Abstract

We know the food industry represents an agri-food-bio system, including supply chain actors, investors, governments, knowledge institutions, non-governmental organizations (NGO) and other civil society organizations. The transactions within the system and between organizations produce products, create value, provide jobs, and achieve social goals (Jenkins et al. 2007; Ranking and Boejhle 2010). Undermining system’s interests are the constant shifting of economic, environmental, and social matters. As such, the stakeholders’ inability to integrate, adapt, and reconfigure its organizational competencies weakens its ability to pursue new products and processes (Teece et al. 1997). These compromising matters have lead to the formation of a broader set of inter and intra industry stakeholders to overcome the problems associated with wicked problems. System complexity makes solutions extremely hard to uncover and causal relationships are in a state of flux (Peterson 2011). So, this leads us to ask the following question. How can a stakeholder in the agri-food-bio system signal its competencies to other stakeholders?

The broader impact of ‘wicked problems’ in the agri-food-bio system often result in increases in the numbers of inter-industry collaborations needed to fill in the knowledge gaps. Taking into account, the implicit method of knowledge acquisition, the decentralized nature of knowledge is asymmetric, non-existent, or misaligned, we suggest coordinating stakeholder dialogue and knowledge integration adds much value for food industry participants. Interdisciplinary collaborations require the exploration of a range and combinations of resources to produce practical knowledge i.e. mostly tacit with explicit expression and positivistic knowledge i.e. explicit to the point of precise replication (Peterson 2011). A unilateral attempt to solve wicked problems presupposes the predictive powers of any variable of interests as a driving force behind explaining the agri-food-bio system.

The research will add to our understanding of how organizational relationships add to a responsible public image when addressing complex social and economic issues. In doing so, we will 1) examine the evolution of organizational collaboration and relationships within the agri-food-bio system; 2) conduct natural experiments to analyze the inseparability of stakeholder from
its rich context-based information and its impact on knowledge integration; 3) determine if alliance partners act favorably toward their partners with similar sustainability interests.

Findings from this work will help NSF and other federal agencies to coordinate with a number of private and research institutions, which support the understanding of the organizations and the roles they play in coordinating resources to address the wicked problem.