UNECE

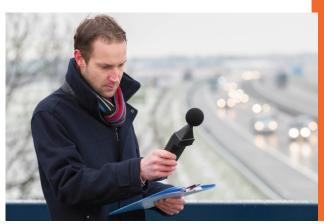# The UNECE E-Road Census: Interactive Map of Annual Average Daily Traffic Collected on the E-Road Network

Frequently asked questions

UNITED NATIONS

Introduction

UNECE has been conducting a quinquennial census of motor traffic and inventory of standards and parameters on main international traffic arteries in Europe since 1980. This census has been based on the E-Road network as defined by Annex I of the European Agreement on Main International Traffic Arteries (AGR) of 1975, as amended. The purpose of this interactive map is to visualise Annual Average Daily Traffic (AADT) figures, measured in a standardized manner, across countries.

What are E-Roads?

As mentioned above, the E-Road network is defined in the AGR. This set up a common route numbering system, and set out certain standards that these roads should adhere to. Typically, the E-Road network strongly correlates with a country's motorway or other main road network. For more details of this, please refer to https://www.unece.org/trans/main/sc1/sc1.html.

What is the Census?

Internationally comparable data on main international traffic lines are of major and increasing importance in Europe, given the growing volume of international and transit traffic. The E-Road Census carried out under the auspices of the UNECE is the only existing international framework providing comparable data on traffic flows on main European roads on an all-European basis. The latest version of the Census was conducted in 2015. For reference, the map also includes layers of data from the 2005 and 2010 censuses. Users should note that the set of countries responding to each census differed.

What is AADT?

The Annual Average Daily Traffic (AADT) figures in the map represent the total number of motorized vehicles passing through each particular segment of E-Road in a given year, divided by the number of days in the year. While it does not consider type of vehicle, time of travel or seasonality factors, it is a useful headline measure of traffic, and potentially congestion.

How is the Census conducted?

The E-Road Census is typically not conducted in isolation, but rather as a by-product of the respective national road traffic censuses, thus only marginal costs are involved in the compilation and transmission of the E-Road Census data by UNECE member Governments. Indeed, while UNECE only collects these data every five years, many member States collect and publish their own data on a more frequent basis. For the guidelines provided to countries in advance of the 2015 E-Road traffic census, please refer to https://www.unece.org/fileadmin/DAM/trans/doc/2013/wp6/ECE-TRANS-WP6-2013-04e.pdf.

How do I use the map?

Navigate around the E-Road map by clicking and dragging, and zooming in and out using the scroll function on the mouse, in the same way as other online maps are used. Clicking on a link of the E-Road network will reveal the AADT value for that particular section. There are also several feature specific to the map that can be accessed by selecting the following icons in the top left of the map.

The *layer* tab allows the user to select any of the 2015, 2010 and 2005 E-Road censuses maps

The *legend* tab shows how the thickness of the lines corresponds to levels of AADT.
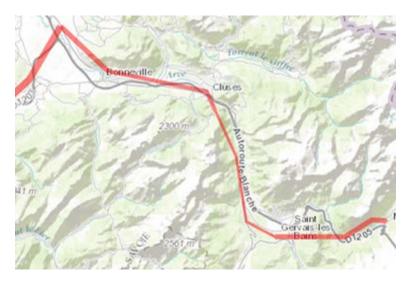
The **filter** tab allows the user to show only roads with AADT values greater than a user-defined level.

The **basemap** tab allows the user to change the visual information available in the background of the map.

Other options also exist for the user to print or share the map.

Why don't the E-Road lines line up perfectly?

In certain cases (typically in earlier census data) mapped segments of E-Roads follow a straight-line path between two counting posts. This creates deviations from actual roads, notably when viewed at a county-level or closer zoom setting. Improvements in this area have been made in more recently collected data.

Why are some segments missing?

The map represents data as collected by member States. In some cases traffic counts have only been conducted on specific points and not on every segment. No attempt has been made to fill in these blanks.

In addition, the census is conducted on E-Roads that typically do not pass through large urban agglomerations, so gaps within cities often occur too.

Why are some countries missing?

The map shows all of the census results received as Shape files by UNECE (the 2005 census map was generated by a consultant). The secretariat is keen to complete the map for 2015 and countries are encouraged to contact the secretariat if they can provide data. Data are requested in shapefile format[1], but can also be generated if GPS coordinates of the segments are provided.

How can I download the underlying data?

Depending on the country and year, Shape files, documentation and excel tables showing more detailed traffic breakdowns such as peak traffic, holiday traffic and traffic broken down by type of vehicle, may be available. Find all relevant files at the following links:

https://www.unece.org/trans/main/wp6/e-roads_census_2015.html

https://www.unece.org/trans/main/wp6/e-roads_census_2010.html

https://www.unece.org/trans/main/wp6/e-roads_census_2005.html

https://www.unece.org/trans/main/wp6/e-roads_census_2000.html

Future improvements

UNECE hopes that the map can be improved, principally by more member States providing data. In addition, depending on technical matters (and data provided by member states), potential future maps could show holiday, peak-time and/or night traffic separately.

This exercise will also be carried out following the completion of the E-Rail Census. Subject to data-availability, a similar map will be provided for the rail network across the region.

Country notes

The Shape files for **Sweden** were obtained by the UNECE Secretariat from the Swedish Traffic Administration www.Trafikverket.se. Only traffic shape files for the complete road network were available, therefore the Secretariat selected only motorways, and then applied a filter to only select motorways that were within 30km of the E-Road network identified for the 2005 census. As such, some segments that are not E-Roads have been included.

The 2005 data for **Turkey** appear to have a small number of sections with unusually high AADT values. The UNECE secretariat is following up to verify these values with the relevant ministry in Turkey.

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[1] The shapefile format is a standardized geospatial vector data format. The mandatory set of data files in shapefile format required for the E-Road traffic census map are the following: (1) .shp ; (2) .shx ; (3) .dbf ; (4) .prj . More information on the shapefile format can be found at
http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html#/Shapefile_file_extensions/005600000003000000/