



Green Logistics

A study by the

**Institut für Nachhaltigkeit in Verkehr und Logistik (INVL)
The Institute for Sustainability in Transport and Logistics at the University of Heilbronn**

concerning definition, understanding and dissemination of “Green Logistics“ in the freight forwarding and logistics industry

Commented summary

Production and consumption demand that the availability of goods should be coordinated according to place and time. This is why transport of goods can only be to a limited extent avoided in a highly developed, specialised and internationally active economy. Transport is not an end in itself; on the contrary, it forms the basis for supply and quality of life. It has established itself as a sector of industry with an inherent dynamism for innovation, and as a basis for the economic and social development of a society in which forwarders and logistic service providers perform central functions of organisation and decision-making.

However, negative environmental effects caused by transport cannot be denied. That is why the freight forwarding branch has recognised its responsibility for the conservation of the natural environment and is also committed to this aim. The Full Board of Directors of DSLV emphasised this once again at their meeting of 18th February 2010. Freight forwarders, like all other branches of industry, must, while carrying out their core business activities, take account of the demands of environmental protection (whether these are legal requirements, or demands set by the market or by personal conviction) and do this without endangering their own economic efficiency. For protection of the environment is a determining factor, but it cannot be the logistic target for a transport or logistic company.

Therefore, a growing number of companies are already working on solutions in which economic and ecological aims are complementary. Yet the freight forwarding branch is not starting off today from nothing: the special grouping and organisational activities of the freight forwarder, aimed at continually improved efficiency, have already made a considerable contribution to the reduction of emissions caused by transport. Even if they were primarily motivated by economic concerns, successful attempts at rationalisation, whether they use new logistic concepts or are based on organisational and technical one-off solutions, can

with a good conscience be included under first steps to “Green Logistics.” Measures which go further than these are, on the other hand, for the most part linked to investment in new technologies, with at first ecological amortisation taking precedence over the economic amortisation. Environment protection also has its price: the more genuine “green“ logistics products (e.g. with the aid of CO₂-compensatory procedures), target the satisfaction of specific customer needs, the greater should the readiness of the customer become to pay higher transport prices.

Despite the economic crisis, the discussions about the possibilities and strategies for improving the ecological sustainability of forwarding services have continued. Much speaks for the fact that “Green Logistics” is not a short-lived trend, but will develop into a permanent component in the processes involved in every link in a supply chain. The significance of ecological sustainability appears – at least for parts of the transport market – to be growing into a distinguishing feature for logistic services.

So how far has the industry really got? What do German freight forwarders and logistic services providers mean by the term “Green Logistics”? What measures have they already taken and what significance will “Green Logistics” in the industries estimation achieve in future? In order to establish the status quo DSLV, together with six of its regional associations commissioned the Institute for Sustainability in Transport and Logistics (INVL) at the University of Heilbronn to make a survey of their member companies and to analyse the results.

The aim of the survey was to ascertain the status of “Green Logistics” in the freight forwarding and logistics industry. An important result: 85% of the respondents do not consider forwarding / logistics and ecological activities as opposites. It has been shown through the representative survey that in forwarding and logistics companies an understanding of the term “Green Logistics“ dominates, which requires complementary of ecological and economical targets. However, in the opinion of many companies a simple “lean-is-green” strategy is not enough to match the term “Green Logistics”.

With reference to their commitment, companies clearly differentiate between “green“ logistics *activities* and concrete offer of “green“ logistics *products*. The latter are logistics services to which attention is paid to causing a lower level of environmental pollution other than “conventional“ logistic services. In the view of the respondents, the features which distinguish “green” logistics products are above all the efficient use of resources, less pollution, reduced

greenhouse gas emissions and transparency. Here the difficulty of practical application and of defining a scale of comparison became clear. In contrast to the number of companies which in their own judgment carry out “Green Logistics“, the offer of “green“ logistic products is smaller.

“Green Logistics“, in this sense, has a high level of dissemination. More than 80% of the respondents are, according to their own statement, already engaged in “Green Logistics“, but the structure of the companies in the sample could influence this figure. The motivation of the companies ecological sustainability results from various sources. According to the answers of the respondents, personal responsibility for the natural environment ranks even higher than the improvement of competitiveness.

“Environment-compatibility“, in the view of the respondents, will grow greatly in significance. Admittedly, the “classical“ distinguishing features, “price“, “reliability“ and “safety/security“ remain dominant, but “environmental-compatibility“ will experience the greatest growth in significance. On the other hand, the freight forwarding industry scarcely expects that shippers will be prepared to pay higher prices for “green“ logistic products, like for example CO₂-neutral shipments. This increases and emphasises the need for setting complementary targets for economy and ecology for all measures undertaken.

Half of the freight forwarding and logistics companies have been already confronted by demands for information about “Green Logistics“ from their customers. Here, many companies see no difference between the different branches which use their services. If there are differences to be seen in the extent of the demands, then according to the experience of the respondents, the chemical and automotive industries are just as demanding as the food industry. However, the companies do not expect the greatest pressure to come from their customers but from politics, from which in future stricter environmental controls and laws are expected.

Among the requirements in environmental protection and “Green Logistic“ which companies have to face, the most important are from the field of production of services. The requirements “reduction of energy consumption“ and “reduction of greenhouse gas emission“ were often quoted. In the vehicle fleet more demands for alternative drive systems and fuel types are expected. On the whole, it is to be expected that environment-connected requirements will increase.

The companies that took part in the survey saw the highest potential for pursuit of “Green Logistics“ in the vehicle fleet, in the grouping of shipment streams and in the training of drivers in fuel-saving driving techniques. The measures taken reveal a consistent and coherent conduct on the part of the companies. According to the survey’s respondents, the exploitation of the potential for environmental protection is complicated by external influences. The following were named as main impediments: an inefficient public infrastructure, bottlenecks at the loading and unloading points of the shippers and the lack of offers of alternative means of transport.

German freight forwarding and logistics companies make use of a modern and environment-friendly vehicle fleet, which is true of both company-owned vehicles and for that of sub-contractors. Euro 2-vehicles are hardly used any more and also the deployment of Euro 3-vehicles is declining. It is clear from this that the companies exploit the potential identified in the vehicle fleet.

In the field of standardised environmental activities, the widespread recognition of the environmental management standard ISO 14001 became definite, together with the positive experience gained from it. The companies set their targets in the field of environment management for the most part in the areas vehicle fleet, resource-saving, greenhouse gas reduction and waste, which is consistent with the perceived requirements of environment protection and “Green Logistics”. The measures taken to attain these environmental targets also have a logical relationship to the targets.

The measurement of greenhouse gases is new territory for most freight forwarding and logistics companies, but one fifth of the participants in the survey record data about CO₂ emissions. This yet still comparatively small proportion is not surprising, given that the subject is relatively new. The forwarding industry, in comparison with other branches of industry, is not lagging behind. Problems in the calculation of greenhouse gas emissions are perceived to lie above all in the lack of standardisation of methods of measurement, in the special nature of freight forwarding and logistic services with multiple service providers, as well as in the data collection (high level of third party services).

The survey comes to the conclusion that although a penetration of the whole industry by “Green Logistics“ has not yet taken place, the providers of freight forwarding and logistic services have already been able to gain wide experience. On the whole, the answers given show clear differences concerning the quality of treatment of this topic. The level of

development of “Green Logistics” varies widely between companies, and also between different sizes of companies. However, if, within the framework of the survey, companies with more than 200 employees were able to give relatively more data than smaller companies, this does not necessarily mean that smaller companies have not yet come into contact with “Green Logistics”.

Given the growing significance of the subject, the DSLV has taken over the questions concerning “Green Logistics” in its work program, and given it high priority. Supplementary to the existing structure for providing advice within our organisation the DSLV ad hoc working group “Environment / prevention and calculation of CO₂-emissions” was founded as early as 2007. The DSLV also participates actively in the elaboration of international standards for the realistic calculation of greenhouse gases caused by the transport of goods and how this may be used in binding practical standards.

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