Improving trust and communication between experts to facilitate a learning use of the cost benefit analysis

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Introduction

Transport planning is known as a traditional field of planning in which technical and quantitative knowledge and information is of prior importance (Willson, 2001). This appears more and more problematic for several reasons. First, transport planning is no isolated profession. It is mingled with other fields of planning and non-planning. Integrated approaches of urban issues are very relevant to coop with complex planning assignments (Bertolini et al., 2005, Banister, 2008, Straatemeier and Bertolini, 2008). Seeing transport and infrastructure developments separately from housing, recreation and other developments is hardly possible any more. An integrated approach, though, asks for a different approach for assessing transport plans, namely an integrated one (Curtis, 2008, Hull et al., 2011) that takes local and context specifics into account. Second, society has changed in a way that it demands different assessment assets. Issues like quality of life and sustainability have become core subjects of public debates and not solely accessibility or decreasing traffic jams. Not that these later more traditional issues are not important anymore, but intangible effects like increasing the quality of life are added and the public desires both to be addressed. This, again, changes the demand for planning and assessing transport plans (Handy, 2008, Willson, 2001).

In the Netherlands the cost benefit analysis (CBA) is an important tool for assessing integrated spatial transport plans as it is mandatory for national government funding (Ministry of transport and water management and Ministry of housing spatial planning and the environment, 2009). However, it has been questioned how a traditional assessment tool like CBA with a welfare economic foundation can assess complex integrated spatial transport plans (Annema et al., 2007, Jong and Geerlings, 2003, Beukers et al., 2012, Mackie, 2010, Naess, 2006, Mackie and Preston, 1998). Assessing complex plans in CBA comes along with several process bottlenecks (Sager and Ravlum, 2005, Martinsen et al., 2010, Eliasson and Lundberg, 2010).

Practitioner's experiences with applying CBA in Dutch planning practice gave more background for some of these doubts (Beukers et al., 2012). From a (local) planners perspective the CBA appeared to be experienced mainly as a final assessment; a final examination which judges if the plan fits the CBA criteria and experienced by some planners as hurdle which needs to be taken (Page et al., 2009, Beukers et al., 2012). This, though, leaves out the desired opportunity to use the CBA output to improve the analyzed plan (ECMT, 2004, Beukers et al., 2012). Furthermore, Dutch CBA processes have been characterized by two opposing groups of practitioners: the planners as well as the plan owners (the ones who feel responsible for the assessed plan) on the one side and the economist as well as the evaluators (the ones who conduct the CBA) on the other side. These two groups appeared to have trouble in their mutual communication and expressed a low level of mutual trust (Beukers et al., 2012).

This article presents a theoretical search for improving the CBA process when assessing complex integrated spatial transportation plans. The overall question is: How to improve the bottlenecks in CBA processes theoretically? These bottlenecks are articulated in section 1. In section 2 a theoretical framework is made on how these bottlenecks are interrelated, which forms the fundaments for a hypothesis. This is the starting point for a thorough literature research in section 3 on how to improve communication and build trust between different kinds of experts to support a learning use of assessment tools in planning. This search is focused on the research fields of deliberative planning and organizational learning. In section 4 the lessons from these two research fields are synthesized and analyzed with the CIMO-framework (context, intervention, mechanism and output) (Denyer et al., 2008). This gives the necessary input for a theoretical design on how to improve the bottlenecks in the CBA process and increase the fitness of this traditional evaluation instrument to the contemporary demands of transport planning.

Section 1: CBA process bottlenecks

Research on CBA process bottleneck gave three main findings: the CBA was experienced as a final assessment, whereas its use as a learning tool was desired (1); the two main participant groups in the CBA process, the planners and evaluators, expressed mutual distrust (2) and deficient communication (3) (Beukers et al., 2012). These bottlenecks are discussed further in this section.

1.1 Perception of CBA as final assessment

The overall experience on the use of CBA in Dutch planning processes was that the CBA was mainly carried-out when the assessed plan was already finalized and the process of designing, discussing and forming compromises to gain public support was closed. This timing of CBA at the end of the planning process downgraded its function to only examining whether a plan is good or bad in CBA terms, which is expressed in the summary table of the CBA in a number. This practice was perceived as undesirable for two reasons. First,

the planners, felt the CBA didn't do justice to the total benevolence of the plan. Hence, many intangible planning objectives are often not or poorly assessed in CBAs and not or poorly integrated in the overall balance (Naess, 2006, Mackie and Preston, 1998, Mackie, 2010). Therefore, a fully informed decision about a plan based on CBA is not possible as a CBA will give a limited overview of the plan's expected impacts. Hereby it should be noticed that the formal role of CBA in Dutch planning is not to make decisions, but to support decision-making (Eijgenraam et al., 2000). Nevertheless, the Dutch planning participants experienced a judgmental use of the CBA. This perception was increased by the obligatory character of CBA in Dutch planning. Every large spatial transportation plan funded by national government needs a CBA assessment. This obligatory character was experienced especially frustrating if the CBA method does not or partly fit the characteristics of the assessed plan. Secondly, the described late and perceived judgmental use of CBA was expressed as undesirable, because participants felt frustrated that they could not use the output of CBA to improve the assessed plan anymore. Even though the planning process was more or less closed at the time of assessment, it was perceived as a lost chance not to use the CBA output for improving the plan and possible improving the CBA balance.

1.2 Distrust between planner and evaluator

Another experienced bottleneck was a low level of trust in the CBA process among the planners and evaluators as well as towards the plan and the CBA itself. This experience was expressed for example in the fear of the planners that using CBA to support decision making could result in a dominancy of 'hard' effects over 'soft' effects. The CBA is better equipped to assess the so called hard effects; tangible effects which have a market value and can be translated in monetary terms quit easily (Meyer and Miller, 2000). Soft or intangible effects have, on the contrary, no market value and are more difficult to be monetized (Meyer and Miller, 2000). These soft effects, like effects on the air quality, loss of nature or sustainability, are sometimes monetized by the use of shadow prized and sometimes appear in the CBA balance as PM (pro memory) items. In either way, monetized or not, the integration of these effects in the total of the CBA balance is disputable (Wee, 2011, Mackie and Preston, 1998, Naess, 2006, Page et al., 2009). Planners feared that soft effects might be overlooked in decision making and were therefore suspicious towards the assessment tool. Especially because these soft effect often represent very important planning objectives like, improving the quality of life, sustainability or regional competitiveness.

Furthermore, the planners experienced that the evaluators tent to pay less attention to the soft effects in comparison to the hard effects. This behavior of the evaluators was characterized by the planers as rigid and fuelled the planners perception that the soft effects were not or poorly included in the CBA balance. By this the CBA was giving an incomplete assessment of the plan, which discouraged the planners to take the CBA and its output seriously. So, the planners not only distrusted the CBA as not equipped to fully assess their plan, they also were suspicious towards the evaluators because of their indifferent behavior towards integrating soft effects in the assessment.

The evaluators, however, also expressed a sense of distrust towards as well the planners as to the assessed plan itself. The evaluators, namely, experienced that planners tented to use the CBA strategically. They felt that planners were often too optimistic and would embellish the expected plan effects. Furthermore, the CBA experts experienced that the CBA output was used selectively by the planners following the political preferences. They perceived that if the CBA showed a positive balance, the analysis was not under debate. If the CBA showed a negative balance, though, the evaluators experienced that the methodology and calculation assumptions were attacked intensively, which would position the CBA as being useless and not worthy to support decision making.

1.3 Deficient communication

The third discussed CBA process bottleneck is a perceived communication deficit. Communication in the CBA process was characterized as being done too late, too little, too limited and too little structured. The experiences were for example that not enough time was planned for a necessary discussion on the used assumptions and fixed numbers in a CBA. These discussions, which could not be overlooked anyway, caused therefore delays and put pressure on the process. Also the process of testing the CBAs in second opinions (which is an obligatory step in Dutch planning) was described as unstructured and therefore less effective.

Furthermore, the planners criticized the CBA as not transparent: as a black box of which it was not clear what was actually calculated and how. They perceived a limited communicative value of the CBA report and of the evaluators, who did not manage to explain sufficiently what the CBA actually does and calculates. The urge of the planners, however, to know exactly what and how the CBA calculates is strongly related to the second bottleneck. Because of the sense of distrusting the CBA and the evaluators, the planners wanted to control what happened in the assessment of their plan and demanded to open up the black box.

Another example of limited communication was the perception of the evaluators that the CBA and decision-making process had too little room for uncertainties. Considering a CBA balance without its limitations does not support well informed decisions, so the uncertainties needed to be described too. However, the evaluators expressed that decision-makers and planners expected clear cut information and tended to overlook mentioned uncertainties in the CBA report.

1.4 Dichotomy between planner and evaluator

These CBA process bottlenecks made clear that the planner as well as the plan and the evaluator as well as the CBA form a dichotomy of two different and clashing rationalities in the CBA process in relation to the lack of trust and deficient communication. Conflicting rationalities as between the planner and evaluator in the CBA process resonated too in other studies. Similar conflicts between rationalities are noticed for example between transport planning and urban planning (May et al., 2008, Willson, 2001) and between technical rational

approaches and communicative rational approaches for plan evaluations (Owens et al., 2004). In this latest stereotype the technical rational approach represents a positivist belief that rational knowledge exists and can be provided by technical instruments (such as CBA) operated by experts. The communicative rational approach, on the contrary, is fundamentally a reaction to this positivist thinking. Its basic premise is that knowledge is a construction whereby the role of the planning expert is to create a space or place for different actors to communicate and to let inter-subjective knowledge come into existence (see for example Huxley and Yiftachel, 2000). Within this dichotomy, the CBA and its prescribed use seems to be an exponent of the technical rational approach, whereas the transport planning domain, especially when considering integrated plans, seems to increasingly tend towards communicative rational approaches (Durning, 1999, Te Brömmelstroet and Bertolini, 2011, Willson, 2001). Thereby, planners and evaluators represent different values and thinking which, apparently, does not fit easily together.

The description by Rayner (2003) of what he calls the (contemporary) age of assessment is illustrative for the setting of conflicting rationalities in the CBA process. In the assessment age governmental decision making is strongly dominated by scientific-based or evidence-based approaches. Technical experts and professionals tent to dominate, whereas at the same time electoral participation is declining. As Rayner noted, social scientist try to counter this movement by designing participation processes to involve the non-expert public. Although planners are often typified as being experts themselves, in the age of assessment they may represent the urge to open-up the assessment process and involve values and perspectives from non-experts through participation. This, however, is not incorporated in the natural behavior of the evaluators who are used to deliver the information required for scientific-based and evidence-based decision making. Moreover, although participatory techniques may be implemented in political culture of scientific and evidence based expertise, the technical assessment rationality may still dominate the assessment context. Rayner (2003: 168) substantiated this by the example that British citizens were consulted about the technical term ‘genetically modified crops’ instead of in every-day language; about ‘food and the country-side’.

Essential in the theme of conflicting rationalities is that two types of professionals, with their own set of concepts and values, have to cooperate to make a useful assessment of a plan. The appeared dichotomy between the planner and evaluator in the CBA process will form the focus of the remaining of this article, starting with theoretically framing the use of assessment tools, trust and communication in section 2.

Section 2: Relating communication, trust and conceptual use of CBA: A hypothesis

The emerging variables that form important bottlenecks in CBA processes, namely trust, communication and the use of the CBA (as a final assessment or as a learning tool), brought forth the questions if and how these three variables are interrelated. What is the importance of mutual communication and mutual trust for the use of an assessment tool in a learning way? And how are communication and trust interrelated? These questions are answered is this section through a literature review.

2.1 Communicative and trust conditions for a learning use of assessments

A desired shift from a judgmental and instrumental use to a learning use of CBA was described as well by Khakee (2003). With the rejection of a positivistic perspective and the development of post-positivistic approaches like communicative planning, central issues of evaluation were evolved too. Instead of expecting to measure all performances of a plan or program in an objective way the aim of evaluation has moved into facilitating an integrative and learning approach.

> *"[…] the central issues of evaluation are how best to organize an inclusive discourse, to promote a learning process which is emancipatory and expedites progress, and to emulate political, social and intellectual capital. […] Evaluation is thus a question not only of effectiveness and legitimacy but also of integrity and mutual understanding. Evaluation itself becomes a form of interactive discourse where all those involved can explain their values, problems and concerns."* (Khakee, 2003: 346).

Evaluation then may be a cognitive process in which social realities are constructed and actors develop self-reflective learning abilities, find unexpected meanings in their actions and build up networks of people actions and thoughts (Selicato and Maggio, 2011). Thereby it appeared crucial that actors actually meet the other actors, appreciate them, recognize their commitments and struggles, and their strong and weak points. Instead of using evaluation for problem solving by comparing alternatives, evaluation could be used for problem setting whereby the definition of the problem will not be a starting point, but is one goal of the evaluation process. Selicato and Maggio (2011: 173) made a strong plea for an increased learning perspective in evaluation processes instead of a judgmental perspective.

> *"Research […] shows more and more the need to consider evaluation not as the final outcome of administrative actions, with the aim of approving or rejecting the contents of a given planning tool, but as a work methodology, a "process of gradual learning" that it is useful to undertake even small steps at a time and by partial experiments (Brunetta and Spaziante, 2000). In fact, the aims of evaluation are not so much to formulate a judgment of the admissibility of the choices in terms of characteristics and the availability of resources, but to increase the awareness of the choices taken, within the context of the decision-making process."*

Kidd and Fisher (2007) recognized as well that both within integrated appraisal methodologies as well as within sustainability literature a strong plea is made to intensify a participatory dimension in assessment processes. This relates to the concerns for stakeholder engagement and openness in decision making. Likewise, Saarikosi (2000: 5) explored the integration of participation into environmental impact assessments (EIA): not just as a supplement, but as *"a collective process where different actors—affected citizens, interest groups, authorities, and experts—can deliberate and exchange their views of the goals and their knowledge on the impacts of the proposed developments*". This requires citizens to acknowledge and respect each other's perspectives and moral positions and disapprove the use of stereotypes. Parties need to learn about each other's identities to

understand where everybody stands and what is really important to them. Moreover, in order for EIA to serve as a learning process, participants should discuss conclusions and search for mutual solutions collectively. Furthermore Saarikosi (2000) emphasized the need for a safe environment as a condition for effective communication: an environment where each participant can speak, where non-expert knowledge and speech is acknowledged, where active listening is encouraged and where people can explore ideas freely.

Communication and trust as conditions for a learning assessment process

The articulation of a learning use of assessment tools made clear that the setting for such a use differs from the setting for an instrumental or judgmental use. When considering a learning use of assessment tools the focus has to be on organizing an inclusive discourse and promoting a process which is emancipatory so that all those involved can explain their values, problems and concerns. It relates to stakeholder engagement and an open decision-making process. A process in which different actors can exchange views and knowledge without the dominance of expert knowledge in an environment which feels safe to share and explore ideas together.

When the generation of (new) knowledge and ideas are considered or the acquiring of a profound and shared understanding in assessment processes, it relates to how actors communicate and how individual knowledge, tacit and explicit, can be combined and integrated. This relates as well to how communication between involved participants in the assessment process should be organized. Also the importance of mutual trust and a trustworthy environment is present. When acknowledging and respecting each other's perspectives and identity without using stereotypes it shows interest in each other which may encourage sincerity, sharing of personal knowledge and mutual trust. This is encouraged by a trustworthy environment in which participants feel safe to communicate and share ideas freely.

We therefore conclude that a high level of communication and trust between assessment participants form important conditions for a learning use of assessment tools. It appears that these conditions determine if a process of gradual learning is possible and if an interactive discourse can be formed where all those involved can explain their values, problems and concerns. How participants communicate with each other is of influence on a learning use of assessment tools as well as the level of trust among participants and a trustworthy environment..

2.2 Interrelatedness of communication and trust

Due to the relevance of trust and communication for a learning use of assessment tools a deeper understanding of these variables and their relatedness are necessary. A definition of communication may be of help in this, although communication is a muddy and dynamic concept. Communication could be describes as, for example, the transmission of information or as a system for communicating information (Littlejohn and Foss, 2008). A more detailed description is given by Lievrouw and Finn (1990: 49).

> *"Communication is human behavior that facilitates the sharing of meaning and takes place in a particular social context. Any interacting set of social and technical structures which facilitates the sharing of meaning among people is a communication system."*

Within the CBA process communication takes place especially between planners and evaluators. The communication then is a form of dialogue or face-to-face communication between people. Such a dialogue is a process in which concepts are built in cooperation with others and which provides the opportunity for one's hypothesis or assumptions to be tested (Nonaka, 1994). Or, as Healey (1999: 117) wrote,

> *"Conversations imply the exchange of knowledge and understanding and of claims for attention. Their 'performance' requires some degree of trust and a preparedness for some degree of mutual understanding."*

So communication in the CBA process is a form of interpersonal communication or small group communication which takes place in a dialogue or conversation. Interpersonal communication relates to interpersonal behavior and interpersonal relationships (Miller, 1978). It is a form of communication in which minimal two actors are involved, the degree of physical proximity is relatively high, the availability of channels (communication modes) are high and the opportunity for immediate feedback is optimal. According to Miller (1978) the development of communication to move from impersonal to interpersonal depends on the growth of qualitative characteristics of the relationship over time. Through getting to know each other, the uncertainties about possible reactions and feedback on communication diminishes. Furthermore, this feedback estimation can be based more and more on explanatory information about someone's behavior and believes and less on social cultural information (to which social group the other person belongs). So the communication is more and more becoming personal and between persons as more personal details are shared.

Moreover, a shift from impersonal to interpersonal means a shift in the communication rules.

> *"With impersonal relationships these* [communication] *rules are based on social norms and exist before the communication takes place. With interpersonal communication these rules are negotiated and defined by the communicators when their relationship is getting shape. So the conditions move from being extrinsic to intrinsic. These changes imply that the communication takes place more and more between individuals, instead of between undifferentiated role occupants." (Miller, 1978: 170).*

As with communication, the literature on trust is divers and entails very different perspectives, which makes is hard to form one definition.

> *"Economists tend to view trust either as calculative or institutional. Psychologists commonly frame their assessments of trust in terms of attributes of trustors and trustees and focus upon a host of internal cognitions that personal attributes yield. Sociologists often find trust in socially embedded properties among relationships among people and institutions." (Rousseau et al., 1998: 393).*

Nevertheless, literature agrees that trust is very important in several ways. It enables cooperative behavior; promotes adaptive organizational forms, like network relations; reduces harmful conflicts; decreases transaction costs (in for example a business transaction); facilitates rapid formation of working groups; and promotes effective responses to crisis (Rousseau et al., 1998). Furthermore, literature agrees that trust is a complex and multi-dimensional concept that is in its essence relational. There is a strong and reciprocal relationship with risk, which means that risk creates an opportunity for trust that leads to risk taking. Besides risky, trust is interdependent: the interests of one party cannot be achieved without reliance upon another (Rousseau et al., 1998). This is clarified if the following quotation.

> *"A (the trustor) trusts B (the trustee) with regard to X. Trust is A's subjective assessment of the probability that B will act as agreed when B's actions significantly affect A, independently of A's capacity to monitor B's actions." (Gambetta, 1988 in: Laurian, 2009: 371).*

Where the communication literature emphasizes the importance of forming relationships, the trust literature describes how trust is a necessary component to from such relationships. Moreover, the trust literature describes that communication between actors is necessary to build trust: by getting to know each other through communicating with each other relationships can take shape and can become more personal which increases the degree of interpersonal communication and trust. Interpersonal communication and interpersonal trust are thus interrelated concepts. These insight are, if not literally, recognized by several planning scholars. For Stein and Harper (2003) for example, trust is essential for community, social, political, familial, and even linguistic relations. For them trust forms a basic concept for understanding human relationships and institutions. It forms a necessary condition for any kind of communication, cooperation, understanding, knowledge, or learning. Or, as they stated it, trust is essential to the work of planners, because without it everything will collapse. Also in the work of communicative planners, trust forms an essential element for a communicative performance and a degree of mutual understanding (Healey, 1999). As Laurian (2009: 384) described:

> *"While trust is necessary for open communication and collaboration, open communication and collaboration are also preconditions of trust. […] When participants trust each other (even if they hold different values or goals) and trust the fairness of the process, they are more likely to communicate actively, listen empathically, and work toward consensual solutions*" (Laurian, 2009: 382)

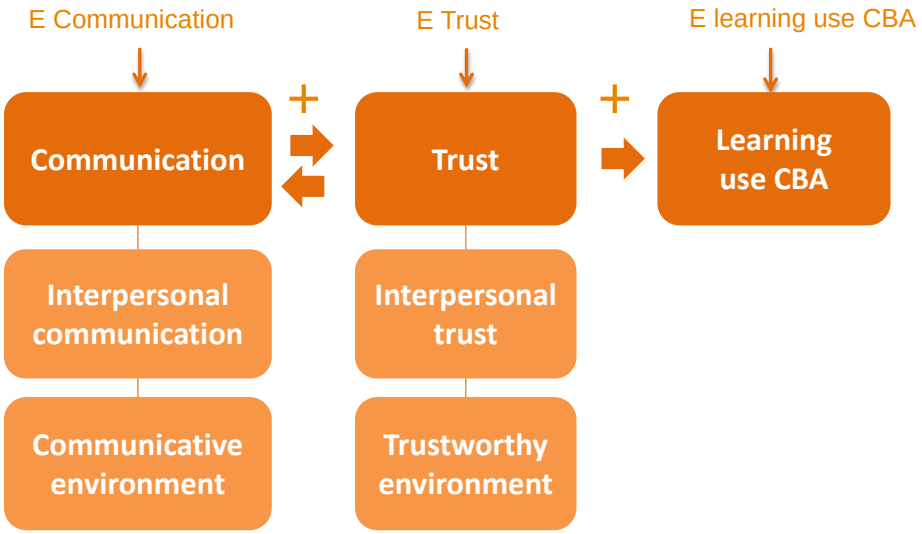
2.3 A hypothesis: High levels of communication and trust lead to learning use of CBA

The experiences of CBA participants (Beukers, et.al., 2012) of both a low level of communication between planners and evaluators as well as a low level of mutual trust are not surprising anymore considering the concepts of communication and trust and their interrelatedness. Even more, the finding that the learning use of CBA is experienced as low, and instead an instrumental and judgmental use is experienced, seems to be a logical result considering that a learning use of assessment tools requires high levels of communication and

trust. It seems evident that the levels of interpersonal communication and trust need to be increased in the an equal way to materialize the expressed desire by the CBA process participants to use the CBA as a learning tool. This forms the basis for a hypothesis: ***High levels of communication and trust between planners and evaluators are conditions for a high learning use of CBA.*** This hypothesis is illustrated in the conceptual model in figure 1. It focusses on interpersonal communication and trust between planners and evaluators, the interrelatedness of these variables and their relation to a learning use of CBA. Other influences on the possible use (or not) of the CBA as a learning tool are plausible too. For instance, the timing of the CBA in the planning process, as set in planning legislation or policy rules, determines if the plan is still open for changes through learning or not. Also power imbalances between the planner and evaluator in the CBA process may be of influence on its use as a learning tool. These explanations, though, are not within the scope of this article.

It seems necessary to increase the levels of communication and trust between the planners and evaluators to improve the CBA process and the use of CBA as a learning tool. The aim in section 3 is therefor to clarify how to increase the levels of communication and trust between experts, the planner and evaluator, engaged in a learning process.

Figure 1. Conceptual model on communicational and trust conditions for increasing the conceptual use of CBA



Section 3: Communicative and trust mechanisms and interventions

Two questions form the leitmotiv of section 3:

- How to improve communication between planners and evaluators in a CBA process?
- How to build trust between planners and evaluators in a CBA process?

These questions are answered through a literature review of research on cooperation between experts in learning assessment processes with a focus on communication and trust. The literature review concentrates on the research fields of deliberative planning and organizational learning. These fields contain many studies on communication and trust between different kind of actors and thus form a core source for potential directions on how to improve these aspects.

Firstly, the research field of deliberative planning elaborated extensively how planners should and could act in communicative interaction with various kinds of stakeholders. Although deliberative planning theorists mainly focus on improving communicative processes between planners and the community (see for example Innes and Booher (2010); Bickerstaff and Walker (2005); Huxley and Yiftachel (2000); MacCallum (2008); McAlister (2010)), their work is insightful as well for improvement of communication and trust between experts from different rationalities. Secondly, the research field of organizational learning gives helpful insights on improving communication and building trust between different experts as it has focused on for example understanding how innovation takes place within organizations or how to create interactive and shared knowledge. The focus of many organizational learning researches is on how firms can improve their innovative capacity through the creation of innovative knowledge (Nonaka, 1994, Argyris, 1991). Hence, organizational learning is about the learning capacity of an organization as whole to create innovative knowledge and use that knowledge in its development of adjusted and new products and strategies. Similarly, planning, evaluation and CBA practices or processes may be seen as (temporarily) organizations. Insights from organizational learning have therefore inspired several planning studies (Te Brömmelstroet and Bertolini, 2008, Suárez-Herrera et al., 2009).

The search within these two fields on how to improve communication and build trust concentrated on those articles which represent the main lines of thinking on communication and trust. The publications were selected on the basis of how often they have been cited in the field and can be considered as leading articles. Furthermore, publications were selected on the basis of their richness of communication and trust directions. In processing these publications all directions on how to improve communication and trust between different kinds of experts were selected and grouped based on the similarities in their reasoning. This gave a comprehensive overview of how-to-directions from both research fields. In prevention of a loss of the richness of the selected items the groups of directions on communication and trust are presented in appendix 1. Furthermore the grouped directions from the two research fields were compared and synthesized in section 4.

3.1 Deliberative planning

Open conversation

Much effort has been put by deliberative planning researchers in understanding and effectuating Habermas' ideas on open conversation among diverse people through which truth and values can be established. Healey (1999) for example argued to use Habermas' social theories to shape places and form policy.

> "*Through the work of discussion itself, new knowledges, ways of organizing, and networks may be established. […]Through such processes of exchange of conceptions and interpretations, learning is likely to take place that could change understandings and provide new bases for constructing place identities"* (Healey, 1999: 118).

According to Healey, a condition for conversation to take place is the acceptance of a degree of collaboration and reciprocity. This means that one must have an open perspective towards comments of another and accept the state of being that a scientific truth does not exists as absolute truth and values are the outcome of social interaction within specific contexts. Innes (1998) too showed that it is not the end product, i.c. an impact analysis or country report, that has the biggest effect on its developers. Instead, it is the process of collectively making and shaping information.

> *"The process of producing information shapes perceptions that become part of the assumptions and given knowledge - and those frame the choices"* (Innes, 1998: 56)

Although quantitative analysis and expert knowledge are to her not considered as unnecessary, a process of collectively creating meaning is desired for information to become embedded in the understanding of participants. The conventional instrumental model, with its presumed objective expertise, fails to do so, because it is not integrated in political and bureaucratic processes. Only if there is "plenty of talk" about the meaning of information, its accuracy and implications, it will become shared knowledge (Innes, 1998: 56). However, to let a communicative process take place, Innes states that it is necessary that not only formal knowledge is accepted and addressed. Other kinds of knowledge needs to be allowed too, like participants' own experiences, personal stories and intuition.

Habermas' structure in three steps of when what kind of knowledge needs to be addressed is helpful in this. It explained that if we want to produce predictions and choose strategies, scientifically grounded information is needed. Secondly, if we want to interpreted the meaning and consequences of these predictions and want know its practical implications, we are served by knowledge grounded in experience, in stories and metaphors that help participants make collectively sense of a complex and uncertain array of facts and contentions. And finally, if we want to break out of assumptions, rules, and expectations to stimulate innovation, intuitive knowledge is crucial (Innes, 1998).

To create the right kind of talk for deliberation and learning in a collective and communicative way an effort is required.

> *"[…] we need appropriate rules, parallel to those of the scientific method, to ensure that the products of these discussions are acceptable and socially worthwhile, as well as properly informed"* (Innes, 1998: 60).

Rules which should be aimed for in a communicative process are for example that the individuals representing all the important interests must be at the table; that all must be equally empowered in the discussion; power differences from other contexts must not influence who can speak or who is listened to, or not; that the discussion must allow all claims and assumptions to be questioned, all constraints to be tested; and finally that the group should seek consensus (Innes, 1998).

Planner's communicative experiences

Another seminal description of communicative directions between planners and stakeholders can be found in the work of Forester (1987). In this research he focused on what communicative strategies worked in planning processes and what not, based on the experiences of planners in practice. It elaborated for example that planners have to deal with a lot of distrust in the planning process from all sides; from stakeholders towards each other and towards the planner. Building up trust appeared an important element of the planner's tasks. To do that, the planner needed to listen carefully and, even more, assure that the thoughts and feelings of all stakeholders were acknowledged and respected. Doing so, the attention had to be first on the person and then on the words. Furthermore, special attention should be given to anger. This particular emotion should get the right attention, but not too much as it can predominate throughout the process. The planner's experience was that stakeholders should get the opportunity to 'let off steam' in order to move on and let the anger go.

According to Forester (1987) the planner had a role in finding a balance in building up trust and streamlining the appropriate communicative action to achieve that. Thereby, it seemed crucial for the planner not to behave arrogantly as the one who knows best as it will offend people. Furthermore, the planner had a role in preparing the stakeholders to face each other by mentioning the objectives from both sides at forehand and letting the stakeholders formulate their arguments in preparation of the discussion. This may prevent discussions from becoming too emotional if stakeholders felt confronted with (unpleasant) surprises. In this, the planner has a role of a mediator to negotiate between the stakeholders and their several interests.

Within this mediation process, however, Forester (1987) underlined that the planner is not an objective and neutral party, since he or she often has their own interests. If a planner acted neutrally and detached this attitude may even be experienced by the stakeholders as not really being interested in the case. If stakeholders had for example financial or emotional interests in a certain spatial development, they wanted their interests to be heard and a planner who is concerned and not neutral. This, again, asks for finding

balance and giving enough room for feelings and emotions, besides the facts and figures. Moreover, it requires the planner to act as a diplomat. Thereby, a strong overall condition is needed that "*no single party is so dominant that is does not need to negotiate at all*" (Forester, 1987: 444). Hence, planners cannot solve problems of radical power imbalances and need to be clear about that.

In a later work Forester (1999) stressed that even though negotiation is important, the intention of deliberative planning is not just to build consensus. Instead it is about acting and learning together, building relationships and finding win-win situations in which everybody gains. This entails several behavioral challenges in a deliberative process: to be close and keep a distant at the same time; to show empathy and critical judgment; to recognize and respect, rather than to dismiss human emotions of anger, fear, impatience and suspicion.

> *"The quest for understanding requires asking and listening, correctly interpreting the others language and putting oneself in the other's place. It requires making suggestions that the other may not have thought of, and learning from both acceptance and refusal."* (Forester, 1999: 63)

Doing so, deliberative action requires a dialogue space, which could be in meetings, negotiations, discussions, project reviews and hearings that bring affected citizens, regulators, developers and public officials face-to-face. Moreover, Forester (1999) noted that also informal meetings are important in deliberative processes, because then participants can develop more familiar relationships by learning more about each other. This happens typically during coffee breaks, small workshops or informal gatherings.

Communication modes and attributes can also function as a dialogue space. Forester (1999) gave an insightful example of a deliberative process where a sketch of a plan played an important role. It regulated and facilitated the deliberative process, because the plan was presented as a sketch still open for discussion. Every participant could take the initiative to pick up a pencil and draw some ideas on the sketch to illustrate them for the other participants. The sketch helped the participants to make clear what they meant and to share and sharpen their arguments. Nonetheless, because the sketch already gave some rough outlines of the plan, it focused the discussion as well by giving some borders and a clear topic. This regulated the discussion and prevented it from becoming too broad. So, the sketch was a means to encourage asking questions as well as a way to steer the questions. Thereby, the essential condition for a sketch, plan, evaluation or other mode to foster a deliberative process is not to present it as *the* ultimate sketch or plan, but as work in progress.

Collaborative dialogue

Innes and Booher (2003) shared insights for a collaborative dialogue as a deliberative process with many communication and (to some extent) trust building lessons. As a basic condition they explain the heuristic of a collaborative dialogue, which is listening to others, treating them respectfully and looking for common interests rather than differences and challenging assumptions. They used these basics to formulate some

principles for negotiation as an element of collaborative dialogue. In such negotiations parties must begin with sharing their interests rather than their positions; learn about each other; seek mutual gain solutions as far as possible; and accept that there is a tension between cooperation and competition and advocacy and inquiry in public policy cooperation (Innes and Booher, 2003: 37).The experience is that when stakeholders explain their own situation and needs they begin to learn about their interdependence and the need to negotiate.

However, Innes and Booher (2003) stated that participants not only need to listen and ask questions, they also need to interact with one another in, for example, brainstorming or scenario building.

> *"A truly collaborative discussion has the typical form of cooperative scenario building and role playing by participants who tell the stories of what is wrong and develop alternative stories until they find the narrative of the future that is plausible and appealing to all of them." (Innes and Booher, 2003: 42)* .

Thereby, scientists and agency staff need to be engaged with lay people who challenge assumptions and analyses, using their local knowledge. Through interacting in a collaborative dialogue relationships are build which help people to build trust among them. Moreover, the dialogue in itself helps participants to articulate their identity and develop shared meanings.

To achieve this collaborative dialogue a professional facilitator has a critical role in ensuring that the group makes a shared analysis of interests and conflicts, does joint-fact-finding, addresses issues deeply and feels comfortable and safe to say what is on their minds. Moreover, participant have to be stimulated to think outside of the box as well as to be willing to put forward half-baked ideas (Innes and Booher, 2003: 46). A facilitator can stimulate this by asking for clarifications or examples when needed and challenge assumptions and question status quo. Furthermore, it is essential that only recognized representatives of an interest group participate and that they check regularly back with their constituencies.

Spatial strategy making

As with collaborative dialogue, presented as a deliberative process, spatial strategy making can be interpreted as such (Healey, 2007) and contains several thoughts on communication and trust building. When considering spatial strategy making, Healey emphasized that this is created in a process of filtering and focusing attention, highlighting some issues and pushing others aside. Moreover, spatial strategy making happens in social construction sides or arenas in which multiple ways of knowing about what is significant, and about what could happen, are explored, conceptualized and symbolized and tested (Healey, 2007: 236). Thereby, the challenge is to translate feeling and potentials of an ambiance, such as accessibility and urbanity, into particular qualities that could be deliberatively cultivated by public intervention. Spatial strategy making requires therefore a specific approach to the production of knowledge and the development of understanding through the creation of meaning shaped by situations, trajectories, activities and values of particular social groupings (Healey, 2007: 243). This is especially relevant when different stakeholders are involved with multiple frames of references,

logics and value, which preferably happens as urban development dynamics are too complex to be grasped through the work of a single discipline.

So, spatial strategic ideas need to be validated and legitimated in an interactive way through talk, social encounters, discussion, debate and exchange of thoughts. More specifically, spatial strategy-making requires (Healey, 2009: 452):

- A capacity to know a place and all its complexities, its collective expressions and relations, and in the fine grain of its social, environmental, political and physical fabric
- The imaginative capacity to see opportunities
- The necessity to engage in systemic thinking, drawing together understanding and insights to imagine future trajectories and select specific pathways

This puts a lot of attention on how to produce knowledge in order to be useful in spatial strategy making. Besides recognizing the value of multiple sources of knowledge about places and their development, it is important to maintain an open-minded stance towards what is going on and what is at stake. Open-mindedness means actively stretching out to access multiple perspectives, challenging established assumptions and cultivating debate and arguments among different viewpoints (Healey, 2009: 448).

Healey (2009: 453) formulated four dimensions which characterize the process steps in (transformative) spatial strategy making which may function as a guideline to steer and stimulate this process. Namely through mobilize attention, scope the situation, enlarge intelligence, create frames and select actions. In the dimension of mobilizing attention the aim is to re-orientate attention to issues which lie behind immediate agendas, where this would highlight neglected opportunities and challenges. When scoping the situation the aim is to identify where the energy for change may lie and build coalitions for change which expand this energy. In the dimension of enlarging intelligence the focus is to explore and recast agendas of problems, issues and potential actions and stakes, through accessing multiple sources of knowledge. The dimension to select actions means to articulate strategic ideas within which specific issues and actions can be prioritized and given some justification and coherence.

Planning and trust

The review on deliberative (and collaborative) planning showed many communicative lessons and some references towards the importance of trust. However, the issue of trust has a slightly underrepresented position in deliberative and collaborative planning literature although the interest of planning scholars in this theme is growing. Stein and Harper (2003) explained this underexposed status by an overexposed interest on the issue of power based on the critical work by Foucault and Foucauldians. Even though Stein and Harper did not undermine the Foucault argumentation that all social relations are affected by power (or repression), they did argue that this approach may function like a doctrine and leaves too little hope for democratic and

deliberative processes to function and contribute to planning. Instead of describing the world in power relations and using mainly this vocabulary, Stein and Harper suggested that another vocabulary would be more productive; namely the vocabulary of trust which they present as its opposite.

> *"Whereas unequal power relations can undermine and thwart a community, trust can underwrite it"* (Stein and Harper, 2003: 135).

Even though trust is often identified as a missing element in ineffective processes, the planner profession's theoretical and empirical understanding of the interactions between trust and planning is still limited (Laurian, 2009). However, with the communicative and collaborative turn in planning, the importance of trust is only increased, since trust facilitates cooperation and in turn trust can be increased through successful cooperation. As noted by Ehrman and Stinson (1999), while consensus does not require common values, it does requires the existence of trust among stakeholders, agencies and mediators.

As elaborated in section 2, trust is a prerequisite for deliberation processes, communication, cooperation, the resolution of collective action problems and effective democratic governance (Laurian, 2009). Laurian (2009) gave several directions for building trust; for example through face-to-face interactions and sharing decision-making power. When sharing decision making power an agency, like a planner, shows trustworthy behavior and displays trust in the public. It can narrow the distance between, for example, the expert and non-expert. Information sharing, deliberation and democratic governance to enable shared decision-making are thus important to support the emergence of trust, and planners can play an integral role in this process (Laurian, 2009: 375, Switzer et al., Forthcoming). Another way to facilitate trust (or to mitigate distrust) is the use of mediators in support of open and effective communication. Moreover, Laurian emphasized that the ideal speech conditions for undistorted communication by Habermas are as well conditions that support trust: namely through comprehensibility, truthfulness, sincerity, legitimacy, equal standing and respect for all forms of knowledge, inclusiveness, openness and transparency mutual disclosure and information sharing. This again underlines the reciprocity of trust and communication.

The importance of open communication to build trust was supported in a study by Switzer et al. (Forthcoming) as well as a timely and sincerely sharing of information between parties. Not sharing information or learning about it through other (media) circuits could lead to suspicion and distrust especially when it confirms prejudices. Furthermore, the trust relations were benefited by getting to know the counterparts and by fulfilling promises.

How to improve communication and build trust according to deliberative planning literature?

The communicative and trust building lessons from deliberative planning have underlined that the planner has to take a different role when acting in complex and uncertain contexts. The planner should not act as the one who knows best and can provide politics and civil society with the answers needed. Although many

deliberative planning literature has a problem orientation which often only indicates mal communication and distrust, the cited literature shows that there are plenty ideas on how to overcome these communication and trust related problems. However, the main focus in deliberative planning is still on the planners who have to choose a different and deliberative role. Within the CBA-process the roles of involved actors cannot be characterized as a planner versus lay person. In contrary, in the CBA-process the planner has an experts role as well as the evaluator or the planner even is the lay person when considering specific CBA-knowledge. Therefore, when engaged in a more deliberative and learning CBA-process, both planner and evaluator have to choose a different role. The communicative and trust lessons from deliberative planning are grouped in appendix 1 and summarized in table 3.1 and 3.2.

Table 3.1 Directions on improving communication in deliberative planning

1) Have an open approach to all knowledge: a) Exchange different kinds of knowledge, feelings and interpretations b) Allow all knowledge in the discussion and allow to question it c) Give attention to issues behind immediate agendas
2) Behave appropriately: a) Have an open perspective towards each other b) Have an open attitude to change one's own assumptions and understandings c) Behave actively by asking questions and listen carefully
3) Have interaction: a) Create shared and embedded knowledge and understanding b) Have all stakeholders involved, empowered and interacting c) Act and learn together to develop familiar relationships d) Focus on (shared) interests and win-win solutions
4) Have a supportive communicative context: a) Create a safe environment to say what is on one's mind b) Prepare stakeholders for a constructive discussion and formulate arguments at forehand c) Create a dialogue space d) Use familiar dialogue modes e) Use a mediator

Table 3.2 Directions on building trust in deliberative planning

1) Show trustworthy behavior: a) Don't behave arrogantly b) Fulfill promises c) Listen carefully and focus on the person first, then on the words d) Timely and sincerely sharing of information and decision-making power e) Communicate comprehensively, truthfully, sincerely, supportively and legitimately
2) Have interaction: a) Acknowledge and respects all knowledge, thoughts and feelings

	b) Build relationships c) Use a dialogue space d) Use a mediator
3)	Prepare participants to participate in the discussion: a) Prevent confrontation with unpleasant surprises b) Formulate arguments at forehand c) Mention objectives from both sides

3.3 Organizational learning

A critical point in organizational learning is the argument that knowledge is more than an universal justified true belief, as many (western) scholars used to think. This notion of knowledge is too limited as it leaves out for example physical skills, tacit aspects, language, experiences and perceptions (Nonaka 1991: Nonaka et al., 2006: 1181). It has been emphasized that knowledge is never free from human values and ideas, history dependent, context specific and sensitive. In this notion, the core of organizational learning is how to overcome the fragile transmission of knowledge between individuals in the organization. Akgün et al.(2003) explained that the success of an internal learning processes of an organization can be depicted by the organization's interactive cycle of individuals' behaviors and actions. These cycles are affected by the knowledge structures of an organization, which are shaped by social interactions, culture and reflexivity. In this sense, knowledge develops from, and is manifested by, a complex web of relationships and social activities among people. This view thus emphasized the importance of culture, communication and group activities in organizations (Akgün et al., 2003).

Several cultural aspects can facilitate learning, like openness, transformational leadership, a participative decision-making culture, learning orientation, positive supervisory behavior and organizational support (Bapuji and Crossan, 2004). Furthermore, factors that influence the organizational learning capacity are for example formal procedures for learning, cross-functional communication and stability of team membership. While the type of organization structure and procedures affect learning within an organization, similarity between systems and structures facilitates learning between organizations (Bapuji and Crossan, 2004).

Knowledge creation

Nonaka and Takeuchi (1995, in: Nonaka et al., 2006) formulated four-stages for knowledge creation or for knowledge to transform from being to becoming in an interactive process. In such knowledge conversion, personal subjected knowledge is validated, connected to and synthesized with others' knowledge (Nonaka et

al., 2006, Nonaka et al., 2000). This process evolves in the four stages of socialization; externalization; combination; and internalization (SECI).

- Socialization aims at sharing tacit knowledge among individuals
- Externalization aims at articulating tacit knowledge into explicit concepts
- Combination aims at combining different entities of explicit knowledge
- Internalization aims at embodying explicit knowledge into tacit knowledge

In this process innovative knowledge evolves from being individual and internal to become shared, explicit, external and collective to become internal again in the last stage of internalization. In the process of such knowledge conversion, the individuals externalize their experiences and due to social justification it can be shared with others. Then, for newly created knowledge from combining externalized and shared tacit knowledge to become useful in the organization, it needs to be integrated in the organization's knowledge system. Or, from an individual's perspective, newly created knowledge needs to be made of one's own.

The process of SECI was related to the concept of *ba*: a shared space for emerging relationships as the context for knowledge creation, in which individual experiences are required, as well as reflections of the experiences of others (Nonaka and Konno, 1998, Nonaka et al., 2006).

> *"To participate in ba means to become engaged in knowledge creation, dialogue, adapt to and shape practices, and simultaneously transcend one's own limited perspective or boundaries." (Nonaka et al., 2006: 1185)*

The concept of ba knows different stages when the different steps in the SECI process are relevant. The originating ba is about meeting face-to-face, sharing emotions, feelings, experiences and mental models. This represents the socialization of the individuals. The interacting *ba*, supports externalization and combination. Through dialogue the mental models and skills are probed, analyzed and converted into common terms and concepts. Then in the exercising *ba* the individual's internalization of explicit knowledge are supported, for example through training with instructors or colleagues or repetitive exercises to stress behavior (Nonaka et al., 2006, Nonaka et al., 2000).

Central in organizational learning are insights on double-loop learning, which explain why it is so difficult for organizations to change internal structures and really solve problems instead of covering them up, as happens in the more common single loop learning. To detect and correct errors in an organization, double loop learning asks for publicly questioning underlying policies and goals, assumptions, norms and objectives, instead of enabling the organization to carry on its present policies (Argyris, 1977, Argyris, 1991). The underlying aim of a double loop learning process is to produce valid information, make informed choices and develop internal commitment to those choices. Moreover, this approach emphasizes the building of trust.

A critical factor of for double loop learning is an awareness of prepositions. To change private assumptions people need to become aware of their internal maps and see that some assumptions are

counterproductive for learning. Moreover, it is necessary to produce new assumptions by combining articulated views with questions by others. Furthermore, all must acknowledge their own mistakes, recognize defensive behavior and have an open dialogue. Workshops and seminars are useful in stimulating this change and learning process to move from old to new and shared assumptions (Argyris, 1977). As Argyris (1977) ideally saw, in such learning process people would advocate their views in a way that it would invite confrontation, challenge positions and stimulate testing them publicly.

Reflection-in-action

The work by Schön (1983) on the reflective practitioner relates to the change and learning process in double loop learning as elaborated by Argyris. It seems essential to reflect on how one thinks and acts and how it may influence a learning process. A basic notion thereby is that professionals think while acting, conscious or not, which influences the acting and vice versa. Therefore, not only the trained knowledge is used while acting, but also past experiences with acting in different and similar situations (see also Flyvbjerg (2001) on how professionals reflect in action). This is phrased by Schön as 'tacit knowing' or 'reflecting-in-action' (1983: 54). However, reflecting in action happens somewhat unaware and is sometimes even ignored or not considered as real knowledge.

Professionals were often taught to solve problems with an agreed set of solutions, but when situations are uncertain, disordered and indeterminate the fixed solutions may not work. Besides the problematic starting point of this approach that all problems need to be known at forehand to find a fit solution, the focus on solving problems in itself seems problematic. Hence, finding the problem is many times part of finding the solution. Moreover, the challenge is to keep the means and ends unseparated and to define them interactively to frame a problematic situation (Schön, 1983: 68). In the process of collective problem-setting, the problem is to be named and framed, which is in itself not a technical but rather a non-technical process (Christensen, 1985).

> *"Technical rationality depends on agreement about eds. When ends are fixed and clear, then the decision to act can present itself as an instrumental problem. But when ends are confused and conflicting, there is as yet no 'problem' to solve."* (Schön, 1983: 41)

Schön gave several directions to achieve this in a reflective manner (1983: 231 - 232). He stated that it is necessary for reflection to give and get valid information and speak in direct observable categories. Doing so, this information, data, reports and speech are open to disconfirmation. Furthermore, Schön underlined the urge to create awareness in the reflective process: awareness of the values at stake in decisions and of the limits of one's capacities. Moreover, there is the need to make designing and managing a bilateral task so that the several parties involved can work towards freedom of choice and internal commitment. Also a protected environment is needed to ensure that no one withholds negative information from the others or withholds testing this information and assumptions publicly. When following such directions, professionals may see the

other as minimally defensive, open to learning, committed to their position but equally committed to testing and confirming them, open to the reciprocal exploration of risky ideas, open to test assumptions publically and open to set a learning-cycle in motion.

Practitioners use various modes to reflect in their action, such as media, languages, and repertoires to describe reality (theories, role-playing, story-telling) and to conduct experiments. Independent of the modes used in reflection-in-action, it is important that the practitioners are familiar with the same modes they use when working together. Furthermore, reflection-in-action requires a reflective surrounding: a social context which supports reflective actions as well as cooperation with other reflective practitioners or clients. A classical professional-client relationship, for example, whereby the professional has all authority and the client submits to it is not possible. In reflecting-in-action the client has to participate in a reflective conversation with the professional and has to give valuable input of its own. This asks for an expert that does not act arrogantly and encourages the client to share thoughts and feelings. It asks for a different attitude of the client too whereas the experts cannot be approached just to solve the client's problems. The client therefor has to ask questions and questioning the experts knowledge, without hostility (Schön 1983: 300).

Organizational learning and trust

Many studies in organizational learning focused specifically on trust: how it relates to innovations, contracts, competitiveness, institutions (Bachmann and Inkpen, 2011), team work, group performances or cooperation (Peters and Karren, 2009, Jones and George, 1998, Bachmann and Inkpen, 2011, Erhardt, 2011) and how to build trust in an organizational context (Six and Sorge, 2008, Mayer et al., 1995, Abrams et al., 2003, Lander et al., 2004, Edelenbos and Klijn, 2007).

Edelenbos and Klijn (2007) for example, explain that trust is generated in social interaction and is influenced by existing codes and institutional rules and vice versa. Trust, then, develops especially in embedded relationships, through stable, frequent and tight interactions as '*trust does not appear as at the snap of a finger, but must be built up in the interaction among actors."* (Edelenbos and Klijn, 2007: 33). Furthermore, Edelenbos and Klijn (2007) emphasized that trust is fragile and needs to be nurtured and cherished. They give three guidelines for trust management to build and maintain trust:

- Intensify interactions: Create reciprocity in the relationships and repeated interaction
- Process management: Stabilize and manage interactions. For example through mediators and facilitators
- Institutional design: Design process rules to frame risk and opportunistic behavior. Decide on what to do when in conflict, how benefits are distributed and what to do if one of the involved actors wants to change the relationship.

Abrams et al. (2003) have a more abstract view on building trust. When engaged in a network for information sharing and knowledge creating two dimension of trust are to them of main importance: benevolence and

competence. Benevolence relates to the experiences of caring and being interested in the well-being of another and one's goals. Competences relates to the notion that one has relevant expertise. This brings them to the following factors which may develop one's trustworthiness (Abrams et al., 2003: 68):

- Act with discretion so that people need to feel safe to share confidential information
- Be consistent between word and deed
- Ensure frequent and rich communication on a personal as well as on a professional level
- Engage in collaborative communication in which both sides feel free to share and really listen to each other's thoughts and ideas
- Ensure that decisions are fair and transparent
- Establish and ensure a shared vision and language
- Disclose your expertise and limitations by being open about strengths and weaknesses

Another variation of trust building factors are given by Lander et al. (2004: 512). They asserted that trust building was influenced by repeated and positive interactions, integrity (being forthright and truthful in interactions and fulfilling promises) and perceived reputation. Moreover, communication turned-out the most relevant factor in trust building; communication which enabled sharing of relevant information and knowledge, provision of timely feedback, creation of a common language, creation of a shared vision and offering of explanations for decisions. Besides communication, Lander et al. (2004) noticed that when control and responsibility was shared this was perceived as an act of showing trust.

According to Six and Sorge (2008), the challenge is to be more precise in how organizations may build trust and what policies might be of influence. Their research focused on how to stimulate an interactive process in which individuals learn to establish and maintain trustworthiness, under given organizational (contextual and structural) settings and subject to policies directly or indirectly, positively or negatively sanctioning the building of interpersonal trust. They outlined several concrete policies which may be relevant to reach this stage of trust:

- Promote a relationship-oriented culture: Enable informal meetings; give (public) compliments
- Discuss at forehand how to deal with conflicts: Address troublemakers directly and *"in a way that you say 'yes' to the person, send a clear positive relational signal, and then allow the individual to be direct about the troubling behavior ('no' to the behavior)."* (Six and Sorge, 2008: 871)
- Explicit socialization to make newcomers understand the values and principles of the organization and how things are done

How to improve communication and build trust according to organizational learning literature?

The cited literature from organizational learning showed a wide range of views and approaches to communication and trust. Even though all are convinced of the relevance and importance of communication

and trust when considering the functioning of organizations (it's innovative capacity, competitiveness, learning capacity, knowledge and information sharing capacity, et cetera) the literature shows that the studies have their specific focal points as well as many overlap. Table 3.3 and 3.4 summarize these different (and similar) views on how to improve communication and how to build trust within an organizational context. A more detailed overview can be found in Appendix 1.

Table 3.3 Directions on improving communication in organizational learning

1) Interpersonal behavior to support communication a) Open attitude to test assumptions b) Open attitude towards learning, including from risky ideas c) Be explicit and accurate
2) Interaction a) Sharing and combining tacit and explicit knowledge b) Define means and ends unseparated and interactively c) All actors meet, discuss and become engaged in a knowledge creation process d) Use various modes to reflect which are familiar to all practitioners involved
3) Organizational context to support communication a) Leadership open to transformation and sharing of decision-making b) Supportive structure: stability of team members, learning procedures, training c) Safe environment and emerging relationships

Table 3.4 Directions on building trust in organizational learning

1) Personal awareness of others and trustworthy behavior a) Awareness of (underlying) (pre)positions and openness to discuss them b) Trustworthy behavior: act integer, discrete, really listen, be honest about expertise and limitations, give compliments, address troublemakers directly c) Fulfill promises
2) Interaction and forming relationships a) Create knowledge together through communication b) Have stable, frequent and informal interactions to form relationships c) Form a shared language or vision
3) Trustworthy environment a) Share control b) Make fair and transparent decisions c) Make rules to frame risks, opportunistic behavior, how to deal with conflicts

Section 4: Synthesis and conclusion

The research fields of deliberative planning and organizational learning are rich on directions, experiences, perceptions and lessons on how to improve communication and build trust between different kinds of experts. These insights were grouped as summarized in the tables 3.1, 3.2, 3.3 and 3.4. A closer look to these tables reveals the resemblance between the two fields. In this section, we are going to synthesize the lessons on improving communication and building trust in order to develop an overall answer on the question how to improve the bottlenecks in CBA processes theoretically that forms the leitmotiv of this article.

Communication and trust: Two sides of the same coin

Both research fields show that communication and trust are interrelated. This is widely acknowledged in communication and trust literature as described in section 2. However, the literature research on deliberative planning and organizational learning shows that this notion is not common knowledge; not yet at least. The importance of trust to improve, increase and intensify communication is often somewhat hidden under the surface of many other insights. Nevertheless, both concepts ask for the same elements. Building trust and improving communication requires, in short, appropriate interpersonal behavior (open, sincere, non-defensive, et cetera), interaction (to get to know each other, to build a relationship, to share knowledge and ultimately to create shared visions and knowledge), a proper preparation (to avoid unpleasant surprises and defensive behavior) and a supportive environment or context (a safe place to meet, management that stimulates interactions, et cetera).

The communication lessons from both research fields, though, have in comparison to the trust lessons a stronger focus on what to communicate and how: that all knowledge needs to be integrated and therefor all stakeholders need to take part in the interaction; and that it should be encouraged to discuss or question all knowledge and assumptions openly. Stakeholders need therefor to open up in order to communicate in this way. They need to be explicit what their concerns and insecurities are about, where they stand for, be honest and let the other 'take a look into their kitchen'. This means that one have to accept to be vulnerable, which requires a lot of interpersonal trust to do so. On the other hand, taking a look in one's kitchen will increase the level of personal information. One gets to know each other better and knows better what the other is capable of, which in turn will increase the interpersonal trust.

The resemblance as well as the differences between deliberative planning and organizational learning insights on communication and trust can be linked to their overall effort to be innovative. Within deliberative planning the concern is to develop innovative (strategic) plans to improve a location's competitiveness. Whereas with organizational learning the objective is to create innovative products to improve the organization's competitiveness. Both fields agree that in order to do so and to be innovative different kinds of

knowledge need to be integrated. However, the kinds of knowledge to integrate are slightly different in the two fields. In deliberative planning concerns are mostly about local and context specific knowledge that is embedded in history, location, politics and people (Allmendinger, 2002). Whereas organizational learning focuses more on the integration of inter- and intra-organizational knowledge; formal and informal knowledge; implicit (tacit) and explicit knowledge.

These subtle differences are welcome additions to each other, but do not change the overall view on how to improve communication and build trust between different kind of experts.

- One needs to behave appropriately: open, critical, non-defensive, sincere.
- Interact to create shared knowledge and form relationships
- Have the interaction guided by rules, a facilitator and discussion modes.
- Be prepared to interact, share and create knowledge collectively
- Have a supportive environment: safe, stable and supported by the management/ politics.

Conclusion: Context, intervention, mechanism and outcome

The overall aim of this article was to make a theoretical design on how to improve the bottlenecks in the CBA process articulated as low levels of communication and trust between planners and evaluators and the use of the CBA as a final assessment instead of as a learning tool. The final challenge in this article is to relate the described lessons from the literature review to the CBA process and the participating planners and evaluators. The CIMO-framework (context, intervention, mechanism and outcome), introduced by Denyer et al. (2008) is helpful for this. The overall question of CIMO is: Within a specific context, what interventions can be used to trigger the necessary mechanisms in order to get a desired outcome. Thereby, the mechanisms reveal how something works and how the different elements function in relation to each other, whereas the interventions inform what concrete action is needed to trigger these mechanisms.

In the scope of this article this CIMO-question would be translated as: In the context of a CBA process, what interventions can be used to trigger the necessary mechanisms in order to have high levels of communication and trust between planners and evaluators? The context of the CIMO-framework is a CBA process (and more precisely when assessing integrated spatial infrastructure plans) and the desired outcome is increased, enriched and improved communication as well as build trust between planners and evaluators. This outcome was hypothesized in section 2 as a condition to use the CBA as a learning tool which is the desired outcome one abstraction level higher. So, the interventions must trigger mechanisms for improving communication and building trust. The lessons from the literature review are ordered in line with this reasoning in communication and trust building interventions and the related mechanisms as articulated in table 3.5.

Table 3.5 Interventions and related mechanisms to improve communication and build trust in a CBA process

Context = CBA process that supports communication and trust building between participating planners and evaluators	**Intervention = A dialogue space where planners and evaluators meet face-to-face** **Triggered mechanisms =** Planners and evaluators have the opportunity to get to know each other and build a relationship, so that they can judge better how the other will react in possible interaction and build interpersonal trust. Doing so, they may feel more safe and can be more open, share more and more detailed information and listen more carefully. Then they may pay more attention to issues behind the immediate agendas, ask and receive critical questions and collectively change and build assumptions.	**Outcome =** A learning use of the CBA: reciprocity between the development of the plan and its assessment in CBA
	Intervention = Share and discuss knowledge together **Triggered mechanisms =** Planners and evaluators understand better each other's standpoints and may see shared interest which may increase the opportunity for finding win-win solutions. They get more information about each other (the plan and the CBA) which increases the predictability of how they might respond and therefor increases the interpersonal trust. This might support to be even more open, critical, share even more knowledge and possibly change one's own perceptions based on the perspectives of others.	
	Intervention = Be prepared to share and discuss knowledge together **Triggered mechanisms =** Planners and evaluators do not feel unpleasantly surprised or attacked by new arguments, know better how to make their own standpoints and reasoning explicit, know how to incorporate or internalize outside critique without acting defensively. Furthermore, Planners and evaluators may feel support by the management to act communicatively and trustworthy if they receive training on these matters and are more likely to act that way.	
	Intervention = Have the interaction guided by a moderator **Triggered mechanisms =** The moderator makes sure that all can speak freely, feel safe, all kinds of knowledge are taken seriously and get a worthy place in the discussion and the attention of the discussion is on finding shared interest, win-win solutions and issues behind immediate agendas. When Planners and evaluators feel guided and protected by the moderator, they may be encouraged to share more, more detailed and divers knowledge; be more open towards each other; give and receive criticism without attacking the person and without responding defensively.	
	Intervention 5 = Use dialogue modes (sketches, simulation, story board, role play): presented as 'work in progress' **Triggered mechanisms =** Planners and evaluators may feel encouraged to give their standpoints, to illustrate their arguments, make them context specific and explicit. This gives the others the opportunity to respond in their turn and illustrate, contextualize and explicate their points of views.	

It is our expectation that applying these interventions early in a CBA process will stimulate the involved planners and evaluators to improve their interpersonal communication and to build interpersonal trust so that they can use the CBA as a learning tool. Moreover, we expect that this will increase the fitness of the CBA when assessing integrated spatial transportation plans. These expectations, though, need to be tested in, for example, simulated CBA processes or ex-post analyses of CBA processes in which the CBA was used as a learning tool.

Appendix 1: Grouping of directions on communication and trust improvements from deliberative planning and organizational learning

Directions on improving communication between experts in deliberative planning
1. Have an open approach to all knowledge: **A. Exchange of different kinds of knowledge, feelings, interpretations** Exchange conceptions and interpretations Give room to feelings and thoughts **B. Allow all knowledge in the discussion and allow to question it** All kinds of knowledge allowed, like experiences, personal stories, and intuition All claims, assumptions and constraints are allowed to be questioned and tested Recognize and respect human emotions of anger, fear, impatience and suspicion Stretch out to access multiple perspectives Challenge established assumptions and cultivate debate and argument among different viewpoints Challenge assumptions and analyses by using local knowledge Ask for clarifications or examples when needed and challenge assumptions and question status quo. Encourage to ask questions **C. Give attention to issues behind immediate agendas** Re-orientate attention to issues which lie behind immediate agendas Address issues deeply **2. Behave appropriately:** **A. Have an open perspective towards each other** Have an open perspective towards comments of another Have an open-minded stance towards what is going on and what is at stake Prevent discussions from becoming too emotional Treat each other respectfully **B. Have an open attitude to change one's own assumptions and understandings** Stimulate a change of understandings Explore and recast agendas of problems, issues and potential actions and stakes, through accessing multiple sources of knowledge Learn from both acceptance and refusal **C. Behave actively by asking questions and listening carefully** Be close and keep a distant at the same time Show empathy and critical judgment Ask and listen Interpret the others language correctly Put yourself in the other's place Make suggestions that the other may not have thought of Think 'outside of the box' and put forward 'half-baked' ideas

3. Have interaction:

A. Create shared and embedded knowledge and understanding

Stimulate information to become embedded in the understanding of participants
Shared knowledge
Share and sharpen arguments and meanings
Ensure that the group makes a shared analysis of interests and conflicts
Stimulate the creation of meaning shaped by situations, trajectories, activities and values of particular social groupings

B. Have all stakeholders involved, empowered and interacting

All relevant individuals at the table and equally empowered
Scientists and agency staff need to be engaged with lay people

C. Act and learn together to develop familiar relationships

Accept a degree of collaboration and reciprocity
Act and learn together
Learn about each other
Build relationships
Have a process of collectively creating meaning and shaping information
Have conversations or "plenty of talk" about the meaning of information, its accuracy and implications
Have a dialogue
Organize brainstorming; scenario building; role playing; telling stories; and joint-fact-finding
Be validated and legitimated in an interactive way through talk, social encounters, discussion, debate and exchange of thoughts

D. Focus on shared interests and win-win solutions

Look for common interests rather than differences and challenging assumptions
Focus on the shared interests rather than the positions
Seek mutual gain solutions as far as possible;
Develop alternative stories that are plausible and appealing to all
Find win-win situations in which everybody gains
Negotiate between the stakeholders and their several interests
Identify where the energy for change may lie and build coalitions for change which expand this energy.

4. Have a supportive communicative context:

A. Create a safe environment to say what is on one's mind

Feel comfortable and safe to say what is on one's minds

B. Prepare stakeholders for a constructive discussion and formulate arguments at forehand

Prepare stakeholders to face each other by mentioning the objectives from both sides at forehand and
Help the stakeholders prepare for a constructive discussion
Let the stakeholders formulate their arguments in preparation of the discussion
Help participants to articulate their identity

C. Create a dialogue space, use familiar dialogue modes and use a mediator

Dialogue space
A sketch still open for discussion
Use a mediator or facilitator

Directions on building trust in deliberative planning

1. Show trustworthy behavior:

Do not behave arrogantly
Fulfill promises
Listen carefully and focus attention first on the person, then on the words
Timely and sincerely sharing of information and decision-making power
Communicate comprehensively, truthfully, sincerely, supportively and legitimately

2. Have interaction:

A. Acknowledge and respects all knowledge, thoughts and feelings

Assure that thoughts and feelings of all stakeholders were acknowledged and respected
Equal standing and respect for all forms of knowledge,
Openness and transparency mutual disclosure
Assure inclusiveness

B. Build relationships

Develop familiar relationships by learning more about each other
Build relationships to build trust
Getting to know the counterparts

C. Use a dialogue space

Create a dialogue space: meetings, negotiations, discussions, project reviews and hearings that bring affected citizens, regulators, developers, and public officials face-to-face, informal meetings
Have face-to-face interactions

D. Use a mediator

Use a mediator
negotiate between the stakeholders and their several interests

3. Prepare participants to participate in the discussion:

Prevent discussions from becoming too emotional if stakeholders felt confronted with (unpleasant) surprises
Formulate arguments at forehand
Prepare stakeholders to face each other by mentioning the objectives from both sides at forehand
Give attention to anger

Directions on improving communication in organizational learning

1. Interpersonal behavior to support communication

A. Open attitude to test assumptions

Transcend one's own limited perspective or boundaries.
Be open to test assumptions publically
No one withholds negative information from the others or withholds testing this information

B. Open attitude towards learning, including from risky ideas

Open to set a learning-cycle in motion
Open to the reciprocal exploration of risky ideas

See the other as minimally defensive, open to learning and committed
Have a learning orientation

C. Be explicit and accurate
Give and get valid information
Speak in direct observable categories (opening them to disconfirmation)
Create awareness of the values at stake and the limits of one's capacities

2. Organizational context to support communication

A. Leadership open to transformation and sharing of decision-making
Transformational leadership
Make designing and managing a bilateral task
Participative decision-making culture

B. Supportive structure: stability of team members, learning procedures, training
Stability of team membership
Positive supervisory behavior
Formal procedures for learning
Training with instructors or colleagues or repetitive exercises to stress behavior

C. Safe environment and emerging relationships
Work towards freedom of choice and internal commitment
A shared space for emerging relationships
Create a protected environment

3. Have interactions

A. Sharing and combining tacit and explicit knowledge
Sharing tacit knowledge among individuals
Articulating tacit knowledge into explicit concepts
Combining different entities of explicit knowledge
Embodying explicit knowledge into tacit knowledge
Individuals externalize their experiences
Personal subjected knowledge is validated, connected to and synthesized with others' knowledge
Produce new assumptions by combining articulated views with questioning by others of these views

B. Define means and ends unseparated and interactively
Keep the means and ends unseparated
Define the means and ends interactively to frame a problematic situation

C. All actors meet, discuss and become engaged in a knowledge creation process
Clients participate with the professional and give valuable input of their own
Become engaged in knowledge creation, dialogue, adapt to and shape practices
Have cross-functional communication
Meet face-to-face, sharing emotions, feelings, experiences, and mental models
Through dialogue mental models and skills are probed, analyzed and converted in common terms and concepts

D. Use various modes to reflect which are familiar to all practitioners involved

Directions on trust building in organizational learning

1. Personal awareness of others and trustworthy behavior

A. Awareness of (underlying) (pre)positions and openness to discuss them

Be aware of prepositions

Be aware of internal maps and see when present assumptions are counterproductive for learning

Advocate their views in a way that it would invite confrontation,

Challenge positions

Stimulate testing them publicly

Question publicly underlying policies and goals, assumptions, norms and objectives

B. Trustworthy behavior: act integer, discrete, really listen, be honest about expertise and limitations, give compliments, address troublemakers directly

Acknowledge mistakes

Recognize defensive behavior

Act discrete; people need to feel safe to share confidential information

Really listen to each other's thoughts and ideas

Disclose one's expertise and limitations (being open about ones strengths and weaknesses)

Being forthright and truthful in interactions

Give (public) compliments

Address troublemakers directly saying 'yes' to the person and 'no' to the behavior

C. Fulfill promises

Be consistent between word and deed

2. Interaction and forming relationships

A. Create knowledge together through communication

Move from old to new and shared assumptions

Have workshops and seminars

Have both sides feel free to share

Reflect on how one thinks

Have an open dialogue

Open communication to build trust

Use mediators and facilitators

B. Have stable, frequent and informal interactions to form relationships

Form embedded relationships

Through stable, frequent and tight interactions

Create reciprocity in the relationships and repeated interaction

Stabilize and manage interactions

Ensure frequent and rich communication on a personal as well as on a professional level

Engage in collaborative communication

Repeated and positive interactions

Enable informal meetings

C. Form a shared language or vision

Establish and ensure a shared vision and language

Make newcomers understand the values and principles of the organization and how things are done

3. Trustworthy environment

A. Share control, fair and transparent decisions

Trust emerged when control and responsibility was shared

Ensure that decisions are fair and transparent

B. Make rules to frame risks, opportunistic behavior, how to deal with conflicts

Discuss at forehand how to deal with conflicts

Design process rules to frame risk and opportunistic behavior

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