

DHL Global Forwarding

Los Operadores Logísticos y la Sustentabilidad: El Programa GoGreen de DHL Global Forwarding

Buenos Aires
May, 2011



CO2 Emissions - Globally

Energy / Electricity 32%

Land use and deforestation 24%

Private commercial transport 17%

Logistics industry 14%

DP DHL 0.1%

Industry and Construction 17%

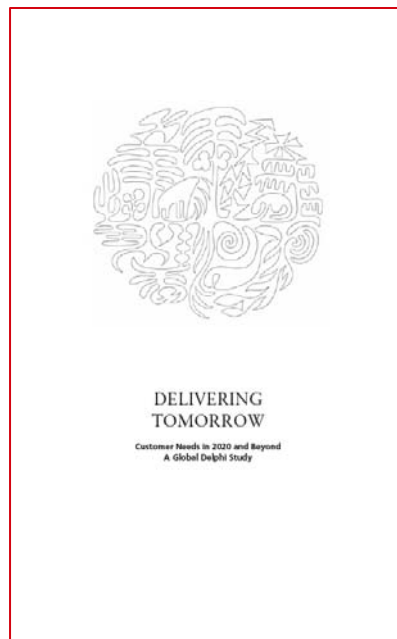
Fossil fuels 10%



Thought leadership publications from Deutsche Post DHL

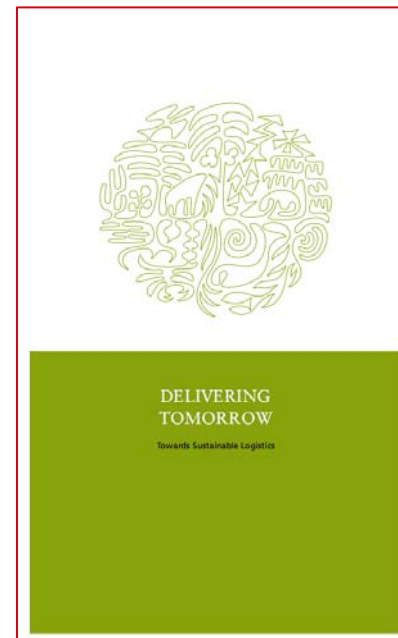
2009:

Delivering Tomorrow:
Customer Needs in
2020 and Beyond. A
Global Delphi Study



2010:

Delivering Tomorrow:
Towards Sustainable
Logistics.



- Delphi Study (2009) identified ten top trends for the future – **“green” technologies** and a **significant role of logistics industry** among them
- New publication “Towards Sustainable Logistics” concentrates on **green logistics**
- Business **innovation** and **green demand** of customers will drive a carbon-efficient industry
- **Seven key developments** were identified

DP DHL's Commitment to Climate Protection

The logistics industry faces one of the 21st century's major challenges: Climate Change. In 2009, DP DHL is the 1st major logistics company to set specific carbon targets

Our Industry

The transport sector...

- ...has a share of 14 percent in global carbon emissions
- ...plays an important role in combating climate change
- ...is faced with high awareness of climate



Our Goals

- Improving the carbon efficiency of DP DHL and its business partners

30 % by 2020

- Intermediate step: improving own carbon efficiency

10 % by 2012



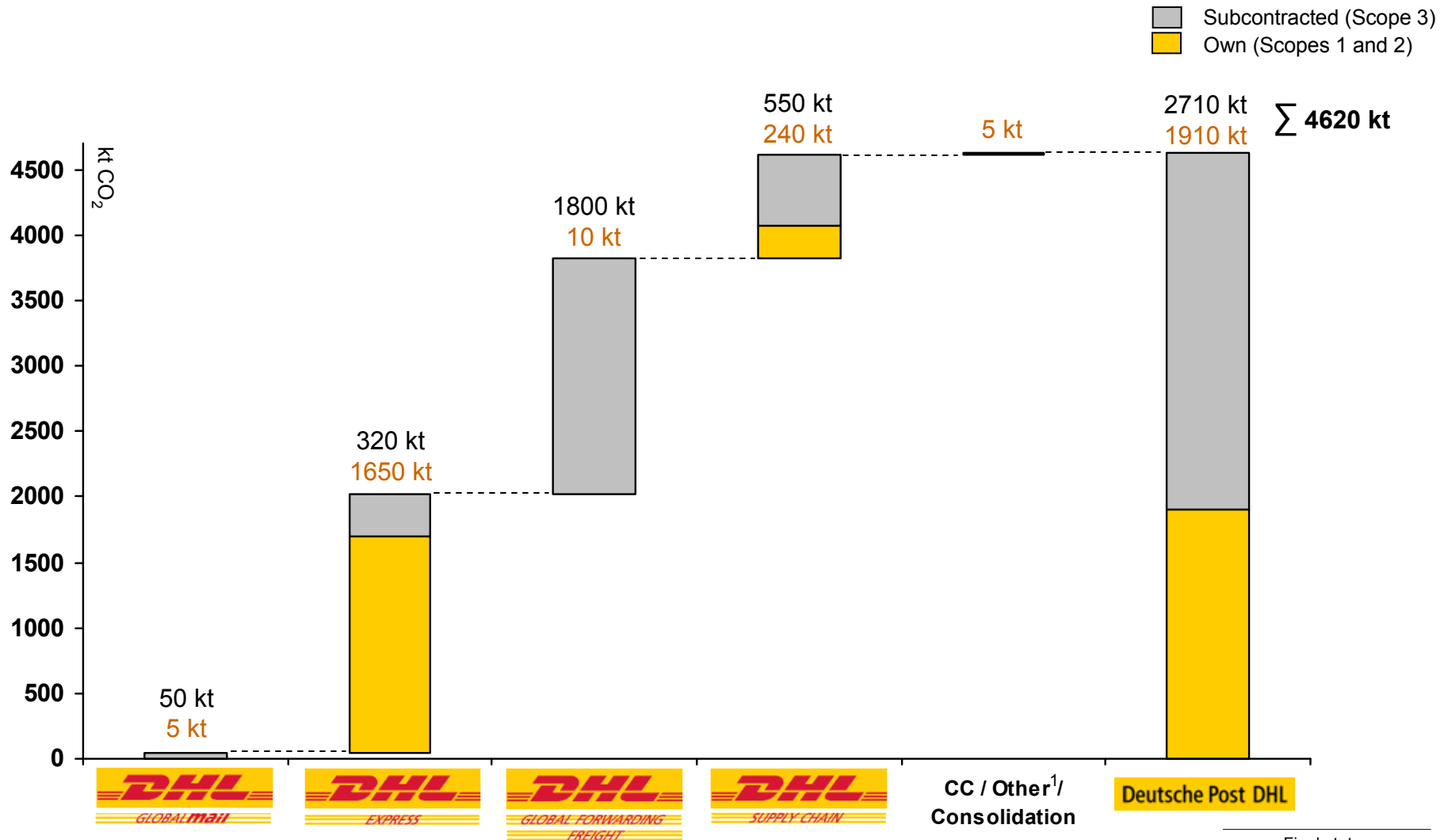
Our Program



Deutsche Post DHL climate protection program

- is currently being rolled out in all business units worldwide
- focuses on fleet renewal, energy efficiency, new technologies, employee engagement and the active involvement of sub-contractors and customers

North America 2009 carbon footprint – by Division



Final status
as of 12 Apr 2010

Source: Dept 072 based on data input from Divisions Absolute CO₂ in kt = kilotons = thousand metric tons; 1) Real estate not assigned to any BU.

GoGreen Americas Achievements 2010 Program Impact

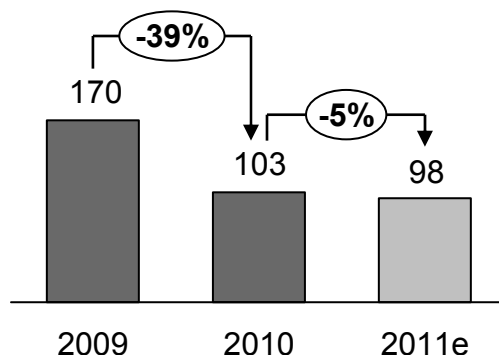


CO₂

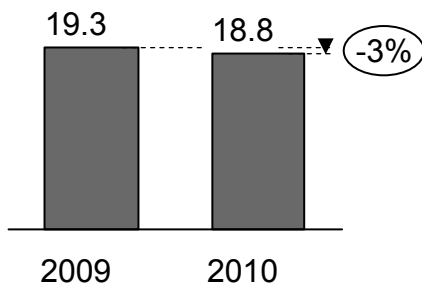
~ 30k tons¹ of CO₂ avoided – compared to 2009 (DPDHL Group total ~700k tons)
Equivalent to: Carbon sequestered by ~698k tree seedlings grown for 10 years or,
Greenhouse gas emissions from ~5.336 passenger vehicles for a year

COST

Energy Efficiency RE [kWh/m²]

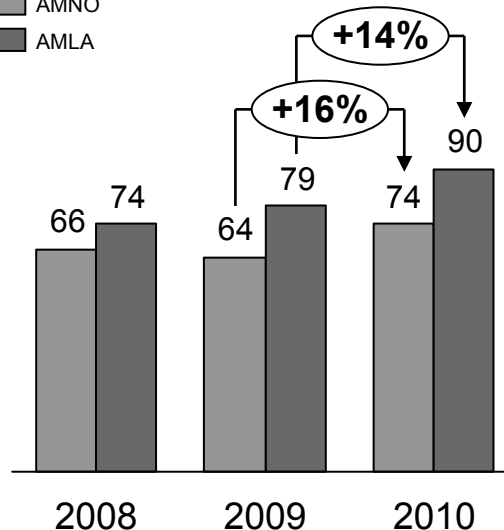


Cost Efficiency²⁾ [€/m²]



EMPLOYEES

AMNO
AMLA



EOS Question [in % favorable]

In my immediate team, every individual takes measures to save energy in their workplace electricity, gas, fuel, travel, paper, etc).

CUSTOMERS

Support to 50+ Customers:
Presentations, RFQ, proposals,
Carbon reporting & offsetting

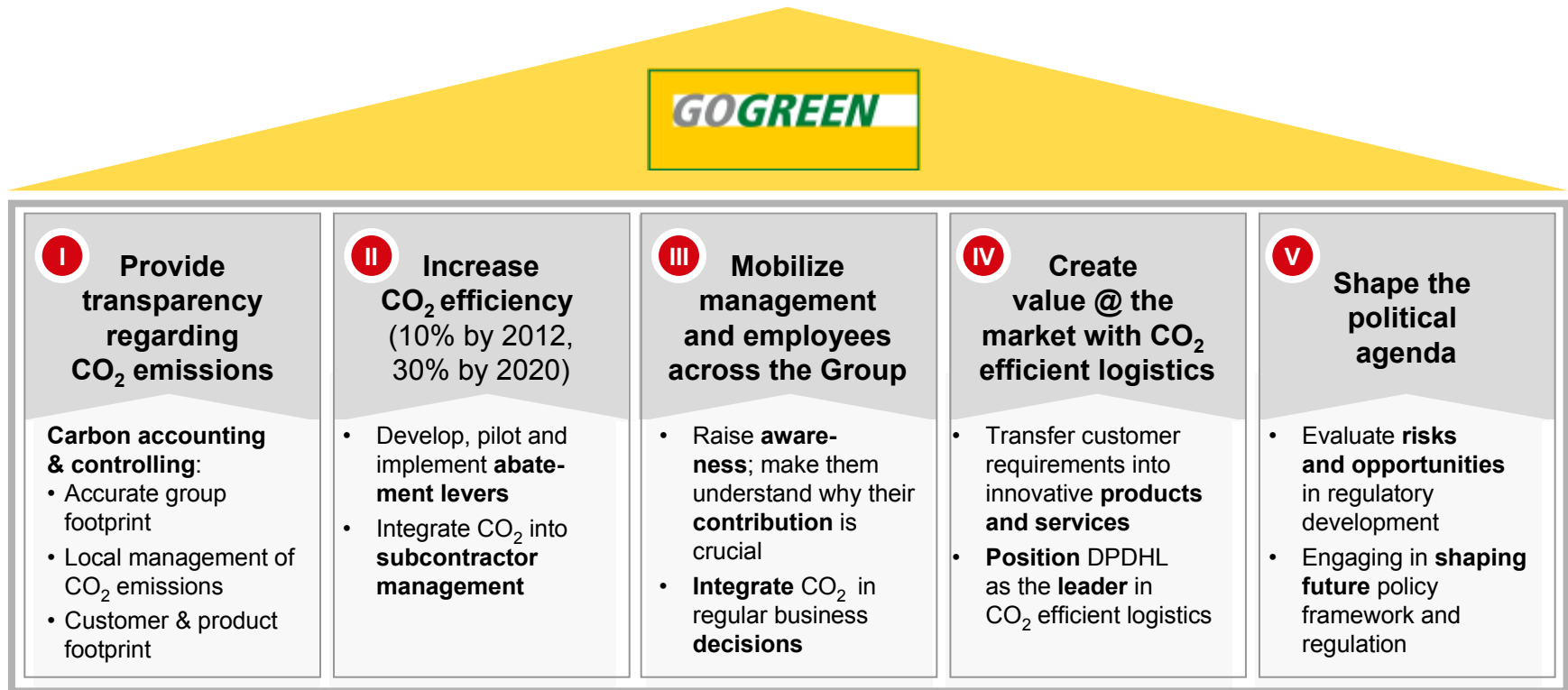
Customer Events, Conferences,
Expos, Summits and Publications:
Chile, Colombia, Panama, US
(Atlanta, San Francisco)



Source: DGFF Green Strategy Team; 1) Only includes figures for electricity non-renewable –baseline '08. 2) Includes CREST accounts: Heating fuel, natural gas, district heating/cooling, electricity, "Other utilities"

Our Green House at DPDHL

Leveraging the potential of DPDHL, GoGreen improves CO₂ efficiency and sets leading-edge standards in green logistics



Award Winning Approach: Eco Globe 2010 winner for “integrated approach to improving energy efficiency in the logistics industry”

Reasons for Being Green

There are several reasons for Going Green; DGF wants to understand why our customers are Going Green



Source: DGF Green Services

DGF Green Service Portfolio

DGF Green Services help customer gain CO₂ transparency, understand reduction options, and neutralize CO₂ impact

DGF Area of Support	Proposed Offering	Overview	Benefits
Generating customer transparency into carbon emissions	Carbon Report	<ul style="list-style-type: none"> • Simple shipment level reports highlighting the CO₂ emissions generated by DGF volumes 	<ul style="list-style-type: none"> • Carbon calculation along transparent, public standards • Baseline for CO₂ and foundation for initiative tracking and target setting • Basis to evaluate carbon reduction decisions
	Carbon Dashboard	<ul style="list-style-type: none"> • Tool that maps CO₂ generated throughout the supply chain (DGF volumes and beyond¹⁾) with improved KPI and analysis functionalities 	
Consulting the customer to make the appropriate CO ₂ reduction decisions	Green Scan	<ul style="list-style-type: none"> • Interpretation of “Carbon Hotspots” in the supply chain, and high level assessment of CO₂ reduction levers 	<ul style="list-style-type: none"> • Full understanding of the carbon reduction levers most relevant to the business • Concrete carbon reduction solutions to drive improved carbon efficiency and meet reduction goals
	Green Optimization	<ul style="list-style-type: none"> • Development of concrete and implementable carbon reduction solutions 	
Neutralizing the inevitable emissions generated	CO₂ Offsetting	<ul style="list-style-type: none"> • Offsetting of audited CO₂ footprint • Service includes <ul style="list-style-type: none"> – Issuance of certificate for public use – Certification by third party – SGS 	<ul style="list-style-type: none"> • Certified offsetting with all-in-service for purchasing, managing & certifying credits • Offsetting as additional means to demonstrate environmental responsibility

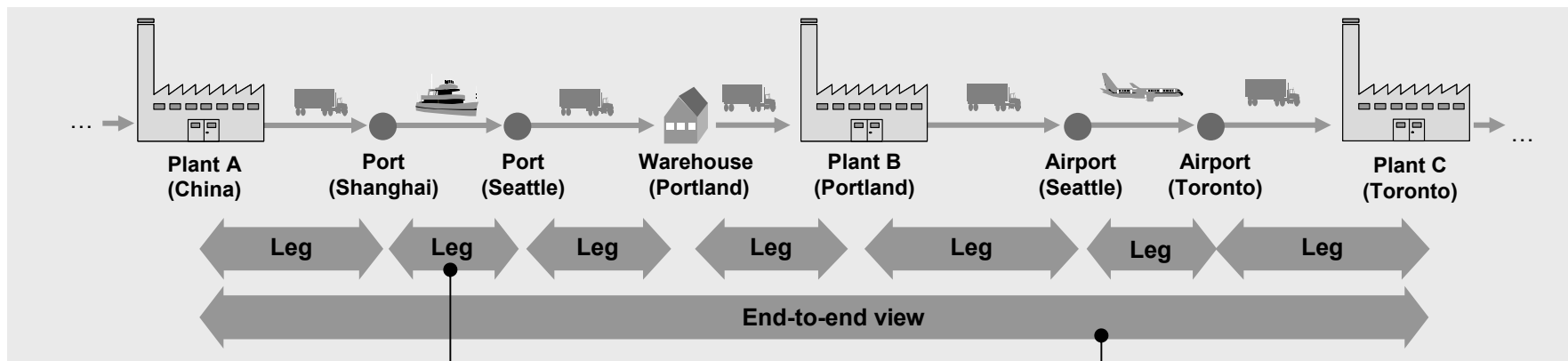
Source: Project Team; 1) If data made available by the customer

Holistic Supply Chain Optimization

Lever assessment must consider the complete supply chain in order to optimize emissions in line with business objectives



- Lever **applicability highly variable across companies**, dependant on the supply chain setup and service level requirements of the business
- As such, lever assessment **must be done with full supply chain in mind** with all emission, cost, and service level tradeoffs considered



Restricted focus on **specific components** of the supply chain **limits options** for carbon reduction, and **does not consider all cost and service level tradeoffs**

Focusing on the **end to end view** of the supply chain **significantly broadens the solution scope**, and enables the **holistic evaluation** of emissions with broader supply chain and business objectives in mind

Reducing CO₂ in the Supply Chain

The customer has a variety of CO₂ reduction levers at their disposal, each will have a distinct impact on the supply chain



Goal	Lever	Description	Potential ¹⁾ CO ₂ Impact
<p>CO₂/Emission Reduction</p>	Strategic Supply and Demand Decisions	<ul style="list-style-type: none"> Changing the fundamental supply and demand inputs that define a supply chain (product portfolio, service level requirements, sourcing location, channels to market, etc.) 	<p>High</p> <p>Low</p>
	Network Design	<ul style="list-style-type: none"> Changing the location, number, and size of facilities (hubs/DCs) required to bring the product from the supply point to the customer 	
	Mode Choice	<ul style="list-style-type: none"> Changing the way the goods are transported from the supply point to the customer (air, ocean, truck, rail, etc.) 	
	Product and Shipping Unit Management	<ul style="list-style-type: none"> Changing the physical characteristics of the shipment by decreasing weight and/or volume 	
	Container Management	<ul style="list-style-type: none"> Changing the quantity and timing of shipments to optimize container fill and capacity utilization for a defined service level 	
	Routing	<ul style="list-style-type: none"> Changing the travelled route of the shipments for a given mode to reduce total kms travelled (road route selection, direct vs. milkruns, etc.) 	
	Facility Design	<ul style="list-style-type: none"> Changing the setup and layout of the specific facilities in the network to make them more efficient 	
	Carrier Selection and Management	<ul style="list-style-type: none"> Changing the actual provider of transport due to green practices and capabilities, managing the agreement with the supplier to maximize green carrier space (avail. of slow steaming, green fleets, INCO terms) 	

Decisions cannot be made in isolation, must consider all tradeoffs

Source: Project Team; 1) Potential is highly variable to the company being analyzed, potential based on maximum application of the lever to maximize CO₂ efficiency without appropriate tradeoffs being made with cost and service level

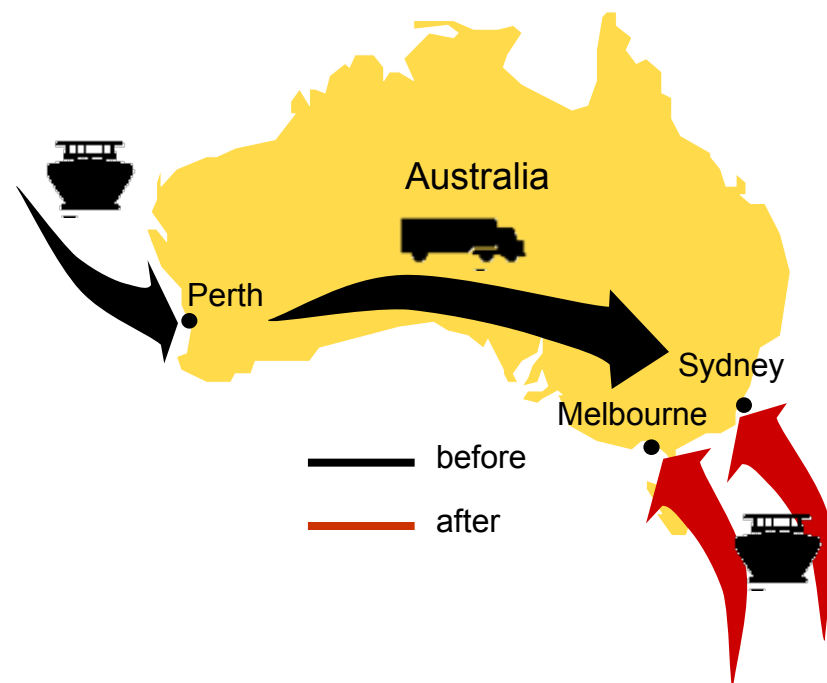
Generate Value: Practical Solutions for our Customers

DGF helped Hewlett-Packard Australia to cut CO₂ emissions from its supply chain by 41%



Making the difference

- DGF helped HP to save 2,600 metric tons of CO₂ by relocating its switching centers and changing to other transport modes
 - The switching center was moved from Perth to Sydney removing the need for overland transport
 - A new switching center in Melbourne allows delivering directly to HP's largest customers on site instead of offloading everything in Sydney
 - For land freight delivery trucks with higher storage capacity were used



Voice of the customer



“The new supply chain model has saved over 2,600 metric tons of CO₂ emitted by HP Australia over the last year, which equates to 21.6 acres of forest preserved from deforestation or 66,666 trees grown for 10 years from seedlings.”

Richard Bailey, Vice President of HP, South Pacific

Green logistics - Science fiction or technological reality?

MS Beluga SkySails

- **DHL** is the **first** to use this system **worldwide** for commercial logistics purposes
- **Benefits:**
 - **Maximum 35%** fuel **savings**
 - **Considerable** reduction **CO2 emissions**
- **1st trip** – Bremen, **Germany** to Guanta, **Venezuela** in **June 2010** (10,000 tons)
- **40,000 tons** – weight transported in **July 2010**.



Source: DHL Industrial Projects

Our Engagement for Sustainable Development

... we have made our choice, and are being recognized for it!

NOT EXHAUSTIVE

Sustainability Rankings & Ratings

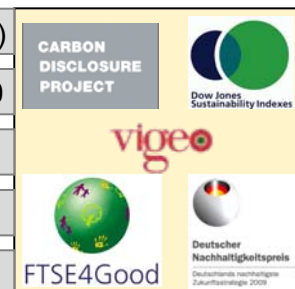
Dow Jones Sustainability Index: Score in the Environment dimension: 99, the best score overall (Sept 2009)

Carbon Disclosure 500 Leadership Index: Our performance for climate strategy and reporting: 97 out of 100

German Sustainability Award 2009: Winner for most sustainable CR & environmental strategy

FTSE4Good Europe & Global Indices: Listed since 2004.

Advanced Sustainable Performance Indices: Green sector leader in 2009



International Networks for Sustainable Development

World Business Council for Sustainable Development: Member since 2009

UN Global Compact: Signatory since 2006

UNEP Climate Neutral Working Group: First logistics provider that joined

Clean Cargo Working Group: Member since 2009



International Partnerships

United Nations Development Program: Strategic partner since 2006

United Nations Office for the Coordination of Humanitarian Affairs: Strategic partner since 2006

United Nations Children's Fund: Strategic partner since 2007



Source: DGF/Freight Green Strategy

Country Prioritization: Environmental Performance Index

EPI is a comprehensive tool that takes factors into account that are in- and out-of-control of the country (e.g. population)

Overview

- **EPI tracks national environmental results based on quantitative figures**
- **The 2010 Environmental Performance Index**
 - Ranks **163 countries** on **25 performance indicators**
 - Tracks across **ten policy categories**
 - Covers both **environmental public health and ecosystem vitality**
- **Europe** has the highest number of “green” countries representing **65% of the Top 20**



Top 20 Ranking on EPI

1	Iceland	93.5
2	Switzerland	89.1
3	Costa Rica	86.4
4	Sweden	86.0
5	Norway	81.1
6	Mauritius	80.6
7	France	78.2
8	Austria	78.1
9	Cuba	78.1
10	Colombia	76.8
11	Malta	76.3
12	Finland	74.7
13	Slovakia	74.5
14	United Kingdom	74.2
15	New Zealand	73.4
16	Chile	73.3
17	Germany	73.2
18	Italy	73.1
19	Portugal	73.0
20	Japan	72.5

Other notable placement

25	Spain	70.6
...		
28	Singapore	69.6
...		
46	Canada	66.4
...		
61	US	63.5
62	Brazil	63.4
...		
69	Russia	61.2
70	Argentina	61.0
121	China	49.0
122	Qatar	48.9
123	India	48.3
...		
134	Indonesia	44.6
...		
152	United Arab E.	40.7

<http://epi.yale.edu/Countries/Argentina>

Source: Project Team; 1) Environmental Performance Index created by Yale & Columbia University to track national environmental results based on quantitative figures

Many Thanks for your Attention!

You Can Find Out More By Reviewing:

- Our 2010 **Corporate Responsibility Report** which covers all our 'Living Responsibility' programs, e.g. **GoGreen** (Environment), GoHelp (Disaster Management), and GoTeach (Education), as well as the many related community investment projects. You can learn more by following the link: www.dp-dhl.com/responsibility
- Our GoGreen Corporate site: [Corporate GoGreen](#)
- Look forward to more throughout 2011 as we roll out additional GOGREEN programs & GOGREEN services for our Customers!

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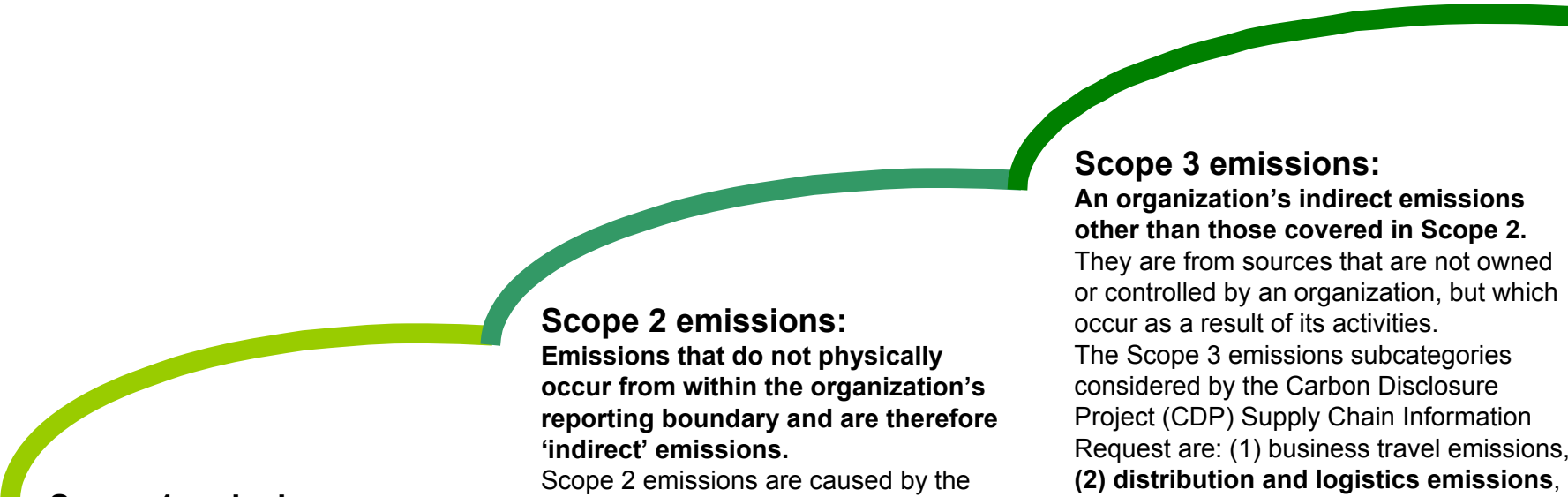


BACKUP



How We All Depend on Each Other To Make A Difference

Like DP DHL, many organizations have **CO2 efficiency improvement targets** that aim at all 3 scopes of emissions. **DP DHL offers a unique opportunity to create a positive impact on Scope 3 emissions** of our customers through our GoGreen program and portfolio of Green Services



Scope 1 emissions:
Direct emissions from Greenhouse Gas (GHG) sources owned or controlled by the reporting organization

Scope 2 emissions:
Emissions that do not physically occur from within the organization's reporting boundary and are therefore 'indirect' emissions.
Scope 2 emissions are caused by the organization's consumption of electricity, heat, cooling or steam brought into its reporting boundary. This category is often called '**purchased electricity**' because it represents the most common source of Scope 2 emissions

Scope 3 emissions:
An organization's indirect emissions other than those covered in Scope 2. They are from sources that are not owned or controlled by an organization, but which occur as a result of its activities.
The Scope 3 emissions subcategories considered by the Carbon Disclosure Project (CDP) Supply Chain Information Request are: (1) business travel emissions, (2) **distribution and logistics emissions**, (3) emissions from the use and disposal of a company's products, (4) **supply chain emissions**

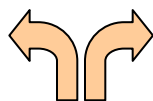
DELIVERING TOMORROW – TOP 10 TRENDS

In the DPDHL study “Delivering Tomorrow – Customer Needs in 2020 and Beyond“ 3 of 10 megatrends are related to climate change & environment

GLOBAL DEVELOPMENTS: THE WORLD ECONOMY GROWS



1. Climate change will become the big issue and unleash a “green” revolution of products and services – sustainable energy production is on the threshold of a breakthrough.



2. The economic gap will grow larger worldwide – the potential for social conflicts will increase, and could lead to increased expenditures on security.



3. China will be the undisputed winner of economic growth and join the ranks of the world’s technological leaders.

THE “NEW” CUSTOMER: NEW NEEDS, EXPECTATIONS, BEHAVIORS



4. The web will transform customer expectations and behavior – with a focus on individualization, transparency, availability & speed.



5. Eco-friendliness and conscientious consumption will increasingly determine purchasing behavior.



6. Convenience, comfort, and simplicity will be the central requirements.



7. Person-to-person communication will remain a priority.

ALTERED LOGISTICS: THE NEW MODEL INDUSTRY



8. The logistics industry will become a trendsetter and establish new standards for cooperative efforts and “green” business.



9. Offshoring and outsourcing will create new possibilities – the value chain will expand in all directions for services relating to logistics.



10. Logistics providers will increasingly develop into consulting companies; their complementary services will offer added value.

Source: DPDHL Delphi Study, 2009

Green Trends Survey

Design of the global customer and consumer survey

- The *Green Trends Survey* is a global online survey conducted in June 2010 by the Market Research Service Center (MRSC) of Deutsche Post DHL
- This survey covered six key global markets across three different continents: Americas (USA, Brazil), Asia (China, India), and Europe (Germany, UK).
- All in all, 1,800 business customers and 1,800 end consumers in these countries were asked to give their views on how the logistics industry would develop in terms of sustainability.



Some Take-Aways from the Green Trends Survey

Sustainability expected to become a key buying criterion

GREENER OR CHEAPER?

Within the next ten years ...

... the majority of our customers will favor a company that uses green transport / logistics solutions over cheaper transport / logistics solutions.

BUSINESS CUSTOMERS

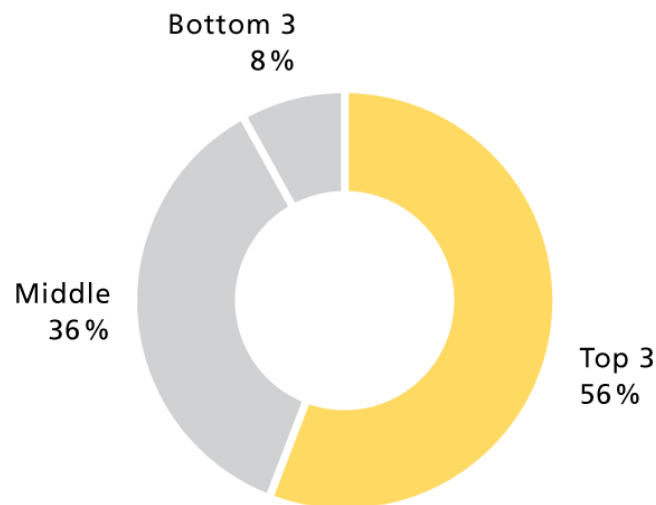


Fig. 09 Probability: Bottom 3 = unlikely/very unlikely; Top 3 = likely/very likely

Some Take-Aways from the Green Trends Survey

Majority of business customers see increasing importance of green transport

WINNING CUSTOMERS

Within the next ten years ...
... green transport of our products will be a decisive factor for our company to win customers.

BUSINESS CUSTOMERS

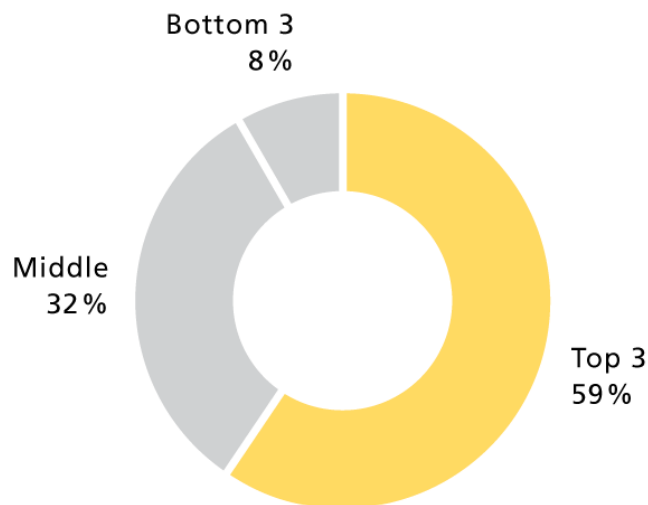


Fig. 10 Probability: Bottom 3 = unlikely/very unlikely; Top 3 = likely/very likely

Some Take-Aways from the Green Trends Survey

Business customers expect widespread use of carbon footprint measures

CARBON LABELS AS GLOBAL STANDARD BUSINESS CUSTOMERS

Within the next ten years ...

... carbon footprint measures will be standard for services and products globally.

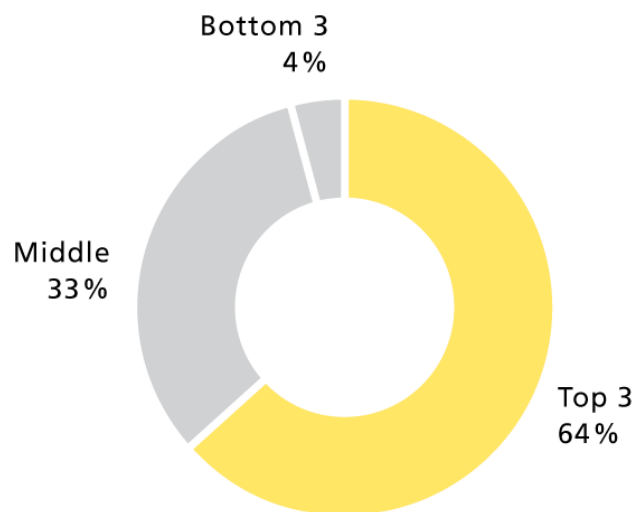


Fig. 16 Probability: Bottom 3 = unlikely/very unlikely; Top 3 = likely/very likely

7 Key Developments Will Shape a Sustainable Logistics Industry



➤ **Logistics counts – it is not a commodity**

Logistics is a business of strategic importance in the move towards a low-carbon economy.



➤ **Technological change will arrive through a concerted drive from companies, governments and financial institutions**

Given the higher price tag attached to new technologies, mutual support by key players is essential.



➤ **Collaboration will increasingly be seen as an enabler to attain sustainability. Even competitors will cooperate more closely**

As carbon reduction becomes a priority for suppliers, customers and logistics providers, cooperative business models will expand along the supply chain.



➤ **Business models of logistics companies will change as sustainable innovations open up new opportunities**

A number of sustainable logistics technologies and concepts will also provide new ways for logistics companies to do business.

7 Key Developments Will Shape a Sustainable Logistics Industry



➤ **CO₂ labeling will become standardized**

CO₂ labels allow customers to compare green products. Transparency will raise customer confidence when making climate-friendly choices.



➤ **Carbon emissions will have a price tag**

Reducing carbon emissions will become part of a business' accounting and decision-making process. This will increase the demand for a price to be attached to CO₂ emissions.



➤ **Carbon pricing will lead to more stringent regulatory measures**

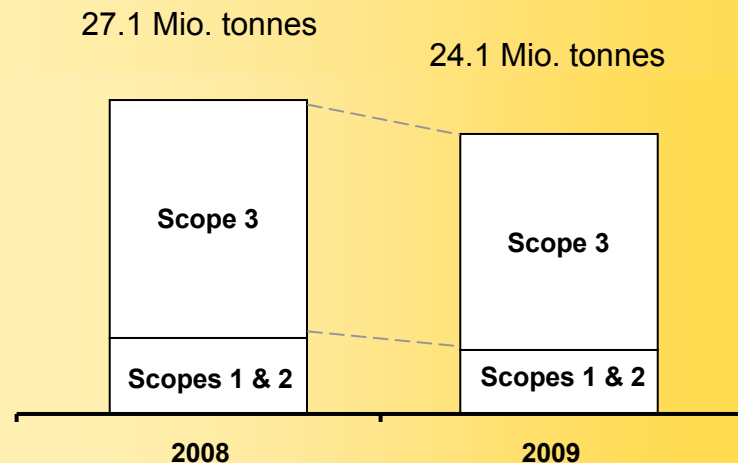
Companies will only accept a price tag on carbon emissions if governments ensure a level playing field.

CO₂ emissions for DAX companies and the logistics industry

DPDHL is one of the few logistics companies reporting Scope 3

Company	Emissions [million tonnes CO ₂]
RWE	290.6 ^{1a}
e.on	144.9 ^{1c}
Lufthansa	24.2 ^{1b}
Deutsche Post DHL	24.1 ^{1a}
BASF The Chemical Company	19.6 ^{1c}
ThyssenKrupp	18 ^{3c}
Linde	14.2 ^{2a}
Bayer	7.6 ^{2a}
Volkswagen	6.6 ^{2b}
SIEMENS	4.0 ^{2b}
DAIMLER	3 ^{1c}
Deutsche Telekom	2 ^{2c}
BMW	1.2 ^{2a}
UPS	15.4 ^{2a}
DB SCHENKER	14,3 ^{2b}
TNT	1 ^{2c}

DPDHL carbon footprint 2009 compared to 2008



1) on basis 2009
 2) on basis 2008
 3) on basis 2007/2008
 Source: Company sustainability reports or web sites, focus on DAX-30 companies that are reporting externally, Green Team

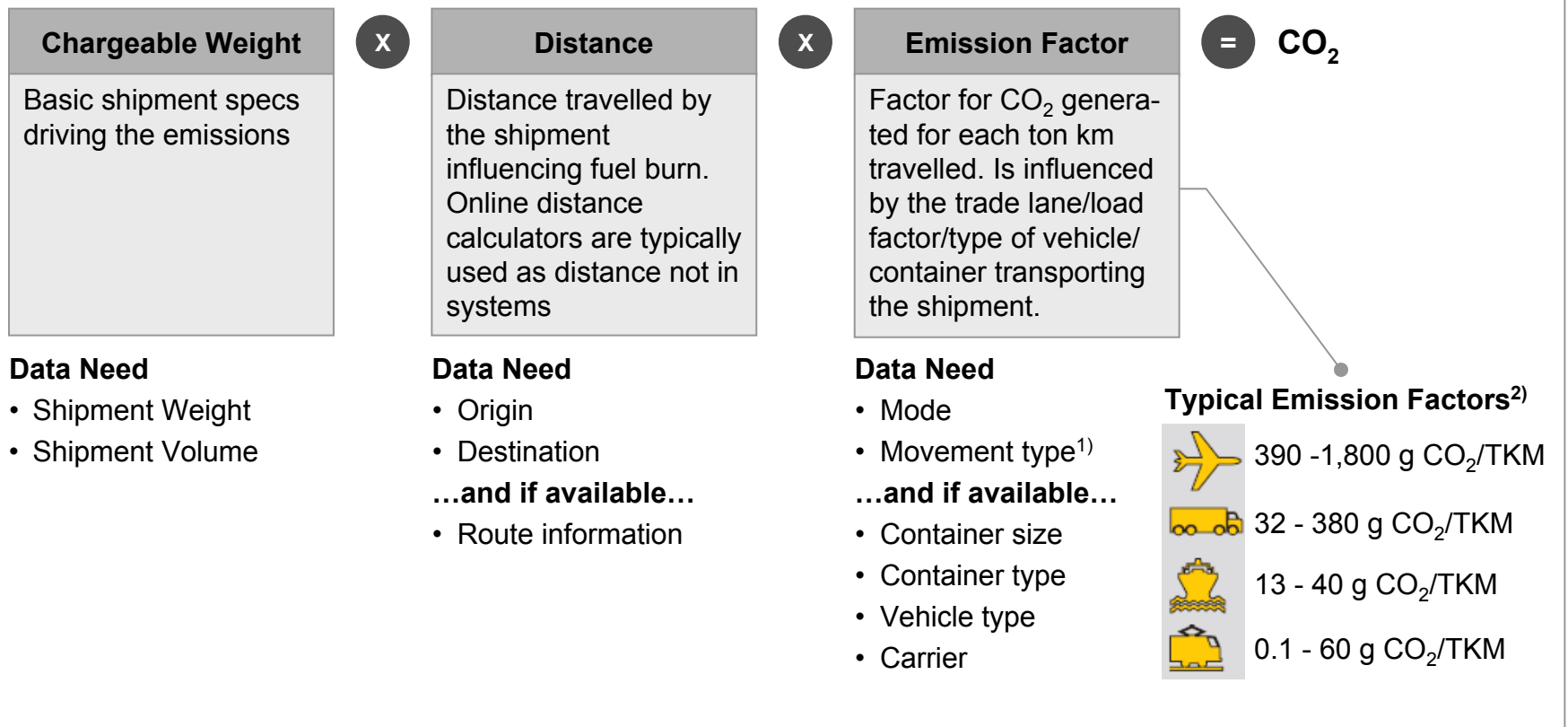
a) including Scope 1-3, including separate disclosure of Scope 3 emissions
 b) including Scope 1-3, without separate disclosure of Scope 3 emissions
 c) excluding scope 3

Carbon Calculation Methodology and Data Needs

Calculating carbon for a shipment is relatively straight forward, data availability can be an issue



To calculate carbon emissions for a given leg...





Source: DGF Green Services; 1) LCL, FCL, LTL, FTL; 2) Exemplary numbers only



Description of Carbon Report and Dashboard

The Carbon Report and the Dashboard give our customers different levels of transparency into their carbon footprint



	 Carbon Report	 Carbon Dashboard
Level of transparency	<ul style="list-style-type: none"> • DGF volumes only 	<ul style="list-style-type: none"> • DGF and third party volumes¹⁾ • Full supply chain¹⁾ (facilities, etc.)
Detail	<ul style="list-style-type: none"> • Standardized format • Defined reporting period (monthly, quarterly, etc.) • Includes basic shipment level data and the CO₂ generated 	<ul style="list-style-type: none"> • Emissions mapped to the supply chain • Multiple consolidated views (by mode, lane, etc.) • Provision of key KPIs • Footprint assessment and scenario analysis functionality • Variety of carbon reports • Easy to use, web based platform with data upload capabilities

The Dashboard is an enabler for consultative discussions...

- **KPI and analysis functionalities** result in **multiple opportunities** for collaboration between DGF and our Customers:
 - Intelligence on customer supply chain drives opportunities to **develop personalized & measurable Green Logistics Solutions**
 - **Builds a bridge for a complete portfolio of services through Green Logistics Consulting**
- **2 levels of “Green” consulting service** are recommended:
 -  Green Scan
 -  Green Optimization

Source: Project Team; 1) Subject to data availability

Offsetting: Understanding the Basics

Offsetting involves the neutralization of the inevitable emissions that are a result from the supply chain



What is Offsetting?

- Offsets are simply balancing mechanisms to **neutralize carbon emissions** resulting from the supply chain
- This is achieved through **financial support of projects that reduce greenhouse gases to an equivalent level** as those emitted
- Examples include investments in renewable energy, forestry projects, destruction of industrial pollutants, etc.

What are the Benefits of the DGF Offering?

- **One stop shop for:**
 - Externally certified carbon calculation of the emissions resulting business with DGF
 - Sourcing and purchase of internationally recognized carbon credits
 - Annual certification by a credible third party (SGS)
- Customer remains **focused on their core business**

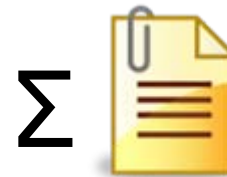
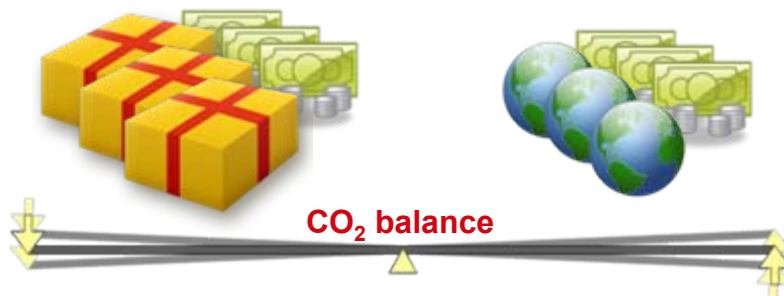
How Does it Work?

3 x 1 ton of CO₂ emitted

3 x 1 ton of CO₂ neutralized

3 tons of CO₂ reported, calc. certified by external party

Offsetting validated by certificate



Balancing Service Levels, Costs, and Emissions

Supply chain optimization involves managing the conflicting forces of costs, emissions, and service levels



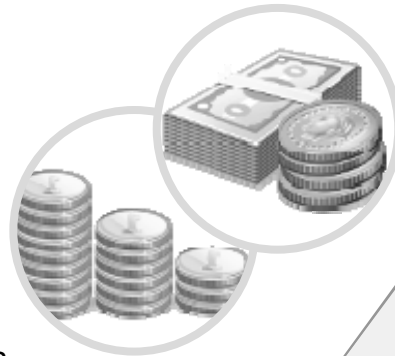
Goal is to minimize the costs and emissions in the supply chain...

Cost elements:

- Production / purchasing
- Direct costs
 - Transportation costs
 - Facility costs
 - IT & Admin
- Indirect costs
 - Inventory carrying costs
 - Lost sales
 - Obsolescence

Emissions:

- Transportation
- Facilities



...While maintaining the service level requirements of the business

- **Speed**
(total supply chain cycle time)
- **Reliability**
(achievement of the defined requirements, on time delivery, etc)
- **Flexibility**
(ability to adapt to sudden changes, or demand spikes)



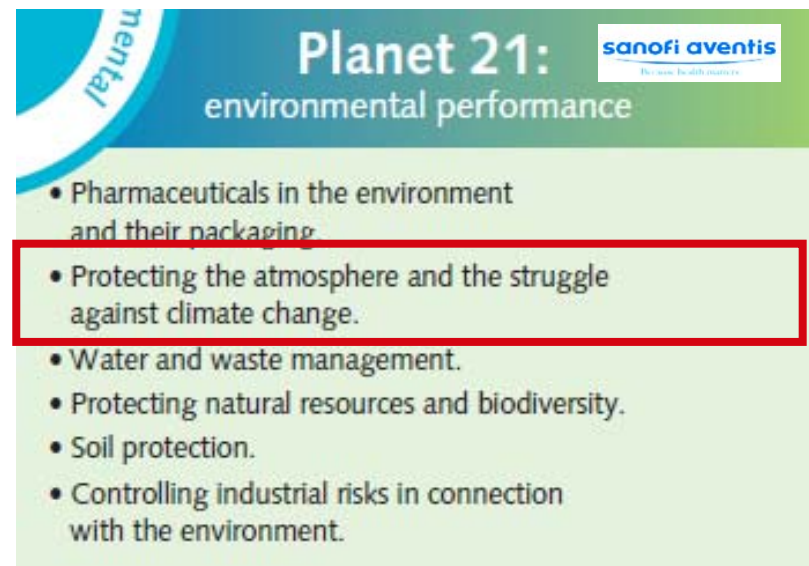
GoGreen can help customers achieve their own carbon reduction goals



By using inland waterways for its transports, Sanofi-Aventis reduced its carbon footprint by 30%

Making the difference

- For Sanofi-Aventis, DGF changed the delivery of temperature-controlled goods for sea freight export from heavy good vehicles to inland vessels
- Transporting sea freight containers by truck to European sea ports currently generates emissions of approximately 33kg of CO₂ per ton
- By switching to inland waterways emissions can be reduced by around 1/3 to 22kg of CO₂ per ton
- DGF transferred five container units each week from road to inland waterways network from Mainz to Antwerp or Rotterdam



Voice of the customer



"Sanofi-Aventis places great importance on acting responsibly with regard to all health & safety and environmental issues. We are delighted that DHL has developed a climate protection program and is able to help us become more CO₂ efficient."

Stefan Bender, Head of Distribution Platform at Sanofi-Aventis

Offsetting – Neutralising Emissions

Offsetting means to compensate CO₂ emissions by buying carbon credits from projects which verifiably reduce CO₂. In simple terms, CO₂ in one part of the world can be balanced out through green projects in another

What offsetting cannot



- Offsetting does not reduce any emissions from your transports

What offsetting can



- Offsetting allows customers to neutralize emissions from their shipments through other projects

Important to know:

- ① Offsetting is a **voluntary action** to decrease the negative impact on the environment from the customers transportation activities
- ① Customers get a certificate but **not a carbon allowance**
- ① Customers can use the DPDHL GoGreen Certificates for public communication and deduct the neutralized emissions from their transport footprint

1.: CO₂ transport emissions

2.: CO₂ calculation and management

3.: CO₂ offset

