



HARNESSING TALENT IN EUROPE'S REGIONS



Pillar 1 of the Talent Booster Mechanism Diagnostic Report – Łódzkie, Poland

August, 2024

1. Executive Summary

The Łódzkie region has experienced a significant demographic shift since the late 1980s. This has been characterised by a notable population decline and changes in population composition, including a decrease in working-age individuals and an increase in the post-working-age population. This has led to a higher demographic burden. This shift is driven by a number of factors, including negative net migration rates among younger cohorts, which have contributed to the phenomenon of "brain drain," particularly affecting educated individuals in the 24-34 age group. Economic challenges, including a GDP per capita below the EU average and limited job creation capacity, further exacerbate the situation.

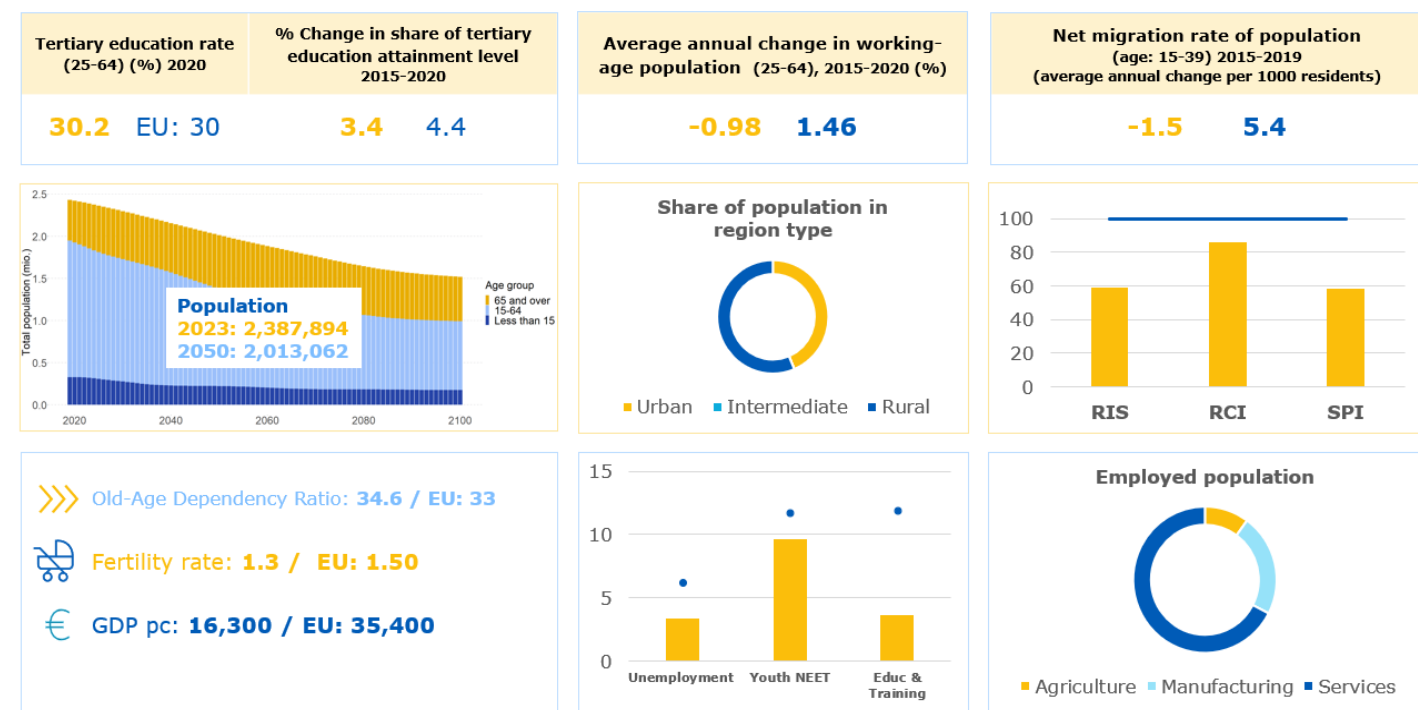
Within this context, the upcoming closure of the Bełchatów mine and power plant represents a significant challenge, as this will most likely result in significant job losses. Despite 23 universities, the Łódzkie region struggles to retain talent due to limited innovation capacity. This is characterised by low private sector R&D expenditure and inadequate collaboration between businesses and academic institutions. While the region offers a generally high quality of life, disparities in access to essential services such as housing, healthcare, and public transport act as drivers for emigration.

The diagnostic phase identified several gaps in talent attraction and development in the Łódzkie region. These include **a lack of knowledge about the individual factors that motivate citizens to relocate and a lack of comprehensive data on the sociodemographic makeup of relocating individuals.** There is also **a notable absence of a coordinated strategy focusing on talent development and retention**, despite recognition of the significance of ongoing demographic changes. While some initiatives have been implemented, their systematic nature and effectiveness remain unclear. The consensus among regional representatives is that the region would benefit from adopting best practices from comparable regions to address these challenges effectively.

To address these shortages, **the TA team suggests two types of action to be implemented within the strategic roadmap. The first action is aimed at providing evidence and preparing the strategic roadmap.** This will involve two main steps: a survey of university students and the development of tailored solutions based on the survey outcomes. The survey will gather data on students' demographics, motivation, and migration plans, offering valuable insights into the factors influencing talent retention. The subsequent development of customised solutions will draw on successful strategies from comparable regions and explore potential funding avenues. **The second action will focus on fostering collaboration with research institutions to monitor talent migration trends within the region.** This initiative will build on existing research endeavours such as the National System for Monitoring Higher Education Graduates' Economic Fate to address knowledge gaps concerning talent inflow and outflow. The overarching objective is to establish a sustainable mechanism for monitoring talent migration, utilising register data processed by designated research bodies.

2. Needs & Gap Analysis

2.1. Needs – regional challenges



Source: first row of indicators – [Annex to the “Harnessing talent in Europe’s regions” Communication](#); Population projections and share of population (Eurostat: proj_19rp3, demo_r_pjanaggr3); RIS, RCI and SPI refer, respectively, to the Regional Innovation Scoreboard, the Regional Competitiveness Index and the Social Progress Index (all European Commission); Old age dependency ratio (demo_r_pjanind3); Fertility rates (demo_r_find2); GDP per capita (nama_10r_3gdp); Participation in training (or education) in the last four weeks (trng_lfse_04); Unemployment figures (lfst_r_lfu3rt); NEET (Young people neither in employment nor in education and training, edat_lfse_22); Employment by sectors (nama_10r_3empers).

Demographic change

The Łódzkie Region has experienced a significant decline in its population since the late 1980s¹. Between 2000 and 2021, the number of inhabitants decreased by almost 250,000, which represents a decline of about 9.4% compared to 2000. At the same time, available forecasts from *Statistics Poland* indicate that by the end of 2040 the number of inhabitants may decrease by another 250,000 people, and by a grand total of over 600,000 people by 2060². Eurostat forecasts predict similar changes with the perspective to 2100, indicating an estimated **population loss of up to 1 million inhabitants**³.

The population is not only shrinking in terms of size, but also impacted by negative trends of its age structure. The share of people of working age is decreasing at a steady rate. Between 2015 and 2020, this decrease amounted to -9.8 per 1000 inhabitants. The region has one of the lowest

¹ The Łódzkie Voivodeship within its present borders was created in 1999.

² Population forecast for 2023-2060, Statistics Poland, Warsaw 31.08.2023.

³ Eurostat (data code: proj_19rp3).

shares of pre-working age population in the country (17% in 2019, ranking 14th out of 16 regions in Poland) and the highest share of post-working age population (24.3%, ranking first), which results in the highest value of the demographic burden indicator in the country⁴. Again, forecasts indicate that the negative trend will continue in the future. This phenomenon is influenced by two key factors: the age pyramid of the population and the observed negative trend in the net migration of younger cohorts (-1.5 per 1000 inhabitants between 2015 and 2019). **Migration accounts for approximately 15% of the value of the population decline**, with the remaining change due to natural demographic changes (excess of deaths over births).

The emigration is primarily concentrated among younger individuals, causing the phenomenon of brain drain. This is also evidenced by the region's share of the population with higher education, which remains at a level similar to the EU average (30.2% in 2020). However, within this group, there has been a notable decline in the proportion of people aged between 24 and 34. **The rate of decline in the number of people aged between 24 and 34 has been the fastest in the country (from 44.6% in 2018 to 34.3% in 2022)**⁵. It can be reasonably assumed that this is due to the observed migration processes within this group of people.

The majority of migrations are internal (interregional). Residents are less likely to migrate to other countries⁶. In particular, there is an outflow to the Mazowieckie (34%), Dolnośląskie (14%), Małopolskie (11%) and Śląskie region (9%). The prevalence of migration to Mazowieckie, particularly to Warsaw, is attributable to a combination of factors. The capital offers a competitive job market with higher salaries and employment opportunities, while the relatively short distance to Łódź (approximately 120 km) also plays a role. This last factor also influences the phenomenon of circular migration⁷. The large differences in property prices and rents, which are much lower in the Łódzkie region, further contribute to this phenomenon. However, the detailed motivations of the emigrants, especially taking into account individual specialisations and qualifications, are not known. **In order to better understand the needs of the region, it is necessary to gain a deeper insight into the reasons behind the decision to leave.** The region, and Łódź in particular, is also experiencing urban depopulation to the benefit of neighbouring rural areas (suburbanisation⁸). It is noted that this process is uncontrolled and incurs costs in terms of the need to provide public services and develop technical infrastructure⁹.

Economy and the labour market

The GDP per capita in the region in 2020 was 73.5% of the EU average, and registered a positive trend from 2010 to 2020 with an increase of 14.8 percentage points. Additionally, both the employment rate and activity rate gradually increased between 2015 and 2022. The employment rate increased from 51.8% in 2015 to 57.1%, while the activity rate rose from 56.2% to 59.1%. **The majority of unemployed individuals in the Łódzkie Province have a lower level of education**¹⁰. These individuals are often employed in occupations with high job turnover, such as industrial and craft

⁴ Development Strategy of Łódzkie Voivodship 2030. Łódź, 2021.

⁵ Eurostat (data code: edat_lfse_04).

⁶ For example, in 2022, 484 people from the Łódzki Region decided to migrate abroad (for permanent residence), while at the same time almost 6,000 people (12 times more) were registered to move to another region in Poland (Statistics Poland data - Local Data Bank: Internal and foreign migrations).

⁷ In 2021, 27,000 employees living in Łódź travelled to work, 36.3% of them outside their own voivodeship. The largest group of these people worked in Warsaw. Source: Commuting to work in the light of the results of the National Population and Housing Census 2021. Statistics Poland, 2024

⁸ Suburbanisation refers to the process by which people move from urban areas (cities) to the suburbs, the residential areas on the outskirts of a city. This phenomenon typically involves the expansion of cities into surrounding rural areas and the development of residential communities, commercial centers, and infrastructure in these newly suburbanized areas.

⁹ Development Strategy of Łódzkie Voivodship 2030. Łódź, 2021.

¹⁰ The EURES Report on labour shortage and surpluses 2022 retrieved from: <https://www.ela.europa.eu/sites/default/files/2023-09/ELA-eures-shortages-surpluses-report-2022.pdf>.

workers, basic service and sales workers, and elementary workers. The largest group of unemployed individuals is made up of industrial workers and craft workers (21.1% of the total number of unemployed persons).

The report *Living conditions of the population in Łódzkie voivodship 2023*¹¹, published by the Statistical Office in Lodz and the Łódzkie Centre for Regional Surveys, reveals that **the region's economy remains heavily reliant on industry**, with the highest share of its population employed in this sector (227,000), followed by employment in trade, including repair of motor vehicles (153,000) and education (71,000). The most developed branches of industry in the region are production of textiles and clothing, mining of lignite, generation and distribution of electricity, production of chemical products, production of food products, production of machinery and equipment, production of electrical equipment and building materials. **The industrial sector is concentrated in two main areas: the Łódź agglomeration**, which is home to a diverse range of industries including textiles and clothing, food and food processing, electromechanical, pharmaceutical and chemical, and **the Piotrków Trybunalski and Bełchatów area**, which is focused on mining, power generation, rubber, building materials, furniture, timber, spirits, glass and pharmaceuticals.

The *2023 Occupational Barometer* indicates that there are **certain occupations which are in short supply at the regional level**. These include electricians, electrical equipment repairers and installers, bus drivers, heavy truck and semi-trailer truck drivers, medical doctors, stock clerks, construction installation assemblers, earthmoving plant operators and mechanics, nurses and midwives, accounting and bookkeeping clerks, psychologists and psychotherapists, and welders.

A key factor influencing the regional labour market is the limited capacity of the regional economy to create attractive, well-paid jobs. This is further compounded by the region's central location and proximity to competing cities, including the capital. In 2022, the average monthly gross salary in the Łódzkie region was 6.3 thousand PLN. In comparison, the average monthly gross salaries in the Mazowieckie, Dolnośląskie, and Małopolskie regions were 7.9 thousand PLN, 7.0 thousand PLN, and 6.9 thousand PLN, respectively. However, there are significant variations in average monthly gross salaries across different enterprise sectors in the Łódzkie region. For instance, the average monthly gross salary in the information and communication sector in 2021 was 10.7 thousand PLN, while it was 8.1 thousand PLN in professional, scientific, and technical activities. In accommodation and catering, the average was 4.2 thousand PLN, and in administrative and support service activities it was 4.3 thousand PLN.

Furthermore, **the Bełchatów area is set to face an increasingly challenging job market as the coal mine and the attached power plant are scheduled for phasing out by 2049 according to the Polish Energy Policy Plan until 2040 (PEP 2040)**. The region has been heavily reliant upon the extraction of brown coal and the generation of electricity from this resource for several decades. The Bełchatów brown coal mine is the largest open cast mine in Poland and one of the largest in Europe. The PEP 2040 foresees that the Bełchatów Energy Complex reduces its CO₂ emissions by 80% until 2030 compared to 2020, i.e. from 30.1 to 6.9 million tonnes. It is estimated that **the closure of the mine, power plant and related entities puts the employment for over 20,000 individuals at risk**, thereby potentially impacting negatively the local economy and exacerbating the negative effects associated with resident migration and the exodus of talent. Addressing this risk is the main objective

¹¹ The report is available online: <https://lodz.stat.gov.pl/publikacje-i-foldery/foldery/warunki-zycia-ludnosci-w-wojewodztwie-lodzkiem-edycja-2023,6,4.html>.

of the Territorial Just Transition Plan of the Łódzkie Voivodship, supported by the EU's Just Transition Fund.

Innovative capacity

The *Regional Innovation Scoreboard 2023* classifies Łódzkie region as an **"Emerging Innovator +"**, which is below the European average and roughly in line with the national average in terms of innovation. The region falls behind both the country and the EU in terms of private sector R&D expenditure, innovation expenditure per employee, share of business process innovators, collaboration between innovative SMEs, and number of patent applications¹².

The poor performance of these indicators highlights the significant challenges faced by enterprises in the Łódzkie region when it comes to innovation. The Regional Innovation Strategy for Smart Specialisation (LORIS 2030), prepared for the 2014-2020 period, summarises these challenges, attributing them **to both structural and cultural factors** within the local innovation ecosystem. The SWOT analysis elaborates on these issues, highlighting among others¹³:

- The dominance of SMEs, especially small and micro enterprises, is constrained by structural limitations and a cultural reluctance to engage in risky innovation activities. This is exemplified by an "imitative" nature of innovation.
- The concentration of innovation activities in large enterprises and in Łódź, the regional capital, has the effect of making peripheral municipalities less economically attractive.
- A landscape of developed educational institutions (universities) with a strong focus on research, which rarely engage in international research or cooperate effectively with local businesses.

The latter issue has also been addressed in the updated strategy (2024)¹⁴, which highlights that the majority of R&D activities conducted by companies are funded internally. It would be beneficial to enhance collaboration between companies and the academic community, as well as scientific and research institutes, by leveraging regional specialisations and the sector's long-standing industrial traditions. This would help to enhance the competitiveness and innovation of the industrial sector.

Education & Training

The proportion of the Łódzkie region's population with a tertiary education qualification is in line with the EU average. In 2023, 30.2% of the population held a tertiary education certificate (compared to an average across the EU of 30%). While educational attainment in the region appears to be on an upward trend, the percentage change in the share of tertiary education attainment level between 2015 and 2020 is still lower than the EU average (+3.4% in the Łódzkie region compared to +4.4% across the EU).

Nevertheless, **the Łódzkie region, and Łódź in particular, have a significant potential for talent creation.** The region is home to 23 universities (7 public), including the State Higher School of Film, Television and Theatre, which offers unique specialisations. In addition, Łódź boasts several advantages that make it an appealing choice for academic institutions. The city's relatively low cost of living is a notable benefit, particularly when compared to other academic centres. Its central location in Poland provides convenient access to various parts of the country. However, **the educational system has only a regional impact, with the majority of students coming from the region (over 80%)**¹⁵.

¹² Regional Innovation Scoreboard 2023 – Regional profiles Poland.

¹³ Regional Innovation Strategy for Łódzkie Region LORIS 2030.

¹⁴ Regional Innovation Strategy of Łódzkie Region "RSI Łódzkie 2030+".

¹⁵ Development Strategy of Łódzkie Voivodship 2030. Lodz, 2021.

An increasingly common phenomenon is the decision to abandon studies in the Łódzkie region as early as the secondary school stage. This may be attributed to the perception of the region as an unattractive location for retaining and attracting talent, as well as for developing it.

The Łódzkie region boasts 37 Vocational Training Centres, which play a pivotal role in preparing students for professional practice and supporting the growth of vocational education and training (VET) in the region. As the *Diagnosis of Vocational Education*¹⁶ reveals, **vocational schools in the Łódzkie region face numerous challenges that affect students' choices and the quality of their education.** Two key areas of concern are insufficient funding for vocational education and parents' aspirations for their children's education. It is unfortunate that the choice of vocational school as an educational stage is neither popular with young people, nor approved by their parents. This is often due to a lack of awareness about the benefits of acquiring a profession at secondary level. Lack of adequate promotion of vocational education and the negative image of this educational pathway are important factors influencing this perception of vocational education. Another significant challenge facing vocational education and training is the ageing of the teaching workforce. There is also a lack of VET teachers, as well as a general instability in retaining staff and the recruitment of both practical and theoretical vocational teachers. Another challenge is cooperation with enterprises, which is often related to their low involvement in the education process. This may be due to firms not seeing sufficient financial incentives to work with VET schools, such as a lack of financial benefits or bureaucratic procedures.

Moreover, **the participation rate in education and training in 2022 in the Łódzkie region remains below the EU average (11.9%).** This is reflected in a rate of only 3.6%¹⁷. Furthermore, participation rates among both females (4.3%) and males (2.9%) in the region are considerably lower than the national averages for Poland (8.3% for women, 7% for men). Although there have been fluctuations, particularly among males, the overall participation rates remain low. This suggests potential challenges or discrepancies in access to education and training opportunities within the region.

Quality of life

The quality of life in the Łódzkie region is assessed as being of a **high standard overall**, with the region boasting high personal security indicators and low crime rates. However, **there are disparities in access to essential services such as housing, healthcare, and public transport**, which negatively impact the quality of life in the region and act as push factors favouring emigration.

The *EU Social Progress Index (EU-SPI)*¹⁸ highlights **significant concerns regarding housing affordability and quality in Poland, particularly in the Łódzkie region.** In this region, housing costs and overcrowding are notably higher compared to the EU average. In the city of Łódź, there are 368,909 registered dwellings, with 43,200 owned by the municipality. However, the plan is to retain only 39,000 of these in the long run. In 2020, just 22,729 (of the 43,200) apartments had municipal rental contracts, meaning that 47% of the municipal dwellings are vacant. Many flats, especially those downtown, lack basic sanitary equipment, and nearly half are registered for demolition or major repair¹⁹. Furthermore, the average useful floor area per dwelling has decreased from 112.6 m² in 2015 to 93.2 m² in 2022, while the average number of rooms per dwelling has shrunk from 4.5 to 3.8 during the same period. In 2022, only 5.6 dwellings per 1,000 population were completed in Łódź, significantly

¹⁶ [DIAGNOSIS OF VOCATIONAL EDUCATION PROVISION](#), Lodz, 2023.

¹⁷ Eurostat (Online data code: trng_ifse_04)

¹⁸ European Social Progress Index 2020 (Available: https://ec.europa.eu/regional_policy/information-sources/maps/social-progress/2020_en).

¹⁹ <https://stat.gov.pl/en/databases/>

fewer than in other regions such as Pomorskie, Mazowieckie, Dolnośląskie, Wielkopolskie, and Małopolskie²⁰.

Conversely, **Łódź offers the lowest average price of flats among major Polish cities**. In March 2024, the average price of flats in Łódź was PLN 10,843 per m². This was significantly lower than the average prices in other major Polish cities, with Warsaw at PLN 17,500 per m², Krakow at PLN 15,056 per m², Gdańsk at PLN 13,359 per m², Wrocław at PLN 13,100 per m², and Poznań at PLN 13,100 per m².²¹

In terms of healthcare, the region stands out in comparison to the country for its relatively good provision of healthcare infrastructure and the number of staff working in this sector. However, **there is an uneven distribution of healthcare resources, including medical personnel and infrastructure**. Problems with accessibility to medical services concern mainly rural areas and small towns²².

There is also a significant shortage of psychiatrists in the Łódzkie region, particularly in the context of the needs for treatment of mental disorders. In 2019, there were only 168 psychiatrists in the region (0.68 per 10,000 population), 23 child and adolescent psychiatrists (0.09 per 10,000 population) and 753 psychologists (1.4 per 10,000 population). The number of geriatricians is also insufficient. In 2019, there were 0.06 geriatric physicians per 10,000 inhabitants in the Łódzkie region.

Another factor that may contribute to a reduction in the quality of life in the region is the **unattractiveness of public transport due to unsatisfactory services**. This includes a shrinking network of connections and a frequency that does not meet passenger needs, particularly in bus services, which has led to the creation of areas with limited transport accessibility²³.

Other challenges

The Łódzkie Region is facing significant challenges in attracting, retaining and developing talent. A further obstacle is **the negative image of the region**, which was highlighted at the meeting with regional representatives and stakeholders²⁴. This is partly due to stereotypes that are not supported by current evidence. The region is struggling with a negative image stemming from the decline of the textile industry. This is occurring concurrently with the region undergoing a period of intensive revitalisation and modernisation, with many of the negative aspects of the past no longer present.

²⁰ Living conditions of the population in Łódzkie voivodship 2023.

²¹ <https://rynekpierwotny.pl/wiadomosci-mieszkaniowe/raport-cenowy-marzec-2024/12451/>.

²² Development Strategy of Łódzkie Voivodship 2030. Łódź, 2021.

²³ Development Strategy of Łódzkie Voivodship 2030. Łódź, 2021.

²⁴ One academic noted: *One of the biggest problems is the low awareness of the attractiveness of Łódź itself and of the Łódzkie region among Polish citizens. The stereotypical image of a grey, uninteresting Łódź persists even among the inhabitants of the Łódzkie region, who are often unaware of the changes that have taken place in Łódź in recent years, e.g. in terms of revitalization and new investments, as well as the opportunities the city offers for professional development. Generally, Łódź's current image as a city loses out in competition not only with Warsaw, but also with Kraków, Wrocław and Gdańsk. The stereotype of Łódź as a city of textile factories still persists.*

2.2. Policy landscape

Strategic framework

Regional strategies

The Development Strategy of the Łódzkie Region 2030

This Strategy was adopted as a long-term action plan to transform the region into a modern and dynamic economic centre. Its key objectives, which contribute to attracting and retaining talent, aim to **build a modern economy based on knowledge and innovation**. The region focuses on developing technology, innovative economic sectors and strengthening cooperation between science and business. In addition, the region places a strong emphasis on **modernising the road, rail and public transport network** to improve the region's accessibility and increase its investment attractiveness. Measures to attract and retain talents can be identified in the above-mentioned document, although this aspiration is not expressed explicitly. They take the form of:

Development of the R&D sphere and cooperation between science and business: Support for research and development (R&D) units, especially in enterprises, and the development of human resources in universities and R&D units. Support for implementation-oriented research and commercialisation of research results. Intensification of cooperation between R&D and entrepreneurs through promotion of good practices, support of the activities of technology brokers and development of laboratory facilities.

Development of vocational education and training: Promotion and intensification of vocational and technical education in cooperation with enterprises. Creation of joint curricula and apprenticeships that respond to the needs of the labour market and the region's specialisation. Adaptation of vocational education courses to the requirements of the modern economy and regional specialisations, including the organisation of sector-specific training for teachers and study visits to workplaces.

Support for small and medium-sized enterprises (SMEs): Support for newly established entities, including funding for activities in their first period of operation, training and advisory support and funding for innovative solutions. Promoting new business models and pro-environmental solutions and developing digital competence of employees working in SMEs.

Improving the competence and skills of employees: Supporting training for local government employees and developing systemic cooperation with researchers and entrepreneurs. Promoting information and communication technologies in management and digitalisation of the resources of public institutions. Development of key competencies in the labour market, including digital skills, through the organisation of apprenticeships and training for students, graduates and jobseekers.

Infrastructure and working conditions: The creation of modern educational and industrial infrastructure and the development of services to support entrepreneurship, such as business support centres and business incubators.

Cohesion policy programming

Regional Programme European Funds for Łódzkie 2021-2027

The programme builds on the activities initiated in previous years, with a focus on increasing the region's innovation and competitiveness. The document outlines nine priorities, in addition to technical assistance, including 28 specific objectives and three technical assistance priorities (ERDF, ESF+, JTF). The programme will provide significant support to enhance the region's research and innovation

capacities, improve broadband and transport infrastructure, modernise the healthcare system, and foster social cohesion and employment. The programme has been designed with the objective of attracting and retaining talent by improving access to essential services. This addresses one of the critical factors influencing residents' decisions to stay or leave the region. Table 1 presents a general overview of the financial contributions for the 2021-2027 programming period, broken down by fund.

Table 1 – Breakdown of Finances by ESIF

Fund	EU Investment (€)	National Contribution (€)	Public	Total Contribution (€)
ERDF	1.717.388.119,00	303.068.495,00		2.020.456.614,00
ESF+	658.032.055,00	116.123.306,00		774.155.361,00
JTF	369.522.769,00	65.209.902,00		434.732.671,00
Total	1.104.379.794,00	272.063.108,00		1.376.442.902,00

Sources: *European Funds for Łódzkie 2021-2027* ([Programme description](#)).

The ROP 2021-2027 for Łódzkie addresses the evolving needs of the innovation ecosystem and the challenges posed by demographic changes and climate impact through comprehensive solutions. The Łódzkie Programme includes several measures designed to attract and retain talents. Investments in education and vocational training equip the workforce with the skills needed for the evolving job market, enhancing employability and professional growth. Support for research and innovation, particularly for SMEs, fosters a dynamic entrepreneurial environment. Furthermore, the programme's focus on digitalisation and the development of public e-services enhances the region's attractiveness for tech-savvy professionals. Improving quality of life through better healthcare, social services, and sustainable urban development further contributes to creating a vibrant, talent-friendly ecosystem. The programme also plans to use the Just Transition Fund for restructuring the Bełchatów Power Plant and its associated lignite mine. These initiatives are designed to achieve ambitious climate neutrality goals for the entire region, while also offering measures to alleviate the socio-economic impacts of this transition on the local population. Overall, the ROP 2021-2027 for Łódzkie aims to create a more dynamic and resilient regional economy by investing in key areas that improve the quality of life for residents and make the region more attractive to both existing and new talents. The priorities identify the necessary interventions to address the main development challenges identified in the region.

Smart Specialisation Strategy (S3) Regional Innovation Strategy LORIS 2030

The Regional Innovation Strategy is the second key document that contributes to attracting talent in the region. LORIS focuses on activities supporting the development of entrepreneurship, strengthening cooperation between enterprises, research and development units, business environment institutions and administration, and promoting broadly understood innovativeness in all areas of economic activity. LORIS is an important element in building a strong innovation ecosystem in the region. The following areas are addressed by measures aimed at attracting and retaining talents:

Cooperation between science and business: Staff exchange programmes between science and business are promoted to increase innovation. Such programmes enable scientists to gain experience in business and businesses to benefit from the latest scientific developments.

Development of vocational and technical education: There is an emphasis on developing vocational and technical education tailored to the needs of regional specialisations. This includes both curricula and internships and apprenticeships organised in cooperation with businesses.

Innovation support systems: The creation and development of innovation support systems, such as platforms for the exchange of information between universities and companies, are key. Consultancy and training programmes and innovation audits for companies are also being introduced.

Promotion of academic entrepreneurship: There is a need to stimulate an entrepreneurial spirit in academia. These programmes include systems for identifying and evaluating innovative ideas, promoting their development, and support for raising funds for research and development.

Alignment of education with the labour market: Education programmes tailored to labour market needs are being developed in the region, including support for long-life learning programmes to increase employment and labour mobility.

Creating an innovation-friendly climate: Improving pro-innovation knowledge and awareness in the local government administration and building pro-innovation attitudes among the administration's staff aims to support the implementation of innovation at the local level.

Exchange and internship programmes: The organisation of internships and apprenticeships, both nationally and internationally, aims to increase the competences and work experience of young people and retain them in the region.

Relevant existing initiatives

At the stage of diagnosis and stakeholder interviews, a few selected initiatives were identified that could be considered relevant for talent attraction and development. It is worth noting that this list is preliminary and may be supplemented by the results of the discussions held within the framework of the project.

Youth in Łódź. The Youth in Łódź programme was created to encourage young people to consider Łódź as a future destination, to support the career development of Łódź students and to provide local entrepreneurs and potential investors with highly qualified staff. It is implemented by the City of Łódź Office, which works in collaboration with the largest universities and leading employers in Łódź to implement initiatives such as an internship and apprenticeship portal, paid summer internships, a scholarship programme, free training, company visits and a discount card. One of the programme's events is "**A taste of studying in Łódź**". This series of events encourages people to study in Łódź, allowing students from the region's best secondary schools and Łódź to experience first-hand how to study and work in the city. Another activity under the programme is the project "**A taste of working in Łódź**". This pilot activity for high school students in Łódź is carried out in collaboration with local entrepreneurs. Its objective is to encourage young people to consider Łódź as a potential future location for their careers.

City of Łódź Scholarships. A city scholarship programme that aims to create conditions conducive to studying in Łódź. Students - laureates and finalists of the Olympiads can count on scholarships of up to 350 EUR /month. Scholarships are paid for one academic year.

Scholarships under the City of Talents programme (Mia100 talentów). The scholarship is open to particularly gifted students attending public or non-public primary and secondary schools in Łódź, regardless of their place of residence. To be eligible, students must be recommended by the pedagogical board of their school and additionally meet certain criteria, such as high-grade point averages and achievements in Olympiads, competitions or sports competitions at least at the provincial level. The scholarship is provided in the form of a cash benefit of approximately EUR 120 per month.

Automation and Robotics Technical School. The technical school was established as a school with a business focus, with the objective of providing training and education to students who will then enter the workforce. It has a strong partnership with companies that are located in the Łódź Special Economic Zone (ŁSEZ), which brings together more than 300 companies from various industries. The Educational

Zone, the body that runs the technical school, is a partnership created on the initiative of the ŁSEZ and three companies that operate in the zone.

Project re_d: rethink digital - Central Poland Digitalisation Hub. The project is being implemented by the ŁSEZ under the 'Digital Europe' 2021-2027 Programme and the European Funds for Modern Economy 2021-2027 programme. It is being carried out in collaboration with a number of partners, including representatives of research and development centres, mature business and young technology companies. The centre will serve as a hub for education, consulting and the implementation of services to SMEs in the areas of modern technologies, including metaverse, VR/AR, cyber security, blockchain, artificial intelligence, robotics and automation. As part of the project, the ŁSEZ and its partners will provide support to SMEs in their digital transformation.

Project Developing solutions to counter the migration of young people from depopulated areas (National FERS programme 2021-2027). The project's primary objective is to develop programmatic and legislative solutions, including labour market instruments, as well as a system of incentives for young people to remain in areas affected by depopulation. The development of solutions will be based on the results of a diagnostic study of the factors driving young people's migration from these areas and will take into account the factors influencing their willingness to stay, return or migrate to these regions. In accordance with DG REGIO's recommendation, cooperation has been initiated with coordinators of the project. This has resulted in an online meeting between representatives of the national Ministry of the Family, Labour and Social Policy and the Harnessing Talent Project (HTP) technical assistance (TA) team. During the meeting, several potential opportunities for synergies between the projects were identified. In particular, the activities carried out within the framework of the HTP project (due to its time horizon - December 2024), may provide valuable experiences for the Ministry's multi-year project (which will run until December 2027). A further meeting to discuss the experiences from the implementation of activities in the Łódzkie region is already foreseen.

2.3. Gaps

During the Diagnostic Phase, analyses and discussions with representatives of the region outlined a **number of challenges** that may affect the outflow, attraction and development of talent in the Łódzkie region. These included: insufficient employment opportunities in the region, a suboptimal level of quality of life, a negative image of the region and its cities, an insufficient level of solutions to create friendly conditions, especially for young parents, an insufficient level of cooperation between the education sector and business, and the unused potential of universities, which only have a regional scale in attracting students.

A multitude of potential causes necessitates a comprehensive approach. However, discussions with regional representatives revealed that **the actual importance of individual factors and their impact on motivation for relocation is unclear**. In fact, it is uncertain which factors are most crucial for specific groups, including those with particular talents and specialisations. In short, **there is an intelligence gap**, and it is therefore also difficult to know what tailored solutions can be devised to offset these factors. Additionally, **there is a lack of comprehensive data on the sociodemographic makeup of young people who choose to relocate, remain, or migrate to the region**. This information is essential for understanding talent (in)balance. Without it, our understanding of the target groups for planned activities and their motivators is incomplete.

Meetings with regional stakeholders indicated that the importance of the challenges identified in the region may vary for different groups. Additionally, the scale of these challenges indicates that it is

essential to determine the actual importance (weight) of individual factors and their relationship to the individual motivations of young people. This would allow for **a more targeted design of future actions, which is crucial in the context of limited financial resources and the high dynamism of observed phenomena**. During this discussion, it was proposed that analytical activities, such as conducting research among students at universities in Łódź (although there were also suggestions for research at a secondary school level), would allow for a deeper understanding of the motivations of young people, taking into account their individual characteristics.

There is a widely held recognition of the significance and magnitude of the ongoing demographic change in the region. These changes, however, are often discussed in general terms without specific reference to the issue of brain drain. While some strategic documents mention the issue, **the region has yet to develop a separate strategy that focuses on developing, retaining and attracting talent**. Several initiatives have been launched in this area in recent years, as described in the previous chapter. However, it is unclear whether these activities have been systematic in nature and their effectiveness remains unknown. Furthermore, there is no evidence of coordination between the various activities undertaken in this area. The diagnostic phase identified **a significant gap in knowledge regarding the effectiveness of existing policies**. However, during meetings with representatives from the region, several individual actions were highlighted that achieved the desired results. These include, among others: the creation of the Complex of Schools of Modern Technologies and Educational Institutions in Łódź, as well as initiatives such as scholarships for the talented, "Łódzkie Talent Hunt" or "Study with Taste in Łódź", aimed at attracting young people to the region. The activities carried out by the Łódź Special Economic Zone have also yielded positive results.

In parallel, during discussions with representatives of the Łódzkie Region, there was a consensus that the use of good practice models from comparable regions, including those in Europe, could prove invaluable. The rationale for this is that examples from other regions may provide inspiration for the introduction of new solutions in the Łódzkie Region. Examples of good practices may include innovative educational programmes, initiatives to foster young talent, solutions to reconcile work and personal life, or effective marketing strategies to promote the region. Understanding what has been done elsewhere can help avoid repeating mistakes and wasting resources on efforts that have proven unsuccessful elsewhere.

3. Strategic Roadmap

3.1. Actions

Action 1: Intelligence support: collecting evidence on the motivations of young people in order to prepare tailored solutions

This action is comprised of two main sub-actions:

- *Sub-action 1.1. Implementation and critical analysis of the survey of students at universities in the Łódzkie region.*
- *Sub-action 1.2. Development of tailored solutions to enhance the balance of talent migration in the Łódzkie region.*

Rationale

Sub-action 1.1. Implementation of the survey. Activities carried out during the Diagnostic Phase have revealed a lack of in-depth understanding of the mechanisms behind the migration of young people in the Łódzkie Region, specifically as to the reasons why young people decide to leave. This is confirmed by the analysis of documents, studies and other available materials. This was also an issue raised repeatedly by the participants of the Kick-Off Meeting as well as during following interviews with relevant stakeholders.

Sub-action 1.2. Development of tailored solutions. The solutions must be carefully designed to address the specific issues and obstacles identified in the intelligence gathering (*Sub-action 1.1.*). During discussions with representatives and stakeholders of the Łódzkie region, there was a clear consensus on the importance of leveraging best practices from similar regions, particularly those in Europe, which have encountered similar challenges. By gaining a clear understanding of what has been achieved elsewhere, the possibility of repeating past mistakes and wasting resources on ineffective strategies can be significantly reduced. The tailored solutions will define a comprehensive plan to attract, develop and retain talent in the Łódzkie region over the long term.

Approach

Sub-action 1.1. Implementation of the survey

The research will be conducted through a questionnaire survey among university students. The survey will include universities that expressed their willingness to participate during the meeting between the Marshal's Office and the universities on 4 April 2024. These are: Technical University of Łódź, University of Łódź, Medical University, Leon Schiller National Higher School of Film, Television and Theatre in Łódź.

The survey will be conducted using the CAWI (Computer Assisted Web Interview) technique. For reasons of data protection, it is not assumed that information about individual students (including their email addresses) will be shared with the project team. Distribution of the survey will take place through the universities themselves.

The survey will be distributed by the universities to students via a universal link. This will be accompanied by a cover letter which explains the objectives of Pillar 1 of the Talent Booster Mechanism and the survey itself. The survey questionnaire will consist of two parts. The first part of the questionnaire is a metric designed to ensure the anonymity of participants while allowing for the

identification of key characteristics, such as age, gender, place of residence, and field of study. The second part of the questionnaire comprises essential questions about the plans and motivations of the people surveyed.

It is assumed that the project team will initially develop a concept for the survey questionnaire, which will then be consulted with key stakeholders. The development of a suitable survey questionnaire will be preceded by a meta-analysis of previous research and expertise collected and analysed during the Diagnostic Phase, as well as the findings from interviews and meetings conducted. The interviews and meetings will also allow for the subsequent appropriate interpretation of the survey results obtained.

The survey results will be presented in the form of an in-depth presentation, accompanied by a detailed interpretation. Additionally, an outcome database will be created, which will be made available to the Marshal's Office and university representatives. The survey questionnaire will also be provided to the Marshal's Office and universities, enabling them to conduct a similar survey independently in the future, should the need arise.

Sub-action 1.2. Development of tailored solutions

The team will review successful public interventions implemented in other EU regions (using the outcomes of other pillars of the Talent Booster Mechanism – specifically relating to identified good practices and insights from the Working Groups). The analysis will aim to identify only those initiatives that respond to the diagnosed problems and needs specific to the Łódzkie region, taking into consideration:

- similarity of the problem occurrence given the socio-economic reality of the Łódzkie region,
- diagnosed needs and challenges within the framework of *Sub-measure 1.1*.

When analysing potential solutions for the Łódzkie region, the project team will also identify potential sources of funding for these initiatives. This may include existing or adjusted measures of the regional Operational Programme (OP), national OPs, or other external sources of funding.

This process thus builds on previous activities, specifically *Sub-measure 1.1* and the comprehensive overview of good practice examples. It is designed as iterative, meaning that its stages will be subject to ongoing evaluation and modification based on feedback from participants in the process. In addition to working on the document, online workshops will be organised as required. This will allow the tailored solutions to be adapted to the actual needs of the region.

Desired outcomes

Sub-action 1.1. Implementation of the survey

The implementation of the survey will provide information on the following:

- Who (demographic structure, specialisations), why and where do students plan to leave after graduation?
- What are the key motivations for action (driving mechanisms) influencing the decision to leave, stay or come to the region?
- Which of the identified factors can be realistically influenced (in the short and long term)?

Sub-action 1.2. Development of tailored solutions

The objective is to propose practical solutions that can be implemented in the context of the diagnosed mechanisms driving the talent migration processes. The tailored solutions will provide the foundation

for a long-term vision of how to meet the challenge of talent exodus. It will also act as a valuable tool in communication with potential investors and in identifying external funding sources for the initiatives.

In line with the identified needs and potential sources of funding, the Technical Assistance could be translated into the following actionable activities:

- preparation of general assumptions for dedicated projects financed from the EU funds in the programming period 2021-2027 (under: European Funds for Łódzkie 2021-2027 programme, the central programme European Funds for Social Development, or other programmes, for example the Technical Support Instrument implemented by DG EFORM);
- preparation of guidelines for dedicated calls for proposals from the European Funds for Łódzkie programme 2021-2027, including additional criteria in the on-going calls for proposals under European Funds for Łódzkie 2021-2027,
- improved targeting of support in strategic documents (e.g. as part of the mid-term review of the European Funds for Łódzkie 2021-2027, development of assumptions for the next operational programme or review of the Development Strategy of Łódzkie Voivodeship 2030).

The actionable activities will be determined based on the new evidence obtained from the research and will be developed in close collaboration with the Marshal's Office.

Envisioned milestones

Sub-action 1.1. Implementation of the survey

The first step will involve analysing existing research and conducting interviews with key stakeholders between June and September 2024. The second step will entail preparing and circulating a draft questionnaire for review and input from stakeholders. This is expected to be completed by September 2024. The third step will comprise implementation of the questionnaire survey, which will commence in October 2024, followed by analysis of results, identification of key recommendations, and presentation in November 2024.

Sub-action 1.2. Development of tailored solutions

The first step will entail an examination of exemplary practices from other pillars of the Talent Booster Mechanism (August-November 2024). The second step will involve meeting with pertinent stakeholders (November 2024). The third step will comprise the formulation of tailored solutions in conjunction with relevant stakeholders (November-December 2024).

Timeline

Action 1: Intelligence support: collecting evidence on the motivations of young people in order to prepare tailored solutions	Jul	Aug	Sep	Oct	Nov	Dec	Stakeholders to be involved
Step 1: Implementation of the survey (sub-action 1.1)							- Regional and local authorities - Universities
1.1 - Analysis of existing research and conducting interviews with key stakeholders, including universities							
1.2 - Survey preparation (survey methodology, content design, etc.) and circulation a draft questionnaire for review and input from stakeholders							
1.3 - Run the survey							
1.4 - Analysis of results, identification of key recommendations, and presentation of the findings*							
Step 2: Development of tailored solutions (sub-action 1.2)							- Regional and local authorities - Universities and other regional stakeholders (if needed)
2.1 - Examination of exemplary practices from other pillars of the Talent Booster Mechanism							
2.2 - Meeting with pertinent stakeholders*							
2.3 - Formulation of tailored solutions in conjunction with relevant stakeholders							
Step 3: Final report							- Regional and local authorities - Universities and other regional stakeholders (if needed)
3.1 - Final review meeting*							
3.2 - Preparation of the Final Report							
3.3 - Approval of the Final Report							
Objectives / Results	- Provide tailored solutions that can be implemented in the context of diagnosed mechanisms driving the talent migration processes						
*Please note that one meeting is envisaged to be organised in November 2024 to cover steps 1.4, 2.2, and 4.1.							

Action 2: Support for establishing strategic cooperation with selected research institutions

Rationale

The implementation of measures aimed at overcoming negative trends related to talent attraction and outflow requires an appropriate monitoring system. This is to ensure that we have the appropriate knowledge of whether and for which groups the undertaken policies, projects and initiatives work. To this end, it is essential to know whether talented people educated in the Łódź region decide to stay or leave it. We should also know which groups (graduates, which faculties and specialisations) are affected by this phenomenon, to what extent and in what direction. Thus, while Action 1 primarily focuses on identifying the motivating factors that affect the decision of young people to stay or leave, this action focuses on acquiring better data that reflect the actual flows of migration. The data currently available from public statistics does not provide this knowledge. However, two recently launched research initiatives will provide this information:

- The National System for Monitoring the Economic Fate of Higher Education Graduates (implemented by the Information Processing Centre)²⁵,
- Monitoring the fate of vocational school graduates (implemented by the Educational Research Institute)²⁶.

In both cases, the studies utilise administrative data (including from the POL-on system, OKE, SIO and ZUS). They provide detailed insights into the professional situation of graduates from specific types of schools. However, at this stage, neither system includes an analysis of the issue of migration (linking the place of education with the place of work). Nevertheless, the processed data does allow for such an analysis.

Approach

The project team will facilitate networking with the aforementioned research institutions. A discussion will be held to identify the information needs of the region and how these can be addressed through ongoing research. The project team will also be responsible for animating and supporting the process and developing key documents (e.g., clarification of information needs, possible frameworks for cooperation) that could lead to future cooperation.

Desired outcomes

The objective is to establish a long-term mechanism for monitoring the phenomenon of outflow and attraction of talent in the Łódzkie Region on the basis of registered data processed by selected research institutions. This will strengthen the implementation of the Łódzkie Development Strategy 2030 as well as allow targeted EU and national interventions in the current and next programming period.

Envisioned milestones

The first step will be to analyse the existing information landscape of the region (June-September 2024). The second step will be to organise bilateral meetings with relevant national research institutions to agree on the future direction of our cooperation (October-November 2024).

²⁵ <https://ela.nauka.gov.pl/pl>

²⁶ <https://losyabsolwentow.ibe.edu.pl/opis-projektu/efekty-projektu/>

Timeline

Action 2: Support for establishing strategic cooperation with selected research institutions	Jul	Aug	Sep	Oct	Nov	Dec	Stakeholders to be involved
Step 1: Support for establishing strategic cooperation with selected research institutions							- Regional authorities - National research institutions
1.1 - Analysis of the existing information landscape of the region							
1.2 - Organisation of the meeting with relevant national research institutions to agree on the future direction of our cooperation							
Objectives / Results	- Establish a long-term mechanism for monitoring the phenomenon of outflow and attraction of talent in the Łódzkie Region on the basis of registered data processed by selected research institutions.						