Ethical traceability

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PART A Executive Summary

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2. Introduction

The main objective of the project is to develop the concept of *ethical traceability* as the basis for *consumers' informed food choice*. By including philosophical and sociological researchers both theoretical and empirical aspects of ethical traceability and informed food choice are investigated. The philosophical studies examine the two concepts in the light of selected philosophical theories and discussions, whereas the sociological case studies focus on the current use of traceability in the food chain and the actors' attitudes to ethical traceability and informed food choice. The three case studies used are olive oil in Greece, wheat-bread production in the UK and pork production in Denmark, representing three mature, complex and economically important production systems.

3. Traceability, Food Ethics and Consumer Concerns

In response to consumers' desire to know more about the origins and production practices of food, traceability is increasingly being used to provide assurance to shoppers that foods have been produced to specified standards. These standards may relate to the way products were grown, whether they were fairly traded, or whether they support public health goals. Such ethical specifications can be 'recorded' as part of ethical traceability schemes and finally used to inform and empower consumer choice. Ten ethical concerns were addressed in the project:

Table 1. Ethical consumer concerns.

1. **Animal welfare**
2. **Human health**
3. **Methods of production and processing and their impact (eg, environmental, landscape)**
4. **Terms of trade (fair price, etc)**
5. **Working conditions**
6. **Quality (taste, composition, etc)**
7. **Origin and place**
8. **Trust**
9. **Voice (participation)**
10. **Transparency**

Traceability has been described as the ability to trace the history, application or location of an entity by means of recorded identifications. It has long been used by food businesses to verify food quality, monitor food safety, improve efficiency, facilitate product recall and preserve reputation. The project mapped the following uses of traceability in the food sector:

Table 2. Objectives of food traceability.

1. Risk management and food safety
2. Control and verification
3. Supply chain management and efficiency
4. Provenance and quality assurance of products
5. Information and communication with consumers

The systems of traceability adopted by the EU and Codex Alimentarius are clearly based on a safety position: they are rooted in the necessity to provide safe food and facilitate the withdrawal of unsafe food and feed. The use of traceability to address consumer concerns and informed choice is still marginal and in its initial phase.

Ethical traceability can be seen as a means to capture and map the ethical dimensions of values and processes in the food production chain. It can be defined as:

the ability to trace and map ethical aspects of the food chain by means of recorded identifications

Once information on the ethics of food production practices is captured and mapped, it can be used in communications between interested stakeholders in the food chain, including producers, processors, retailers and consumers. It can be used as a tool for producers to add value and also to enable stakeholders to make choices consistent with their values.

4. Findings from the Food Supply Chain Case Studies

1. Ethical issues arise in any food chain. Ethical traceability _ the ability to trace and map ethical aspects of the food chain by means of recorded identifications _ is a response to emerging ethical issues. The form it takes is affected by the mode of production (eg artisanal or industrial) and by the length and complexity of the chain.

2. The depth and range of ethical aspects of the '(hi)story' of foods are hidden. However, assurance schemes do exist that tell aspects of those stories. Ethical traceability aims to create fuller visibility along food chains.

3. Some relevant information about ethical issues already exists in the chain but is not being communicated. The potential for opening up this information is considerable.

4. The issues being ethically traced are at present being defined and constrained by commercial realities and regulatory rules, which are subject to public and private pressures.

5. Actors in the food chain prioritize and interpret ethical concerns differently depending on their place in the chain, having varying 'fields of ethical vision'.

5. Main Conclusions

1. By improving visibility and the possibilities for recognition between actors in the food chain, ethical traceability can enable consumers and other actors to restore and develop more meaningful relations with food.

2. Ethical traceability requires dynamic, evolving structures to accommodate diverse viewpoints, cultures and narratives. This calls for dialogue along the chain.

3. Ethical traceability in food chains bridges the public-private divide: state, civil society and market structures are all involved. There are however also tensions between actors in all of these domains, which could open up further ethical issues.

4. Ethical traceability could be instrumental in preventing the communication of misleading and deceptive information to consumers. In complex chains, ethical traceability schemes can be helpful in establishing trustworthy information.

5. Ethical traceability can be instrumental for governments in upholding minimum standards (for instance animal welfare).

PART B Ethical Traceability and Informed Food Choice

1. Background

The traceability of food and feed emerged as a focus for political attention and regulation at both national and international governmental levels at the turn of the millennium. The industrialization of food production and manufacture, and the complexities and anonymity of modern supply chains have been accompanied by a new wave of concerns around the safety and quality of the food supply. The emergent concept of keeping track of food products and their different ingredients through the various stages from field to plate offers a potential means of managing some of the recent safety and quality concerns around food. Food traceability covers a range of overlapping objectives, which are outlined below, and so has a wide potential appeal, to regulators, producers, processors, retailers and consumers alike.

Traceability relates to where and how foods are produced. It follows that it has the potential to be developed as a tool for providing information to consumers that addresses their concerns about food production. As traceability retells the history of a food, it can address the ethical, as well as the practical and physical, aspects of that history, enabling more informed food choice. The importance of ethical traceability for consumers is essentially twofold: firstly, it can help them make informed food choices; and secondly, it can act as a (democratizing) means for enabling food consumers to participate more fully as citizens in the shaping of the contemporary food supply. And ethical traceability has a third benefit, this time for food producers, who can use it as a tool for managing the ethical aspects of their own production practices and communicating ethical values about their food products.

During the last 200 years, major changes have taken place in food production practices. Mass food production accompanied growing urbanization and settlement. Agricultural production was increased through industrial upscaling and associated technological developments ranging from more rapid long-distance transportation to refrigeration and canning. The regular, face-to-face contact between buyer and seller declined, although this was not without its problems and consequent reaction. In the UK, adulteration of basic processed foodstuffs, such as sugar, led in 1844 to the creation by the urban working class of the first co-operative retail society, the Rochdale Society of Equitable Pioneers, in order to ensure supplies of unadulterated food. Such initiatives have since appeared in many countries all over the world, and today the direct marketing of farmers' produce is a growing phenomenon in many European countries, for instance in the form of box schemes, farm shops and farmers markets. The growth of these initiatives reflects the importance of traceability and the provenance of food for participating consumers.

One of the consequences of the industrial manufacture and long distance transportation of food is that it can change profoundly during processing and transit. Fresh produce, such as vegetables and meat, is susceptible to deterioration. Products from different farmers can be mixed or mistaken. Hence, at the beginning of the 20th century, new record-keeping systems were developed in order to keep track of which grower delivered what, so that the grower could receive the proper price for his produce. These were early traceability systems, although the term was not used at that time.

Industrialization has not only changed food products and production practices fundamentally, but has also generated new risks in the food production chain. The recent EC- enforced focus on traceability in the food sector occurred mainly as a response to food scandals, notably the outbreak of BSE (Bovine Spongiform Encephalopathy or 'mad-cow' disease), in the 1990s in the UK and the discovery of dioxins in animal feed in Belgium in the late 1990s. (There are many other incidents, including for instance the contamination of Perrier water with benzene and the subsequent worldwide recall in 1990). More generally, since the 1980s there has been growing attention to the presence of pathogenic micro-organisms, such as salmonella, listeria, clostridium and E-coli O157, and other contaminants in food. In the US alone food-borne pathogens are considered to cause 76 million illnesses per year.

Fraudulent practices and adulteration are other problems of food supply chains that have recently attracted media attention. For instance, in 2005 it was discovered in Germany that waste from slaughterhouses, intended for pet food, had been used for human food products. In Germany and Denmark, the selling of old meat long after it was deemed unsafe for human consumption, with false and 'renewed' expiry dates, in the so-called '*alte Fleisch Skandal*', made headlines in the media and certainly contributed to a decrease in trust in the food chain among consumers in those countries. Fraud in the food chain is far from new, but with more extended and complex supply chains the implications and consequences have grown. In an era of mass consumption, serious faults and mistakes that occur during the production process may endanger the lives of (many) innocent consumers. In the longer term, such accidents also rebound on the producers, resulting in adverse media coverage, consumers deserting the product, and reaction from public authorities, which may impose regulatory sanctions or introduce reforms. Hence, it has become important in modern production systems to be able to trace faults rapidly when they occur during production.

Thus, traceability in its contemporary forms is intended to deal with the growing complexity of a food chain based on mass production and global distribution and consumption. It is used to keep records of the processing and transportation of food products through all production stages. It should make it possible to trace a specific product back through the chain at any time, and so isolate contaminated goods and expose frauds. On a practical level, the ideal is to set up record-keeping systems that make it possible to trace product flow through all production stages, enabling identification of the exact origin of food products and their ingredients, and logging the transformation processes that a product undergoes before reaching consumers.

2. Project Objectives

The main objective of the project is to develop the concept of *ethical traceability* as a tool for consumers' informed food choice. This is done by efforts to:

- Make the concept of *ethical traceability* operational from a consumer and producer viewpoint consumers' informed food choice.
- Develop *ethical traceability* as a means of valorisation of food products.
- Map relevant philosophical *concepts/principles* within food ethics.
- Map food ethical concerns among consumers, retailers and producers.
- Contribute to *civic participation* in the food ethical debate and food production methods.

- Seek new ways of raising *consumer confidence* in food production.
- Develop new ways of communication of ethics in the agri-food sector.

The project consists of four parts:

A. Ethical Traceability and its Philosophical Implications for Civil Society, State, and Markets
Mapping of philosophical concepts and theories relevant for common food ethical concerns. Selected concepts and principles will be analysed and investigated in the context of food production practices.

B. Ethical Traceability in Food Supply Chains: the Cases of Bacon, Wheat-bread and Olive Oil
Sociological investigation and description of consumers' and producers' needs/wishes for information concerning food ethics. The design of the empirical study will reflect selected theoretical and philosophical perspectives from part A.

C. Portal on Food Ethics
Establishment of database on food ethics and traceability. The portal will include scientific articles, legislation, ethical policies of companies and other materials on food ethics and traceability.

D. Communicating Ethical Traceability
Identification of communication strategies for ethical traceability. Reflections on how producers, processors, retailers etc. can apply ethical traceability to communicate food ethics with due respect to the informed food choice of consumers?

2. Methodology

By combining philosophical and sociological research and employing a cross-cutting approach, both theoretical and empirical aspects of ethical traceability and informed choice could be investigated. This means that the sociological investigations and philosophical reflections are informed by each other. The questions drawn up for the purpose of conducting the empirical case studies were formulated in collaboration with the philosophers. The philosophers also contributed to the final analysis of the empirical results. Equally, the directions that the philosophical work took were influenced by the problems and questions raised by the sociological studies.

Philosophy of ethical traceability and informed food choice
Main philosophical and ethical aspects of ethical traceability were analysed and evaluated from selected philosophical positions like continental philosophy, political philosophy and discourse ethics. These studies have been developed on the basis of dialogue with the sociologists and their work.

Sociological case studies
A case study approach enabled the project to investigate many variables within a distinct context, drawing upon mainly qualitative information. The empirical data was collected from 98 in-depth interviews with stakeholders and 59 in-depth interviews with consumers from three chains. Stakeholder interviewees were senior actors in the chain, drawn from the major sectors: input suppliers, farmers, merchants, processors

and retailers, as well as members of trade associations and other relevant stakeholder organizations. Before the interviewing began, initial 'scoping' surveys of the chains were conducted to identify relevant literature, and important sources, sectors, actors and potential interviewees. This 'scoping' survey formed the background for a common interview guide that was adapted to the specific supply chains (oil, bread and pork).

The interviews made use of the list of 10 ethical consumer concerns identified as relevant to food production by initial work conducted by the project's philosophical partners (see Table 1). In all three chains, interviewees were asked to prioritize the 10 ethical concerns, if possible, and to comment on their importance in the chain. The interviews also included questions about information: who holds it, how accessible is it, and how does it flow through the chain? The empirical research took place between October 2004 and January 2006.

3. Results

3.1 Findings From the Food Supply Chain Case Studies

The sociological studies investigated ethical concerns in three important supply chains. The main findings of the three case studies are summarized below.

The Danish bacon supply chain

The major ethical concern in the bacon supply chain was found to be animal welfare. Concerns arose from breeding to fork, and included, for example, the transport of living animals, the type of stable systems (fixation) used, and the use of growth promoting substances. In general, the retailers said they found the idea of ethical traceability interesting but expressed scepticism about consumers' willingness to pay for advanced traceability systems. However, many of the consumers' ethical concerns are already addressed by traceability systems, but the information is not used actively or proactively in relation to consumers. Consumers felt that they needed more information about bacon production, especially about some of the invisible attributes, such as origin, use of medicine or animal welfare. From the stakeholders' point of view, quality was the most frequently mentioned concern, and here quality was mostly understood as a dimension of food safety, specifically the absence of disease-causing bacteria.

The UK wheat-bread supply chain

Ethical concerns were perceived to be increasingly important in this chain. Although many interviewees said that the ethical concerns were too subjective to be standardized, there was strong agreement about which concerns were most relevant to the chain, namely human health and methods of production. For stakeholders, terms of trade was also important. Transparency and trust were discussed at length, though not so often identified as important. The least important concerns in this chain were animal welfare and voice. Stakeholders said that traceability was limited by the routine practice of blending wheat from different sources for convenient handling and to manipulate quality and cost. Thus, traceability back to a single farm is often impossible. A response to this challenge has been to set quality standards (by means of assurance schemes) for the whole UK supply base, to reduce risk. However, examples were found where traceability back to farm was supplied, at extra cost, by means of 'Identity Preservation', in which consignments with specific characteristics

are kept separate throughout the chain. Existing regulations and assurance schemes cover several of the ethical concerns. Producers in the chain felt well supplied with information. Consumers, by contrast, felt that information was withheld and unreliable. Traceability schemes were not necessarily seen to be linked with ethical practice, which might be addressed by, e.g., codes of practice. In general, ethical concerns were more actively communicated by craft-scale rather than industrial-scale operations.

The Greek olive oil supply chain
The dominant ethical concerns in the olive oil supply chain were trust and transparency. Ethical concerns were more relevant to the smaller-scale and organic stakeholders, who valued different types of olive oil and food culture. Traceability and potentially ethical traceability in the olive oil chain were widely said to be limited by the practice of blending oil by olive mills and packing houses, in order to manipulate quality and cost or for convenience. Education of both stakeholders and consumers in the olive oil chain is important to improve traceability and ethical traceability in the chain.

It is striking that the relative importance of various food-related ethical concerns varies among the chains. It is hardly surprising that animal welfare is not a major concern in the wheat-bread or olive oil production chain. But there may be deeper differences. In general, substantive ethical concerns dominate over procedural concerns (i.e., emphasis is on animal welfare or terms of trade rather than on visibility, transparency and voice). If we look more closely at this finding, we see that voice seems to have particularly low priority for consumers in the UK and Greece, whereas this is not the case in Denmark. Such differences may be due to different political cultures; for instance, it has been shown that some countries emphasize representative democracy while others adhere to a more procedural and deliberative notion of democracy. In the former, voice is implemented by voting; in the latter, other procedures targeted at including citizen opinions are welcomed, such as consensus conferences and the like.

The interviewees prioritized and interpreted the ethical concerns differently depending on their place in the chain. For example, in the wheat-bread chain, farmers stressed the importance of methods of production while consumers focussed on personal health. And whereas farmers interpreted 'methods of production' to mean the environmental impacts of farming, industrial bakers tended to think in terms of the impacts of mills, such as noise and energy use. Consumers in all three chains tended to prioritize substantive values over procedural values. In spite of widespread feeling that ethics are subjective – possibly too subjective to be 'captured' by standards or assurance schemes –there was in fact agreement on which concerns were most and least relevant, but with some differences between consumers and stakeholders, and differences between the three chains. These findings seem to support the view that an 'overlapping consensus' can be reached on certain aspects of food production, but the differences illustrate what are termed the 'dynamic and dilemmatic' nature of consumers' ethical concerns, and raise important questions about how to determine which attributes should be traced by ethical traceability systems.

In all three case studies, we set out to examine both organic and conventional food chains, but we found that there was generally a clearer distinction between industrial and craft chains than between organic and non-organic chains. Ethical concerns were more explicitly relevant to craft-scale operators, who often had ethical

motives for being in business. On the other hand, larger firms trusted other large firms to have staff and resources to ensure regulatory compliance. Whereas the industrial chain valued consistency and uniformity, the craft chain valued variation.

Consumers looked for proxies (such as brands, logos or retailers) for the quality attributes they were seeking, and tended to 'bundle' desired attributes together (e.g. organic certification was seen to imply fairer trade and fewer road miles as well as the absence of synthetic pesticides specified in organic regulations). This has implications for ethical traceability systems, in that time-pressed consumers, disinclined to search for product-specific information, look for bundles of attributes, and brands or logos to flag them.

Stakeholders did not always see traceability as a necessary or obvious vehicle for communicating ethical practice. Instead, the interviewees often mentioned other systems where 'ethics' resided, such as Codes of Practice. Some interviewees saw traceability purely as a tool to achieve certain ends (such as supply chain management); others saw it as an ethical activity in itself.

Consumer interviews showed that when attitudes to food production are articulated in a place that is disconnected from concrete, everyday life and consumption, it is easier to formulate ideals about production. As a citizen, you can formulate your claims to the good life and good production. It is different when you are a consumer and the context is constituted by everyday life.

The economic and structural development of the chains has an important impact on levels of interest in traceability and the potential for tracing foods. This was most clearly evident in the cases of olive oil and the pork-bacon. In the pork case, traceability was made difficult because the monopoly company optimized its profits by placing its production where the wages were lowest, or in the case of olive oil optimized the quality: price ratio by blending oil of many different grades and origins.

3.2 Conclusions from Philosophical Investigations

The following presents the major efforts and conclusions from the philosophical investigations of the project.

The European Union and the regulation of food traceability: improving the democratic quality of traceability

It is argued that the nature of EU governance has not changed to any notable extent in the case of the food safety regulatory reforms being essentially a cautionary and procedural approach toward food safety and risk management that is based on a model of liberal governance whose main purpose is the regulation and unification of the European market. Secondly, it is argued that food traceability in a European context should also be employed as a means to facilitate and promote informed food choice allowing the consumers to take a more active role, and a more central place, in determining the nature and type of information provided by traceability about our food.

Traceability as a narrative tool

Advertising strategies conceptualize products, consumers, their concerns, preferences and behaviour according to cultural images that differ according to national and cultural contexts. One can call these strategies and the 'images' of consumers they incorporate 'narrative strategies', because they tell stories within which groups of producers and consumers recognize their main activities and interests. These stories of

food intermingle with personal life stories and by doing so they contribute to the formation of personal identities. These narratives oscillate between evocative and mythical images, such as nature, naturalness and tradition, as a representation of a 'healthy' and ethically 'right' order, and rational and scientific images in which the main role is played by information. They are never only about information, but also about 'life-styles'.

Challenges of ethical traceability to the public-private divide
Ethical traceability challenges existing distinctions between the private and the public, and the corresponding concept of civil society. Consumer concerns about production practices in the food sector partly change the meanings of these distinctions. Implementing ethical traceability and informed food choice entails creating new kinds of public spheres and a new kind of civil society: the ensuing debate and deliberation by communicative measures could renew democratic and participatory structures. The openness of the public sphere is a basic principle of democracy; it follows therefore that the theory of the private character of the market and food production practices needs to be reconsidered if we want more democratic institutions in the food sector. Market actors could even profit from considering how to take the ethical and political concerns of consumers seriously in terms of ethical traceability and informed food choice.

Traceability of Animal Welfare: Market or State, Good or Right?
Should concerns about animal welfare be addressed by the market or by the government? If concerns about animal welfare are based on a conception of the good, the proper way to address them is on the market, with labelling the best option. When, on the other hand, consumer concerns are based on a conception of the right, the government should uphold the principles that are behind such concerns.

Consumer rights to food ethical traceability
What should market and government respectively do about consumers' ethical food concerns? Two distinct versions of ethical traceability can be justified. The first version requires governments to ensure that all consumers are provided with foods that respect some threshold level of, e.g., animal welfare, supported by an overlapping consensus. The second version requires food producers to provide sufficient information about products to allow consumers to make food choices consistent with reasonable, non-superficial values which are not, however, supported by an overlapping consensus. Governments should facilitate this by ensuring that consumers are not provided with misinformation about relevant food characteristics.

Ethical traceability and ethical room for manoeuvre
How consumer concerns be implemented in food chains, in a democratic way, by organizing ethical discussions about conflicting values that include consumers as participants? Instead of considering ethical standards and targets as fixed, as is the case with codes and schemes, it is more fruitful to emphasize the processes by which consumers' ethical concerns are weighed up and shaped. The concept of 'Ethical Room for Manoeuvre' (ERM) is constructed to set out the conditions under which paramount values and their dilemmas can be identified and weighed up. The main aims of the ERM are to make room in all the links of the food chain for regulating and implementing relevant consumer concerns by balancing and negotiating them; to support information systems that are relevant and communicative for various

consumer groups; and to organize consumers' involvement in the links of the food chain.

Communicating ethical traceability

Three stages for public participation in discussions on food production practices are identified. The first step provides a one way flow of information from key actors along food supply chains (be they producers, manufacturers, retailers, or public regulators). The second step provides a reciprocal dialogue between food supply chain actors and the public, where the needs of the public are sought and recognised. Finally, a more imaginative and inclusive approach is based on what are termed co-production strategies whereby engagement of public concerns are anticipated and integrated at the beginning of the decision making process on food products hence incorporating the ethical dimensions that the public might wish to know about the history of product.

Summary of philosophical investigations

The following summarizes the main conclusions of the philosophical investigations.

Consumers' ethical concerns reflect their quest for ethical information on food production practices. However, informed food choice requires food production processes to be visible and transparent. This can be achieved by reconstructing and mapping the production histories of foods. Traceability schemes are a suitable tool for such purpose. Improving visibility and the possibilities for recognition between actors in the food chain also enables consumers and other actors to restore and develop more meaningful relations with food.

However, implementing ethical traceability and informed food choice is not as straightforward as this implies. Both ethical traceability and informed food choice are concepts that challenge the traditional divide between the private and public sphere _ and between consumer and citizen. They both bridge the public-private divide: state, civil society and market structures are all involved and their contours are reshaped. From a traditional point of view, this makes ethical traceability and informed food choice highly contested concepts. However, they do tackle important societal challenges emerging from the dynamics of modern and post-modern food production processes.

Ethical traceability can be instrumental in preventing the communication of misleading and deceptive information to consumers. In complex chains, ethical traceability schemes can be helpful in establishing trustworthy information. In addition, ethical traceability can be used to ensure that consumers are provided with foods that respect some minimum standards of, for instance, animal welfare, sustainability or fair trade, as supported by a contingent overlapping consensus of food values in the population. The issues that fall within the overlapping consensus are suitable for governmental responsibility; but market partners can always do more than respect minimum food standards, such as with animal welfare.

It is argued that some consumers have an interest in traceability schemes which require ethical discussions of values in the food chain and which include them as participants. Ethical traceability schemes therefore have a twofold target: first, to make producers in the chain aware that they are acting upon ethical issues, and second, to communicate that these ethical decisions can be improved by explicitly taking consumer concerns into account, by means of various forms of deliberation and consultation.

3.3 Risks of Implementing Ethical Traceability

Translating the ethical issues encountered in food chains into operational and practical terms will be challenging. There are a number of risks, which must be considered carefully; there is even a risk that implementation may cause more harm than good. For example, there is a cost to implementing and administering (ethical) traceability systems, and this may damage consumers (who must bear higher prices) and producers (who must assume increased administrative burdens and also carry higher costs). It can be expected that big corporations, with higher levels of capital, will be in a better position to handle such costs and therefore gain a competitive advantage compared to small-scale producers. This tendency might be exacerbated if traceability systems are based on high-tech and capital intensive ICT solutions. Third World producers are especially vulnerable to such a development.

Other risks are associated with the 'information' provided by traceability schemes. First of all it is essential that ethical traceability schemes are designed to capture relevant and useful information, and that this information is not manipulated. If this is not the case, the information may contribute to the creation of mistrust rather than enlightenment. Secondly, if the information is not structured and edited to suit consumer needs, ethical traceability runs the risk of overloading consumers with the time-consuming tasks of reading and learning about foods. Furthermore, making so much information accessible could lead to too much responsibility being placed on the shoulders of the consumers, instead of on politicians and corporations. Finally, the large amount of information accumulated by traceability schemes - for instance, on individual consumer preferences - could be misused for highly targeted marketing strategies against the will of consumers. The main risks are listed in Table 3.

Table 3. Risks associated with the implementation of ethical traceability.

- Increasing administrative burdens and control;
- Higher food prices;
- Possible exclusion of small-scale enterprises due to their inability to handle demands associated with additional traceability;
- Reinforcing already powerful interests in food chains as traceability can be used to exclude small-scale corporations;
- Not recognizing the full range of potential voices (e.g., excluding smaller producers due to their inability to establish traceability);
- Use of inappropriate indicators, auditing and monitoring that can lead to misleading information, false evaluations and ineffective policies;
- Information overload for consumers;
- Abuse of information (for instance for marketing purposes).

3.4 Development of Standards and Policies

Traceability has been implemented in the agri-food sector but ethical traceability has not. There is much talk about consumers' informed choice and most actors in the food supply chain and elsewhere support the idea in principle. However, informed food choice as concerns ethical issues in the agri-food sector is still limited. Only a few food products are provided with information on the ethics of the product's production history.

This project has highlighted the fact that a great deal of information about food ethics exists in the supply chain, but in most cases this information is not

communicated to consumers and other actors in the chain. The sociological surveys found that information on food ethics was desired by many interviewees. There is therefore a need to further development of ethical traceability and informed food choice in the future. The recommendations and policy options below address four different groups of actors: the European Commission; civil society and NGOs; stakeholders in the food sector; and researchers.

The European Commission

The promotion of a wide and inclusive dialogue among relevant stakeholders about ethical traceability reveals the needs and wishes of stakeholders and consumers. On the basis of such dialogue, traceability regulations can be developed as a means of making ethical issues relating to food production practices visible/transparent to consumers. As such, traceability regulations can function as a political instrument to guarantee minimum ethical standards in the food sector, in conformity with general consumer concerns. Furthermore, current traceability regulations could be strengthened to ensure food authenticity and guarantee truthful food labelling (avoiding misleading and deceptive information). In improving the regulations, it will be paramount to continue to argue in the WTO and Codex Alimentarius for the inclusion of ethical issues in food standards. On a less formal basis, the EC can encourage food companies to add ethical issues to existing traceability schemes and to support ethical capacity-building among small and medium-sized enterprises (SMEs).

Civil society (NGOs, such as consumer, animal welfare and environmental organizations)

It is essential to push the political system and the food sector towards using current traceability legislation and private assurance schemes not only for food safety reasons but also as a means of promoting communication on food ethics with consumers. In doing so, it can be emphasized that the political system can use traceability legislation as a means to ensure and monitor that minimum ethical standards (e.g., on animal welfare, the environment, working conditions, etc.) in the food sector are not violated. Lastly, NGOs can consider their own active role in establishing and monitoring traceability schemes and in certifying traceability schemes.

The food sector

There are examples of good practice in existing food assurance schemes that can be built on to develop and improve communication with consumers. Existing assurance and traceability schemes can be developed to include more ethical parameters, in conformity with consumer concerns. For instance, they can be elaborated as a means of documenting production practices and trading conditions. Likewise, it will be important to promote examples of good practice and to encourage those elements of the food sector that either represent examples of good practice in ethical traceability, or have the potential to do so. Finally, it is essential to give ethical consumers better assistance in making their choices in supermarkets, shops and food service outlets.

Research

This project has highlighted several issues that merit further research. These include: how to involve diverse voices and their specific needs (consumer and citizen concerns) by way of participatory methods, and how to assure feedback on consumer needs (consumer concerns) to producers. In general, we can say that further attention needs to be paid to communication strategies that can operationalize ethical

traceability from both a consumer's and a citizen's point of view. In doing so it will be important to consider how consumers react to ethical traceability schemes in practice, and especially how the trustworthiness of such schemes is conceived. Another issue that deserves notice is the cost-benefit analysis of including ethical issues in traceability schemes and of communicating traceability to consumers: this information will be essential for the future development of such schemes.

Part C Dissemination of the Project

1. Report: Ethical Traceability in the Food Chain - Conclusions and Policy Options

The report presents the main findings of the project. To be found at www.chrcoff.dk/ProjectsEnglish.html

2. Forthcoming Book: *Ethical Traceability and Communicating Food*

Ethical Traceability and Communicating Food Edited by Christian Coff, David Barling, Michiel Korthals and Thorkild Nielsen
Chapter 1 - Ethical Traceability and Informed Food Choice Christian Coff, Michiel Korthals and David Barling
Part I **Regulation, Governance and Narrative Strategies of Food Traceability**
Chapter 2 - The European Union and the regulation of Food Traceability: from risk management to informed choice? Alessandro Arienzo, Christian Coff and David Barling
Chapter 3 - Governing and governance in the agri-food sector and traceability David Barling
Chapter 4 - Narrative Strategies in Food Advertising Guido Nicolosi and Michiel Korthals
Part II **Ethical Traceability in Food Supply Chains: the Cases of Bacon, Wheat-bread and Olive Oil**
Chapter 5 - Pork and Bacon, Denmark Thorkild Nielsen and Niels Heine Kristensen
Chapter 6 - Wheat, Flour and Bread, UK David Barling, Tim Lang and Lindy Sharpe
Chapter 7 - Traceability and Ethical Traceability in the Greek Oive Oil Chain Emmanouil Kabourakis, Dimitris Papadopoulos and Agape Vassiliou
Part III **Ethical Traceability and its Philosophical Implications for Civil Society, State, and Markets**
Chapter 8 - Challenges of Ethical Traceability to the Public-Private Divide Christian Coff
Chapter 9 - Traceability of Animal Welfare: Market or State, Good or Right? Liesbeth Schipper
Chapter 10 - Consumer Rights to Food Ethical Traceability Volkert Beekman
Chapter 11 - Ethical Traceability and Ethical Room for Manoeuvre Michiel Korthals
Chapter 12 - Interpreting Traceability: Improving the Democratic Quality of Traceability Marco Castagna
Part IV

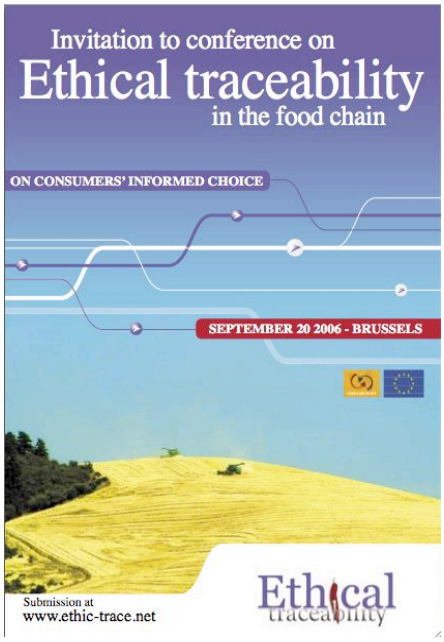
Conclusions and Outlook
Chapter 13 - Communicating Ethical Traceability Volkert Beekman, Christian Coff, Michiel Korthals and Liesbeth Schipper
Chapter 14 - Conclusions and Policy Options on Ethical Traceability Christian Coff, Michiel Korthals and David Barling
Appendix - Two Political Speeches on Ethical Traceability • Margaritis Schinas, Head of Cabinet to Commissioner Markus Kyprianou, Health and Consumer Protection • Mariann Fischer Boel, European Commissioner for Agriculture and Rural Development

Submitted to Springer Publisher, May 2007.

3. Conference: Ethical Traceability in the Food Chain

On September 20 2006 a conference entitled *Ethical Traceability in the Food Chain - on Consumers' Informed Choice* was arranged by the coordinator of the project.

Flyer announcing the conference (shown in reduced size):



Conference program

12h00 – 12h30	**Registration**
12h30 - 12h40	**Welcome and introduction** Jean-Michel Baer, EC, Director of Science and Society Directorate
12h40 - 13h10	**Ethical traceability and informed food choice** Christian Coff, Centre for Ethics and law, Copenhagen Followed by short questions from the audience
13h10 - 13h50	**1. Session: Consumers: informed choice and food for democracies** Michiel Korthals, Professor Wageningen University Debate chaired by Tim Lang, City University London
13h50 - 15h00	**Lunch**
15h00 - 15h30	**Consumers' informed choice** Mr. Margaritis Schinas, Head of Cabinet to Commissioner Markus Kyprianou, Health and Consumer Protection Followed by short questions from the audience
15h30 - 16h00	**2. Session: Food authorities: ethical responsibility in the food chain** David Barling, City University London Debate chaired by Susanne Logstrup, European Heart Network
16h00 - 16h30	**Coffee and tea break**
16h30 - 17h00	**3. Session: Producers/retailers: ethical traceability in the food production chain** Thorkild Nielsen, Technical University Denmark Debate chaired by Rodrigo Gouveia, Euro-COOP
17h00 - 17h30	**Ethical traceability and EU food policy** Mariann Fischer Boel, European Commissioner for Agriculture and Rural Development Followed by short questions from the audience
17h30 - 18h00	**Closing discussion and remarks**
20h00	**Dinner**

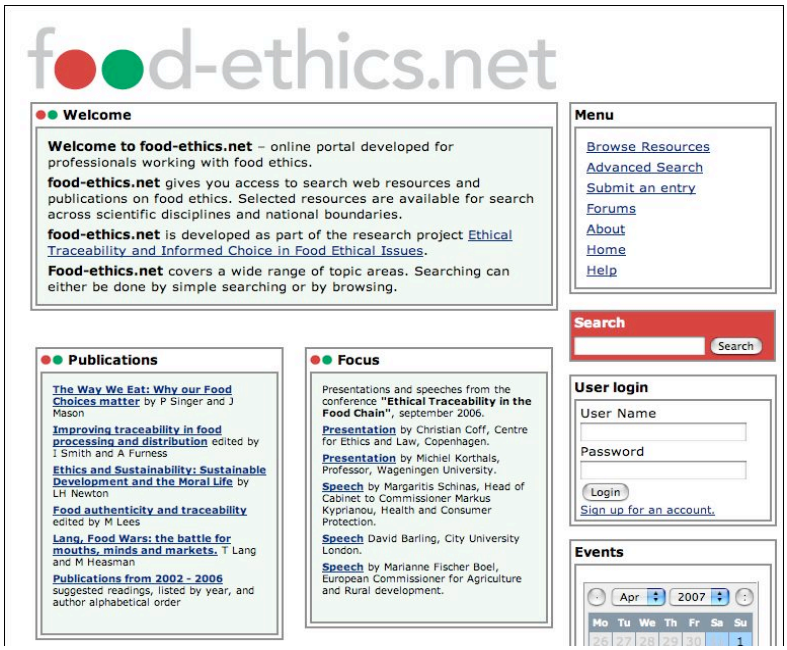
All presentations from the conference can be found at www.ethic-trace.net

4. Portal on Food Ethics

The project has developed an online portal for professionals working with food ethics. Main focus is on scientific articles and international legislation. Since October 2004 the database **www.food-ethics.net** has been on-line. The portal contains 711 resources (references) in the following categories:

Animal welfare (54)
Consumers (32)
Environment (99)
Fair Trade (8)
Health and Safety (72)
Law (1)
Market (47)
Novel Foods/GM Foods (49)
Organisations (36)
Philosophy and Ethics (122)
Regulations (24)
Sociology (116)
Traceability (51)

The database uses an open source system (Scout kit) for the technical database and inter-net interface. Indexing and structure of the portal has been developed in coordination with the partners of the project.



5. Dissemination by Individual Participants

The following list disseminations by the project partners.

Dissemination; Centre for Ethics and Law

Date	Type	Audience	Countries addressed	Size of audience
23.03.04	”Fair Trade and Ethical Traceability”. Speech at the European Parliament, Brussels, at the conference *Fair Trade – A Conference to Sustainable Development.*	Stakeholders, consumer groups, NGOs, policy makers	International	200
Sept 04	Opening of portal on food ethics: www.food-ethics.net	Researchers, stake holders, students	International	
Oct. 04	”Ethical Traceability and Informed Choice in Food Ethical issues”. *EurSafe News*, Volume 6, No 3, October 2004, p. 3-4.	Researchers, food policy makers	International	400
21.05.05	Interviewed by Bjørg Tulinius on traceability, The *Danish Radio* P1. 45 minuter.	General public	DK	
06.06.05	Interviewed in ”Good morning Denmark, *TV2*, kl. 07.34-07.44.	General public	DK	
13.06.05	Interviewed by *Danish Television* DR2 (TV) ”Deadline”, kl. 22.30 –23.00.	General public	DK	
30.06.05	Interviewed by The Danish Radio in Koplevs Krydsfelt, kl. 09.15-11.00.	General public	DK	
Oct. 05	”Sporbarhedens fødevareetik”. Tidsskriftet *Danske Mælkeproducenter*, nr. 10, oktober 2005.	Dairy producers in DK	DK	

March 06	Chapter 6 of *The Taste for Ethics. An Ethic of Food Consumption*. Springer Verlag, Dordrecht, 2006.	Researchers, Students	International	
19.04.06	Interviewed by The Danish Radio P1 "Vita" on food ethics and traceability	General public	DK	
20.04.06	"Tracing Food Ethics". The Danish newspaper *Jyllands Posten*	General public	DK	
June 06	"Ethical Traceability". I Kaiser, Matthias and Marianne Lien (ed.): *Ethics and the Politics of Food*. Wageningen Academic Publishers, the Netherlands, 2006, pp. 56-61.	Researchers, food policy makers	DK	50
14.09.06	"We eat in Blind". Finance newspaper *Børsen*, Section on *FødevareSundhed* p.1, 6-7.	General public	DK	5000
Aug -Sept 06	PR for conference on Ethical Traceability: Flyers (5000) Emails	Researchers, NGOs, Food Authorities, actors in the food chain	International	1000
15.09.06:	"Ethical Traceability to save our Bacon". Interview with Christian Coff, Thorkild Nielsen and Commissioner Mariann Fischer Boel. The Ministry of Foreign Affairs of Denmark: Denmark's official web site: www.denmark.dk,	General public	International	
20.09.06	Coordinator of conference entitled '*Ethical Traceability in the Food Chain'* in Brussels.	Stakeholders, consumer groups, NGOs, policy makers	International	50
21.09.06	"Ethical Traceability is set to save our Bacon". Interview with Christian Coff, Thorkild Nielsen and Mariann Fischer Boel. *The Copenhagen post*.	General public	International	
27.04.07	Speech at the third TRACE conference in Crete	Researchers	International	100
Autumn 07	*Ethical Traceability and Communicating Food*. Submitted to Springer Verlag. 350 pages	Researchers, food policy makers and students	International	

Dissemination; Applied Philosophy Group, Wageningen University, Netherlands

Date	Type	Audience	Countries addressed	Size of Audience
18-12-2004	Interview BBC Worldservice	General Public	International	
6-09-2005	Conference Paper for EURSAFE, paper	Researchers	International	200
08-12-2005	Conference Paper, Production and Ecology congress, Wageningen University	PhDStudents, Researchers	Wageningen University	100
13-05-2005	Lecture Institutional Members EURSAFE	Professionals	International	20
08-06-2005	Conference Paper, Agriculture and Human Values, Portland (OR)	Researchers	International	50
20 Sept 2006	Conference to launch findings	Professionals,	EU	50

		policy makers		
2006	Article, Ethics of Food Production and Consumption, in: L. Frewer, H. van Trijp (eds.), 2006, Understanding Consumers of Food Products, Cambridge (UK): Woodhead,	Researchers, professionals	International	
forthcoming	Article: Michiel Korthals, Ethical room for Manoeuvre, submitted to *Journal of Agricultural and Environmental Ethics*	Researchers	International	
forthcoming	Article: Volkert Beekman, "Consumer rights to informed choice on the food market", accepted for publication in *Ethical Theory and Moral Practice*.	Researchers	International	
03-11-2006	Lecture Alliance Francaise & Internationale Hotelschool, La Semaine du Gout, Den Haag	Professionals, cooks etc.	Dutch	79
02-05-2007	Paper, M. Korthals, Ethical Traceability of Food: Consumer Concerns in the Food chain.	Professionals, Researchers, University of Teheran, Iran	Iran	100

Dissemination; Università Frederico II Naples

Planned/ actual Dates	**Type**	**Type of audience**	**Countries addressed**	**Size of audience**
Sept 2005	Seminar	Scholars	Italy	30
Feb 2006	Seminar	Scholars	Italy	30
Nov 2006	Seminar	Scholars	Italy	30
March 2007	Seminar	Scholars	Italy	30
May 2007	Conference	Research	International	100
July 2007	Publications	Research	International	1000
May 2007	Department web-site	Students	Italy	3000
May 2007	Direct e-mailing	Researchers	International	400

Future dissemination plans are:

- to organize a conference to present in Italy the main results of the project. The conference will be held in May 2007 at the University of Naples.
- a publication of several articles presenting to a wider scientific community the main results of the Italian team
- the creation in the department website (www.dipfil.unina.it) of a section presenting the main working papers produced by the unit; the results of the project

Dissemination; Technical University of Denmark, IPL/Innovation and Sustainability

Planned/ actual Dates	Type	Type of audience	Countries addressed	Size of audience
October 2005	"Ethical choice for the consumers". Interview with Thorkild Nielsen and Niels Heine Kristensen in Research and Development no 8, 2005	Industry, Researchers, politicians	Denmark	1000
14.09.06	"We eat in Blind". Finance newspaper Børsen, Section on FødevareSundhed p.1, 6-7.	General public	Denmark	5000
15.09.06	"Ethical Traceability to save our Bacon". Interview with Christian Coff, Thorkild Nielsen and Commissioner Mariann Fischer Boel. The Ministry of Foreign Affairs of Denmark: Denmark's official web site: www.denmark.dk,	General public	International	
21.09.07	"Ethical Traceability is set to save our Bacon". Interview with Christian Coff, Thorkild Nielsen and Mariann Fischer Boel. The Copenhagen post.	General public	International	
September 2006	Conference Ethical Traceability in the Food Chain' in Brussels.	Research, Industry, politicians, consumers, NGO's	International	50
October 2006	Presentation	Scholars (higher education institution)	Denmark	60
November 2007	PhD course	PhD students	Denmark	25
February-May 2007	University course (Traceability systems)	Scholars (Food master at the University)	International	20
May 2007	Presentation	Scholars (higher education Institution)	Denmark	60
September 2007	Popular articles	Stakeholders	Denmark	3000
July 2008	Scientific articles	Researchers	International	1000

Dissemination; Centre for Food Policy, City University, London.

Date	Type	Audience	Countries addressed	Size of audience
June 06	Feedback Seminar: presentation of selected results and findings to key stakeholders	Stakeholders in UK wheat-flour-bread chain	UK	40
June 06	Briefing Note, based on discussion at Feedback Seminar, sent out to participants and others	Stakeholders in UK wheat-flour-bread chain	UK	50
July 06	Conference paper presented at XVI International Sociological Association World Congress of Sociology, Durban, South	Academic	Worldwide	50

	Africa.			
Sept 06	Conference to launch findings	Stakeholders, consumer groups, NGOs, policy makers	EU	50
Oct 06	Article, current affairs magazine	General public	UK	
Oct 06	Presentation to conference of PETER project, which brings together all EU traceability projects, York, UK	Academic, stakeholders, policy makers	EU	100
Summer/autumn 07	2 journal articles, to be submitted 07	Academic	UK/ International	

Dissemination; National Agricultural Research Foundation (NAGREF)

Date	Type	Audience	Countries addressed	Size of Audience
April 2005	Seminar	Postgraduate students	International /Mediterranean countries	20
May 2005	Seminar	Stakeholders, policy makers and academic	Greece	30
March 2007	Conference paper (6th International Conference on Ecological Olive Production, Spain)	Stakeholders and academic	Worldwide	50
April 2007	Seminar	Postgraduate students	Worldwide	25
May 2007	Seminar	Stakeholders, policy makers and academic	Greece	80
May 2007	Seminar	Undergraduate students	Greece	40
June 2007	Article (current affairs magazine)	General public	Greece	3000
June 2007	Seminar	Postgraduate students	International /Mediterranean countries	20
June 2007	Direct e-mailing	Stakeholders, policy makers and academic	Worldwide	200
September – December 2007	Publications (2 journal papers, to be submitted 2007))	Academic	Worldwide	1000

6. Logo

7. Websites

The project has developed two websites:

A portal on food ethics:	www.food-ethics.net
A website for the conference:	www.ethic-trace.net