UNECE E-Road Census

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Overview

- E-Road 2020 Status and delays

- E-Road 2025 Recommendations

- Uses

- How to Modernise?

E-Road Census: Background

- E-Road Census collects infrastructure information + traffic volumes (AADT) on the E-Road network (as defined in the UNECE AGR agreement) every 5 years.

- Traffic breakdown (heavy vehicles versus light vehicles) useful as proxy for goods/people.

- Data used for infrastructure planning, identification of bottlenecks, road safety benchmarking, regional modal splits.

- Traditionally, was excel/table focused. Of more modern relevance: collecting the data in a GIS format.

2020 E-Road Census: Received

- Received contributions from 16 countries. Armenia, **Austria**, Belarus, Bulgaria, Croatia, **Czechia**, **Finland**, Hungary, Kazakhstan, **Netherlands**, Poland, Russian Federation, Serbia, **Slovenia**, **Sweden, Switzerland** (bold gave Shapefiles)

- COVID affected both the measurement and compilation of data. Some countries delayed their

- Notified that it will be late: Germany (expected imminently), Romania, Slovakia.

Dissemination

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unece.org/transport/transport-statistics/traffic-census-2020

Thanks to those countries providing 2019 values for further comparisons.

Country	Questionnaire	Map	Shapefiles	Notes
Armenia	XLS			Some vehicle-km data for 2015, 2019 and 2020.
Austria	XLS	Austria	ZIP	
Belarus	XLS			No traffic volumes recorded in 2020.
Bulgaria	XLS			Additional data on AADT at all counting posts.
Croatia	XLS	Croatia		Traffic volumes for 172 posts, 2020 and 2015.
Czechia	XLS		ZIP	DOC
Finland	XLS		ZIP	Traffic volumes for 2019 and 2020.
Hungary	XLS	Hungary		Total traffic volumes (split by type of traffic).
Kazakhstan	XLS (EN translation)			Russian original
Netherlands	XLS			Traffic volumes for 2169 posts for 2020
Poland	XLS	Poland	ZIP	Full report
Russian Federation	XLS			Traffic volumes for each E-Road for 2020 and 2015, (split by type of traffic).
Serbia	XLS			
Slovenia	XLS_2019; XLS_2020	Slovenia_2019; Slovenia_2020	ZIP	Zip file contains separate Shapefiles for 2019 and 2020. PLDP refers to AADT. Heavy traffic is a sum of Bus, ST, TT, TP and TPP columns.
Sweden	XLS		ZIP	
Switzerland	XLS_2019;XLS_2020		ZIP	

Dissemination

- https://unece.org/transport/transport-statistics/traffic-census-2020

2020 (or 2021) late submissions

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- Please provide data by start of September.

Uses

- Corridor-specific modal split/shifting opportunities. Where could modal shift to rail or other modes be most effective (passengers or goods)?
- Combination with air quality/noise/road safety data.

2025 Census Recommendations

- **ECE/TRANS/WP.6/2023/2**

- Simplified the excel: discontinued table 4 (lengths of E-Road with different bands of AADT). This is derivable from the Shapefiles.

- A manually drawn map is no longer relevant when countries provide geospatial data, so discontinued.

- Minor change to Geospatial demand: AADT for 4 main categories of vehicles (2 wheelers, passenger cars and vans, HGVs and bus/coaches, not just heavy versus light). (Most countries report these 4 categories anyway.) This makes insights easier for both Goods and Passenger transport.

How to define network segments? Poland Experience

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General rule: a uniform traffic volume on the selected segment of the road; changes resulting from incoming/outcoming traffic are lower than 1000 veh./day. In general, 2km<segments<30km.

Specific rules:

- Junctions with other national roads, regardless of traffic volume.

- Junctions with voivodship roads, with AADT (from previous counting) above 1000 veh/day. Except if two voivodship roads are crossing with national road at the distance lower than 2km – then segment split at middle.

- The beginning/end of a particular road.

- Country border.

- Presidential Cities (including voivodship capital cities) borders.

- Location of planned road investments and roads under construction – nodes, bypasses, etc.

In exceptional circumstances a segment divided when there could be changes of traffic volume >1000 veh/day resulting from:

- Junctions with roads other than national or voivodship roads, that introduce significant traffic;

- Cities/towns (other than presidential), with number of citizens over 10,000 people;

- Other important traffic generators/absorbers (i.e. logistics centres, touristic/recreational attractions/large production companies or commercial zones/large shopping centres)

2025 Census Recommendations

- But…should we go further?

- Is it reasonable to collect simplified data on a higher temporal frequency? What data standards would make this feasible?

Road Census Future Plans

- Some of the excel tables have limited value/are very detailed.
- Main value added of the road census is geospatial analysis of traffic patterns.
- Would a simplified questionnaire asking mainly for traffic counts (with coordinates) be easier for NSOs and/or Highway agencies to complete more regularly?
- Many countries now using traffic counters as a "medium data" source.
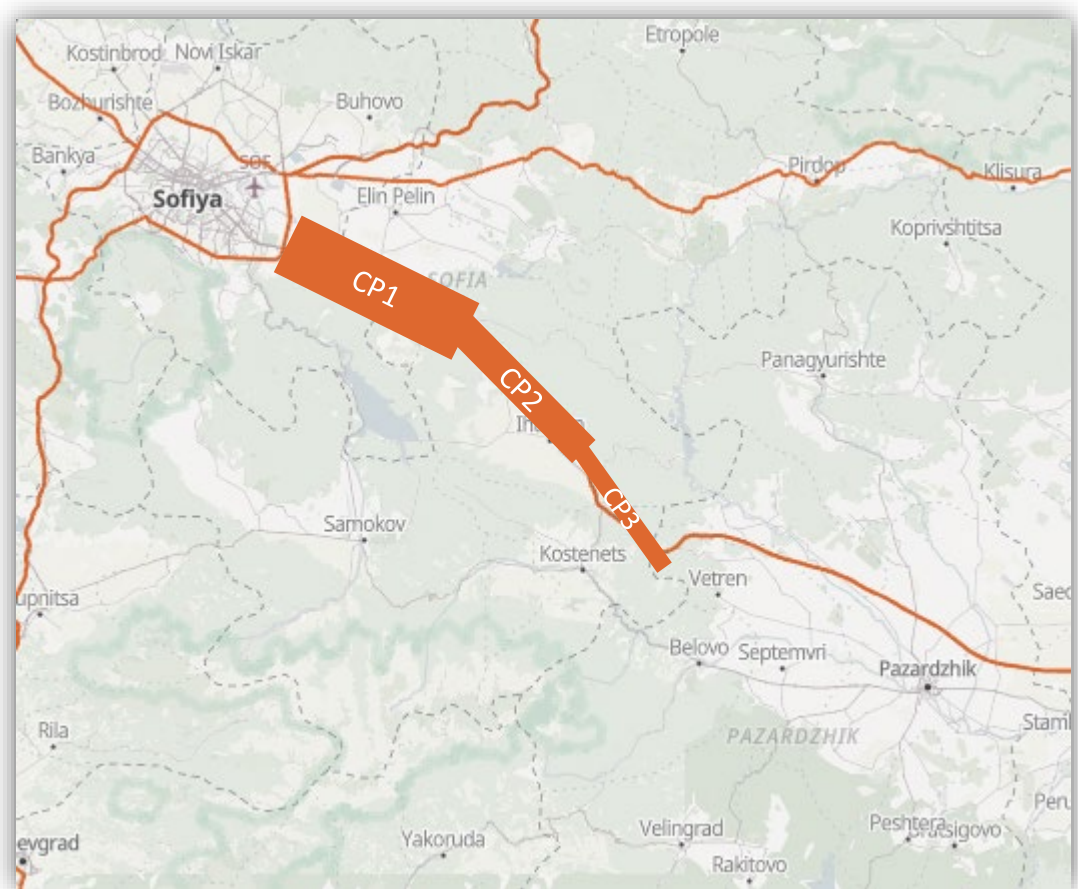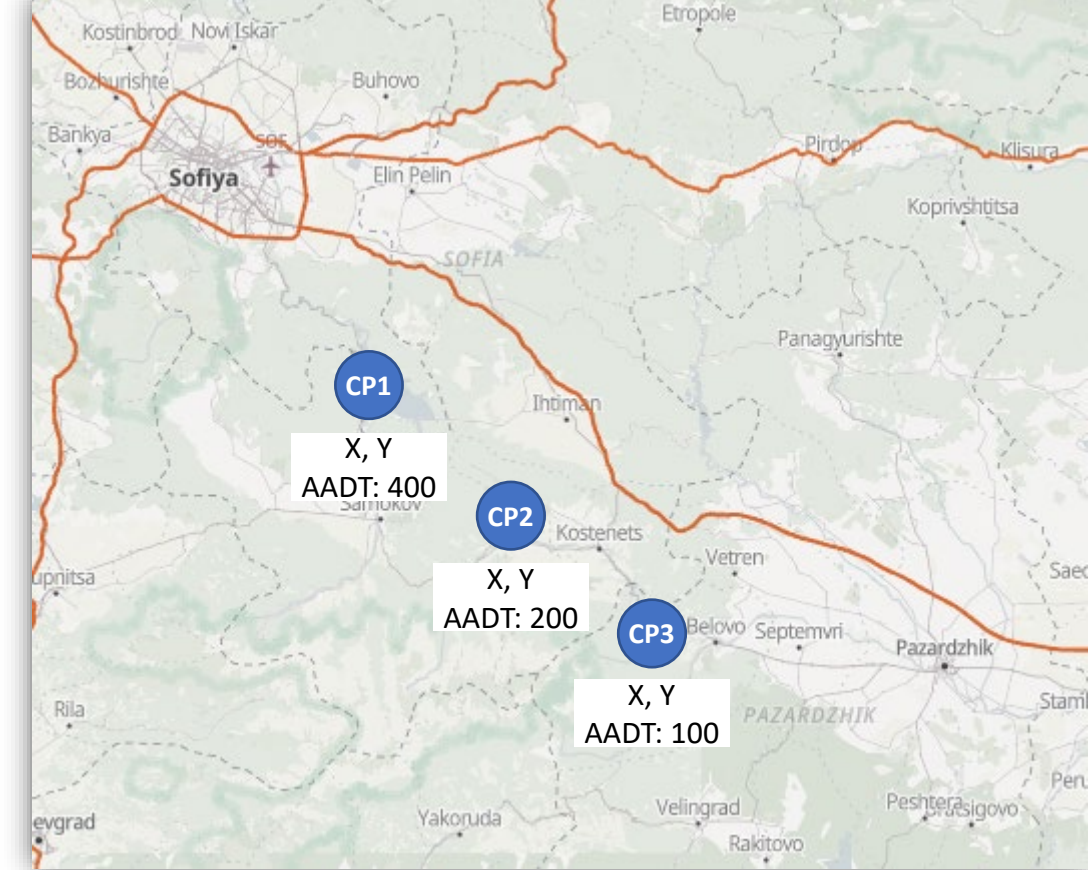
- Is it easier for countries to report count posts rather than road segments?

Conclusions

Countries are invited to:

- Send 2020/2021 data if available (reaching out to highway agencies/others as necessary)

- Approve or provide comments on the 2025 recommendations

- Share their experiences on the best ways to collect and **get value** from traffic count data

Thank you!

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