Chapter 8
AI-Driven Territorial Intelligence
An Integrated Approach to Enhancing Digital Sovereignty

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ABSTRACT

Artificial intelligence (AI) and territorial intelligence (TI) are currently two key fields. AI enables the development of systems capable of performing tasks that generally require human intelligence, such as pattern recognition, classification, and prediction. Business intelligence applied to territories is at the heart of research into sustainable territorial development, as part of the paradigm of intelligent territories. So how can digital technology be used to develop territorial intelligence and help improve the digital sovereignty of regions? The study traces the many challenges posed by the application of AI and IT in real-life scenarios and identifies opportunities for combining the two fields via a hybrid approach aimed at decision-making in digital territorial management.

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INTRODUCTION

In an increasingly connected world, corporate competition is turning business models upside down, and leaders towards digital transformation. To stay competitive, this transition is a fact. In all sectors, digitalization is a trend and a real trend, which is becoming more and more essential and is profoundly transforming current practices and theories. There is a growing interest in regions and the economic and social performance of territories. As a result, economic intelligence applied to the territory is at the heart of research into intelligent territorial development, in the context of the concept of "*intelligent territories*". We propose to contribute to this debate by focusing on the potential role of artificial intelligence as a tool for developing economic and territorial intelligence.

Artificial intelligence (AI) and territorial intelligence (TI) are two fields that have received significant attention in recent years. AI enables the development of systems capable of performing complex cognitive tasks, such as pattern recognition, classification, and prediction, while IT focuses on the development of systems capable of processing and analyzing spatial data. However, despite their progress, both camps still face challenges when it comes to applying their techniques to real-life scenarios. One way of overcoming these challenges is to combine the strengths of both fields, creating a hybrid approach that exploits the advantages of both AI and TI.

Business intelligence refers to the collection, analysis, and exploitation of strategic information to support the competitiveness and development of companies and organizations. It encompasses aspects such as competitive intelligence, protection of sensitive information, and informed strategic decision-making. On the other hand, territorial intelligence concerns the in-depth understanding of a given territory, its resources, assets, and challenges, to support its sustainable development and economic, social, and environmental resilience. AI could enable more efficient collection and analysis of the vast amounts of economic, commercial, and territorial data available. Thanks to its massive data processing capabilities, AI could identify trends, opportunities, and risks faster and more accurately than traditional methods. In the field of territorial intelligence, AI could contribute to a better understanding of the socio-economic, environmental, and cultural dynamics of a given territory. By cross-referencing and analyzing various data sources, AI could identify trends, challenges, and opportunities specific to each region. AI could also support the planning and implementation of more effective territorial public policies, better adapted to local needs. By analyzing the potential impacts of different scenarios, AI could help decision-makers choose the most relevant measures.

Data sovereignty has emerged as a critical concern for regions pursuing digital autonomy. The concept extends beyond mere data protection, encompassing the ability of a jurisdiction to control the collection, processing, and storage of data