

The entire sector is turned on its head

The Paris Climate Agreement was a wakeup call to make the world more sustainable and now transport and logistics must also do its share in making that happen. Transportation of goods around the globe after all significantly contribute to greenhouse gases and air pollution and this could be less. Smart Freight Centre (SFC) tries to unite the fragmented world of cargo owners and carriers.

'Collaboration is paramount, but for this to succeed all parties must benefit,' says Sophie Punte, SFC's Executive Director.

Gijs Korevaar

A few months ago, Dutch veteran politician Jan Terlouw made an emotional plea on television to trust in each other, for politicians to act with integrity and especially for all of us to act on the climate challenge. His words touched a nerve with many, including Sophie Punte, Executive Director of Smart Freight Centre (SFC). *'You felt his passion. We need leaders like Terlouw. He is convincing yet practical. People with a vision who transcend the "dagelijkse praktijk".'*

Sophie Punte, biologist and environmental specialist, talks with the same intensity and passion about the environment and logistics. *'The logistics sector is fragmented and by extension the responsibility. Many companies outsourced freight transport and don't feel responsible for the environmental impact. The Paris Agreement was a wakeup call for industry and government and this also put this sector on their radar. Environment is more important than ever before,'* she explains in the departure hall of Schiphol airport. She travels by bike or train whenever she can, although her job comes with air travel too.

The founder of SFC, a dedicated global non-profit organization for more efficient and sustainable freight and logistics worldwide, is convinced of the urgency to stop climate change and defer an environmental catastrophe. Previously she headed another non-profit organization on air pollution and climate, Clean Air Asia, and initiated a project to reduce emissions from trucks in China. After ten years in Asia she returned with a husband, two sons, and a dog to the Netherlands. Her main drive was to continue her efforts to make a dent in greenhouse gases that cause climate change. Goods transport is according to recent data responsible for about 6 percent of global CO2 emissions. We can do better, according to Punte, and that is why she set up SFC. *'Most NGOs working on transport and the environment focus on policies and governments. Yes, freight transport is a*

commercial sector. This is why we target our work towards businesses. They make decisions on how goods are transported. Decisions that should be informed by the carbon footprint of logistics.'

It makes business sense for companies to look into sustainability and she gives three reasons. Reducing emissions is important for the environment but it can save cargo owners and carriers money and help improve their competitiveness. Sustainability efforts respond to growing concerns of modern and critical consumers. Plus, by acting as leaders, companies can earn a seat at the table with governments to influence policy proactively and constructively.

As the first step SFC set up the Global Logistics Emissions Council (GLEC) in 2014 as a partnership of companies, associations, and industry programs. Together, they developed the GLEC Framework, a method to calculate CO2 emissions consistently across the global, multi-modal logistics supply chain. *'With GLEC we first want to measure the carbon footprint. Companies all have a stake in getting these data because only that way they get an insight into what measures to improve efficiency and environmental performance are most promising,'* Punte explains. There are many methods, tools, and programs that by measuring emissions support companies to choose more efficient modes and optimize logistics operations. *'Right now, there is a labyrinth of initiatives and tools that apply different emission calculation methodologies,'* Punte explains. *'This makes it difficult for cargo owners and carriers that operate along a multi-modal logistics supply chain to take decisions that consider the carbon footprint. Plus, to reduce emissions. Because you are comparing apples to oranges.'*

It is not the intent that the GLEC Framework replaces existing methods. *'We are not starting from scratch,'* Punte adds laughing. *'The GLEC Framework is a framework for real, which combines existing methodologies and fills the gaps so that you get one approach that all freight modes and connections between them.'* In developing the GLEC Framework, many existing methodologies were analysed, and experts compared them. *'When you're in the supermarket you also check what ingredients are in different cereals. We checked what type of emissions were measures, which modes were covered and what calculation methods were applied. The differences between these methodologies were ironed out. For example, we now use 'well-to-wheel' emission factors that consider the production of energy types, instead of 'tank-to-wheel' factors that don't do that. Many gaps we discovered are being filled, such as a calculation method for inland waterways, which existed locally but not yet at the global level.'*

It's not always easy to reach a compromise, she continues. Different and often opposing interests of cargo owners, carriers and governments have to be considered. The reason is that not only companies – large to small – participate but government agencies are also involved in the development and implementation of the GLEC Framework. An example is the Ademe, a French government body that keeps track of logistics emissions and works on putting government policies into practice. SFC through the GLEC also works with multinationals, such as HP, DB Schenker, DHL, Intel and Kuehne+Nagel, who are bold first movers in adopting the GLEC Framework for their logistics supply chains. Other partners are different 'green freight programs' from around the world that promote a more sustainable logistics sector through collaboration between cargo owners and carriers, such as Lean and Green Europe, SmartWay in the US and Canada and Clean Cargo Working

Group for maritime container freight. *'By building on existing methodologies and involving a wide group of stakeholders in the development of the GLEC Framework we now receive more support in the application too. We don't replace tools or methods but try to harmonize what exists so that we get one universal calculation method. This will make measuring logistics emissions much easier.'*

There are gaps to be filled in the methodologies. There is not yet a clear method for emissions from ports. For air freight, there are inconsistencies in the allocation of emissions to passengers and freight by air, when both make use of the same airplane. Another challenge is how to collect and exchange the data needed to calculate the carbon footprint. *'At the micro level, it is not possible to report all data to cargo owners. Carriers are reluctant to provide these data because this contains commercially sensitive information that could give too much insight in the costs of transport. But frankly we don't need all data. You can work with averages, for example, the amount of fuel used by a truck fleet that services a customer for a fixed route or network over a year. A cargo owner does not usually select a carrier for individual transport assignments but tends to have contracts of one year or more with its carriers. At this mid-level it is easier for carriers to share data,'* according to Punte.

She points out how critical it is that partners collaborate within and across supply chains. *'Collaboration is paramount. If all partners contribute we can realize double digit CO2 reductions. Carriers and cargo owners can both take decisions that matter.'* While collaboration is essential for the environment and climate efforts, everyone must make a buck. *'The way in which cargo owners often play carriers off against each other is not sustainable,'* is Punte's view. *'This race to the bottom pushes freight services over the edge. Carriers are simply left with too thin margins. Both the cargo owner and carrier must gain from partnering. If fuel and emissions are reduced but financial savings claimed by the cargo owner, then there is no incentive left for the carrier. We need to change the mindset from short term cost focus to a longer term thinking. Carriers are stretched to the max already'.*

The calculation methodology must then be applied to the full supply chain, argues Punte. From the very start of the chain right to the final customer emission values should be determined. This seems a big job, because what company knows exactly the emissions generated by its products across the value chain? According to Punte, there is a logical solution for this. *'What matters is the hot spots in a chain. For example, laptops from China go by train to Europe. One hot spot is the diesel that the train burns. You can then focus on addressing that, for example by using cleaner diesel or electrification. You cannot attack everything, you have to make choices. Another hot spot for many companies are trucks that return empty. If you can solve this then that's a big win.'*

Worldwide companies are experimenting to increase the load factor of trucks. Punte cites 'road ports' as a good example, which are comparable to airports. While for work in China she visited a major road port operator. *'They are in fact control towers or platforms in supply chains that improve the efficiency of logistics. Shippers offer their goods, carriers offer their trucks, and the control tower can mix and match to create the most efficient transportation in all directions. The load factor and truck utilization double, costs are ten to twenty percent below the regular market price, and shippers and carriers profit from this arrangement. More and more of these platforms are being established*

that even the smallest carriers can join. This trend will continue. The entire sector will be turned on its head.'

In theory this works but it is still a little abstract. Where are the results, the actual measurement and reporting of logistics emissions by companies and ultimately lower emissions? The project LEARN mobilizes carbon accounting uptake, is financed by the European Commission and implemented by 13 organizations, including SFC and the European Shippers' Council (ESC). The title is a reference to learning a new accounting method, but also an abbreviation as per European tradition: Logistics Emission Accounting and Reduction Network (LEARN). As part of this project, the GLEC Framework is being tested by companies with complex logistics chains and results are used to develop a GLEC Framework 2.0 version. Training, guidelines and a blueprint for a label will further help and encourage companies. *'Many green freight programs that aim to reduce emissions make use of a label. Companies that do the right thing, should be rewarded with a label,'* says Punte.

The LEARN project should, if it were up to SFC and GLEC, lead to recognition and application of the GLEC Framework as the global standard to measure CO₂e emissions. This way, companies, organizations and governments can make better choices to ship goods more sustainably. *'It is time that multinationals that outsource goods transport no longer can look away'* argues Punte. *'Luckily there are more and more companies that take responsibility for emissions outside their company boundaries and include their supply chain impacts.'* Still, companies and organizations that collaborate with GLEC and LEARN do not argue for intervention by governments or the European Commission. *'The question is why the European Commission supports the LEARN project,'* says Punte, *'and in my view, this is especially: don't regulate until it is clear how this will work in practice. Give companies first the chance to test themselves how to calculate emissions and link results to decisions that reduce logistics emissions. The key lies in companies showing leadership and taking reduction initiatives. Otherwise we won't get there. If you take the French legislation that mandates reporting of the 'carbon footprint' for transportation services, the rules are there, but we are not sure if the reported data are reliable or used.'*

Ultimately, it is inevitable that governments will introduce laws that require greater emissions disclosure. Consider what companies are doing voluntarily as an in between step. The aim of LEARN is therefore to determine what works. Companies can then show to governments: look this works, so support this methodology. At least if legislation is introduced, then it is based on practical experience.' And, Punte adds: *'That best practice is our vision for the GLEC Framework 2.0.'*