

REDEPLOYMENT IN THE MINING INDUSTRIES OF THE SILESIAN REGION IN THE LIGHT OF EU PROJECTS

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Purpose: The objective of this paper is to analyse the role of redeployment as a tool for mitigating the effects of economic transformation in the mining regions of the Silesian Voivodeship, with particular reference to projects co-financed by the European Union.

Design/methodology/approach: A thorough examination of secondary sources and institutional data was conducted through a comprehensive review of the extant literature on redeployment, just transition theory, and strategic documents at both the regional and EU programme levels. The discussion centred on a selected project that supports redeployment in Silesia, which was used as a case study.

Findings: A number of positive effects of EU projects have been identified. These include an increase in the availability of training opportunities, financial support for entrepreneurs, and the preservation of employment in selected cases.

Research limitations/implications: The findings of the present study are constrained by several factors, including the limited scope of quantitative data, the absence of complete and standardised data on participants, and the long-term effects of projects. Consequently, it is not feasible to disseminate the results of the reflections more widely.

Practical implications: The inherent volatility of the economic and political environment, characterised by factors such as inflation, fluctuations in energy prices, and evolving EU policy, has the potential to impact the sustainability of project outcomes and modify the anticipated results in the future. The potential for the case studies to be selective is also a limitation; the analysis encompasses a select number of projects and may not be representative of the entire situation in the region.

Social implications: Furthermore, challenges are encountered in the measurement of 'soft' outcomes, including enhancements in employee wellbeing and shifts in attitudes that have not been subjected to analysis.

Originality/value: This paper provides challenges of socio-economic transformation in post-industrial regions and evaluates the role of European Union instruments, such as the Just Transition Fund, in supporting labor market adjustments. The value of the paper lies in its integration of empirical data with policy assessment to offer practical recommendations for regional policymakers, labor market institutions, and EU bodies involved in structural transformation. It is particularly relevant to stakeholders engaged coal-dependent areas across Europe.

Keywords: redeployment, just transition, EU funds, mining industries.

Category of the paper: Viewpoint.

1. Introduction

Discussions concerning the necessity for alterations in the mining industry, in its broadest sense, have been in progress for a considerable duration. While in the 1990s such changes were dictated by the low efficiency of the mining industry (including overemployment and the associated relatively low productivity), the arguments in favour of change today are primarily political decisions taken in the European Union, a focus on an economy based on renewable energy sources, the desire to create a modern economy based on advanced technologies and services (IT, engineering), improving the quality of life, and finally, reducing pollution.

In the region, mining-related enterprises are defined as entities causally linked to the mining industry, based in mining areas (voivodeships: The regions of Śląskie, Małopolskie, Lubelskie, Dolnośląskie, Łódzkie and Wielkopolskie merit particular consideration, though to a lesser extent in other areas of the country. This attention is focused due to the ongoing reorganisation of these companies and downsizing. Employee management is a pivotal component in the functioning of enterprises. In the event of organisational restructuring, the practice of redeployment is employed with a view to safeguarding the valuable contributions of employees and facilitating the development of their competencies. This process, which is somewhat of a novelty on the Polish market, is a process of internal mobility of enterprises, which makes it possible to use the competences and predispositions of specific employees in the face of threats to their positions as a result of reorganisation. However, it is important to note that the allocation of tasks should not extend beyond the individual's competencies and qualifications. The new position should be tailored to the employee's potential, ensuring that the role aligns with their skill sets and experiences. It is imperative that the employee him/herself be willing to effect such a change.

The Detailed Description of Priorities of the European Funds Programme for Silesia 2021-2027 (version SZOP.FESL.010, effective from 31 May 2024) outlines the voivodeship's potential avenues for action in this domain, including Measure FESL.10.18 Redeployment.

In the contemporary business environment, characterised by intense competition across diverse sectors, the concept of redeployment assumes significant importance. This is particularly evident in the context of talent management, where companies are striving to attract and retain the most skilled and qualified individuals. These factors have been demonstrated to exert a considerable influence on a company's standing, the efficacy of its operations, and the perception of potential candidates.

The objective of this paper is to analyse the role of redeployment as a tool for mitigating the effects of economic transformation in the mining industries of the Silesian Voivodeship, with particular reference to projects co-financed by the European Union (Just transition Fund, action FESL.10.18). A rigorous evaluation was conducted to ascertain the efficacy of the

aforementioned measures in the context of employment retention, worker retraining and just transition.

Secondary sources and institutional data were analysed through a review of the literature on redeployment, just transition theory and strategic documents (regional and EU programmes). The discussion centred on a selection of projects that support redeployment in Silesia, which were used as a case study.

2. The concept of redeployment and just transition – literature review

Redeployment can be defined as the process of relocating an employee within the same sector or industry, or alternatively to a different sector or industry. This process frequently involves the provision of new training to the employee. In the context of structural change, redeployment has been shown to play a key role in mitigating the social and economic impacts of restructuring in traditional sectors such as mining.

The literature emphasises that effective redeployment should be based on:

- adapting qualifications to the changing needs of the labour market (OECD, 2020),
- *Active Labour Market Policies* (ALMPs), including counselling, training and job placement assistance (van Ours, Boone, 2004),
- institutional support - including public, private and non-governmental institutions (Kluve, Lehmann, Schmidt, 1999).

The fundamental premise of human capital theory is that the investment in workers' knowledge and skills leads to an enhancement in their productivity and employability (Karim, Williams, 2012). In the context of the transformation of post-mining regions, it becomes crucial to develop competencies that enable adaptation to new economic conditions, especially in sectors based on modern technologies and services.

From the standpoint of EU employment policy, the European Social Fund Plus (ESF+) occupies a distinctive position, with the objective of promoting employment, lifelong learning and social inclusion, particularly in regions facing the threat of structural unemployment.

Redeployment is defined as an internal mobility programme that aims to leverage the competencies and career aspirations of employees whose positions may be vulnerable due to ongoing reorganisation processes within the company (Tate, Yang, 2015). The objective is to safeguard the skills, knowledge and experience that are of significant value to the organisation and can be effectively transferred to other departments. For the employee, this necessitates more of a conscious decision to seek a new role within the same organisation as opposed to undergoing further training.

The relocation of employees by companies is typically precipitated by circumstances that jeopardise their professional stability, most commonly the imminent threat of redundancy. This phenomenon may be attributable to a modification in the company's requirements or an excess of personnel in a specific department. In such cases, employers are legally obligated to offer a suitable alternative position to employees who would otherwise be made redundant (if one is available) (<https://futurecollars.com>).

In certain circumstances, employers may be able to avoid redundancies by transferring employees to another location or part of the business. The transfer process is subject to legal governance, and employers are obligated to adhere to its stipulated protocols to prevent allegations of unfair dismissal. In the event that an employee is not offered suitable alternative employment despite the existence of a vacant position, this has the potential to result in disputes (<https://www.testhr.pl>).

An employee is not obligated to accept a new position, but may forfeit their entitlement to severance pay if they are offered a suitable alternative and unreasonably decline it. The suitability of a position as an alternative to employment is contingent upon a number of factors, including the degree of similarity between the position and the employee's current role with regard to duties, salary, location, benefits and length of service.

The notion of *redeployment* is also congruent with that of the concept of *just transition* (<https://commission.europa.eu>). The notion of a Just Transition, as initially propounded by trade union movements, was formally adopted by the European Commission as a component of the European Green Deal. The hypothesis under consideration is that the decarbonisation and economic transformation process should be socially just. That is to say, it is predicted to do no harm to social cohesion, nor to the levels of unemployment or marginalisation of regions dependent on heavy industry.

The term 'just transition' was coined by trade unions in North America in the 1990s to describe a system of support for workers rendered unemployed by environmental policies (Smith, 2017; Moreno, Ocampo-Corrales, 2022). The concept can be regarded as an application in the context of environmental action of economic conversion. The economic conversion strategy was first developed in the 1980s by anti-war activists as a means of fostering collaboration between military plant workers and their civilian counterparts. The objective of this collaboration was to promote peaceful economic activities (Labor Network for Sustainability, 2024).

A just transition is a framework developed by the aforementioned trade union movement (International Trade Union Confederation, 2015), which encompasses a range of social interventions needed to secure workers' rights and access to livelihoods, during the process of transitioning the economy to sustainability by changing modes of production, mainly to combat climate change and protect biodiversity. The notion of a just transition has garnered international endorsement from governments and authorities of the International Labour Organisation (ILO), the United Nations Framework Convention on Climate Change

(UNFCCC) in the Paris Agreement, the Katowice Climate Change Conference (COP24) and the European Union (International Labour Organization, 2013, 2015, 2020).

The Just Transition Fund (FST), as a financial instrument of the EU, facilitates investments in job creation, worker retraining, and the green and digital transformation of local economies. Action FESL.10.02 Research, Development and Innovation for Transformation under the Just Transition Fund has a budget of more than PLN 2.2 billion, which is to be allocated, in part, to the diversification of Silesian companies in order to reduce their reliance on the mining industry. The competition is intended for organisations engaged in research and development projects that contribute to a company's re-branding, that is to say, the reduction of its reliance on the mining industry. The results of the project should result in entry into new markets. SME entities were permitted to augment their R&D projects with a component pertaining to the acquisition of machinery and equipment deemed essential for the translation of project outcomes into their operational activities. The investment component constituted a minor proportion of the aggregate eligible expenditure of the project (i.e. less than 50%) (<https://crido.pl>). Particular preference is given to projects implemented by entities with a dominant activity in the mining and mining-related sectors.

3. Results - Situation of the mining industries in the Silesian region in the context of transformation

The extant literature on the subject, comprising reports, studies and debates, is focused on the subjects of miners, mines and coal extraction. However, relatively little attention is paid to the potential consequences of changes in mining for companies that operate thanks to the existence of mines. Such companies are referred to as mining-related industries, and are defined as those that provide products and services and use coal as a basic raw material for production. The term 'perimining industries' is used to denote companies and services that are indirectly related to the mining industry. Such enterprises may include, for example:

- manufacture and servicing of mining machinery,
- logistics and transport of bulk materials,
- energy industry, steel industry, industrial automation,
- specialised services (e.g. drilling, well protection).

In the historical context of Silesia, these industries have traditionally been significant employers, contributing substantially to the regional GDP. As demonstrated by data from the CSO and the Provincial Employment Office (PEO), the number of jobs in these sectors has been declining steadily since 2010, in parallel with the gradual phasing out of the mines.

The closure of mines and the restructuring of the coal sector give rise to a number of significant social challenges:

- an increase in structural unemployment in sub-regions (e.g. Rybnik, Bytom),
- pushing 50+ and low-skilled people out of the labour market,
- increased labour migration and professional deactivation.

Despite the implementation of activation measures, employees frequently lack the competencies necessary to facilitate a seamless transition to contemporary industries, such as information technology (IT) and renewable energy sources (RES).

A regional analysis of the labour market has been conducted, which indicates an increase in demand for occupations within the fields of technology, information technology and construction, as well as for so-called 'green jobs' (e.g. photovoltaic installation, energy efficiency). It is evident that this necessitates investment in training systems, vocational education and flexible retraining pathways, particularly for individuals with experience in traditional occupations.

Mines are entities that are firmly embedded in the physical and economic environment of the region. A more thorough examination of the numerous economic links, in conjunction with the pervasive phenomenon of outsourcing a multitude of services and the purchasing power of individuals employed in mines, reveals that it is insufficient to merely consider mining and the conventional mining-related industry to adequately describe the economic situation of Silesia (<https://polskiprzemysl.com.pl>, 2024). It is imperative to consider the following elements: miners and companies involved in mining, suppliers within the supply chain, local governments (experiencing a loss of tax revenues), and other companies not directly associated with mining. The market environment in closest proximity to the mining industry comprises companies that supply products and services to mining facilities, as well as enterprises that consume coal (Fig. 1). The Silesian Voivodeship is the largest coal basin in Poland, with a workforce of 74,500. This figure constitutes 89.5% of all employees in this sector in Poland and 3% of the total working-age population in the Silesian Voivodeship. Employment in the mining industry is characterised by a high degree of spatial concentration. The factories are located in four sub-regions of the voivodeship. A survey of the mining industry in Silesia reveals that the majority of miners are employed in the cities of Tychy, Rybnik, Katowice and Gliwice, with 88% of the total workforce residing in these municipalities (Frankowski, Mazurkiewicz, 2020). According to the estimates of the economic self-government, the "mining hinterland" sector is likely to provide employment for approximately 400,000 individuals. In the latter case, this figure exceeds the number of employees employed in mining itself (<https://polskiprzemysl.com.pl>, 2024).

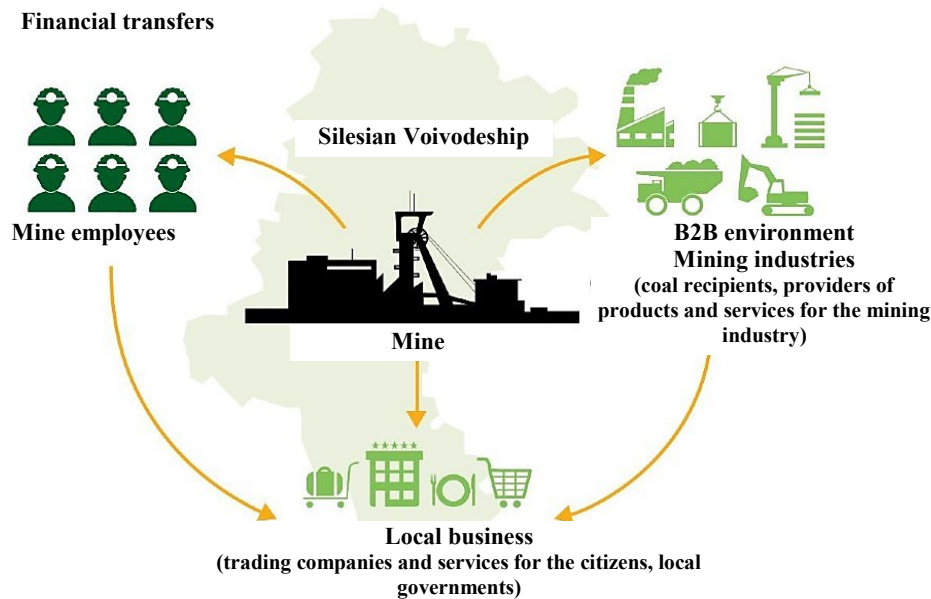


Figure 1. Mining market environment.

Source: <https://polskiprzemysl.com.pl/przemysl-energetyczny/sytuacja-przedsiębiorstw-okologornicznych-w-polsce-2020/>

It is evident that the companies most adversely affected by the challenges inherent to the mining industry are those whose operations are contingent on the number of coal mining entities (mines) and the level of extraction. It is evident that this is, to a considerable degree, a derivative of the physical conditions (the nature of deposits, their prevalence, the configuration of the mine, and the degree of mining concentration, amongst other factors), as well as the number of employees directly engaged in mining operations (Gawlik, Pełowska, 2017).

Mining companies, broadly speaking, can be divided into three main groups:

- **Group I** - providers of products (manufacture of mining machinery and equipment, suppliers of specialised materials) and services to support mining.
- **Group II** - coal-consuming entities, mainly institutional, which include electricity and heat generators, coking plants and, to a lesser extent, the metal industry.
- **Group III** - entities that function (at least in significant part) by providing products and services to miners, their families, and that operate in close proximity to mines and mining operations. Although they are traditionally not treated as mining-related businesses - because they do not cooperate with coal companies in the B2B model - they are often closely causally linked to the operation of mines or businesses that form the immediate environment of mining (mainly trading companies and services for the public) (GIPH, 2017).

The number of peri-mining companies is extremely difficult to estimate, and in principle, the only justifiable way of estimating is through estimates based on databases of companies surrounding mining (such as those indicating PKD (Polish Classification of Activity) sections: 28.92, 09.90 and 05.10, with the proviso that coal companies and coal mines are not included).

Nevertheless, this methodology precludes companies whose core business is not exclusively related to mining from the analysis, as their activities are not exclusively focused on the mining sector (<https://polskiprzemysl.com.pl>, 2024).

A survey of international case studies reveals that mining transformation programmes have also been implemented in a number of other countries. Among the primary measures, the change scenario in Germany incorporated early retirement plans; however, due to the age structure of the workforce, these affected approximately half of the miners and necessitated supplementary compensation payments. The strategy for continued professional development and employment creation was broadened, encompassing the retraining of miners for alternative roles, such as the dismantling of mining infrastructure from the mines, the decommissioning of shafts, and the installation of pumping systems for the removal of run-off water, as well as dewatering polders. Those who were not suited to the aforementioned roles were offered employment in the fields of firefighting, railways, or airport maintenance (<https://transformacja.larr.pl>). The elimination of 33,000 mining jobs was a protracted process, taking 11 years to complete and incurring costs of €15 billion. Current levels of unemployment in these regions are, on average, 5-6% higher than the national average, with rates of around 11-12% (<https://polskiprzemysl.com.pl>, 2024).

This should be a particular warning to Poland, which does not have such significant financial resources to devote to extinguishing the mining industry. The paper's primary focus is on measures implemented in the context of redeployment. No such measures have been proposed within the framework of European funds with regard to pension plans or the direct transfer of employees to other industries.

4. EU projects supporting *redployment* in Silesia

The primary instrument for supporting redeployment processes in the region is the Just Transition Fund (FST), which provides the Silesian Voivodeship with more than EUR 2 billion for the 2021-2027 period. It is evident that the financial resources in question have been allocated for a number of purposes, including, but not limited to:

- vocational training and courses,
- business development,
- support for the SME sector,
- job activation programmes.

The FST is complemented by funding from the European Social Fund Plus (ESF+), the European Funds for Silesia Programme and components of the National Reconstruction Plan (NERP). The following list comprises examples of projects that have been implemented in the region:

- „Śląskie. Zawodowcy” - a project aimed at students and graduates of technical schools, supporting the development of competencies in future sectors (automation, IT, RES) (<https://slaskie.pl>).
- „Nowe perspektywy zatrudnienia dla górników” - a programme for retraining those leaving the mining industry for shortage occupations, with elements of career counselling.
- „Kariera Jutra” - a nationwide project with a regional component, supporting the acquisition of digital qualifications, e.g. Google and Pracuj.pl courses (<https://rsvp.withgoogle.com>).

- They are not, however, aimed at employees in the peripheral mining sectors, but are intended to strengthen the general potential of the workforce in Silesia.

The project dedicated to employees in the mining-related industries is Measure FESL.10.18 *Redeployment* (<https://funduszeu.slaskie.pl>). The Measure FESL.10.18 Redeployment is an initiative that has been implemented under the programme "European Funds for Silesia 2021-2027" with the objective of providing support to companies in the Silesian Voivodeship, with a particular focus on those operating within mining sub-regions, as they undergo a process of economic transformation towards a green economy. The project is overseen by the Voivodeship Labour Office in Katowice and has a budget in excess of €32 million (inkubatoreu.pl).

The primary objective of the measure FESL.10.18 is to provide support to enterprises undergoing restructuring processes, resulting from the necessity for energy and socio-economic transformation. The measure is intended to ensure the continued operation of enterprises and to facilitate the adaptation of their business profile to the requirements of the green economy.

The measure FESL.10.18 is being implemented in several stages:

1. Development of Individual Transformation Plans (ITPs): Companies prepare ITPs outlining the planned scope of the company's transition to the green economy and identifying the extent of support needed.
2. Verification of the IPT by the Beneficiary: A positive assessment of the IPT is a condition for receiving project support.
3. Project support: Once the IPT is approved, companies can benefit from various forms of support, such as:
 - Training and courses delivered through the Development Services Database.
 - Employment subsidy - covering part of the costs of salary and social security contributions for up to 6 months, up to a maximum of PLN 10,000 per month.
 - Job subsidy - one-off support of up to PLN 60,000 net per person (bur-subregion.pl).
4. Verification of the implementation of the IPT objectives: The beneficiary checks whether the enterprise has met the objectives set out in the IPT. Failure to meet these assumptions may result in the need to repay the support received (<https://funduszeu.slaskie.pl>).

The measure is directed towards companies and their employees from the mining sub-regions of the region known as the Śląskie Voivodeship, with a particular focus on those engaged in mining operations and associated sectors. Support is provided on a de minimis basis.

The specific objective of FESL.10.18 is to enable regions and populations to mitigate the social, employment, economic and environmental impacts of the transition towards the achievement of the Union's 2030 energy and climate targets, and towards a climate-neutral Union economy by 2050, on the basis of the Paris Agreement.

The Intermediate Body for the programme is the Voivodeship Labour Office in Katowice, with a total allocation of EUR 37,647,059.00. The scope of intervention encompasses the provision of support to employees, enterprises and entrepreneurs in order to facilitate their adaptation to change.

The measure is intended to provide support for the maintenance of employment in enterprises, primarily in mining-related sectors, within the territory of seven sub-regions of the Śląskie Voivodeship that are undergoing restructuring processes (namely Bielsko, Bytom, Gliwice, Katowice, Rybnik, Sosnowiec and Tychy) - firstly, through activities directed at employees of these enterprises; secondly, through re-orientation of the enterprise's business profile, in accordance with economic policy; and thirdly, through a local approach to economic development, particularly due to the need for transition to a green economy (green economy sector). The economy is to be based on renewable energy sources and modern technologies that are oriented towards low carbon and resource efficiency.

Redeployment project activities are carried out by way of a process of job exchange, whereby the positions occupied by specific individuals are swapped for other roles within the same workplace. This process is intended to ensure the continued employment of employees, whilst making use of their competencies and career aspirations. This is particularly important in the context of the risks associated with job retention, which are a result of ongoing reorganisation processes within the company.

As a component of the redeployment process, the provision of financial support to the aforementioned entity is a conceivable eventuality.

The matter pertains to the recruitment of new personnel. The execution of the project is to be undertaken by the Voivodeship Labour Office in Katowice, in collaboration with an entity from the business environment or an enterprise undergoing restructuring processes.

The project support pathway is to be comprised of the following elements:

1. (Mandatory) Identification of the specific needs of enterprises by analysing the "Individual Transformation Plans" (ITPs) prepared by the entrepreneur, particularly towards the green economy.
2. (Mandatory) Retraining (provided primarily through the Development Services Base outside the Subject Funding System) for staff of enterprises oriented towards the green economy / in line with the green economy, aimed at adapting to the requirements of new jobs.

3. Equipping / retrofitting workplaces with appropriate equipment and other materials and items necessary for the proper functioning of these workplaces.
4. Co-financing of employment costs in the enterprise on the basis of subsidized employment.

The maximum level of EU co-financing is 85%, and the level of co-financing of the total eligible expenditure at project level (EU funds + national co-financing granted to the beneficiary by the relevant institution) is 95%. State aid is provided on the basis of both EU and national legislation. Simplified settlement methods will be applied, with a flat rate of up to 25% for indirect costs based on the MA methodology. Cross-financing will be permitted.

The beneficiary categories encompass Business Support Institutions, Social Organisations and Religious Associations, Social Partners, Enterprises, and Public Services. The latter category is further delineated as follows: Large Enterprises, Business Environment Institutions, Labour Market Institutions, Chambers of Commerce, SMEs, NGOs, and Employer Organisations. The target group comprises employees of enterprises and the enterprises themselves. Detailed project selection criteria can be found at <https://funduszeue.slaskie.pl/>, where product indicators are also defined¹.

5. Discussion - Benefits for the employee and the organisation

The primary advantages of redeployment are the retention of valuable employees within the organisation and, for the individual employed, the retention of their job. Moreover, the company retains the valuable knowledge and skills of the people within its structures. The employer's brand in the market is also retained and, in some cases, may even increase. This assertion may be equally applied to the consumer brand. In the event of a return to former demand levels, the company will not be required to search for specialists in the market. This approach has the potential to engender significant savings in terms of time and financial resources, both in the identification of suitable candidates and in the subsequent training and development stages. In summary, the following benefits for the employee can be identified:

¹ CRL-PLRO132 - Number of facilities adapted to the needs of people with disabilities (ERDF/FST/FS) CRL-PLDCO06FST - Number of people supported through outplacement services CRL-EECO05 - Number of employed people, including self-employed, supported under the programme CRL-PLRO199 - Number of projects, where costs of reasonable accommodation for people with disabilities were funded (ERDF/FST/FS) CRL-PLRO004 - Number of large enterprises supported CRL-PLRO002 - Number of small enterprises supported CRL-PLRO001 - Number of micro-enterprises supported CRL-PLRO003 - Number of medium-sized enterprises supported PROG-FESLO-03 - Number of people supported in 'green' skills PROG-FESLO-17 - Number of people working in or around mining, supported under the programme Result indicators CRL-EECR03 - Number of people who obtained qualifications after leaving the programme CRL-PLDGCR04FST - Number of people who obtained green skills after leaving the programme CRL-PLDCR02FST - Number of people who took up employment or continued employment as a result of outplacement/work environment support.

1. Retention of employment
The employee avoids unemployment despite structural changes in the company or sector (e.g. mine closure).
2. Development of new competences
Participation in training and courses enables the acquisition of marketable qualifications (e.g. digital, green, technical).
3. Greater professional mobility
The flexibility and adaptability of the employee is increased, which strengthens their position in the labour market.
4. Sense of security and stability
Redeployment reduces the stress of job loss and offers the prospect of career development.
5. Access to institutional support
EU projects (e.g. FESL.10.18) provide funding for training, careers advice and even job subsidies.
6. Participation in the transformation of the region
Employees feel part of the change process - for example, the transition from a carbon to a green economy - which empowers them.

Benefits to the organisation include:

1. Retention of experienced staff
The company avoids costs associated with recruitment and loss of organisational knowledge.
2. Increasing staff flexibility
The ability to move staff between departments or projects increases the company's ability to respond to market changes.
3. Improving staff competence
Redeployment training improves the quality of the team's work and innovation.
4. Improving the employer's image
Nurturing employees during times of change has a positive impact on the company's reputation and facilitates future recruitment.
5. Access to public funding
Organisations can receive financial support (e.g. from EU funds) to transform jobs or develop employees.
6. Better alignment with the requirements of the green economy
Redeployment helps to transform business models towards sustainability.

However, it is important to acknowledge the potential risks associated with redeployment when considering its implementation. Firstly, there is a possibility that the employee will not demonstrate satisfactory performance in the new position. Furthermore, the individual may exhibit diminished motivation and productivity, as they have been identified as surplus to

requirements. In the event of an employee accepting an offer of a different position, it is possible that they may subsequently resign from their current role in order to seek alternative employment. In order to mitigate the potential for such risks to materialise, it is imperative that a human resources consulting company be involved in the redeployment process from the outset. This involvement is instrumental in ensuring the proper execution of the process (<https://www.lhhpolska.pl>). Such an opportunity is provided by the use of European Funds for Silesia 2021-2027.

6. Conclusions

In the event of the closure of a significant proportion of Poland's mines, the majority of which are situated in Silesia, this will have a number of consequences for suppliers of mine products and services and coal customers. It is anticipated that economic entities in both groups will encounter temporary difficulties, which may manifest in a substantial diminution of operational scale, a decline in employment, and, in extreme and likely not infrequent circumstances, the dissolution of entities associated with the mining industry. It is vital to consider the number of jobs created by companies that provide products and services for the mining industry, as well as the number of jobs created by companies that consume coal extracted from mines. The closure of the mining industry without adequate support for mining-related enterprises, understood according to a broad definition, may lead to a significant increase in unemployment, primarily in Silesia, but also in other regions of the country. This is because mining-related enterprises are economically related to mines and exist thanks to the purchasing power of people employed in mines.

The employee redeployment process delineated in the paper is applicable to companies undergoing reorganisation, and it is therefore reasonable to consider such a solution in the mining industries. Frequently, the redeployment of employees is a strategy that is employed to optimise the utilisation of existing human resources, thereby engendering a mutually beneficial outcome for both the company and its employees. The objective of redeployment is to ensure the retention of valuable organisational assets. Following transfer, these individuals can utilise their knowledge and experience in alternative activities.

The potential for redeployment is a compelling prospect, particularly from the perspective of employers. The most significant benefit is the aforementioned opportunity to retain valuable personnel within the company. The redeployment process, defined as the reallocation of an employee to a different role, facilitates the optimisation of their competencies and individual characteristics. This, in turn, enhances the team's capabilities and fosters its ongoing development. Redeployment is defined as the process of reassigning employees to different roles within the same organisation, with a view to utilising their existing knowledge and skills

in a different context. It is an inevitable consequence of such a substantial change that resistance will be encountered.

The strategic benefits of redeploying employees should not be underestimated. This process can be regarded as a viable alternative to redundancies, which are a considerable challenge for any business. Moreover, it has the potential to mitigate the financial and social costs associated with restructuring.

A review of the solutions available to Silesian companies in terms of EU funds was conducted, which resulted in the identification of several positive effects of EU projects. These include an increase in the availability of training, financial support for entrepreneurs, and the preservation of employment in selected cases. Consequently, positive outcomes have been observed, including the training of employees and an increase in the participation of individuals over the age of 45 in digital courses. Nevertheless, a low employment rate persists post-project completion, primarily attributable to the absence of long-term support mechanisms such as internships or mentorship programmes. It is also important to note that redeployment is more effective when accompanied by a planned competence transformation based on local labour market analyses (following the German model).

While companies and employees have declared a positive impact of EU measures, the employment effectiveness is contingent on the quality of training and the involvement of employers. It is hypothesised that the peri-mining areas of Silesia are characterised by differential readiness for transformation, which affects the unevenness of redeployment effects.

The findings of this study are not able to be disseminated more widely due to the limited scope of the quantitative data, the lack of complete, standardised data on participants, and the long-term effects of the projects. The volatility of the economic and political environment, including inflation, changes in energy prices and EU policy, has the potential to impact the sustainability of project effects and alter the anticipated outcomes in the future. Furthermore, challenges are encountered in the measurement of 'soft' outcomes, including improvements in employee sense of security and alterations in attitudes that have not been subjected to analysis. The potential for the case studies to be selective is also a limitation; the analysis encompasses a select number of projects and may not be representative of the entire situation in the region.

A rigorous evaluation is imperative to ascertain the tangible ramifications of mine closures on both the economy and society as a whole. The following proposition constitutes the foundation upon which an effective energy transition plan may be constructed. This plan must encompass the support of all stakeholders within the mining industry, including miners, mining-related companies and their employees, suppliers in the supply chain, and local governments that are deprived of tax revenues. Furthermore, the plan must extend to encompass the support of other companies that are not directly connected to the mining industry and that are often not associated with it. It is also necessary to involve and actively support local governments, which, with reduced tax revenue to the budget and the concomitant impoverishment of society, may face problems in fulfilling their basic tasks.

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