

MANAGING WICKED PROBLEMS IN AGRIBUSINESS

The Role of Multi-Stakeholder Engagement in Value Creation

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International Food and Agribusiness Management Review Volume 16, Special Issue A, 2013

Towards a Theory of Managing Wicked Problems through Multi-Stakeholder Engagements: Evidence from the Agribusiness Sector

EDITOR'S INTRODUCTION

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Abstract

Part Two of our Special Issue on wicked problems in agribusiness, "Towards a Theory of Managing Wicked Problems through Multi-Stakeholder Engagements: Evidence from the Agribusiness Sector," will contribute to four open questions in the broader fields of management and policy: why, when, which and how multi-stakeholder engagements (MSEs) are effective actions for managers and policy-makers to deal with wicked problems. MSEs across private, public and non-profit sectors have been considered the collaborative paradigm of the 21st century to move beyond market and state failures (Austin 2000). Moreover, the agricultural and food arena provides a unique context to analyze managerial and policy decisions to undertake (or not undertake) MSEs. This is because agricultural and food chains face the highest number of urgent, interlinked wicked-problem issues that are scientifically uncertain, change over time and determine value conflict among stakeholders (Dentoni et al. 2012). Such issues include food security, climate change, deforestation, obesity, the use of technology in food production, violation of human rights and animal welfare.

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Introduction

Part Two of our Special Issue, "Towards a Theory of Managing Wicked Problems through Multi-Stakeholder Engagements: Evidence from the Agribusiness Sector," adds seven new articles to the ten previously published in Part One in December 2012 (Dentoni et al. 2012). These articles provide an important contribution to our broad initial question, which—thanks to the influence of Peterson (2013), in this issue—can be reformulated as: why, when, which and how are multi-stakeholder engagements (MSEs) effective actions for managers and policy-makers to deal with wicked problems in the food and agribusiness sector? This introductory article will first discuss how the "why, when, which, and how questions" are still largely open for debate in the rapidly advancing field of management practice and theory. Second, we discuss the contributions made by the authors in this supplemental issue in tackling the question. Third, it will identify and suggest questions to advance the field of managing wicked problems and multi-stakeholder engagements in agribusiness.

The Open "Why, When, Which and How" Questions

(1) Why are MSEs Effective in Dealing with Wicked Problems?

This question involves the vision of leaders in agribusiness (Table 1). Why do (or should) managers choose to allocate scarce resources (such as capital and time) to involve large numbers of stakeholders in making decisions and taking actions which could be made with a restricted number of stakeholders, or just internally within the organization? Part of the answer is given by Freeman's stakeholder theory which states that strategies which provide benefits, or at least minimize harm, to a broader range of stakeholders are most effective for the long-term growth and survival of an organization (Freeman 2010). Yet, co-developing strategies and actions with multiple stakeholders—undertaking "multi-stakeholder engagements" (Dentoni et al. 2012a), goes beyond simply considering stakeholders when making individual organizational decisions (Selsky and Parker 2005). The question of how much value is created by MSEs for organizations and for society, and thus the question of why should agribusiness managers undertake MSEs, is still open and requires further investigation (Partnership Resource Center 2012).

(2) When are MSEs Effective in Dealing with Wicked Problems?

This question involves the <u>strategy</u> of leaders in the agricultural and food sector (Table 1). What are the conditions external to the organization that require, or do not require, undertaking MSEs? And what are the resources within the organization that are necessary to undertake MSEs, including the human and professional skills of individuals within the organization? So far, the literature does not provide applicable recommendations to managers. In terms of external conditions, political Corporate Social Responsibility (CSR) theory finds that firms need to invest in MSEs and collaborate with non-profit and public sectors when trans-boundary issues reduce the deliberative power of governments (Scherer and Palazzo 2011). Internally, learning theories recommend that firms need to be efficient in scanning, choosing, acquiring and integrating knowledge from stakeholders (Teece 2007) when undertaking MSEs (Ferrell et al. 2010). This requires leaders with appropriate competencies (Bolden and Gosling 2006; Dentoni et al. 2012b). While widely generalizable, these theories do not provide managers with an actionable set of

recommendations; thus a "mid-range theory" (Merton 1968) emerging from MSE practice in agribusiness is still much needed (Dentoni et al. 2012).

(3) Which MSEs are Effective in Dealing with Wicked Problems?

This question involves the *organization* of MSEs by agribusiness leaders (Table 1). Suppose that a manager decides to undertake MSEs, what are the governance mechanisms that maximize learning and value creation for the engaging members and society as a whole; minimize the transaction costs of engagement and, yet, ultimately moderate the wicked problem at hand? The literature has been very thorough in describing a continuum of governance mechanisms from informal multi-stakeholder networks, dialogues and relations (Roloff 2008) to formal multi-stakeholder alliances and partnerships (Rondinelli and London 2003; Backstrand 2006; Parmigiani and Rivera-Santos 2011); as well as generic multi-stakeholder collaboration, initiatives and processes (Hemmati et al. 2002; Utting 2002; Everett and Jamal 2004). Recent literature has also classified MSEs' organizational forms on the basis of their aim of developing process-based legitimacy, i.e. obtaining consensus through transparent and inclusive processes, versus output-based legitimacy, that is, achieving consensus through documented results of joint action (Mena and Palazzo 2012). Yet, no research has drawn relationships between available governance mechanisms and the impact of MSEs, leaving agribusiness managers still without any clear recommendations for participation in MSEs.

(4) How are MSEs Effectively Dealing with Wicked Problems?

This question involves the <u>implementation</u> of MSEs by agribusiness managers in the agricultural and food sector (Table 1). In other words, what are the "micro-processes" used by managers to deal with the wicked problems at hand through MSEs given their specific context and conditions? Recent literature has widely explored the micro-processes leading MSEs to either succeed or fail (Seitanidi and Lindgreen 2010; van Huijstee and Glasbergen 2010), yet not with reference to wicked problems. This is an important missing piece: how do managers and their organizations realize that they are facing a wicked problem, and which steps do they take in discussing the nature of the shared problems with their stakeholders, and finally tackling them through MSEs? Again, these are open questions where theory still cannot help practitioners in agribusiness.

These four open questions are highly relevant for agribusiness managers and provide justification for this Special Issue.

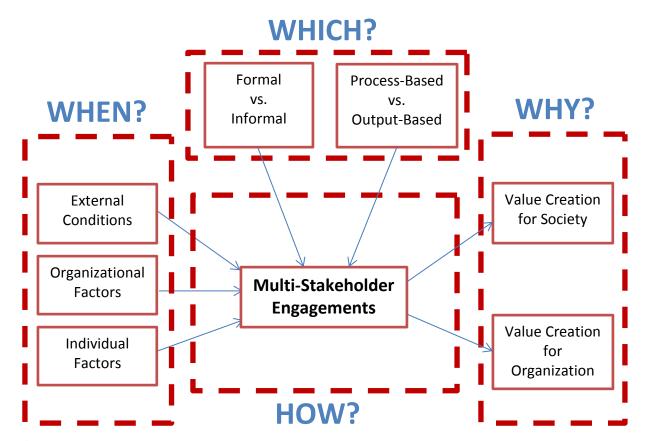


Figure 1. The Inductive Framework of the Special Issue based on the Question: Why, When, Which and How Are Multi-Stakeholder Engagements Effective to Deal with Wicked Problems?

Authors' Contribution to the Special Issue

The articles selected and published in the second part of our Special Issue provide an empirical contribution to the four questions above and complement the findings presented in part one of this Special Issue (Table 1). The first two articles by Peterson (2013) and Waddell et al. (2013) provide "grand" views of addressing wicked problems through MSEs. Based on his examination of thirty sustainable innovation projects undertaken by the Dutch public-private partnership TransForum in 2004-2010, Peterson (2013) further builds theory based on the experience provided by van Latesteijn and Rabbinge (2012). In particular, he proposes that MSEs lead to a combination of positive outcomes for society and for the MSE process itself when the stakeholder team is diverse and strongly engaged from the start of the project; and when the participants of the MSE go through a purposive process of reflection and action learning (Peterson 2013). When the conditions discussed by Peterson (2013) are met, companies that participate in MSEs have the opportunity to reduce transaction costs associated with vertical or horizontal coordination in supply chains affected by wicked problems. In other words, by anticipating and managing conflict, MSEs are able to reduce potential future conflicts that might lead to increased transaction costs among stakeholders (Williamson 1979). Based on the case of the Southern African Food Lab and its participation in the GOLDEN for Sustainability network on food, agriculture and nutrition (FAN), Waddell et al. (2013) discusses the importance of linking multiple MSEs within learning networks to achieve scale, pilot and scale experimentation, and to reach coherence of action. The case from Waddell et al. (2013) provides a counter-example that supports and builds on the case of the five multi-stakeholder partnerships¹ that were designed to address the sustainability of Brazilian soy (Hospes et al. 2012).

Three articles discuss the role of formal partnerships to tackle wicked problems through MSEs. Based on the case of the Sustainable Food Lab, a community of practice whose members count more than fifty members among agribusiness corporations, NGOs and universities, Hamilton (2013) discusses the challenges of building a MSE with a diverse and influential team of stakeholders that promote organizational learning and leadership development and provide a precompetitive space for stakeholders to collaborate on business-driven innovations aimed at enhancing the sustainability of the mainstream food system. Hamilton (2013) also explicitly responds to Bitzer (2012) questioning the effectiveness of bottom-up governance of food supply chains beyond local markets. Moreover, Hamilton (2013) provides another route how MSEs can achieve legitimacy; that is, through learning processes rather than trust-based processes of compliance and acceptance (Scholten and Glasbergen 2012). Wubben and Isakhanyan (2013) discuss when and how MSEs are effective to tackle wicked problems based on their experience with European R&D on sustainable bio-fuels. They find that multi-stakeholder partnerships deal with wicked problems effectively through a combination of transparent top-down goal-setting and decentralized bottom-up participation. In particular, MSEs are effective when central financing is matched with local funding to achieve locally adapted solutions to shared problems (Wubben and Isakhanyan 2013). Finally, Blok et al. (2013) discuss the MSE mechanisms that Rabobank adopted to integrate its goals of market expansion with food security and smallholder inclusion in Africa. This view complements Connolly's GLIMPSE view that private agribusiness companies are crucial actors in tackling wicked problems in Africa in a context where the public sector solutions has proven to fail (Connolly 2012). At the same time, this view of the primary role of business in tackling wicked problems contrasts with the view of integrating public and private action and empowering local civil society organizations to truly tackle wicked problems (Pesqueira and Verburg 2012).

The final two articles in this Special Issue discuss the role of developing informal networks to tackle wicked problems through MSEs. Based on the Italian case of "Marche d'Eccellenza" branding, Cavicchi et al. (2013) discuss the key role of universities can play as partners, trainers and facilitators of a group of small and medium enterprises with conflicting goals and values. In a different context, Bos et al. (2013) discuss the role of NGOs as partners and facilitators in the introduction of a new animal welfare label across multiple actors within the Dutch pork supply chain. Similarly to Pieters et al. (2012), both cases propose that one actor in the multistakeholder network can provide the missing resource to make a MSE effective. In the Marche case, the missing resource was a partner with a network-building capability and mission (Cavicchi et al. 2013). In the Dutch pork supply chain, it was a NGO partner willing to take a "conflict moderator" role and facilitate decisions among multiple businesses (Bos et al. 2013).

¹ These partnerships ultimately failed to coordinate with each other to address the sustainability of the soy supply chain. In fact, this coordination failure has arguably increased the "wickedness" of the initial problem (Hospes et al. 2012).

Table 1. Key Authors' Contributions to the Four Open Questions in this Special Issue

Area of Business Management	Broad Open Questions	Authors' Contributions
8*******	Why MSEs are effective in dealing with wicked problems?	Because MSEs lead to a combination of system outcomes (on people, planet and profit) and process outcomes (improved governance mechanisms for future MSEs) (Peterson 2013).
Vision		Because MSEs develop leadership capabilities such as issue sophistication, value chain and organizational strategy, and personal capacities to engage people across organizations and the industry (Hamilton 2013)
		Because MSEs in inclusive networks speed up learning , achieve coherence across multiple MSEs and thus generate large systems change (Waddell et al. 2013).
	When MSEs are effective in dealing with wicked problems?	When there is an actor with a network-building mission and capability (Cavicchi et al. 2013)
		When the stakeholder team in MSEs is collectively influent and diverse (Hamilton 2013).
Strategy		When the business members in MSEs have the strategic interest of integrating profit and social goals ; such as increased market for lending through smallholder inclusion (Blok et al. 2013)
		When the non-profit members adopt a "moderate conflict model" and impose clear "limiting conditions" in negotiations (Bos et al. 2013).
	Which MSEs are effective in dealing with wicked problems?	MSEs with combination of transparent top-down goal-setting and decentralized bottom-up participation with the aim of local implementation (Wubben and Isakhanyan 2013).
Organization		MSEs with formalized tools , approaches, supply chain engagement processes, organizational commitments, and industrywide agreements (Hamilton 2013)
		MSEs that are part of learning networks connecting multiple MSEs within an eco-system such as the food, agriculture and nutrition chain (Waddell et al. 2013)
	<u>How</u> MSEs are effective in dealing with wicked problems?	Through experimentation in action , action learning, purposive new knowledge creation, trans-disciplinary collaboration and reflection (Peterson 2013).
		Through "stratified invitations", process- and goal-oriented coaching, decision-making split between central financiers and decentralized funders (Wubben and Isakhanyan 2013).
Implementation		Through convening and sensing process of interviews, dialogue workshops, learning journeys and rapid cycle prototyping of innovation ideas (Hamilton 2013)
		Through non-profit taking the lead (through small steps) in aligning businesses in the supply chain to co-create a new product standard, label or brand (Bos et al. 2013).
		Through scientific development of "experiments" based on methodologies such as communities of practice, mapping, learning histories and outcome mapping in a supportive and non-intrusive manner (Waddell et al. 2013).

So What Is Next?

This Special Issue selected, analyzed and compared seventeen empirical cases of MSEs and the associated wicked problems from Africa, Latin America, Asia, US and Europe. Overall, this led to advancing the theory on why, when, which and how multi-stakeholder engagements (MSEs) are effective actions for managers and policy-makers when managing wicked problems. This theory can sharpen the vision and advance strategic, organizational and operational recommendations for agribusiness managers and policy-makers who are dealing with wicked problems (Table 1).

Although many insights concerning the different factors, types, and processes of MSEs, the question of measuring and thus testing the impact of MSEs on society in a context of wicked problems remains open. The impossibility of disentangling the causes and outcomes is in the nature of wicked problems. This still prevents theories on MSEs and wicked problems from being tested quantitatively, even though the field of agribusiness is extremely rich with relevant examples and data. Future studies identifying accurate or at least approximate measures of impact, even if only applicable to one specific wicked problem, would greatly help test theories and support experimentation, prototyping and learning in the current MSE practice.

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Grand Views on Managing Wicked Problems through Multi-Stakeholder Engagement



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Fundamental Principles of Managing Multi-stakeholder Engagement

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Abstract

This essay examines the following working hypothesis: Multi-stakeholder engagement plays a critical role in value creation when an agri-food business faces strategic decisions in response to a wicked problem. Three issues are addressed: (1) what is multi-stakeholder engagement (MSE); (2) why is MSE particularly useful in the context of wicked problems; and, (3) what are some fundamental principles for managing MSE? The first two issues have been addressed by other authors and are covered quickly by laying a sparse logic for their importance and interdependence. The third issue has not been as widely dealt with, yet needs to be more completely fleshed out if MSE is to be a fully intentional vertical coordination strategy in supply chain management. Case-based research into the 30 practical projects in sustainable development carried out by TransForum will provide the motivation for a list of five fundamental principles for managing MSE: (1) focus on system and process performance, (2) manage initiating conditions, (3) engage the multiple stakeholders throughout the process, (4) practice innovation management, and (5) practice monitoring and reflection.

Keywords: multi-stakeholder engagement, wicked problems, sustainable development.

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Introduction

This essay examines several fundamental issues arising from the following working hypothesis: Multi-stakeholder engagement plays a critical role in value creation when an agri-food business faces strategic decisions in response to a wicked problem. Three issues are framed in particular: (1) what is multi-stakeholder engagement (MSE); (2) why is MSE particularly useful in the context of wicked problems; and, (3) what are some fundamental principles for managing MSE? The first two issues have been addressed by a number of authors, including me, and thus the goal is to cover these quickly and completely in laying a sparse logic for their importance and interdependence. The third issue has not been as widely dealt with, yet needs to be more completely fleshed out if MSE is to be a fully intentional vertical coordination strategy in supply chain management or as Williamson would have called it a hybrid form of transaction governance. Case-based research into the 30 practical projects in sustainable development carried out by TransForum will provide the motivation for a list of five fundamental principles for managing MSE.

MSE and MSC Defined

Multi-stakeholder engagement is a term of theory and practice used across a wide array of disciplines and it is not unique to its use here. Confounding the definition is the apparent general practice of using MSE to refer to both the coalition (alliance, partnership, initiative, etc.) consisting of multiple stakeholders and the process by which such a group of stakeholders functions. So one call talk of "an" MSE in the coalition sense and about MSE in the sense of how the coalition works together. To keep from endlessly tripping over this difference of usage, this article will call the group of stakeholders a multi-stakeholder coalition (MSC) and retain MSE to refer to the process used by an MSC.

One form of MSC specific to the agri-food context is a multi-stakeholder sustainability alliance: a long-term partnership involving multiple participants from two or more categories of stakeholders (government, business, societal organizations, and knowledge institutions) with the objective of jointly defining and reaching sustainability objectives (Dentoni and Peterson 2011). An MSC by its nature is a form of managed or hybrid form of transaction coordination—the multiple stakeholders together define and manage the nature of exchange in regard to (in this case) sustainability objectives rather than rely on open market transactions. It lies somewhere in the middle of the continuum between open market transactions and vertical integration, some form of relation-only alliance as it were (Peterson, Wysocki and Harsh 2002).

What is unexpected in the MSC definition from the perspective of business decision makers is the presence of so many non-business entities in the exchange process. We could imagine that the supply chain or network itself is an MSC representing various and often conflicting interests among businesses. But all of these interests are fundamentally economic and driven predominately by profit (even if corporate social responsibility enters into decision making). Governments, societal advocacy groups and knowledge institutions are not so single-mindedly driven but each has its own motivations and incentives—power and rule making, advocacy and societal influence, knowledge creation and dissemination. Each belongs in an MSC (as argued

herein) precisely because of this diversity of interests and because each can enable or hinder the performance of the supply chain or any firm within it in most profound ways. Consider the record of impacts of Green Peace on supply chains as one quick example. More to the point here is the increasing use of MSCs in the agri-food system. In the last 10 years, 23 of the 50 largest global food and beverage companies created or joined various types of partnerships with heterogeneous stakeholders to address sustainability of the agri-food supply chain and its products (Dentoni and Peterson 2011).

An MSC is defined then by the presence of multiple stakeholders representing businesses, government, societal advocacy groups and knowledge institutions. MSE, the process, is argued to be necessary to the achievement of an MSC's objective—to manage exchange coordination to deliver the attribute in question, such as sustainability. As defined herein, MSE is not about traditional stakeholder participation in group debate and decision making where existing knowledge is exchanged, trade-offs and compromises are made among competing decision criteria (values), and existing best practices are shared. Rather MSE is about having stakeholders engage with each other to co-create new knowledge, connect and enhance values, and collectively learn their way to new practices. This is why the term "engagement" is used and not merely "participation" or any other form of standard group process. If engagement happens, the stakeholders move beyond conflict and compromise to co-creation, learning and action. As argued here, MSE is what matters and not narrowly the composition of an MSC. An MSC is the means of implementing MSE.

Why Use MSE

Major agri-food companies and supply chains have taken on many issues historically (such as, freshness, replenishment, organic) that have enhanced or introduced the production and delivery of many product attributes without the use of MSE. Why is the use of MSE emerging in response to the sustainability attribute? Is this emergence a particular response to sustainability or is it a signal that MSE is a new requirement for many or at least a significant number of future product attributes in the agri-food supply chain?

As already described, MSE potentially results in managed exchange by a multiple stakeholder coalition in ways other than an open market. Markets apparently fail to deliver the product attribute—sustainability—by themselves. Why would coalition members expect that MSE will work when markets do not? Many operational definitions of sustainability include simultaneous demands for economic feasibility (profit), benign environmental impact (planet), and enhanced social outcomes (people)—the so-called triple bottom line or 3Ps. The systemic and complex nature of these three demands likely explains the failure of ordinary markets. All actors in the supply chain would need to manage their exchange efforts to deliver the sustainability attribute from first inputs to the product delivered to the end consumer/customer. Asset specificity, complementarity and strong probably of costly coordination errors make it likely that ordinary markets will not work (Peterson, Wysocki and Harsh 2002).

However, the systemic complexity of sustainability does not necessarily explain the presence of the non-economic actors in MSE. By adding the element of stakeholders with divergent and conflicting values, sustainability moves from being a complexity problem to a messy, value-

laden wicked problem. Authors, Batie (2008); Bitsch (2009); and Peterson (2009) argue that sustainability is a wicked problem. The elements of the argument are presented in Table 1 and will not be elaborated on here.

The key added dimension to complexity is the radically different frames of reference among the stakeholders regarding the problem (third characteristic in the table). Their values and their perceptions of events and facts differ in conflicting ways. These conflicting values drive the various stakeholders to act in ways that veto or enable their own and others' decisions related to the problem. The inability to define a wicked problem with systemic precision and the value-divergent complexity that arises in its context means that wicked problems are not solved, only managed. It also means that any stakeholder with the power to veto or enable becomes a relevant party to the exchange effort whether a traditional economic actor or not. Businesses can wish them not to engage, but the wish has little promise of influencing these others' behavior.

Table 1. Defining Sustainability as a Wicked Problem

Wicked Problems (Adapted from Conklin; Ritter & Webber)	Sustainability	
No definitive formulation of the problem exits.	Prosperity, People, Planet (aka the 3Ps)	
Solutions are not true or false, but better or worse.	Cannot know if truly sustainable; only know trajectory	
Stakeholders have radically different frames of reference.	Businesses = prosperity Environmental groups = planet Social justice groups = people	
System components and cause/effect are uncertain.	Consider the claim: small scale is sustainable, large scale is not.	

If wicked problems are managed (not solved), how does anyone gauge the performance of MSE either as a coalition member inside an MSC or as an outsider potentially interested in innovations arising from MSE? Two types of performance outcomes are intuitively appealing:

- 1. System outcomes: System components, such as people, planet and profit, within the wicked problem are changed in desirable directions. System outcomes represent the content side of performance—the "real" things that stakeholders want changed in the system. Innovations in technology (hardware), human capacities (software) and organizational/network design (orgware) actually lead to enhanced sustainability or at least changed trajectories in desirable directions.
- 2. Process outcomes: Divergent stakeholders enable rather than veto system changes in desired directions. Process outcomes represent the ultimate ability to implement system change in order to achieve system outcomes. The stakeholders actually move beyond conflict and compromise to co-creation, learning and action.

On the one hand, if only system outcomes are considered and managed, potential innovation to change the system may never be implemented because of stakeholder vetoes. Government and societal organizations can veto supply chain/network actions. Their differing values and commitment levels create the potential to act. On the other hand, if only stakeholder process matters, potential innovation will never be implemented because of endless debate. The conflicting values are never resolved and thus action is never taken. This bogging down in process is a particular barrier to the presence of businesses in MSE. Only by taking on system outcomes and stakeholder process simultaneously can progress be made in the face of a wicked problem.

This is not to say that such simultaneity is easy. Stakeholders need to come with an "open" mind to allow innovation to be conceived. Experiments in action need to be performed so that the end is not debate and compromise but real innovation in approach and in the system itself. Implementable innovation needs to be the result. Move the sustainability trajectory of people, planet and profit. Gain the support of engaged and initially value-divergent stakeholders.

New knowledge is the key to progress with both system and process outcomes. Each stakeholder brings existing knowledge. However, existing knowledge is deficient in at least two respects. First, the existing knowledge of one stakeholder is suspect to the other stakeholders. Lack of trust, differences in values and perceptions, and fear of strategic behavior with knowledge all contribute to the suspicion. Merely debating existing knowledge or attempting to "prove" one's knowledge to others is rarely effective in this setting. Second, existing knowledge is deficient because it is the knowledge that led to the existing system tradeoffs that have brought the stakeholders to conflict in the first place. Existing knowledge freezes the tradeoffs in place. It cannot be expected to solve or resolve differences.

Only new knowledge can overcome these deficiencies. If the new knowledge is derived by MSE, then its co-creation brings process legitimacy to the knowledge. It is believable because "we" together created it. Further, new knowledge can lead to system innovation that has the potential to turn tradeoffs into complements in so far as possible. By redesigning the system, stakeholders can break old paradigms and processes and create new ones. To call for system redesign is not to belie the fundamental difficulty of new knowledge creation, innovation and implementation. But without true innovation managing a wicked problem has little hope of success. Diversity among the stakeholders maximizes the chances to create and implement significant system innovation.

The various pieces of analysis can be brought together to answer the question posed in this section—why use MSE? MSE is not needed to solve every supply chain problem or bring every new product attribute to market. MSE is needed however in the context of wicked problems for two reasons: (1) because non-business stakeholders can and do veto or enable business actions, and (2) because non-business stakeholders can and do make essential contributions to the new knowledge and innovation needed in the system.

This conclusion is backed by the logic developed to this point in the paper, and it is also indicated empirically by my research work with 30 practical projects in sustainable innovation conducted over six years (2004-2010) by the Dutch public-private partnership called

TransForum. TransForum developed a set of operating principles for managing innovation projects involving the wicked problem of sustainability. (A version of these operating principles will be presented in the next section.) Twenty-three (23) of the 30 practical projects were managed under the full set of operating principles that evolved from a more basic set established when TransForum first started. In each of these 23 projects, TransForum required the use of MSE within an MSC project team. TransForum project managers were asked to rate the wickedness of these 23 projects; 15 were deemed to be "more wicked" (taking on the core or a more comprehensive piece of the conflicting tradeoffs) and 8 "less wicked" (addressing a more tractable, smaller piece of a wicked problem). Table 2 provides the relative performance quartiles that these cases fell into. Note that the full operating principles mandating MSE were less successful with less wicked projects and more successful with more wicked projects. This result suggests MSE is particularly applicable to wicked problems but is not essential to tamer ones.

Table 2. Relative performance of more and less wicked projects within TransForum

Wickedness	Projects	Top Performance Quartile	Bottom Performance Quartile
More Wicked Less Wicked	15 8	6 (40%) 1 (13%)	1 (7%) 3 (38%)

How is MSE Managed?

The argument so far is that MSE as practiced by MSCs is a managed form of exchange coordination with business and non-business stakeholders involved. Further, MSE is essential to the setting of wicked problems because divergent value-conflicted stakeholders need to co-create new knowledge together and empower system innovation. The next obvious question is how does one manage projects and exchange using MSE. What principles or procedures lead to management effectiveness? This question has to date been less addressed in the literature. My contribution to answering the question is drawn from five findings regarding the management of MSE from my study of the 30 practical projects of TransForum already mentioned.¹

The 30 projects were analyzed as 30 cases in sustainable innovation project management. MSE within the structure of an MSC was highly recommended for the earliest 7 projects and required for the later 23 projects. A set of three "deeply knowledgeable" jurors about each project were used to (1) assess each project's level of performance in regard to 6 system outcome variables and 8 process outcome variables, and (2) assess the positive and negative influence of a large set of 76 potential explanatory attributes related to performance including a number of attributes consistent with MSE practices. The 30 projects were then sorted into four (4) performance quartiles from high performance to low performance. The influence levels of the various explanatory variables were then examined by performance quartiles with working hypotheses

1

¹It is beyond our intention here to fully justify the research methods behind the findings. The findings are presented to motivate the emergence of fundamental principles from a grounded theory perspective. See the complete methodology and findings in Peterson and Mager.

being drawn from the influence distribution across the quartiles. As case based evidence, correlations are being observed and not causality directly. Follow-up interviews were conducted with jurors to construct working hypotheses about causality.

Finding 1: System outcomes and process outcomes are complements in project performance and not substitutes.

Performance was assessed for each of the 30 projects using Likert scales (5 high to 1 low performance) for the following performance variables:

- 1. System outcomes were assessed in six areas:
 - a. Impacts were achieved for: (1) profit, (2) planet, (3) people
 - b. The project produced: (4) implementable plan, (5) investments made, (6) returns harvested
- 2. Process outcomes were assessed in eight areas based on the extent to which each of the following occurred by the end of the project: (1) innovation, (2) action learning, (3) engagement, (4) partner ownership, (5) collaboration, (6) continuation after TransForum, (7) new knowledge, (8) transdisciplinary collaboration

The Likert scores were averaged across the six system outcomes resulting in a system outcome score from 5 to 1 for each project while the scores were likewise averaged across the eight process outcomes for a process outcome score from 5 to 1. When the projects were grouped by performance quartile, system outcome scores averaged 3.6, 3.1, 2.8 and 1.5 from top performance quartile to bottom while process outcome scores averaged 3.9, 3.4, 2.9 and 1.5 from top to bottom. Performance across the 30 projects was highly variable as these averages suggest. Most importantly, high performers did well at both system and process outcomes while low performers did poorly at both. There was no case project that exhibited high performance on one dimension and low performance on the other. These results are consistent with a finding that both system and process outcomes result from effective MSE.

Finding 2: *Initiating conditions appear to have substantial influence on performance.*

The jurors were asked to assess the influence of 76 attributes related to the project cases. The primary scale was -3 (strong negative influence) through +3 (strong positive influence) with zero indicating no influence. In the tables that follow, juror ratings of -3, -2, +2 and +3 were counted as indicating significant influence.

The first group of explanatory variables closely correlated with performance was related to initiating conditions. Table 3 shows evidence of a significant opposite effect for initiating conditions—positive for high performers and negative for low. In follow up interviews with jurors, it became apparent that TransForum staff spent a large amount of time and attention to the initiating conditions of projects.

They examined all projects for the presence of such characteristics as an appropriately diverse set of stakeholders from the start, system and process objectives established early, and project activities that promoted engagement, innovation and learning, to name just a few. As

TransForum refined its processes, staff proactively helped later projects to develop these critical744785 characteristics in initial proposals. Achieving high project performance was correlated with strong initiating conditions—starting with system and process outcomes and with innovation, learning, and collaboration strategies in project goals and in implementation plans.

Table 3. Influence of Initiating Conditions

Initiating Conditions	Influence on Highest Performers (top quartile; 8 cases)	Influence on Lowest Performers (bottom quartile; 8 cases)
 How project initiated Who initiated project Why project initiated How intentionally process was selected How organically process arose as 	positive in 100% positive in 100% positive in 100% positive in 75%	negative in 75% negative in 75%
project unfoldedHow process was initially managed	positive in 63% positive in 50%	negative in 63% negative in 75%

Finding 3: The presence or absence of engaged MSC members appears to have substantial influence on performance.

This finding may at first seem tautological—manage multi-stakeholder engagement by engaging the multiple stakeholders. But the intention of engagement is distinct from having the stakeholders actually engage in practice. Recall that engagement is not mere participation. So in managing MSE, one must take care that an engaged set of stakeholders is committed to the project and not some form of empty participation. Three variables related to project membership proved very influential to case jurors. Table 4 presents these variables. As expected with MSE, who engaged and perhaps more importantly who did not engage had substantial influence, the former positively and the latter negatively. In follow up discussions, the appropriate "who" included the four key stakeholder types—business, government, societal organizations, and knowledge institutions—in the project management coalition. When one or more of the stakeholder types were not present, those left outside the process did end up having negative influence on project performance. Having a robust set of stakeholders in the coalition is critical from the start. Note that changing the "who" as the project progressed appears to merely reinforce the initial positive or negative influence. Juror interviews also indicated that the mere presence of the multiple stakeholders was not in and of itself enough. Rather the fact that they engaged throughout the project was the more critical source of influence.

Table 4. Influence of Multi-stakeholder Engagement

Project Membership	Influence on Highest Performers	Influence on Lowest Performers
• Who engaged	positive in 100%	
Who was not engaged		negative in 88%
How "who" changed	positive in 88%	negative in 50%

Finding 4: *Innovation practices appear to have substantial influence on performance.*

Focus on system and process outcomes, initiating conditions, and having an engaged multistakeholder membership have each been shown (for these cases) to be strongly correlated with project performance. The fourth finding addresses how MSE is managed to create innovation. Table 5 presents the influence of seven (7) explanatory attributes regarding the management practices projects used to promote innovation. The seven had strongly positive influence for the high performers while mixed to negative influence for low performers. Follow-up interviews with jurors indicated that a wide variety of specific strategies were used to take on the seven innovation tasks suggested by the explanatory attributes. More research is needed to fully understand why certain of these strategies become more positively influential than others. However, the importance of having effective strategies for these tasks is consistent with the data from the cases.

Table 5. Influence of innovation management practices

Innovation Management Practices	Influence on Highest Performers	Influence on Lowest Performers
How 3Ps considered Reconcile incentives among stakeholders	positive in 100% positive in 50%	negative in 50%
Strategies for: Experimentation in action Innovation Action learning New knowledge creation Transdisciplinary collaboration	positive in 100% positive in 88% positive in 75% positive in 88% positive in 100%	negative in 50%

Finding 5: *Process monitoring and reflection have substantial influence on performance.*

The 76 potential explanatory attributes and the in-depth interviews with jurors together led to the first four findings. Juror interviews alone suggested a fifth finding. Although not on the list of original explanatory attributes, process monitoring and reflection was identified by jurors as a critically positive strategy for process management that TransForum ultimately required all later projects to practice. Specifically, a process monitor was appointed to each project. The monitors were charged with safeguarding the innovation process. Monitors worked to keep stakeholders engaged in the tough issues that separated them. They made the obstacles in the innovation process visible to all and carefully helped the project teams overcome the obstacles. Monitors would intervene with soft prompts to keep the teams mindful of why they were doing what they doing and with stronger interventions such as calling "reflection workshops" when teams needed to stop, reflect on what they had learned to date, and then realign the remaining work to stay on the tasks of innovation. This unique role was hailed by jurors as so critical because without these interventions learning would not have occurred or would have been greatly reduced. Learning and reflection appear not to be natural in a project context unless it is explicitly managed.

Managing MSE for Sustainability: Five Fundamental Principles

Figure 1 takes the five findings from the TransForum cases and converts them into five fundamental principles for managing MSE. The TransForum experience was specifically about sustainability, but the principles likely apply to any wicked problem. The claim is not that these principles are an exhaustive list or that they are fully tested by their inductive creation from a set of 30 cases. However, their face validity both conceptually (starting from the definitions of MSE and wicked problems) and empirically (30 diverse cases in sustainable development) is reasonably strong and forms a more than adequate working hypothesis about the application and management of MSE. MSE makes sense in the complex, value-conflicted context of wicked problems, such as sustainability. As a hybrid form of exchange governance, MSE has been shown herein to be no trivial thing to implement and execute successfully. The five fundamental principles are each challenging in their own right. A project team (MSC) creating innovation in the context of a wicked problem needs to manage MSE by (1) focusing on both system and process outcomes, (2) carefully setting initiating conditions so the project starts effectively, (3) actually engaging the multiple stakeholders in the process, (4) practicing a wide array of innovation strategies, and (5) practicing monitoring and reflection in order to keep co-created innovation at the heart of the project work.

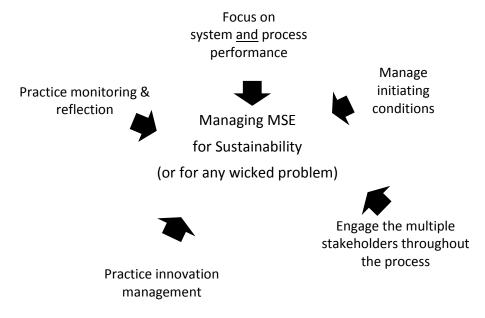


Figure 1. Five Fundamental Principles for Managing MSE

Some may examine the five principles and reflect that any complex project needs most of them anyway. This reflection may hold some truth, but the management of multi-stakeholder engagement has especially unique elements in the context of a wicked problem. Stakeholders start with conflicting values, a strong tendency to veto each other's actions, and deficient sets of existing knowledge. When MSE succeeds, the ending point is effectively implemented innovation where system and process outcomes have been achieved, diverse values are now connected, and new knowledge has been created. Much additional research and practice are needed to see if this working hypothesis about effective MSE proves valid and useful.

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Learning & Transformative Networks to Address Wicked Problems: A GOLDEN Invitation

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Abstract

This essay explores the role of learning networks in strengthening the transformative potential of multi-stakeholder initiatives in the agro-food sector. It begins with reflections on the learning needs of a regional multi-stakeholder initiative in the agro-food sector, the Southern Africa Food Lab (SAFL). Then, the essay introduces an emerging learning network, namely GOLDEN for Sustainability. GOLDEN is a global learning network currently developing outside the agricultural and food sector, but with the ambition of including the agro-food sector. The authors are all connected to GOLDEN, and through this article they aim to leverage the *International Food and Agribusiness Management Review* (IFAMR) platform as a tool for developing such networks (Dentoni et al. 2012) and to invite agro-food organizations to participate in learning networks such as GOLDEN.

Keywords: wicked problems; Multi-Stakeholder: learning network; agro-food sector; large systems change; ecosystems.

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Introduction

This essay raises the following broad questions: (1) What role can learning networks play in addressing wicked problems? (2) How can leaders of organizations in the food and agricultural sector facilitate and accelerate the development of such networks? (3) What is the value proposition for existing multi-stakeholder initiatives to participate in learning networks such as GOLDEN?

Networks offer many benefits for tackling wicked problems, in contrast to traditional hierarchal organizational approaches. Perhaps foremost, they can be formed as a "co-owned" space by stakeholders in the system – in this case, the food and agriculture system. This includes agribusinesses and supply chain actors, governments, non-governmental organizations, civil society representatives and universities. By being "co-owned" there is an important shift in power relationships and mutual accountability that create an innovative environment. This environment can act as a "skunk works" in change agent parlance: a space where the normal rules that support and limit action can be suspended and new ones developed based on the specific needs of addressing the wicked problem (Tushman & O'Reilly 1999). After all, wicked problems are often the result of entanglements of structures, rules and power relationships (Hospes et al. 2012). Rather than participants being simply accountable to their organizations, these networks create a space for making the organizations accountable for the system's health – and that involves addressing wicked problems.

One example of this type of network is called Global Action Networks (GANs). (Glasbergen 2010; Waddell 2011) GANs are learning and transformative networks that build the will, organize the necessary competencies and resources and implement activities to address their particular wicked problem. Examples are: Transparency International and the wicked problem of corruption, the Principles for Responsible Investment and the wicked problem of integrating sustainability concerns into the logic of global finance, and the Sustainable Food Lab (Hamilton 2013, in this issue). A new emerging example is GOLDEN, a global network of academics partnering with business and others to accelerate the transformation of business to sustainable enterprise. It aspires to support development of a food and agriculture "industry" ecosystem strategy.

These GANs are a new type of organization, as different from government is from business, and as civil society organizations are from both of those. They are about weaving together what is in new ways to build accountability and action for a system's health amongst its stakeholders. The concept of "GANs" has seven definitional characteristics, identified with great concern for parsimony and "necessary and sufficient" with respect to their large system change aspirations (sic: to address wicked problems). They build on the three characteristics of multi-stakeholder engagements (MSEs) introduced in this *Special Issue* on wicked problems (Dentoni et al. 2012):

1. Combination of formal and informal relationships: GANs are *inter-organizational networks* with three layers of organizing: one is the "organization" which are nodes with traditional hierarchical staffing; two is "partnerships" as a modest number of organizations working on a particular task; and three is all of the partnerships together that form the network.

- 2. "Multi-stakeholder": GANs are defined as "diversity embracing", a term that emphasizes a pro-active stance that includes multi-sectoral (business-government-civil society), multi-cultural, gender and other forms of diversity;
- 3. "Community Action Research" programs: A defining quality of GANs involves "entrepreneurial action learners", that is, which develops new knowledge and capacity through action.

Other GAN definitional characteristics are: 4) Multi-level (i.e., local, regional and global); 5) Public goods providers, that is, aiming to create value for society; 6) Systemic change agent, that is, working on transformation, reform, and scaling up; and 7) Voluntary leaders, that is, participants make commitments to push the boundaries of enhancing environmental, social and economic outcomes.

MSE in this *Special Issue* focuses on the organization as the key unit of analysis. The GAN approach instead emphasizes a "systems" perspective. This is liberating in several ways. First, it builds accountability to a systems' health and the public good, rather than that of an organization or even a particular stakeholder group. Second, it greatly enhances the space for experimentation by freeing people from the assumption that "an organization's interests" are key to a system's success – the way "organizations" are defined and work is often part of the source of wicked problems. Also notable is that GANs are comprised of organizations that are committed to transformation (rather than incremental change or reform) as described in a GAN's vision; this includes many large companies, although popular caricatures would suggest otherwise. Finally, the essential element of GANs is process, not structure. Rather than thinking in terms of "permanent" or "formal", thinking of renewal and emergence is important. Rather than design based on structural theory, focus on the work and how it gets done effectively and build from there. This is the experimental spirit.

Learning with the Southern Africa Food Lab

The Southern Africa Food Lab can be considered a fledgling regional GAN which was created in 2009. Academic research on food security and in-depth interviews with role players from the private, public and civil society sectors in the South African food system confirmed that transformation was urgently needed to address the interrelated problems of social and environmental sustainability, given persistent hunger and declining resources. There was energy among stakeholders to try a different approach to understanding and addressing the multiple interrelated challenges in the system. Since its inception the Lab has focused on giving voice to different perspectives on food system challenges, creating "safe spaces" for leaders from different parts of the system to learn together, and working with other organizations to pursue specific innovations in the system. A major focus of current activities is to work with smallholder farmers and agribusiness leaders to better understand the opportunities and challenges of integrating smallholders into the supply chain.

It is clear that the complexity of the food security challenges in Southern Africa requires innovative approaches such as those employed in the SAFL. However, the SAFL has encountered several obstacles in making the case for its systemic, participative and emergent approach. Its brief experience so far has raised challenging questions about how to ensure the

ongoing relevance of the Lab's activities for stakeholders in the system, not only the business sector, but also for marginalized producers and consumers. Funding for process-oriented work of this kind presents particular challenges, given the concrete outcomes required in most accountability systems among donor agencies which require concrete deliverables.

Could a collaboration with an initiative like GOLDEN strengthen the SAFL's capacity to learn from its own activities? Can the prototyping and piloting of innovations (e.g. emerging from the current work on smallholders and the supply chain) be designed to provide robust evidence on what works? Based on the findings and experiences from the current case study work, including learning journeys and public dialogues, one could foresee a set of carefully designed "experiments" being developed with participating firms, large-scale farmers and smallholders, to test different approaches to resolving bottlenecks or exploiting opportunities that have emerged. GOLDEN could also support the development of an ongoing learning system across experiments that would be responsible for ensuring documentation, assessment and embedded learning practice. It would bring to bear such methodologies as communities of practice, mapping, learning histories and outcome mapping in a supportive and non-intrusive manner. This activity would support people involved in the interventions who are too busy to also do the learning system development.

At a more general level, the question is whether GOLDEN can serve to bring together leaders from multi-stakeholder initiatives in the agro-food system such as Ecoagriculture Partners, Seas of Change and the Bottom of the Pyramid to systematically learn how to optimize the contribution of such initiatives to the needed transformation in the global food system. GOLDEN could connect all of these in the learning process with the following objectives:

- Speeding learning through broadening comparisons with a similar experimental approach that can produce comparable results.
- Connecting initiatives to realize coherence between them to gain scale with particular companies, to address shared issues, broadening the number of sites for experiments, etc.
- Sharing and further developing large system change strategies and processes each of the initiatives is otherwise developing independently.

The GOLDEN Invitation to the Ag-Food Community

GOLDEN proposes a platform with specific activities to answer the question "how can business evolve to a sustainable enterprise?" (Figure 1). This question reflects core qualities of "wicked problems" identified in the first *Special Issue* on the topic:

- the specifics of the desired solution (sustainable enterprise) are defined through the inquiry rather than known in advance;
- cause-effect relationships behind un/sustainable enterprise are difficult to define;
- action is "controversial";
- collective action is required amongst diverse stakeholders;
- responses involve complex systems change strategies.

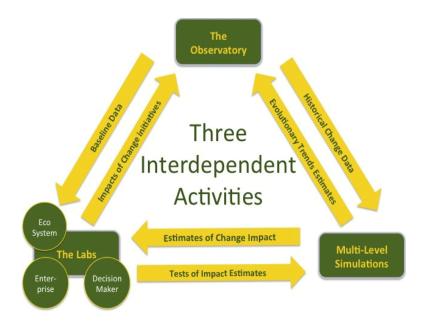


Figure 1. The Three GOLDEN's Interdependent Activities

Internal Dimensions

GOLDEN is an open, emerging global network of academic researchers partnering with business and other stakeholders. People wishing to participate in GOLDEN have many models, frameworks and approaches (just as a wicked problem requires). It is an "engaged, big science" traditional methodologies, initiative. Along with its inquiry emphasizes research/learning/inquiry (Revans 1982; Heron & Reason 2000; Reason & Bradbury 2001; Coghlan 2011) and engaged scholarship (Van de Ven 2007) methodologies. "Big science" is a technical term associated with the physical sciences, such as the CERN super conductor and the human genome project. It describes endeavors distinguished by scale in several dimensions: geographic (global), levels of analysis (comprehensive), academic disciplines (multi- and inter-), timeframe (10-20 years), human resources (eventually thousands of individuals), and financial resources (eventually \$100million +). It is formed in the belief that audaciousness is required to respond to the pressing sustainability question.

GOLDEN provides an infrastructure that stewards three types of activities, together forming a mutually supportive and interdependent whole:

- 1. **The Observatory** is a repository of data about historic action where the unit of analysis is corporate strategic sustainability initiatives.
- 2. **The Labs** are future-focused activities where the over-arching methodology is "experiments" at the individual-, organizational- and (industry) ecosystems levels.
- 3. A **multi-level simulation** generator is being developed as a systems dynamic model that integrates data from the first two activities to provide guidance for strategy and policy options that can address the complexity associated with sustainability.

GOLDEN's strategy is to work with current sustainability-oriented initiatives with the concept that collectively they form an emerging *global large change system* around industries such as food-agriculture-nutrition. The work goes beyond traditional learning approaches (dominantly "best cases"), which usually involve a historic analysis of an activity that is greatly complicated by inadequate documentation and biased after-the fact reports, all of which is "retro-fitted" to core questions behind the best practice case study. Rather, GOLDEN emphasizes *experiments*, which are generally accepted as the most rigorous scientific method. This is done by re-framing an initiative's activity as learning and change experiments *within an evolving system of initiatives*. This provides the ability to apply different "treatments" (change interventions) at different sites, having a control site, and thus creating an experimental learning system.

GOLDEN combines three microfoundations of dynamic capabilities that are critical to address wicked problems. Dynamic capabilities are "...the ability to determine whether the...(system)... is performing the right activities, and then effectuate necessary change." The "microfoundations" are "elements" (discrete process/methodologies/structures) that undergird clusters of dynamic capabilities." (Teece 2007).

The first microfoundation is Coherence Dynamic (Figure 2). The SAFL, for example, is one of many initiatives tackling sustainability in the global ag-food system. By collaborating with GOLDEN it could greatly enhance its impact by more powerfully linking to other similar initiatives and parts of the system to gain scale, create synergies, speed learning through network transference and reduction of repeating others' mistakes, reducing non-productive competition in these "pre-competitive collaborative" situations. This is illustrated graphically in Figure 2 (A) where SAFL is one circle. Figure 2 (B) illustrates how this could be different – where there is coherence of effort. This involves aligning, reducing conflicts, and improving "fit" between various activities in a particular industry ecosystem or issue domain (Trist 1983).

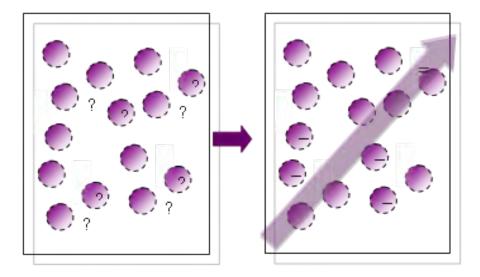


Figure 2. The first GOLDEN's Microfoundation: Coherence Dynamic

The second microfoundation is the well-known *Kolb Learning Cycle* (Kolb 1984). Figure 3 provides a well-articulated way to support a disciplined learning process as action takes place. Of course this cycle applies to a whole initiative, but it also is replicated many times during an initiative in an action research manner to support adjustments to action plans.

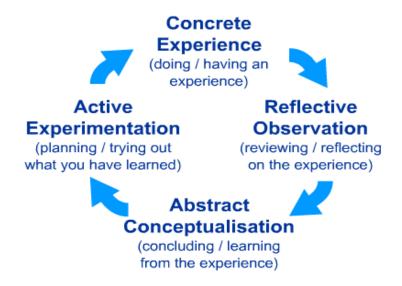


Figure 3. The second GOLDEN's Microfoundation: The Past Learning Dynamic

The third microfoundation is a *future-oriented learning dynamic*, illustrated with the U-process figure as developed by Sharmer (2009). Success depends on keeping participants tipping into the future, always focused on how they can do things differently to address the sustainability imperative. Simply asking "how are we doing" within the current rules of the game is not enough – we must support envisioning of how things can be better with different assumptions and relationships. SAFL has approached this in a sophisticated way, applying the U-process. But doing it once is not enough – it has to be embedded as a core logic. SAFL recognizes this, and its strategy for doing this can helpfully inform others.

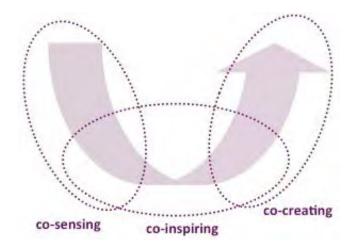


Figure 4. The Third GOLDEN's Microfoundation: The Future Learning Dynamic.

These microfoundations can be supported by a variety of methodologies. For example, social and value network analyses are obvious with the coherence dynamic. Structural changes should be observable if GOLDEN is successful (although the causal relationship is another question). Learning histories are an example of a methodology supportive of the past learning dynamic. And visioning methodologies like scenario development are part of the future-learning microfoundation tool-kit.

A GOLDEN Food-Agriculture-Nutrition (FAN) Lab is emerging with people who are both responsive to this vision and are interested in participating in its development. Initiatives are welcome to join in. The requirements are simply clarity about what you want to get out of participation, a willingness to help make it happen, and a commitment to developing a sustainable food and agriculture system.

For more information go to: http://goldenforsustainability.org/

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Managing Multi-Stakeholder Engagements through Partnerships

Managing Multi-Stakeholder Engagements through Partnerships



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Sustainable Food Lab Learning Systems for Inclusive Business Models Worldwide

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Abstract

The Sustainable Food Lab (SFL) is a consortium of business, non-profit and public organizations working together to accelerate the shift toward sustainability in the mainstream food system. In this brief case study, I introduce the approach that this multi-stakeholder initiative has developed to tackle this wicked problem. The Food Lab is not revolutionary. Its mission is to accelerate progress, and its primary point of leverage is to build on the needs of food companies to demonstrate sustainable production of ingredients. To achieve this end, the Food Lab creates a pre-competitive space for member organizations to pilot innovations through business driven supply chain projects and provides opportunities for diverse stakeholders working on sustainability to meet, learn, and support each other in becoming better leaders for change in their organizations and in the larger system. This article highlights some of the outcomes that have been achieved by members as a result of participation in the Food Lab. While we are proud of the results, our guiding hypothesis is that the leadership capabilities that the Lab nurtures are as important as the tangible outcomes of projects.

Keywords: food system, sustainability, innovation, multi-stakeholder engagement, leadership

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The **Sustainable Food Lab** is a consortium of business, non-profit and public organizations working together to accelerate the shift toward sustainability in the mainstream food system.

Because the Sustainable Food Lab has become an incubator of business-driven innovation, our more activist colleagues sometimes question whether the Food Lab's work has succumbed to a top-down market structure that inevitably marginalizes weaker players like small farmers. These colleagues also suggest that a corporate agenda will always focus on globally traded commodities and processed food with high margins rather than innovation in community-based food systems and nutrition.

Verena Bitzer (2012) argued in a recent IFAMR issue that, "From a development perspective, partnerships can be viewed critically as their top-down and business-driven nature leads to uncertain benefits for producers and results in the marginalization of certain development concerns." The Sustainable Food Lab does indeed incubate business-driven partnerships. Below is a bit of history and accomplishments. We invite readers into inquiry about Bitzer's observations. We can't help but ask to what degree bottom-up "governance" of food supply chains is practical, under what conditions, and to what degree is this notion utopian beyond the scale and scope of local markets?

The Food Lab first convened in June 2004 as a two-year leadership journey for 30 people from three sectors—business, government and civil society—from the US, Europe and Latin America. Before the first workshop, Adam Kahane and Hal Hamilton conducted dozens of lengthy interviews with key players across the system.

When Adam Kahane and I invited people to participate in the core team, we wanted a "strategic microcosm" of the system, and our two criteria were influence and diversity—one colleague from Oxfam called it a collection of "stickholders" and those who commonly get hit with the stick. Unlike standard-setting bodies like Forest Stewardship Council, which have to be representative, we knew that we could never find 30 people who would adequately represent all the key groups in three sectors on 3 continents. We were also constrained by our own design—lots of workshops and travel—that tended to rule out active farmers. We depended upon people who worked in development organizations and farmer, farm worker, or consumer organizations to speak for their constituencies. One person we were quite keen to engage, the president of Via Campesina, declined to participate for political reasons.

The Food Lab's focus on "mainstream" food emerged from many suggestions that much work already focused on niche supply chains for local or certified products, but most food in mainstream grocery stores and restaurants lacked attention from sustainability initiatives. The design architecture of the Lab was a series of workshops, learning journeys, and project prototyping organized around Theory U¹ (Scharmer 2007), and the Lab's secretariat benefited from close relationships with colleagues in MIT's organizational learning and presencing circles. Peter Senge (Fifth Discipline, Presencing, and The Necessary Revolution) introduced me to both Otto Scharmer (Theory U) and Adam Kahane (Solving Tough Problems, Power and Love). All

¹ http://www.presencing.com

of them engaged in Lab design conversations, and Adam was the lead designer and facilitator for the first two years 2004-2006. The Lab's process drew from a few simple elements:

- 1. The diversity and collective influence of the core team, enabling it to understand the system from multiple perspectives and then to act effectively;
- 2. A convening and sensing process of interviews, dialogue workshops, and learning journeys to cultivate both cognitive and experiential shared learning;
- 3. A "presencing" workshop, designed around individual solos in the high desert, to help everyone access deep sources of commitment that transcend organizational agendas;
- 4. Rapid cycle prototyping of innovation ideas so that projects get conceptually tested with a diverse set of actors before implementation plans are fully created;
- 5. Institutionalization of tools, approaches, supply chain engagement processes, organizational commitments, and industry-wide agreements.

The multi-sector character of the Food Lab, as well as its focus on sustainability in mainstream business, were both unique in 2004, although by 2013 neither is at all unique. As a result of a plethora of multi-stakeholder initiatives and competition for attention from many different organizations, the Food Lab has had to evolve to add value to its constituent organizations.

The four key functions of the Sustainable Food Lab are piloting innovation, leadership development, support for organizational strategy, and insight and analysis.

Sustainable Food Lab members believe that the industry is facing critical issues that cannot be tackled by one organization. These wicked problems include water quality impacts in every one of the world's waterways on which farmers grow crops, emissions from the whole food supply chain, and farm labor improvements that require immigration and government policies as well as employment conditions in private businesses. Members identify areas of collective interest and create **innovation projects in supply chains**. Food Lab staff and consultants document what works and what doesn't and organize a variety of ways for people in collaborating organizations to learn from one another. Current innovation efforts include:

- Addressing climate change through "low-carbon agriculture";
- Overcoming poverty through new approaches connecting small-scale producers to formal markets;
- Piloting sustainability strategies in large commodity systems.

The Food Lab provides opportunities for diverse stakeholders working on sustainability to meet, learn, and support each other in becoming **better leaders** for change in their organizations and in the larger system. SFL provides:

- Leadership events—focused seminars, field visits, "Learning Journeys," and working conferences bring to life new ideas, collaborations, strategies, and projects.
- A platform for strategic partnerships—safe space to explore collaboration among businesses of different scale and leaders from environmental and social NGOs.

The Food Lab's original focus on prototyping multi-sector projects evolved to a focus on

business driven supply chain projects to which NGOs or universities contribute specific competencies. Lately some of the leading companies in the Food Lab have asked for landscape level strategies and metrics to complement approaches within specific commodity supply chains. As farmers develop new ways to produce, and as value chain actors test new ways to share information and decision-making, all the key players want to assess what works and report on results. If these projects were to follow a "business as usual" path, the costs of data collection would all be imposed on the weaker players, and reporting needs would frequently go unmet. As a result NGOs and university researchers are experimenting with ways to aggregate data from public and private databases that accumulate for other purposes, including data collected by satellites that previously benefited only private input suppliers.

What are results of Food Lab activities, and who benefits? This short case study doesn't allow for thorough evaluation, but we'll offer a few observations about both environmental and social/economic outcomes.

For environmental outcomes, the large scale of many Food Lab companies enables greater positive impact. When Sysco, the largest food distributor in the US established a pesticide and materials reduction program for fruits and vegetables, more than 350,000 pounds of active ingredients in pesticides were eliminated on almost 700,000 acres during the first year. That program has continued and become quite a sophisticated learning community of growers practicing in sustainable agriculture. When PepsiCo used a greenhouse gas approach developed in the Food Lab, they were able to commit to a fifty percent reduction in five years for all production in Europe. These results are multiplied across the spectrum of companies engaged in the Food Lab.

Another strong body of work in the Food Lab consists of clusters of pilots design to benefit small farmers who participate in global value chains for food. These pilots generally engage NGOs and development organizations like Oxfam, Catholic Relief Services, and the International Center for Tropical Agriculture, and they also engage major buyers including Unilever, Mars, Kraft, and Sysco. Food Lab meetings are in developing countries every other year, and each one is preceded by learning journeys to farms, cooperatives, factories, and other local stakeholders. Project results are posted on the Food Lab website. One notable development has been Unilever's public commitment to improve the livelihood of 500,000 smallholders in their supply chains, and Food Lab staff are supporting impact assessment methods, with the partnership of Oxfam GB and other organizations well-tuned to on-the-ground challenges in developing countries.

One could argue that all of these projects strengthen the position of global corporations and ignore the public sector's traditional roles. In many ways the public sector has failed to generate the degree of innovative and positive development that the private sector is creating, but it's certainly true that these corporate led initiatives are unconstrained by any checks and balances of democratic process.

Our goal is to improve the way products are produced on millions of acres in ways that affect millions of people. PepsiCo's Walker's Crisps are a flagship product for achieving greenhouse gas and water use reductions. Unilever's Hellman's mayonnaise and Knorr soup present many opportunities to improve the sustainability of soybeans, eggs and vegetables. Both Costco and

Sysco have engaged deeply to support small farm produce cooperatives in Guatemala that produce green beans, broccoli and peas for both local and North American markets.

The Sustainable Food Lab is not revolutionary. Its mission is to accelerate progress, and its primary point of leverage is to build on the needs of food companies to demonstrate sustainable production of ingredients. The Food Lab creates a pre-competitive innovation space for these innovations.

Our guiding hypothesis is that the leadership capabilities that the Lab nurtures are as important as the tangible outcomes of projects. We think of those capabilities in three categories: issue sophistication, value chain and organizational strategy, and personal capacities to engage people across organizations and the industry. The Lab's member organizations sanction participation because of the first two areas of competence—technical competence and strategy—and the individuals who participate in projects and events tend to value most highly the latter area—personal growth, high quality relationships, and abilities to nurture organizational change.

Looking around the larger network of sustainable agriculture programs, no one project, partnership or multi-sector initiative should be expected to deliver a the full spectrum of desirable results. Campaigning organizations help stimulate Food Lab member companies to engage on some of our activities in order to alleviate reputational risk or assure supply of ingredients. More locally focused community development will likely generate democratic governance in ways that work with global corporations will never accomplish.

It may be trite but not disingenuous to suggest that we "let a thousand flowers bloom."

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Effective Stakeholder Involvement at the Base of the Pyramid: The Case of Rabobank

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Abstract

In this essay, we explore the role of Rabobank in dealing with the wicked problem of food security in general and of smallholder inclusion into food value chains in particular. In the first part of the essay, we focus on the (social) expectations of stakeholders with regard to Rabobank's role in BoP management, the way stakeholder expectations are managed and the way Rabobank collaborates with multiple stakeholders in the value chains in order achieve their economic and social goals. In the second part, we explore how Rabobank Foundation, an independent non-profit organization which is funded by the Rabobank Group, contributes to the achievement of these goals at the BoP; by a unique collaboration between the for-profit and not-for-profit activities of the Rabobank, together with their customers and other stakeholders, Rabobank is able to achieve both its economic and social goals at the BoP.

Keywords: stakeholder involvement, base of the pyramid, banking, smallholder inclusion, wicked problems

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Introduction

Rabobank was founded nearly 110 years ago by Dutch farmers and consists today of 138 independent local co-operative Rabobanks. As a co-operative bank, Rabobank has no shareholders but stakeholders (members, employers and customers) and a unique governance structure. With 1.9 million members and serving 10 million customers in 47 countries of the world, Rabobank is nowadays the second largest bank of the Netherlands and ranks 26th of the top 100 World banks.

Internationally, Rabobank's ambition is to be a leading food and agribusiness (F&A) bank by providing wholesale financial services to large companies as well as retail banking services in various developed economies. Besides, Rabobank is building an extensive network of partner banks in developing and emerging economies. The general approach is to collaborate with these partner banks as a minority shareholder and as hands-on board member, providing long term capital and technical assistance for large scale F&A projects.

For Rabobank, developing and emerging economies do not only represent business opportunities to expand their business. The bank is clearly aware of the vulnerability of F&A to high-risk trends, such as the increasing scarcity of natural resources and the negative impacts of climate change. Following the New Vision for Agriculture of the World Economic Forum (WEF 2011), Rabobank's ambition is therefore to play an important role in connecting the bottom with the top of the pyramid in food value chains in order to stimulate food security, sustainable production and economic growth. In Rabobank's vision, global food security is virtually impossible without tapping into the underused agricultural production potentials of small-scale farms at the BoP (Rabobank 2012). The development of the entrepreneurial potential of smallholders is seen as a business development opportunity which can help to eradicate poverty at the same time (cf. Karnani 2006).

The stimulation of food security (Hamann et al. 2011) in general and of smallholder inclusion in particular can be seen as a wicked problem (Foresight 2011; Torero 2011; Atoma et al. 2011), i.e. as a problem which "defies resolution because of the enormous interdependencies, uncertainties, circularities, and conflicting stakeholders implicated by any effort to develop a solution" (Lazarus 2008: 1160). In this essay, we explore the role of Rabobank in dealing with the wicked problem of smallholder inclusion into food value chains. In the first part of the essay, we focus on the (social) expectations of stakeholders with regard to Rabobank's role in BoP management. In the second part, we explore how Rabobank contributes to social and economic goals at the BoP.

This essay is the product of 'embedded' research at Rabobank, including desk research and interviews with Bas Rüter, CSR director of Rabobank Group and Pierre van Hedel, director of Rabobank Foundation.

Managing Stakeholder Expectations

The promotion of sustainability and economical independency of small-scale farmers is highly complex. Small-scale farming faces major disadvantages such as low productivity, low volumes of products to sell, variable quality, high transaction costs and poor access to inputs and markets. For Rabobank, it is clear that a supply chain perspective is insufficient to solve problems related to smallholder inclusion. Macro-economic trends like the feminization of agriculture in many Asian and African countries and the need to increase farm size in order to take advantage of economies of scale, must also be taken into account in the development of small-scale farming. The wickedness of problems related to smallholder inclusion becomes clear if we realize that they are rooted in a history of exploitation and distorted social relations, the absence of an organizing principle like a reliable government with transparent laws and regulations under which entrepreneurs can start and grow their business, a tradition of well-intended aid of donors who don't encourage to unleash the entrepreneurial potential at the BoP but cultivate dependency etc. The complexity of smallholder inclusion is also represented by the various available strategies to solve these problems; we can start with providing access to food, health care, education, infrastructure, finance etc. According to Rabobank, it is likely that only a combination of interventions by various stakeholders – governmental organizations, NGO's and the for profit sector – can solve problems related to smallholder inclusion and stimulate food security in an effective way.

Rabobank is convinced that the involvement of multiple stakeholders is a necessary condition to promote sustainability and economically independency of small-scale farmers, and that profit enterprises have a leading role to play to connect them to markets and to integrate them into value chains. For this reason, the active collaboration with F&A companies, NGOs and governmental organizations is an important part of Rabobank's international F&A strategy. By its extensive network and engagement in local and international sustainability alliances and partnerships, Rabobank remains continuously aware of the challenges in the food sector. The CSR department of Rabobank is continuously involved in the monitoring and evaluation of relevant sustainable issues. They frequently communicate with their local and global stakeholders in the food sector and based on their assessments, they provide support and advice to the operational and business research departments of the bank. In their international F&A strategy, Rabobank applies a set of F&A principles (see Figure 1), which are monitored by the corporate CSR department. They support the development of internal guidelines for sustainable lending, asset management and client engagements. In case of strategic ethical issues an Ethics Committee, chaired by the CEO of Rabobank, gives advice.

Via Rabobank Foundation, an independent non-profit organization which is funded by the Rabobank Group, the bank provides financial and technical support in order to promote social inclusion, and sustainable development at the BoP. Market oriented small-scale farmers are stimulated to become economically self-propelling. Rabobank Foundation collaborates intensively with various external stakeholders in the value chains in order to achieve these goals.

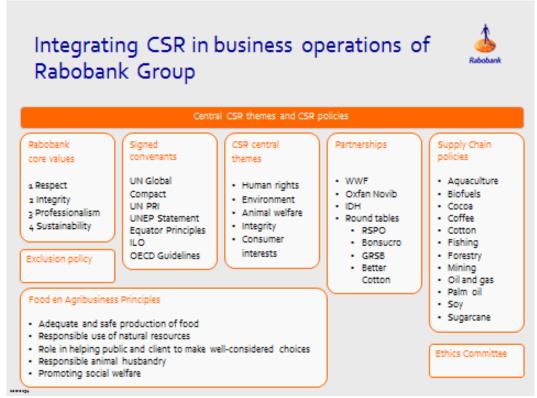


Figure 1. Central CSR themes and CSR policies

Because of the leading role of Rabobank in financing BoP F&As, many stakeholders have high financial, but also social and non-market expectations with regard to their performance. The bank is held responsible for the unsustainable behavior of its clients, such as bad labor conditions, corruption, environmental pollution and the maltreatment of animals. In the same way, with regard to BoP, stakeholders expect that Rabobank is not involved in unsustainable businesses like land grabbing and squeezing smallholders. Furthermore, stakeholders expect them to (financially) contribute to the development of food-, illiteracy-, HIV/AIDS programs etc.

As a co-operative bank, responsiveness to the demands of stakeholders is important. Stakeholders represent the societies in which Rabobank operates and therefore, they grant their license to operate. The bank applies a set of principles, codes and communication tools to manage its operations sustainably and to prevent involvement in unsustainable business practices (see figure 1). At the same time, it is clear that Rabobank is a for-profit enterprise and that the added social value should be related to its core activities. While Rabobank Foundation can purely act according to its mission to promote sustainability and economically independency of small-scale farmers, the commercial divisions of Rabobank have to make the connection with the supply chains and business operations of their clients. They primarily support F&A companies in their efforts to achieve sustainability goals. In order to manage stakeholder expectations, Rabobank invests a lot in the communication of their vision on a sustainable F&A sector, the role of the bank in smallholder inclusion and the transparency of its business operations. In the next section, it will become clear how the activities of Rabobank Foundation are connected to Rabobank's international F&A strategy.

Effective Collaborations for Smallholder Inclusion

An increasing amount of large F&A clients of Rabobank start to invest in the sourcing of cocoa, coffee, cotton, fruits, vegetables etc. from smallholders in developing countries. In many cases, Rabobank cooperates with its clients to set-up sustainable smallholder production. Rabobank Foundation helps market oriented smallholders with the development of local cooperatives and provides technical support in order to increase the quantity and quality of the production at the BoP. As soon as these farmers reach the stage of self-sustaining businesses, Rabobank Development, the for-profit division of Rabobank, will provide them with sophisticated financial services and technical assistance via local partner banks. In this way, Rabobank Foundation and Rabobank Development are complementary to each other in their efforts to connect small-scale farmers to markets and integrate them into value chains.

An example is the collaboration with ECOM, a respected client of Rabobank and one of the large coffee, cocoa, and cotton traders in the world. In 2009, they sought cooperation with Rabobank Foundation in order to improve the livelihood of smallholder farmers in Ivory Coast. Rabobank Foundation started a project to train farmer cooperatives and provide technical and financial services. Rabobank Development joined the project, providing technical assistance. Within this project, Rabobank Development was responsible for the development of solid cooperatives, addressing challenges such as capitalization, creditworthiness, bankability, governance and organizational structure. Rabobank Foundation also funded the development of training curricula and the execution of the training programs. Furthermore, they supported the implementation of an Internal Control System which enabled cooperatives to control the quality and quantity of the production. ECOM was responsible for the coordination of the project and provided in-time quality input supply.

The collaboration proved to be successful. During the first three years of the collaboration between ECOM and Rabobank, the number of certified farmer cooperatives doubled and the number of certified smallholder farmers tripled to 9.000. The yearly production increased from 5.000 MT to 10.950 MT in three years' time. At this stage, MARS, one of the largest cocoa processors and also an important client of Rabobank, joined the project. MARS made its knowledge and expertise available for the project, for instance for a new fertilizer pilot, and provided financial support. Together with ECOM and MARS, Rabobank continues this project in order to secure sustainable cocoa production and to improve the livelihood of farmers at the BoP in Ivory Coast. By this unique collaboration between the for-profit and not-for-profit activities of the Rabobank, together with their customers and other stakeholders, Rabobank is able to achieve both its economic and social goals at the BoP.

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The Wicked Problem of Promoting Sustainability by Means of Enhanced Biomass Utilization

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Abstract

Promoting sustainability by boosting projects enhancing biomass utilization turned out to be a nested type of a wicked problem for the EU, if only for the unbalanced competition for (productive) land and diverse biomasses. Within the EU-scheme of Interregional collaboration it boiled down to develop a coherent set of very regionally specific projects each with a lasting sustainable impact. How to manage it? The EU promoted project development by using a combination of first top-down stratified invitations, and second bottom-up self-organization by the interested parties, backed up with light EU-coaching and basic facilitation, while requiring regional co-funding. It resulted in the ARBOR-project, which comprises of 15 actions, ranging from the realization of gas-grid injection from highroad-verges grass biogas-plants, via synergy park development, till of a city center biomass hub for woodstoves heating system.

Keywords: Biomass valorization, stakeholder engagement, Interreg, biofuels

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Introduction

ARBOR is an interregional project in North-West Europe (NWE), set up Its mission is to foster and accelerate sustainable development by enhanced usage of biomass in NWE, to facilitate the achievement of EU 2020-energy objectives and to make the European Union a world-class center for biomass utilization (www.arbornwe.eu). ARBOR comprises of 13 partners from the United Kingdom, Flanders (in Belgium), Saarland (in Germany), Luxemburg, the Netherlands, and Ireland. The project has received public funding via the European Interreg IV-B, and is cofunded by regional authorities in the respective countries. ARBOR was one of potentially six Strategic Initiatives of Interreg: Each tailored to realize a specific lasting impact. In an endeavor to strategically promote sustainable biomass utilization, 'thriving in a world of wicked problems' (Waddock 2012), the initiators had to deal with two layered wicked problems: First, relating sustainability positively to biobased energy is a wicked problem in itself; second, to realize such an ambition using the format of an Strategic Initiative with a project timespan of five years (maximum) created a wicked project design problem. What are the quintessential wicked problems? And, how did the initiators try to deal with these problems?

First, promoting sustainability by boosting biobased energy goes far beyond straightforward mathematics: The cause-and-effect relationships are difficult to define, it allows fundamentally different frames, and requires multi-stakeholder collaboration to bridge key interests (Dentoni, Hospes, and Ross 2012). For long the EU applauded and promoted the long term trend in energy provision from coal, nuclear and fossil fuels to wind, solar, geothermal, and biomass. In 2003 (respectively 2006) the European Union had the targets for biofuels substitution set at 5.75% (10%) by 2010 (2020). But bio-ethanol and biodiesel were held accountable for the 2007-'08 price spikes in food commodity markets, causing food riots, protests and market interventions in over 20 countries, varying from Mexico to Egypt and Indonesia. Soon, the frame of low net energy efficiency of bio-fuels from North-West European arable crops dominated the farmer's support, reduced fossil fuel-dependency and advancing biomass valorization (Talamini, Dewes, Padula and Wubben 2013).

By 2009 public opinion in the EU had turned against biofuels from arable crops, while advanced biofuels were not yet developed. Autumn 2009 Interreg organized a multi-stakeholder meeting to launch the Strategic Initiative 'Biomass Energy Development' The project brief was blank on the potential for developing alternative (advanced) technologies and for furthering so-called biomass-cascades in the 5 year project window. Each Strategic Initiatives effectively combined a strategic top-down perspective with the bottom-up involvement of key actors. Stratified invitations (top down) by regional authorities brought together over 30 stakeholders, especially development agencies, public authorities, universities/research institutes, and interest groups. Self-organization (bottom-up) by the interested parties, together with coaching and some facilitation by the Strategic Initiatives Working Group (top down) stimulated project development. The need for fifty percent complementary funding helped skeptical stakeholders to join drop outs, preventing delays and blockades (Wubben & Isakhanyan 2011) during the project design. Next to this self-selection process also the risk of a negative verdict helped to speed up joint decision-making, stimulated stakeholders' alignment, and raised project expectations. The verdict on acceptance or rejection for the Interreg-funding would come from another, neutral committee, using the regular systems and procedures as with other Interreg-calls.

The attribution- and causality-issues in this sustainability problem made interested parties to go beyond speculative grand designs and instead opt for a multitude of smaller, location specific projects that suit local interests. Next to regional/local needs and funding opportunities, also the fundamental spatial and political disparities had to be taken into account. For example, Ireland has hardly any woodland to harvest from, while Germany wants to build on its longstanding policy in stimulating alternative energy sources, subsidizing feed-in tariffs for the electricitygrid. The coaching by the Working Group prevented fragmentation by orienting partners towards five strategic interests of Interreg, namely: transnationality, innovativeness, partnership (coverage, levels), leverage effects, and communication. The project development process resulted in the objective to foster and accelerate development and use of biomass to facilitate the sustainable achievement of the EU 2020-energy objectives, and sharing the lessons learned across the countries. The ARBOR proposal comprised of 15 actions under three prime work packages: 1) Production, collection and preparation of biomass material; 2) Conversion and utilization of biomass; and 3) Socio-economic strategies for improved biomass supply chain management. The accepted project stimulates activities on industrial and agricultural biowastes, including manure, utilizing buffer strips, set aside lands, grasslands, and (wasted) woodlands, to grow and harvest SRC, and other biomasses. With 13 participants, knowledge diffusion was secured by linking up 6 observers and convening implementation-relevant stakeholders in national and transnational advisory boards.

Figure 1 presents the variation in ambitions for bio-energy production in 2020 and the 2009-baseline positions across different countries. Germany is the most advanced in realizing its biomass ambitions, whereas the United Kingdom presents the strongest contrasts between baseline data and the 2020-ambitions.

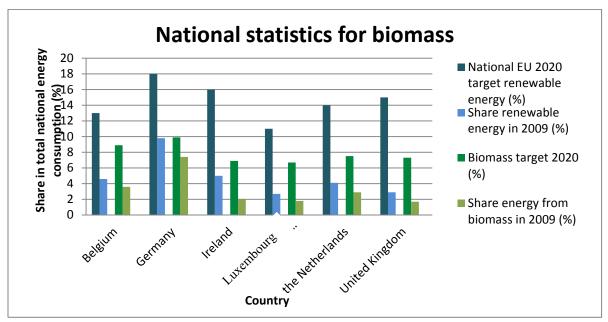


Figure 1. Shares of renewable energy (e.g., biomass) in total national energy consumption in 2009 versus 2020-targets for renewable energy (biomass) (in %). Source: POM, 2012.

The proposal brought together some 15 actions under three prime work packages: 1) Production, collection and preparation of biomass material; 2) Conversion and utilization of biomass to energy; and 3) Socio-economic strategies for improved biomass supply chain management.

The partners in ABROR arrived at the following set of prime activities:

- A benchmark-report of biomass for bio-energy initiatives and projects;
- Pilot and demonstration projects;
- A market analysis of biomass equipment providers, manufacturers and investors;
- A technology watch on biomass conversion technologies and valorization options;
- An analysis of political and legal frameworks and conditions for bioenergy utilization;
- An triple-P assessment of the innovative schemes developed within ARBOR, and
- The bioenergy strategy development for the ARBOR pilot regions.

The coaching promoted the orientation on delivery and implementation, utilizing regional assets, earlier projects, existing pilots and technologies. For example, the Province of Utrecht (NL) develops a pilot for the digestion of grass from highroad verges, upgrading the biogas to standardized gas quality, to be injected in the national gas grid. In contrast, the city of Stoke-on-Trent (UK) wants to realize a biomass hub in the city center situated at the crossroads of canals, where trees can deposited shipped from regional woodlands. Wood chips will be used in new woodstoves in their municipal buildings. ARBOR partners prefer to delegate stakeholder selection to the regions. For example, to change the regional system of organic waste handling in Saarland requires the participation of ministries, municipalities, non-governmental organizations, and firms. But to promote nutrient recovery in Flanders requires active participation of small and medium-sized enterprises, technology suppliers, authorities and a manure bank. ARBOR acknowledged the enormous variety of key stakeholders dependent on the different regional settings and activities.

Almost halfway the project, substantial investments are already made in the different regions, both for temporary projects, such as pilots on marginal lands, as for strategic projects, such as the woodstoves heating systems, the SRC, and the highroad grass biogas-plant. Further formalization of the multi-stakeholder interaction is expected as the projects progress implementing solutions to the wicked problem of promoting sustainability by means of enhanced biomass utilization.

The take away is that working on wicked problems may benefit from using a transparent combination of top-down environmental and social goal-setting and decentralized bottom-up participation, with the aim of local implementation. Other factors worth pondering may be the stratified invitations, process- and goal-oriented coaching, decision-making split between central financiers and decentralized funders. The fundamental lack of knowledge and unstable public opinions may lend policy makers to develop more of such initiatives promoting a diversity of trials and implementation trajectories.

Acknowledgements

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Managing Multi-Stakeholder Engagements through Networks

Managing Multi-Stakeholder Engagements through Networks



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Higher Education Institutions as Managers of Wicked Problems: Place Branding and Rural Development in Marche Region, Italy

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Abstract

This paper highlights the role that Higher Education Institutions (HEI's) can play in the development of place umbrella brands in a rural area of Italy. Place branding in rural areas is considered a wicked problem, since it must be managed by many stakeholders who often have diverse and conflicting motives. This case analyzes the "Marche d'Eccellenza," a Forum held in the Marche Region of Italy, in 2010. Private and public sector stakeholders participated in a series of brainstorming sessions on how to collectively develop the region's resources and unique value proposition. The results show how the involvement of a university, as a trainer, partner and facilitator, can help build place brands in rural areas.

Keywords: Higher education institutions, university, third mission, place branding, rural development, stakeholder engagement, wicked problems, Italy.

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Introduction

Rural areas are generally characterized as having far-flung small and medium enterprises (SMEs) that are more concerned with day-to-day business survival than developing long-term sustainable development strategies (Mitchell & Hall 2005; Vernon et al. 2005). In order to work together for sustainable development, leaders and players in these rural areas need to formulate long-term visions and articulate the value of what they have to offer in a way that will attract consumers. Partnerships among communities and local stakeholders can form the basic building blocks of the development process (Mitchell and Hall 2005; Pacciani et al. 2001), but their establishment takes both time and significant effort, especially as these stakeholders are notoriously heterogeneous. According to Holmes (2002), ruralities are marked by uncertain, complex and often contradictory modes of decision making, swayed by multiple interest-groups, each with its own distinctive set of values and ideologies. This context has been defined by several authors (Friedmann 1987; Rittel and Webber 1972) as a 'wicked' problem. One strategy to help small and medium enterprises become more competitive is to use place branding as a marketing tool.

The first step (Hall et al. 2003, 37) is to identify territorial resources and evaluate them as clusters and/or networks. Networking has been defined as a "wide range of co-operative behavior between otherwise competing organizations and between organizations linked through economic and social relationships and transactions."

Thus, it is necessary to construct a comprehensive picture of the region, so that policy makers can analyze both the strengths and weaknesses, define the opportunities and threats in order to develop initiatives that will be successful. This process is endorsed by the OECD, and recognizes the necessity of an *ad-hoc* analysis in order to understand regional development problems. An interchangeable model does not exist, given that every region has different needs. Copying best practices is almost impossible when it comes to intangible regional assets that are the results of long histories in particular regional contexts (OECD 2011, 120).

The process of developing a comprehensive picture of a region requires a dialogue among stakeholders: local public institutions, entrepreneurs, consultants, and researchers in order to measure the collective coordination capacity. This step identifies whether sufficient synergies exist among the players so that the key objectives of connecting interested individuals can occur. Higher Education Institutions (HEIs) can help facilitate this process since they possess the resources and capital needed to research the productive system, lead discussions among stakeholders, and report the progress in all stages of the process (Belletti 2006).

In a globalized world, universities are often called upon to play a greater role as stimulators and facilitators of knowledge transfer within business and society. This paper explores the role that higher education institutions can perform in supporting place branding development by facilitating multi-stakeholder engagement.

This paper outlines (1) place branding and rural development as a wicked problem; (2) the case of "Marche d'Eccellenza" a Forum held in Macerata (Italy) in November 2010, and; (3) how HEI involvement can help bridge the knowledge gap in light of the existing literature on the third mission of universities.

Place Branding and Rural Development as Wicked Problems

As a general premise related to the challenge of managing 'wicked problems', it is worth noting that the European Commission is currently conducting an ex-ante assessment that will accompany the regional authorities during the process of planning and conducting the 2014 - 2020 Rural Development Programmes (RDP). Evaluators are preparing the best possible RDP for their country/region by integrating the evaluations into the design process and progressively refining them through a series of incremental improvements. This assessment exercise is specific to the type of beneficiary, territory, unique problems and desired results of the group. The evaluations strive to reflect the needs of each stakeholder group, people and territories to be differentiated and addressed (European Commission 2012).

Moreover, a recent opinion of the European Economic and Social Committee of European Union, on 'agriculture and crafts —stressed the strategic role of that regional value chains have on local development. Particularly, the committee recognized the significant opportunity for crafts, agriculture, tourism, retailing and the entire rural economy as a whole while developing regional umbrella brands. Thus, a series of initiatives are foreseen in order to strengthen existing economic and social structures and meet future challenges: quality of life, innovation, sustainable protection of the environment and nature, energy security, and preservation of cultural heritage, among others. The strategy adopted by European Commission clearly tries to address the difficulties of rural development planning.

The analysis provided in Table 1 outlines different streams of literature on place branding and rural development suggesting two macro-themes considered as wicked problems. In order to demonstrate this, the paper published by Batie (2008) will be considered a main point of reference. The author offers a set of wicked problems characteristics and a comparison of tame or solvable problems. The list has been used to build a taxonomy that includes both the features of place branding and rural areas development process.

The first wicked component identified by Batie states that "no agreement exists about what the problem is" and "the solution is not true or false". Clearly this is the case in place branding. This concept, considered part of a regional development and strategic approach, relates to all those promotional activities of an area, made by governments (either country, regional, or city) and industry groups (Papadopoulos 2004), to increase the attractiveness of a specific area as a place for working, living and spending free time (van Ham 2001). This implies that there is not a priori solution on what should be marketed (Gilmore 2002). In fact, dealing with multiple stakeholders with different needs, generally leads to conflicts about the real solution to the problem (Hankinson 2007). Interconnectedness, complicatedness, uncertainty, ambiguity, pluralism and conflict, and societal constraints of rural areas need a strategic integrated and interactive approach Lang (1988). The process reflects a search for shared interests and values, consensus and feasible and acceptable alternative actions,. The actions oriented to solve the problem differently impact local stakeholders. There are some subjects who will move forward and profit from this new development (Van der Ploeg et al. 2000), while others could be left out from the strategic focus.

Table 1. Summary of Wicked Problems' Characteristics

Wicked proble	ems' characteristics	Place branding as a wicked problem	Rural areas development process as a wicked problem
about what the probis. Each attempt to o	No agreement exists about what the problem is. Each attempt to create a solution changes the problem.		Interconnectedness, complicatedness, uncertainty, ambiguity, pluralism and conflict, and societal constraints characterize rural areas (Lang 1988)
	The solution is not true or false—the end is assessed as "better" or "worse" or "good enough."	There is no a prior solution on what should be marketed (Gilmore 2002).	Potential tensions surround the drive towards the production of high quality produce and regional specialities. "Who will move forward and profit from this new development? Will it be large-scale agribusiness or new grassroot farmer co-operatives? (van der Ploeg et al. 2000, 393).
The role of stakeholders	The problem changes over time.	"Place branding is a long-term endeavor. It need not and should not cost more than any place can comfortably afford, but is neither a quick fix nor a short-term campaign" (Anholt 2003, 220)	The concept of rural identity is ambiguous and dynamic subject to on-going social processes (Messely et al. 2009).
	Many stakeholders are likely to have differing ideas about the "real" problem and causes.	Place branding addresses multiple stakeholders (Ashworth and Kavaratzis 2009). "There are widely different agendas to be found among the stakeholders of a national or regional brand" (Anholt 2003, 225)	"Rural development is multi-facetted in nature. It unfolds into a wide array of different and sometimes interconnected practices" (van der Ploeg et al. 2000, 394)
The "stopping rule"	The end is accompanied by stakeholders, political forces, and resource availability. There is no definitive solution	Place Branding needs to achieve "a balance between applying cutting-edge advertising and public relations approaches to a marketing problem and the realpolitik of managing local, regional, and national politics" (Morgan 2002, 339).	"Rural development seems, in many important respects, to have a life of its own. Despite concerted efforts by both state agencies and private-sector firms, rural areas continue to follow their own stubborn logic of change and stasis". (Murdoch 2000, 407).
Nature of the problem	Solution(s) to problem is (are) based on "judgments" of multiple stakeholders.	"Settling on a common strategy that considers all stakeholder interests and which meets the criteria of relevance for targeted place consumers and differentiation from competing places is likely to be a cumbersome task." (Therkelsen 2008).	"Participatory approaches to rural development have been emphasised in order to ensure that existing rural resources are put to the best use." (Murdoch 2000, 412).

 Table 1. Summary of Wicked Problems' Characteristics—Continued

Wicked problems' characteristics	Place branding as a wicked problem	Rural areas development process as a wicked problem
The problem is associated with high uncertainty as to system components and outcomes.	Place branding has a high level of intangibility and complexity (Ashworth and Kavaratzis 2009).	Ruralities are marked by "uncertain, complex and often contradictory modes of decision making, swayed by multiple interest-groups, each with its own distinctive set of values and ideologies" (Holmes 2002, 372).
There are not shared values with respect to societal goals.	"Often local communities may distrust new initiatives and are less likely to take ownership of the brand if there is a tension between economic regeneration and communities in managing the urban environment". (Trueman et al. 2007, 23)	"Policy objectives may be decided either within the rural area or from outside. Problems arise when one group looks only at its own objectives without taking account of the need for compromise" (Pevetz 1980,36).

Source. Adapted from Batie and authors' elaboration (2008).

The role of stakeholders is the second issue noted by Batie (2008). Their direct involvement is necessary in order to define and analyze the problem. While stakeholders face problems which change overtime, there is generally little agreement among them about the real problems faced or the causes. Place branding is a long-term endeavor (Anholt 2003), addressing multiple stakeholders (Ashworth and Kavaratzis 2009) with varied agendas (Anholt 2003). Analogously, the concept of rural identity is ambiguous and dynamic (Messely et al. 2009), as rural stakeholders belong to very different sectors (not only agriculture) with competing interests. (van der Ploeg et al. 2000).

The third element of a wicked problem as reported by Batie is the "stopping role"—there is no definitive solution, so the end is accompanied by stakeholders, political forces and resource availability. Place branding is an ongoing process aimed at finding a balance between applying cutting-edge advertising and public relations approaches to a marketing problem and the realpolitik of managing local, regional, and national politics (Morgan 2002)."Rural areas continue to follow their own stubborn logic of change and stasis despite concerted efforts by both state agencies and private-sector firms to discover a secret recipe for economic success in the countryside," (Murdoch 2000).

Finally, the fourth characteristic identified by Batie relates to the nature of the problem. This is split into three components: a) solutions to problems are based on judgments of multiple stakeholders; b) the problem is associated with high uncertainty as to system components and outcomes, and; c) values are not necessarily shared with respect to societal goals. This characteristic contains many common elements of place branding and rural development concepts.

Place branding has a high level of intangibility and complexity (Ashworth and Kavaratzis 2009) and ruralities are marked by "uncertain, complex and often contradictory modes of decision making, swayed by multiple interest-groups, each with its own distinctive set of values and

ideologies" (Holmes 2002, 372). Local communities distrust new initiatives about place branding, especially in rural areas where problems arise when one group looks only at its own objectives without taking account the need for compromise or the multiple uses of rural areas" (Pevetz 1980).

During the last 10 years many European regions and provinces have tried to pursue creative strategies to promote the qualities of their territories (Hospers 2004) in the broadest sense, trying to leverage: landscape, nature, cultural heritage, regional products, regional gastronomy and traditional quality products, among others (de Bruin, 2008, cited in Messely et al. 2009).

Success of an umbrella brand in the marketplace is gained only if actors "build an identity or brand image that sums up for potential visitors the essence of the physical qualities, landscape, people, culture, quality, and vibrancy of the area" (Garrod et al. 2006).

This identity is a multi-complex concept (Kruit et al. 2004; Ernste 2005, cited in Messely 2009) is difficult to grasp, ambiguous, dynamic, and subject to ongoing social processes. Place branding cannot be considered a tame problem because there is no linear solution. Place branding has multidisciplinary roots, addresses multiple stakeholders, has a high level of intangibility and complexity, needs to take into account social responsibility, deals with multiple identities, and needs long-term development (Ashworth and Kavaratzis 2009). These combined characteristics comprise the "wicked problem."

Moreover, rural regions are less place-specific than towns or cities, and often sparsely populated, carry out dispersed activities and encompass diverse landscapes. Due to varying perceptions held of 'the rural', rural place branding activities are potentially more difficult to manage than urban place branding attempts (Boyne and Hall 2004).

There are key factors in stakeholders engagement in rural areas to "...influence businesses' willingness to co-operate, create alliances and actively work towards the long-term benefits deriving from a collaborative use of resources" (Novelli et al. 2006). A key factor for the success of a place branding initiative is to engage stakeholders at an early stage of project planning in order to collectively formulate aims and objectives of initiatives and to provide them a sense of ownership of the project (Boyne and Hall 2003). Trust and reciprocity within and between social groups result from personal contacts and social networking. These early interactions serve as the basis for cooperation and collective action (Miles and Tully 2007; Aylward et al. 2009). Place branding could represent a key driver for sustainability. It facilitates economic growth, social harmony, employability, financial confidence, and environmental sustainability (Maheswari et al. 2011). Place branding, considered a territorial marketing tool, reduces the complexities of reality experienced by rural enterprises. In this context, it seems interesting to identify how the presence of a higher education institution (university) could modify and improve the network relationship. The role of the university in the knowledge-based economy has changed. They are now considered an "engines" of economic development (Florida et al. 1999).

"Marche d'Eccellenza": A Case Study

Socio-Economic Outlook of Marche Region

The Marche is a region in Italy located at the crossroads of the Adriatic corridor and the gateway to southern and eastern Europe. The region is 9,963 km2 with approximately 1.5 million inhabitants. The territory is characterized by inland mountains and a hilly region. Flat lands run along the Adriatic coast and rivers. Rural areas account for 95% of the regional territory and host 81% of the population. More specifically, 65.5% of the Marche is agricultural land; 21% is forest; 9.5% are natural areas; and, 3.9% are artificial areas. Nevertheless, it is widely considered one of the most industrialized regions in Italy and belongs to what has been called the "Third Italy," a model of development based on small and medium-sized enterprises (SMEs) located in small industrial districts.

According to the OECD, 2011², local entrepreneurial activity is mainly based on family-owned firms and the skills levels are generally low. "This is linked to a lack of capacity to absorb innovation, which is a general problem for SMEs" (OECD 2011). In particular, the lack of economic restructuring and adaptation to globalization has made the region more vulnerable to the current financial and economic downturn in the world economy (OECD 2011). In this context, it appears that the regional economy must speed up the restructuring process in order to become more knowledge-intensive and innovative. In order to do so, the role of research organizations and collaboration among universities and industries must become a key focus area of concern in the future economic policy of the region (OECD 2011,112).

One policy recommendation put forth by the OECD (2011, 34) is that of "integrating agricultural and tourism industries to exploit entrepreneurship opportunities throughout the region, taking advantage of the natural scenic resources of Marche."

Background

Since 2009, an attempt has been underway to collect some of the typical products and key features the Marches under the umbrella-brand "Marche d'Eccellenza," it includes different brands of food, manufactured products, and tourism destinations.

Stakeholders signing the original agreement (on 12/12/2009), which setup the permanent "Marche d'Eccellenza" Forum included: the Vice-president of the regional council (in charge of rural policies), the Chancellor of the University of Macerata, the CEO of UBI bank (Banca Popolare di Ancona), the Mayor of Fermo (as a delegate of "Tipicità," the festival of the Marche's typical products), and the Unioncamere Marche, representing the Chamber of Commerce.

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¹ Source. Marche Rural Development Programme

² Organization for Economic Cooperation and Development

³ The word marche means both the region and the English term, brands. "Brands of Excellence."

The aim of the "Marche d'Eccellenza" project is to forge a strong connection between the products and services offered in the Marches and the identity of the Marches. The "Marche Product" encompasses the products unique to the region, as well as the resources exclusive to this territory. Typical products are not only food and wine, but also hand-crafted goods, fashion, and all the best products from the traditional knowledge of the region's local population.

The project developed as a "laboratory of ideas," with the aim of fostering new research, as well as promoting and monitoring the "*Made in Marche*" trademark in order to sustain productive and economic initiatives that foster sustainable development according to the Marche identity. Tourism and all related supply chains emerged a dominant initiative.

Marche d'Eccellenza Forum

The University of Macerata is the only HEI in the Marche region that offers a three-year degree program in Tourism Sciences and organized the first "Marche d'Eccellenza" Forum in November, 2010. More than 150 bureaucrats, entrepreneurs, consultants, and researchers joined this initiative in order to explore the development of tourism and the local economy under a regional umbrella-brand. The University sought to create an open arena where these participants could analyze opportunities and problems in creating networks, and discuss new initiatives and strategies.

The founders of "Marche d'Eccellenza" presented the initiative and opened the discussion in a general plenary session. Participants then chose among three brainstorming sessions offered on *Internationalization, Know-How*, and *Place Umbrella-Brands* led by university professors, to explore the participant's ideas and strategies for developing the regional economy. Workshop activities were aimed at sharing ideas and knowledge.

At the conclusion of the Forum, all stakeholders co-signed an umbrella-brand agreement, in order to overcome the historical divisions in the region.

The workshops were recorded and transcribed verbatim for subsequent analysis. The themes were sorted using a grounded theory approach in which researchers, following an iterative process, attributed a certain code (e.g. Education), and then reviewed and fine-tuned their code assignment by searching for further materials to include (Lonkila 1995); in fact, this process represents the basis for the conceptual model. Consistent with this approach, the analysis was structured in phases. In the first step, brainstorming transcription passages were free-coded independently by two researchers. In subsequent meetings, the results were examined in order to identify the main "nodes" (themes) and discuss the level of congruence (Gabbai et al. 2003). This work was carried out jointly because the attribution of a certain code (e.g. Education) is necessarily linked to the subjective interpretation of the researcher. By examining the different coding together researchers were able to agree on the definition of the main themes which emerged from the brainstorming sessions.

Results

The content analysis of the brainstorming sessions of the first "Marche d'Eccellenza" Forum transcribed verbatim demonstrated that there were some relevant issues common to all stakeholders, regardless of the specific workshop each attended. Grouping main stakeholders' issues into themes allowed researchers to understand how these different aspects are interconnected and helped form a meaningful framework to understand the dimensions of a Marche region place brand. Eight main themes were highlighted and many of them contain different sub-themes (Figure 1). The role of the University of Macerata reflected the claims stated by stakeholders during the brainstorming sessions.

The central problem, common to all themes, was the need for "network building" capability as the basis of place branding. All the other themes were either indirectly or directly affected by this capability. "Network-building capability", represents the central point where the internal and external dimensions merge together. These two dimensions affecting rural enterprises are part of a process partly under the control of local actors (endogenous) and external forces (exogenous) (Lowe et al.1995).

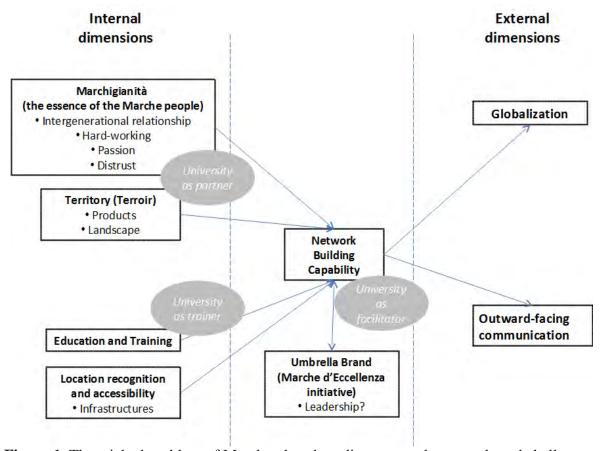


Figure 1. The wicked problem of Marche place branding: antecedents, goals and challenges. **Source.** Authors' elaboration

Internal Dimensions

Territory (Terroir) and Marchigianità (the essence of the Marche people)

Scholars define the "territory" (terroir) as the recognizable and distinctive element in global competition, a synthesis of a culture that creates the product quality; in fact, product uniqueness cannot be copied or found outside the territory. In this sense, participants put forward the need to strengthen associations between the territory and its products, in order to increase their value.

Instead, the complex concept of Marchigianità has something to do with regional identity. Stakeholders showed a passionate attachment to their territory and its products, so that passion for quality products has been recognized as a key feature of the Marche people. This positive attitude towards territory and products is coupled with a deeply engrained historical distrust between producers, who are not used to sharing information.

Another aspect that certainly distinguishes the Marche people is their hard work and strong entrepreneurial mindset. Some entrepreneurs lamented the lack of governmental assistance, especially during the economic crisis, while others underscored that entrepreneurship is a feature of the Marche people, and an essential characteristic that needs to be stressed in difficult moments.

Another important finding to emerge were the differences in intergenerational attitudes. Some entrepreneurs observed that the younger generation is unable to make sacrifices in the way the older generations had. This problem was seen as a central threat to the continuity of businesses in the future.

Researchers identified some core values of the Marche region, shared by all stakeholders. The strong attachment to their region, the agreement on the main features that characterize people from Marche (marchigianità), such as pride, passion, humility, ethics, industriousness, etc..., all elements that could constitute the brand essence.

Common values formed the basis of building a shared strategy: these values needed to be compared with the values emerging from an outsiders' perspective. If these two sets of values matched, then they could represent the "core" of the Marche region's brand essence and provide useful indications for local development.

Thus, the *first important role* of University of Macerata in the case discussed here, but more generally of every HEI involved in multi-stakeholder networks—one of a *partner* in identifying common themes and values. A university partner in the network can help bridge the knowledge gap regarding technical know-how, as well as provide new insights into the development of long-term strategies undertaken. Universities can be particularly valuable in rural areas, where lack of training and business planning is recognized as a major problem, due to limited time, finances, personnel, skills, and experience (Verbole 2003; Saxena et al. 2007). Thus, this structure can make the problem "less wicked" over time by framing the wicked problems, detecting common themes, then comparing and counterbalancing common and conflicting values.

Education and Training

Stakeholders agreed on the importance of fostering a stronger collaboration between the production system and the world of education in order to develop a common language between these two spheres. Setting up projects with universities was recognized as a way to help businesses face global competition challenges, especially because many of the Marche entrepreneurs are great producers, but lack the skills necessary to address the current globalized reality.

Thus, another important outcome which participants seemed to value was the University serving as an *educator*. Its solid degree curricula was not only able to provide well trained and skilled young graduates for specialized professions, it brought HEI together with other professional teachers outside academia (local/regional bodies, chambers of commerce, social partners, enterprises, and professional organizations). Moreover, students greatly benefited from the discussions which emerged from the Forum and gave students an opportunity to develop critical thinking skills through examining real-life issues while making further connections between theories learned in the classroom.

Network Building Capability

Marche businesses, composed primarily of SMEs, became aware that only by joining forces could they reach the critical mass necessary to face global competition. Stakeholders lamented that the inability to build networks extended to politics through the fragmentation of initiatives between municipalities, provinces, and the region making it difficult to create a unitary regional proposition. In this context, the "Marche d'Eccellenza" initiative was valued by the majority of stakeholders, since it provided them a mechanism for sharing the same system.

The umbrella-brand concept was widely discussed as well. Stakeholders expressed the need for a clear idea of what could be gained from it. Sharing the same values was recognized as the first step towards acceptance of the same rules across all sectors, although companies with a strong and renowned brand would see the umbrella-brand as a limiting factor.

Thus, an important function served by the University of Macerata was the role of *facilitator* of networking activities among protagonists in the private and public sector. The Forum, hosted at the University, provided stakeholders from diverse backgrounds a neutral venue in which to freely discuss the issues. It also allowed stakeholders to get to know each other and build trust—the antecedent to a successful collective action. HEIs are conducive to trust as stakeholders feel less "embarrassed" to ask information from academics than from colleagues. And, academics have a reputation for competence and scientific objectivity.

External Dimensions

The themes of *Globalization* and *Outward-Facing Communication* were among the most challenging themes elicited by stakeholders and are strictly interrelated dimensions.

Marche producers recognized the significance of globalization and the necessity of developing some common strategies and networks of cooperative association and support. While some stakeholders were afraid that globalization could lead to a 'loss of identity,' others indicated that future competition will likely occur around some key areas: project management, intellectual property, and products, which need to be protected in all the sectors.

Stakeholders discussed the need for ongoing and centralized communications. The lack of continuity in communication and advertising about the Marche region was a concern. The competing Marche region promotional campaigns had not worked to increase awareness about the region. The message should be consistent throughout the region, since a single location is competing with thousands of different destination choices in a global marketplace.

Discussion and Conclusions: A New Role for HEIs?

The case depicted describes the central role of the University of Macerata had in facilitating network building in rural areas.

The role of the university as a trainer, partner and facilitator is previously known (Betts and Lee 2004). The University aids in rural economic development as an innovator through its active research and development portfolio and as a *regional talent magnet* that results from a vibrant and active student body., Only recently Italian universities have considered the importance of all these roles. This stems from the 2010 University Reform where HEIs are to support the development of the territory where they are embedded. This activism is extremely relevant in a period of public funding reduction. If it is true that universities have been principally founded on the activities of teaching and research (*first mission* and *second mission*, respectively), on the other hand, universities have always made contributions, both directly and indirectly, to decision-making in the wider society; this aspect has been called *third mission*. The bundle of these activities concerns the generation, use, application and exploitation of knowledge and, more generally, it is about the interactions between universities and the rest of society (Molas-Gallart J. et al. 2002). Universities are nowadays called to play a greater role as stimulators and facilitators of knowledge transfer within business and society.

These functions are not new in other countries, like for instance in the USA where the Land Grant tradition of providing practical assistance to communities is very long (established after the Morrill Act of 1862) and full of virtuous examples (Stephenson, 2011). The Land Grant model embraces both of Gibbons et al's (1994) Mode 1 (basic research) and Mode 2 (applied problem solving). Mode 2 is especially of interest in the case of the wicked *Marche* problem.

"Mode 2" is problem-focused, interdisciplinary and subject to multiple accountabilities, where knowledge is generated in the context of application (Gibbons et al, 1994). Knowledge in the context of application implies closer connections between different institutions and actors in the knowledge production system. "Working together in a mutually trans-disciplinary frame, academics and managers attempt to learn from one another in a virtuous cycle of understanding,

explication, and action" (Partington 2000, 91)⁴. This seems to be the case explained in this work. Moreover, the role of the university as a *facilitator* underlined here, can be easily assimilated with the concept of a boundary organization (Batie 2008). Boundary organizations are those organizations "that successfully link knowledge with action, tend to bridge both the barriers that separate disciplines and those that separate knowledge production and application" (Clark and Holliday, 2006:8).

The function of facilitator offers the HEI an opportunity to reduce the wickedness of a problem by giving new perspectives on how to address some long processes, for instance, that of territorial value creation. The University can offer fresh new insights on local problems through case study analysis or by inviting experts from outside spheres. In these ways, the University enhances the network increasing *knowledge transfers*, "the process through which one member of a network is affected by the experience of another member" (Novelli 2006: 1143). This knowledge transfer moves not only from University to stakeholders, but also the other way around, especially when dealing with practical problems. These can become real "research questions" for further academic investigation. This virtuous cycle in knowledge transfer can be appropriate even for HEIs, like the University of Macerata, where there is not a department or a school of agriculture, but a transdisciplinary environment (particularly the department of Education, Cultural Heritage and Tourism) that explores a place in its multiple aspects: crafts, agriculture, tourism, retailing, regional umbrella-brands and the entire rural economy.

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⁴According to Sexton and Shu-Ling Lu (2010: 687) "Mode 2, or actionable knowledge production poses significant challenges for both industry and academia to overcome ... For industry, it calls for collaborative approaches to knowledge creation and knowledge transfer between companies and academic institutions. For academics it requires engaged scholarship aimed at knowledge transfer and knowledge contribution to the practical know-why and know-how of managers. In meeting these challenges, the formation of appropriate knowledge collaborations between practitioners and researchers is essential".. In this context "...Action research has been suggested as one collaborative research method that can be used to bridge the gap between researchers' and practitioners' interests and has the potential to produce Mode 2 knowledge".

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From Confrontation to Partnerships: The Role of a Dutch Non-Governmental Organization in Co-Creating a Market to Address the Issue of Animal Welfare

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Abstract

Firms can play an important role in addressing the issue of animal welfare by creating markets for animal friendly products. This essay analyses the co-creation of a market for animal friendly meat products by the joint effort of a Dutch NGO and the meat industry. The different stages of the process, from opposition to alignment, are analyzed and general implications are derived. The process follows four stages: (1) adopting a strategy to cooperate in order to overcome a legitimacy crisis, (2) adopting a moderate conflict model and imposing limiting conditions into the negotiations with businesses. The limiting conditions provide a basis for a co-creation process, (3) aligning business for co-creating a new product brand, and (4) broadening the scope towards market creation for animal friendly products. The phases of the issue-life-cycle show that interventions are dependent on the nature of the interaction and the existence of a business model. In case this does not exist, collaboration between an NGO and a number of firms can help in creating a market for latent demand into a market-oriented solution to a wicked problem.

Keywords: animal welfare, wicked problem, market creation, the Dutch Society for the Protection of Animals, stakeholder engagement.

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Introduction

Animal welfare increasingly receives attention from policy makers, civil society and market parties. Firms are playing an especially important role in addressing the issue of animal welfare by creating markets for animal friendly products. Traditionally, market creation has been approached in two different ways: firms can either fulfill a latent need by developing a new technology (Narver et al. 2004; Chandy and Tellis 1998; Sood and Tellis 2005) or firms can strategically put effort in gaining acceptance for their products or industry from society (Humphreys 2010). Animal welfare, like other sustainability issues such as climate change, can be characterized as an intractable problem (Lazarus 2008; Levin et al. 2012), with multiple frames depending on the stakeholder (Rittel and Webber 1973; Conklin 2006). Therefore, an either/or approach to market creation seems unsuitable (Camillus 2008). It calls for an alternative approach in which the two dimensions – technology development and societal acceptance – have to be combined at the same time through multi-stakeholder engagement (Dentoni et al. 2012).

This paper explores such an alternative approach of multi-stakeholder engagement introduced by an influential NGO in the Netherlands, the Dutch Society for the Protection of Animals (DSPA). The DSPA's strategy has been to engage policy makers, researchers and firms in the meat supply chain in order to co-create a new product brand. Rather than continued confrontation, they decided to participate in a process of engagement and co-creation, which ended up in a shared approach to the wicked problem. This paper aims at deriving lessons that pertain to managing a process of co-creation in multi-stakeholder networks (Peterson 2009; Roloff 2008; Bäckstrand 2006) from the perspective of an NGO. The structure of the paper follows the logic of an issue life cycle, that runs from a triggering event and stages of confrontation, followed (or not) by the adoption of new business models (Van Tulder and Van der Zwart 2006). Data were collected by desk research on research reports and public expressions (websites) of the actors involved. The researchers conducted an in-depth interview with a representative of the DSPA (senior policy maker livestock production).

Setting the Scene: A Series of Triggering Events (1997–2000)

The outbreak of Swine Flu in 1997 triggered a legitimacy crisis in the Dutch livestock sector. The pig sector came under attack from society not only because the way animals were kept, but also because this was coupled with economic losses. Consequently, the Dutch government decided to intervene with rules and regulations. To avoid a comparable situation in the poultry sector, the minister of Agriculture urged the poultry sector to come up with their own solutions. Hence, a public debate was held on the reconstruction of the poultry sector. The debate specifically addressed the high mortality rate of broiler chicken and the permanent hunger of broiler chicken breed (Commission Alders1999).

A possible solution coming from the debate was to develop an 'intermediary' product that has more welfare quality than the current broilers but less than organic broilers (Horne 2000). Such an intermediary product was recognized as a market opportunity by two seemingly opposing stakeholders: a feed company and the DSPA. Their shared mission – although initially not made

explicit – became to overcome the legitimacy crisis in the livestock sector by developing a new product brand that included animal welfare attributes.

The DSPA is one of the oldest and most prestigious NGOs in the Dutch scene for animal protection, and opposes the senseless killing and harm inflicted on animals. The DSPA is a typical movement related to the upcoming civil society following the industrial revolution. It has the mission is to protect each individual animal by providing emergency assistance, inspection services and by influencing society (DSPA 2011b). Although the DSPA traditionally framed the meat industry as 'part of the problem', the crisis in the livestock sector created a momentum for the DSPA to incorporate production animals as a new policy domain. Therefore, the DSPA changed its identity from a 'protest' and 'watchdog' NGO into a 'partnership oriented' NGO (Van Tulder et al. 2004). Accordingly, the DSPA needed to convince its donors and members that developing an intermediary meat product could also be 'part of the solution'.

Co-Creating a Product Brand (2000–2007)

The process of co-creation essentially consisted of two stages. The first stage involved scientific research (2000 –2003) in order to validate the criteria for a new product brand that positions itself on both animal welfare and price. The insights from the research served as an input for the second stage (2003–2007) that pertained to the DSPA and private companies (mainly supermarkets) negotiating a new product brand.

The outcome of the societal debate induced the DSPA, a feed company and two supermarket chains to participate in a three year research project carried out by animal scientist from Wageningen University. The research focused on the limiting conditions for broiler chicken welfare in novel husbandry systems, such as broiler breed, feed, the amount of (outdoor) space, and lifetime before slaughtering (Horne et al. 2000; Van Harn and Middelkoop 2001). Furthermore, test panels investigated the taste of the chicken meat. By the end of the project, the participating stakeholders acknowledged the animal welfare and cost price conditions coming from the research (Horne 2002; 2003). A cost accounting model provided the basis for discussions and further alignment of stakeholders in the meat supply chain.

To spark the interest of supermarkets, the DSPA and the feed company teamed up to organize several workshops on the different brand scenarios. Furthermore, they went on a company tour to actually involve the interested supermarket chains. In the subsequent round table discussions, supermarkets mainly focused on product price (their bottom line was 20 per cent above the mainstream product price) and the visibility of animal welfare attributes on the packaging (e.g. an outdoor space for broiler chicken could easily be communicated to consumers). The discussions between the DSPA, the feed company and the supermarkets created a new type of interaction (Hospes et al. 2012; Roloff 2008) because, as the representative of the DSPA stated: 'when a private company deals with a supermarket, then this is purely driven by profit, whereas the presence and expertise of an animal interest group created an new undertone focusing on the animal welfare issue at hand'.

In 2006, four supermarket chains confirmed to adopt the (niche) product brand in their assortments by signing a memorandum of understanding. In 2007, the product brand was

introduced. The DSPA clearly communicated its involvement by placing one of its logos on the packages. Moreover, the DSPA positively communicated in the media about the brand initiative and considered supermarkets as partners in improving the life of as many animals as possible. In order to engage private companies into the co-creation of a market for animal friendly meat products, the moderate conflict model proved useful. In this model, the DSPA took the approach of constructive criticism towards private companies. These companies were (still) not convinced to incorporate the animal welfare issue in their business model. The approach implied, however, a prolonged process in which the DSPA could only take small steps. As the literature on stakeholder engagement would predict (Van Tulder et al. 2004), an important role in this interaction was also played by more radical (Animal Liberation Front- type of) NGO's. The newly introduced product brand offered an acceptable 'solution', not in the least, because a more radical NGO challenged it as not being (sufficiently) animal friendly. This helped the DSPA to enforce corporate commitment to incremental improvement of animal welfare.

Broadening the Scope (2007–2012)

The successful introduction of the new product brand convinced the DSPA to pursue new opportunities with private companies from a wider range of livestock production sectors. Between 2007 and 2009, the DSPA developed criteria for the welfare of pigs, calves, cows and laying hens. These criteria were translated into a hallmark for products and launched as the Better Life Hallmark (DSPA 2011a). Businesses in the meat and egg supply chain may use the Better Life Hallmark to strengthen the image of a new or existing product brand. The Better Life Hallmark identifies the level of animal welfare in animal production systems at an early stage of the supply chain. Between 2009 and 2011, the demand for products with the Better Life Hallmark significantly increased, because the largest national supermarket chain decided to replace their mainstream pork assortment with a pork brand that meets at least the minimum conditions of the DSPA (DSPA 2013).

The growth of the Better Life Hallmark urged the DSPA to professionalize its activities by establishing a foundation and an accompanying business model. As of 2012, farmers applying for the hallmark are asked to pay for the certification services. The foundation independently takes care of the audit and control procedure of the hallmark in an accountable manner. Therefore, the DSPA is still able to perform its role as an animal interest group through communication and education.

Discussion

The description of the role(s) played by the DSPA in addressing the wicked problem of animal welfare can be summarized in four lessons learned. First, the DSPA, as a traditional watchdog NGO, adopted a strategy to cooperate in order to overcome a legitimacy crisis. The DSPA acknowledged the interests of their business partners and decided to use a moderate conflict model. Second, the DSPA introduced limiting conditions into the negotiations with businesses. These conditions allowed balancing the different interests of business and animal welfare objectively, thus providing a basis for a co-creation process. Third, the DSPA took the lead in aligning businesses for co-creating a new product brand. This implied, however, a prolonged

process in which the DSPA could only take small steps. Fourth, the successful introduction of a new product brand created an incentive for the DSPA to replicate and extend their approach in co-creating a market to address the issue of animal welfare.

The current study has focused on the role of one NGO in relation to one sustainability issue in one supply chain. The phases of the issue-life-cycle show that interventions are dependent on the nature of the interaction and the existence of a business model. In case this does not exist, collaboration between an NGO and a number of firms can help in creating a market for latent demand into a market-oriented solution to a wicked problem. It is important to note, however, that in the dynamics of wicked problems, the newly introduced product only offers a 'solution' because a more radical NGO challenges it as being not (sufficiently) animal friendly. Further research may broaden the scope on the issue by encompassing the perceptions, attitudes and evaluations of more stakeholders.

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