

Pillars

PILLARS – Pathways to Inclusive Labour Markets: The case study of the Dolnośląskie region

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Tatjana Guznajeva, Juanita Garcia Gutierrez, Ana Oliveira, Matthias Ploeg, Quentin van
Nieuwenhuizen

Technopolis



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1 Introduction

Dolnośląskie is the South-Western region of Poland. Dolnośląskie counted 2.86 million inhabitants as of 2021 and can be described as a medium urbanized region, with a population density which is only slightly higher than the EU and national average. The region's capital is Wrocław, which is Poland's 4th largest city with 638,000 inhabitants and a metropolitan area of 1.3 million. The city chairs the governing bodies of the region, being the Lower Silesian Voivodship Office (Dolnośląski Urząd Wojewódzki to instytucja) and the Marshall's office.

The region of Dolnośląskie is younger than the remaining Poland, and also younger than the average EU region: the median age in the region 42.4 years (against 44.1 in the EU), and the old age dependency ratio is 30,2% (against 33% in the EU). Simultaneously, the region's population has been growing in the last decade. This has been attributed to immigration of young and middle-aged people, which is considerably higher in the region than in the rest of Poland (1.5% being the national rate of crude migration, compared to 9.1% the region).

The Dolnośląskie region has a high level of educational attainment. Over 36% of the 25-64 aged population has a tertiary education, whilst the EU average is only 33.4% and the national average is 33.2%. In addition, 57.6% of the 25-64 aged population in the region has a secondary education, which is also considerably higher than the EU account of 45.9%. Overall, this indicates that the region has a large pool of skilled labour.

The regional economy is well-developed and very dynamic. The combination of a strong industrial base, presence of large corporations, natural resources (copper, brown coal and rock material being the most prominent), burgeoning entrepreneurial ecosystem, good universities and effective policymaking make the region attractive for investors, foreign entrepreneurs and young people. As a result, the region has become a leading manufacturer, logistics hub and innovation centre in Poland.

Total population in 2021	Population density (persons per square km) ¹ , 2021	Average crude rate of net migration plus statistical adjustment (2013-2020)	GDP per inhabitant in PPS (% of EU-27 avg. from 2020 average) in 2021	Tertiary education attainment (ages of 30-34), 2021 ²
2,864,889	144.9	1.1%	85%	55.3%

¹ The EU average population density in 2021 was 109

² The EU average of tertiary education attainment in 2021 was 41.5%

2 Overview of the labour market in Dolnośląskie

Labour market trends and key skills in demand

Over the past 20 years the Dolnośląskie region has undergone a significant economic transformation. As a result of fast economic growth and diversification of industries, the unemployment rate has dropped, leading to the new challenge - labour shortage. The favourable conditions for doing business and the presence of good universities in the region have led to immigration of entrepreneurs and skilled labour from other Polish regions and from abroad. However, existing labour resources are not sufficient to meet market needs, given the high demand for digital, engineering, and technical skills.¹ To date, most arrived migrants come from the EU countries that have either a similar level of economic development as Poland or lower, predominantly from Eastern Europe. However, the region starts to compete for highly skilled labour with large international cities, such as Berlin, Vienna, positioning itself as a regional business and innovation hub.

Labour demand in the Dolnośląskie region is not evenly distributed across the territory. Wrocław serves as the business and innovation driver, being characterised by most dynamic entrepreneurial and R&D&I ecosystems. Hence, the city experiences most acute shortage of highly skilled labour, especially in the service sector.² The surrounding areas around Wrocław have a more industrial profile, therefore these areas have high demand across all skills levels.

Major job sectors/industries

The leading industries in the region are automotive, electronics, chemical, food processing, furniture and textile.³ However, in the last decade, sectors such as logistics, tourism and hospitality, financial services, construction and real estate have been rapidly developing.

The bustling economic growth in the region is creating job opportunities across all skill levels. Based on analysis of job vacancies, the following occupations are in high demand in Dolnośląskie:

- Construction, basic-health, tourism (cooks, bartenders, etc), logistics, metal industries workers, requiring workers at the bottom end of the skill distribution;
- IT, engineering and healthcare professionals, which are occupations requiring high skills.

¹ https://eures.ec.europa.eu/living-and-working/labour-market-information/labour-market-information-poland_en

² https://eures.ec.europa.eu/living-and-working/labour-market-information/labour-market-information-poland_en

³ <https://mireu.eu/our-regions/region-lower-silesia>

Key challenges on the labour market and vulnerable groups

Different areas in Dolnośląskie experience various labour market challenges, depending on the predominant economic activity in the area. For instance, in locations with mining activity, mining workers are at risk of job displacement as Poland is adopting other sources of energy.¹

The migrants and refugees constitute an important disadvantaged group, due to limited access to high-quality jobs, in particular ethnic minorities.² Older people, unskilled young people, people facing long-term unemployment and people with disabilities also compose the group of people facing obstacles in (re)entering the labour market.

Indicator	Data
Employment rate, 2021 ³	71.3%
Employment in high-tech sectors, 2021 ⁴	5.1%
Unemployment rate, 2021 ⁵	4%
Youth unemployment rate, 2021 ⁶	8.6%
Unemployment rate of males (15 years or over), 2021 ⁷	4.9%
Unemployment rate of females (15 years or over), 2021 ⁸	2.9%
Unemployment rate among individuals with less than primary, primary and lower secondary education (levels 0-2), 15 years or over, 2021 ⁹	17.5%
Unemployment rate among individuals with upper secondary and post-secondary non-tertiary education (levels 3-4), 15 years or over, 2021 ¹⁰	4.8%

¹ <https://socialprotection.org/discover/publications/towards-just-coal-transition-labor-market-challenges-and-people%E2%80%99s-perspective-1>

² <https://www.case-research.eu/en/on-the-rights-of-foreign-nationals-in-the-labour-market-of-lower-silesia-a-migright-project-meeting-101753>

³ The EU average rate of employment in 2021 is 73.2%

⁴ The EU average of employment in high-tech sectors in 2021 was 4%

⁵ The EU average unemployment rate in 2021 was 7.2%

⁶ The EU average youth unemployment rate in 2021 is 14.5%

⁷ The EU average unemployment rate among males (15 years or over) in 2021 was 7%

⁸ The EU average unemployment rate among females (15 years or over) in 2021 was 8.1%

⁹ The EU average unemployment rate among individuals with less than primary, primary and lower secondary education (levels 0-2), 15 years or over, in 2021 was 13.9%

¹⁰ The EU average unemployment rate among individuals with less than primary, primary and lower secondary education (levels 3-4), 15 years or over, in 2021 was 7.6%

Unemployment rate among individuals with tertiary education (levels 5-8), 15 years or over, 2021 ¹	n.d.
Labour market slack, 2021 ²	6.8%

3 Technological transformation and policies/instruments to stimulate innovative and inclusive job creation

The Dolnośląskie region is an emerging innovator (RIS 2021). Between 2015 and 2021, the region had an increase in the share of population with tertiary education, the number of workers with digital skills and IT specialists, and also increased R&D expenditure in the business sector. During the same period, the region's innovative tech hubs have contributed to IT and software development. The development of special industrial zones (3 in total, with highly attractive financial climates for investors) in less developed areas of the region allowed to reduce inequalities between more and less developed areas of the region, and stimulated innovation and economic development in them. In addition, regional manufacturing capabilities have also contributed to the adoption of advanced manufacturing technologies. Key technical competences that are present in the region currently include simulation technologies, software as a service, internet of things, AI, Augmented and Virtual Reality, Big Data and data analytics, additive manufacturing and laser-based manufacturing.³

To assure innovative job creation, the region has heavily invested and continues prioritising the development of (innovative) SMEs, also in peripheral areas. The region seeks to enhance entrepreneurship and innovative performance of SMEs by promoting the diffusion and adaptation of technologies. The region's smart specialization priorities are focussed on Industry 4.0, Technology-Assisted Life, Green Deal, Chemistry and Medicine, Natural and Recycled Raw Materials, Auto-Moto-Aerospace and Machinery and Equipment.⁴

Dolnośląskie' smart specialization strategy is crucial for the policy development of business support organizations in the region. Regional policymakers actively stimulate cooperation

¹ The EU average unemployment rate among individuals with tertiary education (levels 5-8), 15 years or over, in 2021 was 5.4%

² The EU average labour market slack in 2021 was 14%

³ <https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL51#s3priorities>

⁴ <https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/PL51#s3priorities>

between R&D centres, universities, and the private sector, especially when it comes to adoption of new technologies.¹

The region is also home to a dynamic start-up culture which is also fostered through university and R&D collaboration. The Wroclaw city council plays an active role in the incubation and acceleration of start-ups and scale-ups to foster regional innovative capacity and to contribute to the creation of inclusive and innovative jobs. Through this innovativeness, the region attracts national and international immigrants that seek to expand their business in line with regional opportunities. However, local experts warn for a lack of creative talent and soft skills.

Another point of attention for the coming years is to bridge the gap between results produced through commercial research within universities and the demand in private (or semi-public) organisations. The know-how and entrepreneurial attitude lack within the academic culture in the region. This results in lost potential and a lack of success in the cooperation between local entrepreneurs and academic research. Successful cooperation would be necessary to exploit the region's potential.

One of the good practices with regards to inclusive job creation and fostering of local innovation within the business ecosystem of less developed areas of the region is the Lower Silesian Innovation Rocket project.

The project "Lower Silesian Innovation Rocket" aimed to strengthen the economic position of the Lower Silesia as a region of thriving development of innovative SMEs. The project funding of roughly €1million has been provided to selected 36 innovative entrepreneurs that own an SME, operating in the areas of smart specialisation of the region and having high attractiveness for foreign investors. The funding aimed to integrate selected SMEs into international innovative business networks, as well as, to strengthen local business linkages within the region.

The project has been launched in December 2020 and has carried out activities supporting the development and internationalisation of innovative companies of the region whilst promoting Dolnoslaskie as a region of innovation which is open for investment. The project has been ran by the regional authorities and co-financed through national funds and the European Development Fund.²

Success factors of the project include:

¹ https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1580811969.pdf

² <https://www.economicaccelerator.pl/en/dolnoslaskie-innovation-rocket/>

- Establishment of business contacts by Lower Silesian companies with foreign partners and recipients of products/services;
- Broadening of the reach and connections of these companies, leading to the attraction of more foreign capital and higher international embeddedness into regional/international value chains;
- Access to disruptive technologies and global knowledge pipelines. Providing local companies with new tools to work with, such as simulation and VR-AR technologies.

The innovative nature of the regions, fostered by policies, such as those described above, have led to a considerable increase in regional labour productivity, as attested by RCI data (RCI 2019). The bolstering of this innovative capacity leads to structural changes in the labour market and the development of the service sector.¹

It must be noted, that within Poland, the Dolnoslaskie region has one of the most qualified labour forces of the country. Among the key factors that contribute to increasing the number of skilled workers is the growing academic environment of the region. Currently, the Dolnoslaskie region has the 2nd highest number of students in Poland². The availability of qualified employees, the low unemployment rate and the favourable infrastructure have made stimulated a highly dynamic business environment, attracting talent from outside the region.

Another good practice within the city of Wroclaw is Concordia Design Wroclaw.

Concordia Design Wroclaw is a business-focused organisation in the Dolnośląskie region of Poland.³ It acts as a start-up accelerator for foreign companies. The companies are selected, based on their contribution to the regional smart specialization strategy and on a detailed business plans that outlines how a start-up will benefit and how it will contribute by moving to the region.

The steps of the accelerator programme are the following phases: “soft-landing” (1 month), development (2 months), acceleration (up to 10 months) and post-acceleration (3 months). Besides business support services, Concordia Design Wroclaw provides office spaces for local companies.

¹https://www.researchgate.net/publication/320409872_Impact_of_Changes_in_the_Employment_Structure_on_Labour_Productivity_in_the_Subregions_of_Lower_Silesia_and_Greater_Poland

² <https://invest-in-wroclaw.pl/files/dokumenty/38505/lower%20silesia%20-%20folder%20no%202.pdf>

³ <https://accelerator.concordiadesign.pl/>

Some of the key figures of the accelerator programme for its participants:

- Grants of up to €65,000
- +5 VC's which could be potential investors in a project
- Access to 8 events
- Support of +20 mentors

The accelerator encourages collaboration between local and foreign companies and stimulates internationalisation of their activities. Overall, Concordia Design Wroclaw has been successfully stimulating entrepreneurship, innovation, internationalisation, and attracting highly skilled migrants that generate new innovative job opportunities.

Success factors of the Concordia Design Wroclaw are:

- It provides business services, access to relevant stakeholders and common space to stimulate collaboration, creativity and innovation;
- It strengthens international knowledge networks between the Wroclaw city and the wider region;
- It supports local economic development, as start-ups contribute to the regional smart specialisation strategy.

4 Policies/instruments to prevent and mitigate job displacement

Poland, including the Dolnoslaskie region, are focused on rather reactive ALMPs. Within the rapidly changing context of the region's labour market, public labour market policies aiming to re- and up-skill the labour force have proven not to be very effective. However, at the moment, a national bill is being passed to reshape the ALMP structure. This should overturn its inefficiency and focus rather on proactive ALMPs. On the regional level one of the tools that has proven to be effective for young unemployed are vouchers that allow individuals to find on-the-job training. However, the quality of training has been criticised.¹ This highlights the need to increase partnerships with private organisations, specialised in training people on the job. In addition, a more individual approach to trainings is needed to better support the unemployed. One of the current bottlenecks is a lack of flexibility of the labour market offices that are in charge of the up- and re-skilling of the unemployed people.

¹ <https://ibs.org.pl/en/publications/what-works-for-whom-youth-labour-market-policy-in-poland/>

As it was mentioned earlier, the coal transition and the challenges deriving from it in the region have played an important role for the local labour market. Because of this, policies mitigating the loss of jobs can be classified into two categories:

- Policies related to job losses and other consequences of mine closures in the region. These are focused on financial compensation and job-replacement in other parts of the sector;
- Policies on economic stimulation that result in the creation of new (alternative) jobs. These are focused on upskilling/reskilling.

In addition, the establishment of the special economic and industrial zones in the region attracted foreign organisations and supported local entrepreneurs, helping to reduce job displacement. In addition, the ALMP were implemented, mainly focusing on subsidies for companies employing unemployed miners, in transition on the labour market .¹

Nowadays, the transition to a green economy is more prevalent than ever, and the region is actively cooperating with the EU, to invest public funds in the re- and up-skilling of its labour market, whilst continuing to broaden the scope of opportunities for SMEs and overall entrepreneurial activity.²

One of the main initiatives that mitigate job displacement in the region is The Just Transition Fund for Lower Silesia.

The Just Transition Fund for Lower Silesia (Poland) is part of the EU's Just Transition Programme that aims to contribute to the development and modernisation of the energy market, circular economy and digital transition.

The activities of the programme include:

- Implementing projects focusing on raising and improving competences in the field of green transformation;
- Supporting services allowing for the development of enterprises and/or their employees, in particular the acquisition or recognition of qualifications;
- Engaging in actions aimed at the development of green skills or green jobs, whilst improving and changing the qualifications of employees.³

¹ https://media.rff.org/documents/Report_22-06_June_1_2022.pdf

² https://ec.europa.eu/regional_policy/whats-new/newsroom/12-05-2022-eu-cohesion-policy-eur3-85-billion-for-a-just-transition-toward-climate-neutral-economy-in-five-polish-regions_en

³ <https://rpo.dolnyślask.pl/ogloszenie-o-naborze-przeprowadzanym-w-sposob-konkurencyjny-feds-09-01-ip-02-012-23-transformacja-spoleczna-obszarow-gornicznych-na-dolnym-slasku/>

The programme involved local mayors, universities, the private sector, syndicates, and also the mining companies¹. This has ensured productive collaboration and support achievement of better results of the programme.

5 Policies/instruments to support employers and employees during job transformation

The twin transition taking place in the region is currently driving job transformation in the region. Support of the regional council combined with the EU funds seek to actively assist employees and employers within this process.

The national training fund in Poland (Krajowy Fundusz Szkoleniowy, KFS)² has provided subsidies to support employees upskilling/reskilling. Within the Dolnoslaskie region, 80% of employees appreciated the provision of these subsidies.³ In 2019, the KFS total expenditure used to finance labour market needs amounted to USD 55million, thereby reaching 19,000 enterprises (half of which are micro enterprises) and engaging 105,000 employees in training. However, it must be noted that most participants of subsidised trainings are employees that already have a secondary or higher education.

The monitoring and evaluation activities proved that the KFS has increased employers' awareness of the need to invest in the training of employees.

The success factors of the KFS include:

- Any employer (organization with employees under contract) can apply for the KFS;
- The funds are used for lifelong learning – covering 80% of the costs in a general situation, and 100% in the case of micro-entrepreneurs (up to 10 employees);
- 80% of the funds were distributed to enterprises through local labour offices, which shows strong ties between local organisations and the PES within the region.

¹ <https://www.espon.eu/sites/default/files/attachments/Post-event%20brief%20-%20ESPON%20roundtable%20on%20Regions%20and%20structural%20change%20in%20the%20light%20of%20just%20transition%20and%20decarbonisation%20strategies.pdf>

² <https://wupdolnoslaski.praca.gov.pl/krajowy-fundusz-szkoleniowy>

³ http://www.dwup.pl/asset/images/files/2016/Badania/Raport_ko%C5%84cowy.pdf

The conducted training activities indicate that people with lower educational attainment levels have more difficulties with training and education activities, necessary to assure successful job transformation.¹ Thus, more trainings should target this group.

In order to overcome challenges associated with job transformation, the region has aligned its education and training objectives with its smart specialisation strategy. By doing so, it focuses on key strategic areas that assure sustainable job transformation.² The rapid transition and digitalisation rate put the lifelong learning among key regional priorities.³ To support this, the Economic University of Wroclaw (UEW) has established the Continuing Education Centre, which offers post-graduate studies, trainings and further education. To ensure relevance and high quality of education/training activities, the Center evaluates the needs for lifelong learning and engages in active cooperation with local private organisations and policymakers.⁴

6 Lessons learned

Stimulation of innovative and inclusive job creation, powered by automation technologies:

- Stimulation of innovative job creation in the region is ensured through its dynamic business environment. The region plays an active role in coordinating the collaboration between R&D centres, universities, and enterprises. This contributes to the region's high level of innovativeness, which is one of the major drivers of local economic growth.
- As the region invests and subsidise in sectors that build on the region's key competences and smart specialization objectives, this leads to the creation of not only inclusive but also more sustainable jobs.
- One of the focal points of the region is the promotion of the local entrepreneurial ecosystem. SME activity is promoted through subsidies and campaigns that aim to increase their competitiveness. This results in increasing connectedness to global knowledge pipelines. The fostering of this SME activity ensures the creation of local knowledge pools, and the competitiveness of the region's start-up culture is proof of the quality of the business/innovation ecosystem within the region.

¹ <https://www.oecd-ilibrary.org/sites/61333202-en/index.html?itemId=/content/component/61333202-en>

² https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1580811969.pdf

³ <https://www.oecd.org/employment/emp/Skills-strategy-poland-report-summary-EN.pdf>

⁴ https://www.podyplomowe.ue.wroc.pl/115.centrum_ksztalcenia_ustawicznego.html

Prevention and mitigation of job displacement, following adoption of automation technologies:

- The prevention and mitigation of job displacement in the region is mostly focused on the twin transition that is taking place in the region. Dolnoslaskie historically has been a coal reliant region. Because of this, the closing of coal mines has been affecting the region's labour market since the 1990s. At the turn of the century, this has led to high unemployment rates and spatial inequalities. To mitigate these issues, the regional government has established special economic zones and has focused on the business ecosystem.
- ALMPs have been put in place to assure the re-integration of mineworkers or employees of sectors related to the coal industries, in the light of job displacement. At the same time, this has created a strong infrastructure and dynamic business environment in the region. Entrepreneurial activity (and incentives to engage in it) is highly dynamic, and special subsidies exist for employees losing their jobs.
- EU Just Transition Funds, together with other more local initiatives aim to raise awareness and accessibility for training programmes for employees. Funds are also available for entrepreneurs to train their employees, even supporting a change of business profile through financial subsidies.

Supporting employers and employees during job transformation, following adoption of automation technologies:

- One of the main tools supporting successful job transformations in the region is the National Training Fund. This fund assists employers in the up- and re-skilling of their employees. By doing so, it actively contributes to one of the region's biggest challenges in light of automation (and digitalisation), namely lifelong learning.
- The region's overall qualification also contributes to the process of job transformation, as it adds to the versatility of employees and the overall quality of the labour offer in the region.
- Good collaboration between the local labour offices, employees and employers in the region supports the effective implementation of the ALMP and other business/innovation support programmes.