its first deed, FSA set up a ‘BSE Stakeholder Group’ to ensure that organisations with a special interest in BSE were consulted, for instance in regard to the design and implementation of related policy measures (such as the over-thirty months rule). This Stakeholder Group is made-up of representatives of consumer associations (such as the National Consumer Council, NCC), farming and meat industry, scientific and medical organizations as well as Government departments.⁸⁷

Furthermore, it organises other consultative and deliberative settings for discussing some issue. Among these are scenario workshops, regional seminars, a youth forum, and the organisation of an annual Consumer Attitudes Survey, which helps the FSA to be informed about trends in consumer behaviour. In addition, the FSA carries out formal consultations,

inviting the views of the food industry, consumer organisations and other NGOs on topics ranging from proposed changes in regulations to new food policy initiatives. On top of that, the FSA was (and is) informed by a 'Consumer Committee' on how to put 'the consumer first' in the way it handles food risks.

The EFSA too incorporates similar consultative forums in its *modus operandi*. Among the platforms it organises are (since 2005) a Stakeholder Consultative Platform (for "Talking to The Chain"), and numerous consultations and discussions "round table." A major reason why the EFSA intended to organise stakeholder contacts in this way is that it too, like the FSA, searches for ways to generate trust among the 'food chain operators' it has to deal with. Furthermore, it also aspires to create trust among the 'general public' (cf. Borrás and Jacobson, 2004 on the relation between the general legitimacy of the EU in the aftermath of the Maastricht Treaty and that invoked by the food safety crises of the 1990s and early years of the 2000s).⁸⁸

Yet as the case material shows, the installation of new platforms and bodies with the specific aim of consultation and deliberation with a wider range of actors than is traditionally involved in food safety regulation is by no means the only option. Existing forums that were once the domain of technical decision making have turned into a locus for both participation in knowledge production and political judgement. The practice of having a consumer representative as full member in a scientific committee advising the British government on scientific aspects of food safety issues is a case in point.

It is again the British regulatory system that takes a lead in this respect. The first consumers sitting on governmental and scientific panels affiliated with government (with MAFF!), dates from pre-BSE days. Since then, and notably as a consequence of BSE so various interviewees relate, this became a major factor in British regulatory science. In the aftermath of

MAFF's break-up, the issue first got institutionalised through various laws and regulations.⁸⁹

A quite large body of analyses and critiques has developed parallel to the 'booming business' of having consumer representatives on scientific committees, discussing the pros and cons of this approach to 'fuse' science with extra-scientific horizons. It is beyond the scope of this research to add to that literature on an empirical basis systematically. Yet the idiographic stories gathered in this context on 'what it is like' to be involved in a scientific committee as a lay-person, seem to suggest the following.

Discussion

The idea of having non-scientists sit on a scientific committee results in practices in which time and again, and depending on context, (images of) identities of 'the citizens', 'the consumers' and 'a lay person' are time and again constructed on the spot. With the actual person's changing role, so the roles of the experts fluctuate, from 'explainer' to 'teacher', to opponent, ally etc. This brings about a different dynamics (arguably) than when scientist committee members are among themselves, without the need to (re-)establish their authority, credibility and identity. As one of the respondents to this project said, without incentives from an outsider, the scientists (in case of a different scientific background) would be inclined to very much respect one another's authority and challenge the other's views. With someone present who not so much challenged but rather questioned the self-evidence of what was being said, and the authority with which it was being said, the placidity was broken:

When I got on to the committee I was treated with [extreme] hostility. They didn't think there was any use in me being there, and I remember one of the first people said to me, he said ... you won't understand what we are talking about, which of course was extremely rude. And of course you don't understand necessarily all the details but you do understand the issues, and in some ways that's more helpful to take an overview picture than actually understand all the details. Now over time obviously I was welcomed and they thought I might have a useful role to make. (Interview WP5-13; 19-7-06)

The usefulness of the role of the outsider lies, arguably, in her triggering thoughts on how scientific views may apply in every-day life contexts. Because of her presence, she serves to help scientists make the switch from universalistic, de-contextualised scientific advice to situational, contextualised, 'practical' knowledge. And with that, as a member of an advisory committee, the consumer representative is a 'political judger' herself along with the others. However antagonistic, the fusion of horizons is bound to occur and arguably renders the resulting insights more informative in view of action.

As was considered in regard to the presence of 'citizens' (in practice often: representatives of stakeholding parties) at the FSA's Open Board meetings, this may serve to make present to the mind of the scientists, the situation of 'the other' (again, as in Arendt's (1968) "representative thinking"). Now that the other has 'materialised' as a discussion partner, exchanges may yield what is often called 'practical knowledge'. The lay-person's presence is conducive to having the particularities of a specific setting come to bear on the judgements made. This is relevant as in the process of translating scientific insights into policy advice, issues related to food safety – whether they involve prions or other scientific hypotheses -- time and again need to be re-constructed from a universalistic claim into a contextual truth. In the absence of objectively assessable indicators of 'risk', notably in view of the uncertainties as introduced by the prion hypothesis, as a foothold for knowing what to do, and of a universally true principle or law on what 'safe food' is, time and again those making the reconstruction must resort to *political* judgement on what is just, necessary or advisable to do to under the circumstances of the particular socio-economic, cultural and physio-technical setting.

Thus, the non-scientist is not there to serve the instrumental role of filling in a knowledge deficiency as such, as more traditional forms of participatory arrangements set out to do in order to improve their problem solving capacity (cf. Rhodes, 1997). Rather, her presence serves to generate the kind of judgment that is "embodied in action", that is to say,

knowledge that 'enables us to act' rather than 'knowledge that informs us about action' (Beiner, 1983), because the particularities of the contexts of each of the acting persons have come to bear on the knowledge production process. Such an approach may inform e.g. practices in which knowledge is disseminated: no longer produced as 'bulk', communicated as a 'given', for other to use or not; but rather now a fine-tuning between knowledge producer and user.

Novelties in participatory political judgment and knowledge production: building on initiatives of stakeholders

In the Netherlands and Germany, similar processes are observable because they are organised mostly on a project-basis in contrast to the UK's structural approach. Closest to the British situation comes the Dutch "Consumer Platform" which was set-up from 2002 onwards as a structural body within the Ministry of Agriculture. The platform was intended to provide input to the Ministry's policies on food safety and food quality. The platform brought together scientists, trend watchers, restaurant chefs and consumer experts (yet "no consumers" under the assumption that these would be "expert-consumers"), advising the Ministry on current policy issues 'from the consumer's perspective'. The meetings are confidential, yet the main results of discussions and the results from the research projects it commissions are published on the ministry's website. While the Platform's members' input may indeed serve to 'make present' to the minds of policy-makers the standpoints of others, the isolated sessions of the platform arguably do not have the immediate impact as the face-to-face discussion have in the UK scientific committees setting.

That kind of effects may be expected in the more traditional designs of participatory arrangements set-up in the aftermath of BSE and other food scares, such as the Dutch - German Internet debate launched in 2001 about the future-of-food. This initiative of a small group of Dutch researchers was embraced by the Dutch and German ministers of agriculture, Veerman and Künast, and focused on food safety, animal

welfare and 'the farm of the future'. Anyone who felt committed to any of these subjects could join in the digital debate. Every theme was introduced with the staging of a real-life debate, of which the proceedings and results were also put on the Net for further discussion. Parallel to the discussion there was a consumer (please note!) research conducted in both countries, in order to 'map' what kinds of concerns, issues and problems consumers have in regard to the safety of food and the quality of agricultural production.

The focus on both 'sides' of the food chain (the agricultural production chain from farmer to consumer and back) characterises the Dutch approach to agriculture in the post-food and animal disease crises (as we discussed in chapters 2 and 3, in the Netherlands, it was not BSE as such but rather the series of plagues that hit the agricultural business community that turned the tables). This added to the change in political agenda and research agenda of the ministry of agriculture as well as that of the major research institutes on agricultural and environmental issues that had come about slightly earlier (*ketenomkering*). Now, with the food crises impacting the community, the consumer came into full view in the world of agriculture and series of debates and research projects were launched under such titles as "socially acceptable husbandry", and "the future of intensive animal farming." All sorts of participatory methods and tools were being used in order to inspire a debate among farmers and farmer representatives as well as in order to 'reap from' the grass-root debates going on there at the level of the ministry. For instance, the Rathenau Institute, the Dutch TA organisation, had produced a film for its project on "Considerations concerning husbandry", *Pork Plaza*, which addressed a think tank on agriculture (Innovation Network)'s concept for high tech agriculture, namely of 'closed systems pig breeding' (rearing pigs in large in storage building close to the harbour). This film was shown in various settings to various audiences while the discussions it provoked were recorded (WP5-31; 27-3-06).

These approaches, however inventive, can be considered creative yet familiar elaborations of the known techniques for participatory policy analysis (specifically for the Dutch policy analyst culture which is characterised by a close co-operation between policy experts, policy makers and 'policy target groups' in project-based settings for analysis and deliberation): state-commissioned, researcher-initiated and jointly implemented with stakeholders (including both people from the 'shop floor' as well as their formal representatives).

There are, in addition, some approaches to participation in governing agricultural production and food safety that can be designated as genuinely novel. Among these is the Wageningen University initiated programme on 'networks in livestock production' (*Netwerken in de veehouderij*). The programme is built on the observation that agricultural research (at the agricultural university, Wageningen, an associated formerly state-run research institutes) was hardly driven by agricultural practice. This observation was put down in the Ministry's position paper of 2003 when a large number of farmers had suffered tremendously from the subsequent food and animal disease crises, both financially and emotionally (loss of entire herds which in some cases were with a family for generations). No longer should the once so magic formula of 'agenda setting by the research institute, knowledge dissemination by the extension services and implementation by the farmer' be a sole and dominant approach to governing research. Now attention shifted to developing knowledge 'on the spot' of where it was thought to be of relevance in the future, and including the local knowledge already available. Therefore, the 'network' research programme was called into being. Its most characterising feature is that only farmers themselves can apply for funding research on some subject. Required is a co-operation in the application of the funding of at least three farmers who "wish to obtain a shared goal and share the wish to learn". If the application is approved, the university will provide support and means to help develop and implement the plan. Thus, research is driven by 'demand articulation in

practice'. Among the aid provided is also help with the communication of the activities of the farmers involved, in order to enable others to hear and learn about it, and in particular to create a network of knowledge generating practitioners and researchers working 'from practice'. A particular instance helps to depict how this fits in with the wider picture of 'building on practice' in both research *and* policy making: the University helped some group of farmers to communicate about the project they worked on together with a group of researchers. This information resulted in an article in one of the leading Dutch newspapers, which came to the attention of the Minister of Agriculture who thereupon decided that to support that particular approach to farming with specific policy measures. This example illustrates how in the Netherlands of recent new "knowledge arrangements" are being designed in regard to agricultural research, which bring along a redefinition of roles and entirely novel (for the Dutch context) relationships between farmer and expert / researcher. Furthermore, it illustrates how the government tends, in some cases, to build on stakeholder initiatives (and in some cases citizen initiatives; cf. Vander Heijden 2007) in the process of agenda setting and the development of agricultural policy. We would suggest to designate this approach to, here, agricultural policy making and science policy as an instance of 'participatory governance'.

Typical of this development – the above project is a (prominent) example of a much wider trend in Dutch governing culture in the field of agriculture of recent – is the de-centring of 'truth spots' (Gieryn, 2006), that is, of sites where claims to truth can be legitimately made in the eyes of those who feel involved in the subjects elaborated. It is in this respect, that the developments described above on the basis of, in particular, the FSA practices (which is also more and more "turning to the field" of recent) in the area of food safety control and regulation, and those in the realm of agricultural production – however different they may appear at first sight – are interlinked. This 'scattering of truths' as one might call it (or, as I

have argued elsewhere, the “dissilience of knowledge; Loeber, 2006) can be considered illustrative for the post-traditional (and indeed, post-BSE) approach to governance and regulatory knowledge production (seen as two sides of the same coin) that comes as a complement to, if not a replacement of, the practices of central and hierarchical control on the basis of a high-modernist statecraft rationale of the 20th century (see Work package 1, Loeber et al, 2005; cf. Scott, 1998).

The above overview of examples of participatory arrangements that were called into being (more or less explicitly in relation to) and after BSE does not pretend to be exhaustive. Rather it gives an impression of the ‘enlargement’ of public space in the realm of agriculture and food safety. It serves to illuminate how both knowledge and political authority and legitimacy (and thus ‘truth’) are being produced in novel arrangements in innovative ways of ‘participatory governance’.

5.3 Food risks, knowledge production and political judgement under conditions of uncertainty: an example of ‘learning after the event’ from the FSA practice

The novel practices depicted above, however varied in their concrete manifestations, all may be considered examples of how in present-day ‘post-BSE’ society (complementary to more ‘regular’ or ‘conventional’ modes) knowledge as well as political authority and legitimacy are being produced. They are, in other words, illustration of what we may call ‘Learning after the event’. As outlined in the Introductory section, the title of this report refers exactly to this kind of learning, in terms of the transformation of meanings and identities. With reference to the learning concept as developed by Wenger (1998)⁹⁰, we perceive of learning a way of doing, of acting and interacting collectively as a result of which knowledge is produced and transformed in relation the particularities of its historical and social context. The newly designed arrangements in the UK, as well as the novel Dutch agricultural research “knowledge arrangements” described above, arguably serve to illustrate how such

leaning on food safety and food production may take shape in 21st century policy making and regulatory science.

What those conditions are (and hence the relevance of such novelties in organising knowledge production and policy-making as learning processes) may be probably best discussed by relating to practice as well. Below follows a discussion on the conditions of uncertainty that set the stage for dealing with food safety issues in Europe of recent, that builds on an account of knowledge production and political judgment on the potential dangers of “atypical scrapie” from the FSA practice. Thanks to the organisation’s openness policy, we can learn about those conditions as well as that practice from the minutes of an Open Board Meeting published on the FSA’s website.

Making sense of atypical scrapie in the Board Meeting of the British Food Standards Agency, June 16, 2006

At the table of the Board Meeting of the British Food Standards Agency on June 16, 2006 is a new scientific paper on the phenomenon of atypical scrapie, which leads to discussions on the sheep’s disease’s possible consequences for human health, and its consequences therefore in terms of policy measures and advice to the consumer. The chair starts the discussion by referring to a letter of two interest organisations that hold a ‘stake’ in the issue – the Scottish Association of Meat Sellers and the National Framers Union in Scotland – and that urged the FSA to “act in a *proportionate way*”. She adds as an immediate response that the FSA is always committed to acting in a proportionate way, which is “clearly very important in this particular case.” Then the paper on atypical scrapie is put up for discussion. Immediately the ‘classical’ food safety issue is phrased, voiced by a Board member with a science background, Richard: *the trade-off between domestic measures and the chances of having domestic consumers at risk through imported food:*

Since we know that this new TSE occurs in a number of European countries on varying scales on the evidence so far, it would be relevant in considering what additional safeguards might, might be appropriate in the UK. If I understood

whether we had the capacity, both the legal capacity and the practical capacity, to impose any parallel safeguards on meat entering the UK from other countries, which we know to be affected. Sorry to put it in a less worthy way. If we were, if we were to consider that more restrictions were appropriate for locally produced meat, there wouldn't be much point in doing that if there was meat coming from Ireland, I think is our biggest EU source of imported lamb. And this disease exists in the Irish flock, do we have any capacity or right to require restrictions on imported meat?

With this observation, the *EU context is instantiated*, both as a given (a precondition for action, that is limiting to British action, and as a battleground where atypical scrapie measures are to be designed). Alison and Richard try to establish the leeway the UK administration has here:

Alison: Yes clearly this is not just a UK issue and it is one, which affects a number of European countries. TSE controls are a harmonized issue, and as such advice from this board to ministers feeds into a position that we would take in Europe. There has already been a sharing of information about the science between scientists across Europe, and that's fed into the SEAC review. ... Now there is, if we thought that we needed to do precautionary measures here now, we could try to argue for that. But those would be on an interim basis, because the measures would be taken at a European level. ...

Richard: ...Are you saying Allison that we could apply, if we were to ..., those safeguards on an interim basis? [That] we have a legal authority to apply them on an interim basis to imported meat as well, pending discussions in Brussels where we might be backed or not. Is that what you were saying?

Allison: [I]f we feel that this situation goes beyond the situations already foreseen by European controls, we can introduce national safeguard measures, and argue that those are necessary. But they are only interim until the European position is clarified.

Chair: Allison, maybe an impossible question, but can you just clarify what you mean by interim? Is interim something that can subsist for six weeks, six months, two years, what does it mean?

Allison: It means until the European situation is clarified. So they would stop when the European situation was agreed.

Apparently the transient nature of any British action in this respect adds to the "uncertainty" described in the scientific paper at issue, as it connects *the temporal aspects of scientific research* with that of formulating policy:

Julia(?) [FSA employee to invited scientist]: I think I'm looking for some clarity about the length of the period of uncertainty, and the staging at which you think we will have information, which would make our position rather different. Because the paper describes the current uncertainty, there is obviously a lot of research commissioned. I was wondering if you could give us some views about the milestones in that research. ...

Peter [scientist]: ... I think this is one of the difficulties that has to be grasped with the subject. And that is that yes there are marked uncertainties, and trying to do a risk assessment, which is the role of SEAC on looking at any options, we need data in order to do the risk assessment. Currently we are not in the position to do that and we're waiting for various experiments to run their time. ... some of the cooperation with other countries on the research might lead to indications with regard to about six months period. But that is an absolute minimum, and it would be an indication. I would be wrong if I didn't put to you the possibility that we could still be having this discussion in one to two years time. Because it could quite easily take that length of time, if the preliminary work that is being done, the first [...] experimentation for example does not come up with a definitive answer. That is the nature of science that is the nature of what we're dealing with here. So that I would like to disabuse you of the thought there's going to be a quick fix. That is not going to happen.

With this statement, the challenge to governance is clear: FSA policy-advisors have to *"come to an opinion today" in the absence of scientific evidence*, of information about *"where the debate has got to in the European context" and about the "time scales that they [EFSA] are working to"*, as Bill summarizes. Some discussion follows as to the developments within EFSA on the subject. The chair brings back the discussion to the core of the challenge: how to provide advice 'now' when scientific information may be six months to two years in coming. Then, the discussion is drawn to a deeper level by Valerie, who questions *whether the availability of scientific evidence in fact might really make a difference, given the European context*:

Valerie: ... [W]ere there some change in the scientific evidence, would we be able to act in the interest of the health of our community? Bearing in mind that this is a harmonized issue, and for those of you who are not clear about European speak, harmonized means we all have to do it whether we like it or not. And that could be a great difficulty. ... I think we need to separate out the two things, which is if the world changed tomorrow and something did come forward, what kind of action would we as a nation be able to take, bearing in mind the problems in Europe? Because [if we] would wish to take the view at our responsibilities to protect our community, ... how we do that.

The discussion then goes on to explore the implications of the fact that sheep flocks in Australia and New Zealand are considered TSE-free, but eventually the issue of the lock-in between lack of scientific evidence and subordination to European powers is settled in favour of the former:

Maureen: ...[M]y understanding is that we can take unilateral action if we have very clear human health evidence. But we don't have clear health evidence, so therefore it is not an issue at the moment.

This brings back the discussion to the nature, timing and quality of possible scientific evidence. Apparently, the age of sheep is of relevance in the light of potential risk:

Chrissy: ...Throughout everything, people talk about older animals... Do we actually have any understanding of what the youngest age is, that atypical scrapie has been found in animals either in this country or within any other community in the world?

Irene: There's some knowledge of the age at which animals become clinical. Obviously people don't always know how old their sheep are, but the evidence is that the five that we've had now in the UK were all aged somewhere about four or five years when they came down with clinical signs of the disease. ... this is a transmissible spongiform encephalopathy, and like all of those diseases the amount of infectivity in the animal increases with age, just as with cattle, just as with scrapie, just as with the experimental BSE in sheep. That is common to these animals and therefore the risk is greatest in the oldest animals

Peter: ... That's true for scrapie as well in that it tends to be the older animal, but where you get larger numbers of animals with the disease in a particular flock, an increasing instance within a flock, you may well get a lowering of the age, in classical scrapie.

The discussion then moves again to the core of the issue: *what do these scientific probabilities imply in terms of policy advice?* The chair re-directs the attention back to that question and wishes to know how the scientific evidence or guesses translate into advice such as removing SRM [from sheep at slaughter]. The very practical question however is answered by the scientists present with reference again to the impossibility to come up with clear and unquestionable answers due to the time required for the research involved and other *scientific puzzles such as how to get one's hands on proper testing material* in the first place:

Peter: That research is, are ongoing as we speak in that there is a requirement to get first of sufficient material. One of the difficulties with these diseases is very often getting the material in the first place to work with, that is of a quality that it can be used experimentally. ... Unfortunately the quality of some of [the] material is sufficient to actually get a result, but it doesn't necessarily mean that it's good enough to take forward into a lot of experimental areas. So one of the issues at the moment, and that is actively being discussed, is the material that is available: what can it be used for, what is it's best usage? And whether indeed there may be a need unfortunately to generate more of that material experimentally, before one can take it forward into an experimental phase. Now that is an active discussion at the moment. There is a call for various procedures and the experiments to be taking on, and then there's going to be a discussion as to priorities with regard to that. Clearly ... it's a whole series of concerns and priorities that is dealt [with], deemed would be necessary to help you to answer the sorts of questions that you're raising today. But we, as you're well aware, raise the same series of

questions that you got, the same answers: that we don't know, we don't know, but we need to know. And that is very much where we are at the moment.

A similarly modest answer the scientists have to give when it comes to the possibility of diagnosis, and especially of *developing a testing system for atypical scrapie in sheep that is both cost-effective and practical*:

Peter: It [a tender call for research projects on the subject] is the first stage of even finding out whether anybody can put together some form of diagnostics. At the moment that doesn't exist, clearly it's something we would all like to see, whether it be in the carcass or best of all of course, if we could do something in the animal in the first place. But all of this is very much in the rounds of the future, there's nothing there at the moment

Faced with such a lack of firm scientific grounding, the policy-advisors at the table turn to the question as to *how much control over the scientific developments the government*, i.c. the FSA actually exercises:

Maureen: My question ... relates to who's in the driving seat in the research? Because I don't like us to be sitting here, worrying about whether or not a piece of work is going to be coming, and we're at the mercy of other agencies actually moving that forward. And we might be having to collaborate on funding. But it seems to me that we as a Board when we come to the discussion of what we're going to agree to, need to decide whether we want to put the agency into the driving seat, and actually be taking leadership in getting some of this research underway, rather than us at the mercy of others.

Maureen is provided an elaborate answer on the administrative developments of putting out calls for research proposals on various themes, and the progress made therein. But then the Chief Scientist at the FSA, a new position created at the agency in order to deal with explicitly these frictions between policy and science, takes the floor, and puts in words what is the core of the problematic at stake here:

Andrew: I share the sense of frustration about the time of this [science coming up with useable results]. And I'm probably a source of the frustrations that you experience, because I will want to ensure that processes that we go through - make sure that we are attracting the best possible science. That we are not just rushing off and working with the first group that come to us that we check. And open the process to the best scientists across Europe, just not in the UK. And that we also seek external assessment ..., that has necessarily taken ... weeks. But I think in the long run we have had experience, fortunately not from the FSA but from other groups, where people have rushed into research and money is not being well spent. So yes it's frustrating, but I think in the long run it's best to follow those procedures.

While the scientific work has to *meet the standards of sound science* in the eyes of the chief scientist, another employee of the FSA reminds him and the *others at the table* that 'good science' in this context *also implies the possibility to translate it into practice and doable advice to consumers*:

So if we know that it's going to be difficult for consumers to distinguish the meat of older animals, and we know that it's going to be hard for them to find out their sausage casings are made from sheep intestines, I'm really puzzled as to why our advice then in the last section of this paper still refers to that as an additional precautionary measure that people could take.

Continuing from this perspective, the FSA-employee then continues to question their own role as a food standard agency in the light of the absence of scientific evidence on risk:

I'm quite happy to accept that we simply don't know at this stage, I don't really have a problem with that. So what I then want to think about is, can we really assist people in making informed choices when we don't know so much. So how do we then think about reframing how we engage with people? And the very early thoughts I began to have [...] were really around how we kind of work with people to take risks that is meaningful for them, and how can we engage in that kind of risk taking language. Because whatever small or large the risk may be, there's a risk somewhere there. And I was thinking about, is there a way of talking about comparing food choice risks that people face and take on a daily basis, and then comparing it with the probability for example of the risk that somebody might be taking right now in this point in time with eating any kind of sheep meat.

With this input, the discussion on this topic comes to an end. Up come other issues that needs assessment and judgement in the face of lacking scientific evidence on human health risk aspects, a need to act immediate, proportionate (for the huge economic interests involved), practical (in terms of applicability in a consumer's (and slaughterhouse and retailers') context, and sensible given the multi-level context of European governance.

5.4 In conclusion

The above depiction of 'risk assessment and risk management' under conditions of structural uncertainty serves to illuminate the need to develop novel modes of dealing with the dangers involved in food production in the 21st century. Moreover, it may – stretching the drift of the argument a little – serve to put into context the attempts at developing innovative modes for knowledge production in regard to

agricultural production, as described for the Dutch context. Recapitulating on a more generic level, we posit that the dislocation triggered by BSE and similar mishaps gave way to the elaboration of novel ways in which the science and politics involved in food production and food safety control are linked. Innovative new organisations such as the UK Food Standards Agency were designed to embrace new, transparent, and reflexive approaches to governance while maintaining at the same time a sound scientific basis for its advices on food safety. Furthermore, new approaches to knowledge generation from within the realm of science are being explored.

Characteristic of these procedural innovations, however diverse, is that they couple a desire for enhancing the sophistication of the resulting insights to a desire for increasing the legitimacy of the processes by which these insights are gained. The core issue in food safety control and governance is the question who is allowed to say what about food safety, and what or who is to be held accountable for it. What we observe are instances of a democratisation of supervision (increasing transparency *and* enabling access to relevant and understandable information), as well as a democratisation of political judgment on these issues.

We suggest to speak of these institutional innovations in terms of *participatory governance* for a number of reasons. Firstly, being open and transparent allows for the generation of, and is a source for, legitimacy of public action. Sources of public legitimacy are usually divided into 'output' and 'input' legitimacy (Scharpf, 1999). Output legitimacy is derived from the desirability of the achievements of an organisation. Input legitimacy refers to the correctness of the processes (in the eyes of those who will be affected by the outcome) by which the involved decisions are reached. Input legitimacy is the 'classical' basis for legitimate government in representative democracies, and is formalised through the principles and procedures by which the 'trias politica' are organised in a modern nation-state. Yet, characteristic of the state under current 'post-traditional' conditions (cf. Loeber et al, 2005) is that the formal principles and

procedure no longer serve to cover the core aspects of the political. First of all, the topography of politics is literally changing, through such as the globalisation of production networks, processes of supra-nationalisation (EU) and an accompanying “trans-nationalisation” of economic, cultural and social relationships. Current political arrangements furthermore usually comprise actors on the local, regional and global level. These arrangements furthermore frequently consist of formal and informal associations between states, markets and citizens and their associations. Because of these flexible networks of actors, politics take shape outside and beyond the political institutions that are traditionally considered the exclusive centres of political power (a phenomenon dubbed “subpolitics”; Beck 1994, 1997, 1998). What the (post-)modern state is in need of, hence, is the possibility of exercising public control over such ‘displaced’ politics. The dynamics of increasing transparency is key here. By enabling public enquiry on processes of deliberation and judgement that concern ‘res publica’, namely on matters of food safety, agro-economic interests and public health, the legitimacy of governing activities is enhanced. By doing so, please note, in regard to processes of assessment, analysis and judgement that take place *prior to* such deliberations in the formal setting for such enquiry – parliament – it results in what we may call ‘throughput legitimacy’. The transparency here provides a source of throughput legitimacy for the governing issues of food safety.

Secondly, ‘opening up’ (being transparent) serves another function: it enables the creation of a public. The temporary created setting of e.g. the FSA Open Board Meetings create, for the duration of the meeting, a common political identity among otherwise widely varied people, namely as an audience to the deliberations that concern their ‘being together as a community’(cf. Mouffe, 1992). The open access to the meetings actively ‘produce’ citizens while engaging experts in science-based, policy-oriented deliberation. Put differently, the openness policy of the FSA enables people to be ‘citizen on stand-by’ (see above; cf. Verhoeven, 2006: 87; compare Schudson, 1998), *even* when they are *not* watching the show.

And to switch mode to the modus of citizen, as soon as they feel triggered to be involved. As said, whether or not state-initiated, any attempt at enhancing the transparency of processes of political judgement may be considered as an event that help individuals choose their moment and subject for “becoming politically active”.

Furthermore, another aspect that makes the instances of participation genuinely novel is that they involve a new understanding of the expert / lay-person interaction. The traditional approach to participation is based on an assumed ‘deficit’ on the part of the lay-person, to be taken away by expert knowledge.⁹¹ Furthermore, it assumes the centrality of the nation-state in designing participation. Yet, as we have seen, such a formal political unit is no longer the central organising force in fostering political judgement, decision-making and control (supervision!). In regard to food safety, new practices have emerged (please note, in the UK, in particular, with the ministry of agriculture (MAFF) already before BSE hit), that take an entirely different stance in view of expert-lay interactions.

What the material collected in this research suggests, is that there is a shift in the ‘social ontology’, that is, in what it means to be a scientist, citizen, consumer, expert, stakeholder, politician, administrator. These categories have become dated, in the sense that the ‘old’ definitions no longer hold and various groups try to impose new (partial) definitions of a new order on others depending on context (moment and setting). What has come to be dislocated with BSE is after all not about prions but about social categories.

6. Conclusions

BSE is a widely discussed phenomenon. What the rich and ever growing body of literature on BSE illuminates is the fundamental multi-interpretability of the story. In this report, we have taken the BSE story as a stepping stone for investigating the dynamics in the area of food safety and food production governance, with a particular focus on instances of participatory governance and institutional innovation. A central line of argument pursued in this report is that BSE paved the way for the acknowledgement of uncertainty (the possible fallibility of control) in the realm of risk management and risk assessment, and fostered attempts at dealing with that acknowledgement in various ways. With that development, BSE came to challenge not only the rational, modernist approach to agriculture and food production that dominated the field, but also the entire regulatory regime in which that was embedded.

The empirical material collected in this project suggests that this challenge did not result in a fundamental review of the dominant rationalist, technocratic approach as such. It did, however, contribute to some crucial changes in the regulatory regime. These changes tallied, on the one hand, with various developments taking place in the public (and private) energy field of food (consisting of policy areas of agriculture and public health). The dynamic contextures of BSE and the developments in its aftermath are discussed in [chapter 2](#). On the other hand, the chapter concludes that while BSE was not the first and sole trigger in setting forth the developments described in the later chapters, it certainly worked as a catalyst and lever in bringing about change.

The changes involved included shifts in the discursive categories by which food and food safety issues were being discussed. Dislocating the dominant discourses as settled in the post-World War II, pre-BSE years, BSE connected, it is argued in [chapter 3](#), various discourses and caused them to influence one another. As a result of this process of mutual simultaneous shaping, the BSE-story came out as a narrative of (the loss of) trust in public authorities (at least in the UK), as one of 'fusing' and

(potentially) 'clashing' discourses on the moral and rational aspects of food production and consumption, and, consequently, as one of fusing and interlinking environmental, ethical and health focused discourses.

These dynamics precipitated in a re-organisation of the institutional arrangements by which food safety control (and to a lesser extent, food production) was organised. These changes and institutional innovations are described in chapter 4. It is argued that BSE defied the 'containment' (cf. Jasanoff, 2006) offered by the then-existing institutional framework. That framework was, and still is to some extent, characteristically divided into a series of arrangements set-up to deal with agricultural production, animal health and veterinary care on the one hand, and a set of arrangements for dealing with human health, food safety and food-borne disease management on the other. The bisection found its expression in various aspects of these arrangements, from the physical, geographical separation between institutions for veterinary services and human health care, to e.g. the ill-concealed indignation among *Lebensmitteltechniker* in Germany that veterinarians are responsible for the quality control of meat. In chapter 4, it is discussed how BSE as a zoonosis impacted both spheres – agricultural production and public health – and set in motion a landslide in the organisational landscape. It is argued why BSE rather than other zoonoses could fundamentally challenges the management of food-related risk. In contrast to e.g. Salmonella, which 'hazardous reality' drew attention to the technical aspects of hygiene management in chicken rearing and stirred discussion on the ethical aspects of battery farming, BSE directly focused the attention on the demarcation zone between life and death, in particular quite literally, on the slaughterhouse. BSE highlighted that the distinction between the institutional arrangements for dealing with agriculture and public health coincided exactly with the boundaries set between life (livestock) and death (meat). More than any economic consideration about 'chain management' had managed to do before, BSE notably emphasised the need to gear both parts of the institutional framework towards each other. As it transpired that the

actual mode of killing an animal affected the levels of risk involved, the slaughterhouse was not only figuratively speaking but quite literally the front line in the confrontation between the two spheres.

The institutional rearrangements, in which the 'animal'-side and the 'human'-side of food risk management are literally brought together into one organisational framework, are among the most visible and significant consequences of BSE. These institutional changes, it is posited, reflect and feed into the discursive dynamics at play in the field, characterised by a struggle for hegemony between what is here referred to as a 'rationalisation discourse', which roots in the human health side of handling food, and a 'moralisation discourse' which originates in the agricultural side of dealing with food production.

With these interrelated sets of changes, the report claims in chapter 5, BSE contributed to an opening up of the regulatory regime. Firstly, it contributed to the creation of entry points for actors who did not traditionally have access to the strata involved in governing food safety. While there had been already occasional initiatives of the sort in the pre-BSE period – such as having consumer representatives sit on scientific committees advising government on some aspects of food safety – in the aftermath of the BSE-scare, such developments grew into mainstream food safety governance, notably in the UK. Furthermore, with the entrée of non-state actors and non-scientists in the formal arrangements for the governing of food safety, the classical-modernist vocabulary of neutrality and rationality dominating these changed. Non-scientific, 'private' regimes of justification (cf. Boltanski and Thévenot, 2006) found a place in deliberation practices on food safety, next to science-based argumentation.

The inclusion of non-state actors in food safety arrangements, and of non-scientific views as a source of legitimacy for governmental action, coincided with the dynamics of a hiving off of responsibilities for food safety from the state to non-state actors. Given these contextual developments, the opening-up of the regulatory regime of food safety

described above did *not*, it is argued here, amount to an increase in participation in traditional terms, that is, to a mere 'allowing the public access to formal political deliberation and decision-making' (cf. Frewer and Rowe, 2004). With the shifting of the balance between public and private regulation, after all, the notion of 'the public' escapes the dominant framework. Not only is the multitude that used to be 'contained' in traditional concepts such as 'target groups' of e.g. safety measures and risk communication activities recognised as being a plurality, harbouring multiple rationalities. Also 'the public', in all its variety, itself becomes a constitutive factor in the construction of food, risks and risk control strategies. Food as such as well as food-related risks are no longer defined as a mere bulk entity, but as something constructed in the interaction between producer and consumer. Rather than as a trait inherent to a particular quantity and quality of foodstuffs, risk is now more and more being conceptualised as a resultant of a specific combination of food-based pollution.

Inferences in regard to the concept of participatory governance

1. BSE was remarkable for its capacity to defy existing regulatory frameworks. The phenomenon not only posed a problem to policy-makers, but to regulatory science as well. A particular characteristic that makes it stand out is that in contrast to other outbreaks of food-borne diseases such as Salmonella, or cases of large-scale food and feed contamination (dioxins), BSE did not fit the dominant outlook on pathogens and their routes for transmission. In addition to the specific political and economic consequences of BSE, as discussed above, as a result, BSE served as a catalyst and prime mover to bring forth waves of reform in the regulatory regime of food production and food safety in Europe.

BSE gave a serious impulse to the dynamics through which the 'food chain' metaphor became the dominant way of framing and organising food safety issues. The 'farm-to-fork' discourse (institutionalised at EU level) implied a full inclusion of consumers' concerns throughout the entire

trajectory of processing animals (and the materials on which they were fed) to foodstuffs. Consequently, historically grown institutional and cultural boundaries between the various compartments of the BSE-energy field -- agriculture and public health – which at the time of BSE's first identification were still firmly in place, were challenged and then blurred. Yet BSE presented more than a clear and unavoidable incentive to reconsider these institutional boundaries. Underlying these dynamics, the dislocation and the ensuing struggles for re-ordering concerned the very categorisation of life – of both the animals involved in livestock production and of the humans consuming them – in relation to the notion of 'risk'.

2. The dislocation of BSE in regard to the construction of life, risks and consumers came out in two ways. On the one hand, BSE challenged dominant agricultural practices, inciting a general doubt regarding the agricultural business community's 'licence to operate'. Newly coined phrases such as '*Agrarwende*' (in Germany) and 'agricultural system innovation' (in the Netherlands) speak of this, as does the increasing tendency to discuss and frame consumption and livestock production in ethical terms. On the other hand, it challenged dominant framings what counts as *safe* where food is concerned, and how that can be established. In view of the latter quality of BSE's disordering powers, three aspects of the relation between consumers, life politics and risks came to complicate governance of food safety. *Firstly*, risk in modernist control practices is constructed as calculable, that is, as a statistical probability defined in relation to the population of a particular geographical area (Ewald, 1991; cf. Loeber et al, 2005). With the lack of knowledge on the nature and the spread of the pathogen causing BSE and possibly its human variant, nvCJD, there was no basis for calculating the risks involved in eating beef. 'Risk' perceptions were challenged by uncertainty, understood as "a way of talking about [a] situation in which no plausible theory has [yet] emerged" in terms of which an overload of information on the apparently dangerous issue can be processed (cf. Schön, 1971). New hypothesis

emerged and were the focus of scientific research, yet as the hypothetical areas were so little trodden, uncertainty remained a permanent marker in BSE-related research. Uncertainty 'entered' the field of risk governance in another way as well. As BSE made the knowledge involved in food safety governance be publicly seen as fallible and uncertain, and the politics involved in dealing with it as neglecting available scientific insight, not only trust in government declined (as was mostly the case in the UK), but also the 'myth of reason' as expressed in the traditional approach to dealing with risks – separating the science involved in risk assessment from the politics entailed in risk management – was shattered. Because of the extreme case, what became obvious to a wider audience was that also in 'regular' cases of (food) safety control, science alone does not provide the sole and stable basis thought necessary for unambiguous safety control. In spite of the widely cherished rhetoric of separating risk assessment from risk management, the translation of scientific stepping-stones into an *assessment* of risks always entails a moment of interpretation and therefore, of politics.

A *second* factor complicating the relation between consumers, life politics and food-borne risks is the element of accountability. While initially, at the time of BSE's first identification, food safety was predominantly and principally framed as the responsibility of industry – a situation which was widely condemned at the time when BSE hit the UK, as a result of which the Ministry of Agriculture which embodied this belief was dismantled, now, with the installation of a novel food safety control regime, institutionalised by and large by the EU General Food Law, it now *de jure* and *de facto* is. The notion of "food operator responsibility" that is central to the General Food Law entails that each business unit within the 'food chain' (producer, processor, importer and so on) must be able to identify the businesses it supplies or is being supplied by (the 'one-step-backward, one-step-forward' rule-of-thumb). Central national governments are yet perceived as having the moral obligation to guarantee the well-being of its nation's population, that is, the health of a nation's consumers. In times of

crisis, people look at the government for guidance and action. Governmental action is in turn complicated as processes of globalisation – the constant scaling up of the cycle of food production and food consumption to a world-wide level – restructure the energy field of food safety making governmental actors increasingly rely on private sector regulation. The adoption and formalisation of (initially private-sector based) regulation, furthermore, increasingly attributes actors in the business of producing, handling, processing and distributing food an identity as defenders of the public interest, namely in regard to public health. Vice versa, it attributes to consumers the identity of risk managers, on a rational basis (a declaration of contents in detail on products is considered basis for “correct” decision making on consumption). The question, who is allowed to say what about food safety legitimately, and what or who is to be held accountable for it as a result cannot be answered straightforwardly anymore. This is the more problematic since food-borne dangers such as BSE *do* concern national governments for reasons of export-interests and its population’s trust in the soundness of its rule.

A *third* complicating factor is that because of such processes as globalisation and the societal differentiation, ‘the’ consumer is no longer, if ever at all, a meaningful construction. Consumers are endowed multiple rationalities and identities depending on place, time and specific context. To the governing of life and safety this is a complicating factor as ‘the consumers’ as a category can hardly be claimed to be formally represented as such in policy-making activities. To regulatory science and risk control practices it is a complicating factor, as risk must now be conceptualised rather than as a trait inherent to a particular quantity and quality of foodstuffs, as a resultant of a specific combination of food-based pollution with specific consumer-related characteristics (e.g. age, or genetic disposition) and group-related consumption patterns and ways of life. The ‘multiple consumer’ implies the need for a diversification of both risk communication *and* risk assessment. The latter is a complex challenge

as risk is traditionally conceptualised in relation to a 'universalised' population.

3. These complications are constitutive of the newly developing regulatory regime of food production and food safety that materialised in the aftermath of the BSE-event. The newly established arrangements (described in chapter 4) deal with these challenges by designing and performing approaches to risk governance that we propose to designate as 'participatory governance'. Likewise, the Ministries and other (non-state) institutions that take on the design of new agricultural practices also are observed to some extent to do so in a participatory manner. As the rationale for opting for 'participation' as described under 2 is genuinely novel as compared to the situations in which 'participatory assessment' of 'participatory policy-making' were first coined and developed, in the 1960s through the 1980s of the past century, the description below of instances of participatory governance observed vis-à-vis food production and food safety is focused on what makes this genuinely 'novel'.

'Innovative participatory practices' are observed in regard to two functions in the process of governing (here: food safety) : a) supervision and enquiry on the one hand, and b) political judgement and decision making on the other. Furthermore, instances both types of innovation are observed in both areas of the public energy field of food: agriculture and public health (safety and risk assessment).

Novel modes and functions of participatory supervision

Supervision, or oversight, is an essential element in providing legitimacy to political rule: it concerns the mechanisms that ensure that those in control are themselves controlled. Supervision and enquiry in the formal organisation of politics is institutionalised in the shape of (the controlling roles) of parliament. In civil society, it is notably the media that performs the 'traditional' control function. Issue-specific supervision furthermore is provided by NGOs, so-called independent governmental organisations,

and transient focal action groups. In the post-BSE era, the range of actors engaging in enquiry and supervision regarding food safety has become principally broadened, and the possibilities by which supervision can be exercised has been fundamentally enlarged. The most telling expression of this dynamics is provided by the organisational and operational characteristics of the new British Food Standards Agency. In stark contrast to the practice of regulation that took place in the UK traditionally in a culture of secrecy, the deliberations involved in the assessment as well as management of risks (and about the associated communication) are now completely 'open'. The Agency's 'openness policy' encompasses both guaranteeing transparency – enabling others to see and judge the processes of translating science into politics (policy advice) and vice versa (research agenda) – and enabling access (making available all potentially relevant information to whomever is interested). The design and staging of so-called Open Board Meeting, that is, having the board's meetings literally witnessed by a live audience as well as web streamed via 'fly-on-the-wall' technology is the most eye-catching case in point. What sets this approach apart from the traditional understanding of 'participation' is that here, the non-state actors provided access and transparency are NOT enabled or allowed to actively take part in the deliberations. The meetings are held "as though the audience didn't exist" (apart from a question-and-answer session at the end). Still, we suggest to speak of these practices – other examples are the practices of EFSA to webstream its scientific committee meetings, but also the Dutch campaign-*cum*-Internet technology to encourage consumers to 'look into the chain', that is, to trace and check who handled the constitutive parts of his food where, and the project *ICT-kanskaart voedselveiligheid*, a joint initiative of the Dutch Ministries of Agriculture and Public Health to explore the possibilities of information and communication technology to enhance a publics' critical assessment of food safety – in terms of 'participation'. We see two reasons for doing so:

Firstly, being open and transparent allows for the generation of, and is a source for, legitimacy of public action. Sources of public legitimacy are usually divided into 'output' and 'input' legitimacy (Scharpf, 1999). Output legitimacy is derived from the desirability of the achievements of an organisation. Input legitimacy refers to the correctness of the processes (in the eyes of those who will be affected by the outcome) by which the involved decisions are reached. Input legitimacy is the 'classical' basis for legitimate government in representative democracies, and is formalised through the principles and procedures by which the 'trias politica' are organised in a modern nation-state. Yet, as observed above, characteristic of the state under current 'post-traditional'⁹² conditions (cf. Loeber et al, 2005) is that the formal principles and procedure no longer serve to cover the core aspects of the political. First of all, the topography of politics is literally changing, through such as the globalisation of production networks, processes of supra-nationalisation (EU) and an accompanying "trans-nationalisation" of economic, cultural and social relationships. Current political arrangements furthermore usually comprise actors on the local, regional and global level. These arrangements furthermore frequently consist of formal and informal associations between states, markets and citizens and their associations. Because of these flexible networks of actors, politics take shape outside and beyond the political institutions that are traditionally considered the exclusive centres of political power (a phenomenon dubbed "subpolitics"; Beck 1992, 1997, 1999). What the (post-) modern state is in need of, hence, is the possibility of exercising public control over such 'displaced' politics. The dynamics of increasing transparency is key here. By enabling public enquiry and supervision of processes of deliberation and judgement that concern 'res publica', such as on matters of food safety, agro-economic interests and public health, the legitimacy of governing activities is enhanced. By doing so, please note, in regard to processes of assessment, analysis and judgement that take place *prior to* such deliberations in the formal setting for such enquiry – parliament – it results in what we may

call 'throughput legitimacy'. The transparency here provides a source of throughput legitimacy for the governing issues of food safety.

Secondly, 'opening up' (being transparent) serves another function: it enables the creation of a public. The temporary created setting of e.g. the FSA Open Board Meetings create, for the duration of the meeting, a common political identity among otherwise widely varied people, namely as an audience to the deliberations that concern their 'being together as a community'(cf. Mouffe, 1992). The open access to the meetings actively 'produce' citizens while engaging experts in science-based, policy-oriented deliberation. Put differently, the openness policy of the FSA enables people to be 'citizen on stand-by' (cf. Verhoeven, 2006: 87; compare Schudson, 1998), *even* when they are *not* watching the show. And to switch mode to the modus of citizen, as soon as they feel triggered to be involved.⁹³ Whether or not state-initiated, any attempt at enhancing the transparency of processes of political judgement may be considered as an event that help individuals choose their moment and subject for "becoming politically active" (compare Eder, 1995). The options for supervision and public enquiry need not, please note, have a centre of control. While governments may be hesitant in exploring the management of 'rivalling' information streams without claiming authorship and 'correctness' of the information, they may well consider exploring such an option as in contrast to what is often assumed in times of (food) crisis, with the new regulatory regime, governments are not formally responsible for the safety and quality of foods. Given considerations of moral responsibility for public health, the procedural management of information and knowledge production processes rather than that of contents may be a line of thinking worth further exploration.

Novel modes of participatory knowledge production and political judgement

Participation in deliberations on e.g. policy plans or technological designs became a key element in governance practices from the 1960s onward.

Within the newly developing food production and food safety regulatory regime we observe practices that may well be understood as exponents of this development. Yet, several of these have characteristics that are reasons to designate them as genuinely *novel* participatory practices, in comparison. Crucial to understanding what is new in these practices of participation is to look at the expert / lay-person (consumer) interaction. The traditional approach to participation is based on an assumed 'deficit' on the part of the lay-person, to be taken away by expert knowledge. Furthermore, it assumes the centrality of the nation-state in designing participation. Yet, as we have seen, such a formal political unit is no longer the central organising principle in organising political judgement, decision-making and control (supervision!). In regard to food safety, new practices have emerged (please note, in the UK, in particular, with the ministry of agriculture (MAFF) already before BSE hit), that take an entirely different stance in view of expert-lay interactions. Taking again an example from the UK, e.g. the practice of having 'consumer members' sit on a scientific committee.

The role of the citizen (consumer / lay-person) is quite different from the one described in the previous section in regard to supervision and public enquiry. As a member of an advisory committee she or he is a 'political judge' him/herself. What is more, because of her presence, she serves to help make the switch from – universalistic, de-contextualised – scientific advice to – situational, contextualised – practical knowledge. This serves two functions:

The presence and contributions of the lay person may help generate practical knowledge. With this notion we refer to the ability of those involved in the judging process (here: food scientists) to exercise the judgement needed in the absence of objectively assessable criteria and a universally true principle or law to know "what is just, or necessary, or advisable, to do" (Beiner, 1983:6) under the circumstances in a particular setting. The lay-person's presence is conducive to having the particularities of (a specific) setting(s) come to bear on the judgements

made. This is relevant as, as has been observed before, in the process of translating scientific insights into policy advice, issues related to food safety – whether they involve prions or other scientific hypotheses -- time and again need to be re-constructed from a universalistic claim into a contextual truth. In the absence of objectively assessable indicators of 'risk', notably in view of the uncertainties as introduced by the prion hypothesis, as a foothold for knowing what to do, and of a universally true principle or law on what 'safe food' is, time and again those making the reconstruction must resort – to paraphrase Beiner – to *political judgement* on what is just, necessary or advisable to do to under the circumstances of the particular socio-economic, cultural and physio-technical setting.

Furthermore, the lay-member serves to help make present to the judges involved (the scientists) to make present the situation of 'the other' (Rather than: to represent the other). For the practice of knowledge generation, this implies that the existence of a plurality of worldviews must be acknowledged and taken seriously, e.g. through what Arendt (1968) calls "representative thinking."

Arguably, the live audiences present at FSA's open board meetings trigger such representative thoughts on the part of the Board members. The people attending give a face to the otherwise amorphous concept of 'the public'. Their visible and audible manifestation bears on the exchanges at the Board's table. Yet, as said, their role is restricted to formulating questions at the end of the convention. In contrast, the lay-members on scientific committees may actually voice the 'others' views. Thus, they are not there to serve the instrumental role of filling in a knowledge deficiency as such, as more traditional forms of participatory arrangements set out to do in order to improve their problem solving capacity (cf. Rhodes, 1997). Rather, their presences serves to generate the kind of judgment that is "embodied in action", that is to say, knowledge that 'enables us to act' rather than 'knowledge that informs us about action' (Beiner, 1983), because the particularities of the contexts of each of the acting persons have come to bear on the knowledge production process. Such an

approach may inform e.g. practices in which knowledge is disseminated: no longer produced as 'bulk', communicated as a 'given', for other to use or not; but rather now a fine-tuning between knowledge producer and use. In the Netherlands and Germany, similar processes are observable be it that they are organised mostly on a project-basis in contrast to the UK's structural approach. Closest to the British situation comes the Dutch "Consumer Platform" which is set-up as a structural body within the Ministry of Agriculture.

Recapitulating, we posit that the common denominator in the two developments described that resulted from BSE in particular – the challenging of dominant livestock production practices and of the existing risk control regime – touched on the quintessence of modern society, namely on the legitimacy of how 'life' is mastered and managed. Whether cast in terms of 'trust' or 'license to operate', the dislocation triggered by BSE and similar mishap gave way to the elaboration of novel ways in which the science and politics involved in food production (livestock) and food safety control (life-threatening risks) are linked. Characteristic of these procedural innovations, however diverse, is that they couple a desire for enhancing the sophistication of the resulting insights to a desire for increasing the legitimacy of the processes by which these insights are gained. The core issue in food safety control and governance is the question who is allowed to say what about food safety, and what or who is to be held accountable for it. The introduction of the prion notion not only challenged the dominant understanding of what a 'risk' is and how it can be calculated, but also exposed the fallibility of existing risk control mechanisms.

The newly developing control regime extends two approaches that specifically seem to match these developments, namely a) a democratisation of supervision resulting in what is dubbed here 'throughput legitimacy', and thus in the enhancement of the legitimacy basis for governmental action; and b) a democratisation of processes of

political judgement on matters concerning food production and food safety, resulting in the development of practical knowledge as to how to act in view of reasonable pluralism and multiple rationalities of consumers. In addition to the empirical evidence of change, we conclude that also the conceptual tools themselves by which we describe the phenomena encountered are in need of change, just like the food safety control regime. A main inference from the material described here is that two key notions, of 'risk' and 'participation', as cast in the second half of the 20th century (to calculate the probability of some unfortunate event to befall a member of a nation-state's population, and to describe the normatively phrased or empirically observed involvement of non-state actors in formal policy arrangements respectively), like are themselves in need of a fundamental re-thinking.

What BSE came to 'dislocate' eventually, in other words, are notably the social categories by which it is determined what it means to be a scientist, citizen, consumer, expert, stakeholder, politician, administrator and so on. The identities of actors involved in food safety and food production issues are seen to be shifting in accordance to the specific setting and moment in which they are constructed, and so is their legitimacy to speak and act on these matters. In the new arrangements that have been designed to deal with the institutional ambiguity that BSE and comparable food safety and animal disease issues triggered – that is, here, the situation in which the existing rules and norms that shape politics and policy-making with regard to food safety issue were considered problematic and unacceptable, while yet there was clear evidence that rules were considered indispensable by all parties involved – new and effective relations between scientists, administrators and 'citizens' (in alternating roles of consumers, farmers, retailers and so on) are observed to being established. These empirical observations lead us to conclude that in order to deal with the risk issues of the 21st century, we have to break away from the classical-modernist differentiation of science and participation (in

its various manifestations). To put these two categories in a dichotomy is missing the point. Participation in technically and morally highly complex issues, such as those that we have designated in the PAGANINI project 'life political' issues (among which food safety and food production), is meaningless without science. Similarly, a policy based only on science is bound to run into trouble. What we found in this research project is that new relations among citizens/consumers and scientists and administrators can be, and are, weaved in contextualised settings, which offer a promising basis for modes of participatory governance of such issues. The strength (resilience) of the new governance logic is contingent with the way in which it manages to bring together the variety of forms of knowledge and deal on the variety of emerging interests.

7. List of interviewees⁹⁴

1. Employee Food Standards Agency. Chief Scientist Team. London, 5-7-06.
2. Civil servant Ministerium für Ernährung und Ländlichen Raum. Stuttgart Baden-Württemberg, 1-9-06. ***
3. Employee Federal Institute for Risk Assessment BfR. Risk Communication division. Berlin 15-8-06.***
4. Scientist University of Hamburg. German expert on BSE and food chain developments. Budapest, 9-9-05.
5. Spokesperson British consumer organisation. Tel. consultation, 6-7-2006.
6. Employee Food Standards Agency. Corporate and Board Secretariat Division. London, 5-7-06
7. Employee Federal Institute for Risk Assessment BfR. Risk Communication division. Berlin 15-8-06.***
8. Employee Federal Institute for Risk Assessment BfR. Risk Communication division. Berlin, 16-8-06***
9. Independent TSE specialist Germany. Interview per e-mail July – August 2006.
10. Employee Food Standards Agency. TSE Division. London, 5-7-06.
11. Researcher Fraunhofer-Institut für System- und Innovationsforschung. Tel. consultation, 6 -7-2006.
12. Farmer; member of the Consumer Platform of the Ministry of Agriculture. Raamsdonksveer, 20-6-2006.
13. Former consumer representative on UK scientific committee. Weybridge, 19-7-06 .
14. Journalist, expert on food chain issues; former member of the Consumer Platform of the Dutch Ministry of Agriculture. 19-2-06.
15. Member of Parliament; standing committee on agriculture. The Hague, 7-6-2006.****
16. Appointee Food Standards Agency. London, n.d.s. **

17. Employee Food and Consumer Product Safety Authority VWA. Communication division. The Hague, 30-6-06.
18. Scientist Open University, Milton Keynes. British expert on agriculture and food chain developments. Amsterdam, 25-11-05.
19. Spokesperson Royal Netherlands Butchers Organisation KNS. Tel. consultation, 10-7-2006.
20. Committee specialist Environment, Food and Rural Affairs. London, 18-7-06.
21. Former civil servant Dutch Ministry of Agriculture. Utrecht, 19-12-2006.
22. Scientist University of Tokyo. Japanese expert on BSE and food chain developments. Amsterdam, 16-6-2006.
23. Scientist Wageningen University. Dutch expert on BSE and food chain developments. Nijmegen, 19-1-06.
24. Employee Food Standards Agency. Communications Division. London, 5-7-06.
25. Former employee EFSA. London, 21-7-06.*
26. Civil servant Dutch Ministry of Agriculture. The Hague, 27-6-2006.
27. Former UK consumer organisation's representative. St. Albans, 19-7-06.
28. Employee Federal Institute for Risk Assessment BfR. Risk Communication division. Berlin, 15-8-06.***
29. Member of Parliament; standing committee on agriculture. The Hague, 7-6-2006.****
30. Researcher Wageningen UR; participant in Food-of-the Future project. Amsterdam, 10-8-06.
31. Former project leader Rathenau Institute. Amsterdam, 27-3-06.
32. Researcher; initiator of the '24-hour ministry of food safety'. Haarlem, 10-7-2006.
33. Project leader Rathenau Institute. Tel. consultation, 22-3-06.

34. Civil servant Dutch Ministry of Health; member of the former Codex Committee on Meat Hygiene. The Hague, 31-3-06.
35. Member of Parliament; standing committee on agriculture. The Hague, 7-6-2006.***
36. Member of Parliament; EFRA Select committee. London, 18-7-06.
37. Employee Federal Institute for Risk Assessment BfR. Risk Communication division. Berlin, 16-8-06.**
38. Employee slaughterhouse. Amsterdam, 10-7-2006.
39. Appointee Food Standards Agency. London, 29-5-2002**

All interviews conducted by Anne Loeber, unless otherwise specified:
*conducted by Maarten Hajer; **conducted by Maarten Hajer and David Laws; ***conducted by Katharina Paul, in the context of the PhD project 'Food for Thought' A Comparative Study of Administrative Innovations in Food Safety Regulation in Western Europe after the BSE Crisis, funded by NWO and ASSR, conducted under the supervision of Maarten Hajer; ****conducted by Jan Rube, Nanke Verloo and Fleur Cools in the context of a BA project assignment, conducted under the supervision of Anne Loeber.

8. References 180

- Abell, J. (2002) Mad Cows and British Politicians: The role of scientific and national identities in managing blame for the BSE crisis. *Text* **22**(2): 173-198.
- Ackrill Robert (2000) CAP Reform 1999: A Crisis in the Making?, *Journal of Common Market Studies*, **38** (2): 343-53.
- Algemene Rekenkamer (2005) Voedselveiligheid en diervoeders. The Hague: author; Tweede Kamer 30 400 vergaderjaar 2005–2006 Nr. 2.
- Arendt, H. (1968) *Between Past and Future. Eight Exercises in Political Thought.* Harmondsworth: Penguin Books.
- Arnstein, S.R. (1969) A ladder of citizen participation. *AIP Journal*, July 1969, pp. 216-224.
- Baggot, R. (1998) The BSE crisis: public health and the 'risk society'. In: P. Gray and P. 't Hart (ed.) *Public Policy Disasters in Western Europe.* London and New York, Routledge.
- Barling, D. and Lang, T. (2003) The Politics of UK Food Policy: An Overview. *Political Quarterly* **74** (1): 4-7.
- Bartlett, D. (1999) Mad cows and democratic governance: BSE and the construction of a 'free market' in the UK. *Crime, Law and Social Change* **30**: 237-257.
- Baumgartner, F. and Jones, B.D. (1993). *Agendas and Instability in American Politics.* Chicago: The University of Chicago Press.
- BBC (2000) "BSE spotlight of blame" 26 October 2000. BBC News Online. London [http://news.bbc.co.uk/1/low/uk_politics/992641.stm] acc. October 2005.
- Beck, U. (1992) *Risk Society.* Sage, London.
- (1997) *The Reinvention of Politics.* Cambridge: Polity Press.
- (1999) *World Risk Society.* Cambridge: Polity Press.
- (2000) „Weil es um die Wurst geht“. *Süddeutsche Zeitung*, 28 December 2000.
- Beck, U., A. Giddens and S. Lash (1994) *Reflexive Modernization*, Cambridge: Polity Press.
- Beiner, R. (1983) *Political Judgment.* London: Methuen.
- Belasco, Warren J. (1989) *Appetite for Change: How the Counterculture Took on the Food Industry 1966-1988.* New York: Pantheon
- Benton, Ted (2001) One More Symptom: The foot and mouth crisis in Britain. *Radical Philosophy* November/December 2001, Commentary. Available through: www.radicalphilosophy.com
- Bieleman, J. (2000) Landbouw. In: *Techniek in Nederland in de twintigste eeuw. Deel III, Landbouw & Voeding.* Zutphen: Walburg Pers.

- Boltanski, Luc and Laurent Thévenot (2006) *On Justification. Economies of Worth*. Princeton and Oxford: Princeton University Press. Transl: Catherine Porter.
- Boin, A. and P. 't Hart (2000) Institutional crisis and reforms in policy sectors, in: H. Wagenaar (ed.), *Government institutions. Effects, changes and normative foundations*, Dordrecht.
- Boin, A. and 't Hart, P. (2003). Public Leadership in Times of Crisis: Mission Impossible? *Public Administration Review* : **63**: 544-553.
- Borrás, S. and K. Jacobsson (2004) The OMC and new governance patterns. *Journal of European Public Policy* 11:2 April 2004: 185–208
- Bos, B. & Grin, J. (forthcoming) The hard work of 'doing' reflexive modernisation: changing the course of a river to a clean pig shed. University of Amsterdam. Paper submitted to *Science, Technology & Human Values*.
- *Böschchen, Stefan, Kerstin Dressel, Michael Schneider, Willy Viehöver (2002) Pro und Kontra der Trennung von Risikobewertung und Risikomanagement –Diskussionsstand in Deutschland und Europa. TAB TSE communication Project report. TAB Diskussionspapier nr.10. [Acc through <http://www.tab.fzk.de/de/projekt/zusammenfassung/dp10.pdf>]
- Cannon, G. (1987) *The politics of food*. London: Century.
- Castells, M. (1996) *The Information Age: Economy, Society and Culture. Volume I. The Rise of the Network Society*. Malden MA: Blackwell Publishers.
- Chalmers, D. (2003) 'Food For Thought': Reconciling European Risks and Traditional Ways of Life. *The Modern Law Review* **66**(4): 532-62.
- Cobb, R. W. and C.D. Elder (1972) *Participation in American politics: The dynamics of agenda-building*. Baltimore, MD: The John Hopkins University Press.
- Dewey, J. (1991 [1927]) *The Public and its problems*. Athens: Swallow Press.
- Douglas, M. (1966 [2002]), *Purity and Danger*. Routledge Classics edition.
- Draper, A. and Green, J. (2002). Food Safety and Consumers: Constructions of Choice and Risk. *Social Policy and Administration* **36**(6): 610-625.
- Dratwa, J. (2002) Taking Risks with the Precautionary Principle: Food (and the Environment) for Thought at the European Commission. *Journal of Environmental Policy and Planning* **4**: 197-213.
- Dressel, K. (1999) BSE and the German National Action System. Report for the Bases programme: building a common data base on scientific research and public decision making on TSE in Europe. Concerted Action BMH4-CT98-6057 – Biomed programme TSE joint call. München: Institut für Soziologie.
- Dressel, K. (2002) *BSE - the new dimension of uncertainty: the cultural politics of science and decision-making*. Berlin, Ed. Sigma.

- Easton, D. (1953) *The political system: an inquiry into the state of political science*. New York: Alfred A. Knopf.
- Eberg, J. (1997) *Waste policy and learning: Policy dynamics of waste management and waste incineration in the Netherlands and Bavaria*. Delft : Eburon.
- Eder, K. (1995) Does social class matter in the study of social movements? A theory of middle-class radicalism. In Louis Maheu (ed.) *Social Movements and Social Classes: the Future of Collective Action*. London: Sage.
- EU document (1997) The General Principles of Food Law in the European Union. Commission Green Paper. COM (97) 176 final, 30 April 1997.
- EU document (2004) The common agricultural policy – A policy evolving with the times. EU information brochure via http://europa.eu.int/comm/agriculture/publi/capleaflet/cap_en.htm
- Ewald, F. (1991) Insurance and Risk. In G. Burchell, C. Gordon & P. Miller (eds) *The Foucault Effect: Studies in Governmentality*. London: Harvester Wheatsheaf.
- FAO/WHO (1999) Understanding the Codex Alimentarius. Food and Agriculture Organization of the United Nations World Health Organisation. FAO Information Division. [acc through www.fao.org/docrep/w9114e/W9114e03.htm.]
- Feindt, P. & Kleinschmit D. (2005) Linking Food Safety and Environmental Issues. The German Media and Policy Discourse on BSE, 2000/2001. Presentation at the 3rd ECPR Conference, Budapest, 8-10 September 2005.
- Fleischer, Julia (2005) European agencies as engines of regulation? On different architectural strategies of the regulatory state. Paper prepared for the 3rd ECPR Annual Conference, 8-10 September 2005, Budapest.
- Folbert, J.P, A.F. van Gaasbeek and S.M.A. van der Kroon (2001) Voedselveiligheid: communiceren met beleid. Den Haag: LEI.
- Forbes, I. (2004) Making a Crisis out of a Drama: The Political Analysis of BSE Policy-Making in the UK. *Political Studies* 52(2): 342-357.
- FSA (2002) *The origins of the Food Standards Agency*. London, FSA.
- FSA (2004) The Food Standards Agency Website. London: author [acc through www.food.gov.uk].
- Frouws, J. (1994) Mest en Macht. Een politiek-sociologische studie naar belangenbehartiging en beleidsvorming inzake de mestproblematiek in Nederland vanaf 1970. Proefschrift LUW, Wageningen, 1994.
- Rowe, G. and L.J. Frewer, L.J. (2004) Evaluating public participation exercises: A research agenda, *Science, Technology, & Human Values*, 29 (4): 512-556.
- Salter, B. and L.J. Frewer (2002) 'Public attitudes, scientific advice and the politics of regulatory policy: the case of BSE' *Science and Public Policy* 29(2): 137-45.
- Osborne and Gaebler (1992) *Reinventing Government*. Massachusetts: Addison-Wesley.

- GAIN Report (2003) Germany. Food and Agricultural Import Regulations and Standards. Country Report 2003, no.GM3022. Prepared by Dietmar Achilles. Global Agriculture Information Network. USDA Foreign Agricultural Service.
- Gezondheidsraad (1996) *Prionziekten*. Rijswijk: Gezondheidsraad.
- Ghani, A.C., Ferguson, N.M. et al. (1998) Epidemiological determinants of the pattern and magnitude of the vCJD epidemic in Great Britain. *Proc R Soc Lond B Biol Sci* **265** (1413): 2443-52.
- Ghani, A.C., Ferguson, N.M. et al. (2000) Predicted vCJD morality in Great Britain. *Nature* **406** (6796): 583-4.
- Ghani, A.C., Ferguson, N.M. et al. (2003) Factors determining the patterns of the variant Creutzfeldt-Jakob disease (vCJD) epidemic in the UK. *Proc R Soc Lond B Biol Sci* **270** (1516): 689-98.
- Giddens, Anthony (1991) *Modernity and Self-Identity. Self and Society in the Late Modern Age*. Cambridge: Polity Press
- Gieryn, T. (2006) 'City as Truth-Spot: Laboratories and Field-Sites in Urban Studies', *Social Studies of Science* 36: 5-38.
- Grin, John (2006) Reflexive modernization as a governance issue - or: designing and shaping *Re-structuration*, p. 54-81. In: Voß, Jan-Peter; Bauknecht, Dierk; Kemp, René (eds.) *Reflexive Governance for Sustainable Development*. Cheltenham: Edward Elgar.
- Grin, John and Anne Loeber (2007) 'Theories of Policy Learning: Agency, Structure and Change', chapter 15 (p. 201-219) in: Frank Fischer, Gerald J. Miller, Mara S. Sidney (eds.), *Handbook of Public Policy Analysis. Theory, Politics, and Methods*. CRC Press – Taylor & Francis Group.
- Hajer, M.A. (forthcoming) *Performing Politics – Understanding the New Policy Conflict*. [preliminary title] Oxford: Oxford University Press.
- Hajer, Maarten and David Laws (2003). *Food for Thought: Organizing Deliberative Governance*. ECPR Workshops, 28th March-2nd April, Edinburgh.
- Hajer, M., Tatenhove van, J. and Laurent, C. (2004) *Nieuwe vormen van Governance*. Amsterdam, RIVM.
- Hajer, M. and J. Uitermark (2007 forthcoming) *Performing Authority: Discursive politics after the assassination of Theo van Gogh*. Accepted for publication in: *Public Administration*.
- Halfmann, W. (2003) *Boundaries of Regulatory Science*. University of Amsterdam, thesis.
- Havinga, Tetty (forthcoming) 'Private regulation of food safety by supermarkets', submitted for publication to *Law&Policy*
- Hellebo, L. (2004) *Food safety at stake - the establishment of food agencies*. Stein Rokkan Centre for Social Studies.
- Henson, S.J., Caswell, J. (1999), Food safety regulation: an overview of contemporary issues, *Food Policy*, 24 (6):589-603.

- Heres, L., Elbers, A.R.W., Schreuder, B.E.C., Zijderveld, F.G. (2005) *BSE in Nederland. Een verklaring van de oorzaak en interpretatie van risicofactoren*. Rapport CIDC-Lelystad / Wageningen UR.
- Hodges, J. 1999. Livestock, Environment and Quality of Life. In: *Proceedings of the International Congress "Regulation of Animal Production"*, Wiesbaden, May 9–12, 1999. KTBL Arbeitspapier 270. KTBL-Schriften-Vertrieb im Landwirtschaftsverlag GmbH, Münster-Hiltrup, Germany.
- Infodrome, 2001
- James, P. (1997). Food Standards Agency report - An Interim Proposal by Professor Philip James. London, Cabinet Office.
- Jamison, A. & B. Wynne (1998) Sustainable Development and the Problem of Public Participation. In: A. Jamison (ed.) *Technology Policy meets the Public. Pesto Papers 2*. Aalborg: Aalborg University Press. pp. 7-17.
- Jasanoff, S. (1997) Civilization and Madness: the great BSE scare of 1996. *Public Understanding of Science* 6: 221-32.
- Jasanoff, S. (2002). Citizens at risk: Cultures of modernity in the US and EU. *Science as Culture*, 11, 363-380.
- Jasanoff, S. (2004) The idiom of co-production. In: S. Jasanoff (ed.) *States of Knowledge. The co-production of science and social order*. London and New York: Routledge, pp.1-13.
- Jasanoff, S. (2005) *Designs on Nature. Science and Democracy in Europe and the United States*. Princeton: Princeton University Press.
- James, Philip, Fritz Kemper and Gerard Pascal (1999) A European Food and Public Health Authority: The Future of Scientific Advice in the EU. A report commissioned by the Director General of DG XXIV (now DG Health and Consumer Protection).
- Kingdon, J. (1995) *Agendas, Alternatives, and Public Policies* (2 ed.) New York: Harper Collins.
- Kjærnes, Unni, Christian Poppe and Randi Lavik (2005) Trust, Distrust and Food Consumption A Survey in Six European Countries. Report no. 15-2005 Oslo Forlag: SIFO.
- Künast, Renate (2001) 'Germany's ideas about a new European Agricultural Policy' Speech to the conference 'Where next for European agriculture?' Queen Elizabeth II Conference Centre, London, 17 July 2001.
- Laclau, E. (1990) *New Reflections on the Revolution of Our Time*. London: Verso.
- Latour, Bruno (1993) *We Have Never Been Modern*. Trans. Catherine Porter. Cambridge: Harvard UP.
- Latour, Bruno (1999) *Pandora's hope: essays on the reality of science studies*. Harvard Cambridge Mass.: University Press.
- Laurent, Chantal (2006) Meten is (w)eten? De Nederlandse discussie over institutionele vernieuwing op het beleidsterrein voedselveiligheid. MA thesis, University of Amsterdam, Political Science Dept.

- Laws, D. and M. Hajer. (2006) Policy and Practice. In M. Moran, R. Goodin, and M.Rein (eds.) *Oxford Handbook of Public Policy*. Oxford: Oxford University Press.
- Lenz, T. (2004) "Consumer first? Shifting responsibilities in the German food system in the light of European integration and the BSE crises." Trust in Food Project. Karlsruhe, Federal Research Centre for Nutrition and Food.
- Loeber, A. (2004) *Practical wisdom in the risk society: methods and practice of interpretive analysis on questions of sustainable development*. University of Amsterdam, Thesis.
- Loeber, A., Hajer, M. and Van Tatenhove, J. (2005) *Investigating new participatory practices of the 'politics of life' in a European context*. Theory and Method. Report prepared for the Participatory Governance and Institutional Innovation project of the 6th EU framework programme for research and technology. With B. Szerszynski.
- Loeber, A. (2006) Participatory governance in the Netherlands: experiments in dealing with the 'dissilience' of practical knowledge. Invited speech, delivered at the International Conference 'Science and Democracy. A New Frontier between Eastern and Western Countries' September 4-6, 2006, Stockholm.
- Loeber, Anne, Barbara van Mierlo, John Grin, Cees Leeuwis (2007). 'The Practical Value of Theory: Conceptualizing learning in pursuit of a sustainable development'. In Arjen Wals (ed.) *Social Learning towards a sustainable world*. Wageningen: Wageningen Academic Publishers.
- Loeber, A. & Paul, K. (2005) The aftermath of BSE: Re-ordering food safety discourse in the UK and The Netherlands. Paper presented at the third ECPR Conference, in the panel on Food, Food Safety and Environment (chair: Maarten Hajer), Budapest, September 8-10, 2005
- Lowe, Philip, Christianne Ratschow, Johanne Allinson, Lutz Laschewski (2003) Government decision making under crises. A comparison of the German and British responses to BSE and FMD. Research paper. Centre for Rural Economy Research Report. University of Newcastle University upon Tyne. Department of Agricultural Economics and Food marketing.
- LNV Newsletter (2005) Werk van het Codex Comité voor Vleeshygiëne afgerond. Articles March 2005. [www2.minInv.nl/Inv/algemeen/vvm/codex/nieuws/artikelen/artikelen.shtml]
- MAFF (1998) The Food Standards Agency: A Force for Change. London, Presented to Parliament by the Ministry of Agriculture, Fisheries and Food by Command of Her Majesty.
- Martin, J. (2000) *The development of modern agriculture: British farming since 1931*. London: Macmillan.
- Millstone, E. & Van Zwanenberg, P. (2000) "The Painful Lessons of BSE". *Financial Times*. London.
- Millstone, E. & Van Zwanenberg, P. (2001) Politics of expert advice: lessons from the early history of the BSE saga. *Science and Public Policy* **28**(2): 99-112.
- Millstone, E. and van Zwanenberg, P. (2002) 'The Evolution of Food Safety Policy-making Institutions in the UK, EU and Codex Alimentarius', *Social Policy and Administration* **36** (6): 593–609.

- * MinLNV/Consumentenplatform (2004) Veelgestelde vragen. Den Haag: MinLNV. 2004.
- * MinLNV/Consumentenplatform (2005) Begroting 2005 Ministerie van Landbouw, Natuur en Voedselkwaliteit: "Veilig voedsel, bewuste keus". Den Haag, MinLNV. 2005.
- Mol, A. P.J. and Bulkeley, H. (2002) Food Risks and the Environment: Changing Perspectives in a Changing Social Order. *Journal of Environmental Policy & Planning*, **4**: 185-195.
- Mouffe, C. (1992) Democratic Citizenship and the Political Community. In: C. Mouffe (ed.) *Dimensions of Radical Democracy. Pluralism, Citizenship, Community*. London/New York: Verso. pp.225-239.
- Nowotny, H., P. Scott, M. Gibbons (2001) *Re-thinking science: knowledge and the public in an age of uncertainty*. Cambridge: Polity Press.
- Oerlemans, O (2002) *Romanticism and the materiality of nature* University of Toronto Press, Toronto.
- Oosterveer, P. (2002) Reinventing Risk Politics: Reflexive Modernity and the European BSE Crisis. *Journal of Environmental Policy and Planning* **4**: 215-229.
- Paul, K. (2005) Food for thought. The Dislocation and Reordering of Food safety Discourses in Germany, the Netherlands, the United Kingdom, and on the institutional level of the European Commission. 8th months position paper. Amsterdam School for Social Research.
- Paul, K. (2007 in print). "Food for Thought: Change and Continuity in German Food Safety Policy." *Critical Policy Analysis* 1(1).
- Phillips, L., Bridgeman, J. and Ferguson-Smith, M. (2000). *The BSE Inquiry*. London. [Acc through <http://www.bseinquiry.gov.uk/report/index.htm>]
- Pröpper, I.M.A.M. en D.A. Steenbeek (1998) Interactieve beleidsvoering: typering, ervaringen en dilemma's, in: *Bestuurskunde*, jrg. 7, nr. 7, p. 292-301.
- Prusiner, SB (1982) Novel proteinaceous infectious particles cause scrapie. *Science* 216(4542):136-144.
- Rees H (1987) Minute dated 5 June 1987 to Parliamentary Secretary and others. "Newly identified bovine neurological disorder – Bovine Spongiform Encephalopathy." Available through The BSE Inquiry, Year Book 87\06.05\2.1-2.2
- Reisch, L. (2004) Principles and visions of a new consumer policy, in: *Journal of Consumer Policy*, Vol. 27, S. 1-42.
- Renn, O. (1995) Style of using scientific expertise: a comparative framework. *Science and Public Policy* **22** (3): 147-156.
- Rhodes, R. A. W. (1997) *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability* (Buckingham, Open University Press). *Risk&Regulation* 2006: 15). [farmern not producing food]

- RIVM (2004) *Ons eten gemeten. Gezonde voeding en veilig voedsel in Nederland*. Samenstelling: Kreijl CF, Knaap AGAC, Busch MCM, Havelaar AH, Kramers PGN, Kromhout D, Leeuwen FXR van, Leent-Loenen HMJA van, Ocke MC, Verkley H (eds.). RIVM Rapport 270555007
- Rowe, G. & L.J. Frewer (2004) Evaluating Public-Participation Exercises: A Research Agenda. *Science, Technology & Human Values*, 29 (4), pp.512-556.
- Roslyng, M.M. (2005) Food Safety and dislocation of the hegemonic food discourse in Britain. The salmonella in eggs debate. Paper presented at the ECPR conference, Budapest, 8–10. September 2005
- Sharpf, F. (1999) *Governing in Europe: effective and democratic?*, Oxford: Oxford University Press.
- Schon, D. A. (1971) *Beyond the Stable State*. New York: Random House.
- Schön, D.A. (1983) *The Reflective Practitioner: How professionals think in action*. New York: Basic Books.
- Schudson, M. (1998) *The Good Citizen. A History of American Public Life*. New York: Free Press.
- Scott, J.C. (1998) *Seeing Like a state: how certain schemes to improve the human condition have failed*. New Haven: Yale University Press.
- Seguin, E. (2000) The UK BSE crisis: strengths and weaknesses of existing conceptual approaches. *Science and Public Policy* 27(4): 293-301.
- Seguin, E. (2004) *Infectious processes : knowledge, discourse, and the politics of prions*. Basingstoke, Hampshire, New York : Palgrave Macmillan.
- SER (2000) *De winst van waarden : advies over maatschappelijk ondernemen*. Den Haag: author.
- Smith, M. (1991) From Policy Community to Issue Network: Salmonella in Eggs and the New Politics of Food. *Public Administration* 69 (Summer 1991): 235-255.
- *Smith, M. (2004). Mad Cows and Mad Money: Problems of Risk in the Making and Understanding of Policy. *British Journal of Politics and International Relations* 6: 312-332.
- Stewart, J., Walsh, K. (1992), "Change in the management of public services", *Public Administration*, Vol. 70 pp.499-518.
- Taylor, Harvey (1997) *A Claim on the Countryside: A History of the British Outdoor Movement*, Edinburgh: Keele University Press.
- *Tansey, G. and Worsley, T. (1995) *The food system*. London: Earthscan.
- Thornton-le-Fylde, B. (2005) Review of the Food Standards Agency. An independent review conducted by the Rt Hon Baroness Brenda Dean of Thornton-le-Fylde [Dean review]. Acc through www.food.gov.uk/multimedia/pdfs/deanreviewfinalreport.pdf.
- Trentmann Frank (2000) Book review of *A Claim on the Countryside: A History of the British Outdoor Movement*, by Harvey Taylor. *Victorian Studies* 42.3 (2000) 515-516.

- Van der Heijden, Jurgen, André Meiresonne en Jornt van Zuylen (2007) Help! Een burgerinitiatief. Uitgave InAxis – Commissie innovatie openbaar bestuur.
- Van der Most, F. & W.A. Smit (1999) BSE and the Netherlands National Action System. Report for the project Building a Common Data Base on Scientific Research and Public Decision on TSES in Europe –BASES. Concerted Action BMH4-CT98-6057 - Biomed Programme, TSE Joint Call.
- Windt, H. van der (1995) *En dan: wat is natuur nog in dit land? Natuurbescherming in Nederland 1880-1990*. Amsterdam, Meppel Boom.
- Van Dieren, W. (1995) *De natuur telt ook mee. Reisverhalen uit de wereld van het milieu*. Amsterdam: Van Lennep.
- Van Hoogstraten, Steven & Henk Folkerts (2005) Wie houdt ons voedsel gezond? Een advies over de taakverdeling tussen de departementen van LNV en VWS op het vlak van voedselveiligheid, Den Haag / Houten: Carnegie-Stichting & Rijnconsult.
- Van Zomeren, K. (2001) "Ruimen van BSE-stallen is primitief ritueel." NRC, 15 January 2001. [<http://www.nrc.nl/W2/Lab/BSE/010115-c.html>]; acc. July 2005.
- Van Zwanenberg, P. & E. Millstone (1999) BSE and the United Kingdom National Action System. Report for the project Building a Common Data Base on Scientific Research and Public Decision on TSES in Europe –BASES. Concerted Action BMH4-CT98-6057 - Biomed Programme, TSE Joint Call.
- Van Zwanenberg, P. & Millstone, E. (2003) BSE: A Paradigm Policy Failure. *Political Quarterly* **74**(1): 27-37.
- Van Zwanenberg, P. & Millstone E. (2005) *BSE: Risk, Science, and Governance*. Oxford: Oxford University Press.
- Veerman, C. (2006) Landbouw verbindend voor Europa? [Agriculture a binding factor in Europe?] Essay by the minister of agriculture. Den Haag, LNV.
- Verhoeven, I. (2006) 'Burgers als toezichhouders bij publieke besluitvorming' In: M.A. Hajer, J. Grin en J.W. Versteeg, *Meervoudige democratie. Ervaringen met vernieuwend bestuur*, Amsterdam: Aksant.
- Vogel, D. (1986) *National Styles of Regulation: Environmental Policy in Great Britain and the United States*. Ithaca: Cornell University Press.
- *Vogel, D. & Kagan, R. (2004) *The Dynamics of Regulatory Change: How Globalization Affects National Regulation Policy*. University of California Press.
- *Vos, E. (2000). EU food safety regulation in the aftermath of the BSE crisis. *Journal of Consumer Policy* **23**(3): 227-255.
- von Wedel, H. (2001): Organisation des gesundheitlichen Verbraucherschutzes (SchwerpunktLebensmittel). Stuttgart/Berlin/Köln: Kohlhammer.
- VWA (2004) *Vision for the future 2004-2007*. VWA Dutch Food and Consumer Product Safety Authority.
- Wagner, P (1996) Certainty and order, liberty and contingency. The birth of social science as empirical political philosophy. In: Heilbron, J.& L. Magnusson & B. Wittrock

(eds.) (1997) *The rise of the social sciences and the formation of modernity*. Dordrecht: Kluwer, pp.241-261.

Waskow, F.M.A., Rehaag, R.M.A. (2004) Ernährungspolitik nach der BSE-Krise – ein Politikfeld in Transformation. Diskussionspapier Nr. 6. Köln: Katalyse, Institut für angewandte Umweltforschung.

Wenger, E. (1998) *Communities of Practice. Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.

Press releases, newspaper articles, websites, policy documents <PM>

¹ Interesting in Wenger's approach to learning is that in contrast to earlier interpretations of the concept, it does not take the dichotomy between individual learning and collective learning as a point of departure. It emphasizes the embedding of individually held beliefs and problem frames in their wider social context, assuming a reciprocal relationship between individuals' attempts at constructing meaning and reality, and the contextual dynamics that co-shape their perception (cf. Grin and Loeber, 2007).

² At the time, prognoses were grim. In 2000, calculations resulted in 136,000 deaths expected (Ghani et al, 2000). More recent prognoses based on worst-case scenarios expect a maximum of 8000 new cases of nvCJD per year in the UK, while the most probable estimation is 80 new cases per annum until 2040 (Ghani et al., 2003).

³ Among these are the increasing dominance of private sector regulations, the emphasising of the individual and the particular in regulation (at the costs of traditional foci like the collective and the universal), and the on-going integration of EU and member states' policy arrangements into practices of multi-level governance.

⁴ In recent literature, network engagements of select groups of business, industry and government elites are often understood to be effective at the expense of broader democratic engagement.

⁵ In their analysis of "the BSE saga", Millstone and Van Zwanenberg (2000, 2001) single out the relation between science and policy-making as the breeding ground of the British failure to act on BSE timely and effectively. Their main conclusion is that in the practice of BSE-related policy-making and most notably in the formal communication on BSE in the UK, the political aspects of risk management were factored out in the representation of the issue, resulting in a presentation of risk management decisions as if they were justified solely by reference to scientific considerations. While the institute that came to replace the responsible organisations for risk assessment and management puts an emphasis on sound science as a valuable basis for political judgement, it is this myth of universalised truth as a solid basis for rational political choice that the FSA wishes to steer clear off (cf. interviews WP5-1; 6; 10 and 24).

⁶ IP/06/278: "BSE: UK beef embargo to be lifted", Brussels: EU Directorate-General for Press and Communication, 08 March 2006.

⁷ IP/06/288: "Commission requests further investigations on three unusual cases of TSE in sheep", Brussels: EU Directorate-General for Press and Communication, 09 March 2006

⁸ For the reconstruction of this overview, among other sources, we have gratefully made use of data collected in a previous EU-financed research project on BSE: "Concerted Action: Building a common data base on scientific research and public decision on TSEs in Europe – BASES. Concerted Action BMH4-CT98-6057 - Biomed Programme, TSE Joint Call (INRA ESR de Grenoble UPMF – BP 47 – 38040 Grenoble Cedex 9 – France)", in particular on the Netherlands (Van der Most and Smits, 1999) and on Germany (Dressel, 1999).

⁹ The data used in this portrayal of the course of events at the time are retrieved from various sources on BSE as collected on www.cyber-dyne.com/~tom/maff_scam.html, a website energised by critical journalist Roger Highfield (cf. e.g. *Telegraph*, 9-2-97).

¹⁰ CVL's junior pathologist Richardson to BBC camera 1998; 'Mad Cow and Englishmen' series.

¹¹ The central government insisted on a total ban on British beef, but its lobby to that end remained unsuccessful. The country furthermore developed stricter regulations than other member states, e.g. requesting an official veterinarian declaration in regard to the import of beef or bovine products from countries other than the UK, that the origin of the beef, semen, gelatine or tallow was neither from the UK, Northern Ireland, nor Switzerland, nor any other herd with BSE. Moreover, several measures regarding the trade and processing of sheep and goats were taken.

¹² The Netherlands has taken the lead in the development of such a system, in which the agricultural ministry took great pride. Through the Identification & Registration system, made obligatory for the administration of cattle in the Netherlands, the origins and families of all animals – home bred or imported – can be traced.

¹³ Because of Decision 96/362/EG, the UK was still able however to export certain products of bovine origin (tallow, gelatine, amino acid, peptides), provided they had been produced according to specific guidelines. In the Netherlands, Decision 96/362/EG was implemented through a change to the Goods regulation (Warenwetregeling) (Staatscourant 1996-124, 5-11-1996).

¹⁴ The institutional arrangements in the area of food safety in all three countries included in this study are discussed in more detail in chapter 4 of this report.

¹⁵ On 30 March 2006, the first EU-level conference on animal welfare was held in Brussels, where the Commission presented its Animal Welfare Action Plan to member state representatives, international partners and other stakeholders.

¹⁶ Brussels, 15 July 2005, COM (2005) 322 final.

¹⁷ The rather adverse geo-physiological conditions for agriculture in the country, as well as the increasing international competition, provided stimuli for farmers and growers to adopt rationalised, high-external input farming practices. The humid and therefore disease-prone soil encouraged the use of artificial fertilisers and chemical pesticides. Furthermore, the limited amount of land that is available for agricultural production is relatively expensive. In

addition, the high labour costs in the Netherlands stimulated a highly intensive mode of agricultural production, both of horticultural crops and of livestock.

¹⁸ The Standing Committee on Agriculture (Vaste Kamercommissie voor de Landbouw) was the assembly of Members of Parliament who held specific knowledge on agricultural policy issues. In general, of the Committee's approximately 25 members, many had been farmers themselves or were personally related to farmers.

¹⁹ By the way, the general assessment is that the red/green coalition in 2002 did "not win because of the BSE policy, but because of the chancellor's policy with respect to the US Iraq invasion and with respect to the floods in eastern Germany". Yet, without the BSE scandal, health minister Andrea Fischer of the Green party and agricultural minister Karl-Heinz Funke (SPD) would not have had to resign. Therefore Renate Künast would not have had the opportunity to get the job of Funke. But whereas an SPD minister was replaced by one of the Green party in the Ministry of Agriculture, a green party minister was replaced by a SPD minister (Ulla Schmidt) in the Ministry of Health. (cf. Interviews WP5-9; July 2006).

²⁰ Compare Waskow & Rehaag, 2004: "Als Folge der tief greifenden, durch den BSE-Skandal ausgelösten Krise wurden die Machtstrukturen des Iron Triangle so geschwächt, dass das Kräfteverhältnis zwischen Agrarpolitik einerseits und Ernährungs- und Verbraucherschutzpolitik andererseits verschoben wurde und damit Veränderungspotenziale freigesetzt werden konnten. Die Schwächung des „Iron Triangle“ setzte einen politischen Wandel in Gang, der weit über den Versuch hinausgeht, die BSE-Problematik zu bewältigen. Historisch gesehen wurde erstmals die Dominanz der landwirtschaftlichen Interessen zurück gedrängt. Damit hat die größte Krise der Landwirtschaft einen Politikwandel ausgelöst."

²¹ A first step towards realisation of the programme's aims was an amendment, in the summer of that year, of the framework for national subsidies, in such a way that investments in organic farming and animal welfare were endorsed (cf. Feindt and Kleinschmit, 2005). Witness of the development towards enhancing organic farming furthermore was the political struggle over a new regulation regarding the production of eggs and poultry in October 2001. The intention of the plan was to ban hen batteries from 2005 onwards. Somewhat later, however, by the time that the first emotions over the German BSE-scare had died down a little, the plans were halted in the Bundestag. In September, the labelling of products of organic farming origin was formally institutionalised. A Federal Program for organic farming was formally set-up by November 2001 (with which € 35 million p.a. was involved in 2002 and 2004). In December 2001, a new law on meat hygiene was ratified.

²² The German Federal Republic is constituted of 16 states, each of which have their own capital city, parliament, government and civil service.

²³ The following paragraph is based largely on Bos and Grin, 2007.

²⁴ The success of the 'rationalisation' of agricultural production processes in the Netherlands shows from the increase in the domestic production of food (which was 15-20 per cent of the domestic demand in 1945, and amounted to 200-300 percent half a century later) while at the same time, the primary

sector's share in the labour force decreased from 19 per cent in 1947 to 5 per cent in 1990 (Grin 2006: 65).

²⁵ See the discussion on [opendemocracy.net](http://www.opendemocracy.net):

http://www.opendemocracy.net/ecology-movements/article_434.jsp. Last accessed 20 May 2007.

²⁶ That turmoil was set in motion by the Minister of Health, Edwina Currie, who remarked on TV that "most of the egg production in this country, sadly, is now affected by salmonella" (Roslyng, 2005).

²⁷ Food in that sense illustrates the crucial role of Castells's (1996) 'space of flows'.

²⁸ In the early years of the 20th century, the International Dairy Federation was established to develop international standards for milk and milk products. This organisation in later years became an important motor behind the development of the Codex Alimentarius.

²⁹ Important partners in the development of the Codex are the FAO, founded in 1945, to supervise and initiate the development of international nutrition standards, and the WHO, established in 1948, which holds responsibilities covering human health and which has a mandate to establish food standards.

³⁰ Her conclusion, and that of the colleagues with whom she reportedly checked her interpretations, can be understood as a case of what Schön (1983) described as 'seeing-as', that is, the process by which an observer who finds him or herself faced with a non-routine, unknown problem situation, engages in a process of likening the information considered new to familiar cases, asking the question 'what is this a case of?'.

³¹ Information on prions in this paragraph based notably on www.bfr.de - Schütt-Abraham and Roland Heynkes, 16.12.2005.

³² There are still exceptions to the 'scientific consensus' in regard to the 'prion hypothesis.' Prominent scientists such as Alan Ebringer and Mark Purdey strongly dispute the causal assumption between BSE and vCJD. In fact, the latter was given a UK government grant in 1999 to conduct further research (see Seguin, 2000). The 'counter-hypothesis' they have been defending consists of the suspicion that BSE might be linked to the use of organophosphates as pesticides to protect cattle against warble flies. Other theories about the nature and cause of BSE/CJD include BSE as an autoimmune reaction, as endocrine poisoning and as methyl bromide poisoning (see Phillips et al 2000 [The BSE Inquiry] Volume 2: Science; cf. Loeber and Paul, 2005).

³³ For this reason, the spokesperson continues, politicians were not prepared to support theoretical TSE research as well and there has never been a real interest of the politicians in the research results. Proof of this view he considers the fact that the initial liberal funding for experimental TSE research groups has been decreased massively, as a consequence of which there is no continuity in German TSE research policy. (interview WP5-9)

³⁴ See appendix 1: The meta-narrative of trust in relation to BSE (e.g. Boin & 't Hart; 2000; Jasanoff, 1997) is challenged by the findings from e.g. the EU-financed 'Trust in Food project' (Kjaernes et al, 2005), as well as by Forbes (2004) who raises the question whether the classifications of 'crisis', 'policy failure' and 'policy disaster' that are linked to the perceived breach of trust are actually in place. Contradicting authors such as Millstone and Van

Zwanenberg, Forbes concludes on the basis of his analysis of the BSE-related events in the UK that “the term ‘crisis’ has been misapplied throughout. The description became a framing assumption, after which followed exploration and explanation of the crisis Therefore, the ‘crisis’ label has become part of the data to be examined ...” (2004: 352). Among the “myths” that the ‘crisis’ label tallies along, the author argues, is the assumption implied by depicting BSE as a breach in trust, that before the BSE crisis, citizens and consumers in fact did trust regulatory institutions. His assessment on the basis of various studies is that that was not the case. Rather, Forbes posits, “the episode has not caused, but has revealed, the existence of major doubts in the public mind about the balance between consumer and industry interests, and the truthfulness of statements about safety” (2004: 354). Whether or not trust was actually decreasing due to the BSE-affair is not a relevant question from the perspective of this research project. Rather, the question whether the BSE-story is told as a story of growing distrust, also by the informants to this project, is of relevance.

³⁵ Count based on LexisNexis database. For the UK: *The Observer*, the *Financial Times*, and the *Economist*; for the Netherlands: *NRC Handelsblad*, *Trouw*, de *Telegraaf*. For Germany, there is no database available that provides a basis for obtaining comparable results.

³⁶ Cf. Douglas, 2002: 44.

³⁷ Stable to table, plough to plate; grond tot mond, fok tot kok; boer tot bord.

³⁸ It is interesting to note that the CEO quoted above (Van den Berg in *Trouw*, December 31, 1999) speaks of “vertical integration” against which farmers protest.

³⁹ Kaderbrief Evaluatie van effecten van dierenwelzijnsmaatregelen (pluimvee, varkens, melkvee, vleeskalveren) op voedselveiligheid en diergezondheid.

⁴⁰ “De vraag van Min. LNV in de kaderbrief ... komt voort uit discussie in de kamer bij behandeling Nota Dierenwelzijn. Voedselveiligheid wordt vaak genoemd als belemmerend voor doorvoering van welzijnsmaatregelen. LNV vraagt in de spanning tussen welzijn en voedselveiligheid om een positieve analyse (mede gericht op het benoemen van kansen om dierenwelzijn te bevorderen met het oplossen van het voedselveiligheidsprobleem)” (project description of ‘Evaluation effects welfare measures on food safety and animal health’ by the Animal Sciences Group, Wageningen UR, 2004. [acc. through www.onderzoekinformatie.nl/nl/oi/nod/onderzoek/OND1301913])

⁴¹ “[M]inister Veerman zegt namelijk dat het ‘Consumeren van voedsel een morele daad is’” (Toespraak van de minister van Landbouw, Natuur en Voedselkwaliteit, dr. C.P. Veerman, uitgesproken door DG mevrouw R.M. Bergkamp bij de inauguratie van de internationale president van Euro-Toques op 23 januari 2006 in Maastricht).

⁴² Speech by David Byrne, European Commissioner for Health and Consumer Protection, Food quality - speech to the EU’s Informal Agriculture Council, Sweden meeting, Östersund, 10th April 2001

⁴³ A detailed account of the analytic steps taken is provided in Appendix 2.

⁴⁴ At the time of the outbreak of BSE, the scientific branch of MAFF (the State Veterinary Service - SVS) was directly answerable to the administrator in

charge, the Chief Veterinary Officer. In the late 1980s, the SVS consisted of three sections: the Veterinary Field Service, which dealt with disease outbreaks, animal welfare, abattoir inspection, compliance with meat hygiene regulations and exports; the Veterinary Investigation Service, which was a network of laboratories providing a regional diagnostic and surveillance service; and the Central Veterinary Laboratory, which was the research base of the SVS containing expertise in veterinary epidemiology, pathology and other specialist disciplines (Van Zwanenberg and Millstone, 1999).

⁴⁵ To use as little human food as possible for the production of livestock products, the UK Government (unlike those of other EU Member States) authorized a change in the system for manufacturing meat-and-bone meal (MBM), suggesting manufacturers to adopt the US 'Carver-Greenfield' system of processing carcasses. As early as the 1920s, MBM was already used as feedstuff in Europe and the USA (see for references Loeber and Paul, 2005).

⁴⁶ The extensive report which set out "to establish and review the history of the emergence and identification of BSE and new variant CJD in the United Kingdom, and of the action taken in response to it up to 20 March 1996; and to reach conclusions on the adequacy of that response, taking into account the state of knowledge at the time" (BSE Inquiry Vol. I), was produced by means of reviewing evidence such as scientific reports, written personal communications, parliamentary minutes and press material.

⁴⁷ <http://www.bseinquiry.gov.uk/report/volume1/chapt142.htm#648931>.

⁴⁸ Govt. White Paper, *The Food Standards Agency: A Force for Change*, January 14, 1998.

⁴⁹ In addition, the Stichting Voedingscentrum, co-financed by the Ministries of Agriculture and of Public Health is charged with 'translating' scientific advice and informing the public with respect to food safety and nutrition.

Furthermore, the 'autonomous research institute' RIVM (*Rijksinstituut voor Volksgezondheid en Milieu*) conducts research and advises Dutch governmental institutions on such themes as public health, environmental risks, external safety, and nutrition and food safety. The RIVM aims to provide "impartial information" in risk assessments (RIVM, 2004). To that end, it cooperates with international bodies such as the European Union and United Nations organisations, including WHO, FAO and UNEP.

⁵⁰ With the so-called De Leeuw/Sangster covenant of 1995 responsibility for communication about food safety is put with the central government, and an interdepartmental committee on food safety is to decide case by case which ministry is to act as voice of the government. (source: www.nieuwsbank.nl, last accessed 17 September 2006).

⁵¹ A note to the British reader: please note that whereas in the UK, a Secretary of State is ultimately responsible for a governmental department, with several ministers working on parts of the department's agenda, in the Netherlands the situation is exactly the opposite: for each ministry there is one Minister in charge, in most cases aided by a secretary of state who has responsibility over part of the Ministry's portfolio.

⁵² The Dutch political multi-party system is one of political coalitions: upon elections, the most successful parties are invited to constitute a new Cabinet, a process that entails extensive political bargaining.

⁵³ In 1998, the Dutch council of Ministers had decided that Since environmental policy in the Netherlands is based on the 'polluter pays' principle, farmers were held responsible for the expenses involved in having animals removed as 'high risk material'. Two years later, the National Court of Audit (*Algemene Rekenkamer*) concluded that this induced farmers to illegally dump cattle suspect of carrying BSE, or to even have them sold and slaughtered in the regular processing trajectory, because of the costs for the handling and destruction of suspect cadavers.

⁵⁴ (Atsma CDA) "dat er vanuit verschillende marktpartijen het verwijt komt dat het raar is op gebieden waar wij als Kamer medewetgever zijn, geconfronteerd te worden met Brusselse voorstellen die door de VWA zijn aangedragen."

⁵⁵ Waalkens [PvdA] "In mijn beleving betreft het hier een agentschap en is het niet aan de VWA om te initiëren. Die wettelijke status heeft de VWA niet eens"

⁵⁶ A first step towards realisation of the programme's aims was an amendment, in the summer of that year, of the framework for national subsidies, in such a way that investments in organic farming and animal welfare were endorsed (cf. Feindt and Kleinschmit, 2005). Witness of the development towards enhancing organic farming furthermore was the political struggle over a new regulation regarding the production of eggs and poultry in October 2001. The intention of the plan was to ban hen batteries from 2005 onwards. Somewhat later, however, by the time that the first emotions over the German BSE-scare had died down a little, the plans were halted in the *Bundestag*. In September, the labelling of products of organic farming origin was formally institutionalised. A Federal Program for organic farming was formally set-up by November 2001 (with which € 35 million p.a. was involved in 2002 and 2004). In December 2001, a new law on meat hygiene was ratified.

⁵⁷ Seehofer In *Suddeutsche Zeitung*, 14 December 2005: „Nein, wir haben unseren Namen nur nach Alphabet geordnet: Ernährung, Landwirtschaft, Verbraucherschutz. Landwirtschaft und Verbraucherschutz sind gleichgewichtig und kein Gegensatz. Bauern stehen im Dienste des Verbraucherschutzes“.

⁵⁸ cf. www.rki.de; accessed March 2006

⁵⁹ Furthermore, one part of the former BgVV was re-organised to be the *Bundesforschungsanstalt für Viruserkrankungen der Tiere* (BfAV).

⁶⁰ Regulation (EC) No 999/2000; Official Journal L 147 of 31.05.2001.

⁶¹ Until the General Food Law was enacted, EU hygiene legislation was scattered over 17 separate Directives.

⁶² Speech Byrne, delivered at the Informal Agriculture Council meeting in Sweden, Östersund, 10th April 2001.

⁶³ EC no. 852/2004, no. 853/2004, resp. no. 854/2004; and directive no 2004/41/EC (PbEU L 157).

⁶⁴ EU press release via <http://europa.eu/rapid/pressReleases>.

⁶⁵ The 'hazard analysis critical control points' system. The HACCP system has a long history in systematising production processes and the commercial handling of products (it originally has its roots in space programmes), and has served quite commonly as the main hygiene standard in the area of

retail, in particular for the supermarket branch. With the General Food Law, the implementation of the HACCP principles, which were made obligatory for the entire meat processing industry by 1995 already, now are to be implemented in the whole of the food chain, with the exception of the primary agriculture and horticulture (see chapter 3).

⁶⁶ A concrete example in this light is the employment of personnel from the agricultural business sector in the veterinary control of pigs and calves, and of a non-government employed vet for the ante mortem check of animals at the slaughterhouse. This approach is now pursued in experimental settings, and expectation is that this will soon become standing practice. The Codex will help enable the transition from experiment to legal formalisation.

<http://www2.minInv.nl/Inv/algemeen/vvm/codex/nieuws/artikelen/downloads/codex-17.pdf>

⁶⁷ The Codex Committee on the Hygiene of Meat was the result of successful attempts by the New Zealand chair in 2001 to fuse and unite four separate 'comités' working for the Codex on meat and meat-related aspects.

⁶⁸ See <http://www.schuett-abraham.de/glossar-en.htm#Bolzenschussbetaeubung>, for Schütt-Abraham, BfR (on personal title) for an enlightening exposé on the practices and techniques of slaughtering cattle, and the risks and uncertainties involved therein in regard to BSE. From her information it transpires that the killing of a cow is done in two stages. First, an animal is stunned by use of a 'captive bolt'. This step is mandatory in the EU. It is up to the slaughterhouse which of the two possible ways for that purpose is used: "the penetrating captive bolt method by which a bolt is fired into the brain of the animal, and the non-penetrating concussion stunning method by which the skull is hit (but not penetrated) by the bolt ending in a mushroom-head (Schermer) or plate (Cash) bolt" The first approach, especially in the case gas injecting captive bolt guns are used, has the advantage that the act of stunning simultaneously functions as 'pithing rod', that is, as an instrument for destroying the animal's reflexive centres located in the spinal cord. The intention of using a pithing rod, which traditionally was an elastic, 1 to 2 meter long rod made from metal or plastic which was brought into the animal's head through the hole punched by the captive bolt, was to suppress reflex movements of the animal in the further process of killing by bleeding (ibid.). However, because of BSE, the use of pithing rods was banned by the EU (Decision 2000/418/EC) as from January 1st, 2001. Using the instrument namely entails a fair risk of brain tissue and spinal cord material being spread throughout the carcass. A gas-injecting captive bolt gun can cause "fragments up to a size of 3 cm [to be found] in the vessels of the lung, liver, kidney and the right ventricle of a cow stunned." As Schütt-Abraham argues, however, on the basis of findings from experimentations done with various stunning methods, also the so-called 'concussion stunning', where the head is not penetrated and no pithing rod is used, can lead to a spread of tissue from the brain or spinal column via the circulatory system: material passes from the cranial cavity via the heart into the lungs to deposit in tiny fragments all over the body.

⁶⁹ By way of example, a document count on the website of one Dutch consumer organisation – Goede Waar & Co – which has developed out of the

so-called 'Alternative Consumers' Association' – gives 14 hits for the combination of the words food and safety, on a database of 508 documents.

⁷⁰ Arguably an exponent of this principle feature of German policy-making, the 'density' of rules and regulations is very high, and increased even further in the aftermath of the BSE-affair. The German Food Law, for instance, consists of about 230 different ordinances, including the Food Labelling Ordinance, Packaging Ordinance, Dietetic Foods Ordinance, various hygienic and veterinary requirements, as well as numerous other special product or product group rules and regulations. The provisions on the Food Law are voluminous, frequently quite complicated and often subject to interpretation (GAIN report, 2003).

⁷¹ Which replaced an earlier consultation forum set up by the EU, the Consumer Committee.

⁷²

http://europa.eu.int/comm/consumers/cons_org/associations/committ/index_en.htm

⁷³ Kirsten Tackmann. Minutes of the Deutscher Bundestag – 16. Wahlperiode – 22. Sitzung. Berlin, March 9 2006; p.1724.

⁷⁴ With the Dutch implementation on national level of the EU General Food Law, the responsibility for the ante-mortem checks in slaughterhouses was put with the agricultural business sector itself. The VWA's role in regard to this now is to check whether the responsible private parties do their job properly.

⁷⁵ Kaderbrief Evaluatie van effecten van dierenwelzijnsmaatregelen (pluimvee, varkens, melkvee, vleeskalveren) op voedselveiligheid en diergezondheid

⁷⁶ The research institute's preface to the study reads literally: "In the tension between welfare and food safety the Ministry of Agriculture asks for a positive analysis (oriented too on identifying options to enhance animal welfare through resolving food safety problems) ["De vraag van Min. LNV in de kaderbrief naar komt voort uit discussie in de kamer bij behandeling Nota Dierenwelzijn. Voedselveiligheid wordt vaak genoemd als belemmerend voor doorvoering van welzijnsmaatregelen. LNV vraagt in de spanning tussen welzijn en voedselveiligheid om een positieve analyse (mede gericht op het benoemen van kansen om dierenwelzijn te bevorderen met het oplossen van het voedselveiligheidsprobleem)"].

⁷⁷ "[M]inister Veerman zegt namelijk dat het 'Consumeren van voedsel een morele daad is'" (Toespraak van de minister van Landbouw, Natuur en Voedselkwaliteit, dr. C.P. Veerman, uitgesproken door DG mevrouw R.M. Bergkamp bij de inauguratie van de internationale president van Euro-Toques op 23 januari 2006 in Maastricht).

⁷⁸ Byrne in *Die Presse* (2001), in reaction to what he called in the hay-days of BSE the "national knee-jerk reactions with which EU states still respond to food crises." In regard to the ways to do so he was quoted saying: [J]ust remember one thing: I am the Commissioner who took France to court on account of its embargo against British beef. When the time comes, and if there is no other way, I will take action."

⁷⁹ The 'arm's length' between food agency and government in the UK is longer than in the Netherlands, so to speak. As explained by an FSA staff

member: “There is an interesting part of the Food Standards Act, which states that if, say, we messed up really big time, we got it terribly wrong, and our reputation would be completely sort of damaged beyond repair ... [t]hen there is a facility for the Secretary of State to issue a direction and bring the Food Standards Agency under his control.” Whereas in the Dutch situation the research and working programme of the VWA needs approval by either minister involved depending on the issues covered in it.

⁸⁰ Yet, unlike the British situation, the establishment of the Agency VWA did not immediately put an end to the confusion about which ministry is to be in charge of food safety issues ‘from farm to fork’. Rather, the intention to establish an agency of this type brought out in the open a discussion that was going on for quite some time within the respective ministries, making it a topic of parliamentary debate. The farm-to-fork framing of food safety control issues here too induced friction in the institutional arrangements of the pre-BSE days. In the Netherlands this amounted into processes of ‘active boundary work’, if not a battle over borders about whose field of influence was at stake, that of agriculture or that of public health. Stakes were high as the discussions on the (later) VWA, and the accompanying re-naming of the Ministry of Agriculture took place against a backdrop discussion over the *raison d’être* of the latter.

⁸¹ The two kinds of ‘politics in food regulatory science’ obviously are quite closely connected, if only because the outcome of scientific risk assessments may play an important role in settling international trade disputes.

⁸² A notion Arendt developed on the basis of Kant’s maxim ‘*an der Stelle jedes Anderen denken*’.

⁸³ How can the views of others be included in an analyst’s or politician’s thoughts? For Arendt, all that is needed for ‘representative thinking’ is the “disinterestedness, the liberation from one’s own private interests” (1968: 242). Arendt conceives of such dialogue as taking place *within* one’s own mind.

⁸⁴ This programme sets out to inform its audience on questions about the origins of varieties of products . While doing so, the makers consider it not new at all but rather “just ordinary sound and independent journalism” Interview WP5-14; 19-2-06).

⁸⁵ The issue here is whether or not to publish the names of the companies or organisations that do not live up to standards set. The VWA has recently embarked on a project in which indeed (initially for a limited number of consumer areas) non-delivering firms will be individually named. Also at the FSA, the issue of name-calling, and the risks involved in thus evoking laws suits is a topic of discussion.

⁸⁶ We acknowledge the input of David Laws here for helping elaborate this line of thought on the basis of this example.

⁸⁷ See www.food.gov.uk/news/newsarchive/2002/jul/otmstakeholdersjuly

⁸⁸ The EFSA itself emphasises the importance of being literally open about the ‘political sides’ of science. In a more or less comparable fashion as the British FSA, it organises its Management Board’s meetings as an openly accessible event. Members of the general public are allowed to attend the meetings as an audience, and the events are broadcasted through the Internet. The EFSA holds, however, an entirely different position as the FSA, as we have

discussed in chapter 4, as regards its remit (risk assessment only, as contrasted to the risk control approach –integrating the conventionally divided tasks of risk assessment, risk management and risk communication – featured by the FSA) and as regards its dependence from other bodies with vested power (the European Commission in particular).

⁸⁹ The Chief Scientific Advisor at the time was commissioned to produce a report on improving the approach taken by advisory committees dealing with food safety. Thereupon, a number of regulations have been introduced that affect scientific expertise and regulation: Guidelines on the Use of Scientific Advice in Policy Making (1997; 2000), the aforementioned Freedom of Information Act (2000), the Code of Practice for Scientific Advisory Committees (Guidelines 2000), and the Council for Science and Technology's 'Policy through dialogue' (2005).

⁹⁰ Wenger: "As we define [our] enterprises and engage in their pursuit together, we interact with each other and with the world and we tune our relations with each other and with the world accordingly. In other words, we learn" (1998: 45).

⁹¹ Participation in deliberations on e.g. policy plans or technological designs became a key element in governance practices from the 1960s onward. Within the newly developing food production and food safety regulatory regime we observe practices that may well be understood as exponents of this development. Yet, several of these have characteristics that are reasons to designate them as genuinely *novel* participatory practices, in comparison.

⁹² A phrase borrowed from Giddens (1996) who posits that the current age is characterised by a loss of what used to be the self-evident basics of traditional societal and even kinship organisation – the nation-state with a more or less homogenous people featuring one lingua franca, the nuclear family consisting of a father, mother and children, and so on – and that therefore 'post-traditional society' is a more apt label to describe it than e.g. 'post-modernism'.

⁹³ The exemplary citizen-on-standby is Schudson's "monitorial citizen", which he depicts with the aid of the metaphor of parents watching small children at a community pool: "They are not gathering information; they are keeping an eye on the scene. They look inactive, but they are poised for action if action is required. The monitorial citizen is not an absentee citizen but watchful, even while he or she is doing something else" (1998: 311).

⁹⁴ Anonymised as according to project specifications.

9. Appendix A

Literature review of the research field

BSE is one of the many plagues that 'befell' the agricultural sector in the final decades of the 20th century. It was one of various animal health problems (in addition, there were major outbreaks of foot-and-mouth disease, swine fever and avian influenza) that, together with cases of foodstuff contamination that caught the public eye (salmonella, dioxin in milk, residue antibiotics and hormones in meat) gave impetus to a series of major 'food scares.' These in turn inspired a broad range of inquiries from a sociological and policy studies' perspective into the agro-food system and its regulatory regimes.

Obviously, both the contamination cases and the disease-inspired food scares affected the agro-food system in Europe. Studies into the subject, however, differ as to the relative importance ascribed to a specific disease or mishap in relation to specific changes observed in a national agricultural system.⁹⁴ In addition, the ways in which these changes are understood and analysed differ widely. Interpretations range from viewing the developments as expressions of relatively common, garbage-can model dynamics in policy-making, to symptoms of a fundamental crisis in contemporary capitalist agriculture.

Authors subscribing to the first perspective specifically focus on the policy reforms and accompanying institutional change that has come about in the aftermath of the framing of BSE as a threat to cattle and to human health. Exploring the decision processes involved in what they call the BSE-crisis, Lowe et al (2003) posit, focusing on the UK and Germany, that the BSE scare has severely shaken public trust in the modern agro-food system, and brought forward fundamental policy renewal. The changes observed were not designed, however, in reaction to the crisis experienced, but rather were an implementation of plans and ideas prepared previous to the identification of mad cow disease. More than anything else BSE, in their eyes, presented a window of opportunity for pending political re-orientation, tipping the power balance between pro- and anti- forces in the society and the economy of agricultural reform.

A similar vocabulary of crisis and reform is used by 't Hart and Boin (2001; cf. Boin and 't Hart, 2000), who focus on the relationship between the two. Drawing on comprehensive empirical research, among which on that of the BSE affair, they argue that institutional crises do not always result in major reforms and that the reforms that do happen, are not always successful. They argue that 'crisis management matters' and explain the difference in outcomes by variation in the way critical moments and strategic choices shape the process of crisis termination and hence the restoration of trust (Boin and 't Hart 2000). They too treat this as a 'political game' between innovation and restoring the institutional status quo. This leads them to distinguish at an aggregate level between reformist and conservative (i.e. going back to the pre-crisis status quo) approaches to crisis management. Framing the analysis of BSE in terms of a crisis-reform thesis helps highlight their central argument that crisis management matters. Yet it black-boxes diversity in institutional practice that might provide a more discriminate empirical understanding of how variations in responses are tied to difference in effect in terms of restoring trust and political legitimacy.

The focus on crisis and reform in relation to BSE is predominant too in the secondly mentioned type of analysis, which views it as a symptom of a mode of food production that 'runs into its rational and ethical limits' (cf. Hodges, 1999). Here, the notion of crisis denotes not merely the policy-making arrangements vis-à-vis food, but rather the entire capitalist food production system (cf. Benton, 2001). This type of research places the events in a historical perspective on husbandry in the in economic and cultural development of the Western world. The application of science in livestock production, and the development of a global market economy typify the most recent stage of agricultural production – inherently characterised by change, such as the move from a two-field to a three-field system or, in more recent days, the change from low- to high external input agriculture – yet has now brought the food production system as such in a state of crisis (e.g. Murphy et al, forthcoming). BSE in this perspective is viewed as a landmark event (along with other outbreaks of animal diseases – foot & mouth disease, rinderpest, avian flu – as well as food contamination scandals such as salmonella, dioxin, antibiotics and drug residues in meat), that together with the serious and lasting environmental damage resulting from modern agriculture (such as acidification and eutrophication) marks the unavoidable ending of an era of profit-oriented mass food animal production.

As to the *causes* of the crisis identified, a similar bifurcation in the literature can be observed between studies that focus on the policy arrangements involved and those that adopt a more inclusive perspective. A leading study in the first-mentioned segment is the work done by Van Zwanenberg and Millstone (2003, 2005; Millstone and Van Zwanenberg, 2000, 2001), conducted as part of two European Commission supported research projects.⁹⁴ The authors probe into the reasons of what they call the BSE saga and which they consider a "drama" that is "by no means unique or exceptional" to policy-making practices. In their analysis, they single out the relation between science and policy-making as the breeding ground of policy failure. The main conclusion is that in the practice of BSE-related policy-making and most notably in the formal communication on BSE in the UK, the political aspects of risk management were factored out in the representation of the issue, resulting in a presentation of risk management decisions as if they were justified solely by reference to scientific considerations. Furthermore, by denying scientific uncertainty while failing to convey that uncertainty was immanent in the policy decisions taken, the British government was not able to incorporate the latest scientific insights in policy measures, resulting in an "increasingly un-scientific and anti-scientific misrepresentations of risk". This, in turn, led policy-makers to overlook possible and timely incremental policy adjustments, and resulted in a lack of a sense of urgency among implementers causing inertia and instalment. The image presented by the authors is one of steadily rising waters – given the accumulating scientific evidence of the extent to which and the ways in which BSE posed a health risk and a threat to the economy – contained with the most supreme effort – out of fear of provoking an "irrational public scare" (Phillips, 2000, Vol. I, para. 1294, cited in Forbes, 2004: 349) and with the aim of maintaining market stability at all costs – until evidence that the disease was transmissible to other species mounted so high that the dykes

broke, and the plausibility of human victims could no longer be denied. The formal announcement of a possible link between BSE and the new variant of Creutzfeld-Jacob Disease (nvCJD) released the floods, and was the marked beginning of a major political crisis for the British government. The government itself described the developments as “a national tragedy” with “far reaching” and “damaging” long-term effects (HM Government 2001, see Frewer and Salter, 2002:137).

The studies on BSE that adopt a broader stance towards the question of cause and reason speak, although in an entirely different way, of a similar ‘punctuated equilibrium’ (Baumgartner and Jones, 1993). To many of those who consider outbreaks of animal diseases, food scares and environmental mishap as symptoms (rather than as causes) of current crises in the agro-food production system, BSE is often viewed as a “key example” of the signs that a shift from current modernity to a process of reflexive modernization is immanent (Mol and Bulkeley, 2002:193; cf. Beck, 2000).

The notion of reflexive modernisation, elaborated by German sociologist Beck (1992, 1997, 1999), denotes a development in which the linearity in progress that is assumed in current modernisation processes is let go, and the functional differentiation between institutions that ‘promote’ economic growth and those that attempt to resolve the negative side-effect of that growth (in social and environmental terms) is eliminated. Among the most noteworthy characteristics of the current situation, according to Beck, is that society is increasingly incapable of controlling the risk it has produced itself (and hence manifests itself as a “Risk Society” in Beck’s words). Furthermore, for their sheer size and destructive ability, the risks involved in modern society are “in fact a historical innovation.” To Oosterveer (2002), BSE presents “a clear case of the new risks characterizing the risk society” (2002:216).

Oosterveer describes how four EU member states dealt with BSE institutionally, and discusses their responses in the light of the reflexive modernisation perspective. He considers BSE not only as an exemplar case of the ‘new’ risks but also as an obvious incentive to question the very way in which the political and social structure of society is organised, assuming an inevitable move towards ‘reflexive’ modernist risk policies. The author posits that if BSE is indeed the kind of risk that characterises the Risk Society, “the conventional risk policy instruments and institutions from simple modernity are no longer adequate” (2002:216). The empirical material however contradicts this assumption. Wrapping up, the author has to conclude that, although BSE had a profound influence on the handling of risks in the various countries, “it goes one bridge too far” to state that mad cow disease set in motion a development towards “new reflexive risk politics”. He posits that, “[a]t best, we can identify some innovations in some countries as an answer to the shortcomings of the simple risk politics in dealing with the BSE crisis” (2002:227). Apparently, the equilibrium of the past modernist epoch has not been fully breached yet, at least not by the BSE ‘crisis,’ and at least not in every European country to the same extent.

As is obvious from the above, the BSE event is an intensively researched phenomenon⁹⁴, which lends itself for exploring diverging theoretical perspectives. The conceptualisation of BSE as a major crisis is probably

contributory to its popularity among researchers. Yet, Forbes (2004) raises the question whether the classifications of 'crisis', 'policy failure' and 'policy disaster' are actually in place. Contradicting amongst others Millstone and Van Zwanenberg, Forbes concludes on the basis of his analysis of the BSE-related events in the UK that "the term 'crisis' has been misapplied throughout. The description became a framing assumption, after which followed exploration and explanation of the crisis Therefore, the 'crisis' label has become part of the data to be examined ..." (2004:352). Among the "myths" that the 'crisis' label tallies along, the author argues, is the assumption implied by depicting BSE as a breach in trust, that before the BSE crisis, citizens and consumers in fact *did* trust regulatory institutions. His assessment on the basis of various studies is that that was not the case. Rather, he posits, "the episode has not caused, but has revealed, the existence of major doubts in the public mind about the balance between consumer and industry interests, and the truthfulness of statements about safety" (2004: 354)

Implications for the present research project

It is exactly the latter revealing (or rather: disrupting) quality of the BSE-event that forms the starting point for the present research project. The Work package did not start out with an a priori definition of the BSE event as a case of policy failure, a crisis in regulatory science or of reflexive modernization. Rather, it assumed that BSE, because of its unusual characteristics and sudden manifestation, disrupted settled practices and 'the daily course of affairs', making people aware of the conventions and tacit assumptions underlying and co-shaping these practices, which in daily routine go unnoticed or are factored out of the discussion. Because of its specific characteristics, it could have induce an 'overhaul' of the usual categorizations by which people order their world (such as nature and culture, nutrition and health, risk and safety) and challenge the norms and rules of the institutions that most condition the governing options for dealing with health threats and for the attainment of food safety and well being. The empirical research in the current project was set up in order find out whether that, in some form or another, was indeed the case.

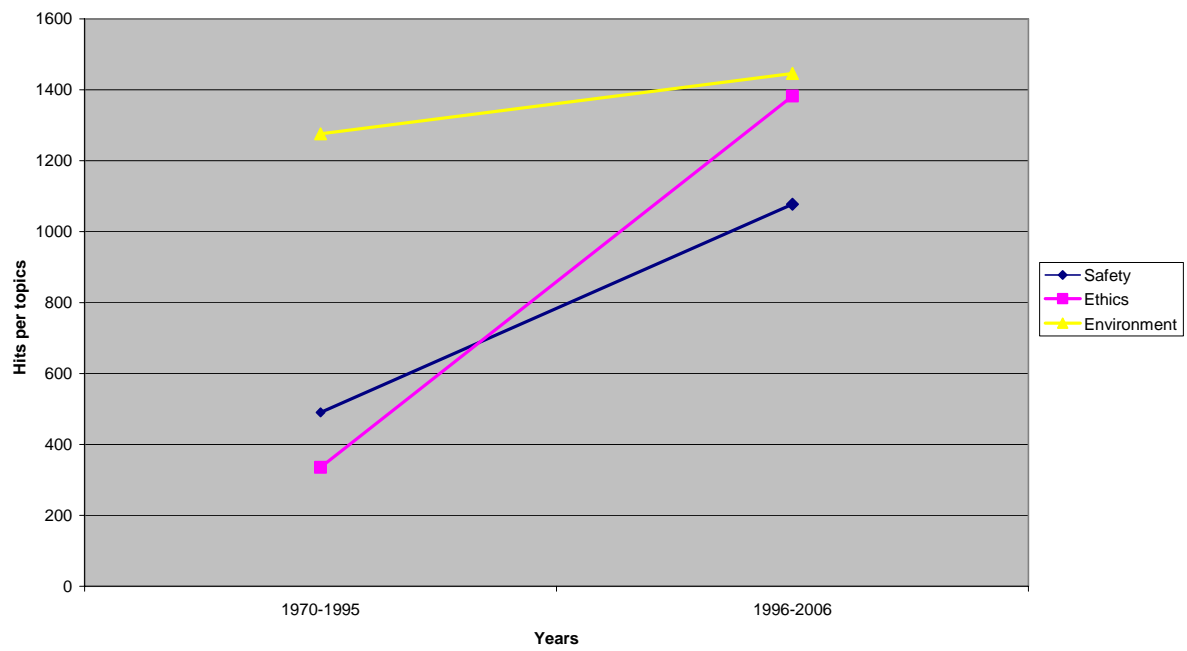
Search terms UK⁹⁴	1-1-1970 to 31-12-1995	1-1-1996 to 31-12-2006
Food + safety ⁹⁴ + safe	86	212
Consumption + safety+ safe	110	137
Consumers + safety+ safe	294	728
Total	490	1077
Food + moral + morality	45	94
Food + ethical + ethics	97	518
Consumption + moral + morality	11	27
Consumption + ethical + ethics	16	92
Consumers + moral + morality	43	58
Consumers + ethical + ethics	123	593
Total	335	1382
Food + environment ² + environmental	366	682
Consumption + environment ² + environmental	320	249
Consumers + environment ² + environmental	590	515
Total	1276	1446
Search terms NL⁹⁴	1-1-1970 to 31-12-1995	1-1-1996 to 31-12-2006
Voedsel + veiligheid + veilig	53	196
Consumptie + veiligheid+ veilig	11	37
Consumenten + veiligheid+ veilig	10	97
Total	74	330
Voedsel + moreel + morele	18	47
Voedsel + ethisch + ethiek	8	22
Consumptie + moreel + morele	16	22
Consumptie + ethisch + ethiek	5	6
Consumenten + moreel + morele	7	17
Consumenten + ethisch + ethiek	6	23
Total	60	137
Voedsel + milieu ²	95	251
Consumptie + milieu ²	99	126
Consumenten + milieu ²	132	271
Total	326	648

Search terms G ⁹⁴	1-1-1970 to 31-12-1995	1-1-1996 to 31-12-2006
Lebensmittel + Sicherheit + sicher	0	55
Verbrauch + Sicherheit+ sicher	0	15
Verbraucher + Sicherheit+ sicher	0	77
Total	0	147
Lebensmittel + moral + moralisch	0	2
Lebensmittel + ethisch + Ethik	0	1
Verbrauch + moral + moralisch	0	0
Verbrauch + ethisch + Ethik	0	5
Verbraucher + moral + moralisch	0	2
Verbraucher + ethisch + Ethik	0	5
Total	0	15
Lebensmittel + Umwelt ⁹⁴	0	156
Verbrauch + Umwelt ⁵	0	81
Verbraucher + Umwelt ⁵	0	217
Total	0	454

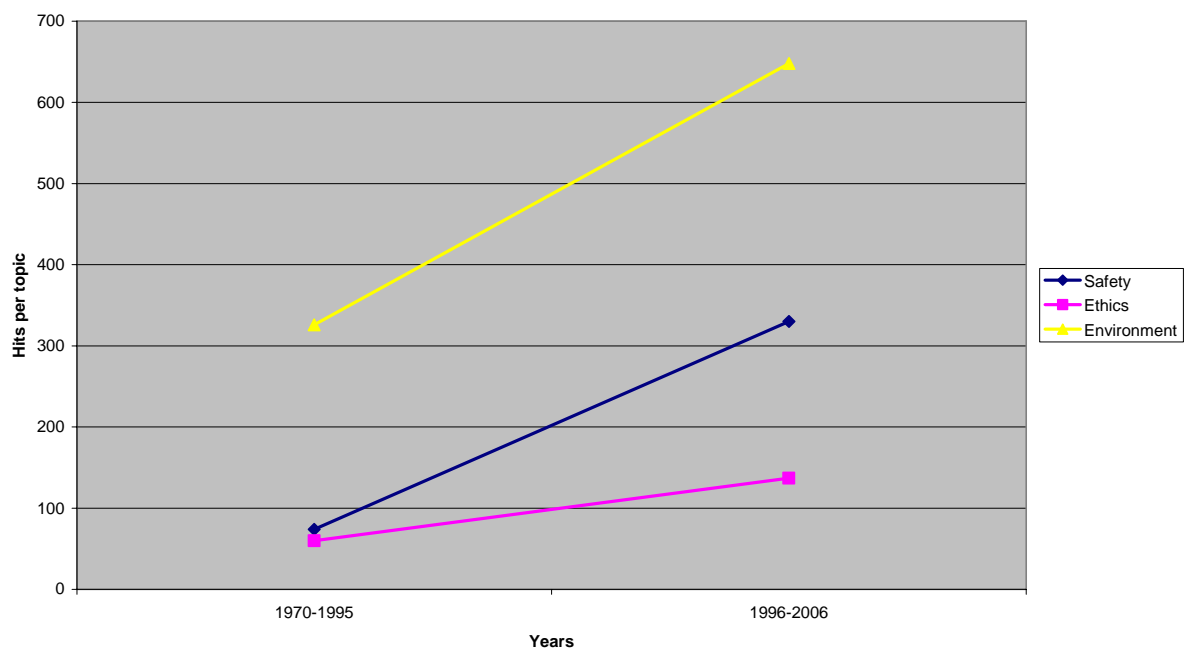
UK	1970-1995	1996-2006	1970-1995	1996-2006
Safety	490	1077	23%	28%
Ethics	335	1382	16%	35%
Environment	1276	1446	61%	37%
	2101	3905		
NL	1970-1995	1996-2006	1970-1995	1996-2006
Safety	74	330	16%	30%
Ethics	60	137	13%	12%
Environment	326	648	71%	58%
	460	1115		
G	1970-1995	1996-2006	1970-1995	1996-2006
Safety	1	147	33%	24%
Ethics	1	15	33%	2%
Environment	1	454	33%	74%
	3	616		

Proportional change in % per topic

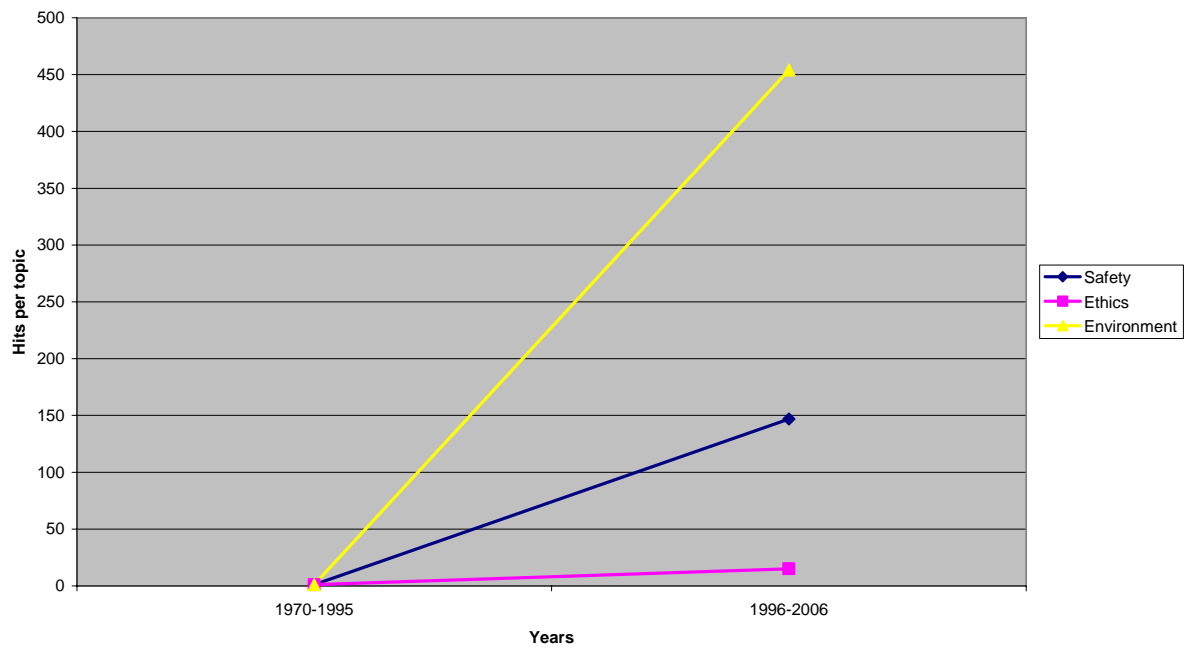
UK trend analysis



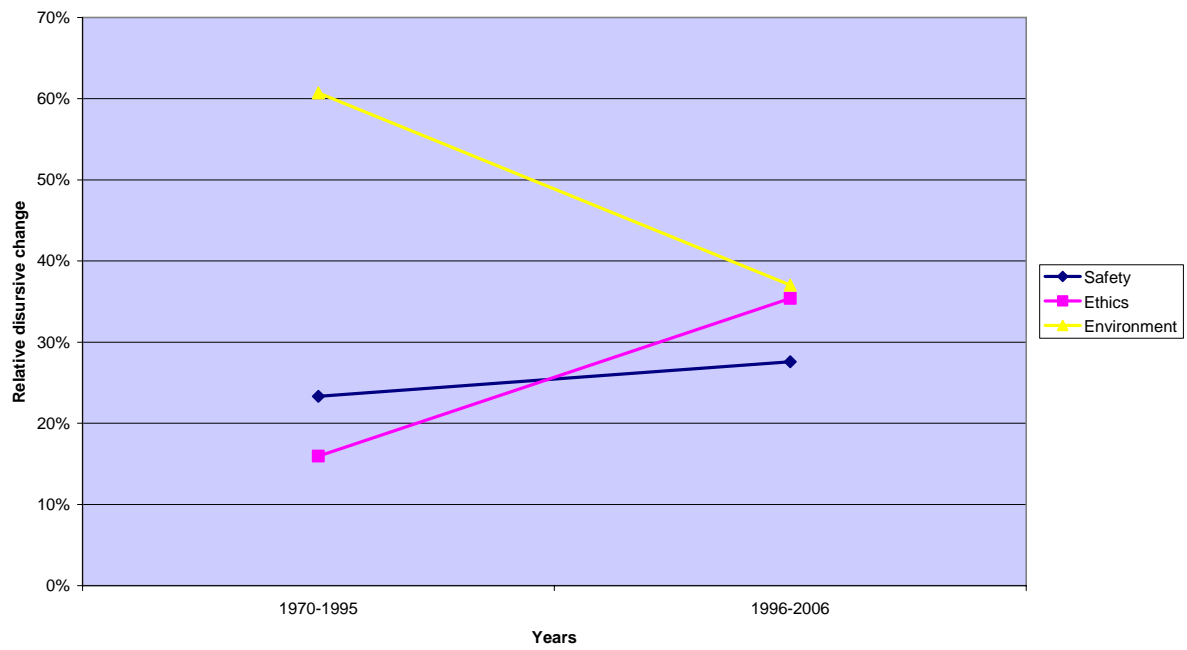
NL trend analysis



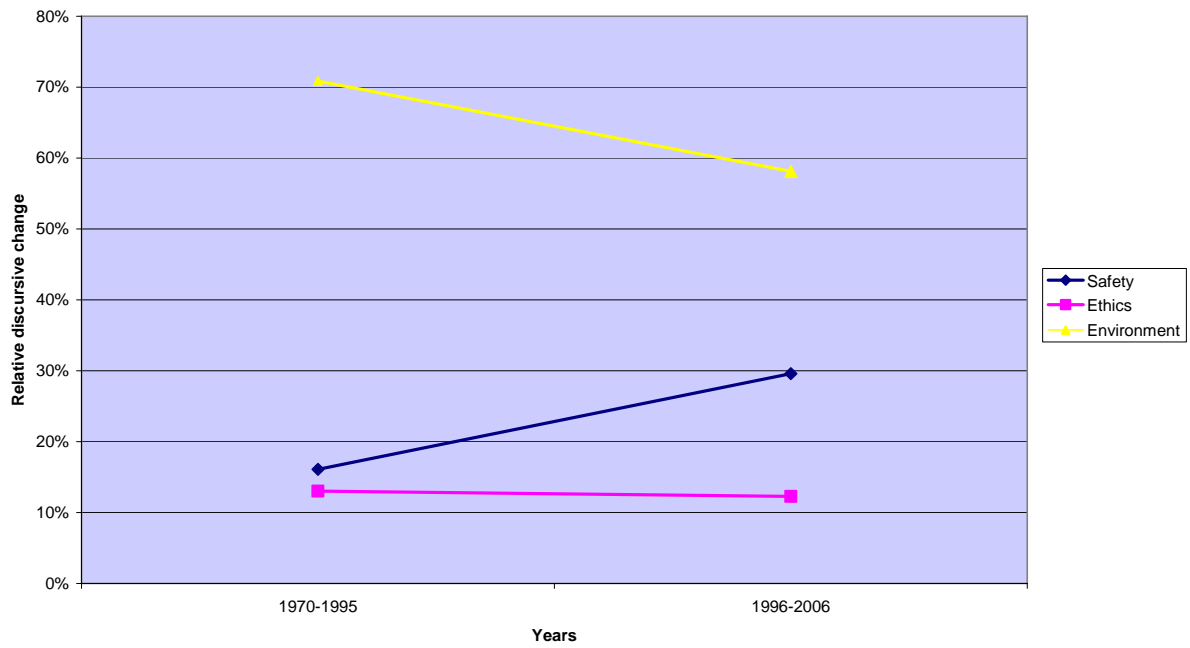
Germany trend analysis



UK discursive shifts



NL discursive shifts



Germany discursive shifts

