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EUROSTAT

Directorate E: Sectoral and regional statistics

Unit E-3: Transport

**ESTAT – ITF – UNECE
COMMON QUESTIONNAIRE ON INLAND TRANSPORT STATISTICS**

RATIONALE FOR CQ STREAMLINING

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ROADVKM THEME

1. THE SOURCES BEHIND THE 3 CHAPTERS OF ROADVKM

The three ROADVKM chapters are very specific and do not correspond to the usual organisation of the themes dedicated to a given mode of transport (I infrastructure, II transport equipment, III economic performance, employment and investment...).

They represent the three possible “coverages” of the transport related to a country (of the territory, of the vehicles, of the vehicles in the territory), but not only, as the main characteristic of chapter II is its breakdown by type of road.

The three possible usual sources are the road censuses / automatic traffic counters, the National household transport surveys (for the transport of passengers) and the odometer readings. The National household transport surveys can concern only a part of chapter I.

The countries can also combine different sources to elaborate a synthesis, and/or use automatic traffic counters in order to extrapolate annually the National household transport survey.

Table 1: organisation of the 3 ROADVKM chapters, and expected sources

		Data sources
I	National and foreign vehicles on national territory	Traffic counts (road traffic censuses, automatic traffic counters, maybe tolls data)
	National vehicles on national territory	Transport and mobility surveys (national household transport survey with possible extrapolation by automatic traffic counters, road freight transport survey restricted to national transport and national part of international transport)
II	National and foreign vehicles on national territory, by type of road	Traffic counts (road traffic censuses, automatic traffic counters, maybe tolls data)
III	National vehicles on national and foreign territories	Odometer readings

If the first part of chapter I is suppressed, the adequation of chapters to sources is more obvious.

Table 1 bis: more rational organisation of the 3 ROADVKM chapters, by sources

		Data sources
I	National vehicles on national territory, by type of vehicles	Transport and mobility surveys
II	National and foreign vehicles on national territory, by type of vehicles and by type of roads	Traffic counts
III	National vehicles on national and foreign territories	Odometer readings

The first part of current chapter I may be deleted without impact on the data, as these 14 indicators are redundant with the first 13 indicators of current chapter II:

Table 2: redundance of indicators between chapter I and chapter II

Chapter I indicators			Chapter II indicators		
X-I-03-40-49_0-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total	X-II-01-40-49_0-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/Total
X-I-03-40-49_3-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total/Motorcycles and mopeds/Total	X-II-01-40-49_3-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Motorcycles and mopeds/Total
X-I-03-40-49_1-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total/Passengers cars/Total	X-II-01-40-49_1-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Passengers cars/Total
X-I-03-40-49_2-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total/Buses, motor coaches, trolleybuses, minibuses and mini coaches/Total	X-II-01-40-49_2-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Buses, motor coaches, trolleybuses, minibuses and mini coaches/Total
X-I-03-40-49_2-25_1	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total/Buses, motor coaches, trolleybuses, minibuses and mini coaches/Total/By type of vehicle/Buses	X-II-01-40-49_2-25_1	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Buses, motor coaches, trolleybuses, minibuses and mini coaches/By type of vehicle/Buses
X-I-03-40-49_2-25_2	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total/Buses, motor coaches, trolleybuses, minibuses and mini coaches/Total/By type of vehicle/Coaches	X-II-01-40-49_2-25_4	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Buses, motor coaches, trolleybuses, minibuses and mini coaches/By type of vehicle/Coaches
X-I-03-40-49_2-25_4	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Total/Buses, motor coaches, trolleybuses, minibuses and mini coaches/Total/By type of vehicle/Trolleybuses	X-II-01-40-49_2-25_7	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Buses, motor coaches, trolleybuses, minibuses and mini coaches/By type of vehicle/Other (including trolleybuses)
X-I-03-40-49_2-25_3	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Buses, motor coaches, trolleybuses, minibuses and mini coaches/By type of vehicle/Mini buses and mini coaches			
X-I-03-40-49_7-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Lorries/Total	X-II-01-40-49_7-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Lorries/Total
X-I-03-40-49_7-84_1	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Lorries/By gross vehicle weight/Lorries up to 3.5 tonnes Maximum Permissible Weight/Total	X-II-01-40-49_7-84_1	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Lorries/By gross vehicle weight/Lorries up to 3.5 tonnes Maximum Permissible Weight
X-I-03-40-49_7-84_9	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Lorries/By gross vehicle weight/Lorries more than 3.5 tonnes and up to 6 tonnes Maximum Permissible Weight/Total	X-II-01-40-49_7-84_7	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Lorries/By gross vehicle weight/Lorries more than 3.5 tonnes and up to 6 tonnes Maximum Permissible Weight
X-I-03-40-49_7-84_14	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Lorries/By gross vehicle weight/Lorries more than 6 tonnes Maximum Permissible Weight/Total	X-II-01-40-49_7-84_16	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Lorries/By gross vehicle weight/Lorries more than 6 tonnes Maximum Permissible Weight
X-I-03-40-49_8-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Road tractors/Total	X-II-01-40-49_8-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Road tractors/Total
X-I-03-40-49_5-0_0	Road Traffic By Type Of Vehicle	National and foreign vehicles on national territory/Vehicle-km (Millions)/By type of motor vehicle/Other motorized vehicles/Total	X-II-01-40-49_5-0_0	Road Traffic on National Territory for National and Foreign Vehicles by Type of Vehicle and Type of Road	Vehicle-km (Millions)/By type of motor vehicle/Other motorized vehicles/Total

We will follow the new organisation of table 1 bis in the streamlined CQ-ROADVKM, which is already an elegant way to delete 14 redundant indicators.

The odometer readings, because they constitute an annual source on a very high number of vehicles (and on all vehicles after a small number of years), seem to be the most powerful source, to which a task force has recently be dedicated.

We have to renounce to the idea that the same kinds of vehicles x types of fuel can be observed by the three different sources.

2. THE RATIONALE BEHIND THE PROPOSALS FOR REVISED ROADVKM INDICATORS IN THE CQ – CHAPTERS I AND II

The average number of countries filling in indicators is 5.3 for current chapter I and 4.3 for current chapter II. They are organised and receive figures as explained in below table:

Table 3: number of countries answering ROADVKM chapters I and II

			Nb of indicators	average nb of countries
I	National and foreign vehicles on national territory	without type of motor energy	17	6.7
		with type of motor energy	10	1.9
	National vehicles on national territory	without type of motor energy	17	5.6
		with type of motor energy	10	5.9
II	National and foreign vehicles on national territory	without detail by road	13	7.5
		on motorways	13	4
		on other roads without breakdown	13	4.3
		inside vs. outside built-up areas	26	2.7

At this stage, it seems vain to ask the type of motor energy for the (national+) foreign vehicles. It can of course not be extracted from automatic traffic counters, and hardly from road censuses.

We propose to delete these 10 indicators with poor completion rates.

Use of cycling

Five countries are currently able to provide data on vehicle-kilometres of bicycles on the national territory: Denmark, Hungary, Switzerland, Norway and United Kingdom. The source seems to always be the National household transport survey. The registration of the bicycles makes no sense here. But the drivers are “resident” in the country, which assimilates their traffic to “national vehicles on national territory” (we have to clean the current data according to this logic).

In the “[European declaration on cycling](#)”, the European Union commits to increase the use of cycling and the length of safe and coherent cycling infrastructure across Europe, to invest in cycling at each level of governance, to ensure the coexistence of different means of transport on road, to implement multimodal solutions in urban, sub-urban and rural areas, to support the bicycle service sector, and... to collect more data!

CHAPTER VIII: Improving the collection of data on cycling

Cycling data needs to be collected in the same way across the EU to ensure effective monitoring of progress on implementation of the principles and commitments included in this Declaration.

We commit to:

33. monitoring the implementation of our commitments;
34. enabling the continuous measurement of progress on the use of cycling in the EU by establishing an EU-wide baseline, including the length, network density, quality and accessibility of cycling infrastructure and services for several user types, the share of cycling in total transport and mobility activity, and the number of serious injuries and fatalities among cyclists;
35. developing harmonised indicators related to cycling for urban nodes of the Trans-European Transport Network (TEN-T);
36. developing statistics on cycling and its infrastructure at local, national and EU levels, including cooperation between Member States and Eurostat to collect cycling data.

We think these targets are shared at international level. For instance, “cycling” is linked to 11 Sustainable Development Goals¹: SDG 1 (No poverty), 2 (Zero hunger), 3 (good health and well-being), 5 (gender equality), 7 (affordable and clean energy), 8 (decent work and economic growth), 9 (industry innovation and infrastructure), 11 (sustainable cities and communities), 12 (responsible consumption and production), 13 (climate action) and 17 (partnerships for the goals).

Anyway, when it comes to estimates of traffic, we do not see many specific sensors neither harmonized definitions nor methodologies. Our proposals for ROADVKM are therefore only to keep the traffic of national bicycles on national territory and to add a possible observation of “other micromobility devices with auxiliary motor”. Conversely, the measurement of “national and foreign bicycles” on the whole territory seems a pure illusion.

¹ according to [United Nations – Regional information centre for Western Europe](#)

Automatic traffic counters on State roads and data requested for (E-)road censuses

Automatic traffic counters seem to be deployed more and more, but rather on State roads than on the “secondary network”.

Most typical automatic traffic counters provide a “total” number of vehicles, of which a percentage of heavy vehicles (therefore two kinds of vehicles: light / heavy).

The five-yearly E-road census managed by UNECE is a little more ambitious, as 4 categories are theoretically collected:

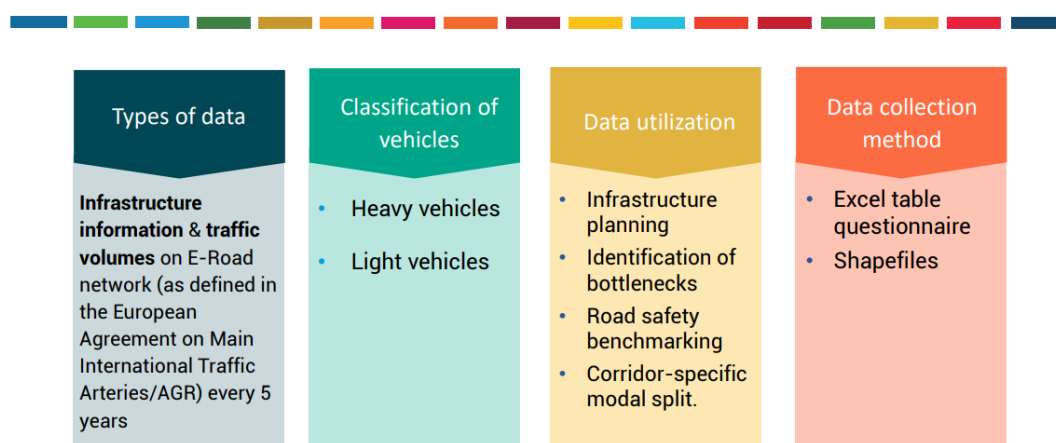
- category A: 2- or 3-wheels (L1-L5);
- category B: 4-wheels, passenger cars and light utility vehicles (L6-L7, M1 and N1);
- category C: heavy goods road vehicles with or without trailers (N2-N3);
- category D: buses, motor coaches, minibuses and mini-coaches (M2-M3)

With possible 2 sub-aggregates:

- Light vehicles = categories A+B (L, M1, N1);
- Heavy-duty vehicles = categories C+D (M2-M3, N2-N3).

But, in practice, it appears most countries are only able to provide these 2 sub-aggregates. Some countries can provide more on some segments, but quite never on all of them.

E-Road Census: Background



6 countries only report on more than 2 indicators on motorways: Estonia, Hungary, Norway, Romania, Slovenia and United Kingdom. The most favourable case for motorways should be when countries use tolls, but Bulgaria, France, Croatia, Ireland and Poland do not report figures (Italy only on total vehicles and passenger cars), probably because the kinds of vehicles are not known. So far, we do not see which indicators could be more adequate for motorways than for any State road, which concentrate the more numerous automatic traffic counters.

Consequently, our proposal is to collect yearly at national level but more likely on “motorways” and on “other State roads” only what is provided to E-road censuses every 5 years on this limited network in order to be visualized on a map. We think the (main) common source is the automatic traffic counters and we cannot expect more for the time being.

Proposal of streamlined indicators for chapters I and II

Table 4: schematic changes proposed to CQ ROADVKM theme, chapters I and II

Chapter	Labels	Rationale
National vehicles on national territory, by type of vehicles	other micromobility devices with auxiliary motor (1)	From National household transport survey
National and foreign vehicles on national territory, by type of vehicles and by type of roads	3 types of road (total, motorways, other State roads) x 7 indicators (but probably only 3 in general: total, light vehicles, heavy vehicles) (21 instead of 92)	Reorganisation of current chapters I and II, inspired by detail of E-Road census

3. THE RATIONALE BEHIND THE PROPOSALS FOR REVISED ROADVKM INDICATORS IN THE CQ – CONSISTENCY WITH ROAD (AND AFIR, UN R.E.3)

The worldwide electrification and use of alternative fuels for road transport require collecting more relevant statistics on the related infrastructure, transport equipment (cf. rationale for CQ-Road streamlining) and on the related road traffic.

The previous template for ROADVKM chapter III (traffic by road motor vehicles registered in the country) was not consistent with ROAD chapter II (transport equipment), and poorly filled in – even by countries having a long experience in odometer readings. Its 229 indicators resulted from the full combinations kinds of vehicles by types of motor energy and by classes of age.

Hence, the main rationale of the streamlining for this chapter is the full consistency with the new ROAD chapter II, aligned on the kinds of vehicles (issued from the [UN Consolidated Resolution on the Construction of Vehicles \(R.E.3\)](#) and the types of motor energy of AFIR.

Kinds of vehicles

The main categories of vehicles are then M1 (passenger cars), N1 (light utility vehicles) – forming together the “light duty vehicles”, M2+M3 (buses, motor coaches, etc.), N2+N3 (heavy lorries and road tractors we will still consider separately) - forming together the “heavy duty vehicles”. They do not exactly match CQ categories because of the “Special purpose vehicles” (put apart in CQ) and of the microcars included in “passenger cars” according to the glossary (although classified in L6 or L7 in UN R.E.3, therefore with “motorcycles”).

Mopeds are to consider apart from motorcycles, because they usually are not in the scope of technical inspections.

“Other motorised vehicles” were ambiguous in ROADVKM. If they were referring to “special purpose vehicles”, they should not be asked anymore as an aggregate (but it could be useful to identify them in particular within each category). If they were meaning agricultural tractors, they are not subject of technical inspections and this question was asked in vain.

Types of motor energy

The types of motor energy were not consistent between ROAD and ROADVKM: the latter was not identifying “hydrogen and fuel cells”, was not separating “plug-in hybrids” from “hybrids”, was supposing all LPG and CNG vehicles as “bi-fuel” with petrol in case of light vehicles, and was substituting “flex-fuel” to bioethanol and biodiesel.

As it is discussed in similar paper on the streamlining of ROAD, the provision of statistics to [AFIR](#) targets needs that plug-in hybrids are systematically separated from hybrids, and that “zero emission”, “renewable fuels” and “non-renewable alternative fuels and transitional fossil fuels” make a structural breakdown of “alternative fuels”.

For the mopeds and motorcycles, where it does not appear opportune to follow too many types of motor energy, we propose to introduce the notion of “other alternative fuel” after “fossil fuel” and “Zero emission”.

Specific characteristics of vehicles or users

In the documentation provided by some countries on their use of odometer readings, we can see that some specific characteristics of the vehicles are used as very significant:

- Camper vans within passenger cars.

Or some characteristics of the users:

- Businesses/households for light vehicles (heavy vehicles are reputed all for businesses);
- Used by transport activities (section H) / other in case of heavy goods road vehicles.

The distinction between buses and motor coaches is certainly meaningful, but most countries are unable to dissociate them in their national registers of road vehicles.

All combinations kinds of vehicles x types of motor energy x classes of age are not needed

One noticeable feature of current CQ-ROADVKM chapter III, as well as a previous test of “road traffic 2016”, is its huge number of indicators resulting from the full combinations kinds of vehicles x types of motor energy x classes of age (229 for ROADVKM, 432 for road traffic 2016). We target a similar number of indicators in the streamlined CQ-ROADVKM chapter III, while the full satisfaction of modellers would certainly request thousands of data (every year of fabrication, by class of weight, by cylinder capacity, etc.).

Consistency with CQ-ROAD chapter II on the fleet of vehicles

What makes more sense for an analysis of the traffic is the comparison with the fleet in order to study the variation of annual mileages across several characteristics of the vehicles and/or the users.

Table 5: Analysis of CQ ROADVKM, chapter III

CQ-ROADVKM chapter III	CQ-ROAD chapter II	Ratio
Traffic in vehicle-kilometres	Fleet of vehicles at 31.12	~Annual mileage

Strictly speaking, this ratio does not provide the exact annual mileage, as the “average fleet” of year N should be used instead of “fleet at 31.12”. Anyway, the approximates should be good enough, except for the class of age 0-1 year old, where the two fleets concepts lead to an average ratio of 4/3 (the average fleet of 0 year old is approximately half the fleet of 0 year old at 31.12).

The below proposal consists in 108 indicators instead of 229 now, basically aligned with AFIR and the current indicators of ROAD chapter II (also aligned with AFIR). A full review of the classes of age would make 438 indicators.

Table 6: schematic draft for streamlined ROADVKM chapter III aligned on AFIR

Annual number of vehicle-kilometres by the national vehicle stock (regardless of where it was performed), by vehicle category, fuel type and age.
Unit: Million Vkm

108 indicators

Vehicle categories by fuel type	Age of the vehicle					
	Total	0-1 year old	2-4 years old	5-9 years old	10-19 years old	20 years old and more
L1-L2: Mopeds - Total.						
• Fossil fuel						
• Zero Emission						
• Other alternative fuel						
L3-L4-L5-L6-L7: Motorcycles (with or without sidcar), tri-cycles and quads - Total.						
• Fossil fuel						
• Zero Emission						
• Other alternative fuel						
M1: Passenger cars - Total.						
• Petrol excluding hybrids						
• Petrol-Hybrids (excluding plug-in hybrids)						
• Plug-in Petrol-Hybrids						
• Diesel excluding hybrids						
• Diesel-Hybrids (excluding plug-in hybrids)						
• Plug-in Diesel-Hybrids						
• Battery-only electric						
• Hydrogen and fuel cells						
• LPG including bi-fuel with LPG						
• CNG including bi-fuel with CNG						
• bioethanol or biodiesel						
• Other fuel and unknown						
M2+M3: Buses and coaches, (trolleybuses,) mini buses and mini-coaches - Total.						
• Petrol excluding hybrids						
• Petrol-Hybrids (excluding plug-in hybrids)						
• Plug-in Petrol-Hybrids						
• Diesel excluding hybrids						
• Diesel-Hybrids (excluding plug-in hybrids)						
• Plug-in Diesel-Hybrids						
• Battery-only electric						
• Hydrogen and fuel cells						
• LPG including bi-fuel with LPG						
• CNG including bi-fuel with CNG						
• bioethanol or biodiesel						
• Other fuel and unknown						
N1: Light Goods Road Vehicles up to 3.5t MPLW - Total.						
• Petrol excluding hybrids						
• Petrol-Hybrids (excluding plug-in hybrids)						
• Plug-in Petrol-Hybrids						
• Diesel excluding hybrids						
• Diesel-Hybrids (excluding plug-in hybrids)						
• Plug-in Diesel-Hybrids						
• Battery-only electric						
• Hydrogen and fuel cells						
• LPG including bi-fuel with LPG						
• CNG including bi-fuel with CNG						
• bioethanol or biodiesel						
• Other fuel and unknown						
N2+N3 (part): Heavy lorries above 3.5t MPLW - Total.						
• Petrol excluding hybrids						
• Petrol-Hybrids (excluding plug-in hybrids)						
• Plug-in Petrol-Hybrids						
• Diesel excluding hybrids						
• Diesel-Hybrids (excluding plug-in hybrids)						
• Plug-in Diesel-Hybrids						
• Battery-only electric						
• Hydrogen and fuel cells						
• LPG including bi-fuel with LPG						
• CNG including bi-fuel with CNG						
• bioethanol or biodiesel						
• Other fuel and unknown						
part of N3 (or national specific): Road tractors - Total.						
• Petrol excluding hybrids						
• Petrol-Hybrids (excluding plug-in hybrids)						
• Plug-in Petrol-Hybrids						
• Diesel excluding hybrids						
• Diesel-Hybrids (excluding plug-in hybrids)						
• Plug-in Diesel-Hybrids						
• Battery-only electric						
• Hydrogen and fuel cells						
• LPG including bi-fuel with LPG						
• CNG including bi-fuel with CNG						
• bioethanol or biodiesel						
• Other fuel and unknown						

If the most significant characteristics (for the annual mileage) of the vehicles or the users are introduced, as well as the breakdown by Euro emissions standard for passenger cars, they could raise to 239 indicators in the next example (hence a quasi-stability of the number of indicators). Contrarily to CQ-ROAD chapter II, petrol and Diesel hybrids are put together.

The full detail of passenger cars is covered. But all vehicle-kilometres indicators would not find their counterparts in number of vehicles (which is the current case anyway).

Table 6 bis: schematic draft for streamlined ROADVKM chapter III with more significant characteristics in terms of annual mileage (consistent with streamlined ROAD chapter II)

Annual number of vehicle-kilometres by the national vehicle stock (regardless of where it was performed), by vehicle category, fuel type and age.
Unit: Million Vkm

239 indicators

Vehicle categories by fuel type	Age of the vehicle					
	Total	0-1 year old	2-4 years old	5-9 years old	10-19 years old	20 years old and more
L1-L2: Mopeds - Total.						
• Fossil fuel						
• Zero Emission						
• Other alternative fuel						
L3-L4-L5-L6-L7: Motorcycles (with or without sidecar), tri-cycles and quads - Total.						
• Fossil fuel						
• Zero Emission						
• Other alternative fuel						
M1: Passenger cars - Total.						
(Of which camper vans and motor homes - Total)						
(Of which ambulances and other special purpose passenger cars - Total)						
(Of which used by businesses - Total)						
• Petrol excluding hybrids						
• Diesel excluding hybrids						
• Hybrids (excluding plug-in hybrids)						
• Plug-in Hybrids						
- Battery-only electric	Zero Emission					
- Hydrogen and fuel cells						
- LPG including bi-fuel with LPG	transitional fuels					
- CNG including bi-fuel with CNG						
- bioethanol or biodiesel	renewable fuels					
- Other fuel and unknown						
• Passenger cars (M1) by Euro emissions standard/ Euro 1						
• Passenger cars (M1) by Euro emissions standard/ Euro 2						
• Passenger cars (M1) by Euro emissions standard/ Euro 3						
• Passenger cars (M1) by Euro emissions standard/ Euro 4						
• Passenger cars (M1) by Euro emissions standard/ Euro 5						
• Passenger cars (M1) by Euro emissions standard/ Euro 6						
• Passenger cars (M1) by Euro emissions standard/ Euro 7 and more						
M2+M3: Buses and coaches, (trolleybuses,) mini buses and mini-coaches - Total.						
• Petrol excluding hybrids						
• Diesel excluding hybrids						
• Hybrids (excluding plug-in hybrids)						
• Plug-in Hybrids						
- Battery-only electric	Zero Emission					
- Hydrogen and fuel cells						
- LPG including bi-fuel with LPG	transitional fuels					
- CNG including bi-fuel with CNG						
- bioethanol or biodiesel	renewable fuels					
- Other fuel and unknown						
N1: Light Goods Road Vehicles up to 3.5t MPLW - Total.						
(Of which light road tractors - Total)						
(Of which for special purpose - Total)						
(Of which used by households - Total)						
• Petrol excluding hybrids						
• Diesel excluding hybrids						
• Hybrids (excluding plug-in hybrids)						
• Plug-in Hybrids						
- Battery-only electric	Zero Emission					
- Hydrogen and fuel cells						
- LPG including bi-fuel with LPG	transitional fuels					
- CNG including bi-fuel with CNG						
- bioethanol or biodiesel	renewable fuels					
- Other fuel and unknown						
N2+N3 (part): Heavy lorries above 3.5t MPLW - Total.						
(Of which for special purpose - Total)						
(Of which used by transport activities (section H) - Total)						
• Petrol excluding hybrids						
• Diesel excluding hybrids						
• Hybrids (excluding plug-in hybrids)						
• Plug-in Hybrids						
- Battery-only electric	Zero Emission					
- Hydrogen and fuel cells						
- LPG including bi-fuel with LPG	transitional fuels					
- CNG including bi-fuel with CNG						
- bioethanol or biodiesel	renewable fuels					
- Other fuel and unknown						
part of N3 (or national specific): Road tractors - Total.						
(Of which used by transport activities (section H) - Total)						
• Petrol excluding hybrids						
• Diesel excluding hybrids						
• Hybrids (excluding plug-in hybrids)						
• Plug-in Hybrids						
- Battery-only electric	Zero Emission					
- Hydrogen and fuel cells						
- LPG including bi-fuel with LPG	transitional fuels					
- CNG including bi-fuel with CNG						
- bioethanol or biodiesel	renewable fuels					
- Other fuel and unknown						

not asked in ROADVKM (neither in ROAD)
asked in ROADVKM, not in ROAD

This enriched version of CQ-ROADVKM chapter III is our proposal, recently submitted to the task force “Odometer readings for CQ-ROADVKM”, for the moment welcome by top completion rates countries.