

The Impact of European Union Policies on Urban Development: A Case Study of Liverpool

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Abstract: This study delves into the history of urban development in Liverpool and the contemporary challenges it faces, examining the impact of European Union (EU) policies on its urban planning. It primarily focuses on employment opportunities and green policies, including transportation, clean energy, and biodiversity conservation. The research underscores the significant influence of the EU, mainly through the European Regional Development Fund (ERDF), in shaping Liverpool's development projects, enhancing spatial planning, and addressing urban issues. Recommendations for Liverpool City Council (LCC) include continued support for employment, especially among the diverse urban population, and exploring opportunities through development projects. The study emphasizes the need for LCC to align with EU policy directions, particularly in the context of the European Green Deal (EGD), to effectively address climate change sustainably. Post-Brexit, LCC should establish a committee to uphold and adapt EU policies to local needs, ultimately promoting Liverpool's resilience and sustainable urban development.

Keywords: Urban development, European Union policies, Green policies, Brexit

1. Research background

Liverpool, located in the heart of Merseyside County in northwest England, has witnessed the prosperity and decline of the British economy over the past two centuries [1]. Due to its strategic geographical position, Liverpool became a major global port for international trade in the 18th and 19th centuries, dealing in commodities such as salt, slaves, raw materials, and manufactured goods during this period. However, in the late 19th century, the impact of World War II on British economic development, unfavourable post-war economic conditions, and significant policy failures in urban planning led to a nearly 50% decrease in Liverpool's population. These factors, combined, have resulted in reduced employment opportunities and deteriorating social and environmental conditions in Liverpool today [1]. Despite active urban revitalization efforts through policy adjustments since the 1980s, resulting in a modest increase in the city's population, Liverpool City Council (LCC) continues to face various economic and environmental challenges in the current context of Brexit [2]. Additionally, unemployment remains a significant issue in Liverpool, with the city's employment market conditions reported to be stagnant and the urban unemployment rate persistently stable as of January 20, 2011, according to GALE ONEFILE News [3].

The European Commission (EC) is the organization responsible for translating the common political goals of European Union (EU) member states into policies and initiatives and subsequently implementing them [4]. However, it is important to note that the EC does not directly oversee the planning and development of member cities but formulates policies by setting economic, social, and environmental objectives.

Despite the end of the Brexit transition period in December 2020, there is still a need for in-depth investigation and comprehensive research into the impact of past EU policies on the direction and policies of urban development in the UK for two important reasons: first, as a long-term EU member state, the UK has a historical legacy, and given that Brexit occurred only a few years ago, it is worth exploring the extent to which the EU policy background continues to influence UK urban development policies. Second, considering that future scholars may conduct comparative studies on policy shifts and policy implementation efficiency before and after Brexit, reevaluating the impact of EU policies on UK urban policies in the context of Brexit can provide a theoretical foundation for future research. Therefore, as one of the UK's most important cities, Liverpool's urban planning and development are likely to be directly or indirectly influenced by EU policies.

Hence, this study will examine how the EU has addressed Liverpool's long-standing employment and environmental issues through its policies and analyze the impact of these policies on urban planning and development. Referring to relevant documents on the LCC website, Liverpool has comprehensive plans in various aspects, including environment and employment. Evaluating the consistency of these urban planning policies with EU policy formulation will serve as the basis for assessing the influence of the EU background on Liverpool's urban planning and development.

The primary research methods employed in this paper include collecting information and documents related to the EC and LCC websites and then examining and analyzing how EU policies affect the planning and development of the Liverpool city region. This research also evaluates the effectiveness of policy implementation and provides recommendations for LCC.



Figure 1: The location of Liverpool [1]

2. Analysis of the impact of EU policies on urban development of Liverpool

2.1. Employment opportunities

The European Union addresses Liverpool's employment issues through the European Regional Development Fund (ERDF). ERDF primarily focuses on locally-driven growth and development, with a particular emphasis on enhancing the competitiveness of small and medium-sized enterprises (SMEs). Furthermore, one expected outcome of this initiative is an increase in the percentage of innovative SMEs and improvements in services provided by higher education institutions to SMEs. ERDF also aims to narrow the productivity gap between SMEs and large companies, measuring productivity by the increase in total value added per employee. The total funding allocated to the UK from ERDF is 3.65 billion euros [5].

Specifically, to assist Liverpool in addressing its employment challenges, the EU, through ERDF investment, supported the construction of a new office building in this port city. This project resulted in the establishment of over 1,000 new businesses and the creation of more than 2,000 new job positions. It also became a physical hub for over 150 businesses and marked the first city landmark specifically designed for women entrepreneurs. Since its operation began in January 2011, the EU-funded Women's International Centre for Economic Development (WICED) has provided startup and growth support to over 3,700 women in Liverpool and the neighbouring Greater Manchester area. It facilitated the establishment of approximately 1,000 new businesses, the majority of which are led by women. Additionally, the centre provided incubation support to around 70 businesses, with 85% of them having female leadership. The total investment for the "Women's International Centre for Economic Development" project was 5.815 million euros, with approximately 50% of the funding coming from the EU's ERDF (around 2.87 million euros) [6]. This initiative effectively addressed employment challenges by creating new landmarks within the city.

Figures 3 and 4 provide an examination and analysis of employment statistics for LCC over the past decade [7]. Figure 3 shows that the net growth in the number of companies in Liverpool was negative from 2008 to 2011. However, starting from 2011, there has been a positive net growth in the number of companies each year, ultimately compensating for the negative growth between 2008 and 2011, thus creating more job opportunities in the city. Figure 4 indicates that the employment levels in the Liverpool area have consistently been below the national average for the UK. Nevertheless, since 2014, the overall employment situation in Liverpool has been steadily closing the gap with the national average, and it is expected to reach the national level in the next 3-4 years. Furthermore, according to a report from GALE ONEFILE News in February 2015 [8], the unemployment rate in the Liverpool city centre area has been consistently decreasing, aligning with the national trend, indicating that the unemployment rate has reached its lowest point in seven years. This analysis suggests that Liverpool's overall employment prospects are becoming more positive. Therefore, the EU's ERDF funding for Liverpool has had a significant impact on the city's employment challenges to some extent.

Looking at it from another perspective, policies that provide economic support, public infrastructure, and the construction of office buildings to address specific issues faced by cities, apart from the symbolic initiatives of policies, are more practical and, based on the above analysis, have shown more significant results.

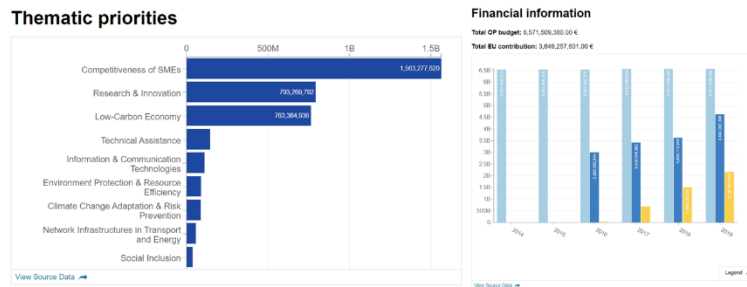


Figure 2: The general information of the ERDF [5]

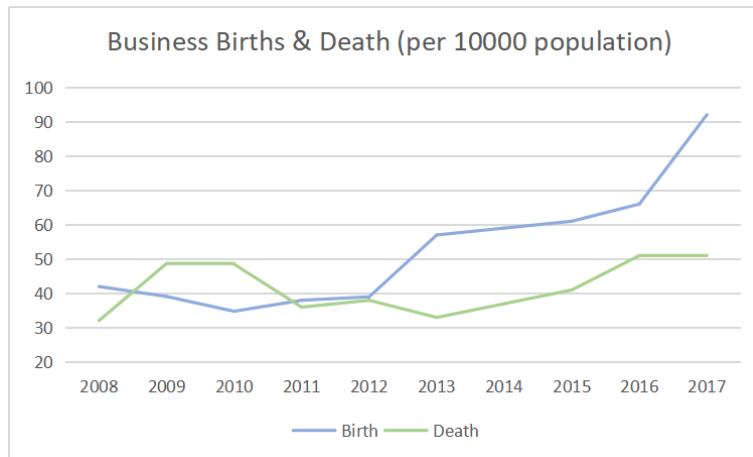


Figure 3: Business birth and death [7]

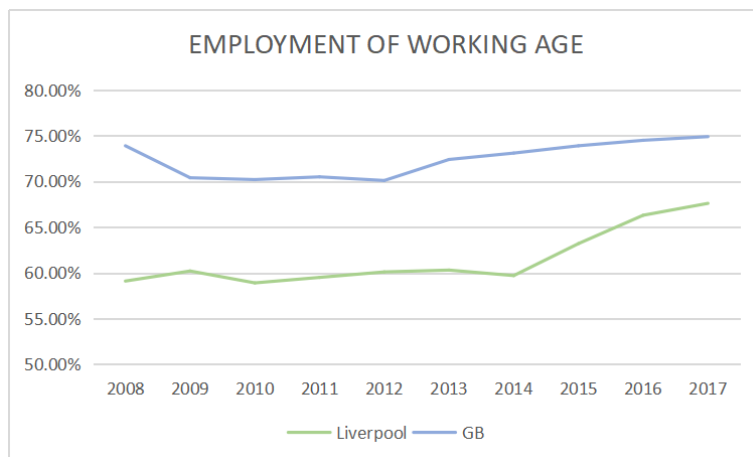


Figure 4: Employment of working age [7]

2.2. Green policies

During the review of relevant policies in this study, it was found that the European Union's transportation, environmental protection, and renewable energy policies are closely interconnected and fall under the scope of the European Green Deal (EGD) [9]. At the Liverpool city level, in July 2019, the Mayor received £230 million in funding from the UK government for the "Green City Deal" (GCD), aimed at promoting economic opportunities and advancing environmental sustainability [2]. Therefore, for the analysis of Liverpool's green policies in the EU context, this study will specifically provide an overview and assessment of sustainable transportation, clean energy, and biodiversity

policies within the framework of the European Green Deal. Additionally, it will evaluate the efficiency of EU policies through an analysis of relevant projects in Liverpool.

2.2.1. Sustainable transportation

Within the framework of the European Green Deal (EGD), transportation policies primarily revolve around sustainable mobility, with a focus on reducing greenhouse gas emissions from transportation by 90% by the year 2050, as an overall EU objective. It emphasizes that 71.7% of greenhouse gas emissions come from road transport and outlines plans to increase the number of low-energy vehicles to 13 million by 2025 while regulating and reducing fossil fuel vehicles. Additionally, this policy aims to address emissions issues, tackle urban congestion problems, and enhance public transportation [10].

At the Liverpool city level, efforts to promote sustainable mobility have been ongoing since 2015. The city region has implemented new high-quality bicycle and pedestrian infrastructure projects aimed at encouraging more people to cycle and walk. However, within the city region, cycling still accounts for only 2% of all journeys, and only 30% of residents believe that current cycling and pedestrian safety measures are sufficient. In response, the Liverpool City Council (LCC) invested in the "Local Cycling and Walking Infrastructure Plan" (LCWIP). LCWIP aims to create 600 kilometres of new cycling and walking routes, integrating them into the transportation network, and allowing residents to choose walking, cycling, or public transport for short trips [11].

To address the city's air quality issues, LCC provides daily air quality information for the Liverpool area through the "Let's Clean Liverpool's Air" initiative. It also offers recommendations for sustainable travel practices, including reducing car use, opting for public transportation, walking, or using electric vehicles [12]. Therefore, Liverpool's sustainable mobility initiatives align with EGD policies, encompassing various infrastructure projects and plans. It can be said that the EU's green transportation policy holds significant guidance for Liverpool.

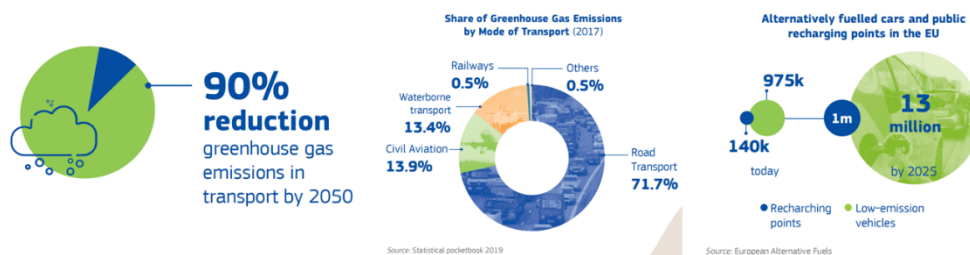


Figure 5: Sustainable mobility - EGD [10]

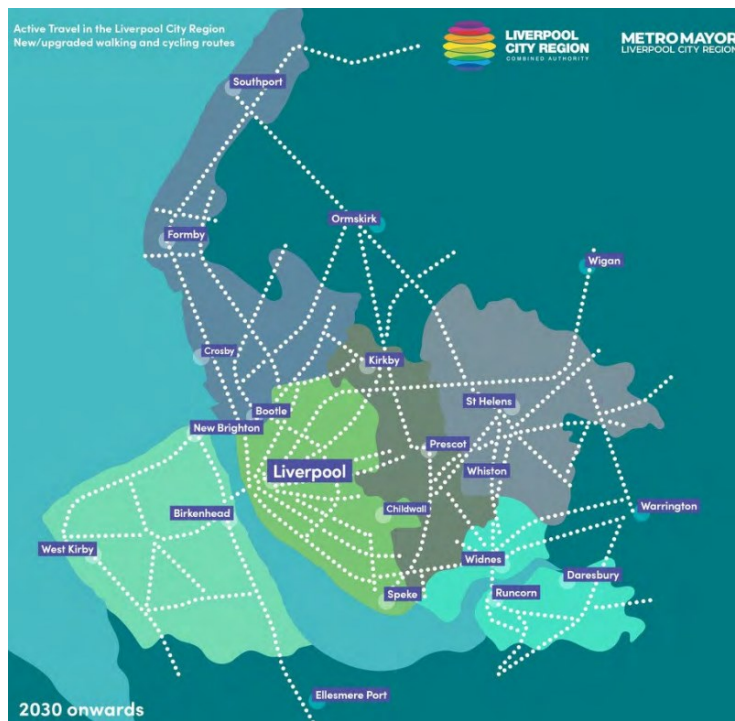


Figure 6: The cycling network in Liverpool [11]



Figure 7: Cycling and walking infrastructure in Liverpool [11]



Figure 8: Let's CLEAR the AIR Liverpool [12]

2.2.2. Clean energy

Within the framework of the European Green Deal (EGD), the "Buildings and Renovation" focus primarily centres on refurbishing social housing units to assist families who struggle with energy costs. The European Commission will establish an open platform that brings together experts from various fields to explore innovative financing alternatives, stimulate investments in energy-efficient building upgrades, integrate renovation plans into larger-scale projects for cost-effectiveness, and help 50 million customers stay warm in their homes using clean energy [13].

In Liverpool, social housing units produce 560,000 tons of carbon dioxide emissions annually. The REECH project, funded by the EU (ERDF), improved the energy efficiency of housing, providing assistance to many who cannot afford heating costs. Between 2011 and 2015, REECH implemented

around 5,000 individual energy efficiency measures for nearly 3,500 homes in the urban region through 21 demonstration housing refurbishment projects, most of which were located in economically disadvantaged communities. These measures included the installation of 1,000 solar hot water roofs, 2,000 solid wall insulation systems, and 1,500 microgeneration energy sources, reducing a total of 20,000 tons of carbon emissions during the project's five-year implementation. Researchers estimate that over the lifespan of these renovations, the project will reduce more than 188,000 tons of carbon dioxide emissions [14]. Similarly, Liverpool's commitment to clean energy is evident through substantial emissions reductions achieved through project implementation. Furthermore, the Liverpool City Council (LCC) utilizes government programs to encourage the use of new energy vehicles, further advancing efforts to reduce carbon emissions. Therefore, the European Green Deal has already influenced Liverpool's clean energy policies.



Figure 9: Building and renovating - EGD [13]

2.2.3. Biodiversity

Within the framework of the European Green Deal (EGD), biodiversity emphasizes the importance of preserving biodiversity in shaping future EU policies. It underscores the significance of conserving forest and marine ecosystems. Furthermore, the policy recognizes the high awareness among the majority of Europeans about the importance of protecting the natural environment, as shown in Figure 10. Additionally, it emphasizes the role of green European cities and the importance of increasing urban biodiversity in future urban planning. Urban green spaces, as habitats for city flora and fauna, underscore the critical role of urban green areas in addressing climate change and protecting biodiversity, as depicted in Figure 10.

At the Liverpool city level, the "Strategic Green and Open Spaces Review Committee Final Report" released by the Liverpool City Council in 2016 highlights the crucial role of urban green spaces in biodiversity conservation. The report emphasizes that preserving the species diversity of both plants and animals can enhance urban climate resilience. It also underscores the importance of considering the connectivity of urban green spaces in the design process for better biodiversity protection [15].

Regarding specific initiatives, Liverpool implemented the "Growing Seeds" project, which received €1.127 million in funding from the EU and lasted for seven years [16]. The project involved the establishment of a nationally significant visitor attraction and wildflower seed industry centre in Merseyside. It also included the redevelopment of the abandoned 14-hectare Court Hey Park into a natural park to promote wildflowers in the community, especially the development of bee gardens using locally sourced wildflower seeds. The Growing Seeds project provided an attractive market for wildflower seeds and agricultural products and a workspace for local small businesses [17]. Additionally, Liverpool City Council (LCC) has taken measures to enhance facilities for greening urban areas and encourage citizen participation in community gardening activities. Therefore, the European Green Deal has influenced Liverpool's biodiversity conservation policies.

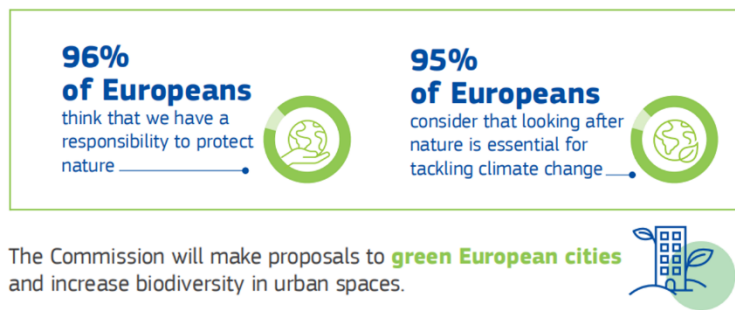


Figure 10: Biodiversity - EGD [17]

3. Conclusion and perspective

This paper has provided a comprehensive examination of Liverpool's historical background and the challenges it faces in urban development. It conducted an in-depth analysis of EU policies tailored for Liverpool and assessed their impact on the city's urban planning and development. The paper covered two main dimensions: employment opportunities and various eco-friendly policies related to Liverpool. Eco-friendly policies included transportation, sustainable energy, and biodiversity conservation, with a particular emphasis on addressing ongoing urban environmental issues. Employment policies targeted Liverpool's persistently high levels of unemployment. Through the review conducted in this paper, it is evident that the EU, through the European Regional Development Fund (ERDF), has provided support to Liverpool and established development objectives for the UK within a broader policy framework. Liverpool has further translated these objectives into specific urban development strategies and initiatives, aligning them with the overall EU policy framework. While the EU lacks specialized urban planning policies tailored to Liverpool, its broader policies in areas such as employment, transportation, sustainable energy, and biodiversity conservation have prompted Liverpool to implement specific construction projects. These projects, in turn, have facilitated progress in urban spatial planning and contributed to mitigating the city's challenges to some extent. Therefore, EU policies have practical significance for Liverpool's urban spatial planning and overall urban development.

Given the employment and environmental challenges examined in this paper, the following recommendations aim to empower the Liverpool City Council (LCC) to more effectively address urban employment and environmental issues in the coming years, enhancing urban spatial planning and development:

Firstly, as outlined in Section 2.1 of this paper, EU policies and financial support have already contributed to making Liverpool's employment prospects gradually more optimistic. However, Liverpool's employment rate still lags behind, and there remains a disparity with the national average in the UK. Therefore, in the coming years, LCC should continue efforts to stimulate employment opportunities for the eligible population. This should include expanding job prospects while ensuring equal employment opportunities for city residents in terms of age, gender, race, health status, and educational background, among other factors. Additionally, the city can explore the establishment of more high-rise office buildings and repurposing abandoned factories into modern office spaces to create more job opportunities.

Secondly, as analyzed in Section 2.2 of this paper, the EU has invested in addressing Liverpool's urban environmental issues, and LCC's policies and initiatives align significantly with the policy objectives of the EU. However, Liverpool still faces challenges related to climate change and has declared a climate emergency [2]. Among the various aspects of the European Green Deal (EGD) mainly examined in this paper, the newly introduced Liverpool Green City Deal (GCD) primarily emphasizes clean energy policies, while other aspects remain somewhat vague [2]. Therefore, in the

future, LCC should remain committed to the policy trajectory set by the EGD and continually update the policy content within the GCD to ensure the ongoing resolution of Liverpool's urban environmental issues.

Thirdly, in the current context, although the UK has completed the Brexit process, this does not imply that the EU has no influence on urban planning and development in the UK or Liverpool. On the contrary, LCC should actively establish committees during the Brexit transition phase to uphold the EU's existing policies and establish more targeted local policies based on previous EU policies. By formulating more targeted local policies based on past EU policies, the city can more effectively and precisely address existing urban challenges.

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