1. **Background and introduction**

A proposal to develop the multimodal trans-European network for transports (TEN-T) has been agreed upon by the Commission, the Council and the Parliament on 29th May 2013 (European Commission, 2013). The intention is to develop an efficient and integrated transport network for all four modes of transport (sea, rail, road and aviation) to serve the need of passenger and goods transports within European Union (EU) and in connection to countries outside EU. The TEN-T structure consists of two parts: a Comprehensive Network and a Core Network.

The European Commissions’ proposal for TEN-T guidelines (European Commission, 2011) say that there will be Core Network Corridors leading the way for implementing the entire Core Network. It is further stated in the proposed guidelines that each Core Network Corridor will have a European Coordinator facilitating implementation together with corridor platforms, being established by concerned Member States. The European Coordinators will be assigned by the European Commission. The corridor platform may be established as a permanent legal entity. According to the proposed guidelines participants in the platforms should be the representatives of Member States concerned and other public and private entities and every corridor platform need to form a multi-annual plan for development.

It is recognized by the European Commission that from having one main actor in society developing transport infrastructure in the European Union, Member States, there are now several
actors involved like regional and local authorities, transport operators and private entities. The guidelines are therefore proposed to be in the form of a regulation, to be binding for all parties (European Commission, 2011). However, these proposed guidelines do not provide details for how the Core Network Corridor managements will be synthesized, how collaboration and management within a corridor platform will be designed, or how interaction between the Core Network Corridors and the rest of the Core Network will be accomplished. Another appropriate question is how management structures for activities in the parts of the Core Network outside the appointed corridors should be formed.

The Bothnian Corridor is a transport corridor stretching from northern Scandinavia down to Mjölby (close to Stockholm) and Helsinki. It is part of the Core Network, but not one of the appointed corridors. This means that it is up to concerned actors to create a transnational corridor management for developing the corridor. The Bothnian green logistic corridor project (BGLC) is running 2011-2014 and is partly financed by the European Union, bringing 29 stakeholders together from 5 countries; regional authorities, cities, national authorities/ministries, ports, associations and universities. Luleå University of Technology (LTU) is a partner in the BGLC project, and research leader for activities leading to a recommendation for a management structure to develop the Bothnian Green Logistic Corridor.

Figure 2 Bothnian Green Logistic Corridor map (Bothnian Green Logistic Corridor project website, 2013)
In order to be able to suggest a suitable management structure there are several factors to be considered, like which structural form it should have, who should participate and how the participation processes should look like. This paper aims to discuss how to create a transnational transport corridor management asking:

- What structural and procedural aspects are relevant for developing a transnational transport corridor management in a European context?

![Diagram showing relations between structural and procedural aspects of an organizational relationship]

**Figure 3 Relations between structural and procedural aspects of an organizational relationship**

2. **Methodology and research methods**

The main aim for the research is to provide a basis for developing a methodology to create customized management structures for transnational transport corridors. The research methodology is based on a qualitative approach using a combination of literature reviews, document studies, interviews and observations (Danermark, 1997). Using diverse methods a triangulation is created (Vidovich, 2003), where the outcome is supported by several sources of information. The studies are conducted integrated with the on-going BGLC project. Literature reviews has been performed to gain knowledge of earlier scientific findings on governance structures, especially within transport. A scientific study in a European context has been made in collaboration with University of Thessaly in Greece (UTH) and VTT technical research centre in Finland (VTT) to gather information from experiences in other transport corridor initiatives. In connection to the study a workshop was held to discuss the findings from the study and views of
different actors on transnational transport management structures. The authors participated in the workshop. Semi-structured interviews of representatives from transnational transport corridor initiatives have started, and information will be gathered from additional transport corridor initiatives. The information collected will be used in developing a framework for creating customized management structures for transnational transport corridors.

This paper comprises discussions of findings from a scientific literature review focusing on models of cooperation, the scientific study in a European context and the workshop. The research methods for these parts are therefore presented in more detail.

A scientific literature review was made in June 2013 in the databases Web of Science, Emerald and Scopus. Key-words were chosen by the author to comprise the subject of research. The key-words used were governance model, non-profit organisation, strategic alliance, EEIG, PPP and, network governance. They were all systematically searched for, solely and combined to each other in pairs of two. When there were over 200 hits in a search, the key-words transport and transnational were added in separate searches. This way the number of articles was limited to a manageable amount. The author then browsed the titles of the articles, and 32 articles were found relevant for reading and analysing. One additional article from a chosen articles literature references were also examined.

The scientific study in a European context was performed January-May 2013, with VTT as coordinating part, responsible for the report where the findings from both research teams and the workshop are presented (Eckhardt, 2013a). LTU procured the two research actors for performing the study. Based on experiences from previous research in transnational transport corridor projects, the contractors should elaborate on fifteen questions, pre-identified by LTU, regarding structural and operational management, and its impact on the outcome of the project. The study was deepened by additional case studies, where UTH looked into the management structure of a European intermodal logistics service provider and VTT examined the Brenner Corridor transport structure.
As a part of the study, VTT was responsible for arranging a workshop in close collaboration with LTU (Eckhardt, 2013b). It was held 23rd of April 2013 in Örebro, Sweden. It was also arranged in collaboration with CLOSER, a Swedish national arena for transport efficiency. This cooperation aimed for the possibility for participants in another green transport corridor project GreCOR (Oslo-Randstadt) to join, since they had a similar interest in transport corridor management issues. At the workshop there were 48 registered participants from Sweden, Finland, Denmark, Germany, Italy and Poland covering representatives from academia, consultants, regional and local authorities and business actors. The workshop was divided in to two parts, first there were lectures from invited speakers, and then a learning café, with five stations. The participants were divided into five groups and visited each station, which had a stationary chairman and a specific theme to be discussed. The five themes were: Management structure organization; Operation of the management structure; The impact of the management structure on corridor development; Ideal corridor management and Case: BGLC specific features.

3. Findings of research study

First of all, the results display the use of a broad terminology in this field. Organizational relationship has therefore been used in this paper as an encapsulated term for alliances, partnerships, networks, commissions and European economic interest group (EEIG).

3.1 Structural forms of organizational relationships

Teng and Das (2008) state that there are three basic forms of alliances according to literature: joint ventures, minority equity alliances and contractual alliances. Joint ventures are jointly owned entities which represent the most integrated form and are suitable in more complex collaborations. Minority equity alliances consist of alliances where either one or more partners buy shares in the other partners businesses or one of the businesses. A contractual alliance does not involve equity share, the separate entities state their joint work in a contract.

This division of forms of alliances emerges from literature of inter-firm alliances and might not encompass all types of partnerships or networks emerging from the public sector. Provan and Kenis (2007, P 231) mean that networks are not legal entities such as joint ventures or equity-based alliances, and they define network in their work as “three or more legally autonomous
organizations that work together to achieve not just their own goals but also a collective goal”. Networks can be contracted, but also self-initiated or mandated.

Bäckstrand (2008) has studied partnerships in the area of climate issues, and according to her there are mainly three types of partnerships; private, governmental and hybrid partnerships. Governmental partnerships also include subnational networks driven by regional or local authorities, but where business and interest groups can be included. The hybrid partnerships, or public private partnerships (PPP), are formed between public and private actors and include several stakeholders. PPP is considered as a co-operation between public and private actors to jointly accomplish something together that they could not have done on their own (MacDonald, 2012; Rufin, Rivera-Santos, 2012; Steijn, Klijn, Edelenbos, 2011). Partnerships can legally have different forms. Some are arranged as new organizations, with their own secretariats, while others are more loosely connected.

The European economic interest grouping (EEIG) was launched as a legal instrument for transnational cooperation by the European Commission in 1989 (Commission of the European Communities, 1989). An EEIG is a separate legal entity and is formed by the founders drawing up a contract clarifying the intentions of the EEIG, voting rights and more (Council Regulation, 1985). Mazza (2006) describes a cooperation working in the form of an EEIG, ESCA – European centre for space applications, where small and medium-sized firms and academia can promote space research and initiate cooperation. An EEIG was chosen because of its light structure, to avoid high starting investments, flexibility in adjusting members coming in or dropping out of the partnership, and being able to act as a juridical body signing documents and receive funding. Baudiment (2004) describes another EEIG being formed to strengthen studies about the future, to promote future thinking. Two public and five private members were initiating the group.

Another type of organizational relationship is commissions. They often work with sustainable development in a given area in a broad sense driven from a state, or overstate, level. Myint (2003) describes the Mekong River Commission and the International Commission for protection of the Rhine, both initiated in the 1950s. They have well developed organizations with permanent secretariats and different working groups/divisions.
The importance of a firm and stable management structure was brought forward in the workshop, with steering committees and support from political representatives. It was further discussed the need of simplicity when many stakeholders from different countries are involved. The creation of a joint company was suggested as a thinkable solution. However, as the objectives change also the management structure must be allowed to change (Eckhardt, 2013b).

*Participants in organizational relationships*

When entering an organizational relationship the actors have different motives for participating. Nielsen (2010) proposes that strategic fit between participating firms, is an important factor for the outcome of an alliance in forms of new ideas, new skills and more. Strategic fit being how the motives for each partner to enter an alliance match each other.

Having an inclusive attitude towards stakeholders was considered important by the workshop participants. EU was mentioned as one of the key stakeholders as the development of transnational transport corridors in Europe is often dependent on EU-funding. It is further wished for a strong connection to relevant business actors (Eckhardt, 2013b). Eckhardt and Leviäkangas (2013) argues for a diverse participation from representatives from different layers of governance and that advisory groups can be an option for capturing business or terminal interests.

An example of the importance of participation from different layers is described by Myint (2003) studying the ICPR, established around 1950, where two legally binding conventions were unsuccessful due to lack of trust between states and lack of political interest in the issues. However, an accident leading to pollution changed the political focus and an action plan was formed, which worked successfully. The Action plan also led to involvement from different governance layers, with participation from local and non-state actors. These links between governance layers were lacking in the two first initiatives.

Previous knowledge of potential partners influences the choice of partners. Organizations choose known partners more frequently for a partnership. It lowers start-up costs and uncertainty of partner behaviour (Gulati, 1998). The individual interest and position is another factor. Although
it is organizations joining each other in different kinds of relationships, it always relies on the individuals in that organization how joint assignments are performed. Participating representatives, working on a high level in their own organization, is recognized in the workshop as important to have a strong and effective management structure (Eckhardt, 2013b). It is found by Tallman and Shenkar (1994) that the more uncertainty in an international co-operation, it is more likely that it is followed through in a market where key managers have a personal interest.

According to Eckhardt and Leviäkangas (2013) transport corridor development is often publicly driven when it is established. After conducting studies by academia and consultants, interest from business actors emerges and eventually the corridor development gets business driven.

3.2 Procedural management in organizational relationships

The organizational structure is important in a relationship, but it is even more important for the outcome to manage the procedural governance (Steijn, Klijn, Edelenbos, 2011). Myint (2003, P 106) claims that “governance nowadays is a phenomenon of managing and networking issues, interests and actors to produce actions that are transparent in process and effective in achieving stated goals of regimes”.

Even though customization of work processes is crucial for outcomes in a relationship there are generally barriers for changing to be aware of. Although the organization might lack routines for handling changes, procedures might need to be changed at individual basis. It is often found difficult to proceed from the planning phase to the actual collaboration phase (Greasly, Watson, Patel, 2008). If the tasks performed in the organizational relationship can be adopted as a natural part of the ordinary work it might easier be realized. To achieve this, objectives should be pursued to stay in line with existing policies and programs (Eckhardt, Leviäkangas, 2013).

Leadership

Provan and Kenis (2007) have studied the effectiveness of different network governance forms and they have chosen three categories of governance forms, shared governance, lead-organization and network administrative organization (NAO), and discussed in which context they are preferable. Shared governance is where the interaction between participants is high, and therefore
no specific leadership is needed. It may be most suitable in small, multi-firm strategic alliances and partnerships designed to develop new things. A lead-organization often occurs when one partner is more powerful or has a larger responsibility compared to the others. A network administrative organization (NAO) is a separate entity, not a part of the joint relationship. It could be a single coordinator or an entire organization. It is considered to be suitable when there are many participants, clear and accepted goals and need for high competence within the network. NAO as well as a coordinator was perceived as success factors of a management structure at the workshop (Eckhardt, 2013b).

It is notable that having a leadership does not necessarily mean leaving the decision-making to a lead organization or NAO. Decision-making in a public private partnership is described by Velotti, Botti and Vesci (2012) as both a top-down and bottom-up process. The way forward is agreed upon together, the steering is not the main issue, and the public servant is not expected to be in control.

**Formal and informal agreements**

Agreements are important for a relationship and they can be both formal and informal. Formal agreements are often written contracts or Memorandum of Understandings (MoU), while informal agreements are relational, mostly based on trust, and has reputational and ethical importance. They both work to control the behaviour of the partners. A partnership or alliance tends to rely on both formal and informal parts. Written agreements cannot cover everything that might occur in a relationship (Sharma, 1998; Rufin, Rivera-Santos, 2012; Cayian, 2010; Wilson, Pelham, Duffield, 2010).

When governmental agencies are partners in a relationship there is also an aspect of using public funding, and the need of transparency in transactions as well as relations to private companies. Therefore formal contracts are of higher importance in such a context than in inter-firm relationships (Rufin, Rivera-Santos, 2012).

There should be clear goals for the organizational relationship and clear responsibilities for the participants (Eckhardt, Leviäkangas, 2013). It was discussed in the workshop that there might be
reason to have different contract arrangements for different participant in a relationship, depending on their interests and abilities, and agreements should encompass visions, strategies, goals and an action plan with joint activities and priorities (Eckhardt, 2013b). Another way of handling goals is found in the C40 cities leadership group described by Román (2009) as governance where municipalities cooperate. It is considered successful and a strong feature is to promote ‘drivers for action’ rather than focusing on specific needs.

Guiding principles, as a form of written agreement, of how the work should be performed within a relationship might conform expectations from the partners. Sundin e. a. (1998) describes processes for cooperation in the greenhouse gas protocol initiative. Social controls in the form of guiding principles were developed in the start of the project including accuracy, relevance, consistency, addressing all relevant issues and transparency. It was suggested in the workshop that rules for handling disagreements and monitor outcomes can be established (Eckhardt, 2013b).

Both formal and informal contracts contribute to accomplish procedural fairness in a relationship. Procedural fairness referring to partners perceiving their own contribution in relation to their outcome as fair compared to other partners. Zhang and Jia (2009) argues that procedural fairness is important to a PPP:s outcome.

**Communication and transparency**

According to Myint (2003) free flows of information and allowing connections between actors networks is important for a well-functioning relationship. Communication is regarded a key factor for corridor development. One reason is to gain acceptance and understanding from both the stakeholder and the public in general (Eckhardt, Leviäkangas, 2013). Sharma (1998) even means that interaction between partners should occur as frequent as possible. Communication activities also keep up the interest in the issues. Tallman and Shenkar (1994) states if the commitment of participating firms is low in a partnership, there is need for continuous reminders of the value of the cooperation.
Communication and transparency was also brought forward as being a key issue by the workshop attendants and they saw need of larger conferences in larger intervals, and more frequent work group meetings for a transport corridor management structure (Eckhardt, 2013b). Both the internal communication inside the relationship and the external communication towards other actors, for instance lobby activities, were seen as essential in the workshop (ibid.).

**Flexibility**

An organizational relationship might be created to last for some time, to have certain stability. In the same time it has to have certain flexibility if there is need for partner changes or adjustment of objectives. In order to stay relevant the key is continuous evaluation of both the structural and procedural parts of the relationship, and adjustment to a surrounding evolution with new demands (Sharma, 1998; Provan, Kenis, 2007). In the workshop continuous development through regular adjustment of a management structure was recognized as a winning concept (Eckhardt, 2013b).

When the project form is used in organizational arrangements, evaluation and adjustments are a natural part of the project cycle, and make it possible to keep flexibility (Bäckstrand, 2008; Wells, Weiner, 2007).

According to Provan and Kenis (2007) network evolution is to be expected. For example if a shared network attracts more participants the form of the relationship is not sufficient. A shared governance network is likely to change towards a participant governed and then to a NAO. When a NAO is established it is unlikely to move back towards shared governance since it is so formalized, efforts have been made to establish the administrative organization and several partners are often involved.

One example of an organizational relationship that have lasted, being assessed and evolved to accustom to their surroundings is the pollution prevention partnership in Colorado, described by Ferraro (1994), and formalized in 1991. This partnership is still alive as the Colorado environmental partnership (Colorado environmental partnership website, 2011). After assessing their future in 2001 it adjusted its mission due to the fact that some initial concerns were solved and new had emerged. It might be considered as an example of flexible stability.
4. Discussion

The results implicate a need for consideration of both structural and procedural parts when creating an organizational structure.

Figure 3 Overview of main results in 3.1-3.2

It is recognized in a previous literature study by Öberg (2013) that the trend in society is that issues earlier handled by government or a single authority are turning into governance issues, where authorities, organizations, business and citizens need to work jointly to achieve society goals. To realize the implementation of TEN-T it is stated in the proposed guidelines that they should encompass all actors (European Commission, 2011). Diverse participation from representatives from different levels of governance in transport corridor management structures is vital (Öberg, 2013; Eckhardt, Leviäkangas, 2013). However, it should be recognized that the motives for participating actively in an organizational relationship might differ, especially between public actors and private actors. It is important to find win-win solutions (Ferraro, 1994).
4.2 Structural forms of organizational relationships

The different forms of alliances, partnerships, networks etc. can all be structured in a more integrated, stable manner or a more loose and flexible manner. It is difficult to say that one form is better than another, which Steijn, Klijn and Edelenbos (2011) also states regarding PPP:s. The key to a suitable structure is the context and the stakeholders’ wishes and intentions. The workshop gives a strong indication of stakeholders’ interest of a firm and stable management structure (Eckhardt, 2013b).

Since every actor has its own interests and motives for participating there might be necessary to create a structure with different options for participating. The larger structure for the euroProspective network is described by Baudiment (2004), apart from the core participants in the EEIG, a large network was formed consisting of four parts: the organisations which made formal contracts for implementation, individuals with specific competence, partner club for funders and supporting authorities, and project teams for specific projects. In the work with the greenhouse gas protocol project Sundin e.a. (1998) describes large open meetings for discussing different opinions in sensitive topics.

If a multi-optional structure is needed, which allows for diverse options for how to participate, to encompass many actors, it has to be facilitated. A structured leadership is relevant in larger constellations according to Provan and Kenis (2007), and a NAO is suggested when there are many participants, as assumed in for instance the TEN-T work. A strong leadership has also been discussed by Öberg (2013) as an important consideration when creating a transport management structure, mostly considering engagement, experience, powers, and a well-structured administrative support to facilitate the management function. A core structure of the most concerned actor or actors may initiate this multi-optional structure.
4.3 Procedural management of organizational relationships

Accomplishing joint tasks often leads to adjustments of the ordinary work processes for each partner. Keeping the objectives for the organizational relationship in harmony with the objectives of participating partners organizations can support the adjustment process (Öberg, 2013; Eckhardt, Leviäkangas, 2013).

Both formal and informal agreements are foreseen in a transport corridor management structure. In the workshop it was discussed about diverse contract arrangements for different partners (Eckhardt, 2013b). If a multi-optional structure is created with options to join the work, for instance in a more loose network or in a stronger connected core activity, there is room for differentiated contracts and attachment solutions. It opens for possibilities to utilize the stakeholders own driving forces towards common goals in an effectuative process. Sarasvathy (2001) explains the difference between causation and effectuation processes. Causation processes refers to setting goals and then mapping out the road towards the goals. A process used frequently in public policy implementation of today. Effectuation, on the other hand, is not as commonly
used. It is described as a stakeholder looking at its assets, starting to make use of them and at the same time acting towards a common overarching goal. The processes complement each other. Öberg (2013) suggests that the dominant causation processes could be complemented by effectuation processes when creating a transport corridor management.

Communication and transparency are key issues to keep stakeholders’ and the general publics’ interest in, and knowledge of, progress towards common goals and keeping working processes fair and reliable (Rufin, Rivera-Santos, 2012; Eckhardt, Leviäkangas, 2013; Myint, 2003; Sharma, 1998; Tallman, Shenkar, 1994; Sundin e.a., 1998). Ensuring several ways of communication between stakeholders is crucial to facilitate joint progress (Öberg, 2013).

Continuous evaluation and adjustment of an organizational relationship is the key for necessary flexibility to stay relevant (Sharma, 1998; Provan, Kenis, 2007). Adjustments should comprise everything concerning the relationship, from objectives to participants and processes. Allowing participants to change their engagement may lead to structures that correspond to the stage of development in the transport corridor. Business interests may increase as the transport corridor develops (Eckhardt, Leviäkangas, 2013).

5. Conclusion

There is no overall solution for transport corridor managements that fits all situations. The current context is important, and the consideration of both structural management forms and procedural management.

There are several possibilities to form organizational relationships in diverse constellations, from loose attachments to creating joint new entities. It is recognized that many actors need to be involved to be able to develop transnational transport corridors. In order to arrange for diverse actors to be attached to the joint work, a multi-optional structure is suggested, a structure of both loose attachments and more committed and strong relationships, where all actors can find a suitable level of engagement. A core of the most concerned actor or actors is suggested to facilitate a multi-optional structure. It is most likely to be managed by a network administrative organization (NAO).
Key procedural factors for a successful outcome in an organizational relationship are connected to the context. In regard to gathered information in this paper, the most important procedural factors for a transnational transport management structure are estimated to be communication, transparency and flexibility; Continuous information and dialogue are needed, both internally and externally, where all participants can join in setting the path forward; transparency in letting participants have access to meetings, documents and decision-making processes; flexibility with a systematic assessment and adjustment of the management structure.

Further research is needed to deepen the knowledge of transnational transport corridor management structures and procedures. Empirical studies are proceeding integrated with the Bothnian Corridor project, with interviews of representatives from transnational transport corridors, and learning from additional European transport initiatives.

Acknowledgement
The research described in this paper was conducted with support from the Swedish Transport Administration and within the on-going project Bothnian green logistic corridor, which is partly financed by EU via the Baltic Sea region programme 2007-2013.
The authors want to thank Assistant professor Charlotta Johansson and Assistant professor Ram Sateesh Pasupuleti at Luleå University of Technology, Sweden, for valuable comments on this article.

References

Books:


**Article in collection:**


**Articles in magazines:**


**Websites:**


**Other:**


