

A look at Climate Neutral Freight Transportation (KNEG¹)

– conceptualizing a Swedish voluntarily initiative

Climate Neutral Freight Transportation – KNEG – joins several large Swedish actors in the transport and logistics system together with academy and authorities with the shared vision that future transports should be climate neutral. The cooperation started off in 2006 and has since then received a lot of attention from Swedish policy makers as well as press and media. In particular KNEG has been acknowledged for being a voluntarily initiative in a sector regarded as difficult to impose policy measures aiming at reduced climate impact.

Climate neutral freight transportations

Reducing climate impact from transports is one of the key challenges to the overall mitigation of greenhouse gases. Not only is the share of emissions from transports expected to grow in absolute numbers but relatively to other sectors as well. Hence, to successfully combat climate changes, CO₂ emissions from current and future transports must decrease.

Based on this background five large and influential Swedish actors representing different chains in the transport and logistics system funded the partnership of Climate Neutral Freight Transportation in 2006 (or the acronym KNEG², based on the Swedish labeling). They together stipulated that by 2020 CO₂ emissions from a typical Swedish freight transport on the road should be halved compared to the levels of 2005 – a goal that all members have to comply with and work towards.

Today KNEG has 15 members including fuel producer, truck manufacturer, logistic companies, transport buyers, universities and the Swedish Road Administration. All of these members signs up with a minimum of three actions focusing on how to reduce climate impact of their respective transports. Given the variety of member organizations, action ranges from increased use of alternative fuels, vehicle efficiency, lowering emissions from fuel production, optimizing logistics, eco driving, awareness raising, regulatory change, research etc. Currently KNEG gathers 51 such actions in total!

The real strength in this cooperation is, however, the platform where new ideas and new methods of trying and demonstrating technology are discussed and implemented. Co-working, sharing knowledge and practices among such a diverse group of actors removes barriers no organization on their own could achieve. It opens up possibilities otherwise not available to try new ways of reducing climate impact of transportation. All this materializes in projects born from workshops, networking and informal conversations.

Fundamentals of networking

How is it possible to gather large private organizations, authorities and universities in one network setting aside competition and strict business mentality in exchange with cooperation? The simple answer is *synergy* – all members must clearly identify added value of a membership. That does, however, require certain basic elements to be fulfilled as:

¹ Klimatneutrala godstransport på väg, www.vv.se/kneg

² The Swedish word 'kneg' translates to hard, tenacious work.

- Shared goals (the common “vision” of the partnership) and individual goals (business agendas) have to have some level of connection
- Trust, equality and credibility
- Clearly stated roles of every organization and how they relate to each other
- Open communication; both internally as well as outside of the cooperation
- A *giving and taking* attitude

While easy to list, many of these aspects of networking is not as easy to actually realize. Any cooperation bringing together organizations may have to face challenges as different agendas, colliding organizational cultures and values, knowledge and awareness gaps etc. Building trust and credibility in a network structure is hard earned but can prove very fruitful.

Triple helix as a basis

Combating climate change has increasingly called for new methods and new ways of cooperation – there are no single institution or sector that has all tools necessary. Cross-disciplinary cooperation has become more frequent and so has constellations spanning over several sectors and societal fields. Triple helix denotes cooperation with represents from research, authority and industry together tackling complex problems. This general method of cooperation is very suitable given the context of climate change and transports, where research has the role to increase knowledge and awareness of challenges and possible solutions; authorities may do necessary institutional changes – law, regulation and incentive – sometimes required to use new technology and practices; and business develop, enables and implements technology. A successful triple helix creates synergies and opens up problem solving not else possible.

KNEG is typical triple helix constellation with organizations representing all of the three fields. This has given rise to several projects within KNEG where knowledge and experience from research, authority and industry combined have played vital roles in their development, planning and implementation. For instance, in the joint KNEG-project *En Trave Till*³ (ETT) have Volvo Trucks Corporation together with SCA Transforest and the Swedish Road Administration been able to develop and try new concepts for both longer and heavier trucks in use of transporting wood piles. This method decreases the number of transports necessary and hence reduces greenhouse gas emissions, but the new trucks require regulative exceptions and the road section must pass the road administrations supervision.

The goal stated by KNEG could not be solved solely by any of the members; only by working together and combining each others strengths could climate neutral freight transports become a reality. The triple helix approach is fundamental to successfully reach the goal – all organizations takes part on equal terms, which forms a neutral arena with trust as a glue making connections between members stronger. This is particularly note worthy when involving authorities, which might take on a position of a rather authoritarian nature focused on withholding its authority assignment rather than cooperating. The Swedish Road Administration has been clear from the very start that their participation in KNEG is on equal terms with all others, focusing on sharing their experience and knowledge rather than exercising governmental control.

³ “En Trave Till” roughly translates to “One More Pile”

Trust and credibility – key components

KNEG did early on acknowledge the importance of formulating a shared goal and vision that all members could stand behind and work together towards, but which also was based on objective facts. A researcher at Chalmers University of Technology was given the task of producing a background study, investigating from a scientific view point the potential of reducing greenhouse gases from freight transports on road in Sweden. The study revealed what measures and technologies could be expected to have a significant impact in different time frames and thereby an indication of what would be realistically set reduction targets. It did also provide the collaboration with a neutral knowledge base which all partners could understand and continue their discussions from. During these initial debates of how to formulate the shared goal the organizations both got to know each other better and learned their respective roles, resulting in increased trust and stronger connections. Establishing trust did prove crucial to both induce new collaborations within KNEG, solve organizational matters and similarly when sharing data to follow up members climate actions.

Equally as important as internal trust in cooperation's as KNEG is external credibility. While KNEGs main objective is to reduce climate impact of freight transports through own actions, inspiring others and having positive external feedback encourages. Simply because of that demonstrating best practices will help and show other organizations of how to reduce climate impact; hence, lowering climate impact of transports beyond what is possible by the KNEG members themselves. Getting a positive attention further strengthens and confirms the actions of KNEG and stimulates continued effort by its members. Trust and credibility are key components as internal drivers and promote external acknowledgement.

The more the merrier?

There is no doubt; more members in KNEG equal more organizations cooperating in reducing climate impact and thereby a larger share of Swedish freight transports would be covered by climate actions. Hence, from a strict view point of reaching the goal set in KNEG, increased member base would positively affects those chances. There are, however, other aspects of such a growth – namely organizational.

KNEG started off with five members that could quickly find a common understanding of each other and agree on both shared goals and a collaborative structure. Much due to being only five at the beginning, many aspects such as organization, economy and contextual could be solved rather easily. The tone was generally relaxed and imbued with a 'friendship' type of atmosphere.

When the public exposure of KNEG grew, several organizations – both large and small – identified this group and their initiative as both inspiring and a good way of exposing their own climate actions. In a short while, KNEG got many applications from aspiring members. This posed a challenge to the core group, as they acknowledge the strength of having more members but at the same time knew that it would require change of the current, rather informal structure. How to handle growth was frequently discussed among the funding members, where all agreed on both expanding the member base and make necessary organizational changes. Which changes did initially cause some concern and the discussions concerning this did take some energy out of the cooperation. It did eventually settle when agreed upon implementing a member's fee that would finance an office handling administrative matters. New members should be offered positions in the board and once every year should an assembly take decisions on important matters, where all organizations should have one equal vote.

Handling growth is a challenge to any organization and certainly in a network structure which builds upon mutual trust, dedication and participation among its members. Crucial to KNEG at this stage – when growing from five to 15 members in a short time – was to ensure that new members would feel equally involved and accepted as the funders. Only by inviting them to join the board, guarantying equal says in all matters and same level of exposure would the expanding cooperation keep its strengths.

The issue of representation

KNEG gathers a diverse group of organizations where several are large, geographically wide spread and have multi business strategies. Hence, there are numerous different positions within such organizations that could be chosen as representatives in cooperation as KNEG. The composition of marketing officers, communication officers, environmental officers, R&D, administrators etc. sets the stage of collaboration and affects what type of project activities gets prioritized or included at all.

This is rather apparent in KNEG which prime objectives are environmental but do also have strong elements of communication and strengthening green public profile of its members. Some representatives prioritize market and communication activities while others rather focus on strict climate actions. As long as all representatives are driven by cooperation and sharing experience, diversity brings broad knowledge to the table and should be encouraged – climate actions benefits from marketing and vice versa. KNEG would not have had its multitude of joint projects and climate actions if only gathering one kind of representation.

Communication is a climate action on its own

“Would not these actions be carried out by the organizations anyway?” is often asked when being confronted by voluntarily agreements similar to KNEG. As stated earlier, every member joins KNEG with at a minimum three actions that should be carried out in a three years period to reduce climate impact of their respective transports. Indeed, several of these actions may already be ongoing before they join but many of the joint projects would not been realized. KNEG offers some advantages to any of its members: a platform to create new projects with organizations sharing same goals, take part of experience that might further improve future climate actions and, lastly, a communication channel letting the members communicate their climate actions to a wider audience.

Communicating climate actions is not only important to the respective organizations as a means to strengthen their green public profile; it is a strong method to increase awareness of global warming and inspiring others to do actions on their own. Especially when large, established organizations show a unified front to combat climate change, signals are sent on the market affecting both politicians, competitors, business partners, customers and the general public alike. KNEG has made sure from the very start to communicate intentions, methods, projects and results through a series of work shops, seminars, press releases and publications. Coupled with a good credibility, KNEG has got a wide spread attention ranging all the way up to the EU political agenda and thereby both enhanced the green public profile of its members as well as further establishing global warming as a concern to us all.

Strengthening a network through joint projects

Climate actions in KNEG are typically aimed at either changing fuels to less CO₂ intensive ones or increase efficiency of transports (reduce fuel consumption). In addition to individual

actions, several joint projects have emerged involving two or more members focusing on trying and demonstrating new methods of CO₂ reductions from transports. By providing a platform for cooperation with organizations covering the whole chain of the transport and logistics system – from fuel producer, truck manufacturer, logisticians to buyers of transports – based on trust and synergy, there are vast opportunities for cooperation and innovation.

KNEG members get together a couple of times a year in workshops, bringing forth their own ideas of joint projects and present current ones to each other. Giving all members the same opportunities to do this does encourage open thinking and is an efficient method of sharing knowledge and experience. There are currently 16 joint projects running with different approaches on KNEG's four main areas: efficient fuel production, efficient vehicles, efficient transports/logistics and alternative fuels. An additional 12 projects are in either planning or idea phase of implementation. This is where the synergy of a successful cooperation becomes obvious and new practices and business ideas of climate mitigation of transports might emerge. The process of discussing ideas, planning and executing projects bring members closer together and reinforces future cooperation.

Using indicators requires trust and earns credibility

In 2009, KNEG launched its own measurement system labeled iKNEG – Indicators of Climate Neutral Freight Transports as a joint project. This tool was developed by researchers at Chalmers University of Technology in cooperation with all KNEG members to estimate the combined reduction of greenhouse gases from all actions carried out within KNEG. iKNEG is based on a series of indicators transforming every members climate actions to a single common denominator – a climate index measured in tonne CO₂.

Through iKNEG the cooperation is able to communicate and put up front member actions internally but also showing outside followers a result of the combined efforts. Gathering and sharing data does, however, require internal trust – e.g. business organizations are not always prone to share technology/product performance and sale figures. Openly communicating indicators such as through iKNEG do earn the cooperation credibility in the long run and communicating a single figure, i.e. the climate index, is easy to grasp and makes for good comparisons with other climate initiatives⁴.

Concluding the KNEG experience

Building successful cooperation's with organizations having fundamentally different policies to agree on a shared vision and strategy is no easy task. KNEG has during its few years of existents showed, however, the strengths of triple helix approach based on voluntarily agreements. In the context of climate mitigation such initiatives are attractive options to explore as a compliment to strict governmental policy. This model of tackling climate impact of freight transports could very well be exported to other sector and other countries.

The KNEG experience shows that:

- Joining research, authority and industry in a cooperative setting enables climate solutions no organization or institution could on its own
- Trust, equality and credibility are crucial elements to build on
- Communication inspire others and is thereby a climate action on its own
- Multi-disciplinary representation is a strength

⁴ The estimated impact of all actions carried out in KNEG during 2008 was 120 000 tonne CO₂.

- Measuring target compliance promotes external credibility
- Quickly expanding the member base is tempting but might pose organizational challenges
- Joint projects creates involvement and connects members