

Comment on:
Green logistics and transportation: the estimation of GHG
emissions and energy consumptions in an industrial case (by
Valentina Caldarelli, Stefano Saetta, Fabian Renatus and Jutta
Geldermann) *

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1. Importance of the topic

The authors consider the important issue of sustainable transportation in industry. In particular they analyse a case study about GHG and Energy calculation in transportation based on the EN 16258 (Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)).

Nowadays industrial logistics and transportation play a key role in the development of sustainability.

Briefly, while once manufacturing systems were centralized in one or few places, today they are spread out in a complex networks of activities highly interconnected each other. Modern manufacturing systems, as a matter of fact, can be represented as a network where nodes are the facilities (warehouse, manufacturing plants etc.) and arcs are the logistics and transportation activities. In the years the importance of the “arc” activities (transportation

* Die Qualitätsprüfung / -sicherung des Beitrags „Green Logistics and transportation: the estimation of GHG emissions and energy consumptions in an industrial case“ von Valentina Caldarelli, Stefano Saetta, Fabian Renatus und Jutta Geldermann erfolgte gemäß dem auf der Homepage der Zeitschrift für Verkehrswissenschaft dargestellten (Alternativ-)Ansatz zur transparenten Qualitätsprüfung und -diskussion (siehe www.z-f-v.de → „Einreichung von Beiträgen und Begutachtung / Qualitätsprüfung“). Dabei wird von einem fachkundigen Wissenschaftler eine zustimmende Stellungnahme zur Veröffentlichung des Beitrags eingeholt und zusammen mit dem Beitrag veröffentlicht.

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and logistics) became the more and more important for the whole system, and then for the whole sustainability.

For this reason it has been important the introduction of tools for the evaluation of sustainability of transportation and logistics in industry.

2. How the paper contributes to the subject

Paper focus is about the evaluation of sustainability in transportation and logistics in industry. In particular 2 interesting supporting decision tools are considered by authors, the Standard EN 16258 and ECO-transit web-based tool.

The standard EN 16258 is an important tool that could be used by companies for an evaluation of the GHG and Energy Consumptions due to transportation. The EN 16248 Standard can contribute to the development of eco-friendly logistics activities. It is then important that companies use the EN16248 Standard, or other similar, in their analysis about sustainability.

ECO-transit allows companies to evaluate rapidly the environmental impact of transportation. It requires the quantity to be transported, the source, the destination and the mean of transport and it gives the environment impact in terms of GHG, energy and other environmental emissions.

While this subject is not new, literature is missing about discussion on real cases. This fact is of enormous relevance because main aim of manufacturers, traditionally, is not about environmental analysis, but about how to increase profits. So it is important, in order to implement effectively green policies, to introduce simple tools that can be conveniently used by company employees. Both EN 16258 tool and EcoTransit offer clear guidelines for the calculation of GHG emissions and energy consumptions.

In the paper a simple, but interesting case of application of such tools is shown.

3. Results and limits of the paper

The case considered is very likely in reality. In the paper data used concern mainly the quantity to be transported, the sources and the destinations. Those are the data that companies can easily manage for the evaluation. No real-emission data, measured directly from the mean of transportation, were used. This is likely the most real situation, where manufacturer outsources transportation to third logistics companies, without knowing exactly the mean of transport in advance. Nevertheless evaluation is meaningful both because the industrial case is relevant for quantities and both because it gives useful suggestion in the comparison between different ways of transportation (for instance train vs. truck).

One limit may concern, on the contrary, that the lacking on field data (from the means of transportation by direct measurement) limit the real impact of transportation. A

measurement campaign on field could give integrate this study give more evidence about the results. This could be a future investigation about this issue.

The fact that EN 16258 seems to be better than Eco-Transit, even if interesting, does not give an ultimate answer to the question about the use of the 2 tools, only suggestion. This should be accomplished in a more focused study.