

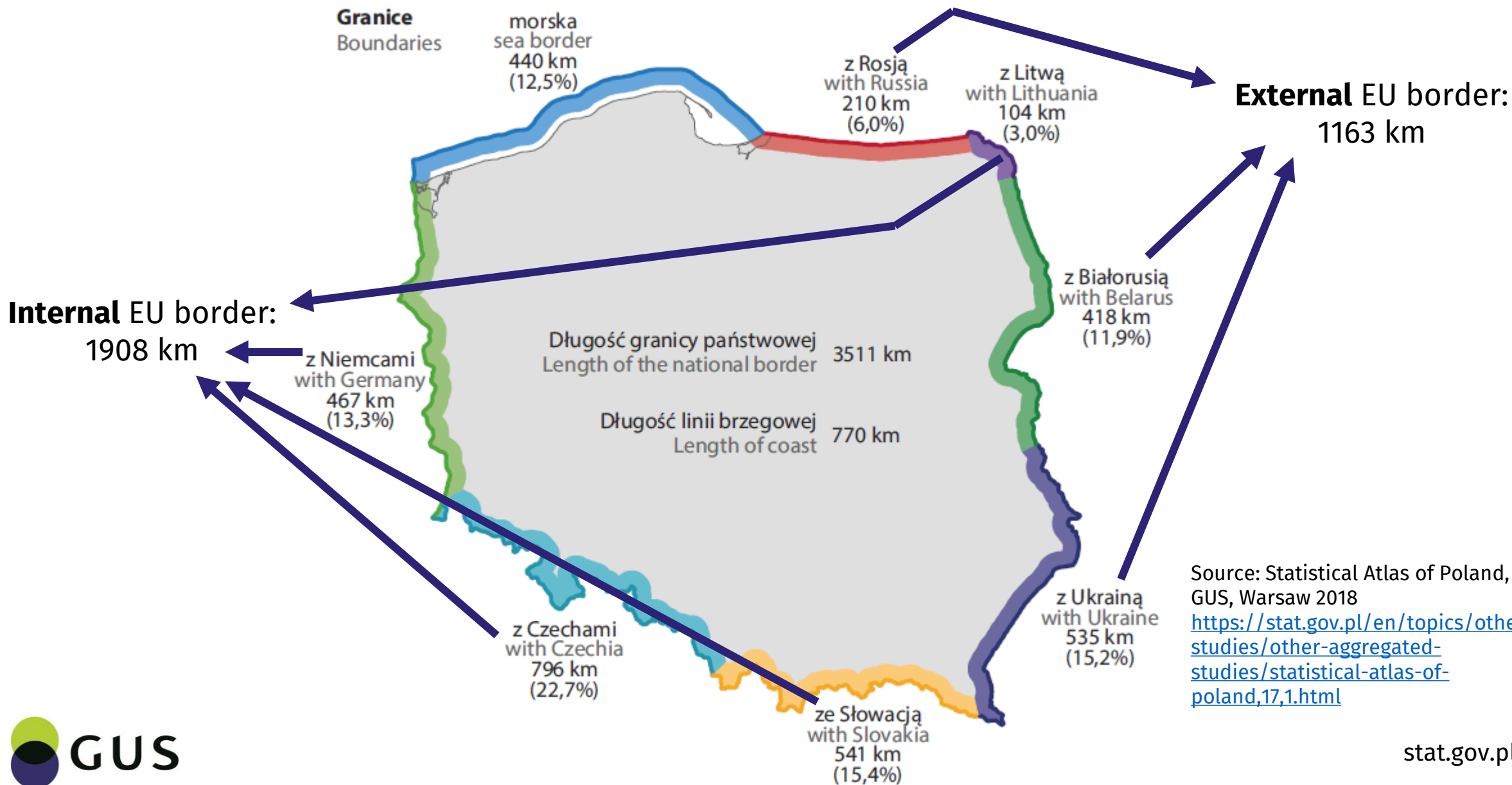
Cross-border monitoring

Statistics Poland's experience

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Marek Cierpiat-Wolan, Statistical Office in Rzeszów

Poland's Boundaries



Cross-border areas? Why so important?

- geographic areas where European integration processes are experienced in everyday life by individuals, businesses and public authorities,
- evidence shows that much can be gained by reducing the negative impact of the territorial, legal and administrative discontinuities which persist in border regions

Source: Communication From the Commission to the Council and the European Parliament – *Boosting growth and cohesion in EU border regions*, 2017

In Poland:

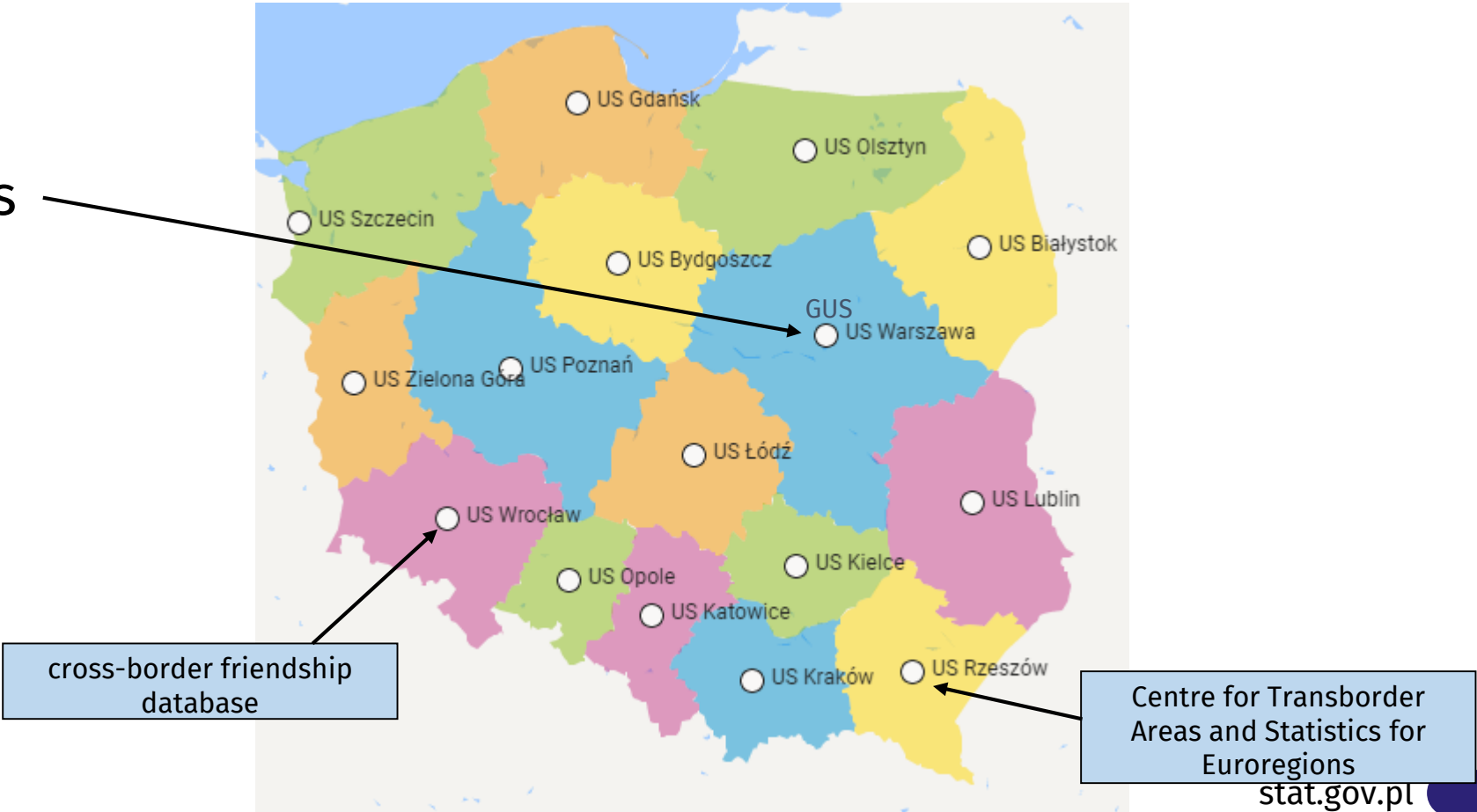
- External EU border – local (small) border traffic
- Internal EU border – integration processes

- Flow statistics – not only migration!

Cross-border areas statistics – organization of Statistics Poland (GUS)

Regional level:
Statistical Offices in border voivodships

Central level:
Spatial and
Environmental Surveys
Department,
GUS



Cross-border areas statistics – tasks (1)

Department's tasks:

- coordination of work concerning cross-border areas,
- monitoring of activities in the area of cross-border and euroregions statistics in different spatial levels.

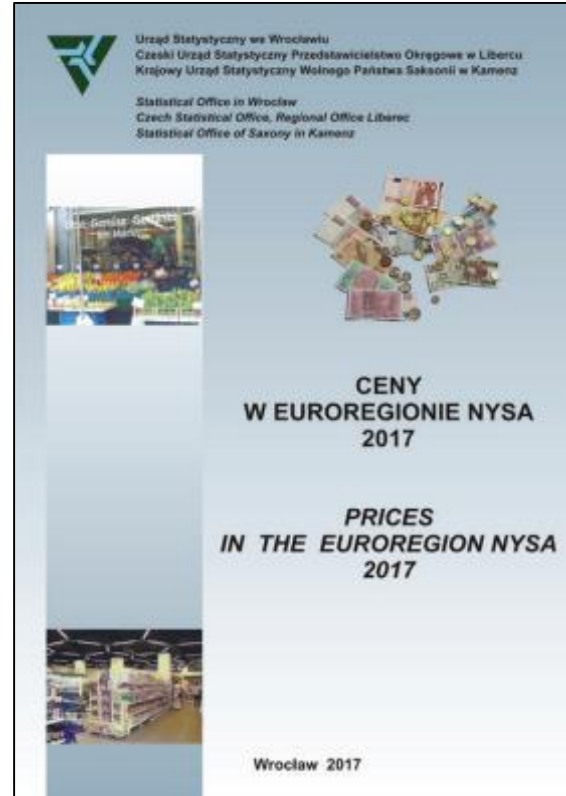
Statistical Offices' tasks:

- conducting research, analytical and publishing activities in a given voivodship in the area of cross-border and euroregional statistics, in cooperation with the Centre for Transborder Areas and Statistics for Euroregions (Statistical Office in Rzeszów).

Cross-border areas statistics – statistical offices' activities (1)



Retail prices in the Polish-Czech borderland in Opolskie Voivodship, the Olomoucký and the Moravskoslezský Regions (ed. SO Opole)



Prices in the Euroregion Nysa 2017 (ed. SO Wrocław)



Euroregion Bug in figures in 2010-2015 (ed. SO Lublin)



The Puszcza Białowieska Euroregion in 2015 (ed. SO Białystok)

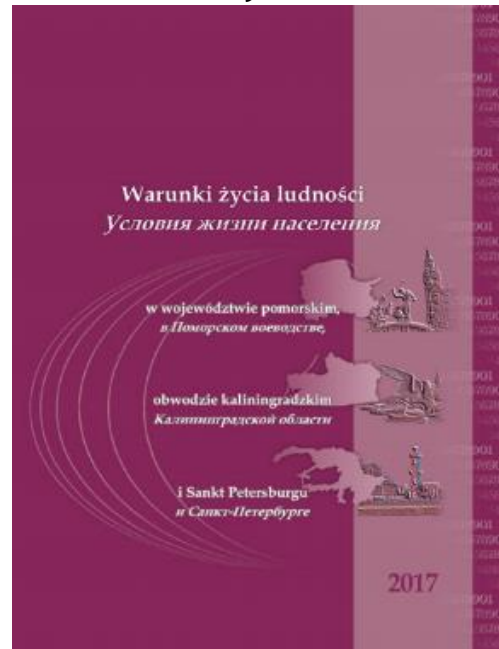
Cross-border areas statistics – statistical offices' activities (2)



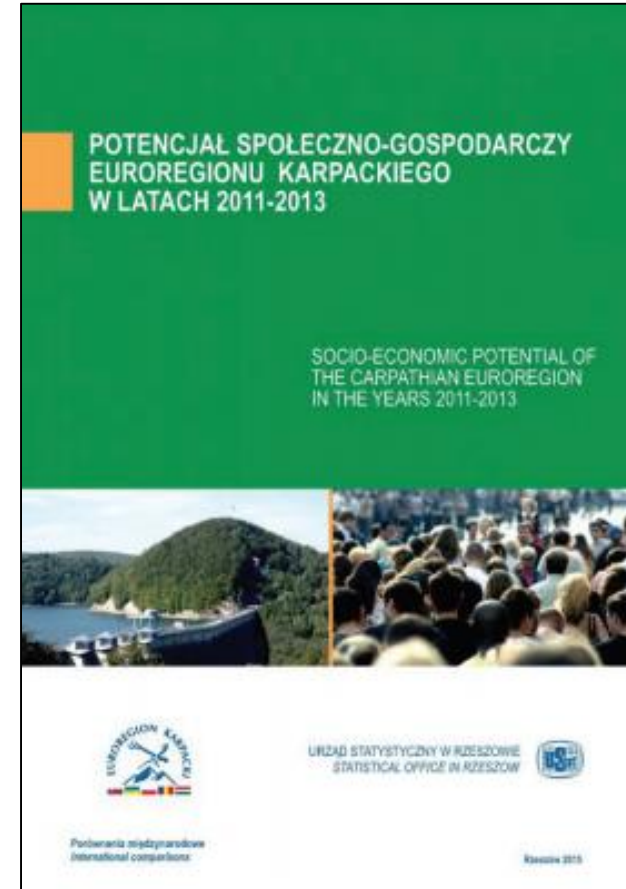
Polish-German borderland in numbers 2014
(ed. SO Zielona Góra)



Kaliningrad Oblast and Warmińsko-Mazurskie Voivodeship in numbers 2017
(ed. SO Olsztyn)



Living conditions of the population in the Pomeranian Voivodeship, Kaliningrad region and St. Petersburg
(ed. SO Gdańsk)



Socio-economic potential of the Carpathian Euroregion in the years 2011-2013
(ed. SO Rzeszów)

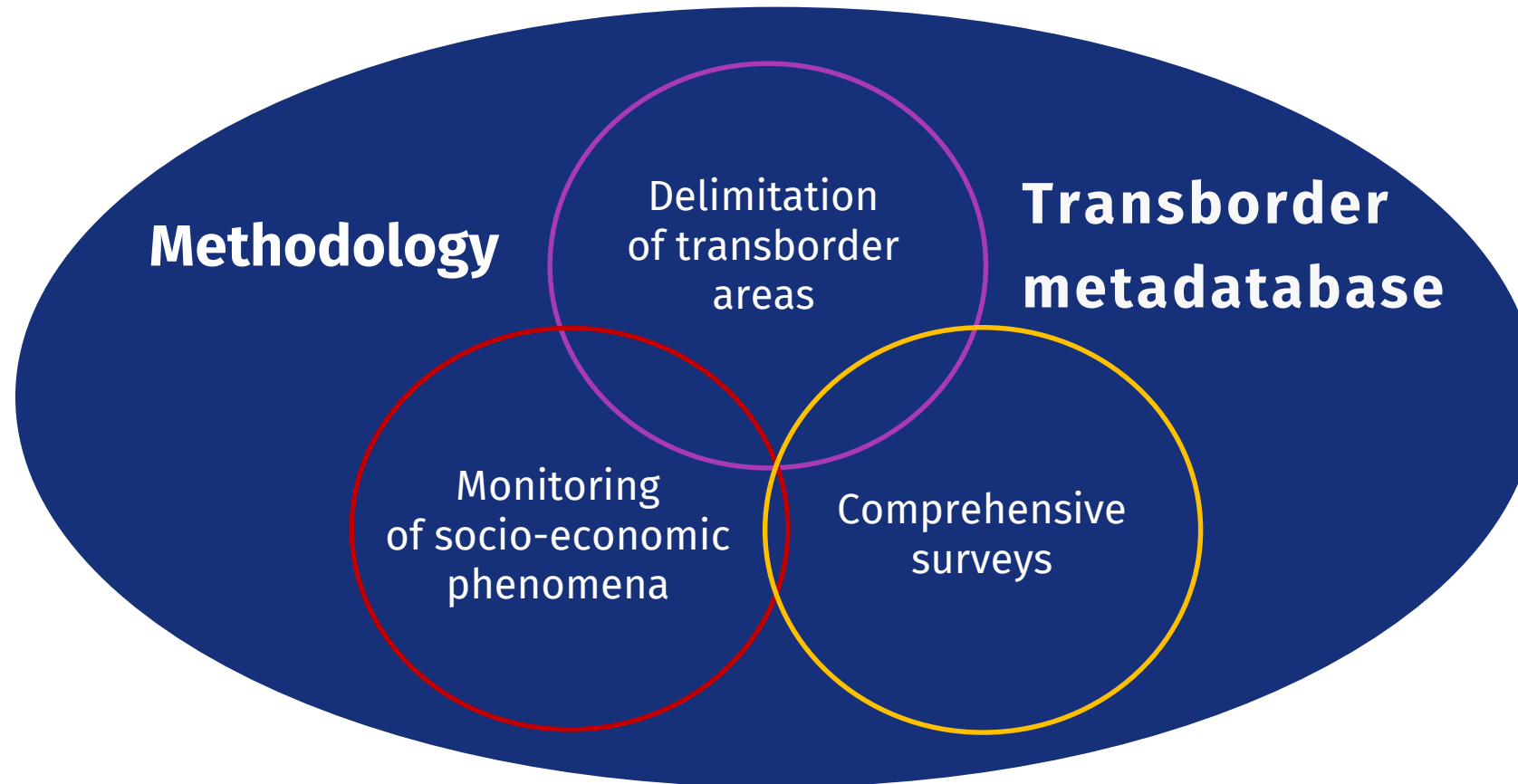
Cross-border areas statistics – tasks (2)

Centre's tasks:

- conducting research, preparing analyzes and statistical publications in the field of cross-border areas and euroregional statistics,
- cooperation with institutions in the country and abroad in the field of cross-border and euroregional statistics,
- coordination of the work of statistical offices in the field of cross-border and euroregional statistics,
- carrying out work on the use of administrative data sources for cross-border areas' research.

Centre for Transborder Areas and Statistics for Euroregions

**Towards coherent research system
for transborder areas**

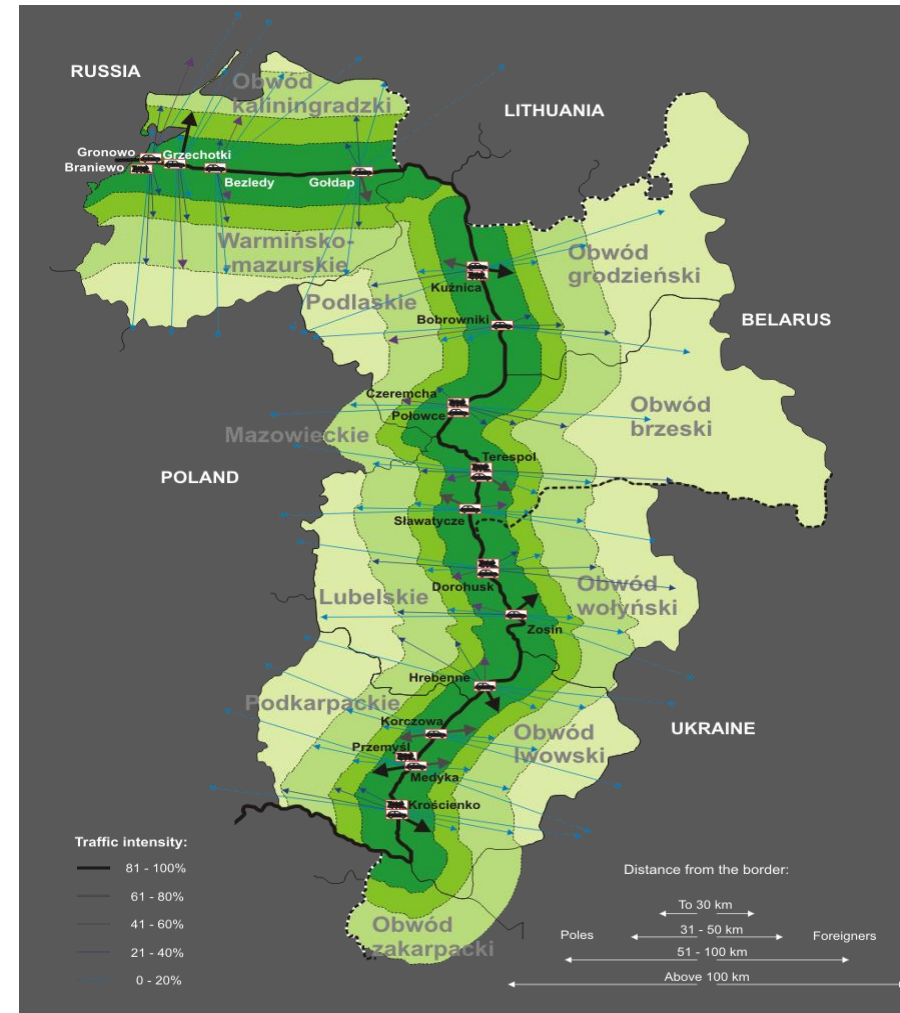


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Delimitation of transborder areas

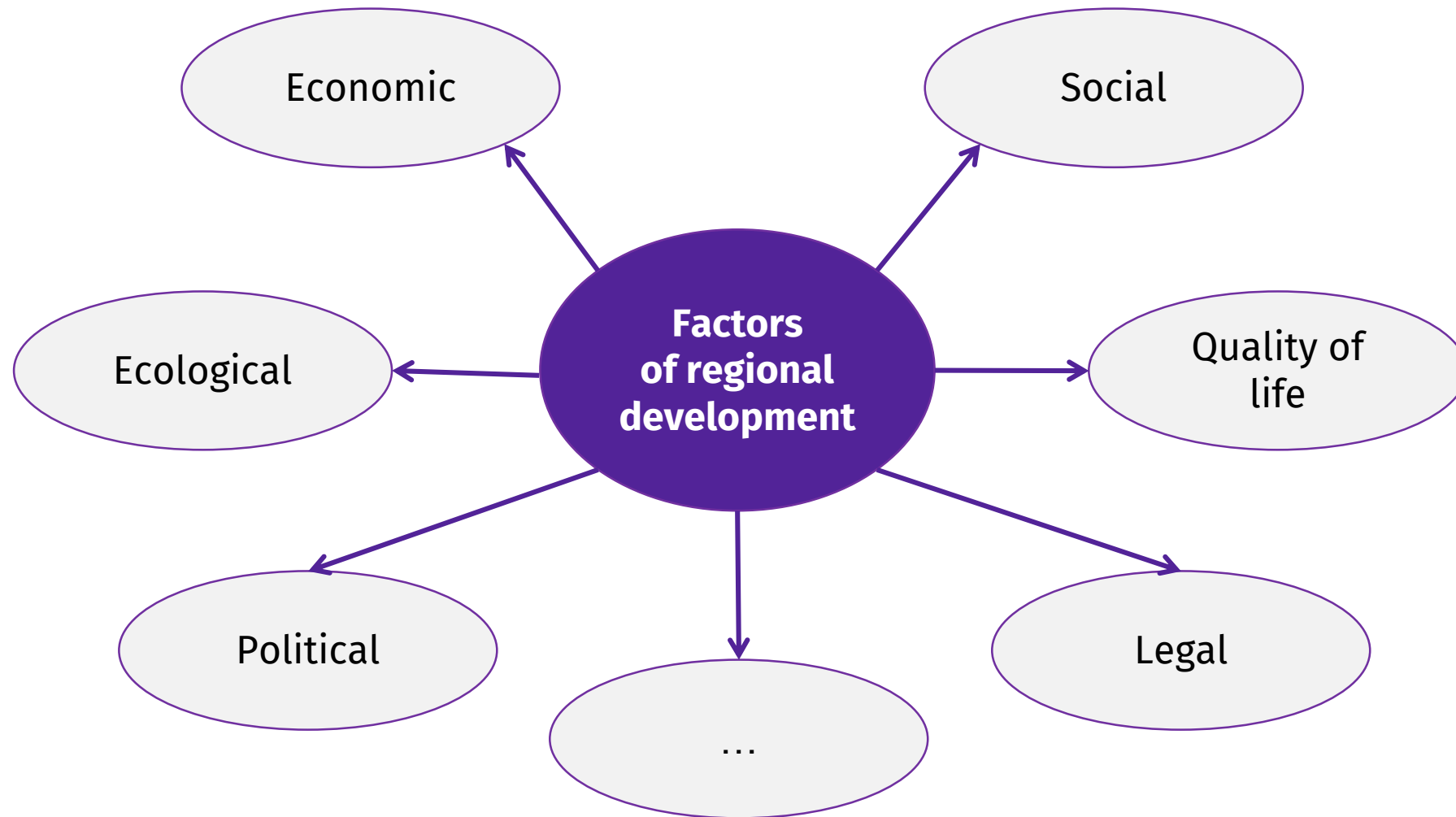
- Preliminary delimitation based on:
 - Regulation No. 1931/2006 of the European Community, according to which the border zone covers an area of 30 to 50 km from the border,
 - results of the questionnaire surveys at the border, etc.
- Dynamic delimitation - systematic analysis of socio-economic phenomena in this area and environment (e.g. labour markets, commutes, entrepreneurship, demographic processes, tourism, differences in the level of prices).

DISTANCE FROM THE BORDER TO THE PLACE OF RESIDENCE OF POLES AND FOREIGNERS CROSSING THE EU'S BORDER IN POLAND



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Monitoring



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Monitoring



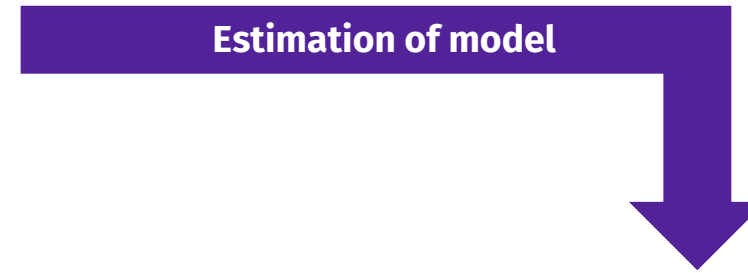
- Inventory of information resources of official statistics
- Extra-statistical sources of information
(administrative registers, Big Data sources – mobile phones, road sensors, data from webscraping etc.)
- Combining information from the administrative registers, sample surveys and Big Data sources
(e.g. the linkage of data from Labour Force Survey, Household Budget Survey, National Health Fund, Border Traffic, Accommodation Statistics)

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Datasets linkage and estimation procedure

Integrated database

Labour Force Survey data		Databases linked by GeoData		
		National Health Fund	Border Traffic (Big Data)	Accommodation Statistics
GeoData	Employees	Insured foreigners	Number of vehicles	Number of foreign tourists by country
(x,y) LAU ID 1	250	12	15 040	130
(x,y) LAU ID 3	110	32	9 420	190



Output Data	
GeoData	Employees
(x,y) LAU ID 1	170
(x,y) LAU ID 2	230
(x,y) LAU ID 3	180



Aggregated Output Data	
GeoData	Employees
(x,y) NUTS 3 ID 1	1700
(x,y) NUTS 3 ID 2	2300

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Monitoring



➤ Taxonomic methods – hierarchical and non-hierarchical (e.g. transborder index)

➤ Spatial models (e.g. AHP method used for evaluating competitiveness of spatial units and tracking demand and supply shocks both in time and space)

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Subjective and objective aspects of quality of life Synthetic indicators

Selected objective indicators of quality of life

- Average monthly gross wages and salaries
- Sold production of industry per 1 thousand population
- Average usable floor area of a dwelling per one inhabitant
- Registered unemployment rate
- Proportion of registered unemployed persons in population at working age
- Population using wastewater treatment plants in % of total population
- Proportion of waste recovered in waste generated
- Persons unemployed over 24 months per 1 thousand population
- Full-time and part-time paid teachers in terms of full-time employment per 1 thousand population
- Percentage share of schools equipped with computers with the Internet access
- Total nursery schools per 1 thousand population
- Total tertiary schools per 1 thousand population
- Total students per 1 thousand population
- Doctors and dental specialists per 1 thousand population
- Beds in general hospitals per 1 thousand population
- Nurseries and nursery wards per 1 thousand population
- Ascertained crimes per 1 thousand inhabitants
- Proportion of green areas in total area
- Total respiratory diseases per 100 thousand population
- Total deaths caused by neoplasms per 100 thousand population
- Deaths caused by circulatory system diseases per 100 thousand population

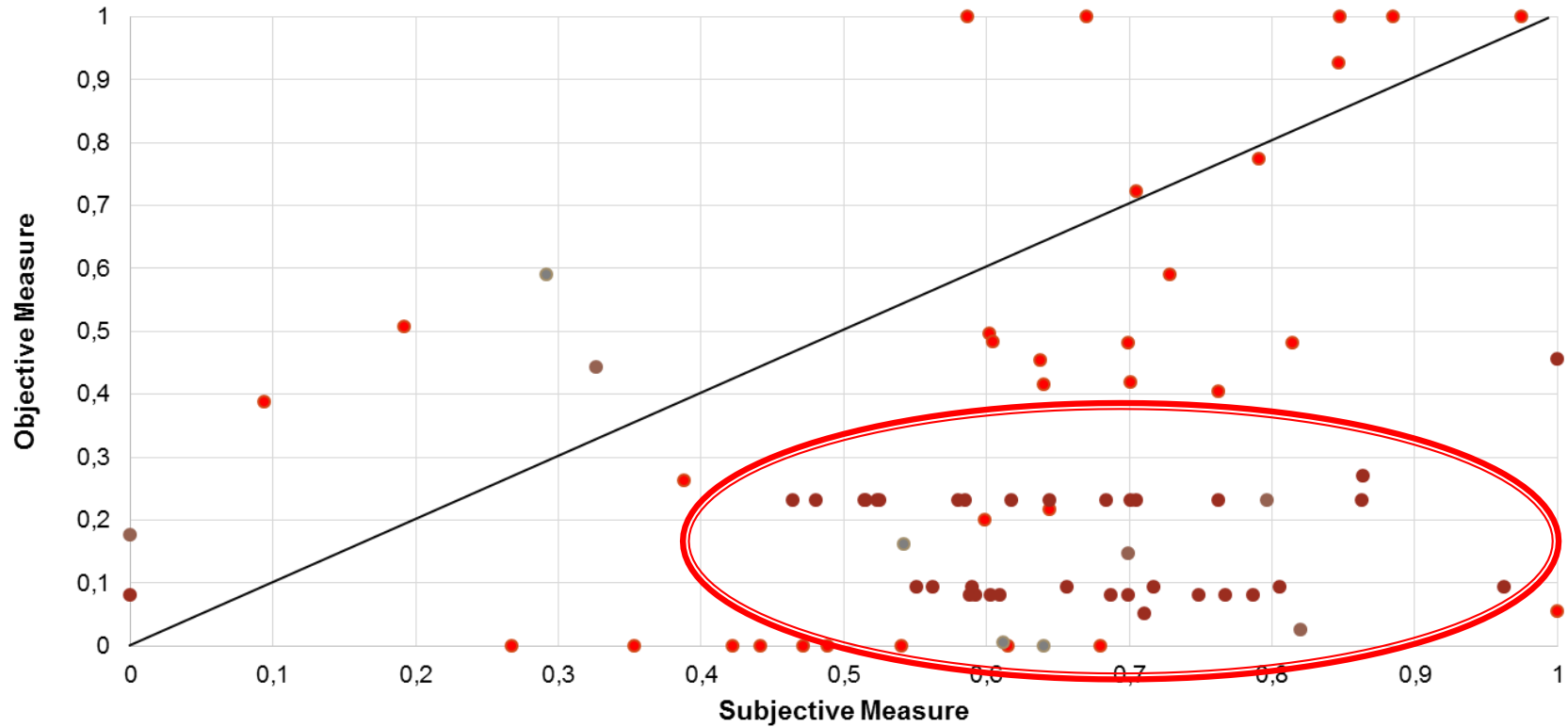
Subjective assessment of life domains

- Family life
- Financial situation
- Friendship
- Incomes
- Meeting basic needs
- Health
- Achievements
- General country situation
- Housing
- Neighbourhood
- Available goods and services
- Prospects
- Sex life
- Education level
- Leisure
- Job
- Children
- Marriage
- Safety

Carried out on around 2000 households in Poland and Ukraine including transborder areas (questionnaire - 96 questions on Likert scale).

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Quality of life - Distortion measure

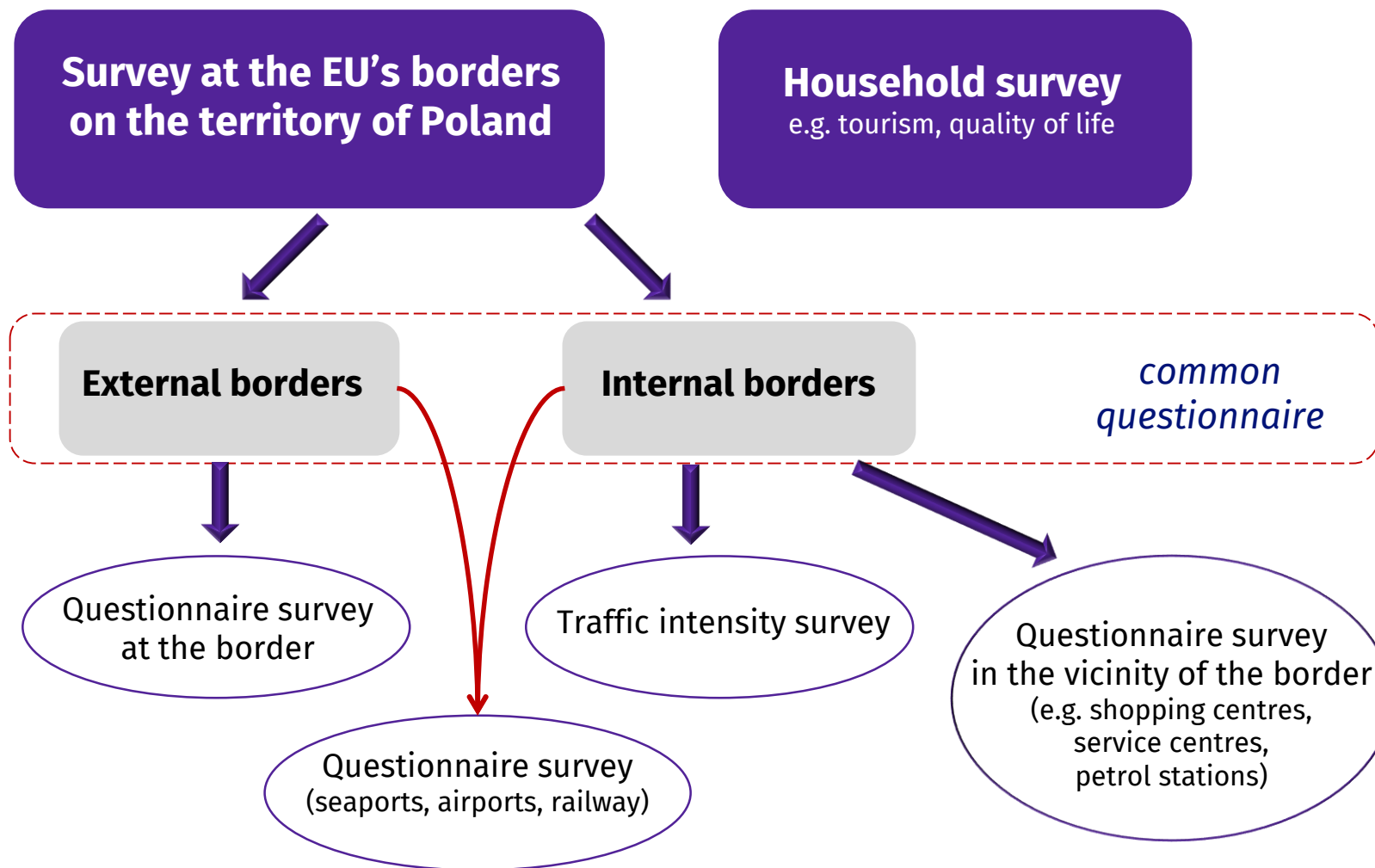


- Polish and Ukrainian households in inner area
- Ukrainian households along Polish border
- Ukrainian households along Polish border
- Polish households along Slovakian border

Polish households near Slovakian border	Polish households near Ukrainian border	Ukrainian households near Polish border	Polish and Ukrainian households in inner area
0,555	0,562	0,584	0,384

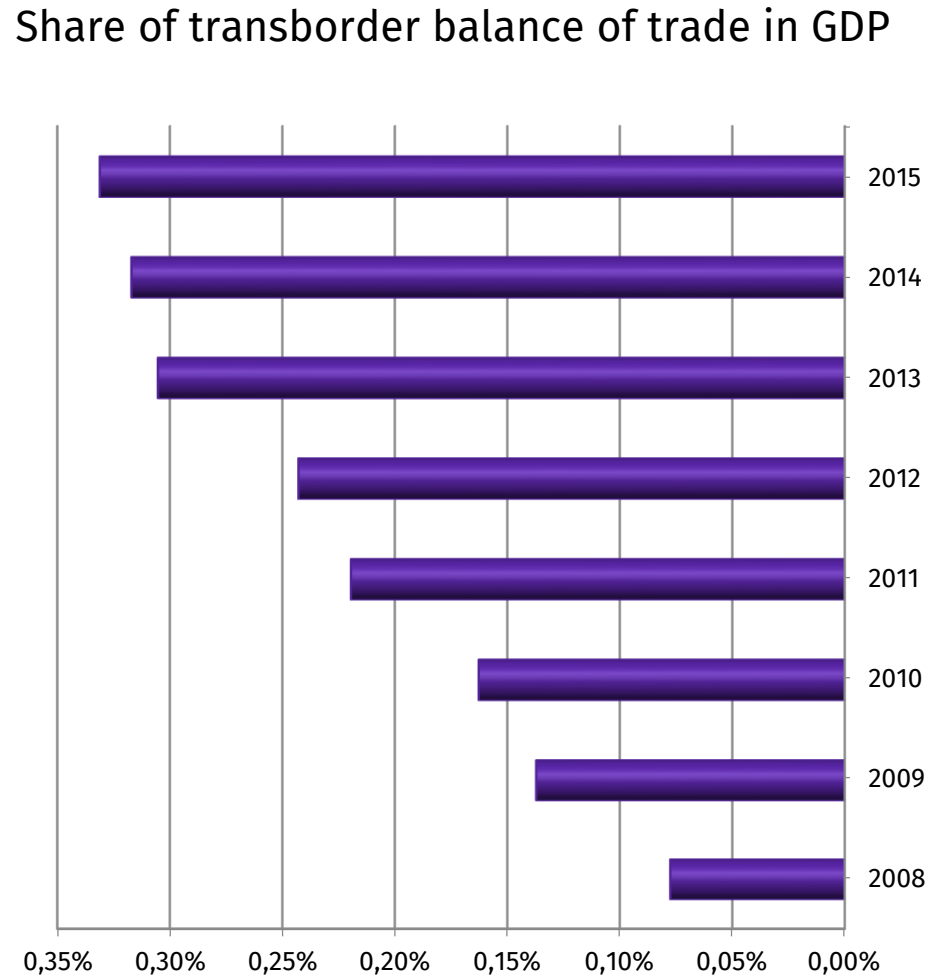
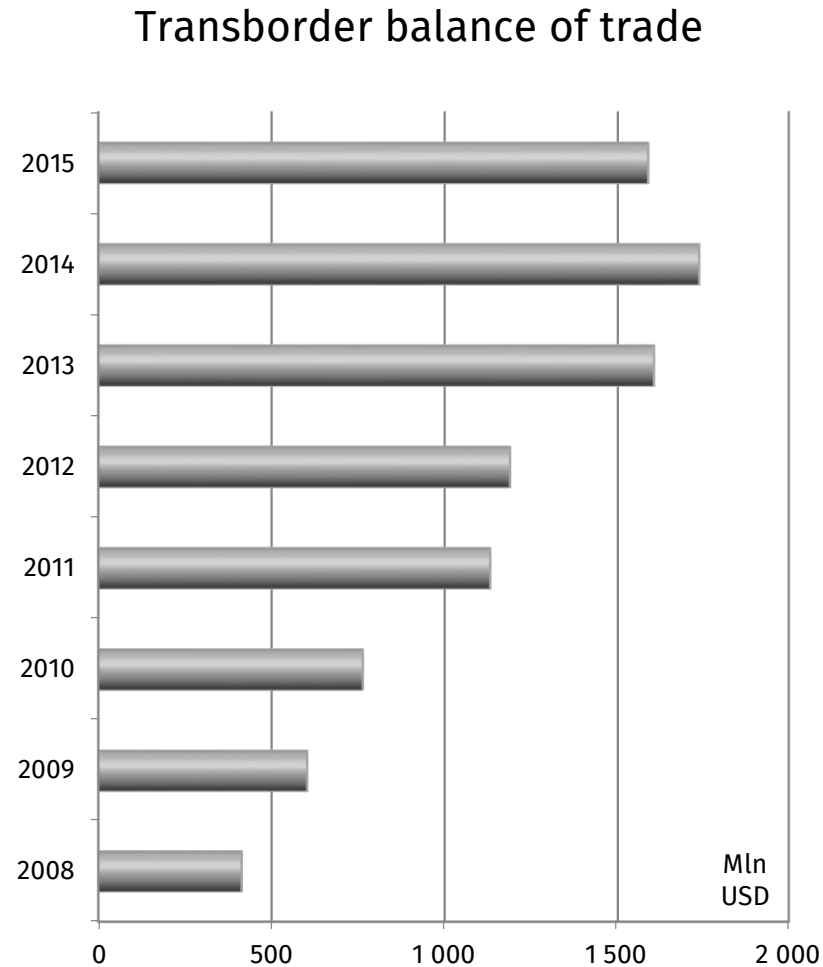
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Comprehensive surveys



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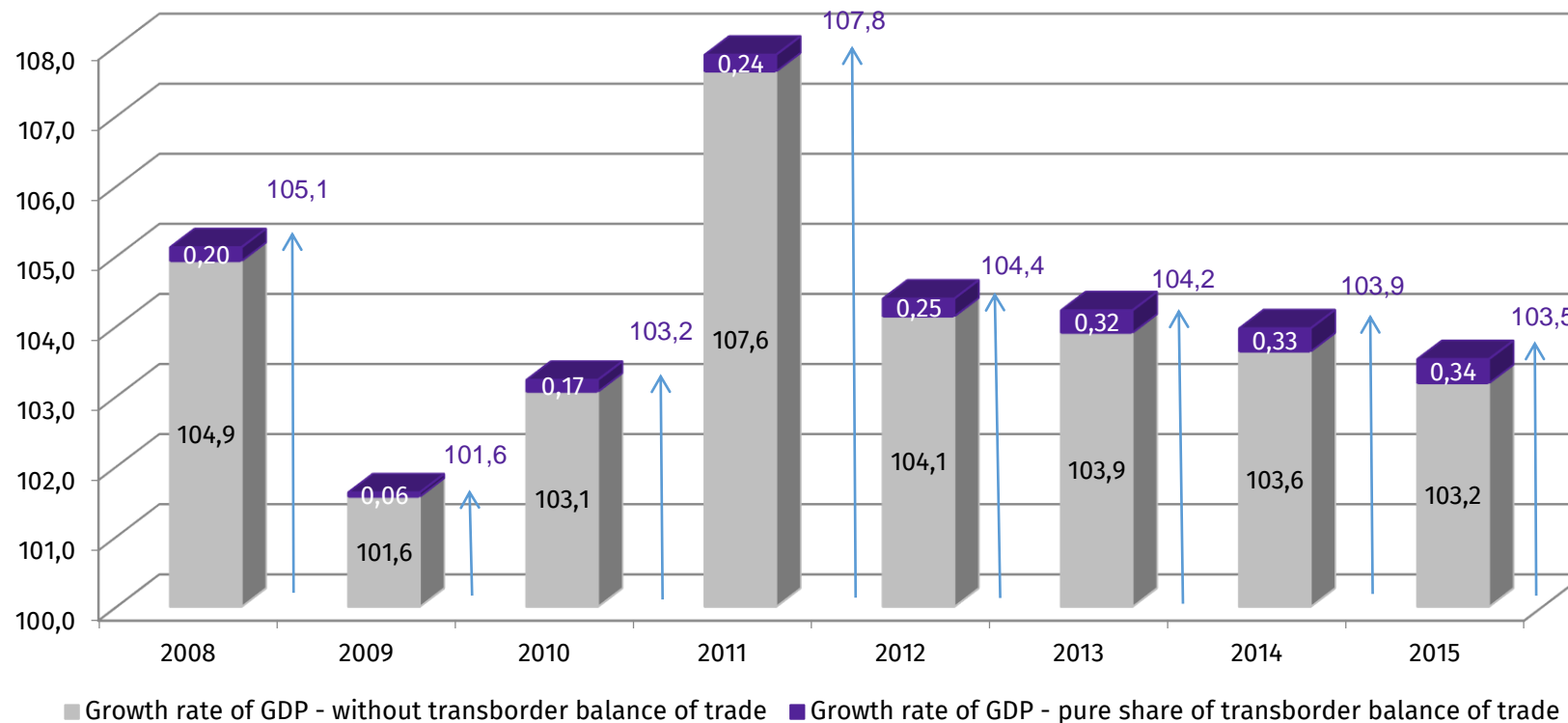
Results of comprehensive surveys



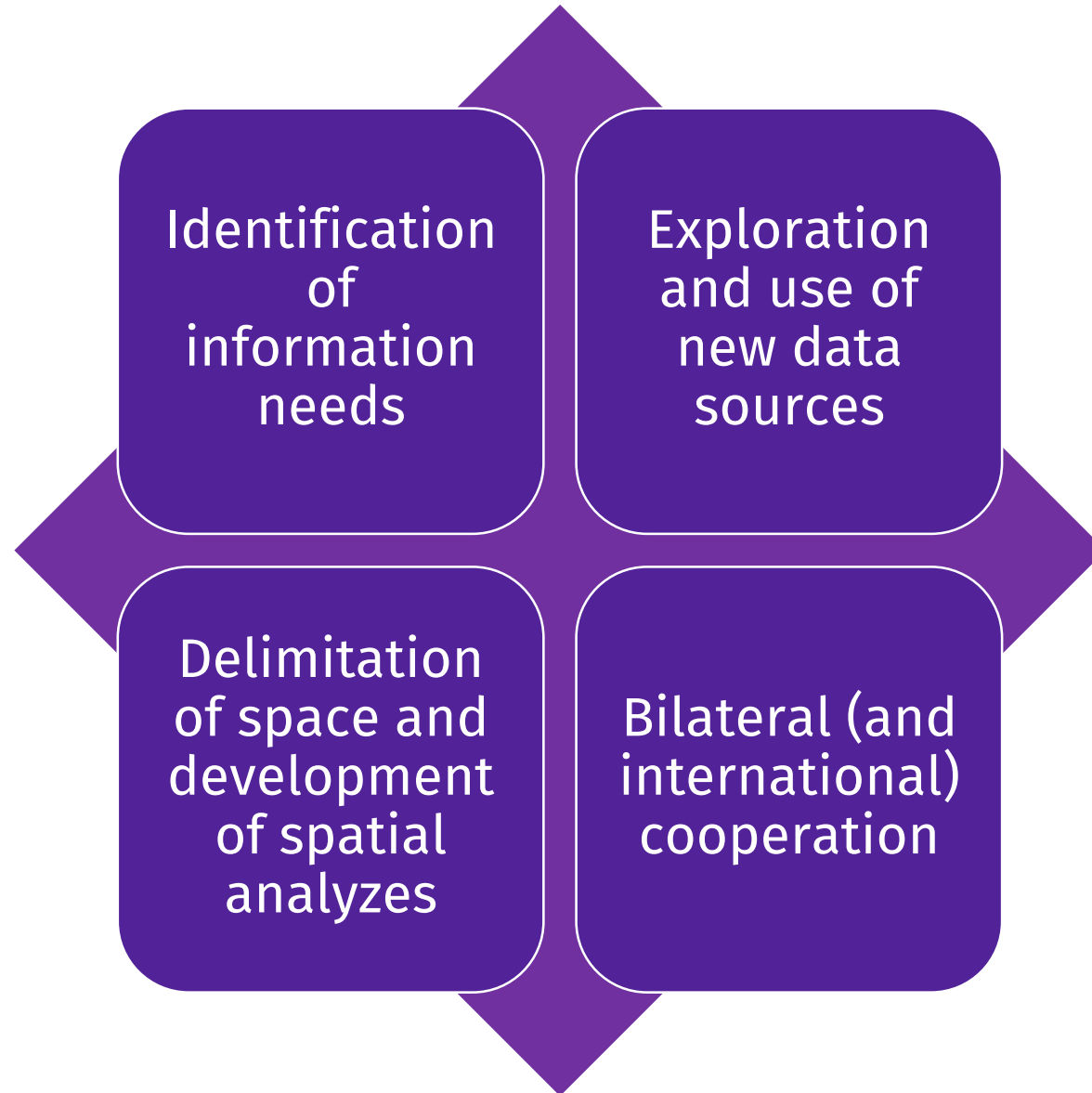
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Results of comprehensive surveys

The rate of economic growth



Summary – development of cross-border statistics



More information: stat.gov.pl/en/

Thank you for your attention

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