

First experiences from Light Utility Vehicle (N1) data collection and setting up a methodology in Latvia

United Nations Economic Commission for Europe Working Party on Transport Statistics (75th session)







Agenda

- Background
- Timeline of the project
- Questionnaire and other information for participants in the survey
- Target population and sample
- Preliminary data after 2 months of data collection
- Respondents asking



Background Light Utility Vehicle (LUV) (N1), (>3.5 t)

The annual mileage of N1 on average constitutes more than 43% of the total mileage of freight vehicles but compared to freight vehicles in categories N2 and N3, the volume of goods transported by LUVs in terms of weight is smaller.

Detailed information about these vehicles and their usage in most European Union countries is limited. However, interest in them is growing along with their numbers (since 2019, +10% in Latvia) and frequency of use.

LUVs are considered a significant part of road traffic, affecting not only urban and other road congestion but also the emissions and noise levels produced by vehicles in cities and beyond.



***** - - ***** - - ***** - - ***** - - ***** - - ***** - - ***** - - *****

Timetable of the LUV project

2022

• EU grant proposal for *Development of new transport statistics*

2023

- Methodology research, draft
- Further specification of user/industry needs for LUV statistics
- Questionnaire design and software testing

2024

Data collection (2 out of 12 months completed)

2025

- Analysis of the data collected
- Publication of data





The questionnaire

USE OF THE VEHICLE DURING THE SURVEY PERIOD

4 Main purpose of use of the vehicle (answer is marked with 🔲) Specify the purpose for which the vehicle was mainly used during	g the survey period!
4.1. Transport of freight (with loading and unloading operations, including professional removal services)	4.1.1. For hire or reward 4.1.2. For own-account
4.2. Postal and courier services	
4.3. Construction transport (including transport of machines and tools, carrying out repairs, where operations of loading/unloading do not constitute the main substance of the service)	
4.4. Activity in other sectors (including transport of machines and tools, carrying out repairs, where operations of loading/unloading do not constitute the main substance of the service, e.g., telecommunication, forestry, sectors related to water, heat, gas supply, air purification, sewerage, etc.)	
4.5. Other type of use (transport of passengers, trips from domicile to work, private use, non-commercial purposes, etc.)	

LIGHT UTILITY VEHICLE SURVEYED (N1)

Characteristics of the	vehicle (information	n from CSDD)		
1. Registration numb	er:			
2. Chassis (VIN) numb	per:			
3. Brand:		1.4. Model:	1.5. Type:	
6. Year of anufacture:		1.7. Vehicle age: (as of 01.0	01.2024)	
8. Gross vehicle eight:		1.9. Unladen vehicle weight:	1.10. Load capacity:	
11. Type of fuel:				
				:×-
Vehicle ownership ar	nd use during the su	rvey period from2024	to2024. (answer is ma	nrked with 🖂)
1. Has the vehicle bee	en used during the su	urvey period?		
1 Yes	=> 3.			
2 No	□ =>2:			
3 Don't kno				
	_		no information about the use of	the vehicle!
1 Undergoi repairs	ing	2 No driver		
3 Leased	П	4 Driver has a holiday		
5 Sold	ī	6 Idle	☐ ⇒ End of fo	ırm
7 Other rea (please, indica				
(preuse, marci	m.			
Mileage of the vehicl	e during the survey	period		
		THE COLUMN DESCRIPTION OF THE PROPERTY OF THE	Date Kilo	metres
Odometer reading (information from		nical inspection		
2. Odometer reading	at the beginning of	the survey period:	2024 (beginning at 00:00 o'clock)	
3. Odometer reading	at the end of the su	rvey period:	2024 (end at 23:59 o'clock)	
4. Total mileage durir	ng the survey period:			

5 Unladen and laden trips (2 stops or less)

Specify trips (consecutive) by vehicle from 00:00 o'clock of the first day of the survey period until 23:59 o'clock of the second day. If the trip started on the second day of the survey, but ended after 23:59 o'clock of the second day of the survey, the data about it must be given in full.

The total trip route is to be shown in separate trips, dividing it by the stops made along the route. The place of freight loading or unloading is considered a stop in freight transportation (not including starting and end points of the freight transportation route).

If several identical trips are made during the day by route, kind and amount of freight transported, enter data on one of these trips and indicate how many such trips were made during the day in the column 'Number of trips'.

If the trip was made without any freight, select 'No freight' from the classifier in column C 'Kind of freight'.

Example:

The solar panel installation enterprise runs the route Rīga — Jēkabpils — Rīga in order to install solar panels at the facility located in Jēkabpils. Solar panels are being taken in a vehicle to the facility. The route completed needs to be divided into two separate trips.

<u>Trip 1</u>: Rīga — Jēkabpils. It is necessary to provide information about the kind and weight of the load in the vehicle, the starting and end points of the trip, and the distance (mileage) travelled during this trip. If during the day, for example, another trip identical in terms of route, kind and volume of freight, as well as kilometres travelled is made, the number of trips to be indicated is '2'.

<u>Trip 2</u>: Jēkabpils — Rīga. It is necessary to indicate the information that weight of the freight in the vehicle after mounting the solar panels is 0 kg. Information on the starting point and end point of the trip, the distance travelled during this trip must be indicated (the distance travelled during this trip without any freight must be indicated). If during the day, for example, another trip identical in terms of route, kind and volume of freight, as well as kilometres travelled is made, the number of trips to be indicated is '2'.

		Fre	ight		Trip Distar		Distance		
Survey period	Trip No.	Type of freight ¹	Weight of the freight, kg	Eatvia (CATTU code ²)	om cross-trade and cabotage (indicate country and city in words)	Latvia (CATTU code ²)	cross-trade and cabotage (indicate country and city in words)	Mileage, km	Numbe r of trips
A	В	С	1	D	2	E	3	4	5
	1								
	2								
	3								
	4								
- S	5								
Sate: Cay1	6								
2	7								
	8								
	9								
	10								
	1								
	2								
	3								
80	4								
* ·	5								
- 5	6								
	7								
	8								
	9								

6 Trips with freight (3 or more stops)

Specify trips (consecutive) by vehicle from 00:00 o'clock of the first day of the survey period until 23:59 o'clock of the second day. If the trip started on the second day of the survey, but ended after 23:59 o'clock of the second day of the survey, the data about it must be given in full.

Specify the starting and end points of the route, as well as the first and the last stop, and the number of stops on the route. The place of freight loading or unloading is considered a stop in freight transportation (not including starting and end points of the freight transportation route).

In row 1 the maximum weight of the freight transported must be indicated.

Example 1:

Carrier of foodstuffs dispatching foodstuffs on route Cesis – Valmiera – Smiltene – Ranka – Alūksne – Cesis. On this route, foodstuffs were unloaded at 4 stops (Valmiera, Smiltene, Ranka, Alūksne). So the number of indicated stops on this route is 4. The grocery supplier in Cesis loads 545 kg of groceries into the vehicle, or the maximum amount of freight loaded into the vehicle on this route. So, 545 kg is indicated as weight of the freight. It is necessary to indicate the starting point of the route (in this case Cesis), the first stop (in this case Valmiera), the last stop (in this case Alūksne) and the end point of the route (in this case Cesis). The last stop in Alūksne was the place where the last part of the food was unloaded. So there was no freight in the vehicle from Alūksne back to Cesis. The total distance travelled during the route (in this case 287 km) and how much of the total distance was travelled without any freight (in this case 124 km) is to be indicated.

Example 2:

The courier service provider is dispatching shipments in Riga. Shipments are loaded or unloaded in 28 places on the planned route. So the number of indicated stops on this route is '28'. At the beginning of the day, 258 kg of shipments are loaded into the vehicle. During the route, shipments are both unloaded and loaded, and in the middle of the route, weight of the shipments in the vehicle reaches 270 kg, which is the largest weight dispatched on the given route. So, 270 kg is indicated as weight of the freight. In this case, in column C 'Type of freight' select 'Post' from the classification. It is necessary to indicate the starting point of the route (in this case Riga), the first stop (in this case Riga) and the end point of the route (in this case Riga). Along the entire route, the vehicle was dispatching shipments of various size, so the distance travelled without any freight is '0 km'.

any j	rei	gnt is 't) Km'.																		
		Frei	ight				R	oute				Dista	nce								
he trip												oint of the ute	Fire	st stop	La	st stop	End point	of the route			
Day of the trip	Trip No.	Type of freight	Weigh t of the freight , kg	Latvia (CATTU code ⁴)	cross-trade and cabotage (indicate country and city in words)	Latvia (CATTU code ²)	cross-trade and cabotage (indicate country and city in words)	Latvia (CATTU code ²)	cross-trade and cabotage (indicate country and city in words)	Latvia (CATTU code ²)	cross-trade and cabotage (indicate country and city in words)	Mileage, km	of which without any freight, km	Number of stops							
Α	В	С	1	D	2	E	3	F	4	G	5	6	7	8							
	1																				
	2																				
Day 1 2024)																					
	_																				
- 1	6																				
date	7																				
2	8																				
	9																				
	10																				
	1																				
	2	-	_																		
2024)	3		\vdash																		
	5																				
Day 2	_	-	\vdash										-								
- 1	7	-																			
date	8	-	-			-						-	-	\vdash							
-	9												_	-							
	10		-					-													
	10		L																		

6









Vieglie kravas automobiļi (N1) 2024. gadā

Mērķis

Iegūt datus par Latvijā reģistrēto vieglo kravas automobiļu, kuru pilna masa ir līdz 3,5 tonnām, veikto pārvadājumu veidiem, to apjomu, piegādājot kravas, preces un sūtījumus, sniedzot kurjera vai citus pakalpojumus (mežsaimniecība, namu apsaimniekošana, būvniecība, u.c.).

Aptaujas respondenti

Pētījuma ietvaros 2024. gadā paredzēts iegūt datus par aptuveni sešiem tūkstošiem CSDD reģistrā esošajiem N1 kategorijas automobiliem, izmantojot stratificēto gadījuma izlasi.

Divas nedēļas dienas

Par pētījuma izlasē iekļuvušajiem N1 automobiļiem iepriekš zināmu divu dienu periodā tiks lūgts CSP e-pārskata sistēmā sniegt odometru rādījumus, dienas braucienu maršruta plānu (no/uz; apstāšanās reižu skaits), pārvadāto kravu veidu un svaru.



- Mēs garantējam datu konfidencialitāti, un iegūto datu informāciju izmantosim tikai apkopotā veidā. Statistikas likums aizliedz nodot Jūsu sniegto individuālo informāciju citām iestādēm vai organizācijām.
- Jūsu sniegtās atbildes ir būtiskas, jo tās veidos statistiku par vieglajiem kravas automobiļiem Latvijā 2024. gadā.





Piemēri aptaujas aizpildīšanai

Pirmais piemērs

Bezkravas braucieni un braucieni ar kravu (2 vai mazāk pieturas) Saules paneļu uzstādīšanas uzņēmums veic maršrutu **Rīga – Jēkabpils – Rīga**, lai veiktu saules paneļu montāžu objektā, kas atrodas **Jēkabpilī**.

Transportlīdzeklī uz objektu tiek vesti saules paneļi (150 kg) un darba instrumenti.

Veikto maršrutu nepieciešams dalīt divos atsevišķos braucienos:

- 1. brauciens: Rīga Jēkabpils
- 2. brauciens: Jēkabpils Rīga



Otrais piemērs

Braucieni ar kravu (3 vai vairāk pieturas) Pārtikas preču pārvadātājs izvadā pārtikas preces maršrutā Cēsis – Valmiera – Smiltene – Ranka – Alūksne – Cēsis.

Šajā maršrutā pārtikas preču izkraušana veikta 4 pieturās (Valmierā, Smiltenē, Rankā, Alūksnē).

Tātad norādāmo pieturu skaits šajā maršrutā ir 4.

Pārtikas preču piegādātājs **Cēsīs** transportlīdzeklī iekrauj **545 kg** pārtikas preču jeb maksimālo kravas apjomu šajā maršrutā.





National Vehicle Database

Corrections implemented in N1 dataset

 Types of vehicles excluded from the N1 category list



	Critca III				_
	A	В	С	D	E
1	MARKA 🔻	MODELIS	Marka_modelis 🔻	Jaizsled 🔻	
2	AUDI	80 AVANT	AUDI 80 AVANT	1	
3	AUDI	A4	AUDI A4	1	
4	AUDI	A4 ALLROAD QUATTRO	AUDI A4 ALLROAD QUATTRO	1	
5	AUDI	A4 AVANT	AUDI A4 AVANT	1	
6	AUDI	A6	AUDI A6	1	
7	AUDI	A6 ALLROAD	AUDI A6 ALLROAD	1	
8	AUDI	A6 ALLROAD QUATTRO	AUDI A6 ALLROAD QUATTRO	1	
9	AUDI	A6 AVANT	AUDI A6 AVANT	1	
10	AUDI	Q5	AUDI Q5	1	
11	AUDI	Q7	AUDI Q7	1	
12	AUDI	SQ7	AUDI SQ7	1	
13	BMW	325	BMW 325	1	
14	BMW	325D	BMW 325D	1	
15	BMW	520	BMW 520	1	
16	BMW	525	BMW 525	1	
17	BMW	528	BMW 528	1	
18	BMW	530	BMW 530	1	
19	BMW	535D	BMW 535D	1	
20	BMW	Х3	BMW X3	1	
21	BMW	X5	BMW X5	1	
22	BMW	X6	BMW X6	1	
23	BMW	X6 XDRIVE30D	BMW X6 XDRIVE30D	1	
24	CADILLAC	ESCALADE	CADILLAC ESCALADE	1	
25	CHEVROLET	EL CAMINO	CHEVROLET EL CAMINO	1	
26	CHRYSLER	GRAND VOYAGER	CHRYSLER GRAND VOYAGER	1	
27	CHRYSLER	PACIFICA	CHRYSLER PACIFICA	1	
28	CHRYSLER	TOWN & COUNTRY	CHRYSLER TOWN & COUNTRY	1	
29	CHRYSLER	VOYAGER	CHRYSLER VOYAGER	1	
-	SSDN	goaldatums_jaizsledz_sie_m	+		



Sample

Target population

The population framework consists of information from Road Traffic Safety Directorate (CSDD) register and Road Transport Administration (ATD) registers, supplemented with data from the Business register, Citizenship and migration affairs administration register, as well as the Register of deceased persons.

Challenges:

- Change of an owner of a vehicle;
- Vehicles being "written-off";
- Enterprises changing their field of work (industry/NACE);
- Determining the main user of the car;
- Determining the sample size (open gaps in the mileage indicators in the registers);
- Dispersion of the sample over time.



SampleSize, number of days



~ 6292 vehicles from 57 thsd



Sample consisting of **2 parts**



52 weeks~121 vehiclesper week



2 consecutive days of a week





Sample Balancing out respondent burden

4 316 vehicles

for enterprises with 6 or more LUV vehicles registered and private individuals with 6 or more vehicles registered

enterprises belonging to NACE category "H"

each respondent surveyed once per quarter (83 units per week)

1 976 vehicles

for enterprises with less than 6 LUV vehicles registered and private individuals with less than 6 vehicles registered

each respondent surveyed only once (38 units per week)





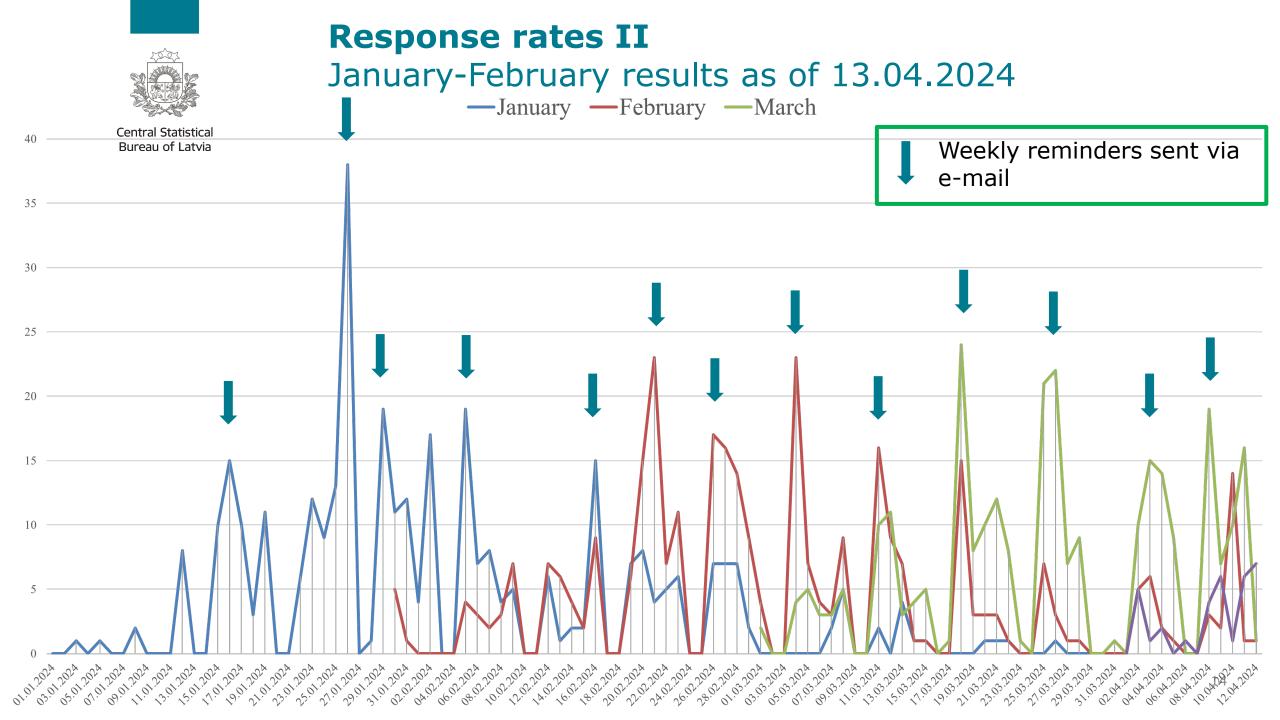


Response rates I

January-February results as of 13.04.2024

Week	Response
1	66.1%
2	70.5%
3	56.1%
4	61.2%
5	61.5%
6	65.9%
7	69.7%
8	63.6%
9	59.4%
Sum	64.0%







Preliminary data* Use of the vehicle during the survey period (%)

■ Vehicle used ■ Vehicle not used ■ Don't know

Vehicle used 42.1 %

Vehicle not used

56.2 %

Don't know

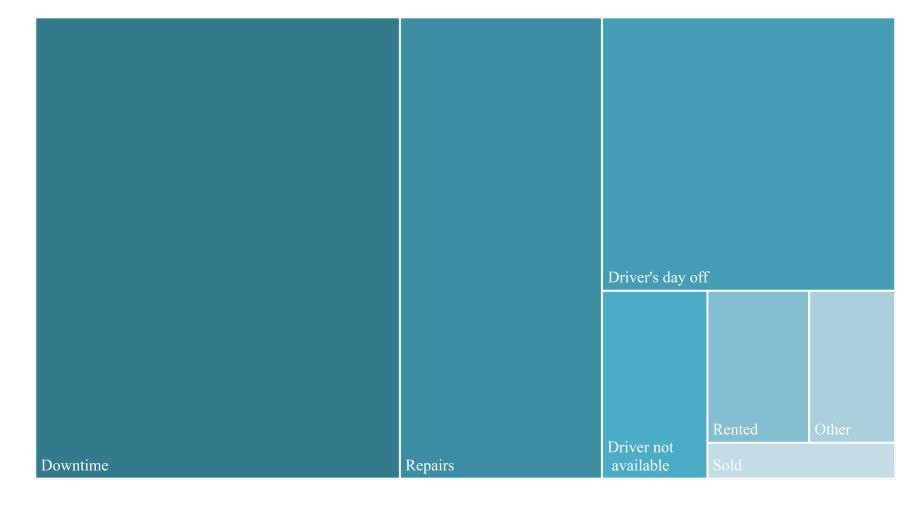
1.8 %





Preliminary data* Reasons for not using the vehicle (%)

Sum (%)	100
Downtime	42.4
Repairs	23.5
Driver's day off	20.2
Driver not available	5.0
Rented	3.9
Other	3.3
Sold	1.7

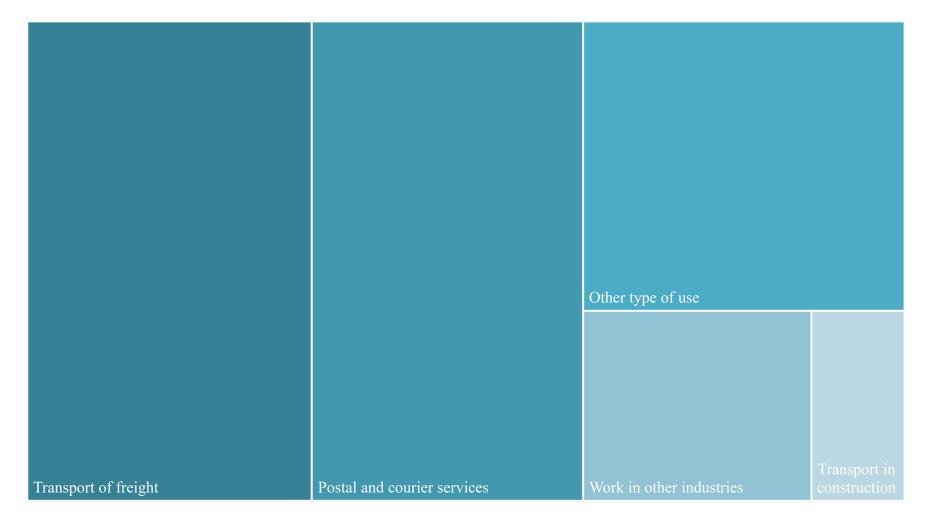






Preliminary data* Reasons for using the vehicle (%)

Sum (%)	100
Transport of	
freight	32.4
Postal and courier	
services	30.9
Other type of use	22.1
Work in other	
industries	10.3
Transport in	
construction	4.2





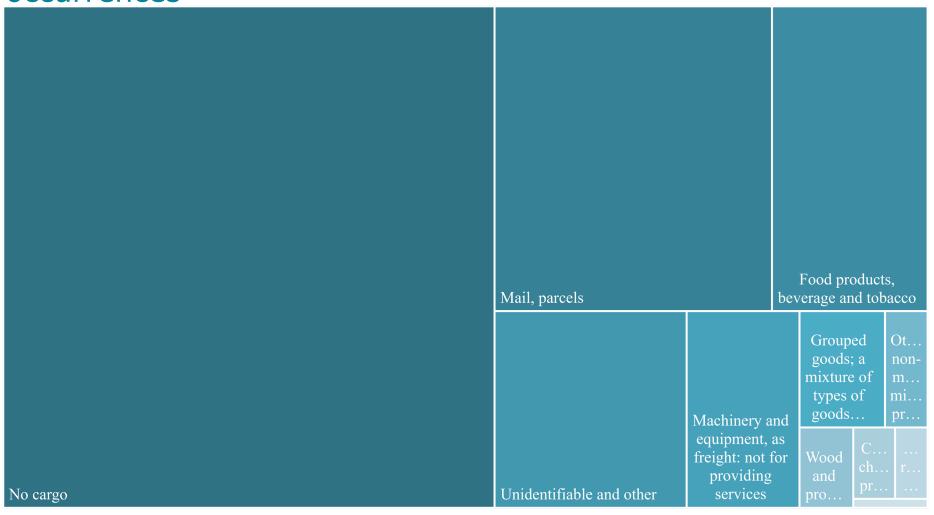


100

Sum (%) 74.3 No cargo 25.5 Mail, parcels Food products, beverage and tobacco 14.3 Unidentifiable and other 11.4 Machinery and equipment, as 6.7 freight Grouped goods 3.0 Other non-metallic 1.5 mineral products Wood and products of wood and cork 1.3 (except furniture) Chemicals, chemical products and man-made 0.9 fibers Secondary raw 0.7 materials

Preliminary data*

Type of cargo transported (%) – by number of occurrences





Bureau of Latvia **Sum (%)** 100 Mail, parcels 40.1 Food products, beverage and 32.1 tobacco Unidentifiable and other 15.0 Machinery and equipment, as 4.5 freight Grouped goods 2.5 Wood and products of wood and cork (except furniture) 2.5 Other non-metallic mineral products 1.6 Chemicals, chemical products and man-made 1.3 fibers

Preliminary data*

Type of cargo transported (%) – by weight

Type or earge tr			
		Unidentifiable and o	ther
		Unidentifiable and o	
		Unidentifiable and o	Wood and
		Unidentifiable and o	
		Unidentifiable and o	Wood and products of
		Machinery and	Wood and products of wood and con (except
		Machinery and equipment, as	Wood and products of wood and con (except furniture);
		Machinery and equipment, as freight: not for	Wood and products of wood and con (except furniture);
		Machinery and equipment, as	Wood and products of wood and corect furniture);
		Machinery and equipment, as freight: not for providing services	Wood and products of wood and core (except furniture); Other chernon-
		Machinery and equipment, as freight: not for providing services Grouped goods; a	Wood and products of wood and corect furniture); Other cheren non-prometallic are
		Machinery and equipment, as freight: not for providing services	Wood and products of wood and core (except furniture); Other chernon-



0.3

0.2

Secondary raw

materials

Preliminary data*

Type of cargo transported (%) – by km travelled

Central Statistical Bureau of Latvia					
(%)	100				
, parcels	35.3				
cargo d products, erage and	22.2				
acco dentifiable and	17.6			Unidentifiable and	lother
ner	10.1				
rouped goods achinery and	5.9				
quipment, as eight	5.2		No cargo		
nemicals, nemical products nd man-made				Grouped goods; a mixture of types of goods	Machi equip
oers ood and products	2.0			which are transported together	freigh pro
wood and cork except furniture)	0.7			Chemicals, chemical products	Woo and
ther non-metallic		Mail, parcels	Food products, beverage and tobacco	and man-made	pro.
ineral products	0.3				



Respondents asking

- "Is the survey period only two days?" vs Road freight 7 days (min burden)
- I only do transportation of tools for work (no cargo option)
- I only have trips to workplace and back (no cargo option)
- Trips only for personal reasons countryside, school, shopping, etc. (other type of use)
- I move around in LUV only on private grounds (qualifies for the survey)
- Routine inspection trips with many stops along it? (loop trips, 3+ stops)
- Strange weight of freight fluctuations for consequent trips?
 (passenger weight in social service provision)



Questions, comments welcomed!



First experiences from Light Utility Vehicle data collection and setting up a methodology in Latvia

Working Party on Transport Statistics (75th session)

24-26 April, 2024