

Title: Daily Life System: an exploratory analysis

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Extended abstract

The aftermath of Covid-19 and persistent territorial marginalisation have profoundly reshaped daily mobility patterns, necessitating innovative approaches to territorial delineation that capture evolving spatial relations and well-being dynamics. This contribution proposes a multidimensional framework for defining "Daily Life Systems" (DLS)—supra-municipal units that integrate scope (diverse activities), space (hierarchical centers), and time (travel constraints)—to better inform cohesion policies in post-pandemic contexts. The primary aim is to overcome limitations of traditional representations which focus narrowly on work-commuting (only 32% of trips per Audimob data) and inadequately cover peripheral territories. By mapping citizens' full circadian cycles—including family management (37.2%), leisure (26.2%), education, and services—the framework seeks to maximise local self-containment, reveal service-demand mismatches, and support adaptive governance for enhanced life satisfaction particularly to capture also the specificities of small and remote systems in peripheral and marginal areas that traditional classifications overlook. Grounded in central place theory and time-geography, the approach operationalises DLS via isochrones (travel-time budget invariant) around pivot municipalities hosting hierarchical functions. It leverages empirical socio-economic data, presence and location analysis of public services, amenities, and infrastructures to ensure full territorial coverage. Unlike single-flow models, this work innovates by centering citizen well-being through temporal invariants and multi-activity flows, enabling scalable applications (e.g., SNAI inner areas, health districts). It offers a people-centered approach to define a hierarchy of centralities and new daily life perimeters at national scale, providing policymakers with precise tools to adapt boundaries to transformed daily geographies, fostering equitable, place-based responses to pandemic-induced spatial shifts.

References

Christaller, W. (1933) *Die zentralen Orte in Süddeutschland. Eine ökonomischgeographische Untersuchung über die Gesetzmässigkeit der Verbreitung und Entwicklung der Siedlungen mit städtischen Funktionen*. Jena: Gustav Fischer Verlag

Compagnucci, F., & Morettini, G. (2024). Inner areas matter: A place-sensitive approach for the identification of the Daily Life Spaces in the Italian Abruzzo region. *Socio-Economic Planning Sciences*, 93, 101859. doi: [10.1016/j.seps.2024.101859](https://doi.org/10.1016/j.seps.2024.101859)

Hagerstrand, T. (1970) What about People in Regional Science?. *Papers of the Regional Science Association*, 24,1 -21

Zahavi Y. (1977) Equilibrium between travel demand system supply and urban structure. In: Visser EJ, editor. *Transport decisions in an age of uncertainty*. The Hague: Springer; 194–199

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