Accounting, Controlling and Management of CO₂ Emissions
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Accounting, Controlling and Management of CO$_2$ Emissions

An Invited THINK Executive Whitepaper

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It is our distinct pleasure to preface this invited paper from the team of colleagues at DP DHL.

We first came across the reported work done by Michael and his co-authors recently and were immediately struck by what was a well thought through piece of work in sustainability, conducted by industry for the benefit of the whole community of practice. We hence engaged Michael in several discussions and invited him to share this thought piece at our first sustainability Think Executive event of 2011. He readily agreed and in turn co-opted his colleagues Stefan and Klaus to provide an update through an equally thought provoking foreword.

Our collaboration with DP DHL through our joint Sustainable Supply Chain Centre – Asia Pacific makes this an ideal platform to delve into the background behind accounting, controlling and management of CO₂ emissions.

It is our mutual intention to further research this area and to invite other leading thinkers in the community to come forward with their own contributions that will serve to develop the agenda for targeted sustainability research in the near term.

We hope you enjoy reading this contribution as much as we have.

Looking forward to our fruitful exchange of ideas.

Robert de Souza (Dr.) Laura Bolton
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Emissions of carbon dioxide (CO₂) are a major driver of climate change. As, according to IPCC statistics, the transportation sector - thus the logistics industry - accounts for around 13% of global CO₂ emissions, CO₂ is an important topic to the industry.

Deutsche Post DHL, as a market leader in logistics, takes up its responsibility in this field and has set itself ambitious goals to improve the CO₂ efficiency of its services.

These goals are not lip service, but aim to take every operation of our business down a road towards carbon efficiency which starts with understanding our footprint, as the paper presented here shows. This paper provides an insight into our considerations on how to gain transparency on our CO₂ target achievements. We are striving to support management actively in achieving our efficiency goals, from strategic decision making down to a day-to-day business level.

Our work to understand how to gain transparency has led to DP DHL's "Carbon Accounting and Controlling" (CAC) program being a group-wide initiative led by Finance. CAC is a major contributor to the "Achieve Transparency" pillar of our "GoGreen" Environmental Protection program, which cares for the active management of CO₂, and broader environmental impacts. But at the same time CAC is positioned as an independent counterpart fully integrated and connected in the Finance world of DPDHL.

Although Carbon Accounting being in the hands of Finance still seems to be a quite unusual constellation, it has proven to be fruitful and efficient. Already in 2008, when Finance and GoGreen founded our first "Carbon Accounting Working Group" to replace previous manual calculations, it soon became evident that joining forces between environmental and finance experts to bring in accounting know-how, controlling mindset and a powerful infrastructure was a key to transparency.

Given the goal for carbon accounting to support day-to-day management decisions, one of the first logical steps is to raise the question of an adequate choice of methods for the measurement of carbon efficiency. This paper presented explains why therefore we prefer so called "direct" methods, which ensure we capture our actual consumption of energy, for example from invoices and bills, over "indirect" methods, which estimate footprints based on statistical averages. This choice for a “direct” method led to the practical development of an overall carbon accounting approach. This approach results in the capture of our scope 1 and scope 2 energy consumption on a monthly basis, on a
global scale, for all individual entities belonging to the group. For more than 18 months now, carbon accounting processes have been running alongside our financial data processing, with emission data analyzed together with the same rigour as our financial data in our corporate reporting system. A benefit of this approach is the ability to embed carbon-related information in standard reports and to validate emissions against financial and other non financial key performance indicators.

Yet, as the paper outlines as well, there is still a significant challenge remaining to capture Scope 3 emissions in a manner which fulfils the needs for managing efficiency as well. While the paper describes a number of methods to do so, most of them remain indirect methods, as data is either estimated based on activity (e.g. flights) information or is based on less specific aggregates. Although we are advancing in implementing such methods as well, from a methodological point of view, we would still prefer direct methods: Having a certified “footprint on the invoice”, based on harmonized consumption based recording, would be ideal, not only as it would capture all relevant aspects, but as well be lean and practical from an accounting point of view.

All in all, this paper presents a number of tangible approaches, and we hope that the examples provided ease the understanding of the concepts behind. It is important to stress that some concepts are still abstract and need to be substantiated with regards to specific business models given the complexity and diversity of supply chain operations. For example a product view, as outlined in the article, in network businesses within DP DHL like MAIL or EXPRESS may differ significantly from the way it could be implemented in a business that does very individualized, tailored services like SUPPLY CHAIN.

But the paper, and this is what makes it worth reading, already mentions a number of aspects that we experience to be crucial when it comes to CO₂ efficiency management support and therefore should be a good basis from which to start further discussions.
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