



## CREATING SUSTAINABLE VALUES: UMBERTO IN THE CONSTRUCTION OF TRADE SHOW EXHIBITS

### THE TASK

In trade show construction, attractive worlds with an extremely short life span are created. For the clients of the Hamburg-based specialist, it is increasingly important that these short-lived environments do not place a greater burden on the environment than is absolutely necessary. Each new trade show presentation has its own distinctive features and thus has to be individually assessed. This is an important chance for the company to practice environmental conservation and to communicate this sustainable practice to existing and prospective clients through facts and figures. Umberto helps to establish the fact that building climate neutral trade show exhibits – by using sustainable materials and environmentally optimized processes – has long been part of the firm's day-to-day routine.

### STRATEGY AND IMPLEMENTATION

To calculate the carbon footprint of a trade show presentation, every element used in the exhibit, from the attachment of the lighting to the tables, chairs and floor coverings to the integration of technical displays, has to be taken into account. This also includes such items as packaging materials and all transportation occurring in the context of the exhibit's assembly and disassembly. The first step is to establish a reference base by examining and evaluating each product from its primary production to its disposal or recycling.

According to PAS 2050:2008 guidelines, this requires the calculation of all CO<sub>2</sub> emissions released during each phase of the products' life cycles. For each individual step of construction, Umberto models the production and exhibit-specific processes in so called networks. Applying the "cradle to grave" concept, each model includes all the processes of producing the exhibit elements, creating the finished exhibit and its eventual removal. This includes transportation, packaging, assembly, disassembly, and storage. In summary, the carbon footprint is calculated for the following phases:



- raw materials production
- manufacturing
- distribution
- use
- disposal or recycling

Compared to a comprehensive environmental life cycle assessment, which requires the input of all key environmental figures for every product and production process involved, a carbon footprint collects only the key figures for calculating the global warming potential. Since this value is determined for the product's entire life cycle, the need for data input is still enormous. Siebold / hamburg relies on the eco-invent data base of more than 3,000 carbon footprint entries for materials which is already supplied with the Umberto program. Yet even such a large database cannot include all necessary materials and processes, so the company also looks for environmental certifications when choosing its suppliers and partners. The key figures, gained at first hand from these companies, also become part of the CO<sub>2</sub> evaluation.

### THE CLIENT

Since 1998, siebold / hamburg-messebau GmbH has been a specialist in the conception, planning and implementation of custom trade show exhibits as well as comprehensive events and traveling displays. Each presentation creates a temporary microcosm where visitors feel enriched and the client's values are represented. The designs, at times highly demanding, are technically complex and are produced by various specialist teams. Yet, in the company's daily work flow, sustainability also plays a central role. For its clients, siebold / hamburg combines ecologically sustainable trade show construction with economically innovative design concepts.

## IMPORTANT FUNCTIONS

- Ability to quickly and easily model different scenarios
- Presentation of results and visualizations show potential for reductions
- Concurrent use of environmental life cycle assessment values from both the included eco-invent database as well as individual input

## RESULT

The special exhibit „SUSTAINOVATION“ – a 400 m<sup>2</sup> exhibit first presented at the Euroshop trade show – had a cradle-to-grave carbon footprint of about 2.9 tons CO<sub>2</sub> equivalent. This kind of environmental impact, which is already fairly low, can be compensated by acquiring Gold Standard carbon credits. All funds invested in this program go directly to support certified climate protection projects, thus helping to reduce

CO<sub>2</sub> someplace else. With this practice, siebold / hamburg can realize verifiable, ecologically optimized trade show exhibits for its clients and has thus established itself as the market leader within the field.



## Quote

„Our goal is to combine ecologically sensitive and sustainable trade show construction with innovative, customized designs. Setting the bar this high motivates us to do our best every day. With Umberto we can now show our clients in writing the effect of individual materials on the CO<sub>2</sub> balance. And in this way, the impact of alternative materials can be calculated during the planning phase in order to reduce CO<sub>2</sub> emissions to a minimum.“

Dr. Andrea Wiehler, marketing, siebold / hamburg messebau GmbH:

## APPLICATION EXAMPLES

### Optimizing logistics

Intelligent scheduling avoids deadheading. Environmentally friendly transportation choices are encouraged and a focus is placed on electric automobiles and use of bio-fuels. In addition, drivers receive special training in fuel-saving driving methods. With these techniques, fuel savings of up to 20% are possible.

### Reducing packaging material

Whoever has been involved in the assembly or disassembly of a trade show knows how much packaging material is normally used on a one-time basis. Siebold / hamburg uses wool blankets for packaging and protection during transport. If bubble wrap has to be used, it is cleaned, rerolled and re-used afterwards. Wool blankets have a significantly lower carbon footprint than bubble wrap. It is important to also factor in the relative CO<sub>2</sub> values based on the number of times the materials are reused: while bubble wrap can be used only 2-3 times, a wool blanket can be used up to 100 times.

### Reusability and recycling

Before each trade show, alternate lists of stored and new materials are evaluated for their reusability and recycling potential. Analysis of the resulting different scenarios produces the most sensible and environmentally friendly combination of individual construction elements and these are then used for the trade show exhibit.

