

Introduction

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The popularization of the Internet, digitalization, automatization, and other facilities for human life are boosting the proliferation of smart city projects (Mora et al., 2023; Albino et al., 2015; Caragliu et al., 2011). These initiatives address localized sustainability concerns using digital innovations with the aim of enhancing urban service delivery systems (Appio et al., 2019; Mora et al., 2019). This, in turn, stimulates sociotechnical recombination processes, fostering the adaptation and convergence of local practices and emerging technological pathways that hold the potential to elevate urban sustainability. This approach aligns with the United Nations' vision for sustainable development, which emphasizes the need for local interventions and strategies to address the unique challenges faced by urban areas in global change. But what are the consequences of this trend? Are the new technologies combined with city life inclusive, responsive, and fair? Are we all going to benefit from it? The answers to these questions are still unknown, so collective thinking is needed.

In this special issue of *Regional Studies and Local Development*, we start from the classical notion of a smart city as a digital city to include the human and social side of urban planning. To this end, we collected a set of original articles that make a thermometer of the ability to design and implement a sustainable smart city (SSC), beneficial to the city government, no longer considered as the result of a top-down process but seen as a process of bottom-up co-creation. The main idea is to explore different aspects of sustainable and social problems related to smart cities, discussing the state-of-the-art challenges associated with the triple bottom line, technologies, and methods for regional and urban design and development towards creating a sustainable ecosystem (Elkington, 1997; Anushiri et al., 2023).

From a panoramic approach, Ianese brings some critical points to the role of digital technologies in developing SSC. The author stresses the new tech-

nologies serving the development of SSC in four categories: artificial intelligence, urban big data and data platforms, Internet of things (IoT), and information and communications technology (ICT) and infrastructures. These tools are particularly interesting for public administrations once data collection, interpretation, and analysis can guide decision-making processes in healthcare, governance, mobility, citizen services, legal and security, waste, and more. On the other hand, in the context of SSC, sustainability, in alignment with the UN's 2030 Agenda, is intrinsically tied to safeguarding fundamental rights, enhancing well-being, and optimizing public services (Del Río Castro et al., 2021). While digital technologies are crucial in efficiently meeting the population's needs, the connection between achieving sustainability goals and the urban digital transition remains unclear (Fukuda-Parr and McNeill, 2019; Goralski and Tan, 2020; Hodson et al., 2023).

Considering that the public administration needs the proper capacities to implement these four categories of technologies for the broad diversity of citizens, Gomes and Sedita analyzed the SSC in Italy regarding the inclusive and sustainable development aspects of 83 municipalities with smart city ecosystems. Besides the need for technological features in the cities, citizens must be aware and capable of enjoying them, mainly because there are many profiles as tourists, people with disability-related issues, aging population, migrants, youth population, gender balance issues, and LGBTQIA+ inclusion. The primary hurdles confronting smart cities in Italy underscore the imperative for enhanced investment in internal and external communication by the public administration, more opportunities for enterprises to partner with governments and communities in shaping and executing SSC initiatives, and achieving a cultural shift for its popularization. This investment is vital to facilitate more effective coordination in pursuing SSC objectives and fostering engagement with the citizenry. Consequently, this would involve affording citizens increased access to services geared towards sustainability and collaboration, including shared mobility systems, localized green energy production, digitalization of administrative services, improved urban management, and implementing sustainable urban solutions, as the main challenges reported by the research.

Bringing a specific and paramount construct of SSC, the urban mobility, Pinizzotto and Mazzoni discuss the local strategies for sustainable mobility in the Veneto region, north Italy. Smart mobility presents a distinctive chance to tackle contemporary issues and enhance transportation systems' efficiency, safety, and sustainability. Some technologies, such as the Global Positioning System (GPS), shared transport apps, electric bicycles, and scooters, are more known. Innovations for automobiles are becoming popular, for example, Advanced Driver Assistance Systems (ADAS) and related and au-

onomous vehicles. Considering that the Veneto region is one of Italy's most polluted regions, smart and sustainable mobility solutions are of primordial importance. Nevertheless, it is also regarded as a high level of engagement of local governments in defining new urban models. Padua and Venice have improved their scoring over the years, adopting car sharing, exchange car parks, bike sharing, road zones with 30 km/h speed limit, and ZTL. Also, there are plans for renewing the electric vehicle bus fleet and considering citizens' behavior and infrastructure readiness within the Veneto region to foster sustainable mobility practices; good perspectives for the consecution of smart mobility in SSC are expected.

Still about the Veneto region, specifically about Padova, Lanzilotta and Sedita, brings light to a meta-community of practice for Italian SSC, with the case of City Vision, which links public administrators, businesses, innovators, researchers, students, and professionals actively participating in the smart urban transformation. This initiative has effectively brought together diverse communities of practice, providing a collective working space. In 2022 and 2023, its events drew over a thousand attendees, involving thousands more through in-person and digital interactions, including events such as the territorial roadshow and the main event called "Smart City General Assembly" as well as communication efforts, research initiatives, and ongoing exchange of experiences.

These efforts to turn Padova into a recognized smart city are welcome in many aspects, significantly consolidating the town as a smart cultural ecosystem, as Fakir, Sedita, Andrian and Marchioro suggest. The authors also innovate in exploring the city's potential to become recognized for its sustainable cultural heritage and creativity. The coalition of the past with the future would be the translation of memory preservation with smart tourism development. In this case, visitors to historical tourism destinations fall into two categories: those who passively embrace their ancestral history and those who actively seek authentic experiences, regardless of any personal connection to the place. Padova can embrace both once it is a famous destination for ancestry and religious tourism. Still, it is also a place to welcome new people interested in the *Padova Urbs Picta* UNESCO world heritage serial site, such as the botanical garden, frescos from the year 300, Giotto's art at Scrovegni Chapel, and others. Independently of the tourist profile, it is possible to access technological facilities such as the "Padova card," accessible museums with guides, taxi services for tourists with disabilities, mobile applications to discover the city, and more.

In a similar vein, Blasi and De Noni explore the intersection of innovation and sustainable tourism. It highlights the importance of combining these two concepts for the long-term success of the tourism industry. The paper

discusses the challenges of overtourism and climate change faced by cities and tourist destinations and emphasizes the need for governments and the tourism industry to address these challenges sustainably. The study uses patent analysis to measure the sustainability of innovation for the tourism industry. Through topic modeling analysis, it shows that these patents increasingly focus on various sustainability topics.

The affluent flow of people in a city invites thinking of how everyone's rights may be guaranteed, especially in the context of conflicts and inequalities that many countries face. Knowing this, Perini explores two successful cases in Spain of mutualism with a feminist approach. The author uses the idea of "conflictual mutualism" because it seeks to orchestrate various individual perspectives to enhance the overall living conditions and foster political consciousness. Additionally, the work aims to equip individuals with the tools to resist public and private authorities while advocating for and safeguarding their rights. In this context, mutualism does not intend to supplant public services but directly contrasts them.

In alignment with the discourse of the protagonism of people in the consecution of smart cities, Sbalchiero and Gomes consider the relationship between environmental sustainability and social issues, adopting a bottom-up approach to inclusive urban food and waste management systems development. Food justice and the negative externalities of food production are crucial for urban development, and the authors bring six cases regarding it from Brazil, Croazia, and the USA to highlight some practices with diverse profiles. The cases illustrated work as benchmarks for smart use of cities implemented using a human-centric participation.

This special issue provides a comprehensive view of the evolving landscape of smart cities, encompassing technology, inclusivity, sustainability, community engagement, and the preservation of cultural heritage. The papers collectively contribute to the ongoing dialogue on how smart cities can effectively address the diverse challenges and opportunities of urbanization in the modern world¹.

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