Research, part of a Special Feature on Designing Transformative spaces for sustainability in social-ecological systems

Imagining transformative futures: participatory foresight for food systems change

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ABSTRACT. Transformations inherently involve systems change and because of the political nature of change, are subject to contestation. A potentially effective strategy to further transformative change that builds on interdisciplinary, multiactor, and multiscale-practices and values is the use of foresight. Foresight covers a wide range of methods to systematically investigate the future. Foresight exercises offer collaborative spaces and have the potential to conceptualize and even initiate transformative change. But there is no clear understanding of the possibilities and limitations of foresight in this regard. This explorative paper builds on foresight and sociology and interrogates the role of foresight in transformative change, building on four cases. These cases are embedded in different contexts and characterized by different organizational approaches and constellations of actors. Nevertheless, they share the common goal of transformative food systems change. By reflecting on the processes that play a role in foresight workshops, we analyze what created conditions for transformative change in these four empirical cases. We have operationalized these conditions by distinguishing layers in the structuring processes that influence the impact of the foresight process. Based on this analysis, we conclude that there are three roles, ranging from modest to more ambitious, that foresight can play in transformative change: preconceptualization of change; offering an avenue for the creation of new actor networks; and creation of concrete strategies with a high chance of implementation. Furthermore, contributing to future design of foresight processes for transformative change, we offer some crucial points to consider before designing foresight processes. These include the role of leading change makers (including researchers), the risk of co-option by more regime-driven actors, and the ability to attract stakeholders to participate.

Key Words: *food systems; foresight; participatory processes; structuring processes; transformative change*

INTRODUCTION

There is widespread consensus that making the world's food systems sustainable in a manner that ensures food and nutritional security for all is one of today's greatest challenges. Many agree that this challenge requires transformative change (HLPE 2012, Marsden and Morley 2014, IPES Food 2015, UN 2015, Brunori et al. 2017). But the pathways to achieving transformations toward sustainable food futures are still highly contested. This is further exacerbated by the complexity of the many elements and modes involved in food provisioning (production, processing, distribution, consumption) that connect a diverse range of stakeholders, practices, services, and institutions globally (Ingram 2011). Calls to frame the analysis by incorporating multiple system level interactions and to involve stakeholder groups in efforts to achieve transformative change toward more sustainable food systems are frequently heard (CFS 2009, IPES Food 2015). Because transformations inherently involve change toward the future, the use of foresight—an approach that covers a wide range of methods to systematically investigate the future—is often proposed as an effective strategy to address the complexities that continue to arise (Lord et al. 2016).

We interrogate the role of foresight in food system transformations. Transformations are inherently political, with winners and losers, and the embedded aspirations and pathways for transformative change are often contested (Leach et al. 2010, Patterson et al. 2017). Given that food systems are highly fragmented and shaped by a range of actor configurations, these scenarios will have to involve multiple stakeholders in order to

navigate the potential contested future pathways. The creation of transformative spaces is a key ingredient for this endeavour. These spaces are defined as safe collaborative environments for multistakeholder interaction, as a stepping stone for transformative change (Pereira et al. 2015). Many see foresight methods as ways to create "temporary transformative spaces" in which a multiactor group imagines futures and explores possible uncertainties (Wiek et al. 2006, Kahane 2012). Considering the growing popularity of foresight approaches (Ramírez et al. 2008), there is need for reflexivity about and exploration of foresight's role (or lack of a role) in processes aiming at transformative change in diverse governance contexts. In this explorative paper, we investigate participatory foresight processes in terms of the presence or absence of signals of transformative change by assessing four different participatory foresight processes side by side. The identification of signals for processes being transformative will contribute to the identification of research and policy implications for the design of foresight processes. We do this by highlighting a number of factors that are influential to the impact of foresight: governance issues, social dynamics, and foresight methods (Vervoort and Mangnus 2018). We situate this conceptual framing in a food systems context in order to formulate answers to our core question: What is the role of participatory foresight processes in transformative food systems change?

We build on foresight and sociology and draw on the outcome of four foresight scenario exercises that were held in Eindhoven, Tuscany, Burkina Faso, and Dar as Salaam. These were held to

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identify pathways that contribute to transformative food systems change. The four exercises produced rich data that allow us to not only compare the different socio-political contexts of the cases but to distill some key methodological lessons from scenario foresight studies focused on rebuilding food systems. The applications of these questions to our four case studies allow us to contribute to and develop links between the foresight, participation, transformation, and food systems literature.

DEFINING TRANSFORMATIVE CHANGE
Understanding the potential contributions of foresight to transformative change processes requires defining what we mean by transformative change. Research on transformations spans several interdisciplinary research communities (Patterson et al. 2017). Social-ecological systems (SES) theory coined "transformability" as "the capacity to create a fundamentally new system when ecological, economic, or social (including political) conditions make the existing system untenable" (Walker et al. 2004). From an SES perspective, transformation processes are actively navigated by the social actors involved (Olsson et al. 2006). Transition theory seeks to understand the conditions for niche-level activities to be scaled-up into broader socio-technical regime changes (Rotmans 2005, Geels and Schot 2007, Kemp et al. 2007). Political ecology centers on the need to include power relations and politics structure in the analysis of ecological transformation (Streeck and Thelen 2005, Robbins 2011). Drawing on these conceptualizations, we arrive at a definition of transformative change as broad and inclusive, but also particularly mindful of two aspects: the role of power, and the challenge of ex-ante analysis of transformative change. We begin by defining "transformative" as resulting in fundamental changes in the structure, system functions, and relations within and between elements of a given food system. Food system transformations can be created in a top-down fashion. However, we are interested in transformations that are based on innovative niche practices that evolve or emerge such that they become part of new regimes (Rip and Kemp 1998). Following the social innovation literature, we consider agency among actors operating in niches, e.g., practices, towns, factories, neighborhoods, industrial sites, or rural areas, as well as in institutional structures, e.g., the European Commission, municipalities, national governments, science, to be crucial for transformative change. These agents further interact with external factors influencing the system and the agents are affected by and interact with new dynamics emerging from the system's inner workings (Armitage et al. 2008). This means that transformative change is triggered by those seeking to analyze and or achieve it while these deliberate actors interact (knowingly or unknowingly) with internal and external change factors (Sova et al. 2016).

Actors that initiate change in niche-spaces can be concerned citizens or politicians that put food poverty on the table as an issue. But they can also include academics as members of expert panels, politicians, and activists in food movements that perform the role of critically evaluating the workings of food systems. Such "change makers" often operate in networks and occasionally as individuals (Long 2001, Westley et al. 2013). As transformations inherently imply shifting power relations, the aspirations and pathways for transformative change are often contested and transformation processes will often feature winners and losers

(Patterson et al. 2017). To minimize conflicts, bottom-up and participatory approaches are promoted and applied (Chambers 1997). The strategic implication of bottom-up approaches to reforming and rebuilding food systems is that local and historical specificities such as a wide range of food-related practices and values need to be taken into account. Change without incorporating locally embedded values and cultures is unlikely to transform food systems in sustainable ways. Bottom-up approaches can also contribute to the creation of safe and collaborative spaces. However, as other contributions to this special feature also show, these spaces do not emerge in a political and cultural vacuum. Creating collaborative spaces requires resources, i.e., political, financial, and relational. When these are not widely available and/or equitably distributed and, when existing hierarchies predominate norms and values, it is not easy to negotiate and bring subaltern interests and values into the discussion on how to rebuild food systems. In other words, safe collaborative spaces do not occur so easily and cannot be so simply engineered. Foresight, if conceptualized as the collection of practices used to imagine desired or plausible futures (van Notten et al. 2003), may offer a "temporary collaborative space" for exploring transformative change in a relatively safe manner.

IMAGINING TRANSFORMATIVE FUTURES: FORESIGHT
Foresight is a common descriptor for the diverse collection of tools that exists for imagining futures in strategic planning or research contexts, with a long history (Jemala 2010). Because the future is ostensibly more open than the present, it holds fewer defined claims. Therefore it offers opportunities for collaborative work that are not possible considering the constraints of the present (Wilkinson and Eidinow 2008). Originally, foresight processes were developed in contexts with relatively strong institutions and mechanisms for participation and collaboration by nonstate actors (Jordan and Turnpenny 2015). Consequently, such approaches may not always fit contexts where these conditions do not exist (Jemala 2010, Chan and Daim 2012). Nevertheless, they may also offer tools to foster such participatory conditions.

Within foresight, distinctions can be made between approaches that focus on "explorative" future scenarios, designed to investigate contextual changes that may pose challenges or to test the robustness of planning; and "normative" visions and pathways, that focus on creating desirable futures to work toward, and the ways to get to them (Henrichs et al. 2010, Kok et al. 2011). "Visioning" is often used as an initial step to outline a desired future as an end state (Meadows 2014). To consider how a vision can be reached, a popular method for formulating pathways toward the end state is back-casting: the process of planning backward in a step-wise fashion from an envisioned future to the present (Robinson et al. 2011). When explorative scenarios are used, the goal is to explore plausible, challenging futures and what they imply for the set goal or strategy. Such scenarios offer contexts against which to consider strategy or policy options, with each scenario offering its own specific set of challenges and opportunities (Van der Heijden 2005). In this article, we, along with a range of other authors working on foresight, (Kok et al. 2011, Vervoort et al. 2014, Galli et al. 2016a) engage with the argument that both normative and explorative approaches are

needed in the context of transformative change. In practice this means that a vision of (a) desired future(s) should be imagined, and pathways toward that vision should be developed. Developing such strategies is a principal focus of planning toward systems transformation. A vision and the pathway(s) toward it can subsequently be tested against multiple explorative scenarios, with each scenario offering different challenges to test and enhance the feasibility of the imagined pathway toward the desired vision. This way, key uncertainties and systemic challenges to the goals of those seeking to create transformative change can be investigated during the process, helping to make the preconceptualization of transformations more concrete and robust. Contextual, explorative future scenarios help stakeholders to test and examine the assumptions they are making about how to achieve transformative change, and what kind of change they are proposing.

The impacts of foresight on transformation processes
Foresight can assist food system actors in (1) the conceptualization of food system transformations, and building on this conceptualization, it can contribute to (2) the initiation of food system transformations. By giving shape to what future(s) various food systems actors desire, and how these futures can be achieved through different pathways and plans, foresight helps in the conceptualization of change. The conditions for a foresight process to act as a safe collaborative space in helping to move toward transformative change are different in each process (Gaventa 2006, Wildemeersch 2007); this means that the challenges differ significantly among cases and situations. Wiek et al. (2006) investigate the role of foresight in transition processes, focusing mostly on the possibilities of foresight for the imagination of transition, for capacity development, and for offering recommendations to policy makers. Similarly, Wolfram (2016) describes foresight as a key capacity in the context of (urban) transformations. What needs to be addressed, however, is how foresight is affected by and affects the broader conditions of transformation processes.

APPROACH TO ANALYSIS
To explore the role of foresight in transformation processes, we theorize that foresight processes as a method to imagine transformative futures can, like any social process, be understood as shaped by the interplay of agency and structure (Giddens 1984, Long 2001). The way decisions are taken in society (governance) and social interactions between societal actors limit or create space for transformation. Vervoort and Gupta (2018) discuss how foresight processes can be conceptualized as political interventions in the context of anticipatory governance. Vervoort and Mangnus (2018) argue that governance conditions, the roles of social actors involved in the process, and the choices in process and methodology design all interact to effect the impacts of foresight on transformation processes. By conceptualizing foresight exercises as interventions that aim to forge change or transformation, the foresight processes themselves need to be treated in similar ways. Thus, following Giddens (1984), we pay attention to processes that structure social change; in our cases both governance processes and sets of social interactions emerge as key. As such, we operationalize the processes shaping and being shaped by foresight in this paper as "structuring processes" (see Table 1 for a brief overview).

Table 1. Processes structuring foresight.

Processes structuring foresight	Layers for operationalization
Governance context	Opportunity for change
	Institutional support
	Institutional embedding
Social dynamics	Leading change agent
	Ambition for change
	Participation of relevant actors (dominant; alternative; target group)
	Mobilization of actors
Methodological factors	Process design
	Role of researcher
	Imagined futures

Governance, as a broad system of decision making in the context of food systems, does not only involve policy making or the application of state authority, but also civil society such as church-based groups, charities, business groups, and social movements that are (pro)active in advocating for and acting on food system transformations. However, it matters whether the need for transformative change is recognized as an urgent one at higher institutional and political levels. Only in these situations, is transformation likely to get support. In addition, institutional and governance practices, cultures, and procedures determine the extent of broader societal support foresight exercises may receive, and ultimately the feasibility of the changes that are envisioned during a given process. It matters whether these procedures are flexible, inclusive, open, or dynamic, making transformative change easier, or rigid, exclusive, and hierarchical, conditions that are likely to make transformative change more difficult. Next to these processes, there is a need to be cognizant of the social processes that occur during and around the process. Who, for instance, takes the lead, and who participates in the foresight process? What are their capacities and mandate to implement the envisioned changes? What are the ambitions of the various actors involved? Is there consensus amongst and between the participants about the need for food system change; whose changes and pathways are considered in the foresight exercise? Whose pathways end up present in the final stage of the process? Such central questions imply the need to take into account the differential power positions of both the individuals and the collective-food-system actors participating in any process. Last, the choice of foresight methods may result in very different types of futures that are imagined, limiting or expanding the pathways considered, or including or excluding problematic and challenging scenarios, providing different views and options for the future. The role of the researcher unfolds as crucial in deciding which foresight method fits with the situation at hand. Different methodological choices are made to take the different governance and social contexts into account. The particular choices made from a methodological standpoint are closely associated with the different levels of ambition with respect to recognizing the urgency and being prepared to act on food systems transformation.

In operationalizing these three structuring processes we simultaneously highlight what elements and aspects were

Table 2. Overview of the foresight cases used for the analysis of the role of foresight in transformative change.

Case	Description	Project
Vision on urban agriculture, the Netherlands (A1)	The municipality decided to commission a vision on urban agriculture in order to support these civil society developments. The vision was planned as based on the input of citizens through participatory policy making.	TRANSMANGO
Tuscan "Alliance for Food" workshop, Italy (A2)	Increase in food poverty in Italy resulted in a scattered landscape of food assistance practices. The overall aim of the workshop set up by the aid organization Caritas was to create an alliance between the actors involved in these practices.	TRANSMANGO
Policy development for the rural sector, Burkina Faso (A3)	The first rural sector plan was about to expire. Together with multiple departments the aim for the process was to construct a new one that is robust in the face of climate change and socioeconomic developments.	Climate Change, Agriculture and Food Security (CCAFS)
Implementation plans of food policy, Tanzania (A4)	Coinciding with the production of a new five-year development plan, the workshop explored threats and opportunities to food security, with the aim of it being incorporated in this new development plan.	TRANSMANGO

successful and, where trade-offs might have occurred during the foresight process. We use these highlighted elements to score the foresight cases on their transformative capacity and/or potential for transformation. Although this scoring approach is relatively simplistic, we argue this is a necessity to build an understanding of what we regard as transformations in practice because this is often missing in the literature. This approach is appropriate considering the depth of analysis and the exploratory objective of the paper. This scoring is done based on the researchers' experiences of the foresight process and as such, should be considered an indication, rather than a strict, deterministic classification. In the analysis we have structured the processes more or less chronologically. As such, we give more detail to the opportunities that were present and the support and embedding of institutions, leading up to the decision to undertake the foresight process. We realize that identifying transformative process remains difficult. However, we argue that through robust analysis of these four diverse cases, we are able to distill signals of transformative change. For clarity of our argument, we largely focus on the methodological aspects and choices made in the foresight processes. The analysis in all four cases included a similar procedure: pre- and postprocess interviews, case study analyses, and observation of stakeholder interactions during the workshops. The authors themselves were involved in the foresight exercises as participants and observers. We make use of the published project workshop reports (Galli et al. 2016*b*, Hebinck et al. 2016, Mhamba et al. 2016, Zougmoré et al. 2016).

Foresight cases
We draw on four case studies in which participatory foresight has been used to conceptualize and strengthen strategies and policies for food systems change. The cases are drawn from collaborative efforts between the CGIAR's Climate Change, Agriculture and Food Security program, under which scenario-guided policy formulation is conducted in Africa, Asia, and Latin America, and the EU funded FP7 project TRANSMANGO, which focuses on scenario-guided transformation pathways for European food futures. The four cases share some methodological principles. In each case, future scenarios were used to either review and improve existing plans (draft policies), or new plans and strategies were in fact created in the same process, through visioning and back-casting (Vervoort et al. 2014, Vervoort and Gupta 2018). The cases

are different in terms of governance and social conditions for transformative change. Perhaps most significant is the status of each project in relation to existing processes of public governance: ranging from entirely integrated with existing government food policy to hybrid multistakeholder processes, to being largely disconnected from government policies. Table 2 provides a summary; more detailed case descriptions can be found in the Appendices 1, 2, 3, and 4.

ANALYSIS
Change processes are set in motion by actors' actively (re) organizing or rebuilding food systems through forming new alliances, establishing new networks, and embedding new institutions. Such processes need to harness and shape a future acceptable to a broad range of perspectives and actors, in order to make this change sustainable. The four cases we have explored can be regarded as starting points for such change processes (see Table 2). They have been scored in terms of the processes that shape the transformative impact of foresight. An overview of this can be found in Table 3 and a distillation of their transformative impact can be found in Table 4. We now describe the results of this analysis, more or less chronologically structured, by the process prior to the workshop; during the workshop; and during the implementation phase, looking for (dis)similarities.

Prior to the workshops, initial conditions in all cases gave some indication of the potential for transformation. We relate this to the opportunity for change, the ambitions for transformation that involved actors had, and the awareness of initial institutional conditions, which has an impact on process design and who should be involved. All cases represented opportunities for transformative change, thanks to upcoming policy reviews, progressive governance approaches, and the willingness of crucial actors to explore collaboration options. The level of institutional support from relevant actors differed throughout the cases. In Tuscany and Burkina Faso, although there was strong institutional support for the outcomes of the foresight processes to be used for planning and action, the transformative ambitions of the processes in terms of shaping new food systems were not initially clear. By contrast, in Eindhoven, ambitions for the vision were explicitly transformative, imagining a new role for urban agriculture in the city, but institutional support for any outcomes

Table 3. Scoring[†] and description of status of the processes that influence foresight impact in the four cases studies.

Structuring process	Foresight case studies			
	Vision on urban agriculture, the Netherlands	Tuscan "Alliance for Food" workshop, Italy	Policy development for the rural sector, Burkina Faso	Implementation plans of food policy, Tanzania
Opportunity for change	+Democratic approach to progressive topic; set in motion by municipality	+Private and public actors willing to join forces against poverty	+Direct input to policy formulation process with focus on change	+Potential input to policy process for national level
Institutional support	=Support from one left-wing political party	+Food assistance already funded by government	+Backing of ministry for use of outcomes	- No connection to existing institutions
Ambition for change	+Direct addressing of sustainability via urban green solutions	- Create alliance building on existing support	+Construct new and improved rural policy	=Provide input for national food policy
Participants (dominant)	- Few industry actors and policy makers	+Many policy and industry actors	+Policy actors from various departments	+Primarily junior policy actors
Participants (alternative)	+Many civil society actors in urban food	+All relevant food banks and charities	- No NGO or civil society actors	=Few NGO and small business actors
Participants (target group)	- No urban poor or elderly participated	- No (food) poor participated	- No vulnerable groups or farmers participated	- No food insecure or poor participated
Process design	+Five half-day workshops; adapted the convenor's process; approach of convenor and researchers very compatible	+Two 1-day workshops; designed by research team; adapted iteratively before and during process for fit with local needs	=Three 2-day workshops; built on CCAFS scenario-guided policy review approach, but adjusted to policy cycle	- One 2-day workshop; designed by researchers, incl. visioning and scenarios; but too few resources for tailoring process
Role of researcher	+Very involved; also organized extra sessions, voluntary postprocess follow-up	+Involved in the structuring of process and aim; collaboration continues after process	+As specified in design, very involved; also, in follow-up steps	- Highly dependent on research team; but few resources to dedicate to process
Leading change makers	+PT40: urban agriculture knowledge broker; socially well connected	+Caritas: respected and legitimate charity in food assistance	+Government department responsible for review of rural sector plan	- Research team; insufficient connection to crucial actors
Institutional embedding	- Lack of connection to existing policy and embedding of existing actors despite initial call from city council	+Well embedded as all involved actors have shown interest to collaborate and get involved.	+The entire process was geared from the start highly embedded, with support from various departments	- Little embedding; also due to timing as it coincided with a bigger national meeting
Mobilization of actors	- Difficulties due to lack of institutional embedding; restricted to civil initiatives	+Some key actors in the food assistance system had committed to the formulated plans	+The necessary policy actors for the plan were mobilized	- There was no outcome/strategy for people to mobilize behind
Imagined futures	+Very transformative; radical when compared to current political situation	- Formulated futures did not divert much from current situation; i.e., no transformation, but improved connections between actors (new coalitions)	+Explorative scenarios about coming decades; some very different from the current situation	- The process did not result in a complete and robust imagined future/formulation of change.

[†]Scoring of the workshop with regard to the structuring processes that influence foresight impact, based on the facilitators interpretation. + positive, = neutral, - negative.

from the process existed only on one side of the political spectrum. In the Tanzanian case, there was a policy opportunity, but connections to the policy process in question still needed to be developed when the process started. These three distinct structuring processes mark the starting point of the foresight process and also influence the actors that accept invitations to participate. Based on these observations, we see that when governance conditions are positive in terms of the intended use of the process outcomes and defined transformative ambitions, it is relatively easy to involve actors who are influential in the current regime. When this is not the case and initial conditions are not favorable, involving influential and respected actors is

possibly even more important for legitimacy although more difficult to achieve. Finally, the participation of vulnerable groups, who are often targets of such processes, should be safeguarded; this was not adequately addressed in any of the cases analyzed.

Foresight processes can lean heavily on the ambitions for change. When existing plans are updated and reviewed during existing policy cycles, the likelihood of the process results being used is high. The use of critical explorative scenarios that highlight political dilemmas and tensions can be enough to significantly alter and improve such planning processes. This was seen in

Table 4. Scoring of achieved transformative impact, based on the scores appointed in Table 3.

Foresight case studies	Score[†]	Transformative impact
Vision on urban agriculture, the Netherlands	3	Major potential for transformation in terms of actor diversity, methods, and ambitions, but unsuccessful at time of writing because of being stuck at a political impasse. Imagined futures were successfully formulated, hence there is still potential for transformation if it manages to move beyond this impasse and mobilize actors.
Tuscan "Alliance for Food" workshop, Italy	6	Successful in formulation and implementation; resulted in a round table for collaboration and governance of food assistance initiatives. However, no drastic restructuring of the food system beyond new actor coalitions.
Policy development for the rural sector, Burkina Faso	7	Successful in formulation and implementation. However, a lack of diverse actors makes transformation debatable in terms of new coalitions, but several key changes in the new plan focus on empowerment of vulnerable smallholder farmers.
Implementation plans of food policy, Tanzania	-6	Unsuccessful in formulating and implementing transformation. The process was unsuccessfully timed and not ready for a workshop. As such, it did not result in any discernible change.

[†]The total score is the sum of the scoring in Table 3, where + equals 1; = equals 0; and - equals -1.

Burkina Faso, which was a well-planned process that did not necessitate new strategic processes to be established. When entirely new plans and strategies are created with an explicit focus on transformative futures, the preconceptualization of transformative change is more explicit, and the process likely needs to be more flexible in terms of design and the role of the researcher. In part, because of the flexibility that is required in adapting to the needs of the process, it is also easier to create co-ownership of these transformative ambitions among a diverse group of actors. This was seen in the Eindhoven case, where there was ample freedom in terms of process design. If we only look at the compatibility of policy process with methodology, this presents an ideal situation: a government-supported process that explicitly requests a new vision and the testing of this vision against scenarios. In all of these cases, critical, challenging scenarios have proved a tool to re-examine plans and strategies in terms of their transformative ambition, their feasibility, and their inclusiveness of vulnerable groups. For instance, in Tuscany, one scenario challenged the ability of the strategies that had been developed to support refugees, which had not been considered before.

After the transformative change has been conceptualized, the initiation phase relies on institutional embedding, whether or not change is prioritized, the ability to mobilize actors, and the leading change agent. The latter is especially crucial because the leading change agent can be regarded as the "spider in the web" connecting all those involved. Whatever the conditions, one actor or a group of actors should be responsible for taking the lead or at least to monitor the steps leading from conceptualization to initiation. In the Tanzanian case this was highly unbalanced because too much hinged on one process facilitator who was unable to continue the process because of personal circumstances. In all four of these cases, the need for a new or an existing organization that takes the lead in implementing resulting plans and strategies was highly discernible. In cases where a well-connected and respected actor in the field takes the lead, the chances for successful implementation increase. A good example of this was the Tuscan case, where the aid organization Caritas took the lead in implementing the envisioned change. However, during the implementation stage, the envisioned transformative change re-enters the political domain and can only partly be influenced by the process organizers. It is dependent on institutional support and influential change leaders as well as governance opportunities and timing. In the Eindhoven case, the institutional embedding for the imagined future was insufficient, which made it difficult to mobilize a broad spectrum of actors to drive the envisioned change forward.

Overall, the four cases show a range of different results with regard to transformative impact (see Table 3 for an overview). Although all initially were considered to be promising, we see some structuring processes as having more weight than others when it comes to eventual impact. Notable is that in all cases the methodological factors in the process were of less influence than the governance context and the social dynamics that surround the process. The Tanzanian case was unsuccessful in the formulation and implementation of a transformative future, mainly because of unfortunate timing of the process, resulting in meagre participation, and the lack of embedding in ongoing processes. The Tuscany and Burkina Faso cases were both quite successful in terms of implementation because all have managed to implement and realise parts of the envisioned futures. The Dutch case shows a dynamic development because it is rich and transformative when it comes to its envisioned future and builds on partial political support but ultimately lacks the embedding that is needed to move change forward. As such it has not been able to reach its transformative potential at the time of writing though the resulting vision is still a source of controversy and discussion among Eindhoven actors.

DISCUSSION
Foresight processes can only be a starting point for transformative change. Such exercises play useful roles in the participatory imagining of what the future of food might be and certainly has the potential to give voice to those often not heard. But transformative action needs to follow. The growing popularity of foresight methods requires some reflexivity in terms of the fit between methods and objectives. Although it remains difficult to answer exactly when one is looking at a transformative process, especially as it develops, we argue that the successful incorporation of the foresight outputs through structuring processes signals a promising and potentially transformative role for foresight practices. Overall, we propose several roles foresight

can play in catalyzing transformative change. This ranges from the more modest to the more ambitious:

1. Preconceptualizing transformation: the most modest but still potentially useful contribution of foresight to processes of transformation is simply to offer the tools to preconceptualize processes of transformative change. This means discussing alternative paradigms and unpacking them to bring to the surface what is required to achieve the objectives in line with the alternate paradigms presented.

2. Offering an avenue for the creation of new actor networks: if we take the formation of new actor networks as a key element of our understanding of transformative change, this means that a process that aims to preconceptualize transformative change can be a vehicle for simply bringing those new networks of actors together to do the preconceptualization. As an example, if the goal of a foresight process is creating a vision for food and nutrition security at the city level, using a systemic perspective, and with a view to exploring transformative change, such a framing may bring together actors from across practices of social innovation and/or positions of influence in the center and the margins of the current food system.

3. Developing concrete strategies with a high chance of implementation: concrete plans can be created that have commitment and the support of new actor networks who are then empowered and indeed able to shift power and resources to create new system configurations.

On top of this, a few findings stand out: (1) the leading change agent in charge of the process is crucial for the impact made through a foresight process as are the network connections created through a process; (2) the tension between defining transformative practices and the need to connect to powerful actors needs to be acknowledged; and (3) researchers also influence the outcomes of foresight exercises as they themselves are participants with agency and influence.

The literature on participatory governance stipulates the role of a leading change agent as vital for pulling together and connecting the different actors (Scholte 2011). This not only depends on knowledge, but also on personal traits, such as charisma, legitimacy, and the networks in which they and their organizations are embedded. Actors in leading positions and their leadership skills critically define the initial phase of transformative change. They reach potential participants, determining who and how, and their personal as well as institutional characteristics are influential in terms of participants' accepting the invitation or not. Ideally, conveners have a broad network, are charismatic, and have some legitimacy regarding the subject matter. This needs to be further contextualized by history and the very nature by which politics usually operates. This depends on the culture of politics and what is considered to be acceptable. These conditions are influential to the inclusiveness of the process and ultimately who participates. Moreover, the leading change agent will have more influence on methodological choices: how to design the workshops is not unimportant because certain methodologies allow more space and flexibility than others. All this indicates that such workshops do not operate in a political and cultural vacuum.

Tension exists between transformation requiring the mobilization of new actor networks to support the processes and the need to connect to established actors for power toward transformative change. Attempts at transformative change after a foresight process are not necessarily successful, especially when new networks are formed but are not empowered politically and economically. These activities are at that moment still to be considered niche activities and have a small likelihood to challenge more dominant practices. This highlights an interesting tension when considering transformative change: new alliances are formed around progressive goals that often challenge predominant power structures, institutions, and practices. But these alliances may need to leverage elements of the current regime's power while empowering alternative institutions, practices, and networks. It problematizes the roles that niche and regime actors can play, respectively: connections to political and economic power, i.e., the status quo, are often not regarded as being transformative (Elert and Henrekson 2016), but the ability to tap into such resources may be crucial to initiate certain transition processes. In many cases engagement with the status quo is regarded as co-optation by the status quo. This highlights the complex role of existing and established power structures in transformative change. Can a vision that is progressive enough for promotion of sustainable transformative change be simultaneously politically and economically supported by elites that may be required to realize the transformation? Collaboration with political and economic elites in foresight processes offers opportunities to challenge dominant regime powers and institutions from within, but similarly risks empowering a regime's power through solutions formulated in a participatory, yet status-quo, fashion. This tension becomes particularly stark when ideas about transformative change, created via new networks of actors, are not connected to political interests. The Eindhoven case and the Burkina Faso case clearly hinged on different political power dynamics. However, it becomes risky when a strong focus is placed on interacting with established planning procedures. This ensures political support but risks a bias toward status-quo planning. Such a tension shows that the formation of new alliances around progressive goals needs to occur alongside the need for these alliances to be prepared and in a position to leverage elements of an incumbent regime's power. These networks also need to be able to empower emerging alternative institutions, practices, and networks in order to drive transformation and perhaps even establish a new regime.

Research on participatory processes suggests (McGee 2004) that the participants involved in the process are crucial to the preconceptualization of transformative change. This relates to both the quantity and quality of participation (Polk and Knutsson 2008, Hebinck and Page 2017). Quantity in this case refers to whether the mixture of participants represents the stakeholders and quality refers to whether the social dynamics during the process allow for all voices to be heard. Social dynamics during a process are very contextual and culturally embedded. Although in some cultures official hierarchies mean very little, in other cases they are hard to overcome and greatly influence a foresight process. A good mix of stakeholders is key to any process that aims for change, but it is also one of the most difficult steps. In all of our four cases, a mixed group of stakeholders were

involved, leading to a good mix of inputs from various stakeholders. However, in terms of political and economic embeddedness, some cases were unbalanced; this was particularly problematic in the Tanzanian case. Another issue is the inclusion of voices that are otherwise not heard. Although all cases in some way reflect on the implications of a change process on more vulnerable groups, none directly included these stakeholders in their foresight processes. The inability of such processes to connect to these target groups remains problematic in many planning processes. Another important element to consider is what role researchers consider themselves playing and what roles they are in fact playing. Researchers themselves exert considerable influence in the shaping of transformative spaces during the preconceptualization phase. They can catalyze the transformative dynamics, depending on their personal motivations, their relations to the stakeholders, and the role they choose to play within a process. We note that the roles of researchers operate on a spectrum ranging from straightforward process facilitation to bordering on action research. As such we recognize that the following roles can be adopted by researchers involved in or leading foresight processes for transformative change:

1. Facilitating the foresight process to help actors preconceptualize their desired system and the transformation pathways toward it. All four cases are examples of this.

2. Facilitating the integration of the foresight results into plans and strategies that have commitment and support.

3. In parallel with the integration of the foresight process outcomes into supported plans, the researchers can act as academic stakeholders, offering to act at points in the pathways that require academic participation, i.e., linking research to action and education.

4. The researcher(s) could, under exceptional circumstances, choose to become the champion of transformative change in an action-research mode, becoming personally responsible for coordinating the execution of plans and strategies formulated through the foresight process.

CONCLUSION

In this paper, we have interrogated how processes may contribute or fail to contribute to transformative change by building on insights from foresight and sociology. We investigated four distinct case studies where we applied foresight methodologies to situations where actor groups came together to address complex challenges faced by their respective food systems. We have argued that because of the participation and inclusion of a potentially wide range of actors, foresight approaches provide ways to conceptualize a certain shared, desired future to work toward. Foresight encompasses a wide range of tools fit for many purposes. When normative and explorative foresight methods are used in combination, they allow for reviewing and testing of designed plans set against diverse, challenging scenarios. We have identified three roles, ranging from modest to more ambitious, that foresight can play in transformative change: preconceptualization of change; offering an avenue for the creation of new actor networks; and creation of concrete strategies with a high chance of implementation. We would like to emphasize again that the leading change maker sets the agenda and greatly influences the potential for initiating change. This highlights the importance of who takes the leading position and to what extent this actor is

regarded as legitimate and has a mandate to lead and to act. Second, there is the need for pathways to connect to actors or institutions that can move resources. Although such pathways can increase the opportunities for initiating a change process, there is a risk of defining and entrenching status-quo change rather than delivering truly transformative change. A third and final point is the relative influence of the actors involved in the foresight process and that the role of researchers in such processes must be given explicit consideration.

Responses to this article can be read online at:
http://www.ecologyandsociety.org/issues/responses.php/10054

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Appendix 1
Vision on urban agriculture, Eindhoven, the Netherlands

The first case centres on a visioning process in Eindhoven, the Netherlands (Hebinck et al. 2016, Hebinck and Page 2017). The number of urban food initiatives have rapidly grown over the past few years, although they have remained undetected by the local government until recently. After a town hall meeting organised by some actors from civil society and the political party 'GreenLeft' (i.e. GroenLinks), the need for a policy supporting these initiatives and developments became apparent. Unlike 'traditional' municipal policy-making – where public servants, who oversee a certain file or record, draft a policy – the Eindhoven City council mandated the task of formulating a policy to a civil society organisation (CSO). The organisation in question was 'Proeftuin040': an urban agriculture focussed knowledge network established in 2014, aiming to further sustainable urban green space through knowledge sharing and small-scale projects. Initially, an elaborate planning process, involving visioning and scenarios, was developed by the city council and Proeftuin040.

While Proeftuin040 was leading the process and carried overarching responsibility, they were backed by the mandate of the city council, and also received some organisational support via a city council representative. This backing gave the process more legitimacy. Invitations to participate were sent by a city council representative, which arguably lead to participation from actors that might otherwise not have been willing to be involved. The process in Eindhoven showed a rich mix of stakeholders including CSOs, public and private actors, but with broader participation in the first phase. Actors involved in the entire process were local and regional government, the city's housing corporation, elderly care institutions, community centres, social welfare organisations, the regional health authority, urban food initiatives, (small) retailers, landscape architects, design studios, and academics. Many of the public actors, such as the social welfare organisations and the housing corporation, participated because they had been invited to participate by the local government. Notably absent were the vulnerable groups themselves, however they were partly represented by the social welfare organisation and initiatives connected to the food bank. After the introductory workshop, TRANSMANGO was brought in to assist, develop, facilitate and research this program over the course of a period of 9 months. This expanded the initially planned process and resulted in more in-depth exercises. A combination of the following foresight methods were used: 'the seeds game', back-casting and scenario-modelling. This combination was seen to be appropriate as it encourages the exploring of unexpected alliances and has a strong resilience thinking focus (Bennett et al. 2016). The researchers were closely involved in the design of the foresight process and quite engaged in the process itself. As such, they were academic stakeholders and took active part in the constructed plans that required academic participation. This eventually led to the researchers hosting some smaller sessions with a core group of the organisation, and a moment to share knowledge with academic experts on the topic of urban agriculture.

In the pre-conceptualisation stage there was predominantly active involvement of civil society actors. During this stage of the visioning, much emphasis was put on directly changing municipal policy and the local government's internal practices around food. The participants explained this using the rationale that larger-scale and more structural change could be realised in food system practices via change implemented at the level of local policy. However, what the envisioned policy change for local government should entail remained rather abstract. This

may be explained by the lack of municipal representation, and also because many of the participants were unfamiliar with the process of policy-making itself. Some participants reflecting on the process, commented that the local government should have taken more of a leading role, as they saw it as the local government's responsibility to facilitate change desired by the city's inhabitants through policy. Not long after this stage, when Proeftuin040 presented preliminary findings, a number of civil society actors noted that the process went 'too slow' and was not 'active' enough. Meaning, they wanted to move into the implementation phase. Now mid-way in the foresight process, the back-casting and scenario exercises were to take place. The number of participants gradually shrunk, especially as some CSOs were let down by the pace of the process. Nevertheless, the back-casting contributed new ideas. Examples are the consideration of green procurement and circular economy as macro-themes for transformative change. During this more normative phase of the process, the back-casts were turned into pathways of change by adding a significant layer of detail on to how to meet these macro-themes. Not long after, the scenario exercises took place, to test these pathways. This rigorous testing of these pathways resulted in several useful ideas. For example, the idea to 're-brand' urban agriculture in the Netherlands. This was done in order to make it less associated with 'hippie' or 'green elite', which have made it more marginal in its use. This adjustment makes urban agriculture more likely to be a viable way to address future challenges facing the food system. The results of these efforts were then synthesised by Proeftuin040 in a larger vision document. This was to be presented to the council, who then were to turn it into policy.

At the beginning of the initiation stage with a vision in place, the organisation Proeftuin040 had trouble mobilising people around the pre-designed plan. Urban agriculture was not considered a priority by the more institutionally embedded actors, such as the housing association. Civil society looked to the municipality for leadership. The local government itself, however, was difficult to mobilise because of uneven political support, which mainly came from the local arm of the party 'GreenLeft'. At the time of writing Proeftuin040 is still attempting to find a way to increase institutional embeddedness and persuade more actors in the local government to accept the urban agriculture vision that emerged out of the foresight process. While it represents the desires of non-governmental actors in the city, it only partly aligns with city council priorities. Arguably, the minimal involvement of the local government resulted in a lack of policy-coherence with respect to the other policies and the political environment within the city, as some of the content was perceived as too radical. While the foresight process had a lot of potential to be transformative, it had not resulted in transformative change at the time of writing.

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Appendix 2
Tuscan 'Alliance for Food' workshop, Italy

The second food systems change case focused on food assistance in Tuscany. Italy saw an increasing number of people relying on assistance through various parts of the food assistance system (Arcuri et al. 2016, Galli et al. 2016, Hebinck et al. 2018). The main actors of food assistance are non-profit and volunteer-based organizations who operate either on the frontlines directly with food aid recipients or they act as second-level entities focused on food surplus recovery. They are often embedded in already consolidated and organized structures, which results in fragmented governance: often uncoordinated and sometimes even competing. Funding is reliant on donations from companies, EU-subsidies, and minor financial resources from regional and local government. The process was initiated by directors of the aid organisation Caritas, who saw the collaboration with TRANSMANGO as a good fit for their objectives. The researcher entered an earlier established assembly of key actors around the coordination of food poverty and food aid. The main objective of the process was to establish better relationships with the key actors involved in food surplus recovery and re-distribution. Their original idea was for food assistance stakeholders to operate under one umbrella called 'Alliance for food'.

To fit these objectives, two workshops were planned, two months apart. A combination of visioning, back-casting and scenario-testing was designed to highlight and reflect on the role of these diverse actors. A broad range of high-level stakeholders participated in the workshops including: members of the Department of Citizenship' Rights and Social Cohesion of Tuscany Regional administration, directors of 10 Tuscan church administrative units, which includes Caritas; the coordinators of Emporia of Solidarity; the fund-raising manager for the Food Bank Tuscany; representatives from UniCoop Florence; and academics. The process did not include the vulnerable groups that are at the heart of food assistance activities. The first exercise that entailed visioning, resulted in the identification of the macro-themes that were considered essential to founding the 'Alliance for Food'; strengthening governance, addressing education on multiple levels and setting up a food assistance approach focused on the individual's needs. This was complimented by the second normative phase; back-casting was essential to the cross-pollination of strategies among the different participants. For example, the combination of development of fundraising schemes, volunteer training, and food safety guidelines. While the process was led by Caritas, the representatives from the government had considerable sway over workshop dynamics. They were particularly influential during the explorative scenario exercises and able to actively steer and design their eventual role. The explorative scenarios reinforced the awareness of the importance of anticipating trends in two key variables. First, the degree of pro-activeness of local governments, which for example affects the degree of reliance on public actors in leading the plans. Second, the extent of the openness of civil society, which affects the ability to capture needs and approximates the required reliance on volunteer action.

The foresight workshops attempted to find connections between the fragmented Tuscan food assistance actors and contributed to the mobilisation of a small, yet influential, number of public and private actors. In the final drafted plans, government actors play a coordinating and supporting role in the governance of the food assistance network and monitoring of food and nutrition security in the region. Throughout the process we saw the initial steps to the '*Alliance*

for Food' in Tuscany, which was based on prior existing relationships whose potential was not yet utilised. However, there was difficulty in driving wider mobilisation for the Alliance. This was rooted in the pursuit of ownership of the results: Caritas was involved as a main actor from the start. The experience and the positive outcomes were primarily identified by Caritas. Nevertheless, the spaces provided by the foresight processes gave way to continued interaction around the topic of food poverty, even though prior to the process this was not seen as a goal. All participants, notably the public actors, were all highly motivated to take some of the back-casted plans forward. The collaboration between Caritas, the Food Bank, a retailer and the regional government was consolidated into a "regional table" composed of the main reference people at regional level, that gathers regularly. Furthermore, it has resulted in a continued relationship between the researchers and Caritas, who are collaborating on further research. The result of the foresight process was transformative to food assistance in Tuscany; while the vision of the Alliance itself was very Caritas focused, which, once implemented resulted in a continuing collaboration through a 'regional table' used for updating around progress and providing coordination.

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Appendix 3
Policy development for the rural sector, Burkina Faso

A scenario-guided policy formulation process of the second National Plan for the Rural Sector (PNSR II) in Burkina Faso made for the third case. This foresight process was part of the Climate Change, Agriculture and Food Security (CCAFS) Scenarios Project (Zougmoré et al. 2016) and of the '*Sécretariat Permanent de la Coordination des Politiques Sectorielles Agricoles*' (SP/CPSA; the Burkinabe governmental body responsible for the formulation of agricultural policies and plans). Thanks to collaboration between CCAFS and the SP/CPSA, the process was initiated in 2015. This joint leadership shaped the broader goals of contributing to a new rural sector plan, as well as contribution to and harmonization between broader (Consultative Group for International Agricultural Research (CGIAR) objectives. Initially this partnership had plans to include government representatives, private sector actors and third sector actors (i.e. CSOs and NGOs). However, the process primarily involved public sector representatives and CGIAR researchers, with some involvement from the private sector. This brought together different branches of government and different branches of Burkina-based CGIAR researchers.

After a first workshop in which participants reviewed the first PNSR using the CCAFS scenarios set for West Africa, a second workshop was organized in 2016. This was centred on a smaller number of participants. It included key SP/CPSA representatives and participants from the review workshop. The team of researchers aligned with the needs of the SP/CPSA for the formulation of the new National Plan for the Rural Sector. Ultimately the researchers were fully aware that the level of ambition was in the hands of the policy maker whose primary concern was with the formulation of an updated and improved plan, making the researchers' role rather limited. Visioning was used solely as a normative foresight approach and contributed novel aspects to be considered for the new plan. This included strengthening multi- and cross-level governance, a stronger focus on the vital, yet vulnerable, smallholder farmers. The following phase that entailed scenario testing, gathered new insights such as inclusion of smallholder farmers, capacity building, stronger governance across jurisdictional levels, and continuous engagement with civil society and private sector actors. The workshop participants translated the scenario-guided recommendations into actionable activities, which were consequently used in the formulation of the PNSR II. These participants were in key positions to create and help implement the national strategy. The lack of third sector involvement in the process meant that the actors involved faced very few obstacles and almost no pushback in policy formulation and implementation. Arguably, the lack of diverse representation diminished the possibilities for new actor coalitions to come out of the policy formulation process. However transformative the ambitions stated in the actual plan might still be, it is likely to rely on similar actors as in the previous plan.

The successful incorporation of outcomes is clearly associated with the active participation of government representatives. Central to the Burkinabe workshop was the formulation and implementation of a specific new rural policy and participation leaned heavily on government representatives. As the executive secretary of SP-CSPA valued the insights on policy and institutional change very valuable, he and his team decided to directly incorporate it in the new rural policy and its initiation. An added layer was capacity-building among the writing team of the new PNSR. They have reported better understanding of the scenario process, its usefulness

and the relevance of its recommendations and potential actions (outputs), which they considered to a significant extent during the formulation of the new plan. While the foresight resulted in transformative change in policy, the inclusiveness of transformation is debatable, due to the predominant involvement of established public-sector (government) representatives.

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Appendix 4
Implementation plans of food policy, Tanzania

A foresight workshop held in Dar es Salaam, Tanzania is the final case. The workshop was initiated by the project TRANSMANGO and brought together a range of stakeholders to draft plans for the implementation of Tanzania's food policy (Mhamba 2016). With several food-related policies and plans under development, a foresight process was organised between the Tanzanian government, the TRANSMANGO project and international project partners. Its objective was to propose pathways towards more sustainable food and nutrition secure futures for Tanzania. The objective revolved around creating multi-stakeholder governance platforms in several key areas including public procurement and human and institutional capacity development. The foresight process was timed to fit with the development of relevant policies and implementation plans: the ultimate aim for the workshop was to integrate results into the new 'National Five-Year Development Plan'.

After the initial scoping of opportunities for change, the goal for the foresight process was set to draft plans for the implementation of Tanzania's food safety policy. The workshop was attended by participants from government, a handful of actors from the private sector, academia and education sectors as well as civil society. However, overall the process had insufficient opportunities to connect to ongoing policy cycles. Secondly, the process coincided unexpectedly with another high-level meeting that was attended by the more influential government representatives need to create this embedding. Consequently, participation from the government was limited to mostly junior representatives from the ministries. These participants had little executive power in the departments they represent to take any plans forward. Other participants did include private sector representatives, participants from academia and civil society – but these participants could not help connect the process to national policies. Restricted by time and financial resources, the workshop was organised in two days. The visioning process was partly successful. Highlighted during this phase was the need for a better understanding of the current problems around food and nutrition security among the participants. The identified knowledge gaps within the participant group made a strong pre-conceptualisation of change difficult. Nonetheless, the participants emphasised this as a personal learning experience around the subject of food systems. During the explorative foresight, new ideas were also harvested. For example, it stressed the need for awareness raising and education on food and nutrition security, capacity development across the food value chain and different sectors, and close involvement of local government authorities. Outcomes were policy insights directed at the need for transformative approaches to data and knowledge collection. Improved coordination and collaboration needs to be based on sectors that deal with issues around food and nutrition security. However, the outcomes did not specify the need for integration into public policy.

While directed at formulating plans for the new National Five-Year Development plan, this process was short of strong institutional embedding. The participation of mainly junior representatives signals two reasons for that: On the one hand, this could be explained by the absence of higher-level representatives that have executive power. On the other hand, it signals a lack of commitment to the process from the government, as representation by more junior actors need not result in inactivity from the government. Both of these are partly explained by the process being dependent on one researcher with limited time available for intensive process

follow up. The overall foresight process was unsuccessful in establishing transformative change, as is explored in more detail in the analysis.

cess went 'too slow' and was not 'active' enough. Meaning, they wanted to move into the implementation phase. Now mid-way in the foresight process, the back-casting and scenario exercises were to take place. The number of participants gradually shrunk, especially as some CSOs were let down by the pace of the process. Nevertheless, the back-casting contributed new ideas. Examples are the consideration of green procurement and circular economy as macro-themes for transformative change. During this more normative phase of the process, the back-casts were turned into pathways of change by adding a significant layer of detail on to how to meet these macro-themes. Not long after, the scenario exercises took place, to test these pathways. This rigorous testing of these pathways resulted in several useful ideas. For example, the idea to 're-brand' urban agriculture in the Netherlands. This was done in order to make it less associated with 'hippie' or 'green elite', which have made it more marginal in its use. This adjustment makes urban agriculture more likely to be a viable way to address future challenges facing the food system. The results of these efforts were then synthesised by Proeftuin040 in a larger vision document. This was to be presented to the council, who then were to turn it into policy.

At the beginning of the initiation stage with a vision in place, the organisation Proeftuin040 had trouble mobilising people around the pre-designed plan. Urban agriculture was not considered a priority by the more institutionally embedded actors, such as the housing association. Civil society looked to the municipality for leadership. The local government itself, however, was difficult to mobilise because of uneven political support, which mainly came from the local arm of the party 'GreenLeft'. At the time of writing Proeftuin040 is still attempting to find a way to increase institutional embeddedness and persuade more actors in the local government to accept the urban agriculture vision that emerged out of the foresight process. While it represents the desires of non-governmental actors in the city, it only partly aligns with city council priorities. Arguably, the minimal involvement of the local government resulted in a lack of policy-coherence with respect to the other policies and the political environment within the city, as some of the content was perceived as too radical. While the foresight process had a lot of potential to be transformative, it had not resulted in transformative change at the time of writing.

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