ITS and supply chain efficiency

Roland Frindik
• Zero paper documents shall be needed for planning, executing and completing any transport operation within EU.

Independent of:

✓ The parties involved
✓ Cargo type
✓ Transport mode or combination of modes
✓ Loading unit
✓ Authorities involved
✓ Type of service demanded
✓ Transport corridor
✓ Liability regime

• There shall be zero waiting time related to administrative procedures at all border crossings within EU and for transport between EU and countries with which secure trade lanes have been established

• The e-Freight mechanisms shall be technology independent
e-Freight Roadmap

- **Standard framework** for freight information exchange covering all transport modes and all stakeholders in door-to-door logistic chains.
- A single European transport document for all carriage of goods (**eWaybill**), irrespective of mode along with all the necessary legislative support.
- **A single window** and one stop shopping for administrative procedures in all modes.
Standard (Common) Framework

- Built on the UN/CEFACT core components
- Promoted for international standardisation
Added Value

• Flexible support for multimodal chains
  ✴ Individual transport legs or whole chain
• Designed from “first principles”
  ✴ No bias (modal, sectoral…)
• Optional additional parties
  ✴ e.g. handling agents, warehousers
• Compatible with UBL, WCO, UN/CEFACT, UN/ECE…
  ✴ Well-structured, electronic data – not just PDF files
e-Freight provides a multimodal National Single Window including customs (b2a):
e-Freight proposes a Common Reporting Schema, which is a single, standardized electronic document for reporting to authorities in all member states and across all modes:

**Who**

- Consignor, Carrier...

**What**

- Shipment, Goods Item...

**How**

- Identifier, Driver...

**When & Where**

- Location, Period...

- Road
  - CRM Consignment Note

- Railway
  - CRM Consignment Note
  - WCO SAD Cargo Declaration

- Marine (Deep Sea)
  - IMDG (I-M.D.G) Form (1-7)
  - EDI
  - BERMAN
  - SSN

- Single Administrative Document
Transport Chain and Carbon Footprint Calculation

Output

Emission synthesis

Carbon footprint of the transport chain

transport chain emission calculation

Elements

Element calculation
Element calculation
Element calculation
Element calculation
Element calculation

Input

Transport chain

MARLO
Transport Chain
Carbon Footprint Calculation

Key areas of carbon footprint accounting

• Choice and application of standard
• Setting company specific boundaries
• Capture of energy consumption
• Calculation of carbon footprint
• Allocate emission to leg of transport and/or shipment

Information needed

• Shipment specific data (O/D, weight, dimensions)
• Vehicle specific data (energy consumption)
• Tour specific data (distances)
• CEN/TC 320 - 16258:2012
  ♦ Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)

• Yet excluded in EN 16258 but investigated in COFRET
  ♦ Terminal processes
    • Manoeuvring (short term assistance for movement)
    • Handling
    • Sort and shuffle
  ♦ warehousing
    • Energy consumption in terms of electricity
    • Energy consumption in terms of heating
    • Energy consumption in terms of diesel and LPG engines
Green Freight Europe

Environment monitoring and reporting tool

«Carrier Shop»
(hardware, technologies, financing mechanisms, ...)

Logistics Services Clients

Carriers

LSP

Logistics Service Providers

Greenfreight Europe
e-Freight offers an intelligent ways of data exchange for the input and output of data to and from emission calculation tools, with minimal user interference. Out of 8 standardised information packages of e-Freight the transport service description (TSD) of the transport service providers includes an information element on environmental performance.
Thank you!

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