

Bridging the gap: Sustainable Urban Mobility Plans (SUMP) as a catalyst for functional integration in Polish metropolitan areas

Extended abstract

The spatial and functional landscape of Poland has undergone a radical and often turbulent transformation since the transition to a market economy in 1989. The shift from centrally planned urban development to a more liberalized land-use regime triggered a phenomenon of rapid, disorganized suburbanization. This "urban sprawl" is not merely a spatial issue but a structural one, as major Polish cities have morphed into complex Functional Urban Areas (FUAs). In these regions, daily socio-economic activities - ranging from commuting and education to healthcare and leisure - transcend administrative boundaries, yet the governance remains fragmented.

In the Polish legal system, there is a persistent "metropolitan vacuum." Despite decades of academic and political debate, the country lacks a comprehensive "Metropolitan Law" that would provide a systemic framework for managing large urban clusters (the Upper Silesian GZM Metropolis remains a solitary legislative experiment). This creates what researchers call a "metropolitan trap": the core city and its surrounding ring are functionally integrated but administratively divided, leading to inefficiencies in service delivery and infrastructure planning (Markowski, 2010). In this context, "soft" planning tools, driven primarily by European Union requirements, have emerged as the de facto substitute for formal metropolitan government. The most significant of these instruments in the 2021–2027 financial perspective are the Sustainable Urban Mobility Plan (SUMP) and the Integrated Territorial Investment (ITI) Strategy, which together serve as catalysts for territorial cohesion.

This study is situated at the intersection of Metropolitan Governance theory (Fontan *et al.*, 2009) and the concept of Institutional Thickness (Amin & Thrift, 1995). Governance, as opposed to traditional government, emphasizes network-based collaboration, multi-level participation, and the inclusion of non-state actors. For fragmented FUAs, building "institutional thickness" - the dense network of inter-institutional relations and shared norms - is essential for long-term stability.

A SUMP, following the ELTIS guidelines (Rupprecht Consult, 2019), represents a paradigm shift in regional science. Traditional transport planning was "predict and provide," focusing on road capacity. In contrast, SUMP is "plan and manage," prioritizing:

- multimodality and accessibility: ensuring that all citizens, regardless of their location in the FUA, have access to sustainable transport.
- spatial justice: addressing the inequalities between the urban core and the transport-deprived suburban peripheries.

- environmental integrity: meeting the rigorous decarbonization targets set by the EU Green Deal.

The research employs a comparative policy analysis framework to assess the effectiveness of mobility planning as an instrument of territorial integration. The study is implemented in three distinct stages. First, a document review and desk research phase is conducted. This involves a systematic and in-depth examination of two primary categories of planning documents: Sustainable Urban Mobility Plans (SUMP) and Integrated Territorial Investment (ITI) strategies. The documents are analyzed in terms of: (a) the degree of strategic coherence and mutual alignment between SUMP and ITI strategies; (b) the consistency and compatibility of their diagnostic and baseline datasets; and (c) the explicit inclusion and prioritization of cross-border or inter-municipal investment projects. Second, functional urban areas (FUAs) are selected for comparative analysis. The study encompasses several major metropolitan regions in Poland with the aim of identifying recurrent patterns and outliers in metropolitan governance arrangements. The sample comprises:

- The Warsaw Functional Area, characterized by the highest intensity of commuting flows and particularly complex rail–bus integration challenges.
- The Kraków Metropolitan Area, which illustrates the integration of a historic urban core with rapidly expanding suburban zones.
- The Poznań and Wrocław FUAs, noted for a comparatively advanced level of “soft” inter-municipal cooperation facilitated through established municipal associations.
- The Łódź Metropolitan Area (ŁOM), chosen as the principal in-depth case study owing to its distinctive demographic trajectory and infrastructural constraints.

Third, an evaluation framework is applied based on three core indicators:

1. Governance structure: the institutional arrangements through which the ITI association coordinates and oversees SUMP implementation.
2. Integration level: the extent of functional integration, operationalized through shared ticketing systems, synchronized public transport timetables, and the development of multimodal interchange nodes (e.g., Park & Ride and Bike & Ride facilities).
3. Financial linkage: the degree to which the SUMP’s strategic priorities are effectively embedded within, and supported by, the ITI financial framework and budgetary allocations.

The rapid diffusion of Sustainable Urban Mobility Plans (SUMP) across Poland can be primarily attributed to European Union conditionality. For the 2021–2027 programming period, the Polish Ministry of Funds and Regional Policy (2022) stipulated that the existence of a certified SUMP constitutes a mandatory ex-ante condition for functional urban areas (FUAs) to obtain access to structural funds within the framework of Integrated Territorial Investments (ITI). This form of “conditional governance” has compelled mayors—who have traditionally been engaged in competitive rather than cooperative relationships—to create permanent inter-municipal cooperation platforms, thereby partially compensating for the absence of a national metropolitan governance framework in statutory law.

Across the analyzed FUAs several recurrent tendencies can be identified:

1. Modal shift towards rail transport: In all examined Sustainable Urban Mobility Plans (SUMP), the railway network is conceptualized as the primary structural element of metropolitan mobility systems, serving as the main axis for shaping regional transport offer and integration.
2. Expansion of Park & Ride infrastructure: Each FUA places strong emphasis on the development of Park & Ride (P&R) facilities located at the periphery of the core city. These facilities are intended to intercept commuter traffic and thereby reduce automobile pressure originating from suburban and exurban areas.
3. Institutional consolidation and maturation: The planning processes associated with SUMP development have contributed to the strengthening of Integrated Territorial Investment (ITI) Associations. In functional terms, these bodies are evolving into de facto metropolitan coordination structures, functioning as “shadow cabinets” that facilitate inter-municipal cooperation and integrated governance at the metropolitan scale.

Despite notable strategic advances, the inherently “soft” character of these instruments encounters a structural limitation analogous to a “glass ceiling.”

- Legal inconsistency: Sustainable Urban Mobility Plans (SUMP) do not yet possess a legally binding status vis-à-vis local spatial development plan (plan o gólne). This regulatory misalignment permits the continuation of urban sprawl, including the development of areas that are effectively inaccessible by public transport (Izdebski & Nelicki, 2023).
- The “OPEX” crisis: While European Union funds predominantly finance capital expenditures (CAPEX), such as the acquisition of electric bus fleets, the associated operating expenditures (OPEX) remain the responsibility of municipal budgets. This cost structure poses a significant risk to the long-term financial viability and continuity of expanded public transport services.
- Institutional fatigue: The necessity to coordinate and manage numerous municipal budgets alongside more than sixteen transport organizing authorities generates an administrative workload that exceeds the institutional capacity of many smaller municipalities, thereby constraining effective implementation and oversight.

The study concludes that, in the absence of a national metropolitan governance framework (Metropolitan Law), the interaction between Sustainable Urban Mobility Plans (SUMP) and Integrated Territorial Investments (ITI) currently constitutes the most advanced form of functional integration in Poland. This configuration has reoriented the policy paradigm from a focus on physical infrastructure (“concrete and asphalt”) toward an emphasis on services and mobility flows. Nevertheless, for these planning instruments to achieve their full developmental and integrative potential, the following conditions must be met:

- Mandatory legal integration: Sustainable Urban Mobility Plans (SUMP) should possess legally binding status within the framework of local spatial planning instruments.

- Systemic financial framework: Functional Urban Areas (FUAs) should be allocated a defined share of national tax revenues to ensure stable financing for the operation of integrated transport systems, following the model implemented in the Górnośląsko-Zagłębiowska Metropolia (GZM).
- Standardisation of MaaS Platforms: A national standard for metropolitan “Mobility as a Service” (MaaS) platforms should be developed and implemented to harmonise tariff structures and thereby eliminate the current “tariff jungle.”

Ultimately, mobility planning functions as a strategic entry point for metropolitan governance - initiating from the operational objective of improving public transport services and culminating in the development of a more integrated, resilient, and functionally coherent metropolitan region.

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