

## Lab 3 – Statistica - data basis

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**Ex 1.** Based on data from the Central Statistical Office (GUS), create a data file in Statistica concerning transport infrastructure in the voivodeships of Poland in 2016.

Go to the website of the Central Statistical Office: [www.stat.gov.pl](http://www.stat.gov.pl), then select: Databases → Local Data Bank → Data by areas.

Download the following variables for analysis:

- X1 – Population (Population)\*
- X2 – Area (Territorial division → Geodetic area of the country [km<sup>2</sup>])
- X3 – Motor vehicles and tractors (Transport and communication → Vehicles → Total vehicles)
- X4 – Public hard-surface roads (Transport and communication – district public roads by surface type)
- X5 – Length of bicycle paths (Transport and communication – urban transport)
- X6 – Road accidents (Transport and communication – road accidents)

\* After entering the Local Data Bank, select Data by areas, then the appropriate variable, e.g. Population → Population → Population by age and sex. Confirm at the bottom using the Next button. A window will open where you can define the categories according to which data will be downloaded:

- Years → 2016
- Age → Total
- Sex → Total

Then confirm with Next.

Next, select the territorial units according to the TERYT system. Choose only voivodeships.

After selecting the territorial unit, the database should remember the selection and subsequent data will be downloaded only for voivodeships.

Under the selection windows, the Next button will be highlighted and, after clicking it, the selected data will be displayed.

Copy the data into Excel (or download the Excel file directly from the website) and then import it into Statistica.

From the selected variables, create the following indicators (calculate per population or per area, e.g.):

- X7 – Indicator 1: motor vehicles and tractors per 1 km of public hard-surface roads
- X8 – Indicator 2: public hard-surface roads per 100 km<sup>2</sup>
- X9 – Indicator 3: length of bicycle paths per 1,000 km<sup>2</sup>
- X10 – Indicator 4: number of road accidents per 10,000 population

After creating the indicators, assign the names of the voivodeships in the column representing the ordinal number.

Based on the created database:

1. Indicate the best and worst voivodeships in terms of the analyzed indicators (use the Sort Data option and present the results in a bar chart: Graphs → 2D Graphs → Bar Charts).

Ex 2. Based on the data from Eurostat <https://ec.europa.eu/eurostat/>, create a data file in Statistica concerning the green economy for years 2015-2024 (Eurostat/Data base/Climate Change)

On the Eurostat homepage, make any changes to the following: time, country name, and selected variable. After downloading all variables in .xlsx format, combine them into a single database in Statistica, as follows: Cases→Years, Variables→ downloaded variables for each country

Time: **2015-2024**

Countries: **Poland, Portugal, Iceland, Norway, Turkey**

Variables to be downloaded from Eurostat:

- **Domestic net greenhouse gas emissions,**
- **Climate action initiatives (Contribution to the international 100bn USD commitment on climate related expending),**
- **Supply, transformation and consumption of renewables and wastes (Renewable municipal waste)**