

Towards a Smart Approach? A critical analysis of SDGs composite indicator considering spatial effects

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Territorial analysis could be led using different approaches that conduct to different visions of multiple phenomena. In order to obtain a proper vision and, thus, realize efficient policies, we propose the definition of a Smart Approach. According to this, it is possible to explore and examine local and regional dynamics using and decomposing territorial complexity with a layer schematisation ranging from citizen's local activity to a wider territorial extension linked to different networks applications. In this regard, the study of territorial systems could be enriched by spatial results of such further interconnected actions realized in the space of flows but rooted in the sensible one.

In order to do this, adopting a multi-layer vision (that allows a large comprehension of various phenomena), we investigate the composite indicators proposed by United Nations to evaluate the achievement of Sustainable Development Goals (SDGs), also considering a [composite indicators](#) collected by Asvis (Italian Alliance for Sustainable Development) and ForumPa with Istat. More specifically, we intend to comprehend, from a statistical point of view, the effective informativeness of such composite indicators comparing with other data elaborations. On a first step, we develop a further composite indicator considering the whole group of units under analysis (approximately 150, territorial level NUTS2). Moreover, in order to take into account potential spatial non stationarity that characterizes the European Union we apply a Geographically Weighted Principal Component Analysis (GWPCA) approach to explore the presence of structural differences in the different domain indicators.

The aim of the work is to obtain a stronger and unbiased territorial profile, corrected by spatial distortions, in order to evaluate proper multi-scale policies and obtain a global understand of a genuine “smart configuration”.

References

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