

MultiTrust: Multicriteria Assessment and Communication of Effects of Organic Food Systems

The activities and results of this research project have been documented elsewhere according to the standards stipulated by the sponsors of project. Accordingly, this paper sums up and mediates to a larger public central elements of the MultiTrust project, in doing so this paper draws extensively on papers, reports etc. published or unpublished dealing with the project.

MultiTrust - Points of Departure

Organic agriculture is an alternative food system based on consumer trust and credibility. Consumers buy organic goods and citizens and politician support organics, to some degree, because they believe it is a better alternative. And they believe this because the organic form of production seeks to meet many considerations for society, nature and environment. The possibilities for growth in organic agriculture therefore depends on whether it, overall, makes a credible and attractive alternative, and whether the development of organics is positive with regard to organic principles and the key societal goals for environment, health and welfare. It is, however, extremely difficult to determine whether a specific technological, management or organizational development is positive or negative, overall. In other words, if we want to assess and evaluate organic food systems (or aspects thereof) it becomes evident that it is indeed not possible to base such an assessment solely on one criterion. We need multiple criteria; there are however, no established methods with which to conduct overall, multicriteria assessments or organic food systems.

Key Participating Institutions

With this research lacuna in mind – and also spurred by the myriad of practical problems this point of departure elucidates – the research project entitled “Multicriteria Assessment and Communication of Effects of Organic Food Systems” (henceforth MultiTrust) was developed. The project is an interdisciplinary research endeavor comprising researchers from

- Dep. of Agroecology and Environment, Aarhus University, Denmark
- Institute of Food Economics, Copenhagen University, Denmark
- Danish School of Education, Aarhus University, Denmark
- Dep. of Language and Business Communication, Aarhus University, Denmark
- Dep. of Information and Media Science, Aarhus University, Denmark

Key contributors to the project were also:

- Knowledge centre for Agriculture, Skejby, Denmark
- Organic Denmark (Økologisk Landsforening)

- Thise Dairy (Thise Mejeri)
- Animation Hub Aps.

Project manager was Hugo fjeldsted Alrø, Department of Agriculture, Aarhus University, Denmark. The project ran from January 1st 2011 till December 31st 2013 and was funded by Organic Research, Development and Demonstration programme, (Organic RDD) 2011-2013: Growth, robustness and credibility in organic farming and food systems under the auspices of The Danish Food Industry Agency, Ministry of Food, Agriculture and Fisheries.

Objectives

According to the recent Danish knowledge synthesis “Development, growth and integrity in the Danish organic sector,” the potential for continued growth of the organic market depends not only on further technological and organizational development, but also on securing the integrity and credibility of the organic alternative through continued improvement in line with the organic principles and increased synergy with societal goals and consumer concerns about health, animal welfare and the environment. The overall idea of this project was that the development of a tailored framework for multicriteria assessment of organic food systems can help organic actors and stakeholders conduct, document and communicate comprehensive and balanced assessments of a range of ecosystem services and other effects on society and nature. A key hypothesis is that this can contribute to open and credible communication about the benefits of organics, serve as a policy tool, and support the integrated development of organic production in relation to the organic principles – and thereby improve the potential of the organic alternative to help solve current societal challenges and support long term growth of the organic market.

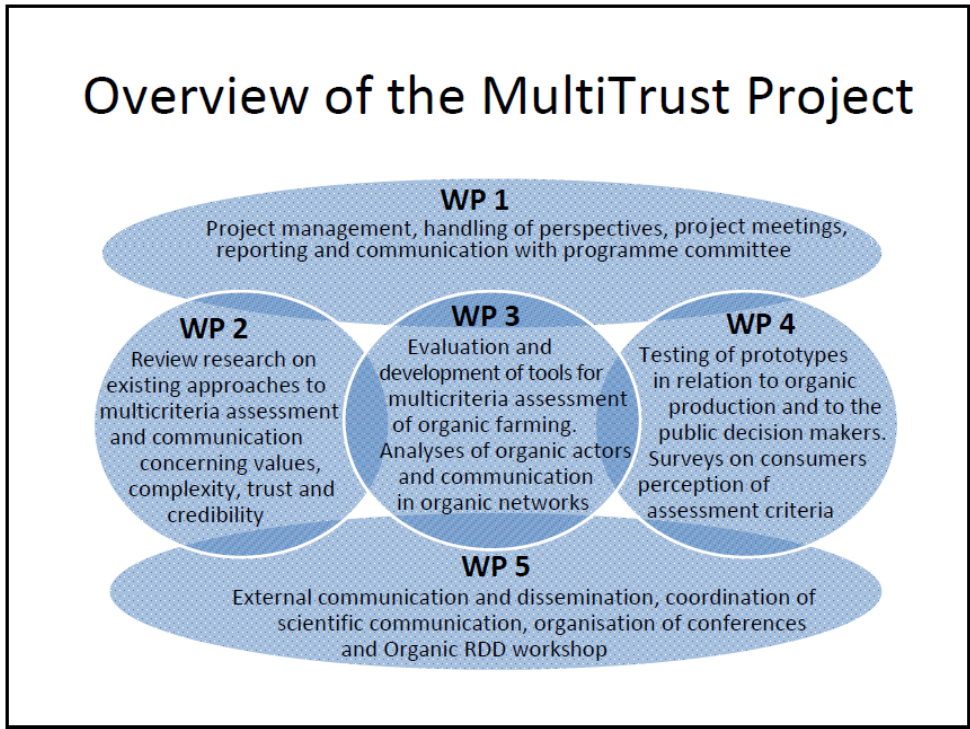
Consequently, the overall objectives of the MultiTrust project were to develop methods to make balanced overall assessments of the effects of organic food systems on environment, nature and society, and methods to communicate and use these complex assessments in practice. The twofold goal was to make the organic producers better able to develop organics in accordance with the organic principles and in synergy with societal objectives, and to make it easier for consumers, citizens and politicians to observe and evaluate the different contributions that organic food systems offer. Such tools for multicriteria assessment and communication would be able to support an integrated and trustworthy development of organic agriculture, and thereby consolidate the long term growth of organic food systems.

Project Structure

With the above objectives in mind the work carried out in the project was structured around the below five work packages:

- WP 1. PROJECT MANAGEMENT AND INTEGRATION OF WORK PACKAGES (Research, WP leader: Hugo F. Alrøe).
- WP 2. ANALYSIS OF THE OPTIONS FOR multicriteria assessment and communication (Research, WP leader: Jeppe Læssøe) The aim of this WP is to review research on existing approaches to multicriteria assessment and communication of complex issues in order to draw out general experiences as well as important differences that can improve multicriteria assessment and communication in the field of organic farming. This will provide the theoretical background for WP 3 and 4.
- WP 3. COMMON FRAMEWORK FOR DEVELOPMENT OF METHODS FOR multicriteria assessment and communication (Research and Development, WP leader: Hugo F. Alrøe, JPM) None of the existing approaches to provide overall assessments of the effects on society and nature have been developed in relation to organic agriculture specifically. The purpose of this WP is therefore to rethink and develop such tools in relation to organic food systems and the goals laid down in the organic principles (IFOAM 2005, EEC Regulation No 834/2007).
- WP 4. EVALUATION OF STAKEHOLDERS' PERCEPTION AND ACCEPTANCE OF multicriteria assessment and communication methods (Research and Development, WP leader: Tove Christensen, FOI) In this WP the possible effects of new methods for multicriteria assessment and communication are evaluated in selected cases with groups of stakeholders, including organic farmers, food processing and marketing companies, consumers and public authorities.
- WP 5. COMMUNICATION AND DISSEMINATION OF PROJECT RESULTS (Research and Demonstration, WP Leader: Peter Kastberg, ISEK). The purpose of this WP is to establish and maintain an effective innovation chain for research, development and demonstration.

As is obvious, these work packages – and indeed the project work as a whole – were designed to be both incremental in nature as well as iterative and overlapping were appropriate.



(Figure 1: Illustration of the five MultiTrust work packages)

Project Work : Three Key Challenges

The project revealed that there are three pivotal challenges in developing balanced overall assessments of organic food systems: knowledge, values and communication.

Knowledge:

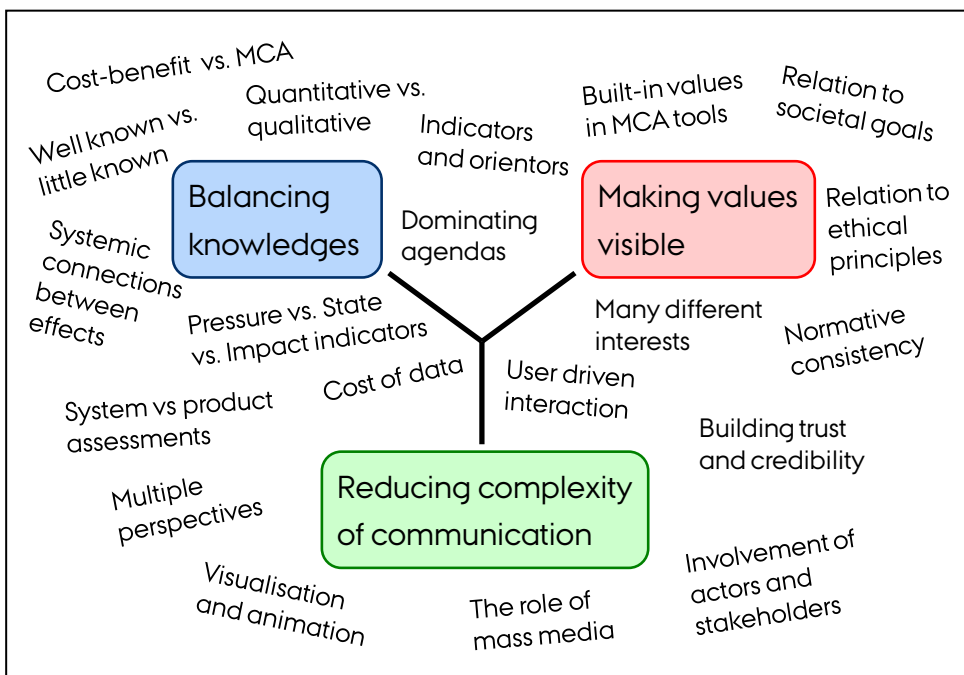
Some effects of organic food systems are well known and can be measured in a fairly simple and precise manner, while others are poorly known and difficult or expensive to investigate. The first big challenge in making overall assessments of organics is thus to keep the balance between the different types of knowledge, and to avoid that what is most precise or easiest to measure gets the most weight. At the same time it is important to understand how the different effects are connected within the system.

Values:

Multicriteria assessments depend on indicators, which are selected and constructed based on certain problems and goals. For instance, emissions can be measured per hectare or per kilo produce, and this does not necessarily lead to the same assessment. The second big challenge is therefore to render visible the built-in values in the assessment tools and how they relate to the ethical principles of organic agriculture, societal goals, and other interests.

Communication:

Organic agriculture wants to be measured on the many considerations it takes into account, but more comprehensive overall assessments necessarily become more complex. The third big challenge is how such complex assessments can be communicated in an effective and participatory way. They are to be used by both scientists and stakeholders with many different perspectives, and media also play a large role when credibility and trust is constructed and negotiated. It is, therefore, necessary to reduce complexity when communicating about organics.



(Figure 2: Illustration of the three main challenges as revealed in the MultiTrust project)

Project Work : Research Impetus

Identifying and describing these key challenges served as a research impetus for designing the ensuing research sub-projects. Consequently, a range of extensive literature reviews and analyses were conducted to clarify and summarize the theoretical basis for conducting and communicating multicriteria assessments, e.g.:

- A literature review and critical exposition of approaches to assessing organic food systems with special focus on economic valuation and multicriteria analyses.
- A literature review and critical exposition of approaches to motivation when it comes to buying or not buying organic food products
- An analysis of the normative aspects of existing multicriteria methods, compared with the

ethical principles, values and goals that characterise organic production and consumption.

- A review of how to reduce the complexity that organic food systems and sustainable development involves in order to promote communication, participation and learning.
- A literature review on the construction of credibility and trust in the media and among media users with regard to a more comprehensive assessment of organic food systems.

Based on this extensive reception of relevant bodies of research the project was then able to address the more operational aspects of its research.

Project Work : Activities

The insights gained were translated into the design of a number of individual – yet linked, as per the above project structure – research sub-projects, e.g. :

- summarizing the theoretical basis for making balanced and transparent multicriteria assessments and for communicating such complex assessments
- collecting international experiences with the use of multicriteria assessment tools on food and farming systems
- preparing a framework for how such tools can be developed for use on organic food systems with their distinct practices and ethical principles
- developing and testing methods for visualisation and animation that can help communicate complex overall assessments
- testing concrete prototypes in cooperation with organic practitioners and stakeholders
- investigating and assessing consumer perceptions of the tools for overall assessments developed

Project Work : Results

Needless to say, the above activities are in and of themselves substantial project results and – as such – they have been documented in various ways such as – but not limited to – papers read at international conferences, international research publications, reports, lectures etc. etc.

But apart from these results, the crystallization point of the project's activities as a whole was the incremental co-development of an interdisciplinary conceptual basis for how one might conduct multicriteria assessments. In accordance with the project application, MultiTrust did not opt for developing concrete, ready-to-use tools with which to allow stakeholders to conduct multicriteria assessment of organic food systems. What MultiTrust set out do was to create the conceptual basis for such tools – whether or not they will be developed lies beyond the scope of this project. Derived from the insights gained throughout the extensive activities of the project, a condensed

version of the overall results read that




- decisions are never uni-criterial but always multi-criterial – and at several levels
- every stakeholder in the from-farm-to-fork-value-chain may harbour different values
- the stakeholders in said chain no longer know each other (and thus are no longer familiar with the criteria of the “other” let alone the values of the “other”)









A primary intention of this multifaceted research project was to make it easier for consumers to observe and evaluate the different contributions that organic food systems offer, with a special emphasis to promote communication, participation and learning about organic foods. So, for the sake sake of illustration, the ensuing presentation of conceptualization will take its point of departure in one of the stakeholders considered in the value chain, namely the consumer. The crystallization point, the tangible aspect of the conceptualization, or the prototype was translated into an animated film aiming at presenting a novel way of communicating about multicriteria buyer decision-making with regards to organic food purchases. The animation, which is produced by Tumblehead Aps (<http://www.tumblehead.com/>) is to be found here: <http://www.youtube.com/watch?v=zmoXYJAS8LY>.




Whereas the film as such does not present a tool ready to be employed in the service of consumer communication, it does present a prototype for how we might design future communications about organic food products in a novel way. A way which – ideally – constructs a meeting place between consumers, producers and sellers as well as allows each stakeholder in the organic value chain to build up ever more nuanced decision-making competences. In the following the prototype will – as advertised – be presented from the point of view of the consumer’s decision-making process. Research into consumers’ decision-making when it comes to buying organic food has shown that one of the primary reasons why consumers do not buy more organic foods was not lack of information per se, but lack of information allowing for informed decision making. Due to the mundane yet highly consequential fact that, in the industrialized part of the world, producers and consumers no longer know each other food communication is, quite simply, inescapable. One of the ways in which authorities have sought to inform publics about the added-value of organic foods is via wide-spread labelling initiatives. On a national level examples could be the German “Bio-Siegel” or the “USDA Organic” label in the U.S.; on a supranational level a prominent example is the “EU Ecolabel for Consumers”. Whereas labeling is certainly a cost-effective means of organic food communication, the problem is, naturally, that any labeling is rendered futile if the consumer does not understand it. And studies consistently show that consumers do not understand these labels. We are not, then, dealing with a lack of information in general (the information is ‘out there’); we are in fact challenged with the task of communicating information about organic foods in such a way as to allow the consumer to create his or her own knowledge based on what s/he perceives, i.e., knowledge of the kind that allows for informed decision making with regards to organic foods.

The animated MultiTrust prototype rests on three assumptions: Firstly that the consumer does not make his or her purchase decision on merely one criterion, but that the purchase decision is indeed inherently a multi-criterial one. For the consumer of meat, for instance, one criteria may be that the animal has been feeding on organic fodder but maybe an even more important criteria could be that of animal well-fare, i.e. that the animal has been treated better than stipulated by current law etc. Secondly, that each stakeholder in the “from-farm-to-fork-value-chain” (in crude generalization: producer, seller, consumer) harbors different criteria for determining what good organic food is. What the consumer sees as good organic practice may to the farmer be a practice too expensive to adhere to, to the seller logistically too demanding etc. And last but certainly not least that the only place where all these stakeholders are in fact able meet is on the Internet. In order to overcome alienation and possible (mutual) misunderstandings all parties involved would need to resort to a common ground of sorts. And a joint website is the obvious choice for establishing a (virtual) common ground, i.e., not all consumers may know an organic farmer, but all consumers (mutatis mutandis) own a laptop with Internet access. No existing organic communication effort takes its point of departure in these assumptions.

The animated MultiTrust film, consequently, ventures to propose a new approach to communicating about organic foods in which the focus is on how to increase involvement and reduce uncertainty in relation to organic food consumption rather than merely stating facts or communication labels. In order to present how the prototype is a) envisioned and b) integrated into the above organic value chain, the animation has been broken down into its core narrative elements below.

MultiTrust animation film		
Phases	Animation of phases	Description of phases
Phase 1		The film introduces the research project from which the animation stems.
Phase 2		The film begins by depicting a consumer, who is puzzled by the many quality criteria she is faced with when wishing to purchase organic food products.
Phase 3		The film jumps to a farmer, who is, too, overwhelmed by the number and diversity of criteria of organic food production.

Phase 4		The film now introduces the Danish eco label, and explains how the authorities, recognizing this confusion, seek to remedy it by way of placing a national eco label on all organic products.
Phase 5		The problem is, however, that the national Danish eco label cannot help out either since it, too, covers a variety of different criteria – and products.
Phase 6		Returning to the organic farmer, he, too, is puzzled by the eco label, and left to his own device may opt – out of his own accord – to focus on some criteria while neglecting others.
Phase 7		But farmer and consumer are not the only stakeholders directly involved with organic food products; the production plants as well as the point of sale of organic foods are equally involved – and may, in turn, focus on entirely different assessment criteria.
Phase 8		A fact which leaves both farmer and consumer even more confused as to how to assess the quality of organic foods.
Phase 9		The film now changes from describing the problems to hinting at a solution. It does so by posing a question: So, what if there was an ICT platform where the consumer could find all the information she needs?
Phase 10		A platform where the consumer could type in her preferences when it comes to assessment criteria.
Phase 11		The film expands on this idea and poses yet another question: What if the ICT platform was not only a platform for the consumer but a platform for all stakeholders involved (farmers, producers, sellers and consumers alike)?

Phase 12		On such a platform the consumer's criteria could be reciprocated by, say, the farmer's documentation.
Phase 13		In this way the consumer would have access to multiple criteria for organic foods; this would allow her to conduct a multicriteria assessment of the quality of organic food products.
Phase 14		The film ends by listing the sponsors as well as the creators of the animation are listed.

(Figure 3: Phases in the MultiTrust prototype)

Perspectives

The project as a whole as well as the animation are indications that promoting communication, participation and learning about organic foods is by no means as straightforward as merely adding stick-on labels to organic foods. If we take seriously that the consumer not only needs to be exposed to, say, the EU Ecolabel but that s/he needs to be allowed to make multi-criteria assessments of his / her own, then we also need to take seriously that gauging the deposit of whatever communicative endeavor we may perform, is critical to our success. For whereas all sorts of content may be relatively easily transmittable, say, at the click of a mouse button, reception, understanding and any ensuing operationalizing based on this understanding is not. All said, in appreciating that any model of communication is also a model *for* communication it is maintained that communication seen and performed as participative holds promising qualities with regards to helping the lay person to understand, to assess and to make informed, multicriteria decisions.

The MultiTrust project, in sum has provided analyses, methods and a prototype of multicriteria assessment, to help organic actors and stakeholders develop, document and communicate balanced overall assessments of the effects of organic food systems on society and nature. The project has carried out interdisciplinary analyses of existing methods for multicriteria assessment and communication; established a framework for how to develop such methods for organic food systems and related them to the organic principles. All of which with the intention of helping sustain an integrated development of the organic production, of contributing to open and credible communication about the benefits of organics, and thereby supporting long term growth.

Taking a step back we may say that the MultiTrust project has not only envisioned a novel way of going about designing organic communication, in the process it has also helped emancipate the organic consumer. An emancipation that is in tune with the Zeitgeist of late or postmodern societies inclined to favor deliberative and participatory public engagement. And with this final insight, which – thanks to MultiTrust – is now theoretically well-founded and empirically substantiated, MultiTrust has not only met the goals it set out to achieve, it has also laid the foundation for a stepping stone for future interdisciplinary projects into the complexities of multicriteria assessment and communication of organic food systems.