

Interreg



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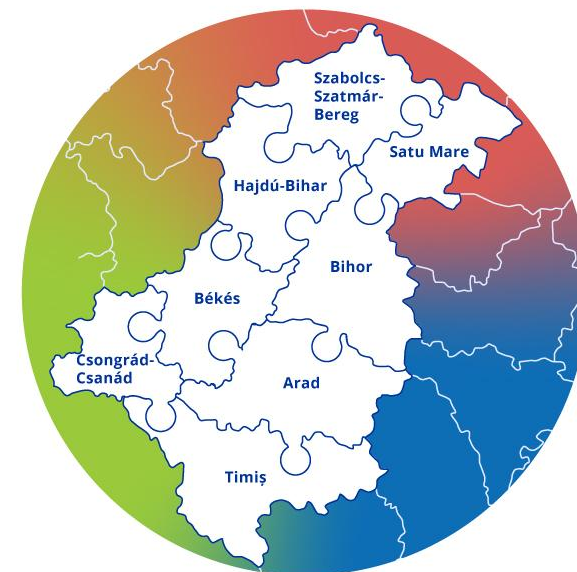
HUNGARIAN
GOVERNMENT

Romania - Hungary

Project title: *Exchange of Experience for research and usage of Artificial Intelligence' Advanced Techniques in finance, accounting and business administration in Bihor-Hajdu Bihar Region*

Project Acronym: E2U-AI, **JEMS Code:** ROHU00120

**Course: USING ARTIFICIAL INTELLIGENCE
SOFTWARE IN FINANCE, ACCOUNTING AND
BUSINESS ADMINISTRATION**



interreg-rohu.eu

ORADEA, July 2025



I. AI IN DATA VISUALISATION

Importance of Data Visualization



Visuals are processed
60,000x faster than text



90% of brain-processed
information is visual



Visuals improve retention
by 6x



First step in data
exploration and preparation

Popular Visualization Tools



+ a b | e a u

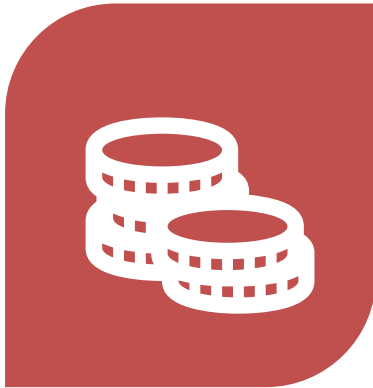


TABLEAU: POWERFUL BUT
EXPENSIVE

Power BI



POWER BI: AFFORDABLE
BUT LACKS MAC SUPPORT

Getting Started with Tableau



Connect to data sources and define relationships



Use drag-and-drop to build visualizations



Worksheets: Data Source, Worksheet, Dashboard, Story

Visual Options in Tableau

Basic charts: bar,
pie, etc.

Advanced visuals
via Viz Extension
(e.g., donut chart)

AI in Tableau



Tableau Agent and
Tableau Pulse
(Cloud only)



Google AI
integration via AI
Studio



Google AI Studio Integration



Chat mode: text-based Q&A



Stream mode:
screen sharing and
voice interaction



Gemini provides
real-time guidance

Tableau Agent & Pulse

Agent: Einstein Copilot for sheet-specific queries

Pulse: Metric tracking and AI summaries

Available in Tableau Cloud with proper license



II. AI IN DATA ANALYSIS – A STATA GUIDE

Getting Started with STATA

Limited data import options

Interface includes Results, Command, Variables, Review windows

Temporary session-based output unless saved

The STATA logo is centered within a white circle that has a blue border. The circle is positioned on the right side of the slide, overlapping a solid blue vertical bar that runs from the top to the bottom of the frame. The logo itself consists of the word "STATA" in a bold, blue, sans-serif font, with a small registered trademark symbol (®) to its upper right.

STATA®

STATA Data Handling

- Import Excel, edit variables, use Data Editor
- Review window logs all commands
- Supports wide-to-long data transformation

The screenshot displays the STATA software interface. The 'Data Editor' menu is open, showing options like 'Data Editor (Edit)', 'Data Editor (Browse)', 'Variables Manager', 'Data utilities', 'Sort', 'Combine datasets', 'Matrices, Mata language', 'Matrices, ado language', 'ICD codes', and 'Other utilities'. The 'Command' window shows a log of commands executed, including opening a file, importing an Excel spreadsheet, and saving the data. The 'Variables' window lists the variables in the dataset, and the 'Properties' window shows the properties of the selected variable.

Data Editor Menu:

- Data Editor (Edit)
- Data Editor (Browse)
- Variables Manager
- Data utilities
- Sort
- Combine datasets
- Matrices, Mata language
- Matrices, ado language
- ICD codes
- Other utilities

Command Window Log:

```
. log using "D:\granturi\Oradea ROHU 2025\datasets\Financial stability.smcl"

name: <unnamed>
log: D:\granturi\Oradea ROHU 2025\datasets\Financial stability.smcl
log type: smcl
opened on: 25 Jun 2025, 20:04:46

. import excel "D:\granturi\Oradea ROHU 2025\datasets\AI in data analysis Oradea wide.xlsx", sheet("baza de date wi
> de pt geoda") firstrow

. save "D:\granturi\Oradea ROHU 2025\datasets\AI in data analysis Oradea wide.dta"
file D:\granturi\Oradea ROHU 2025\datasets\AI in data analysis Oradea wide.dta saved

. save "D:\granturi\Oradea ROHU 2025\datasets\AI in data analysis Oradea wide.dta", replace
file D:\granturi\Oradea ROHU 2025\datasets\AI in data analysis Oradea wide.dta saved

.
```

Variables Window:

Name	Label
unit	unit
Country2005	Country2005
Gov_bondGDP2005	Gov_bondGDP2005
Lgov_bond2005	Lgov_bond2005
Gov_bond2005	Gov_bond2005
ESG2005	ESG2005
EPI2005	EPI2005
HDI2005	HDI2005
Ctrl_corr2005	Ctrl_corr2005
Gov_eff2005	Gov_eff2005
Pol_stab2005	Pol_stab2005
Reg_qaul2005	Reg_qaul2005
Rule_law2005	Rule_law2005

Properties Window:

Variable	Properties
AI in data analysis Oradea wide.dta	
Filename	AI in data analysis Oradea wide.dta
Label	
Notes	
Variables	455
Observations	28

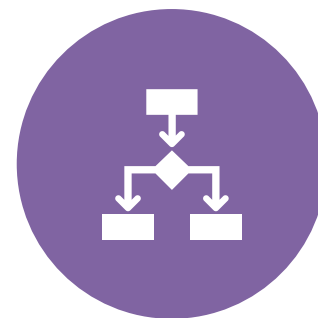
AI in STATA



NO BUILT-IN AI TOOLS YET



USE CHATGPT VIA
EXTERNAL TOOLS OR
PYTHON/R PACKAGES



EXPERIMENTAL 'CHATGPT'
COMMAND AVAILABLE

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Romania - Hungary



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**Thank you for
your attention!**