



## QUICK SCAN: THE CARBON FOOTPRINT OF YOUR LOGISTICS SITES

### Fraunhofer Institute for Material Flow and Logistics IML

#### Environment and Resource Logistics

Joseph-von-Fraunhofer-Str. 2–4  
44227 Dortmund, Germany

#### Contact

Dr. Kerstin Dobers  
kerstin.dobers@iml.fraunhofer.de  
Phone +49 231 9743-360

[www.iml.fraunhofer.de/  
ressourcenlogistik](http://www.iml.fraunhofer.de/ressourcenlogistik)



Join the benchmark report 2015 and determine the carbon footprint of your logistics sites. Learn more about your own efficiency and better estimate your competitive position.

Logistics sites, such as transshipment centers and warehouse locations significantly affect the carbon footprint of logistics systems. According to the World Economic Forum 2009, around 13 % of the CO<sub>2</sub> emissions of logistics worldwide relate to buildings. Studies conducted by Fraunhofer IML indicate that even up to 30 % of the GHG emissions of logistics networks can be caused by processes at logistics sites.

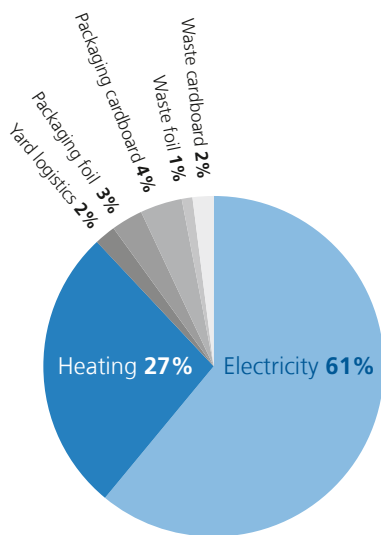
Hence it is only consequential that both logistics service providers and shipping agents start closely analyzing the carbon footprint of their transport and site processes: On basis of the results obtained here, effective efficiency and financial benefits can be realized.

---

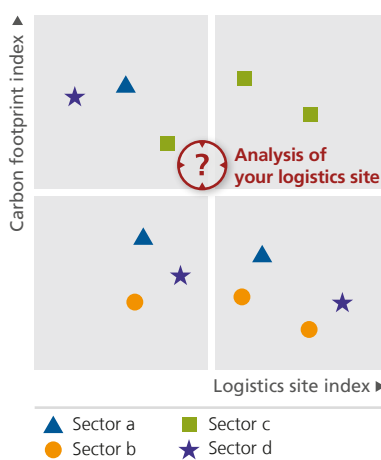
#### **Are you aware of the carbon footprint of your logistics sites? Which of your processes affect its level?**

---

The knowledge of site-specific resource and energy consumption allows improving processes purposefully, as well as, evaluating planned investments. Typical potentials are for example in reducing base load electricity consumption during non-productive times, using resource-friendly technologies or in process control. In-house site studies moreover show, e.g. incorrect investment decisions on the air conditioning of storage facilities or point out advantages of alternative packaging concepts with a reduced usage of packaging material.



Exemplary carbon footprint of a dry storage site



Benchmark-overview on carbon footprints

## Your participation in the study

In 2015 Fraunhofer IML conducts a market study on company-specific carbon footprints of logistics sites and plans publishing it in the form of a benchmark report. The study includes logistics sites such as:

- Transshipment sites, ports, terminals,
- Warehouses (dry, refrigerated, cooled),
- Distribution centers.

The study takes place as part of a simple Quick Scan. Fraunhofer IML carries out a data analysis for each site. Based on this, the participating companies receive a specific evaluation of their carbon footprint.

## Our information demand

Companies participating in the study provide information on:

- Site category: E.g. relevant services, temperature range (-s), sector, size, operating model
- Consumption data on e.g. electricity, energy carriers, packaging material, refrigerants

All company information will be treated confidentially. As a result you will receive a fact sheet covering the site-specific carbon footprint (Quick-Scan), the relevant share of consumption, as well as, the individual benchmark for the respective market segment. Fraunhofer IML publishes the anonymized key figures in the superordinate benchmark report.

## Extended participation – Option I <sup>1)</sup>

**Allocation factors:** The Green-Logistics-Method for the »Ecological assessment of logistics service providers« <sup>2)</sup> includes a general allocation procedure, to determine e.g. customer- or service-specific emissions at sites. This procedure requires allocation factors which Fraunhofer IML currently identifies on basis of real data from different sectors. Extended data requirements are necessary for this analysis. The companies will in return be provided with respective customer-specific allocation factors of their site processes.

## Extended participation – Option II <sup>1)</sup>

**Individual power measurement:** At present, electricity consumption at logistics sites can rarely be allocated to single processes (e.g. conveying, sorting, warehousing) or superordinate consumers (e.g. lighting), since only one (digital) electricity meter is installed on-site most times. Fraunhofer IML therefore carries out power measurement at logistics sites during ongoing operation (e.g. for four weeks) and is able to derive specific electricity consumptions and patterns, as well as, existing savings if any.

(1) Participation subject to charge

(2) [www.green-logistics-network.de](http://www.green-logistics-network.de)