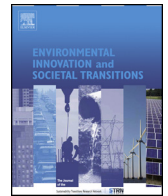


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Communicating tensions among incumbents about system innovation in the Dutch dairy sector

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ABSTRACT

This article investigates the ways in which innovating incumbents address and deal with tensions in their daily conversations in a case of a dairy initiative aiming for sector transformation. Analysis of meetings shows that innovating incumbents employ three strategies to address and deal with tensions such as concerns about the initiative's impact: voicing concerns, questioning as starting point and questioning as response. In these ways, they address tensions at the boundaries between representative and initiative and between representative and constituency. The assigned staff members of initiatives play a key role in opening up conversations on tensions. Tensions among innovating incumbents are avoided in the formal meetings, but are addressed in the frequent bilateral contacts. The research adds to the understanding of the roles of incumbents in a 'transformation pathway', by showing how innovating incumbents in interaction question which actions contribute to a sector transformation.

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1. Introduction

Sector-wide changes are necessary to make Dutch agriculture more sustainable. Innovation initiatives play an important role in achieving such change. Research about system innovation efforts has mostly been focused on system innovation processes in which pioneering entrepreneurs, researchers and other actors jointly work on real-life manifestations of new products, processes and technologies (i.e. novelties). In contrast, initiatives in which innovating incumbents (such as established actors, firms and organisation) attempt to achieve sustainable development are relatively understudied in sustainability transitions literature. In this article, we investigate how innovating incumbents in an innovation initiative in the dairy sector deal with tensions that emerge in their effort to collaboratively develop a more sustainable dairy chain.

The emergence of tensions in system innovation initiatives is acknowledged in system innovation literature. Indeed, studies of the daily practice of innovation initiatives, report various tensions. [Hoes and Regeer \(2015\)](#) show that system innovation initiatives are dependent on the cooperation of diverse actors, but tensions emerge because of the different interests and normative perspectives of the actors which are difficult to align. Such tensions are especially salient when actors believe that the proposed change will harm their interests and values. [Van Mierlo et al. \(2010\)](#) note that tensions may surface when the long-term goals or visions of fundamental change are more out of reach than expected. And although

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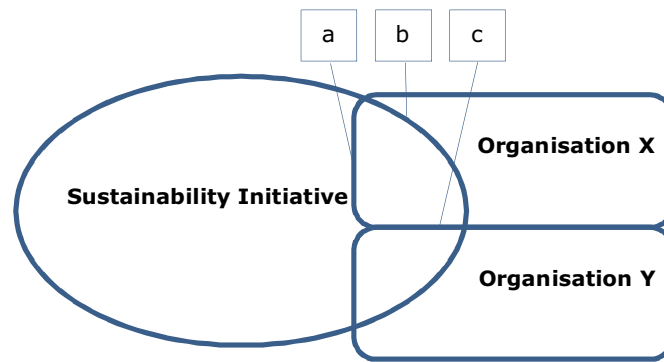


Fig. 1. Representation of the boundaries related to collaborative initiatives of incumbents.

these examples concern studies of innovation initiatives with pioneering entrepreneurs, such tensions may play a role if incumbents work on transforming a sector as well.

This study focuses on the daily conversations between incumbents that participate in a dairy sustainability initiative. In the next section, we elaborate on the role of incumbents in system innovation processes as currently described in transition literature and we argue that studying the everyday communication between innovating incumbents is a way to further our understanding of sector transformation efforts of incumbents. Next, in Section 3, we introduce the case studied, which is situated in the Dutch dairy sector, and specify the analytical framework we applied. In Section 4, we present our results and show three ways in which innovating incumbents collectively discuss tensions. We conclude with Section 5, in which we relate the results to current transition science literature.

2. Innovating incumbents and tensions

In sustainability transitions literature, the term incumbent refers to the established actors, firms and organisations of a sector. They are seen as central to the regime (Bosman et al., 2014). Regimes are characterised as rather stable due to the existing aligned rules guiding people's actions, interdependencies between actors and technologies and infrastructure which counter change (Geels, 2011). Socio-technological niches offer protected space from selection pressures of the regime to path-breaking innovations. In this way, niches may facilitate the development of innovations and guiding rules that are considered more sustainable than the *status quo* and therefore play an important role "in broader processes of regime shifts" (Smith and Raven, 2012; p. 1025) which are a "result of a combination of external pressures [and] internal tensions" (Bosman et al., 2014; p. 47).

Several system innovation studies portray incumbents as actors that hinder the development and diffusion of niche-innovations, because incumbents "(financially) benefit from existing practices" while innovations can pose a competitive threat to existing practices (Smink et al., 2015; p. 87). Other studies go beyond this view, Berggren et al. argue for example that "regime actors may drive radical innovation at the niche level as well", thereby criticising "the perception of 'regime actors' as conservative forces who resist change if not forced to embrace it by the dynamism of new niches" (Berggren et al., 2016 p. 11). They illustrate this with a case in the heavy vehicle industry in which incumbents also compete at niche level with new entrants.

A different perspective on how incumbents may play a role in system change from within is provided by Geels and Schot (2007) who introduced the so-called *transformation pathway*. This pathway of system change does not emerge through radical innovations that are developed and experimented with in niches. Transformation pathways emerge when outsiders (e.g. from Non-Governmental Organisations, NGOs) draw attention to negative side effects of the practices of incumbents. Such ongoing pressures cause frictions within the socio-technological regime that eventually trigger regime reorientation, provided that they are strong and prolonged, so that incumbents "perceive performance problems as structural rather than temporary or operational" (Geels, 2014; p.271). This is necessary for incumbents to "gradually question more foundational regime elements" (Geels, 2014; p.271) and to rethink the sector's core beliefs and practices. A sector hence may gradually transform in case incumbents modify established rules and form symbiotic relations with add-on novelties (Geels and Schot, 2007).

Current literature has not yet addressed the role of incumbents collaboratively working on transition efforts. Geels (2014, p.275) acknowledges that many issues regarding the role of incumbents remain unclear as studies do "not address what goes on inside firms, which would introduce another layer of complexity". To add to the understanding of innovating incumbents' roles in transitions, we explore how incumbents deal with tensions that emerge in the communication between the multiple actor-groups that collaboratively work on a sector transformation.

In the context of this article, we use the term 'innovating incumbents' to refer to influential actors in a sector, who participate in a sector-wide sustainability initiative and persistently work on a sector transformation. Fig. 1 shows an abstract representation of multiple innovating incumbents (i.e. organisation X and Y) participating in a sustainability initiative to

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