Learn about Lubelskie

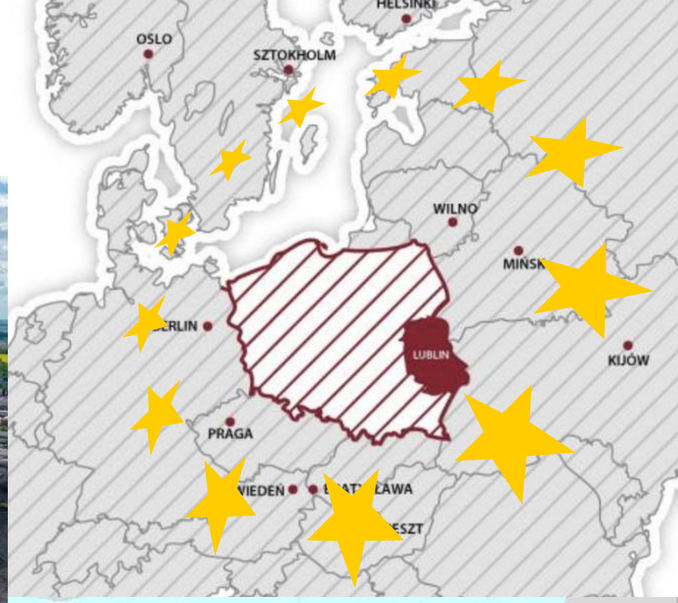
Lubelskie, a voivodeship in eastern Poland

Economic snapshot

- It is classified as a “**less developed**” region under EU Cohesion Policy 2021–2027.
- It had the **lowest GDP per capita** in Poland in 2022, only about 54% of the EU average.
- Its economy relies heavily on **agriculture and mining**, and is less diversified than Poland’s average.
- It ranks last in the country for GVA per worker.
- It faces an **innovation gap** – patent activity is over 10× lower than the EU average.
- On the upside, the region shows **entrepreneurial spirit**: it has Poland’s highest rate of new business formation.

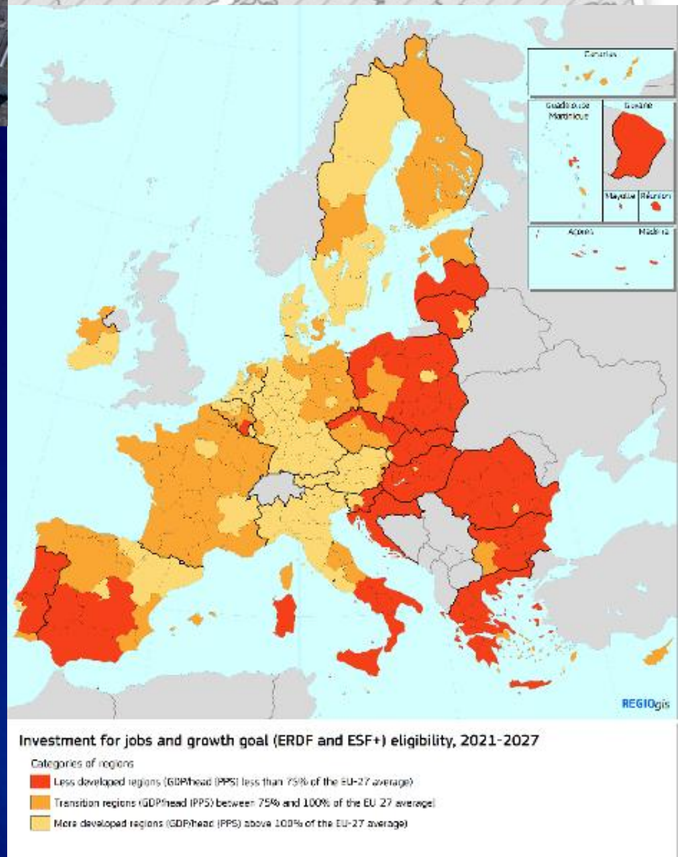
Social & Demographic Challenges

- The **highest poverty rate** in Poland,about 22.9% of people lived below the national poverty line in 2021.
- Overall **unemployment** was 4.7% in 2022 – lower than the EU average but the second highest in Poland.
- Struggling with **population decline**. Between 2001 and 2021, its population shrank by 6% due to migration and low birth rates.



Climate & Energy Context

- H**igh emissions & coal reliance**:It hosts Poland’s largest coal mine - the Bogdanka.
- Insufficient clean energy use: Renewables generate just under 20% of Lubelskie’s electricity – less than half the EU average (43%)
- **Environmental vulnerability**: nearly 47.5% of the region’s area is at heightened risk of drought



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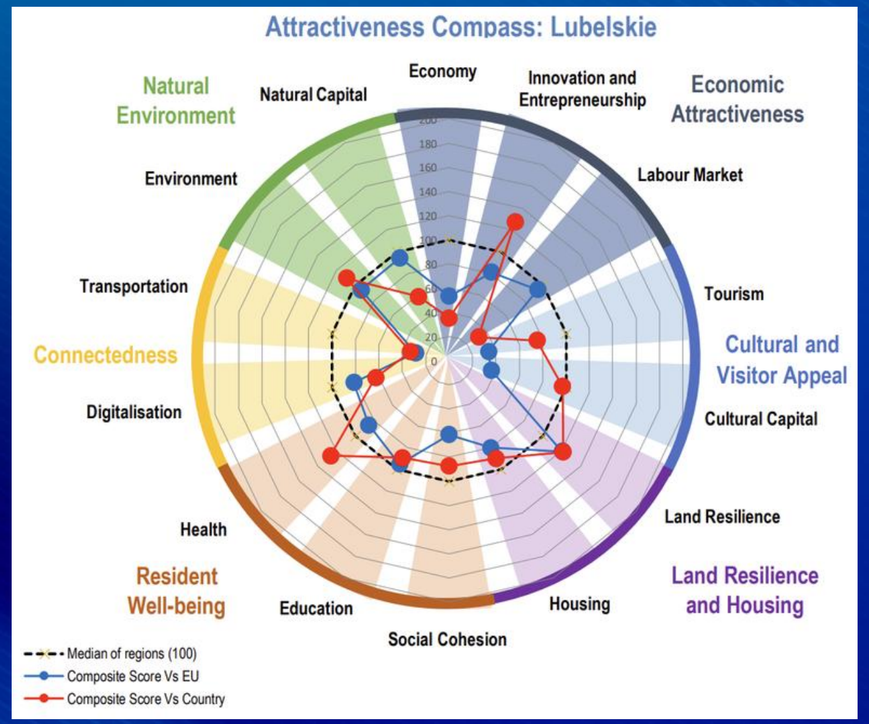
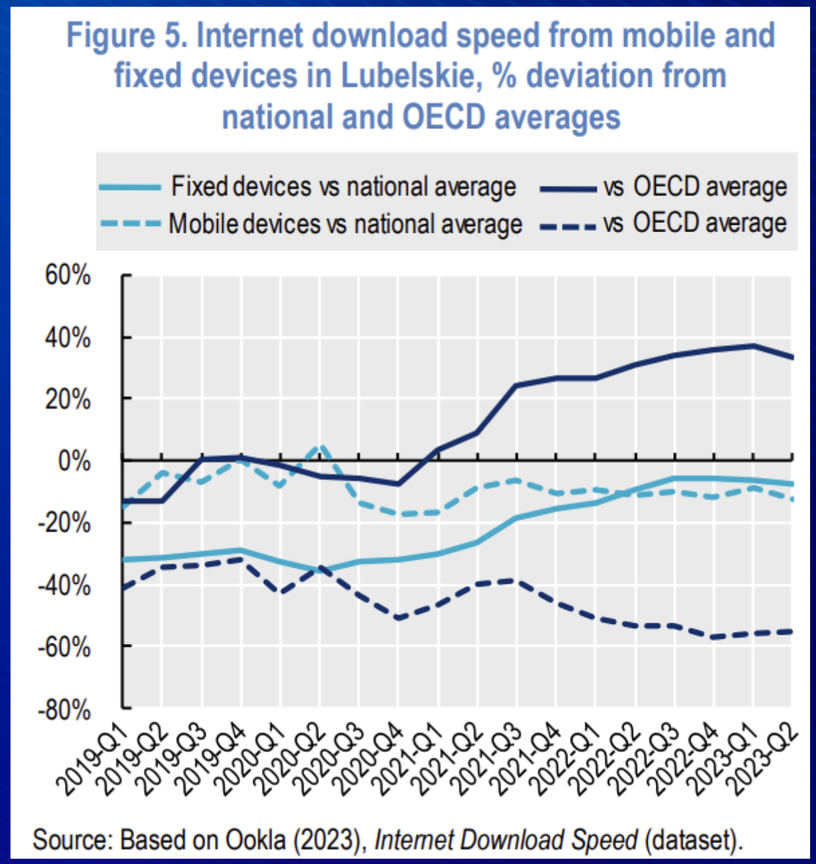
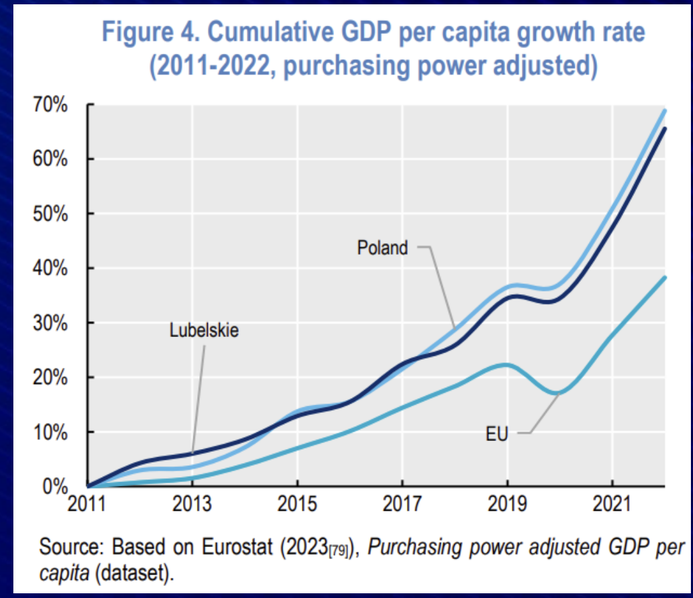




Source: Based on Ookla (2023), *Internet Download Speed* (dataset).



Source: Based on Eurostat (2023[79]), *Purchasing power adjusted GDP per capita* (dataset).

Why does it need funds (problems)

The European Regional Development Fund (ERDF) aims to reduce economic, social, and territorial disparities across EU regions by providing funding for various development projects.

Key Policy Objectives (2021-2027)
For the programming period of 2021-2027, the ERDF focuses on five main policy objectives:
A Smarter Europe: Promoting innovation and digital transformation.
A Greener, Carbon-Free Europe: Supporting the transition to renewable energy and sustainable practices.
A More Connected Europe: Enhancing transport and digital networks.
A More Social Europe: Fostering social inclusion and quality employment.
A Europe Closer to Citizens: Supporting locally-led development strategies.

The Just Transition Fund is a financial instrument under EU Cohesion Policy to mitigate the economic and social consequences of the energy and climate transition, especially in territories most dependent on fossil fuels and carbon-intensive industries.

Problems

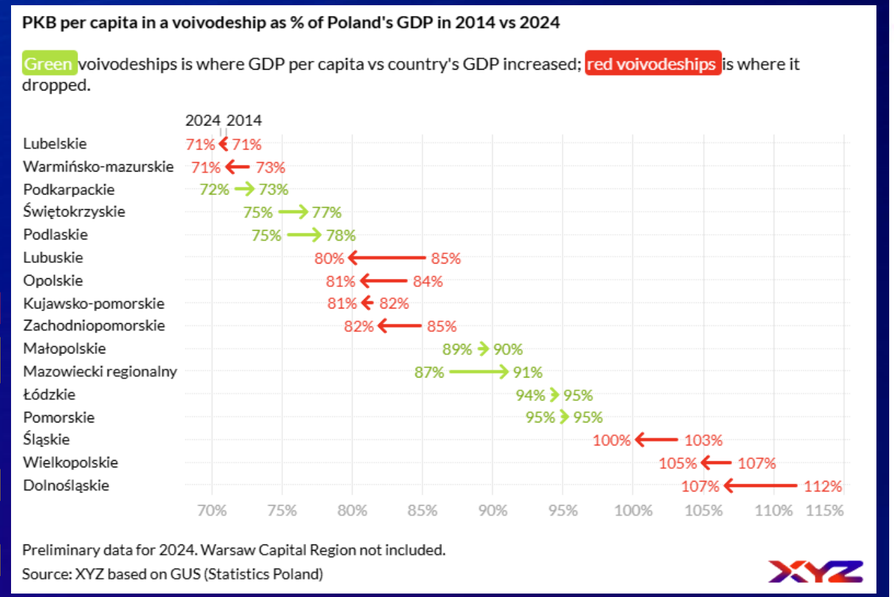
(1) Economically underdeveloped:

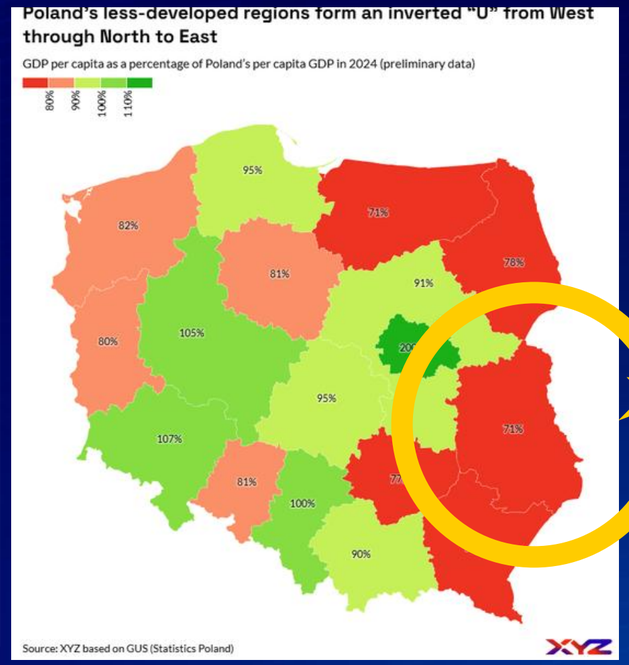
- Lubelskie is one of the least developed regions in Poland, with GDP per capita at around 70.6% of the national average, compared to over 200% in the Warsaw capital region.
- By contrast, JTF-supported regions (Silesia, Wielkopolska, Małopolska, Łódzkie, Lower Silesia) not only received funding but have stronger economic bases.

Tablica 1. Produkt krajowy brutto według regionów w 2024 r. (ceny bieżące)
Table 1. Gross domestic product by regions in 2024 (current prices)

REGIONY REGIONS	Ogółem Total			Na 1 mieszkańca Per capita	
	w mln zł in million PLN	w odsetkach in percent	rok poprzedni=100 previous year=100	w zł in PLN	Polska=100 Poland=100
POLSKA	**3,653,432**	**100.0**	**107.0**	**97,357**	**100.0**
Dolnośląskie	302,269	8.3	106.8	103,643	106.5
Kujawsko-pomorskie	153,798	4.2	107.2	78,539	80.7
Lubelskie	135,033	3.7	109.2	68,770	70.6
Lubuskie	76,040	2.1	106.9	77,733	79.8
Łódzkie	219,173	6.0	106.2	92,091	94.6
Małopolskie	297,163	8.1	107.8	87,269	89.6
Mazowiecki regionalny	198,432	5.4	106.9	88,594	91.0
Opolskie	71,313	2.0	106.9	78,488	80.6
Podkarpackie	140,727	3.9	108.9	71,021	72.9
Podlaskie	82,373	2.3	107.3	75,601	77.7
Pomorskie	219,563	6.0	107.2	92,806	95.3
Śląskie	419,348	11.5	103.6	97,509	100.2
Świętokrzyskie	84,575	2.3	109.1	74,695	76.7
Warmińsko-mazurskie	90,396	2.5	107.1	69,137	71.0
Warszawski stołeczny	674,098	18.5	107.8	195,134	200.4
Wielkopolskie	359,824	9.8	107.2	102,129	104.9
Zachodniopomorskie	129,307	3.5	106.6	79,783	81.9

Data source: Statistic Poland





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Problems

(2) Economic (industrial) fragility: The Risk of Industrial Pillar Collapse

- Demand for thermal coal from power plants in Poland is projected to decline by 47–58% by 2030 compared to 2025 levels, falling from 24.9 million tonnes to 10.4–13.1 million tonnes.
- The industrial resilience of the Lubelskie Voivodeship largely depends on Lubelski Węgiel Bogdanka (LW Bogdanka, LWB), whose operations and related industries directly and indirectly support the livelihoods of more than 20,000 people.
- Bogdanka's coal production is forecast to decline to 6.2 million tonnes by 2030, implying a structural contraction. The company's EBITDA is expected to fall by around 30% in 2025–2027, with negative free cash flows projected through 2025–2031, signalling deteriorating financial sustainability.
- Bogdanka operates with high fixed costs, with employment expenses accounting for 32–39% of total costs, meaning declining volumes directly threaten cost stability and workforce sustainability

The forecast of power generation structure (in TWh) and the implied demand for hard coal from power plants (in mn tonnes) assuming power demand CAGR of 1.0% and load factor of CCGT of 33%, 2022-30e

TWh	2022	2023	2024	2025e	2026e	2027e	2028e	2029e	2030e
Consumption	**173.5**	**167.5**	**169.0**	**165.6**	**168.1**	**170.6**	**173.1**	**175.7**	**178.4**
Import/export	-1.7	3.9	2.0	-0.4	0.0	0.0	0.0	0.0	0.0
Total generation	175.2	163.6	167.0	165.9	168.1	170.6	173.1	175.7	178.4
hard coal	**87.8**	**76.6**	**69.1**	**64.3**	**60.0**	**49.6**	**46.4**	**39.6**	**34.1**
lignite	47.0	34.6	35.8	34.2	32.5	27.6	26.3	22.3	19.0
wind	18.3	22.0	24.9	25.6	28.4	40.0	45.6	51.8	54.9
gas	10.0	13.7	16.8	19.5	23.3	27.9	27.9	33.6	40.6
other (industrial & PV)	12.1	16.8	20.4	22.4	23.9	25.4	26.9	28.4	29.9
Demand for coal mn t	**36.3**	**29.7**	**26.7**	**24.9**	**23.2**	**19.1**	**17.9**	**15.3**	**13.1**
new coal capacities	5.1	5.6	4.7	5.2	5.2	5.2	5.2	5.2	5.2
old coal capacities	31.3	24.1	22.0	19.7	18.0	14.0	12.8	10.1	8.0
Y/Y change	**2022**	**2023**	**2024**	**2025e**	**2026e**	**2027e**	**2028e**	**2029e**	**2030e**
Consumption	**-0.5%**	**-3.4%**	**0.9%**	**-2.0%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**
	na								
Total generation	**0.9%**	**-6.6%**	**2.1%**	**-0.6%**	**1.3%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**
hard coal	**-5.7%**	**-12.7%**	**-9.8%**	**-7.0%**	**-6.6%**	**-17.4%**	**-6.4%**	**-14.7%**	**-14.0%**
lignite	3.6%	-26.4%	3.7%	-4.5%	-5.0%	-15.0%	-5.0%	-15.0%	-15.0%
wind	28.6%	20.2%	13.1%	2.7%	11.0%	41.1%	14.0%	13.6%	5.9%
gas	-25.2%	36.5%	22.8%	16.0%	19.6%	20.1%	0.0%	20.3%	20.7%
other (industrial & PV)	59.8%	38.7%	21.4%	9.8%	6.7%	6.3%	5.9%	5.6%	5.3%
Demand for coal	**-4.1%**	**-18.2%**	**-10.0%**	**-7.0%**	**-6.7%**	**-17.5%**	**-6.4%**	**-14.8%**	**-14.1%**
new coal capacities	-13.3%	10.8%	-16.2%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%
old coal capacities	-2.4%	-22.9%	-8.6%	-10.6%	-8.4%	-22.5%	-8.7%	-20.7%	-21.3%

Source: ARE, TSO, Pekao Equity Research

LW Bogdanka, Key figures

PLN mn	2022	2023	2024	2025e	2026e	2027e	2028e
Revenues	2 452	3 939	3 665	2 830	2 912	2 813	2 682
EBITDA	582	1 345	981	519	381	362	296
EBITDA margin	23.7%	34.1%	26.8%	18.3%	13.1%	12.9%	11.1%
EBIT	200	840	-1 855	308	146	105	22
Net income	**175**	**687**	**-1 492**	**260**	**122**	**89**	**22**
EPS	**5.16**	**20.20**	**-43.87**	**7.65**	**3.59**	**2.63**	**0.66**
DPS	2.5	2.6	2.5	0.0	0.0	0.0	0.0
DY	5.7%	6.5%	8.9%	0.0%	0.0%	0.0%	0.0%
P/E	**8.5**	**2.0**	**-0.6**	**3.1**	**6.6**	**9.0**	**36.0**
EV/EBITDA	**1.7**	**0.5**	**0.1**	**0.1**	**0.9**	**1.6**	**2.4**

NB: Historical multiples based on avg. prices
Source: Company, Pekao Equity Research

The Lubelski Węgiel Bogdanka Group employs nearly six thousand people. Their daily work, expertise, experience and commitment have allowed us to make our company one of the state-of-the art mines in Poland and Europe. A large majority of our Employees are employed on a full-time, permanent basis. For newly hired employees, an indefinite term contract is preceded by a trial or fixed-term contract. Other forms of employment, such as contracts of mandate and management contracts, are also used occasionally (covering a group of about 100 people).

We are the biggest employer in the Lublin region. Salaries at LW Bogdanka are among the highest in the hard coal industry and in the Lublin region. We directly ensure economic security of thousands of Employees and their families. Thanks to our operations, small and medium-sized enterprises in the region can create jobs and develop their businesses.

Employees of the company and of other firms cooperating with LW Bogdanka, as well as their families, form a community of over **20 thousand people** related to the mine.

	LW Bogdanka	Łęczyńska Energetyka	MR Bogdanka	RG Bogdanka	EKOTRANS
Number of Employees under employment contracts (as at 31 December 2023)	5253	101	109	696	1
out of whom women	377	12	29	18	-
out of whom men	4876	89	80	678	1

	LW Bogdanka	Łęczyńska Energetyka	MR Bogdanka	RG Bogdanka	EKOTRANS
Number of persons working for the Company under a different type of agreement than employment contract (as at 31 December 2023)	45	4	6	14	1
out of whom women	7	1	1	6	-
out of whom men	38	3	5	8	1

Problems

(3) Structural Labour Market Vulnerability and Demographic Pressure:

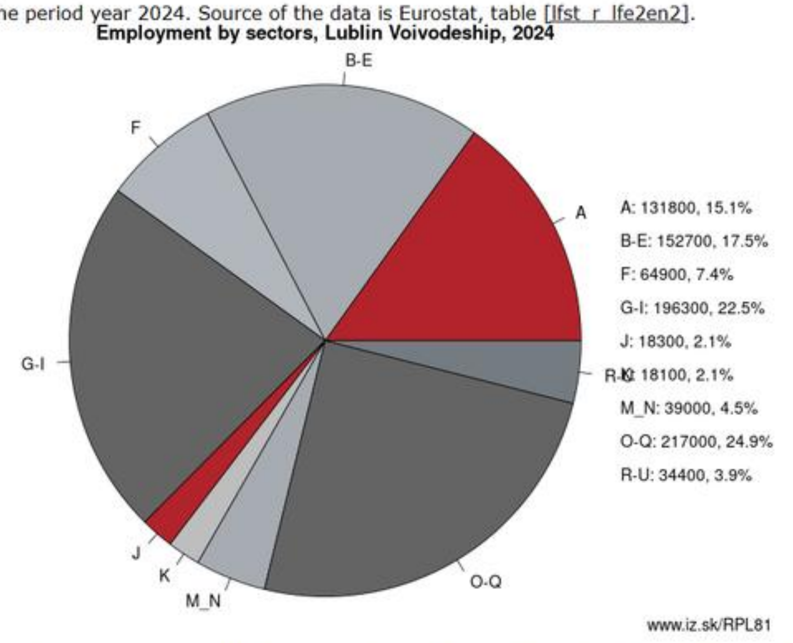
- Lubelskie's employment structure is highly concentrated in agriculture (15%) and mining (17%), and the mining sector is largely dominated by a single company, Bogdanka, making the regional labour market heavily dependent on a limited number of traditional industries.
- The region exhibits labour market structural issues, including a youth unemployment rate of 18.3%, a long-term unemployment share of 35.5%, and 26.6% of the population at risk of poverty or social exclusion.
- The old-age dependency ratio has reached 35.2%, indicating a pronounced demographic ageing trend in the region.

Lublin Voivodeship – PL81 - Employment Institute 你的段落文字

Employment by sectors, Lublin Voivodeship

NACE r2		%	NACE r2		%
A	131.8	15%	B-E	152.7	17%
F	64.9	7%	G-I	196.3	22%
J	18.3	2%	K	18.1	2%
M_N	39	4%	O-Q	217	25%
R-U	34.4	4%	TOTAL	879.6	100%

Data for the period year 2024. Source of the data is Eurostat, table [lfst_r_lfe2en2].



Other: East Macroregion, Subcarpathian Voivodeship, Lublin Voivodeship, Podlaskie Voivodeship

Neighbours: Podlaskie Voivodeship, Subcarpathian Voivodeship, Świętokrzyskie Voivodeship, Masovian Regional

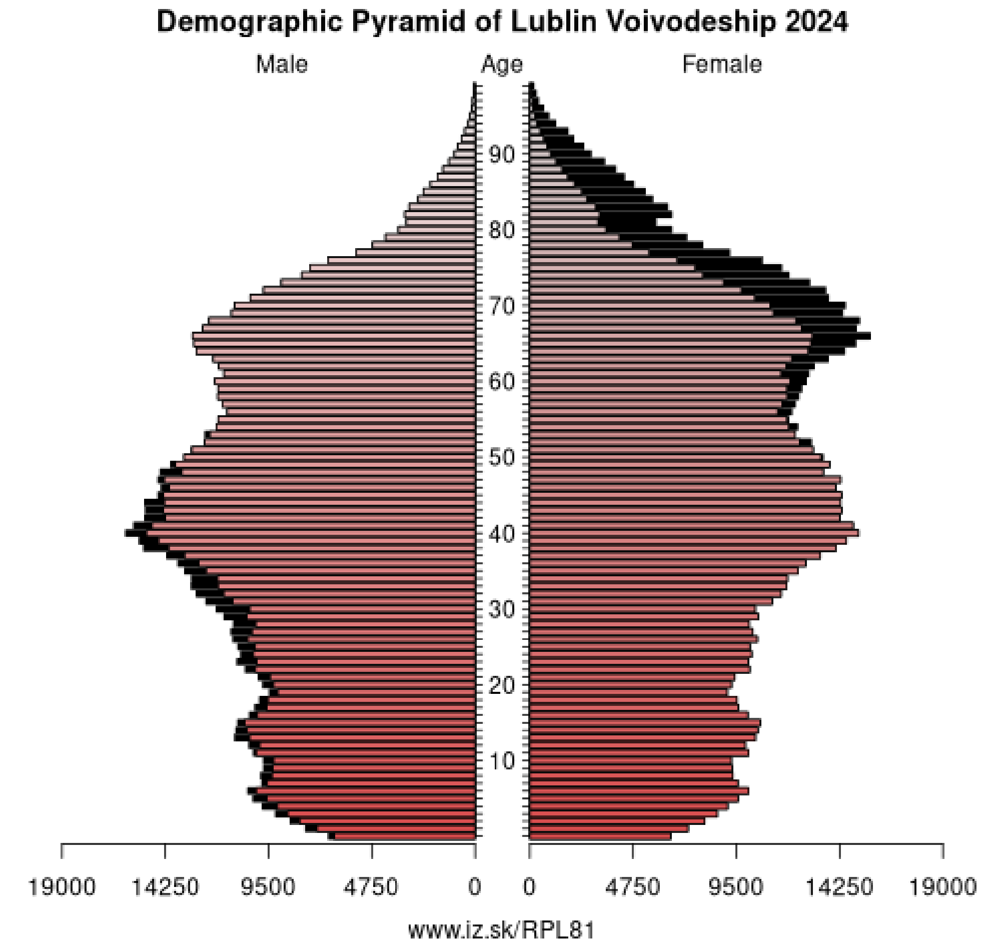
Subregions: Bialski, Chełmsko-zamojski, Lubelski, Puławski

Suggested citation: Michal Páleník: Europe and its regions in numbers - Lublin Voivodeship – PL81, IZ Bratislava, retrieved from: https://www.iz.sk/PPL81, ISBN: 978-80-970204-9-1, DOI:10.5281/zenodo.10200164

Unemployment

Indicator	Period	Value
Unemployment		
unemployment rate	2024	3.3
youth unemployment rate	2021	18.3
Long term unemployment		
long term unemployment	2024	1.2
share of long term unemployed	2024	35.5
Unemployment according to labour offices		
number of registered unemployed	December 2025	61 462
number of unemployed women	December 2025	28 710
number of long-term unemployed	December 2025	25 758
number of vacancies	December 2025	1038

old-age dependency ratio	2025	35.2



Problems

(4) Environmental Health Costs and Rising Energy Poverty

- The Lublin Agglomeration exhibits pollution exposure levels comparable to major industrial urban areas, resulting in significant premature mortality and years of life lost.
- In Lubelskie, $PM_{2.5}$ exposure resulted in between 2,368 and 3,071 premature deaths annually between 2018 and 2020, with 3,071 deaths recorded in 2018 alone.

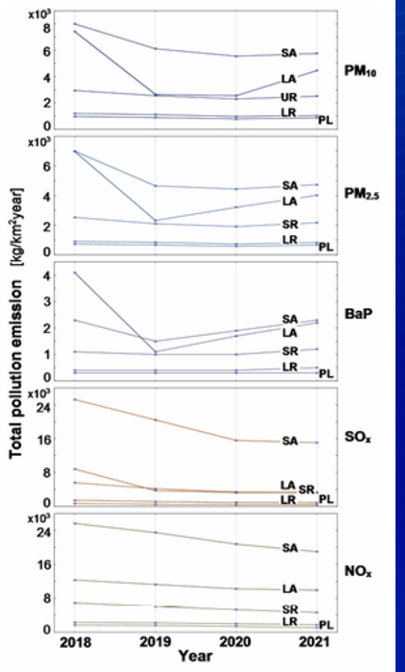


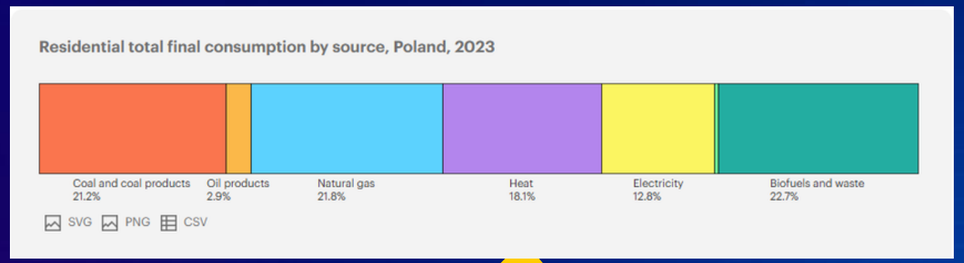
Fig. 3. Emissions of air pollution in the Upper Silesian Region (SR), the Silesian Agglomeration (SA), in the Lublin Region (LR), in the Lublin Agglomeration (LA) and overall in Poland (PL) in 2018 – 2021 (Compiled from GIOŚ, 2019–2022; Polednik and Piotrowicz, 2019; Sówka et al., 2019; WIOS, 2018–2021)

Table 3. Population, mortality (M), population-weighted $PM_{2.5}$ concentrations (Compiled from GIOŚ, 2019–2022 and GUS, 2019–2022) and premature deaths (PD), years of life lost (YLL) and the YLL per 10^5 inhabitants due to exposure to $PM_{2.5}$ in the period from 2018 to 2021 in the SR and LR regions, in the SA and LA agglomerations and in PL

Year	Popul. [×10³]	M	$PM_{2.5}$ [μg/m³]	PD	YLL	YLL/10⁵ inhabitants
SR						
2018	4548	52159	30.8	9067	113429	2494
2019	4534	51766	24.3	7240	90572	1998
2020	4518	54323	22.3	7015	87753	1942
2021	4492	58132	23.8	7975	99768	2221
SA						
2018	1856	23009	32.7	4222	52822	2846
2019	1843	23188	26.0	3452	43187	2343
2020	1838	24190	21.7	3045	38094	2072
2021	1823	25886	23.7	3537	44253	2428
LR						
2018	2126	23682	22.4	3071	38416	1807
2019	2118	23015	18.0	2430	30404	1436
2020	2108	24076	16.7	2368	29625	1405
2021	2095	26031	20.4	3093	38690	1847
LA						
2018	340	3535	21.5	441	5519	1624
2019	340	3409	18.0	360	4503	1325
2020	339	3606	17.0	361	4513	1328
2021	338	3897	20.5	465	5819	1719
PL						
2018	38411	414200	21.7	46300	592400	1542
2019	38383	409709	17.6	39300	490300	1277
2020	38268	435913[a]	16.8	39148*	489741*	1280*
2021	38081	428323[a]	19.1	40546*	507230*	1332*

Note: [a] without COVID-19 deaths, * extrapolated data.

- Poland's residential energy consumption remains heavily dependent on coal: around 40.5% of households rely on solid fuels (mainly coal and wood) for space heating, and coal is still a major source in the residential sector. However, a shift in the energy mix from coal towards natural gas would increase household energy costs in the short term, as natural gas is a relatively more expensive fuel compared with coal and wood. Under a transition scenario without additional efficiency improvements, average household energy expenditures are projected to rise by approximately 22.9%.



Phase I: Found a Social Safety Net and Industrial Transformation (2025–2028)

Main objective: Mitigate the socio-economic shock of coal contraction and safeguard livelihoods during the energy transition.

[JTF] Reskilling Project
Targeting miners made redundant due to the energy transition and several thousand supply-chain workers, the programme will deliver 10,000 hours of green skills training, including wind turbine operation and maintenance, as well as digital management systems. The objective is to facilitate skills upgrading and ensure continued employability.

[JTF / ERDF] Industrial Redeployment through Green Hydrogen
Leverages the region’s existing coal-based industrial capabilities to establish pilot-scale green hydrogen production facilities. Hydrogen production retains the industrial character of the region while gradually decarbonising its energy base. By repurposing brownfield mining sites and integrating renewable electricity inputs, green hydrogen serves as a transitional platform that preserves skilled employment and industrial capacity.

Phase II: Innovation Acceleration and Industrial Development (2028–2035)

Main objective: Mitigate the socio-economic shock of coal contraction and safeguard livelihoods during the energy transition.

[JTF] Renewable Energy Expansion (Wind and Solar)
As hydrogen production depends on clean electricity inputs, the second phase prioritises large-scale deployment of wind and solar energy. Lubelskie’s rural land availability and grid potential enable distributed renewable expansion. Renewable generation becomes the structural backbone of the regional energy system, supplying electricity for households, industry, and hydrogen production.

[ERDF] Residential Energy Transition
Large-scale subsidies for deep thermal renovation of old housing stock, including insulation upgrades and heat pump installation, alongside financial support to facilitate the transition of household energy systems from coal to natural gas.

[ERDF] Green Technology Incubator
Leveraging the research capacity of Lublin’s university cluster to establish centres for bioeconomy and advanced materials, supporting the upgrading of the regional energy sector, creating high-skilled employment opportunities, and encouraging talent return.