The art of 'doing' sustainable agricultural innovation: approaches and attitudes to facilitating transitional projects

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Chapter 5. The art of 'doing' sustainable agricultural innovation: approaches and attitudes to facilitating transitional projects

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Abstract

The management of projects for sustainable innovation is characterised by a variety of intricacies. Facilitators play a central role in dealing with these challenges. Adopting an empirical approach, this chapter discusses the practical approaches and attitudes that facilitators develop to deal with such challenges in the domain of agricultural innovation. To that end, the paper presents a list of four intricacies inherent in running projects that seek to enhance sustainable development, based on the literature: 1) the challenge of combining the ambition of sustainable change with the need for responsiveness in facilitating processes of joint planning and design; 2) the need to develop and use knowledge in a practice-oriented manner in an often science-oriented context; 3) the need to develop an innovative 'niche' within a context of vested powers; and 4) the need to reach beyond a project's duration to 'anchor' the dynamics by which its ambitions may be realized in the future. Three cases of managing projects for sustainable (agricultural) innovation are described, highlighting the practical ways in which the respective facilitators in each case deal with the four identified challenges. It is found that attitudes developed by a facilitator differ per project yet that similarities can be identified. Differences can be observed mainly between approaches in facilitating projects that seek to explore the notion of sustainability in terms of guidelines for future practice, and projects that aim at developing concrete implementable designs. Within these two types of projects, facilitators are seen to be engaged in a continual balancing act between two identifiable attitudes: a responsive, serviceable attitude, through which the facilitator seeks to connect with participants and to be responsive to their needs and wishes (called a Learning approach here), and an attitude of leadership, through which the facilitator decides more or less alone on the way the process is to move forward (dubbed here a Leading approach).

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1. INTRODUCTION

The post-WWII wish for a rationalisation and scaling-up of food production in the Netherlands (and Europe) offered for a long time a mostly undisputed guidance to agricultural policy and practice. However, the associated value framework, heralding economic efficiency and unbridled growth, have met with increasing criticism over the years, especially since the 1970s and 1980s (cf. Spaargaren et al 2012). Today, the orthodox consensus on (technological) rationalisation and intensification has lost considerable ground and is being challenged by a variety of concerns over food quality and safety, environmental protection, nature conservation and animal welfare. The term 'sustainable agricultural development' has come to serve as an all-encompassing label for agricultural innovation guided by a mix of environmental, social and economic concerns.

Over the past two decades, the emphasis on fostering sustainable agricultural development has given rise to a wide variety of design practices that seek to stimulate socio-technological innovations. From a cross-case perspective, reflection on the practical aspects of 'doing' agricultural innovation on a project basis is useful, as the sustainability concept presents practitioners with the need to deal with complex challenges.

The literature on experiences regarding the practical elaboration of the sustainable development concept directs our attention to four major challenges:

▪ ***Concerning the issue of responsiveness, in the face of high ambition.*** In order to ensure the commitment of a collection of actors to working jointly on plans and projects for sustainable innovation, such projects need to be responsive to their needs and wishes. Running a project in a responsive manner requires that the participants' "claims, concerns and issues" be considered the "organisational foci" in the elaboration of the project (Guba and Lincoln, 1989). To bind a group of diverse actors together around a common goal in this manner is quite a challenge as it is. What adds to this challenge is the claim of fundamental change that is inherent to the sustainability concept: its elaboration and implementation may imply an "opening up" of existing routines, rules, values and assumptions embedded in the institutions and practices that have co-evolved with earlier, 'unsustainable' modes of socio-technological development (Loeber, 2004; Grin et al., 2010).

▪ ***Concerning the issue of knowledge, in the face of practical relevance.*** Among the dominant assumptions are ideas about the authority of science that are rooted in a neo-positivist research tradition. Key to this tradition is the axiom that true knowledge is universal in nature, and that its production is authoritative if it succeeds in disregarding the particularities of the time and place of inquiry. Less 'rigorously' produced knowledge in this perspective will be of a lower status, even though it may hold high

relevance to practical problem solving (Schein, 1973). From a practice perspective, the value of knowledge is determined by its 'fit' with the situation at hand (practical knowledge; cf. Loeber, 2004). As a result, in the actual practice of joint puzzling and of designing innovative projects, the status and value of knowledge may be a topic of dispute, as may be the credibility of the researcher.

▪ *Concerning the issue of power, in the face of "persistent problems".* As noted above, the problems that are addressed in innovative projects – the problems of an 'un-sustainable' development – may be considered as the 'side-effects' of modes of production and consumption, and associated geopolitical, economic, juridical and cultural structures, that for long were (and to some extent still are) considered perfectly rational and legitimate (cf. Beck, 1997). Because they are deeply entrenched in societal structures, such problems are called 'persistent' (Schuitemaker, 2010). Attempting to resolve such problems cannot leave the dominant structures unchallenged. This will evidently imply a confrontation with powers embedded in, and protective of, these dominant structures.

▪ *Concerning the issue of 'anchoring' dynamics of change, in the face of continuity.* Because of the persistence of deeply rooted structures, the envisioned changes are not bound to take place overnight. Moreover, the concept of sustainability entails the connotation of protracted dynamics towards more viable and lasting modes of production and consumption in the long run. The idea of a long-term perspective on change is at odds with the inevitably short life of concrete projects. Therefore, any project on sustainable innovation has to somehow seek to reconcile the planning of a short-term project with the – by definition – long-term objective of sustainable development. This means that, ideally, a project not only results in concrete ideas or designs, but also seeks to help create the conditions under which these ideas and designs can be elaborated further and put into practice on a wider scale, after the project has come to an end. How does a facilitator deal with the challenge of 'anchoring' (Loeber, 2003; Elzen et al., 2012) the dynamics pursued in a project?

This chapter addresses the question of how facilitators of innovative (agricultural) projects deal with these challenges. We focus on the facilitator (or alternatively, the 'project manager'; role descriptions will vary among cases), as he or she is a central actor in the innovation process. His or her role is to help bring a group of project participants, either from one particular organization or, as is often the case, from various backgrounds and levels of expertise, together in a collective effort on an ad hoc basis to rethink standing practices and to develop new (technological) insights and modes of operation.

The efforts at sustainable *agricultural* innovation, and the role of facilitators in this field, are of particular interest. In the domain of agriculture, the challenges of dealing with institutional inertia and power as described above are compounded

by the complexity of working with living organisms as producing units. Institutional challenges in this domain are rooted in the dominant position of product steward boards, lobby organizations and cooperation structures for market development. Other institutional challenges come from the dominant technical innovation approach, which is strongly reductionist in nature (Steenhuizen, 2004). On-farm innovations are expected to fit with the dynamics of investment cycles, land ownership and land value as dominant facilitators for investment, as well as the need to be congruent with sunk investments and the dynamics of globalised markets for fresh produce. Moreover, novel concepts can only be successful in terms of market value when the developmental conditions of the living organisms involved are met and preferably improved.

The chapter then reflects on the approaches and attitudes that project facilitators develop and apply in the course of innovation projects that focus on sustainable agricultural development. The paper's empirical focus is on three cases of innovative projects. Among these, we distinguish between two types of projects: a) projects that aim at developing ideas on how to make the concept of sustainable development operational and a 'a mode of thinking' to guide further planning, and b) projects of innovation that aim at developing concrete implementable designs[9]. These project types can be seen as expressions of the dynamics by which system innovation moves from a so-called 'pre-development phase' to a 'take off phase' in the depiction of transition pathways as developed by Kemp and Rotmans (2005). Of the discussed cases, one is of the former type, aiming at developing a mode of thinking about making the concept of sustainable development operational. In the final sections, the cases are compared and discussed.

2. ANALYSES OF CASES

2.1 Rethinking livestock production systems

In the late 1990s, a programme, known as 'Programme 348' (P348), was set up to develop ideas about how to make animal husbandry in the Netherlands more sustainable. It was launched as one of the policy responses to an epidemic of classical swine fever that hit the Netherlands in 1997 (Grin et al., 2003). This was a broad programme with a generic outlook. It chose to apply the method of Sustainable Technology Development, developed by the programme by the same name that ran in the early to mid-1990s. The method is characterised by the

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[9] The typology made here is reminiscent of Vogelezang and Wijnands' (2009) distinction between transition pathways that originate from experimentation in practice on the one hand, and those that originate in developing future visions, in order to derive at innovation experiments from these visions on the other. However, the two modes of distinguishing between projects do not overlap: in this chapter the projects aiming at an implementable design may either find their origin in practices-based experimentation orf in processes of envisioning the future. Likewise, the projects aiming at elaborating the notion of sustainable development may or may not include envisioning exercises.

combination of three elements: a) it takes perceived future human needs as a starting point for analysis, e.g. the need for food in 2050; b) it propagates the development of future visions about possible practices by which these needs may be met in a more sustainable manner than is the case in the current situation; and c) it develops a method of 'backcasting', that is, of reasoning back from the visions of the future to the present situation, in order to establish what should be done in the short run to enable the development of the envisioned changes in the long run (cf. Weaver et al. 2000). P348's Core Programme Team received training in this method, and adopted the idea in order to develop novel approaches to dealing with persistent problems in Dutch livestock production.

Regarding responsiveness

Among the characteristics of the approach developed was its deliberative perspective. Stakeholder participation was made a cornerstone in thinking about and developing novel, sustainable approaches to livestock production. Yet in the practice of the eight concrete projects that were P348's spin-off, the facilitators often put an emphasis on pushing participants forward so as to avoid a mere 'optimisation' of the existing unsustainable system instead of the envisioned fundamental change of that system (Bos, pers. comm.). The project proposals that reached the Core Programme Team, in spite of the team's efforts, were rather traditional proposals aiming at "*incremental improvement* of isolated elements of livestock systems rather than on *trans-disciplinary, reflexive design systems.*" (Grin et al., 2003; italics in the original). The project facilitators took the lead in setting the course and objectives of the projects proposed.

Regarding knowledge issues

The first output of the P348 programme consisted of a portrayal of various broad visions for livestock production in the Netherlands. The report (Ketelaar – De Lauwere, 2000) was richly illustrated with images of the future options envisioned. It had been written in close cooperation with some of the stakeholders. Its reception was mixed. Those in favour of the ideas expressed in the programme were enthusiastic about the report. However, it was also set aside as being "not scientific" (Spoelstra, 2002). The institutional context of the Wageningen University required a more scientific approach for the programme. This "put additional pressure" on the team members (Grin, et al. 2003: 12). A way to deal with this was to seek to translate the broad visions into much more specific options for implementable designs.

Regarding power issues

The Core Programme Team that gave shape to P348 was committed to exploring new modes for fundamentally redesigning livestock production in the Netherlands. Its remit enabled the core team to do this, as its governmental 'steering group' agreed. Yet the different contexts in which the programme was

to develop were not all set to welcome the innovations suggested. The cluster of research institutes ('DLO') to which the programme was commissioned by the Ministry of Agriculture itself was in the midst of fundamental change: its previous lump-sum budget granted by the Ministry was changed into a programme-based system of financing, most of which now had to be found among private investors such as businesses. This meant that P348's initiative to develop projects on a 'supra-institutional' basis, in which outside – and mainly non-investing – parties were to play a major role, landed in a situation that was not sympathetic to the idea. A parallel governmental programme, *Ecology Economy Technology* (EET), that financed innovative projects in and outside the agricultural realm in contrast to P348, aimed at innovation in the traditional sense of the word. The approach to dealing with this inconsistency, which put tension on the progress of the projects, was to make the adherence to stakeholder deliberation a *sine qua non* for funding through the P348 project. Commitment and engagement in this way were 'forced on' the project, so to speak, by their facilitators (cf. Bos and Grin, 2008).

Regarding anchoring

The project developed an entirely novel institutional arrangement within the context of the research institutes (now Wageningen UR) in which it was embedded. Key to this arrangement was the commitment to establishing an interdisciplinary project team and the idea that "programme interests would be considered above institutes' interests" (Spoelstra, 2002). At the time, these choices were totally unprecedented and led to a lot of stress and a tug of war between diverse research institutes about budget claims of the participating institutes and the question of responsibility. To ensure the 'anchoring' of its key principles, the project leaders of each spin-off project were made to obey certain rules such as: a project team had to include a stakeholder in addition to the research institutes' own people, and project implementation was to be done by teams that would include several research institutes (ibid.: 13). Thus, the specific nature of the P348 programme was anchored via the formal rules for acquiring research grants for agricultural innovative projects at Wageningen UR.

2.2 Energy Webs: developing cooperation between varieties of actors

The liberalisation of the energy market in 2003 provided an opportunity for the glasshouse horticulture sector to become a new player in the energy sector. Growers were allowed to exploit Combined Heat and Power (CHP) engines and to sell the excess electricity on the open market. The possibility of exchanging heat with one another was interesting for the growers when combined with artificial light (the lamps produce year-round heat so the CHP-heat can be shared with heat-requiring glasshouses). This led to a number of energy clusters among growers in the Netherlands. At the same time the technique of storing solar heat from glasshouses in aquifers and of using it for heating glasshouses in the winter

became available (Van Andel, 2002). In spite of the advantages and potential viability (Velden *et al.*, 2007), heat exchange between glasshouses and non-horticultural counterparts in so-called 'energy webs' has not developed fully, due to organizational and cultural obstacles for cross-regime co-operation. Of the 15 initiatives for energy webs that have been developed since 2003, only two energy webs are operational today.

The Energy Web project was aimed at understanding and overcoming the pitfalls in the co-operation process, and was financed by the Dutch Ministry of Agriculture. The project was set up as action-based research and supported three initiatives. One of these was not successful. The required cooperation between a grower, a housing cooperative, a project developer and the local city council did not work out. The facilitator did his utmost. He invited all growers in the area to a collective meeting with the city council, housing developers and the participating housing corporation. The meeting was aimed at presenting technical options for the combination of glasshouses and the projected energy requirements of the buildings. As all parties were interested in further calculations, the facilitator was able to gather data and take the lead in drafting the principles of cooperation. Thereupon one grower was selected. Focusing on this grower, subsequent meetings were meant to help develop a clear view of each other's motives, the techniques involved and the implementation timeline. The facilitator was asked to continue the facilitation activities, mainly for his ability to cross cultural bridges and for his role in initiating the process. The process failed, however, when the housing cooperative was not able to build a business case on heat exchange given, the legal limitations of renting out houses in the social sector.

Regarding responsiveness

Forming an energy web was a complex process, technically, legally and organizationally. On top of that, the participants' time horizons differed significantly: the grower's context is a yearly crop-and-market cycle, with an investment horizon of a maximum of 10 years. The housing cooperative, in contrast, used a multi-year building plan, and counted on decades for exploiting a site. The grower was interested in a sustainable energy concept but was averse to taking on extra responsibilities. The facilitator helped to build an understanding between participants, by organizing visits to each other's companies and by encouraging the participants to be frank about their ideas and concerns. In addition, the facilitator kept the momentum going and, thanks to that, kept the participants excited about the process and its progress.

Regarding knowledge issues

The technical tools used in the process allowed parties to roughly calculate energy flows and economic viability. The relevance of this knowledge however, was heavily debated. Debates revolved around the reliability and relevance of knowledge, such as calculation tools and (informed) assumptions, on which to

base the business case, like the gas and electricity prices and the energy efficiency of the system. The interpretation of information could calculate the system as viable, but also as non-viable, given only minor adjustments. This made both the interpretation tool and the information itself subject to discussion. The facilitator helped the participants to interpret new knowledge in the perspective of their ambition and in view of the trust between partners. He helped them to develop their own perception of risk and to see how much risk they were willing to take.

Regarding power issues

Powerful institutes like housing developers and energy companies seemed hesitant at best to cooperate with glasshouse horticulture farmers and were obstructive at worst, leading to delays and a lack of trust in other energy web initiatives. To avoid collision, the parties focused on a relatively small-scale project that could be performed outside the influence of such institutes. The parties in the initiative thus remained in charge of the process.

Regarding anchoring

Anchoring was targeted at in three ways: firstly by designing and developing an energy web; secondly, the partners as well as the facilitator were to act as ambassadors for the concept of energy webs; thirdly, successes in the process were communicated to growers, civil servants of other cities with a horticultural connection, housing corporations, and project developers. Whereas the third type seemed to deliver some level of anchoring, in terms of further consultation of two municipalities, based on the experience in this case, the second type resulted in parties that were open to cooperation but aware of the complexity of the task, with the result that the energy web was never concretely built.

2.3. Developing a collective trade monitoring union in the pepper supply chain

The vegetable chain in the Netherlands used to be centred on regional auctions, but this changed dramatically during the mid-nineties. In the process of mergers between auctioneers in those years, auctioneers – organisations based on grower-cooperatives – also took on the role of trading organisations, often by takeover. This process of mergers and takeovers led to an increased conflict of interest between the organisation and its growers. It also coincided with an increase in power of the large retail organisations, resulting in a limited number of buyers in Europe. The central auction lost its function as a result of the arrival of multiple (grower owned) trading associations. As a side effect, product flows were no longer centrally monitored, which led to a loss of oversight and lack of control on price stabilisation, while increasing the distance between growers and the market, since trading organisations started to play a dominant role.

In addition, the position of the growers was severely damaged by European subsidies for market development (abbreviated as GMO) in horticulture, which were distributed via trading organisations and former (but still cooperative) auctioneers. These subsidies allowed such 'GMO-worthy-organisations' to invest in, for example, packaging utilities. Growers were obliged to cooperate with these GMO-organisations in order to develop products of higher added value. Within 10 years, growers had lost insight into the product streams and were now contractually bound to a GMO partner for their development.

In 2005, a number of leading growers met to seek a way out. The growers decided on hiring an external consultant to lead their process of regaining control of the market. A new alliance was formed and called P8 ('Pepper 8' – for the participating eight pepper growers' associations, collectively representing about 90% of pepper production in the Netherlands). Later this effort was copied in the tomato, cucumber and egg-plant sectors.

The first steps of P8 were (internally oriented) towards: 1) bringing structure and focus to the list of wishes and actions previously determined by the growers; 2) positioning the organization through many presentations and discussions with growers throughout the country; 3) achieving quick results to establish credibility; 4) to get insight into product streams and product quality development from the time of harvest to sales at the retailer; 5) starting a debate among growers on the nature of their problems in the marketplace; and 6) initiating an international promotional campaign for Dutch peppers. These first actions led to a base on which P8 could discuss issues of product quality and fairness of price setting with traders, and even discuss the fairness in the production chain with retailers. Over time the nature of P8 changed – from a budding alliance trying to establish new working relations between growers and the trading corporations, to an organization that tried to 'referee' such relations.

Regarding responsiveness

While P8's aim was to regain a powerful position in the market – in balance with the relatively high business risks that companies in the primary sector face –, the process facilitator felt that his primary goal was to establish an alliance that could 'face the storm' in the power struggle with parties in the market. For the facilitator in the internal organization of the growers' collective, being responsive meant dealing with wishes and emotions within the P8 board, and building trust among the growers nationally while proposing and facilitating a new organizational design. Outwardly, facilitating this process meant keeping good relations with the representatives of the challenged powers, while being able to make a stand against them.

Regarding knowledge issues

The facilitator had to work on a number of different expertise levels: getting updates and expertise on facts of market dynamics and product streams,

communication, process interventions, stakeholder interventions, understanding power structures in the supply chain, and designing organizational structures for P8 as it developed.

For growers the process involved understanding more about the nature of their position in the market and the needed attitude change to overcome this: 'The availability of products has to be controlled by growers again, and this can only be done collectively." For the facilitator this phase involved convincing growers that P8's views were correct.

Regarding power issues

The project was aimed at reaching a stronger position in the market, which meant that the power of other parties in the supply chain would have to diminish. The very presence of P8 therefore caused a power struggle among the parties in the supply chain. These existing powers were challenged on aspects like quality control and efficiency, and were presented over time with a competing organisational model. Being the chairman and spokesman of P8, the facilitator had the leading role in confronting these powers. This meant debating with both the (internal) participants to have them all adopt the same strategy, and with the (external) 'competing' powers to argue the growers' case – and the un-sustainability of the current situation - and have these supply-chain parties give more power to the primary producers.

Regarding anchoring

The strategy of anchoring followed was that of uniting the P8 members and gaining their trust in the proposed strategy. The reputation of the facilitator himself became strongly tainted through the process as an ambassador as being "for the growers", which over time meant that the consultancy firm he was hired from lost clients, such as the trading organisations. The ultimate goal of anchoring was the introduction of the new market organisation. The first attempt at this has failed, but a second attempt with a different organisational design seems probable.

3. COMPARISON AND DISCUSSION

The above descriptions of the ways in which project facilitators dealt with the four challenges – identified in the introductory section as seemingly inherent to the management of projects for sustainable agricultural innovation – show quite a few similarities in the approaches developed and attitudes adopted.

Regarding responsiveness

The cases show that it is wise for facilitators to tap into the participants' needs and beliefs. To be responsive, the facilitators had to express an open attitude and genuine interest in the participants, and had to be able to deal with emotions and allow criticism and even doubt in the projects' chances of succeeding. It proved of help when a facilitator had the courage to show his or her vulnerability and uncertainties (P8).

While showing such a modest and service-oriented attitude, the facilitators in the cases described were, however, able to steer the processes beyond fulfilling the participants' immediate needs, in order to reach for more fundamental innovations. Here differences between the two types of cases can be observed. Whereas the "idea-developing projects" aimed at having participants "think out of the box", the implementation-oriented projects needed the participants to adopt and collectively pursue a new concept or design. For "thinking out of the box", the project facilitator had to help participants to find a proper balance between far-sighted designs and practical feasibility, by challenging them time and again to explore the 'margins' of what they deemed feasible. In the projects aiming for an implementable design, the facilitators consciously steered towards a consortium with a willingness to "get inspired" and work towards an aligned vision, a concrete goal (which was the reason why participants joined), and a shared strategy to achieve that goal. It was therefore a process meant to bring a sense of collectiveness around a problem or shared interests and to develop the trust needed among parties to invest time, effort and (in most cases) money. In the cases presented, trust was built by the facilitator delivering quick results, engaging in a (public) debate on the challenges the projects addressed, protecting a high level of confidentiality within the group and at times with individual participants, and providing the knowledge base on which the design was built.

Regarding knowledge issues

Acquiring new knowledge or adopting new ways of applying knowledge is at the heart of transitional projects. New applications of knowledge may be challenged by assumptions about the authority and relevance of science that are rooted in a neo-positivist research tradition. In the cases observed, the ambition of a project determined the type of knowledge issues that came up within the course of the respective cases. Within the 'idea-developing' project, quite innovative stances towards knowledge production were developed, which caused the project to clash with institutional contexts. In some projects that aimed at implementing new designs, new knowledge applications (and limited new technical research) were introduced by the facilitators to inspire participants, so that they could develop implementable concepts with a high ambition in terms of sustainability. In the P8 case new organizational models were copied from other market domains and energy web calculation tools were developed based on common practices in other sectors. The struggle on the focal point of knowledge therefore

did not revolve around the nature of knowledge (rigour of knowledge), but rather the applicability for the case at hand (relevance of knowledge). This involved a challenge for the facilitator to be well informed in proposing the knowledge application and to be trusted by the participants to extrapolate using these tools.

Regarding power issues

Both types of projects had to face the challenges of defying the self-evidence of "business as usual". The "yoke of normality" could be located partly in the institutional context and (economic, technological and cultural) structures in which the respective projects were situated, and partly in the minds and hearts of their participants who were bound to build on their experiences with that world, as were, for instance, the applicants for research funding in the P348 context. The challenge for the facilitators was to shield the project to some extent from these powers while at the same time carving out space in which their projects and resulting plans could develop. The facilitators in the cases observed used different approaches to create such conditions, given the projects' respective ambitions. The idea-focused project tended to coach its participants on areas of understanding and redefining structures and to help them observe stakeholder positions that can impact the system at hand – for change or stagnation. In contrast, the design-oriented project seemed to require a 'steering' attitude of the facilitator in terms of proposing and working towards a position of power for the group. The facilitators led the groups towards a strategy of impact within or against the system through a process of presenting analyses of the current power structures and alternative strategies. In these projects the chosen position of power was either that of avoiding collision (case: energy web) or of challenging the current structures (case: P8). In both types of cases, we can observe that the power basis depended on whether or not the facilitator was able to have the participants speak with one voice and present the group as a unit.

Regarding anchoring project dynamics

All project facilitators saw themselves faced with the need to reach beyond their project's remit and duration to try to ensure that in the future conditions would also be favourable to a project's results. The projects described may be conceived of as sites for experimenting and for technical innovation that present challenges to the dominant (socio-technical and governmental) regime. Their description shows how each particular site was used as a stepping stone to set in motion changes beyond the project's immediate results.

In the idea-developing project, the facilitators were aware of the fact that, ideally, the changes set in motion were themselves not of a one-off nature, but were dynamic in character, allowing for future changes in line with the ambitions to be developed in particular projects. A case in point are the efforts the facilitators made to develop innovative research plans by setting new conditions for funding agricultural research proposals.

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In the design-oriented projects the main form of anchoring was found in the structures that were designed – an energy web or a new market organization (P8). In the process the facilitator however focused on intermediate forms of anchoring, both to use them as milestones to show progress and to have an impact beyond the design objective – an impact that was often desired by the participants. Most tangible, the following impacts were observed beyond the immediate design projects: P8 led to the formation of K8, T8 and A8 (respectively cucumber, tomato and egg plant) and the experiences in energy webs were used by growers and project participants in other energy web initiatives.

The overall findings on the facilitators' approaches and the attitudes developed are summed up in Table 1, which compares and contrasts the two types of projects.

Table 1 - Reflections on the approaches of the process facilitator regarding four focal points, given the project ambition

Project ambition	Facilitators' approach			
	responsiveness	**knowledge**	**power**	**anchoring**
Developing ideas	develops an understanding of and responsiveness to participants' needs as a basis for pushing ideas and visions beyond their immediate reach	designs the project as a process of joint knowledge production on the basis of practice, inducing reflexivity and learning on the part of the participants	consults participants on their (individual) challenges with power structures	1) takes on the role of project ambassador and invites participants to also become ambassadors 2) actively links up project dynamics and findings with external events and developments 3) engages outsiders to take the lead in pursuing (parts of) the agenda for action developed in the project
Designing implementable structures	strives for an understanding of and responsiveness to the participants' needs and motives to gain their mandate for steering the process towards a shared vision and an implementable design	applies (new) knowledge to design new (technological or organisational) structures. To enable implementation participants will (often) need to understand and accept the proposed knowledge application	steers towards a desired position of power of the team or project in the given context (to avoid or to engage with external powers)	1) steers towards milestones of intermediate, tangible results 2) takes on the role as ambassador and coaches participants to also become ambassadors 3) steers as directly as possible towards the new order or system

4. CONCLUSION

Comparison of the cases shows that the approach and attitudes developed by a facilitator differ for each project, yet that similarities can be identified. Among

these, the main difference that can be observed concerns the approaches adopted in facilitating a project, depending on whether it seeks to elaborate the notion of sustainability in generic terms, in order to set an agenda for further project development, or on whether it aims to develop implementable designs.

Among the differences is the attitude of the facilitators towards the idea of visions and envisioning in dealing with some of the challenges identified. In P348, the facilitator (team) looked upon envisioning as an objective of the project as such, and used it as a means to lever, so to speak, the project's general outcome beyond short-term, incremental solutions. Envisioning in the other projects was a starting point rather than an outcome, a tool to get the participants to gather in the first place. In contrast to the previously discussed projects, here facilitators worked hard to develop the idea of a *shared* vision.

A related observation concerns the attitude that the facilitator develops towards the project participants when 'facilitating' the intended processes. There seems to be a recurrent alternation between two distinct attitudes that a facilitator exploits: on the one hand, a responsive, serviceable attitude, with which the facilitator tries to connect with participants to identify their needs and wishes, and on other hand, an attitude of leadership, with which a facilitator decides (on her/his own) on the way the project is to move forward. The two attitudes can be labelled 'Learning' versus 'Leading'. Both are meant to help coordinate the project and make it result in innovative and sustainable options for sustainable agriculture. Yet while a Leading role of the facilitator requires a consultancy or 'interim management' approach – depending on the mandate given by the process partners – a 'Learning' role implies a less obvious yet equally decisive stance, aimed at coercing or 'luring' participants into new modes of reflecting and acting.

We suggest to describe the two different manifestations of attitudes displayed as:

- Learning, that is, a 'connecting' attitude through which a facilitator invests in understanding and responding to participants' needs and motivations. This connecting attitude leads to acceptance of the facilitator's role and – from the facilitator's point of view – a deeper understanding of the challenges as seen by the participants. It was typically displayed at the start of a project, in the design phase of implementation-oriented projects.

- Leading: a 'steering' attitude with which a facilitator uses the trust (or mandate) she or he has managed to generate in order to convince or persuade participants to develop more ambitious points of view, or to adopt proposed ideas, strategies or designs, or to challenge power structures.

Facilitators describe these attitudes and the subtle mixes between these in terms of 'gut-feeling'. The Learning attitude was worded differently by different facilitators, but was recognized by all. They used phrases such as "getting the wind in the sails" or "wanting to add value to others" to express this way of dealing with the challenges encountered. The Leading attitude was described as 'grabbing the helm', 'putting the participants in the right mindset' or 'captivating others'.

Finally, the alternating attitudes are not exclusive to one type of project or the other. A Leading role adopted in the design-oriented projects seemingly involved subtle forms of expressing leadership as the project went through phases such as building a consortium, adopting a shared vision, calculating the business model and eventually signing the deal. Group dynamics among the project participants oblige a facilitator to be ever so subtle in expressing leadership, in order to create trust and to build understanding among them. Likewise, a Learning role in idea-generating projects implied an extreme flexibility on the part of the facilitator, who was to help participants frame problem issues in novel terms and formulate innovative solutions that they themselves were not likely to imagine without the facilitator's involvement.

The case descriptions lead us to conclude that a facilitator is engaged in a continual balancing act between these two attitudes. Furthermore, it can be observed that the proper balance is to be found in the face of *internal* dynamics (within the project group) in regard to the 'number 1' challenge, that is, balancing responsiveness versus raising ambitions. In contrast, the balancing act is determined by issues dealing with relational power, which come up in the face of *external* dynamics.

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