Welcome to the ORANGE world
EcoTransIT CO₂ Calculator at Gebrüder Weiss
18 April 2012
Dr. Peter Waldenberger
Agenda

- Facts and figures of GW
- Why EcotransIT?
- Use of EcotransIT
  - for land transport
  - for overseas transport
Facts and figures

4,600 Employees

1823 Date of founding of GW

3,500 Average number of GW trucks on the road on any given day.

158 GW locations worldwide
Facts and figures

830
Worldwide routes

8,900,000
Consignments forwarded worldwide annually

450,000 m²
Logistics area
Development of net sales

CAGR: 8.7% for 12 years
GW joined EcoTransIT in 2011

GW decision in favour of EcoTransIT:
- Proven tool with a long track record
- Sound scientific background (Öko-Institut and IFEU)
- Bulk data processing is possible
- Consortium massively involved in CEN standard development

Planned output from EcoTransIT:
- CO₂ emissions on customer and transport-specific invoices
- On customer basis for all shipments
- At the branch level
- At the vehicle level
GW deliver transport data at the consignment and long leg position with a secured interface to EcoTransIT.

Initial data stored in EcoTransIT (emissions at the vehicle level) will primarily be average values; GW improve continuously the data quality.

Why average values?
- GW has exact consumption data available only to a partial extent (e.g. partners)
- This is allowed by the CEN standard
- This is currently common practice

Schedule:
- Completion of high-level IT design: End of February 2011
- Completion of programming: End of May 2011
- Tests and debugging: End of September 2011
- Go live at branch level: Starting November 2011
GW can provide reports as **Excel File** to customers.

GW can also provide results via interface to customers.

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CO2 calculation example overland transport

1.9 ton Consignment from CH-3186 to SI-6210 via Pratteln (Basel), Altenrhein, Ljubljana

Pick-up
Consignor via Pratteln to Altenrhein
Distance: 289 km
CO2: 96 kg Well-to-Wheel

Long leg
Altenrhein to Ljubljana
Distance: 565 km
CO2: 50 kg W-to-W

Delivery
Lju. to Consignee
Distance: 80 km
CO2: 57 kg W-to-W
Algorithm for Long Leg Calculation

- One calculation for each long leg
- Chargeable weights of all consignments on a long leg are added up
- Vehicle type (e.g. 24-40t), emission standard (e.g. EURO V), load factor and empty trip factor are determined
- Data set for the long leg is created and submitted to EcoTransIT
- Emission results from EcoTransIT are distributed among the consignments depending on the chargeable weight of each consignment
- Results are saved for each consignment for each long leg
Algorithm for Pick Up / Delivery

- One calculation for each consignment
- Weight of the consignment, vehicle type (e.g. 24-40t), emission standard (e.g. EURO V), load factor and empty trip factor are determined
- Data set for the pick up / delivery is created and submitted to EcoTransIT
- Emission results are saved independently for pick up and delivery
Calculation for Consignments
Example overland transport

Consignment 0.16 ton from CH-9475 to JP-430 Shizuoka via Wolfurt (HOH), Zurich (ZRH), Toyko-Narita (NRT)

Part 1
Pick-up, Air transport
From CH-9475 via HOH and ZRH to Toyko-Narita
Distance: 10,198 km
CO2: 114 kg Well-to-Tank
790 kg Tank-to-Wheel

Part 2 - Delivery
NRT to Shizuka-Ken
Distance: 329 km
CO2: 1 kg W-to-T
7 kg T-to-W
Calculation for Air / Sea Freight

Algorithms for air and sea freight:

- Same rules apply as for road freight
- Plane and ship types are selected by EcoTransIT depending on airports, ports and routes
- Load factor and empty trip factor are determined by EcoTransIT
- Long hauls are calculated for each consignment independently
Thank you for your attention!