

Implementation challenges regarding credibility for EN 16258 and the French legislation



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- *work for 12 years in the field of Transport and Environment*
- *in particular, carbon footprint of freight transport*
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- *convenor of Freight WG of “OEET” (French Advisory Body)*

Outline

1. EN 16258 – reminder and next steps
2. New initiatives after EN 16258 publication
3. French legislation “Info CO₂ transport”

Reminder about EN 16258

- CEN Standard (EN16258:2012)
- Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)
- Developed from Dec 2008 within CEN/TC320/WG10
- Adopted by vote from in August 2012 (19 National Members, 100% approving; 10 Abstention)
- Published in December 2012

Next steps for EN 16258

- EN 16258:2012 will be reviewed at least within five years from its publication. Possible results : confirmation, modification, revision or withdrawal
- Meanwhile, other complementary CEN deliverables could be developed around EN 16258:
 - *Technical Specifications (TS)*
 - *Technical Reports (TR)*
 - *Guides*
 - *CEN Workshop Agreements (CWA)*
- **Potential area for these deliverables:**
 - *Methodological guide with detailed recommendations for each mode or each type of transport service*
 - *Guide for audit (verification criteria)*
 - ...

Next steps for EN 16258

- First, need to get feedbacks from users of EN 16258
- Comments and suggestions expected from other initiatives and sectoral associations, like:
 - *COFRET*
 - *IWA – ISO*
 - *DG Move Study*
 - *GLEC*
 - *French legislation*



COFRET (Carbon Footprint of Freight Transport)

- Research and demonstration project funded by the European Commission (DG Research)
- From June 2011 to May 2014
- Cf. www.cofret-project.eu
- Objectives:
 - *Transparency on calculation methodologies for supply chains*
 - *Suggest next steps needed to achieve global harmonisation*
- Ex. deliverable D3.3 “Suggestions and recommendations towards global harmonisation of carbon footprint calculation principles and comparable reporting”





International Workshop Agreement – ISO

- Title: “IWA on quantification methods of CO₂ emissions of Freight Transport”
- Scope: “Closing disclosed calculation gaps within the supply chain for the quantification of CO₂ emissions of Freight Transport. Based on existing Standards and Specifications (e.g. EN 16258, ISO 14040/44, GHG Protocol) international harmonized quantification method(s) will be developed.”
- Secretariat : DIN (Germany)
- Timeframe: 3 international workshops in Berlin from July to November 2014
- Publication of the final IWA : Beginning of 2015

Harmonized Carbon Footprint Methodology



- European study (DG Move)
- Started in October 2013
- Objectives:
 - *To provide an overview of the state of the art of carbon footprint calculators and methodologies*
 - *To define and validate the main problems as well as general and operational objectives with regard of promoting a harmonized carbon footprint methodology*
 - *To develop relevant policy options to meet these objectives*
- Open consultation of stakeholders until June 13th 2014

Global Logistics Emissions Council



- Launched in January 2014
- Led by Smart Freight Centre
 - cf. www.smartfreightcentre.org
- Objectives:
 - *Global Framework for Freight Emissions Methodologies, based on existing methodologies*
 - *Drive the acceptance and use of the Global Framework by industry, government and other players*
 - *Take the application of the Global Framework to scale across the global freight supply chain*



Description of French legislation “Info CO₂ transport”

- Legislative and regulation documents:
 - *Article L. 1431-3 of the Transport Code*
 - *Decree n° 2011-1336 - 24th October 2011*
 - *Orders - 10th April 2012*
- Other official document:
 - *Methodological guide – October 2012*

NB : All are available in English

<http://www.developpement-durable.gouv.fr/CO2-information-for-transport.html>



CO₂ information for transport services

Application of Article L. 1431-3 of the French transport code

October 2012

Methodological guide



Ministry of Ecology, Sustainable Development and Energy
www.developpement-durable.gouv.fr

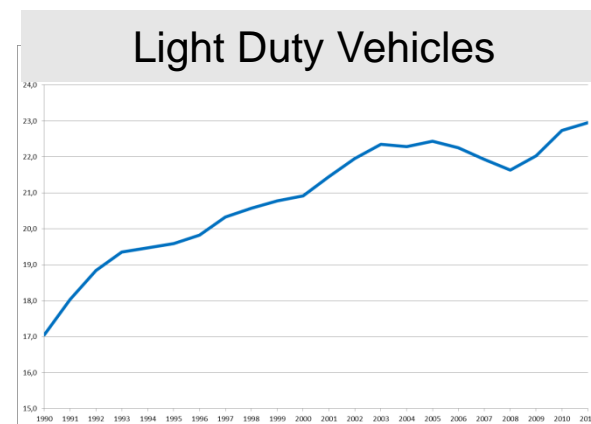
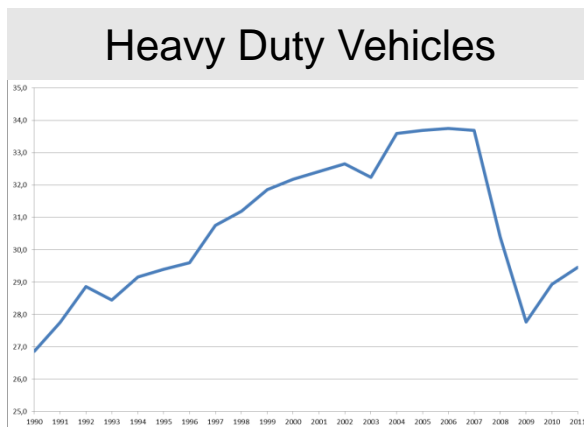
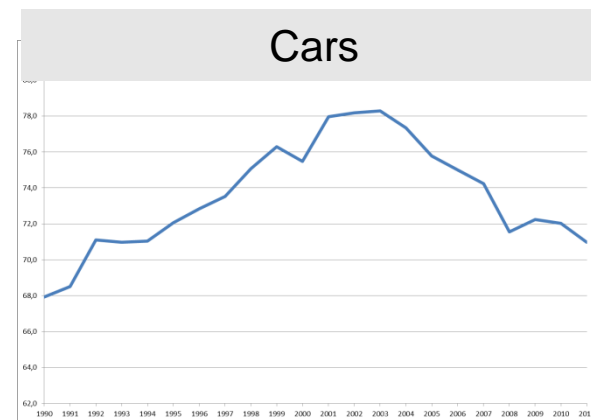
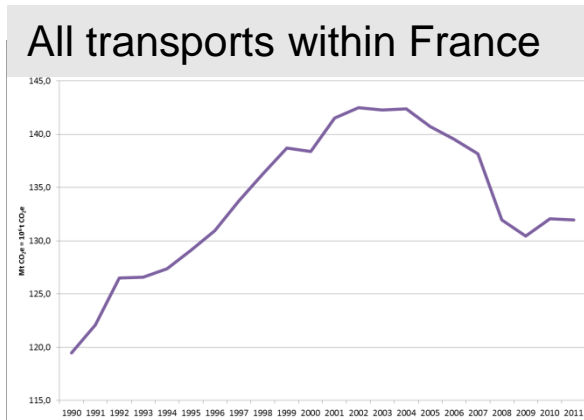
**Methodological
guide in English
(236 pages)**

Main points

- **What ?** Information on CO₂ emissions from :
(use of transport means, including empty runs)
+
(production of energy used by transport means)
- **Who ?** Providers of transport services (freight and passengers)
- **To whom ?** Beneficiaries of these transport services
- **When ?** From 1st October, 2013
- **Which ?** All transport services with origin and/or destination in France
- **How ?** See methodological guide, and examples further
- **Status ?** Mandatory, but no control and no penalty
- **Why ?** See next slides



Total GHG emissions of transport in France – From 1990 to 2011 (Mt CO₂e)



→ Trend is not in line with French legal objective of being back to 1990 level in 2020 for whole transport sector

Expected benefits

- Measurements will facilitate improvements
- “Info CO₂ transport” legislation will help:

Transport service providers:

- To increase their knowledge related to GHG emissions
- To monitor their performance
- To follow their improvements
- To communicate to their customers

Beneficiaries of transport services (shippers, freight forwarders):

- To take into account environmental impacts
- To monitor GHG emissions due to their procurements
- To use a GHG emissions criterion when selecting offers

Principles of implementation of the calculation

- 2 categories of input data are framed :
 - *Energy consumption rate of vehicle*
 - *Load factor (average tonnage)*
- 4 levels of values are allowed :
 - *1 : default values stated in the order*
 - *2 : average figures calculated by the service provider for all of its activities*
 - *3 : mean values calculated by the service provider based on a complete breakdown of its activity*
 - *4 : real data for the transport service*
- No official calculation tool, except for air

CO₂ aviation emissions calculator

- The French Civil Aviation Authority (DGAC) provides a CO₂ aviation emissions calculator, which is available at the following address: <http://www.developpement-durable.gouv.fr/aviation/eco-calculateur/index.php>.
- Originally made for passengers, before the legislation, then adapted for legislation and freight (one passenger stands for 100 kg)
- Only in French
- Database for around 1000 links from any French airport
- See example next slide

Choix de l'itinéraire

Aéroport de départ (France)
NICE-CÔTE D'AZUR ▼

Pays de destination
SUÈDE ▼

Aéroport de destination
STOCKHOLM-ARL. ▼

☐ Aller simple ☒ Aller-retour **Calculer**

Résultats de votre recherche

Distance (km)	Emissions de CO ₂ / passager (en kg) pour le vol	Consommation de kérosène / passager (en litre)
 3842	326	130 soit 3,4 l/100 km

Emissions de CO₂/passager (en kg) pour la production et distribution du kérosène

62

Emissions totales de CO₂/passager (en kg)

388

Example of
calculation with CO₂
aviation official tool

Example of calculation for freight

Description (according to the nature of the vehicle and the type of transport service, indicating the energy source[s])	Number of units transported by the means of transport (taking into account unladen journeys)	Rate of consumption of the energy source by the means of transport (in units of measurement of the quantity of the energy source per kilometre)
Straight truck with a GVW of 12 tonnes - Miscellaneous goods - Road diesel fuel	1,80 tonnes	0,240 ℓ / km

Example

For a road transport service carrying miscellaneous goods weighing a total of 500 kg (i.e. 0,5 tonnes) over a distance of 150 km with a vehicle such as a "straight truck with a GVW of 12 tonnes" operating using diesel, the calculation with level 1 values is as follows (see formula No. 4 described in § 2.3.2):

$$\text{CO}_2 \text{ Information} = 0,240 \text{ ℓ / km} \times 150 \text{ km} \times 3,07 \text{ kg CO}_2 / \text{ℓ} \times (0,5 \text{ t} / 1,8 \text{ t}) = 30,7 \text{ kg CO}_2$$

Where:

- 0,240 ℓ / km is the level 1 value of the energy source consumption rate of the vehicle;
- 0,5 t corresponds to the goods transported;
- 1,8 t is the level 1 value of the number of units transported corresponding to the average tonnage carried by this type of vehicle, integrating unladen journeys;
- 3,07 kg CO₂ / ℓ constitutes the pumped road diesel emission factor (also provided by order).

What have we learned so far regarding French legislation? (1/5)

- Enforcement by transport providers is a slow process:
 - *A lot of carriers were not ready for the 1st of October 2013, and still take time*
 - *Relationship with the time spent by stakeholders on the project called Ecotax (Heavy Goods Vehicle Tax in France)*
 - *Probably 3 main categories of transport providers:*
 1. Give no information on CO₂
 2. Give information on CO₂, but not in line with French legislation
 3. Give information on CO₂ according to French legislation

What have we learned so far regarding French legislation ? (2/5)

- The role of shippers is very important:
 - *Transport providers implement “Info CO₂ transport” when their customers request for it*
 - *The decree leaves various possibilities of implementation:*
 - ✓ Some are related to calculation methods
 - What category of data used (default, average, ...) ?
 - ✓ Communication of the information is also left free:
 - When ? (before or after the service is done)
 - How often ? (possibility to consider all services all at once services during a period like one year, so one result only)
 - *One shipper have multiple carriers and would like to receive harmonised calculation in a single format and timing*
 - *As carriers work for different shippers, various requests will be received by each carrier, and not all of them being consistent*

What have we learned so far regarding French legislation ? (3/5)

- Tools and solutions have been developed for:
 - *Calculation itself*
 - *Communication of the results (platforms)*
- Shippers and carriers have hesitations like:
 - *Which one is the best for me ?*
 - *Are they all consistent with the legislation ?*
 - *Isn't it better waiting than choosing the wrong tool ?*
- No official verification framework exists for these tools

In conclusion, many carriers wait for their shippers to ask them for the information, and to tell them what they want exactly.

What have we learned so far regarding French legislation ? (4/5)

- For passenger transport on road, risk of confusion and wrong comparison between:
 - *On the one hand : Info CO₂ transport for a trip by bus*
 - Ex. 103,3 g CO₂ / pax.km (level 3 value given by RATP, Paris)
 - Level 1 values (aggregated) depending on size of the agglomeration: 144 or 154 or 171 g CO₂ / pax.km
 - These values include WTT emissions, and represent utilisation of vehicle on real situation
 - *One the other hand : Car Labelling for a trip by car*
 - Ex. 127 g CO₂ / veh.km (average value for France in 2011)
 - Many new cars which values are minor to 100 g CO₂ / veh.km
 - These values are only TTW
 - They result from a conventional test
 - They are related to one vehicle, and not to one passenger

What have we learned so far regarding French legislation ? (5/5)

- Impact abroad France :
 - *French legislation has played a role in the development of initiatives abroad*
 - *Now, stakeholders acting on different continents want to prevent national legislations to be adopted prior to industry recommendations*
 - *Reactions from aviation and maritime sector*
- An official report is planned before end of 2015:
 - *Mentioned in the decree*
 - *Probably no change before*
 - *Changing “CO₂” to “GHG” depends on the article of law (vote from Parliament)*

Example of tools created for implementation of French Legislation (freight)

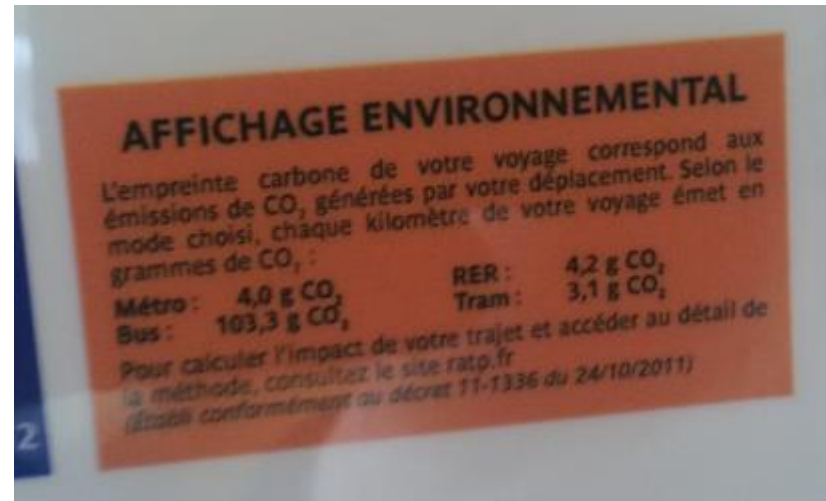
Carbon Track
Pour un transport durable et sûr



Example of implementation (passengers) : public transport in Paris

1) Information on board

- very difficult to find
- only relative data (gCO₂/pax.km)
- but level 3 values (aggregated)





2) Information on web site

- absolute result based on level 3 values and real distance travelled for each leg of the trip



Départ	GARE DU NORD 75000 - Paris
Arrivée	PORTE DE VANVES 75000 - Paris
Date 29/04/2014	Heure de départ 11:30

 avec  2 min

27 min

Zone tarifaire 1
 [Détail prix billet\(s\)](#)

Emission CO₂ : 51 g

CONCLUSIONS

- Lot of activities around Carbon Footprint methodologies
- New stakeholders take part to the debates, like IATA recently
- Transparency of declarations remains a solution, as long as harmonisation of methodologies is not achieved
- EN 16258 is robust : no serious anomaly or misdirection has been detected so far ...
- EN 16258 needs promotion and complementary products like guides and recommendations for types of transport activities
- French legislation implementation brings very interesting learnings

Tack för uppmärksamheten !

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