Modal Split Indicators

Road freight transport territorialisation

European Commission - Eurostat

UNECE – Working Party on Transport Statistics

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Overview

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1. EU policy needs

2011 Transport White Paper

- a shift from road <u>freight</u> transport over 300 km to other modes such as rail or waterborne

- majority of <u>passenger</u> transport (>300km and <1000km) should go by rail

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2. Eurostat project on MSI

- *Achieve coherence among transport modes data in passenger-km (PKM) and tonne-km (TKM)*

- To develop MSI by distance classes

- Most appropriate and practical methodologies are discussed with the Member States, avoiding any additional burden for countries

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3. What is Modal split indicators (MSI)

MSI are share of each mode of transport in the total transport performance (in TKM and PKM)

MSI measure:

- the composition of transport performance

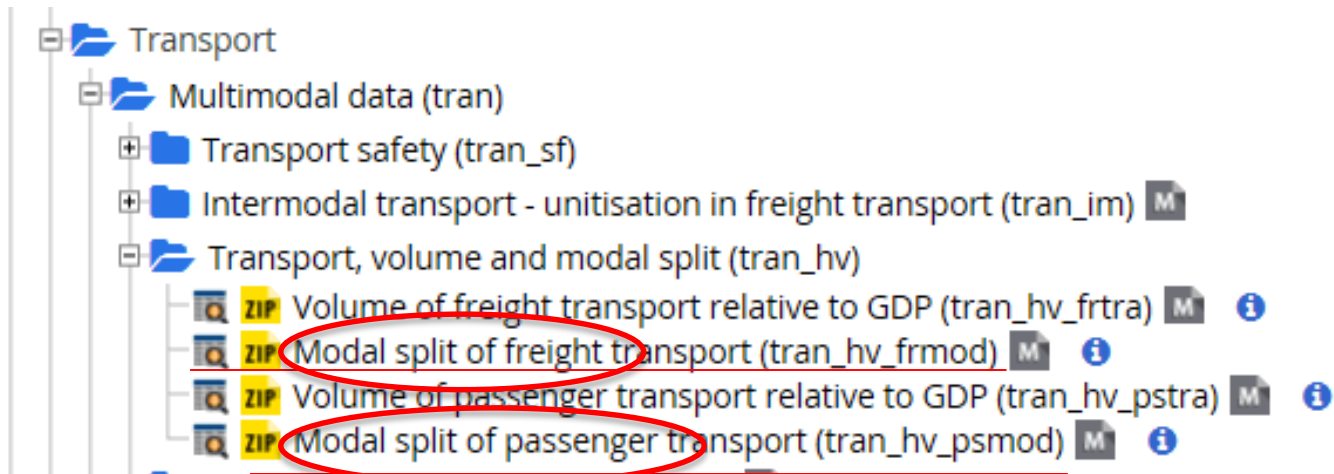- the evolution over time in the share of each transport mode

2017

Rail
17 %

Inland waterways
6 %
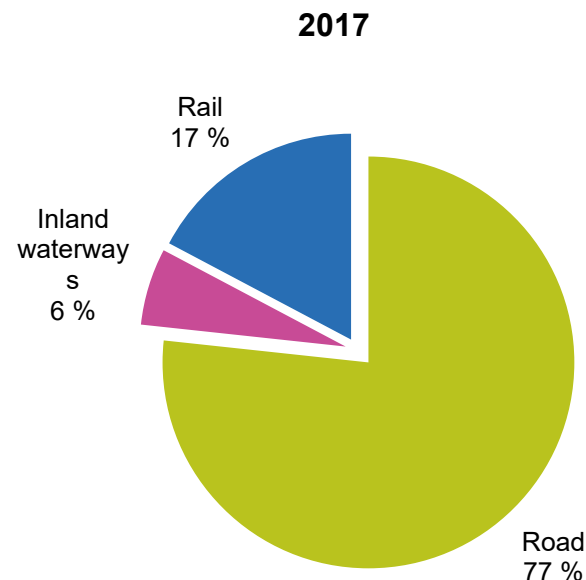
Road
77 %

EU-28 share in tonne-km

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4. Dissemination of data on MSI

- *Data at country level for inland modes (rail, road and inland waterways) disseminated in*
    - ➢a) Eurobase
    - ➢b) In Statistics Explained article

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Eurostat database **Eurobase**

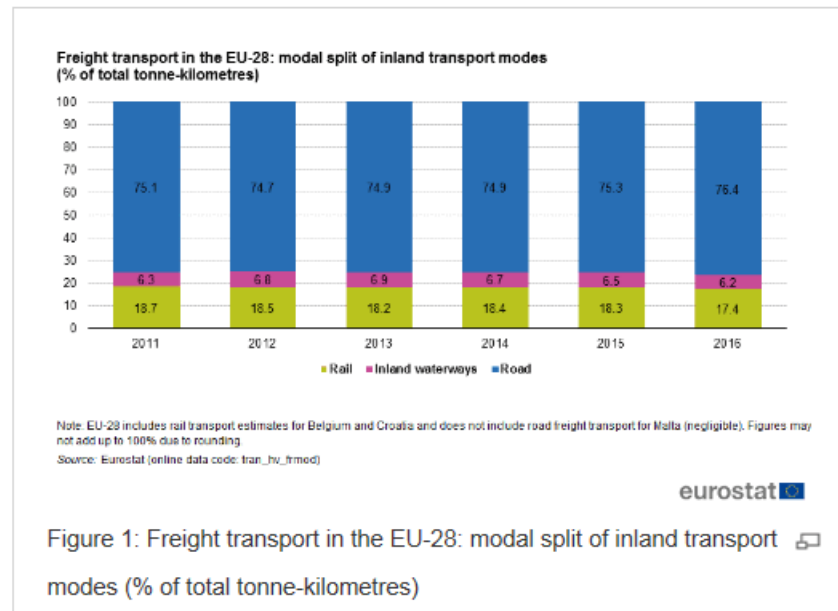*Based on inland modes - rail, road and inland waterways*

Statistics Explained article

Freight transport statistics - modal split

Modal split in the EU

Modal split of inland freight transport in 2011-2016: road transport continues to carry three quarters of freight in the EU

Road transport continues to have the largest share of EU freight transport performance among the three inland transport modes. Figure 1 shows that in 2016, road transport accounted for over three-quarters (76.4 %) of the total inland freight transport (based on tonne-kilometres performed). This share increased by 1.1 percentage points (pp) compared to the previous year. The share of road has remained stable at around 75 % in recent years, fluctuating between 74.7 % in 2012 and 75.3 % in 2015.

Freight transport in the EU-28: modal split of inland transport modes (% of total tonne-kilometres)

Note: EU-28 includes rail transport estimates for Belgium and Croatia and does not include road freight transport for Malta (negligible). Figures may not add up to 100% due to rounding.
Source: Eurostat (online data code: tran_hv_frmod)

eurostat

Figure 1: Freight transport in the EU-28: modal split of inland transport modes (% of total tonne-kilometres)

5. Coherence among **inland** transport modes

Data reported by countries:

- **Road** – *vehicles registered in a reporting country*
- **Rail** - *each country reports transport on railways on its territory*
- **Inland waterways** – *each country reports transport on inland waterways on its territory*

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6. How to 'territorialise' road freight (1)

- International transport, needs to be 'territorialised'

- For example, a haulier from the Netherlands might undertake a journey to Portugal. Though only a small part of this journey is in the Netherlands, the entire transport performance is accounted for by the Netherlands, as the vehicle carrying out the transport is registered there.

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Source: Google map

Eurostat
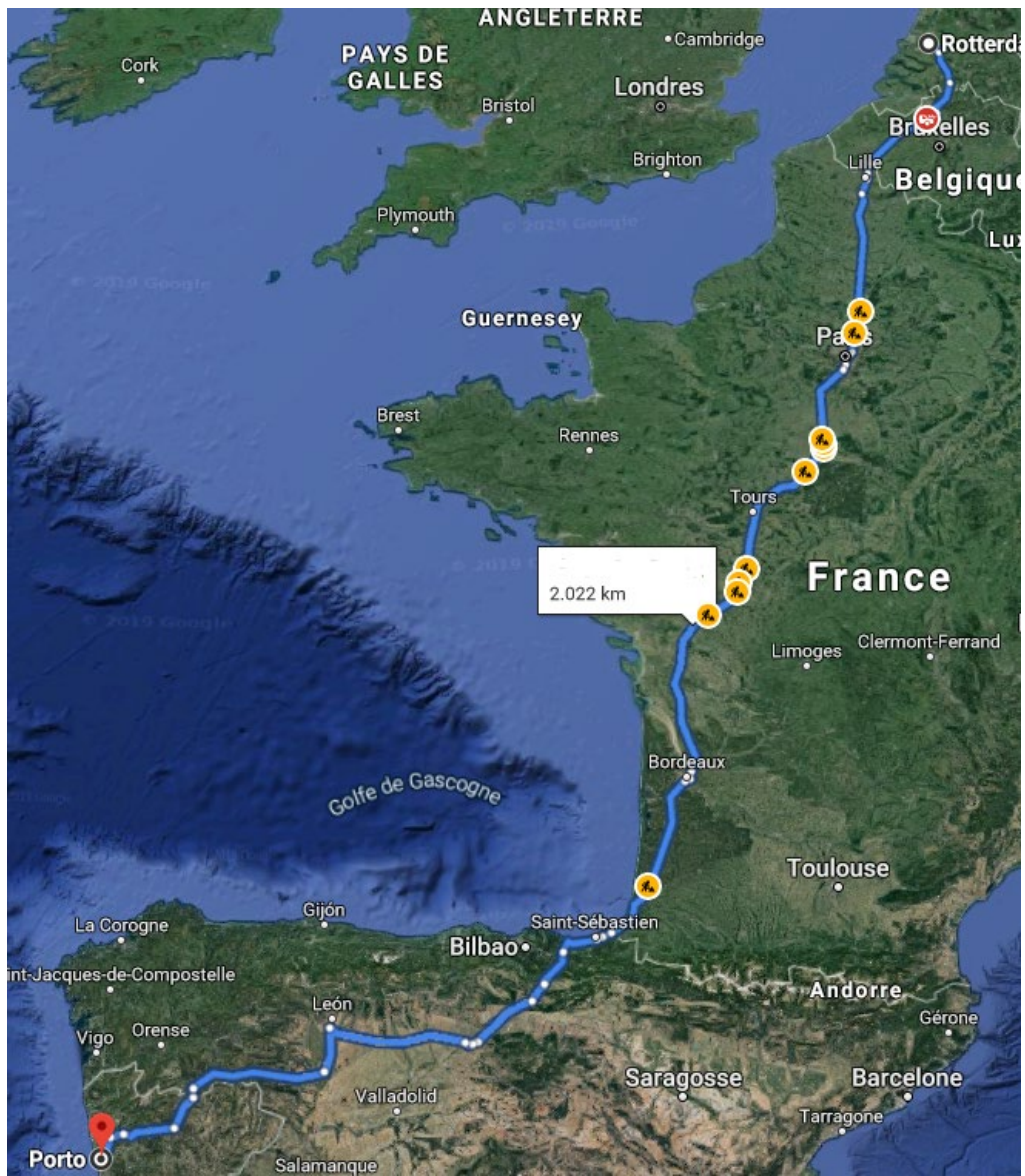
6. How to 'territorialise' road freight (2)

Road freight distance matrix

- Tercet (ex-WebILSE) – available already for couple of years

- Based on TOM/TOM fastest route

- Built at NUTS3 to NUTS3 regions to match with data reported by the countries

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6. How to 'territorialise' road freight (3)

- It order to redistribute the tonne-kilometre data proportionally to the countries concerned by the journey, the TERCET tool (territorial typologies) has been used.

- This tool

  - ➢ allows the calculation of the total distance between the NUTS level 3 region of origin and the NUTS level 3 region of destination and

  - ➢ breaks down the total distance into sections according to the countries in which this transport took place.

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6. How to 'territorialise' road freight (4)

- Activity of vehicles registered in non-EU countries (other than EFTA countries or some reporting candidate countries) have not been taken into account

- The cumulated values of the territorialised transport performance is lower than declared, as transport to non-EU countries is not 'territorialized' (unavailability of NUTS-regions)

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7. Results for road freight (1)

International road transport performance in the EU and EFTA countries, by territory on which the transport was performed, 2016 (million tonne-kilometres)

Rank	Country	Transport performance	Share in total (%)
1	Germany	159 799	27.3
2	France	104 253	17.8
3	Poland	47 415	8.1
4	Spain	40 418	6.9
5	Italy	29 811	5.1
6	Belgium	28 620	4.9
7	Austria	25 980	4.4
8	Czech Republic	20 921	3.6
9	Netherlands	19 557	3.3
10	United Kingdom	13 451	2.3
11	Hungary	12 697	2.2
12	Switzerland	10 506	1.8
13	Sweden	10 278	1.8
14	Slovakia	9 157	1.6
15	Denmark	7 236	1.2
16	Slovenia	6 575	1.1
17	Portugal	5 930	1.0
18	Romania	4 822	0.8
19	Croatia	4 757	0.8
20	Lithuania	4 433	0.8
21	Bulgaria	3 867	0.7
22	Greece	3 334	0.6
23	Norway	3 281	0.6
24	Latvia	2 028	0.3
25	Luxembourg	1 626	0.3
26	Estonia	1 299	0.2
27	Ireland	1 193	0.2
28	Finland	1 063	0.2

Note: Malta, Cyprus, Iceland and Liechtenstein are not available.

Source: Eurostat computations

Link to:
Statistics Explained article

7. Results for road freight (2)

International road freight transport: Top 5 countries of foreign lorries active on each territory, 2016

Territory driven upon:	Five main countries of registration of foreign lorries performing international transport										Cumulated share (%)
	First	Share (%)	Second	Share (%)	Third	Share (%)	Fourth	Share (%)	Fifth	Share (%)	
Belgium	Netherlands	23.0	Poland	20.3	Germany	11.0	Slovakia	6.7	France	5.7	66.8
Bulgaria	Romania	52.3	Poland	19.9	Czech Republic	6.0	Germany	3.8	Greece	3.8	85.7
Czech Republic	Poland	47.1	Slovakia	23.1	Hungary	7.7	Germany	4.5	Romania	4.4	86.8
Denmark	Poland	30.3	Germany	21.9	Netherlands	7.4	Bulgaria	6.3	Lithuania	6.1	72.0
Germany	Poland	44.5	Netherlands	8.3	Czech Republic	7.8	Slovakia	5.3	Hungary	5.2	71.2
Estonia	Lithuania	36.5	Latvia	29.9	Poland	28.9	Czech Republic	1.7	Romania	1.1	98.2
Ireland	United Kingdom	88.6	Poland	5.6	Netherlands	2.6	Lithuania	0.7	Hungary	0.4	98.0
Greece	Bulgaria	64.4	Poland	10.1	Romania	9.9	Slovenia	3.7	Hungary	3.7	91.9
Spain	Portugal	50.7	Poland	14.4	Romania	7.3	Lithuania	6.0	Bulgaria	5.2	83.6
France	Spain	34.6	Poland	14.1	Portugal	8.2	Romania	5.8	Lithuania	4.7	67.4
Croatia	Bulgaria	26.3	Greece	24.4	Romania	16.4	Poland	11.7	Slovenia	8.0	86.7
Italy	Poland	18.4	Slovenia	10.3	Romania	9.4	Hungary	9.0	Spain	7.6	54.7
Latvia	Lithuania	46.9	Poland	31.6	Estonia	18.0	Czech Republic	1.4	Romania	0.7	98.5
Lithuania	Poland	61.1	Latvia	28.1	Estonia	7.1	Czech Republic	1.2	Hungary	0.6	98.1
Luxembourg	Germany	25.7	Poland	13.4	Spain	10.9	Slovakia	9.4	Belgium	7.1	66.4
Hungary	Romania	39.7	Poland	19.3	Slovakia	12.3	Bulgaria	8.3	Czech Republic	5.1	84.6
Netherlands	Poland	33.6	Germany	24.7	Belgium	9.1	Bulgaria	3.8	Romania	3.7	74.9
Austria	Poland	18.2	Hungary	16.8	Slovakia	14.2	Slovenia	12.2	Romania	8.3	69.7
Poland	Lithuania	43.6	Latvia	18.9	Slovakia	9.1	Czech Republic	7.3	Germany	4.8	83.7
Portugal	Spain	88.5	Lithuania	3.2	Poland	2.1	Germany	2.0	Romania	1.1	96.8
Romania	Poland	37.4	Bulgaria	25.6	Hungary	16.4	Slovakia	8.6	Lithuania	2.8	90.7
Slovenia	Hungary	25.7	Croatia	20.4	Romania	14.5	Bulgaria	9.3	Greece	8.5	78.5
Slovakia	Poland	59.0	Czech Republic	12.5	Hungary	11.8	Romania	4.2	Bulgaria	3.4	90.9
Finland	Poland	32.6	Estonia	26.1	Norway	13.0	Lithuania	7.5	Latvia	7.4	86.5
Sweden	Poland	28.8	Norway	12.3	Finland	8.2	Estonia	7.5	Bulgaria	7.2	63.9
United Kingdom	Poland	31.9	Netherlands	8.4	Romania	8.2	Ireland	7.5	Spain	7.5	63.4
Norway	Poland	28.8	Sweden	25.4	Denmark	8.9	Estonia	7.0	Latvia	6.5	76.6
Switzerland	Poland	19.1	Germany	16.3	Italy	11.9	Slovakia	6.3	Lithuania	5.8	59.4

Note: Malta and Cyprus are not available.

Source: Eurostat computations

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Thank you for your attention!

Questions to:
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