Studying Open Innovation collaboration between the high-tech industry and science with linguistic ethnography - battling over the status of knowledge in a setting of distrust

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Abstract. Open Innovation collaborations often pit academia against industry. Such inter-organizational collaborations can be troublesome due to different organizational backgrounds. This paper investigates what kind of knowledge a multinational high tech company and a research institute share with each other, how they collaborate to innovate and what role trust plays in this process. Linguistic ethnography is used to analyze the relationship from within, based on the interaction between the parties during project meetings. Tracing the knowledge status of the topics discussed during project meetings and interviews with participants across social time and space, we tease out how (dis)trust develops and shapes the ongoing interaction. Debating which knowledge can be project harvested, reveals an interactional dynamic of distrust. The company tries to control the proceedings of the meeting and expresses distrust in the research institute. Its project management minded approach pushes the institute in a position where the latter has to prove its value. This dynamic is due to the level of operational secrecy, the short time to market, and the exploitative nature of the collaboration. Openness is highly valued by the participants, yet the type of knowledge that is allowed to be harvested as project knowledge determines how open – or closed – the collaboration process is in real time. Finally, flexibility and dedication are found to not necessarily lead to more trust, openness or sharing.

Keywords. Knowledge sharing, interaction, trust, ethnography, management, open innovation

1 Introduction

High-tech companies live or die by their ability to share knowledge and work together with knowledge institutes such as university spin-offs. The growing mobility of highly experienced and skilled people, the increasingly fast time to market for many products...
and services (Chesbrough, 2003a) and the apparent limits to innovations experienced within the company, make inter-organizational collaboration necessary. When these collaborations purposively make use of the inflow and outflow of knowledge to accelerate internal innovation and expand the markets for external use of innovation, they fit the paradigm of open innovation (OI). This paradigm assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology. (Chesbrough, 2003a).

However, the success of industry-science collaborations is limited by the different time horizon and the approach to open dissemination of results science and industry have. (Perkmann et al., 2011) In addition, science institutes are often involved in projects with multiple industry partners and interactions are plagued by opportunism and appropriability problems (Arikan, 2009). Yet, extensive knowledge sharing is necessary to reach full innovation potential (Simard and West, 2006). With an effective sharing process organizations can develop their knowledge-base and competitiveness (Andrews and Delahaye, 2000; McEvily et al., 2015).

To minimize the above mentioned problems, formal governance mechanisms like non-disclosure agreements are in place. Nonetheless, it is argued (e.g. by Poppo and Zenger (2002) and Faems et al. (2004)) that such formal agreements are not sufficient to create openness and to counter a certain ‘knowledge-sharing hostility’ (Michailova and Husted, 2003). Additionally a form of relational governance, informal governance focusing on social ties and interpersonal contact (Leimeister et al., 2010), is crucial to encourage desirable behaviour in a cooperative environment shaped by trust, flexibility, commitment and communication (idem).

With this paper we have two goals. First, an understanding of how and what kind of knowledge professionals in science-industry collaborative innovation teams share with each other when they meet during the collaboration process. Secondly, we want to describe the effect of this process on the development of the meetings, and on the relationship. Specifically we focus on how trust unfolds during the meetings. We study the interactions of actors expressing relational attributes like commitment and flexibility and embed the interactions in the wider social context and structure (Copland & Creese, 2015). We thus provide a linguistic ethnographic account of high-tech industry-science open innovation in action.

1.1 Trust during science-business meetings

To analyse the interactional dynamics of the meetings we have observed, we can define trust on an individual level as a positive expectation regarding another's thoughts, words, and actions (Idrissou et al., 2013). Since we focus on the collaborative process or the relationship between two groups of people, it also useful to draw on McEvily et al. (2015) who use trust as a property of collective units rather than isolated individuals, thereby rooting it in the sociological tradition of e.g. Lewis and Wiegert (1985). On an inter-organizational level, when different collective units interact, trust can be defined as a set of expectations of a collective unit towards all the other units in an exchange. In these exchange processes or collaborations trust can be defined in terms of exchange hazards (McEvily, 2015), the costs and risks of engaging in an exchange. As trust is such an essential element in collaborations, it can also be seen as an equivalent for
success in that regard. Lastly, trust is also a strategic act, in which the individual expression of trust influences choices and decisions of collective units in collaborative processes (Idrissou et al., 2013). Thus, when we view trust as the outcome or product of an exchange, we should see it as relational concept, present in groups or dyads of any form of collectivities (Lewis and Wiegert, 1985), and open to debate, contestation, and renegotiation. However, when individuals decide to express their expectations towards other individuals of an exchange, this expression shapes the relational concept of trust.

Secondly, we use the conceptual framework of Boden (1994) on meetings, which are the primary source of observations for this study. In an open innovation context meetings are a means of organizing structural relational governance, ideally allowing parties to develop joint cognitive models and collaborative attitudes and where they can engage in processes of joint problem solving and information sharing, useful for their innovative activities (Gulati, 1995). This framework defines the role that meetings play within organizations. Boden (1994) distinguishes between a reality inside and outside the meeting, thus focusing attention on meetings as ‘meeting places’ of stocks of professional knowledge and different identities, rights and responsibilities they entail (Nissi and Lethinen, 2015). Meetings are the prime sites where organizational roles and relations are manifested (Putnam and Fairhurst, 2001; Taylor, 2006). This means, for our investigation, that the specifics of the relationship between the partners should be visible in the dynamics of the meeting. Based on literature and on interviews with different collaborators in science-industry high-tech sector it is expected that issues of openness in knowledge sharing (because of opportunism and appropriability issues) will be visible. As one interviewee noted ‘We can never be completely open’. Vice versa, we can expect the expression of openness or the lack of it to affect the collaboration since talk and interaction in meetings are vehicles for organizational practices, and thus, for the activity of organizing on a wider level. (Nissi and Lethinen, 2015).

Finally, considering meetings as that very social action through which institutions produce and reproduce themselves (Boden, 1994), we can find out how the interaction in the meeting characterizes the science and industry collaborations and partners as such. Previous research by Van Gils et al. (2015) on industry-science collaboration in the chemical sector makes a distinction between different configurations within the various existing partnerships. Time-to-market was found to be the discriminating factor, influencing secrecy, intensity of contact and the exploitative nature of the collaboration amongst other variables. This raises the question whether what we find in the meetings supports the character of specific configurations, and if it does, how and to what extent.

1.2 Methodology

Ethnography involves close and intensive fieldwork to understand how managers manage, how organizational change comes about (Watson, 2011). When carried out thoroughly, specific managerial concerns of strategy-makers, can be wrapped up within broader attention to ‘the construction of cultural norms, expressions of organizational values, and patterns of workplace behaviour’ (Bryman and Bell, 2003; Watson, 2011). Linguistic ethnography as a methodology shows the same rigour as ethnography,
breaking up reality like a prism, through which the familiar becomes unfamiliar again. It pushes ethnography towards the analysis of clearly delimitable processes, increasing the amount of reported data that is open to falsification, looking to impregnate local description with analytical frameworks drawn from outside” (Rampton et al., 2004). Because of the interactive and dynamic nature of workplace interaction (Asmuß and Svennenig, 2009), we use linguistic methods as a means of analysing the data. Hereby we attempt to live up to the demand for adopting a more interdisciplinary methodology that combines various kinds of language data together with ethnographic research methods (Moyer, 2016) to gain insight into questions of efficiency, leadership, and group dynamics in meetings (Asmuß and Svennenig (2009) with ‘working scientists’ (Latour and Woolgar, 1986) in an industrial workplace.

This research examines meetings between a global high-tech company based in the Netherlands and a high-tech, non-profit research institute in Belgium. The Company and the Institute (capitals refer to the specific partners of our case study) have a long history of working together. The Institute has been a supplier to the Company, yet at the same time a customer and a collaborating partner. Four months prior to the start of the research, the Company and the Institute had renewed and strengthened their collaboration with a new contract that stipulated new obligations and offerings on both sides. The main point of the agreement entails that the Company offers two manufacturing tools to the Institute, making the Institute in fact a customer, while the Institute offers its facilities and research expertise, thereby acting as a supplier of data. In this way the Company has the opportunity to have its product lines optimized, working on incremental innovation. Secondly, without having to spend internal R&D resources, it can also be involved in the development of significantly new technologies or ideas into markets that are either non-existent or require dramatic behaviour changes to existing markets, or in other words, to be involved in radical innovation (McDermott and Colarelli O’Connor, 2005). It is against this background of radical innovation that we can see the Institute and the Company as collaborators. For the Institute this means that data produced can be used for scientific publications or to stimulate innovations with other partners. However, data generated at the Institute within the collaboration contractually remain the property of the Company. We can describe this current collaboration mostly as an exploitative configuration which is comparable to what Van Gils et al. (2015) call ‘research services-plus configurations’. These configurations are characterized by a high level of secrecy, a short time to market and exploitative rather than explorative activities. Furthermore there’s extensive contact between the Company and the Institute in combination with high mobility of people between the two plants. However, the frequency and extent of the contact depends on the role of the people involved.

The focal point of interest during the 10 months of fieldwork was the process of collaboration between the Institute and the Company, in the year after the set-up of the joint research formation. The data collection process was ethnographic in orientation and consisted of formal and informal meetings, formal semi-structured interviews, the analysis of secondary data-sources and non-participating observation and recordings. Observation took place at four so called Business Line Review (BLR) meetings, quarterly meetings that had been initiated after the renewal of the contract. With this new contract, the value of the exchange and the number of people involved increased, requiring more regular and intense contact between both parties. During the meetings
different project groups discuss the status of the different projects and future actions within the business lines. Some of the participants of the meeting, from the Company’s side, had confided to the researcher that there was a need for better communication between the Company and the Institute, which was also the reason why the researcher was allowed to do her investigation. In their view the BLR-meetings would offer a good insight into the problems that they encountered while collaborating. The BLR-meetings took place at the Institute’s research centre or at a hotel conference room close to the Company. Topics were spread out over two days. Subjects for the business lines were grouped as much as possible, leading to two different teams being present on the two days with an overlap in some people (those responsible for the operational aspects of the project, the account manager and some directors). Project leaders presented the progress made since the last meeting in front of project members and managers. They used PowerPoint presentations to do so. Contents were prepared beforehand, but not necessarily internally pre-discussed. Most meetings had between fifteen and thirty people present from both sides, from various hierarchical positions. Prior to the meeting an agenda was sent out, set up by both the Institute and the Company. In the lead up to the meetings, agendas often were modified and resent a couple of times.

Additional observations were done at lunch meetings, corporate training programmes and during an executive meeting. Documentary sources were examined, including meeting agendas, PowerPoint presentations on the background of the projects, websites, emails and some participant notes on the meetings. Finally, interviews were carried out with employees from the Institute and the Company. Ten employees were formally interviewed, equally divided between the Company and the Institute. Throughout the entire process field notes were made allowing for reflection on whether the original research questions are aligned with the observations or new foci emerging (Copland and Creese, 2015). Formal meetings and interviews were audio-recorded and transcribed according to the guidelines proposed in Copland and Creese (2015). When participants spoke Dutch, only an English translation is taken up for reasons of space. People, products and companies are anonymized. Because of the sensitive nature of the information recorded, the researcher signed non-disclosure agreements with the Company and the Institute. Participants involved were informed about the recordings and the goal of the observations. Representatives from both the Company and the Institute gave their permission for publication.

All data were coded inductively with the help of Dedoose, a web application for mixed methods research. After setting out the themes related to the goals of the research, a first selection of data took place. However, it is important to stress that the data themselves determined which themes were up for further investigation. Looking for indicators of openness in knowledge sharing and trust made other themes arise. Throughout the analysis, which is non-linear, initial assumptions about communicative practices were empirically investigated (Copland and Creese, 2015). Our starting point for the analysis of data were the so called ‘rich points’ (Agar, 2008); sections of data which stand out as being unusual in the interaction in some way, which seem to the researcher difficult to understand (Copland and Creese, 2015) or otherwise surprising. These rich points contain turns indicating disagreement, a lack of compliance or confusion. These turns served as the pivot of an ethnographic analysis that integrates wider observations, field notes, interviews and a wide range of interdisciplinary literature. In this paper we use excerpts from the data to illustrate the findings.
2 The status of knowledge is contested during project meetings

During the BLR-meetings technical and organizational knowledge of the joint collaboration project is presented and discussed. However, there is disagreement about what exactly should be discussed and what shouldn’t. Participants do not agree to which extent knowledge can be shared. To describe the dynamics of this disagreement accurately, we created an inventory of the different statuses knowledge can have in this specific collaboration between the Institute and the Company. The status of knowledge is determined by two dimensions; the source of the knowledge and the use of the knowledge. We name the former grown knowledge and the latter harvested knowledge.

Possible sources of knowledge in this collaboration process can be the Institute, the Company or the project itself. Whereas the first two sources are self-explanatory, the third one needs some specification. Project grown knowledge is joint knowledge that is talked into existence within the framework of the project, mostly during meetings, by the parties involved. When we talk about where knowledge can be ‘harvested’, the same ‘locations’ exist. However, while there is rarely a discussion about the source of knowledge, the harvest location is contested frequently during the meetings. During meetings, participants determine where knowledge can be used and to which extent. For example, related extensive knowledge on the central subject of the project may initially be company grown knowledge, e.g. internal alignment of business responsibilities, yet participants may feel it needs to be harvested in the project meeting. It thus becomes a topic to be discussed and subject to scrutiny of the participants. The same movement of knowledge can take place with institute grown knowledge, e.g. scientific research or results. Even the third party grown knowledge can be pulled towards the centre and harvested as project knowledge.

It should be clear that the status of knowledge is not static; there are forces at work that influence the moving in (but also out) of knowledge of the project location. The following two sections discuss third party grown knowledge and project harvested knowledge. Section 2.3 focuses on the forces that influence which knowledge is actually harvested in which location. Our findings show that there are full time push & pull mechanisms in place that determine which topics of knowledge can be project harvested and which should stay growing at the company or the institute.

2.1 The need for third party grown knowledge

To understand the importance of third party grown knowledge, it is helpful to have some background about the position of the Institute. The Institute performs research for multiple partners, some of which are competitors of the Company in question. From the Institute this requires a certain level of secrecy when it comes to the research projects that are carried out. Non-disclosure agreements are used to govern which knowledge the Institute can and cannot share. The agreements apply to direct knowledge, e.g. the results of a specific research or collaboration project and to indirect knowledge, e.g. the roadmap of a Company or the current status of a joint R&D-project. Such knowledge could be indirectly derived from the assignment that had to be carried out for a company. This may also mean that the Institute cannot even reveal who is its client. However, this third party grown knowledge is needed in the project to make progress. In what follows we describe two cases to illustrate the difficulties that arise...
when this knowledge needs to be shared.

In the first example of third party grown knowledge, taken from a BLR-meeting, the knowledge is of direct importance to the progress of the project (excerpt 1). One of the presentations is interrupted by the Institute and the Company discussing the sharing of third party grown knowledge. During this discussion one of the Company managers reveals to the mixed public that the night before the meeting the third party, a supplier of the Company (Supplier), told one of his team members that it doesn’t want the Institute to have a certain topic of knowledge. It also wants to block the Company from discussing any of the contents with the Institute. The Company Manager 1, who manages the work onsite at the Institute for this topic, argues the scientific value of being able to solve a related problem together with Supplier. The Company Director 1 has a specific set of responsibilities for the Company’s products and also manages the matching of suitably skilled people to the different needs of the project. Hierarchically he takes a middle to higher managerial position in the Company. The Company Manager 1 doesn’t report directly to the Company Director 1 and is part of the lower placed, operational management.

![Fig.1. Excerpt 1: BLR – meeting, February 10, 2015](http://www.open-jim.org)

Participants didn’t know the reason for this obstruction by the third party, but it was suggested by some Company employees that the precarious position of the Institute played a role in this and that it wasn’t an isolated incident. In the eye of the employees,
there have been more cases where companies have refused to work with the Institute as a partner. In any case it affects the collaboration. Company Director 1 expresses willingness to go ahead with working with the third party (lines 12-13 and 29-31), in order to obtain the results, even if that means that on this topic, he has to stop the collaboration with the Institute. In line 12-13, the Company Director 1 already opted for a two-way collaboration between the Company and Supplier without the Institute.

Fig. 2. Excerpt 2: BLR-meeting, May 12, 2015

The second type of third party grown knowledge, where it is only indirectly valuable, can be seen in excerpt 2. During the first quarterly BLR-meeting the Institute made a
promise to the Company that it would provide the Company with names and information on the projects that it has with third parties. In an interview with the account manager of the Institute (September, 2015) it became clear that this promise was made in response to a question from the Company. It wanted to have information on third party collaborations that could be commercially relevant for its own development; a request that is not unusual since firms utilize networks “both to develop new technologies […] and to exploit technology-based business opportunities” (Vanhaverbeke and Cloodt, 2006). For the next BLR-meeting the item was put on the agenda again. Company Director 1, acting as chairman, proactively elaborates on this action point. He uses Statements of Work (SOWs) or the titles that would be on those SOW’s as a summarizing document that shows what activities the Company is carrying out and what can be shared about those activities. The Account Manager of the Institute, who brought up the subject during the previous meeting adds information from the Institute.

Participants of both sides show a certain degree of apprehensiveness towards each other. Such apprehensiveness is understandable because of third party pressure on secrecy. Company Director 1 repeats this urge for caution several times, hereby complying with the Company’s official non-disclosure policy. He is making sure that ‘Any additional information behind this, can only be shared after approval of the BL-manager [business line] at the Company’. However, Company Director 1 considers it very important for the Company that the Institute shares the information (Can you share that today or tomorrow?’ and the use of the directive ‘Share us’). The Company offers the list firstly, although the initial request was from the Company to the Institute. Hereby the Company anticipates to the fact that ‘they [other suppliers] will be smart and ask a return favour’ (Senior Vice President Technology Company, February 12, 2015), before the Institute has offered its own list. The Institute had to be asked repeatedly to share this list. Moreover, talking to one of the project leaders afterwards, such a list has never been distributed from either side.

The apprehension expressed in both examples shows that it is not evident to make third party knowledge accessible to harvest as project knowledge. There is a fear that doing so may damage the trust that a third party has in either of the partners. Furthermore, reckless sharing of third party knowledge may also indicate that the partners own knowledge is not safe from being dangerously spread by the other partner. This apprehension is perfectly explicable from an Open Innovation perspective. After the intentional agreement by the presidents of the Company and the Institute to collaborate to tackle future challenges together, legal steps were taken to assure the non-disclosure of information. However, as we will see, this apprehension also influences the interpretation of commitment and hence the development of trust within the dyad.

2.2 Project harvested knowledge

Third party knowledge is important for the continuation of the project and adds value to the collaboration. The second type of knowledge, is project knowledge or any knowledge that is considered important for both parties in the collaboration. As already stated, we make a distinction between project grown knowledge and project harvested knowledge. When knowledge gets the latter status, the interaction and the participants determine if knowledge deserves a place on the agenda of the project meetings.
The BLR-meetings reveal which topics have the status of project harvested knowledge.

Firstly, every BLR-meeting starts off with the current state of projects and an evaluation of the amount of time and money (expressed in total number of paid hours in most cases) spent. This part of the meeting, often done through a PowerPoint presentation, should make it visible for the Company if the Institute carries out the work as agreed in the contract. This is knowledge created by the very existence of the project.

Secondly, the project works with a ‘statement of work’; ‘you’re asking this, we can get you these deliverables and that will cost us that many people, that much time and that much money to realize it’ (Interview Company Director 1, February 10, 2015). Working with these SOW’s means that throughout the meetings there is a high focus on numbers (excerpt 3), the execution of agreed plans (excerpt 4 and 5) and the follow up of the contract (excerpt 6).

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**Fig. 3.** Excerpt 3: BLR-meeting, February 10, 2015

1 Director Institute:
2 Any questions on .. these hires? (6.3)
3 Company Director 1:
4 Good progress .. xxx

5 Director Institute:
6 Also eh with respect to who we’re hiring, we wanna give guidance to the
7 business lines and what kind of competencies they have to draw from, so
8 this is the chart that is just put together in December, we wanted to wait
9 until all the SOW were finalized and to see really the picture of what
10 FTE’s are x obligated to which business lines. [...] 
11 And your input in this is, is, is desired as well, to make sure
12 that we’re hiring the right kind of xx meat.

**Fig. 4.** Excerpt 4: BLR-meeting, February 10, 2015

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**Fig. 5.** Excerpt 5: BLR-meeting, February 10, 2015

1 Director Institute:
2 Any questions on .. these hires? (6.3)
3 Company Director 1:
4 Good progress .. xxx

5 Director Institute:
6 Also eh with respect to who we’re hiring, we wanna give guidance to the
7 business lines and what kind of competencies they have to draw from, so
8 this is the chart that is just put together in December, we wanted to wait
9 until all the SOW were finalized and to see really the picture of what
10 FTE’s are x obligated to which business lines. [...] 
11 And your input in this is, is, is desired as well, to make sure
12 that we’re hiring the right kind of xx meat.

1 Project Development Manager Company:
2 So ehm but, but who’s eh, who is doing all this?
3 Who’s going to, to, to eh .. go after to this information an eh xxx?

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1 Company Director 1:
2 Are there x blocking thing that you need to get solved?
3 Company Project lead 1:
4 Uhm, I don’t think so there is budget and xx for ehm: yeah, but a small
5 remark on the division here.
6 And we need to sort out the logistics for the stress test but a few lots from
7 the Company Town for one test, I don’t think that’s, that’s really a
8 blocking issue.
9 Company Director 1:
10 So that’s something you can solve yourself, you say I take charge of
11 doing this?
12 Company Engineer 1:
13 Yes
13 Company Director 1:
13 Okay
These excerpts are examples of topics that are created in the project and also need to be discussed in the project meetings. There is very little discrepancy between the source and the place of discussion. In one instance, this similarity of source and location of discussion is remarkable. As can be seen in excerpt 3, the topic of the people who will be or are hired by the Institute is considered directly relevant to the project, although those people never spend their time exclusively doing work for the project. Nonetheless, both the Institute and the Company seem to consider it project knowledge.

In the above cases both the Institute and the Company agree on the topics of the meeting actually belonging in the meeting. The topics of knowledge are considered project grown. However, there are also topics of which the Institute doesn’t seem to agree that they should be harvested or discussed during the meeting. For example, the Institute has made some specific progress on the production of a semi-finished product, outside of the project. The Company considers this piece of knowledge Institute grown knowledge as necessary to be project harvested, yet the Vice – President of the Institute seems reluctant to share this piece of information with a Senior Director Program Manager of the Company as witnessed during an informal lunch meeting with both people. There is unwillingness to share or discuss topics, because one party, in this case the Institute, considers this knowledge not suitable or desirable to become project harvested. Again, being open on this topic could reveal third party knowledge or sharing this could put the knowledge under scrutiny of the Company.

A second difference of opinion on what is project harvested knowledge becomes clear through what we call the project management minded approach that the Company takes during the meetings. With this approach it is the Company that asks for numbers, plans and responsibilities to become project harvested, while the Institute doesn’t reveal those spontaneously. The Project Development Manager (PDM) of the Company asks for clarity on responsibility for the actions that need to be undertaken (excerpt 4) and Company Director 1 pushes for reports of progress and finalization into a statement of work (excerpt 6). Company Director 1 confirms this project management mind-set of the Company as seen in excerpt 7:

Fig. 6. Excerpt 6: BLR-meeting, February 10, 2015

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Company Director 1 is very strong about the necessity of applying a project management minded approach during the meetings (use of repetition, directives) and believes this necessity is shared within the Company (as he identifies with the PDM using his ‘direct words’).

The Institute allows the Company to use its project management minded approach and focus on numbers, contracts and progress during the BLR-meetings. The Institute offers an elaborate update to the Company at the start of every meeting (even on internal hires). Moreover, the Institute also explicitly asks the Company to vent its opinion on the suitability of those new people, hereby not only accepting it is project harvested information, but at the same time proving that it is willing and will be carrying out the work contractually agreed with the Company to its best efforts. Lastly, the BLR-meetings are chaired by Company Director 1, regardless of who is hosting the meeting. Formally both the Institute and the Company take turns in chairmanship, informally, the Company chairs the meetings.

To summarize, it is the Company that mainly determines which knowledge is project harvested because of the project management mind-set which determines the setup of the BLR-meetings with the questions for numbers, plans and contractual execution. This is ascertained through a self-appointed Company chairman, i.e. Company Director 1. The Institute on the other hand complies with this setup and the vast majority of the topics of knowledge discussed.

However, tensions arise when the sharing of third party grown knowledge and internal progress (Institute grown) as necessary for the project is concerned. Because of the pressure from third parties, both parties, but specifically the Institute, show some apprehension to sharing knowledge.

The label ‘project harvested knowledge’ is not fixed on a type of knowledge or topic. The criteria to stick such a label onto a topic may be different for Company and the Institute. In the next section we will discuss two ways in which the interactional dynamics can be observed to directly or indirectly allocate or remove the status of project harvested knowledge. In other words, we reveal which interactions create a sense of openness.

2.3 The dynamics of project harvested knowledge

There are two interactional processes that influence the project harvested status. The first one is the expression of the specific research paradigm. The onsite Company Manager 1 pleads for a certain topic to be taken up into the project because ‘well ..
scientifically this a very important .. path forward [...] [to solve the problem]’. (Company Manager 1, February 10, 2015). The fact that the third party does not want the Institute to collaborate with the Company on this topic, makes it harder to keep this topic as part of the project activities. The Institute stresses the scientific value of the third party grown knowledge and assumes that this is a good argument to give the topic a project harvested label. Instead the reaction of the PDM of the Company to follow suggests a difference in paradigm (excerpt 8).

Fig. 8. Excerpt 8: Business Line Review Meeting, February 10, 2015

The matter of the Supplier is brushed aside as a small hiccup (drempels, line 13); it shouldn’t determine the execution of the project because it is not relevant to the project in the eyes of the PDM. The PDM urges the Institute to make sure that it offers enough capacity and efforts to ‘not lose the synergy’ (PDM Company, February 10, 2015). As the PDM reveals afterwards in an interview (March, 2016): the activities of the Institute are only of interest to the Company if they add commercial value to the Company. In this case the topic of discussion is only of very limited commercial value for the further development or innovation of the Company’s product. The PDM shows irritation (Yeah, yeah, yeah, line 12) and does not seem to take the operational issue seriously (small, little eh drempels, line 13; small problems, line 17) or as a matter that needs to be discussed during the BLR-meetings (it will be solved, line 21). The PDM tries to safeguard a strategical contribution from the Institute, but his focus is on the commercial value of that contribution, disregarding the scientific purposes of a possible collaboration with the third party. The higher management (PDM) views the relationship and what each party should contribute or push for with other parties from a commercial, rather than a scientific paradigm. Hence, by denying the importance of the matter, the PDM of the company pushes the subject back into the Institute grown knowledge that should be harvested internally rather than in the project itself.
Moreover, the interaction leading up to reaction of the PDM, as shown in excerpt 1, already shows this difference in paradigm. As described, Company Director 1 expresses his willingness to carry on without the Institute to reach certain goals; the relationship is thus only of instrumental value. It should be noted that socially, this act of excluding the other can be threatening to the Institute, a possibility that Company Director 1 seems to consider too as shown by his interjected apology: ‘If we tell Supplier we do it ourselves ‘the Company’—Supplier, we exclude the Institute, sorry folks, then we could continue’ (line 29 – 31, excerpt 1). Through the ‘sorry folks’ he tries to minimize the damaging impact (e.g. perceived lack of commitment to the relationship) of this act of exclusion on the other party.

Secondly, the process of agenda manipulation denies a topic project harvested status. During a joint executive meeting with, amongst others, the executive VPs and Presidents of both parties, the agenda had been adapted to push problems and issues with the project away from the project (excerpt 9).

3 Discussion

Sharing knowledge and differences of opinion on which knowledge should be shared as project knowledge and which should not, creates friction during the meetings. At the same time, the dynamics of pushing and pulling the topics of knowledge into a certain field, reveals the relationship between the partners: the Company as a dominant player and the Institute in the one-down position.

The Company is the dominant player during the BLR-meetings. Its position becomes clear in three ways. During the meetings there’s a project minded approach in place,
initiated and demanded by the Company. The Institute on the other hand ‘doesn’t necessarily have its [...] roots, you know [in] timelines and milestones and project planning’ (Interview Director Institute, February 11, 2015). Questions on internal progress mostly come from the Company. Secondly, the Company performs a great deal of openness or directness when it comes to criticizing meeting matters, like personal performance, slides, the length of a topic, or the way discussions on numbers progress etc. This openness is mainly performed by people higher up in the organizational hierarchy. The organizational roles of the Company are clearly manifested in the meetings with the Institute. Finally, we see the Company taking chairmanship during the meetings hosted by the Company and during the meetings hosted by the Institute where it was presumed that a director of the Institute would act as chairman. By doing so, the Company not only increases the control over the numbers and the accountability issues, but the outcome is that it also takes control over the meetings.

This position of the Company is clearly felt by the Institute: ‘They push on us hard’. (Interview Director Institute, February 11, 2015) At the same time the Company feels like the Institute is being evasive on reporting its needs and the progress made: ‘The Institute should position itself more proactively’. (Email Senior Engineer Company, December 2015) This perception is strengthened by attributions to the Institute indirectly referring to its lack of sharing the appropriate knowledge in the eyes of the Company (‘vague’, hard to understand ‘what the key message’ is, etc.). The Company blames the Institute for not showing initiative and has its doubts about the dedication to collaborate. The Institute’s caution to share third party grown knowledge can be interpreted in the same way. The conclusion is thus an easy one for the Company; if the Institute can’t add value by sharing these things, what value does the collaboration have for us?

In response, the Institute can be seen to deliver extra proof of its flexibility and dedication by allowing the Company to offer an opinion on a project grown issues like new hires. In addition, the Institute promised to offer indirect additional value to the Company by ‘going way beyond what program we normally do’ (Account Manager Institute, BLR-meeting, February, 2015).

Finally, we can see that the project management minded approach doesn’t just reveal an image of the Institute as uncooperative or lacking value, it also reveals that there is internal tension within the Company itself. First of all, when looking into the questions for clarity on progress, we can see that those in hierarchical higher positions in the Company actually directed its questions to internal project members, rather than to project members of the Institute. This points into thinking that the Company also has some internal alignment issues, which is confirmed in interviews with different project members. The second instance where this tension became clear, was when the atmosphere of an executive meeting determined whether issues would be addressed or not. The aim was to adapt the meeting agenda in such a way that it would go effortlessly and without too much of ‘fireworks’. In front of the higher management, it seems that only positive results should be a part of reporting on the progress of the process. This is remarkable, because in several interviews participants on both sides expressed their appreciation for those meetings that brought issues out in the open as can be seen in excerpts 10 – 12.
3.1 Distrust unfolding

When we analyse which effect the positioning of the Company and the occurring dynamics has on the development of trust and openness, it is useful to look at earlier research by De Vries et al. (2014). Investigating the implementation process of a governmental policy by local provinces, researchers found that during the collaboration process, based on a contractual agreement, the expressions of trust and distrust evolved in a different way. Especially when talking about the development of distrust, several phases in a collaboration could be distinguished. Those phases show similar interactional characteristics to those of the meetings between the Company and the Institute. De Vries et al. showed that in the collaboration process researched, there were talks about the importance of trust, followed by debates on the correctness of the contractual numbers and questions about accountability and control by the one who should control the other one. Most of the BLR-meetings showed the organizational practice of focusing on numbers and planning. This practice is also in line with Rottenburg’s (2009) research on development projects which showed that projects are often ill defined and very open when they start off. The BLR-meetings do fit in the set-up of the joint research formation, but the organization and monitoring of the project is in the hands of several people of three different business lines at different levels. On top of that, the collaboration being a high-tech innovation project, high technological and market uncertainty (West et al., 2006) prevents both partners to have clear expectations about the outcome of the collaboration. For Rottenburg this uncertainty carries on through the middle of projects because the uncertainty prevents a simple comparison of the actual state achieved with the contractually agreed-upon target state (Czarniawska, 2012, own emphasis). In the case of the governmental policy research relations were frustrated because of the difficulty finding out the ‘right’ numbers and ‘real’ progress made (De Vries et al., 2014). In the meetings between the Institute and the Company, the Company acted surprised on the numbers shown by the Institute and demanded clarity on the responsibility and needs. This manifestation of power where the Company makes use of direct, agentive managerial talk can be seen as an attempt to make alignment possible (Hill 2000) and reduce uncertainty. The ‘difficulty’ lies both with the Institute and the Company, yet as explained before, the Institute is seen as the source of frustration.

Excerpt 10:  
1 Uhm, so we have, in any case now, and we are very happy about that,  
2 the problem open and clear, uh, it is not a solution but the problem is  
3 there, is seen and understood by everybody, so that, that is, I think, a  
4 step in the right direction which we may not have expected (Account  
5 Manager Institute)  
Excerpt 11:  
6 Furthermore, I thought the topic Z discussion was very good, at least the  
7 issue came up now (Company Director 1)  
Excerpt 12:  
8 All and all, the good, bad and ugly in the relation came up, which was  
9 good (VP Business Line Company).
The next phase starts when under the influence of these discussions on numbers and accountability, the participants shed new light on the initial process of the contract design. The incident where the value of the Institute was openly doubted by the executive VP of the Company, is an example of this. The initial collaboration with the terms and conditions as determined at the start was questioned and the effect was indeed that the then performed distrust was now felt more strongly as it became part of a larger story of distrust (De Vries et al., 2014). The Institute becomes the bad-guy character against whom one can team up. This view is supported by the reaction of some of the project members of the Company (excerpt 13) in the realm of the incident with the executive VP of the Company.

Fig. 11. Excerpt 13: Email Company Project Lead 3 on BLR-meeting, December 10, 2015

The Institute prepared the meeting together with the members of the Company in such a way that the Company project members would present the majority of the progress. The Institute tried to make sure that the executive VP of the Company would really be convinced of the Institute’s value, it coming from the mouths of his own employees. Yet, the response of some of the Company’s employees, unaware of this strategy, was that, yet again the Institute showed no initiative, no pro–activity and no visibility. This incident and its extended effects, supports our view of trust as a relational concept, a property of groups (team up against the bad guy character), but where the individual expression of it shapes the relation between both groups (more distrust). Lastly, the individual expression of distrust was also a strategic act that influenced the decision to get the Company project members to present the progress made.

The participants thus fail to agree when Institute grown knowledge or third party grown knowledge should become project harvested. The sensitivity of knowledge causes apprehension, interpreted as knowledge-sharing hostility (Michailova and Husted, 2003). Furthermore, the Institute doesn’t share the project management minded approach to spontaneously push numbers, deadlines and factual progress onto the agenda. Internal alignment issues of the Company make it harder for the Institute to show the right numbers. On a macro-level the high-tech nature of the collaboration prevents a satisfying comparison between specific expectations and the real state of affairs. The value of the Institute is doubted and attempts to fix this backfire for the Institute. As De Vries et al. (2014) describe, consequently the distrust becomes bigger, creating more tension as it is unclear what can be expected next, leading into the last phase. In this phase the story of distrust becomes bigger with other small events adding on to it that may have had nothing to do with the initial events at the start of the relationship. Indeed, already at the start of the observations there were rumours of confidentiality breaches in the Institute, but they were never specifically named. During
and after the observations, there were at least four more incidents where third parties refused to work with the Institute due to fear of breaches. However, no major incidents occurred during the year that the observations took place. Only one ‘incident’, where ‘someone who walks around here [at the Institute] did some work with CompanyC’ could be mentioned specifically (Interview Company Project Lead 4, November 18, 2015). The Executive VP of the Company took it ‘the wrong way’. Although what exactly happened (a breach may not even have taken place) remained vague, these rather undefined threats had already created a sense of distrust.

3.2 Safeguarding the relationship

With the organizational practices and roles of the Company being so dominant in the meetings and the effect it has on the meetings, we may expect that the relationship wouldn’t hold out too long. The pushing and pulling of topics of knowledge in and out of the meetings and the apparent instrumental view on the relationship, possibly undermines trust and the performance of the Institute during the meeting. Nonetheless the relationship remains intact. The reason for this may be inherent to the Open Innovation – nature of their collaboration; both parties need each other for innovation, technical progress and third party value (the latter is definitely the case for the Institute). In that sense it could be argued that, although they don’t necessarily act like equal partners with reciprocal expectations, it is their interdependence that mitigates for the lack of trust. As it is the presence of relatively equal power (i.e., joint dependence) that enhances trust among exchange partners (Gulati and Sytch, 2007). Secondly, the project management discourse is not unique for this company as a business partner of the Institute. Although ‘the relationship with the Company is a unique one’ (Interview VP Institute, May 12, 2015), other partners in similar configurations with the Institute apply similar commercially driven management talk. This also means that for the Institute, with its university related background, to reshift from a research-driven focus to a customer-driven focus is not something new nor did it happen overnight. The shift has been accompanied by the gradual and phased introduction of new processes and practices (Asimakou and Oswick, 2010) like working with the statements of work and as a result meaningful resistance is absent (idem) and hence the relationship can stay intact. Finally, during joint meetings Company’s hierarchically higher positioned participants also take part in ‘smoothing things over’. The dominance of the Company is not only visible through pushing and pulling knowledge from and to the project meetings. Participants like the Company PDM take up several opportunities to express their gratitude with the Institute on progress made, technical achievements and in stressing that the Institute is of value to the Company: ‘We cannot do it without you hé’, ‘It’s part of your expertise here’ (Company PDM, BLR-meeting, February 10, 2015). These expressions can be seen as an attempt to stress reciprocity and interdependence to compensate for the lack of relational trust. We find proof for this in the fact that the above cited expressions are used in the context of the PDM brushing a scientific topic aside as a small hiccup (drempels, line 13, excerpt 8) not worth talking about because of lack of significant commercial value. He compensates for this expression by stressing the reciprocal character of the collaboration, possibly enhancing trust and permitting him to disagree on the value of the particular topic brought up by the Institute. Finally, the agenda manipulation ‘protects’ the Institute
engineers from the judgement of the higher Company management. Project members of the Company thus actively safeguard the relationship by helping out Institute’s project members to prove value to the higher management.

Summarizing, the Company is the dominant party in the collaboration and its project management minded approach pushes the Institute in a position where the latter has to prove its value. This dynamics is very similar to the previously researched development of trust and distrust in governmental collaborations and to the development of project work in general. Agenda manipulation seems to be the result of the distrust between the participants, yet this strategy has backfired for the Institute. Through the interactional dynamics of pushing for project harvested knowledge it also becomes visible that the Company has issues with internal alignment. The entire process puts stress on the relation, yet contextual factors and relational safeguarding strategies are deployed to compensate for the development of distrust.

4 Conclusion & future work

The BLR-meetings are the primary site for a collaborative relationship between the commercial company and the research institute investigated. Assigning a specific knowledge status to the topics discussed during project meetings and in interviews with participants, allowed us to see how the (dis)trust developed throughout the interaction. Furthermore, we aimed to discover if the findings of this investigation support the characteristics of the ‘research services-plus configuration’. If they do, it explains why trust unfolds the way it does in this collaboration. We can conclude that the high level of secrecy, the short time to market and the exploitative nature of the collaboration, all characteristic to the research services-plus configuration, contribute to the creation of an interactional dynamic in the meetings that allows for a story of distrust to unfold.

The high level of secrecy, typical for industry-research collaborations on radical innovations, is also in place in the high-tech competitive sector investigated here. This secrecy comes with caution on sharing knowledge and on trusting the Institute. The very nature of the Institute, being financially and scientifically dependent on external commercial partners, makes it a problematic partner for this level of secrecy. Hence, the starting point is one of distrust rather than one of trust. Secondly, although the Institute and the Company work together for a longer period of time on several products and innovations, the innovations have a short time to market. The need for innovation is determined by the end user. The always nearing closing of windows of opportunity, makes a project management minded approach necessary in the eyes of the Company. This includes control mechanisms like a strict ‘a priori planning’ with milestones and only some flexibility. There is an agreed assignment in place and the BLR-meetings thus function as a time and place to check the milestones and the progress made within the project. With our knowledge of how trust and distrust have developed in the implementation of governmental policy and of how project work develops in general, we can infer that, because of the initial caution, this focus on numbers and accountability causes a further development of distrust, the more because the project lacks an accurate reference point. Acts, like agenda manipulation, utilized to counter this distrust, are counterproductive and add on to the story of distrust. Finally, the research services-plus configuration is merely an exploitative configuration, just like
the Company-Institute configuration is. This means that the Company appreciates those competences that contribute to the commercialization of the developments of the Company. Research targets ‘an sich’ are not interesting enough to add value to the Institute as a partner. Hence, the Company refuses related topics as project harvested topics which leads to more insecurity with the Institute as how it should prove its value. The discourse of the collaboration thus explains why we can speak of a lack of trust showing during the meetings between a high-tech company and a research institute in the high-tech sector working together to innovate. The interactional data seem to support the labelling of this collaboration as a ‘research services-plus configuration’. In that regard it is no surprise that to the Company, who is the dominant partner in this collaboration, some topics (like third party knowledge) are more important to be harvested as project knowledge than others (scientific research without direct commercial value).

Furthermore, our research has shown that concepts like flexibility and commitment are all variables that don’t necessarily contribute to the development of a more cooperative environment, more openness or the sharing of knowledge. It depends on the phase of the development of (dis)trust how the expression of those concepts will be interpreted. Commitment and flexibility are explicitly expressed on several occasions through offering the other partner a voice in what are essentially project or third party grown matters. Yet, in the former case, this is a response to a perceived lack of value, while the latter is perceived as showing a lack of initiative. Openness is something that is highly valued by the participants, yet in the end, the amount and type of knowledge that is openly shared or allowed to be harvested as project knowledge determines how open or knowledge-sharing ‘friendly’ the collaboration process is in reality.

Finally, we started off by saying that trust is such an essential element in collaborations that it can be seen as an equivalent for the definition of success. Our analysis has shown that we can narrow this definition of success down to perceived value of the collaboration. It seems that on the one hand there is trust, or in this case distrust, regarding the sharing of knowledge and granting it the status of project harvested knowledge. On the other hand though, distrust is also a negative expectation in the performance, or the ability to perform of the other party, in this case of the Institute. This performance or perceived lack of it, brings down the value of the collaboration, and the perceived success of it. This last observation calls for an additional specification of trust as competence trust, meaning the expectation of technically competent role performance’ (Barber, 1983) and goodwill trust (idem). It seems that in this specific collaboration the distrust is a collective negative expectation of the business partner ability of the science partner to perform according to agreements (competence trust), but even his intentions to do so (Nooteboom, 1999, emphasis in original).

Further cases and more detailed research on this case can help to further support the conclusions presented here. First of all, when we investigate the interactional processes with more detail, we can discover if next to dynamics like agenda manipulation or using a project management minded approach, there are other acts that influence the development of (dis)trust and if so, how these acts influence concepts like commitment, initiative and flexibility. This paper describes the top layer of a micro level analysis of the very complex reality of Open Innovation collaborations. When we use a larger magnification to look at the data, we can expose deeper interactional processes that
Influence the relationship and the unfolding of trust and distrust and perhaps a different unfolding of competence and goodwill trust throughout the dynamics. The use of the micro-narrative (using someone’s direct words or 'petits recits' for identification purposes e.g.) may play a role in affirming one’s position in relation to the other and in managing perceptions. Agenda altering (taking topics ‘off line’ to discuss elsewhere or not at all) could signal that there is knowledge which should be project harvested, but not publically. When considering a redefinition of trust into competence trust and goodwill trust, the expression of modality (e.g. the use of ‘can’ and ‘will’) can be suspected to characterize the meetings with low or high trust of one form or the other. The expressions are also suspected to influence the perception of the other’s party initiative and dedication. Finally, in describing the strategy of safeguarding the relationship through expressions of interdependence, the concept of face-threatening acts (violations to participants feeling affirmed in social interaction, (Foley, 1997)) can give us a means to describe the role of power and dominance during the meetings. As power plays an important role in the dynamics of the meetings, we should also focus on linguistic expressions of power and leadership, because in line with our definition of trust, power is not only a relational concept, but also an individual expression of a state of mind. Powerful parties tend to anchor too heavily on their own vantage points” and ignore the perspectives of other less powerful parties (Galinsky et al. 2006) and hence the expression influence the unfolding of the relationship.

When diving deeper into existing and new data, there are two concerns. First of all, when issues rise from theory on collaboration, innovation and collaboration governance, it is sometimes easy to see these issues represented in the data. As pointed out though before, the data should be allowed to ‘speak’ (Copland & Creese, 2015) to you and researchers should be open to be pointed into different directions as for what is going on in the organization of the relationship between partners. As a researcher you can’t presume that certain dynamics are per se interactional representations of the open innovation context. Consequently, apprehension should be shown when trying to integrate these bottom up findings into the creation of a realistic, definition of open innovation and when transforming these findings into useable best practices for managers. Participant verification is key in interpreting interactional data to limit possible interpretations. Only through formal and informal interviews and extensive contact with participants for a longer period of time it is possible to characterize sequences as being typical the context investigated.

This brings us to our second concern, which is accessibility and relation of the researcher to the work field; from getting permission to enter a company, to positioning throughout the research and assuring time for the validation process. Investigating collaborations between parties with different backgrounds requires an extra reflexivity of researchers to be aware of the different positions, that are available to them and how these roles and identities influence access (Lønsmann, 2016) to a field with players that don’t fully trust each other, are often on different locations and work in different, flexible settings. The research is a continual balancing act, in which the researcher needs to reconcile the roles of an insider and outsider, subordinate and sounding board, sympathizer and critic, therapist and spy, academic and consultant (Welch et al., 2002). Ironically it requires trust from the participants that, although the research can be very time consuming and slow, the outcome will have practical relevance. From the
researcher this requires the transformation of micro-analytical pieces of analysis into *usable* findings. Lastly, especially when doing research in a high-tech environment crowded with exact scientists, where the lack of familiarity with disciplines outside natural science can provoke suspicion (Latour and Woolgar, 1986), it requires the ability to persuade participants of the value of qualitative research as such. Being conscious of these concerns is extremely important, as we cannot really learn a lot about what ‘actually happens’ or about ‘how things work’ in organizations without doing the intensive type of close-observational or participative research that is central to ethnographic endeavour (Watson, 2011).

5 References


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