

## Green supply chain - unlocking environmental supply chain value using Carbon-to-Serve®

Sustainability is becoming all important; companies and organisations need to proactively reduce their carbon footprint. The targets require radical thinking and new supply chain strategies. Standards for assessing emissions along supply chains are now available; the requirement is to apply processes and tools that can quickly determine actions for improved sustainability. Carbon-to-Serve® has been developed as a toolset, model and methodology to help companies to focus on their opportunities to reduce emissions and waste. It supports collaboration with other parties in carbon reduction and alignment of their environmental supply chain strategies with business goals.

### Sustainability in action

The risk of climate change is well established. Governments around the world have committed to national reductions in CO<sub>2</sub> of 60% or more by 2050.

To achieve these goals, regulation and taxation is being introduced to develop the right behaviours and drive through change.

The implication for business is clear; energy inefficiency and emissions performance will carry penalties in the future that will raise operating costs. It will also become a point of qualification in both consumer and industrial buying decisions. Relative failure by any business will become a competitive disadvantage and challenge their sustainable development.

The published standards for measurement and reporting on emissions place a clear obligation on companies and organisations to take an end-to-end perspective covering sources of supply at one end and waste disposal and recycling at the other. The requirement is to look across organisational boundaries and be able to measure with trading partners the end-to-end impact.

This requirement poses the question of how a company can make this assessment and model the options?

LCP Consulting has developed and proved the Carbon-to-Serve® methodology which quickly delivers a transparent end-to-end evaluation of the carbon intensity of the supply chain.

A clear visual representation of the supply chain's carbon footprint and operational elements gives focus on the key drivers of carbon and where the main reduction opportunities are.

The Carbon-to-Serve® methodology links completely to the business and operational context by aligning the environmental impact with operational drivers and cost, to identify both quick wins and long term investment opportunities.

The tool complies with recognised standards such as PAS2050 and ISO 14040.

### The Carbon-to-Serve® methodology and toolset

We have defined a three step process:

#### 1 **Compiling and understanding the carbon intensity of the supply chain**

The methodology uses visual mapping, data normalisation and plotting of the carbon build up across the chain.

This end-to-end approach, looking across supply chain interfaces, highlights the key areas for focus and the drivers of emissions across the different activities.

#### 2 **Identifying the carbon and cost reduction opportunities**

We model the options for supply chain re-design, technology improvement and transport network scenarios. The alignment of carbon with operational cost enables the key trade-offs to be made between cost investment and carbon reduction.

#### 3 **Collaborating with parties along the chain**

To understand and realise the carbon and cost reduction potential and competitive position improvement across all parties in the end-to-end chain.

The high levels of quantification and visualisation from the toolset supports the crucial discussions around co-operation and collaboration.

# a thought leadership Insight

## Carbon-to-Serve® in practice

The Carbon-to-Serve® methodology and toolset has been proved in industry.

The methodology and toolset is anchored by applying business principles to environmental improvements rather than the converse.

Through application of the methodology, it has shown it meets all the key requirements:

- of the standards
- in short timescales
- end-to-end scope, consistency and accuracy of data handling
- business relevance by linking cost and carbon
- transparency of outputs
- support for sensitivity analysis.

Users include:

### An international drinks company

Used the toolset to identify the whole chain footprint and the carbon impacts of bottling at source compared to shipping in bulk, and of bottling using different glass in the final market.

This showed a carbon reduction potential of more than 60% plus the opportunity to reduce costs and service markets better.

### The International Tank Container Organisation (ITCO)

Evaluated the carbon footprint of their members and proved a more than 40% emissions benefit from the use of Tank Containers to ship chemicals to and from Asia relative to using steel drums.

It also identified the carbon reduction priority actions for the industry.

### The International Air Transport Association (IATA)

Evaluated the environmental impact of the use of airfreight for the supply of packaged pineapple from Africa to the UK. This work calculated the full carbon cost of achieving exceptional freshness in stores. It highlighted this footprint relative to processing and packing in the final market .

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## About LCP Consulting

LCP Consulting is a leading specialist in customer-driven supply chain management. With over 20 years' experience in the field, we identify where supply chains make major contributions to how businesses operate profitably and compete effectively. We support businesses review, re-design and implement changes to their end-to-end operations. Our fact-based diagnostics pin point exactly where & how to cut costs, enhance operational efficiency and invest for the future.

LCP Consulting is a member of the the Green Logistics Consultants Group, which is an international collaborative network of supply chain consultants who focus on improving the environmental performance of supply chains.

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