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The cover image is a photo of the 1966 flood of the Arno in Florence (Italy).

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REVIEW NOTES – Economy, business and land use

Entrepreneurship in the city: sustainability and green entrepreneurs

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Abstract
Starting from the relationship between urban planning and mobility management, TeMA has gradually expanded the view of the covered topics, always following a rigorous scientific in-depth analysis. This section of the Journal, Review Notes, is the expression of a continuous updating of emerging topics concerning relationships among urban planning, mobility and environment, through a collection of short scientific papers. The Review Notes are made of four parts. Each section examines a specific aspect of the broader information storage within the main interests of TeMA Journal. In particular, the Economy, business and land use section aims at presenting recent advancements on relevant topics that underlie socio-economic relationships between firms and territories. The present note underlines the benefits that entrepreneurship exerts on the city, with a specific focus on sustainability and green entrepreneurs. These ones are individuals who start business ventures without just seeking their profit maximization as a unique goal, but rather contribute to the sustainable development of the communities in which they are embedded. However, in order for them to have positive and long-lasting impacts, they need to cooperate with networks that embed several stakeholders and mainly local governments.

Keywords
Green entrepreneurship; Sustainability; City

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1. Introduction

Cities are important nodes of social and economic life since most of the economic activities take place here and most of the worldwide population lives in urban centers (Bai et al., 2018). Due to the density of people and organizations, cities are also characterized by social and environmental risks that impose them to deal with problems related to climate change and socio-economic inequalities (Bai et al., 2018; Ramaswami et al. 2016). According to the United Nations, people living in slums rose to 28% in 2018 in urban areas, where up to 4,2 million people died in 2016, and where over 90% of Covid-19 cases were registered (UN, 2020). Environmental problems, in particular, are among the most relevant issues affecting cities as most of the energy consumptions occur in urban centers, accounting for the 70% of the global carbon emissions (Gargiulo & Russo, 2017) and affecting cities economies and competitiveness as well (Carpentieri, 2020; Carter et al., 2015). Public and governmental organizations are increasingly aware of such trends and are pushing urban centers towards the identification of the main socio-environmental concerns that affect them and the activities to implement in order to reduce their carbon footprint contributing to the mitigation of climate change. The most representative initiative demonstrating the commitment of global policies towards the issue of sustainable cities is probably the sustainable development goal number 11: "Making cities and human settlements inclusive, safe, resilient and sustainable". Recently, the Green New Deal signed by European Commission also put the environment at the center of the policy debate highlighting the important role that cities have in tackling climate change, whose effects are summarized by Zucaro and Morosini (2018) and are referred to the following factors: health, accessibility and supply, energy use, migration, economic and fiscal crises, social instability. Strategies to mitigate climate change are thus needed in order to have more livable and sustainable places. There are several possible ways through which urban areas can deal with the issue of mitigating their environmental impacts. Cities, indeed, may implement activities aimed for example at preserving soil and make a responsible land use (Carpentieri et al., 2019), may invest in infrastructures – namely systems that provide water, energy, food, shelter, transportations and communications - (Ramaswami et al., 2016), finance green infrastructures or nature-based solutions (Haase et al., 2017; Salata & Yiannakou, 2016). More in general, cities can face climate change by implementing sustainable activities in several ways involving several stakeholders (Jabareen, 2013). Among them, firms may play a relevant role in addressing environmental problems. This work aims at shedding light on the importance that green firms, and thus green entrepreneurs, are gaining in literature and in practice, unveiling their possible contribution to the sustainable transition of cities, whose political support is needed for a systemic and effective implementation of green initiatives that may overcome the idea of firm maximization and create positive externalities for the whole territory.

2. Green entrepreneurs and initiatives

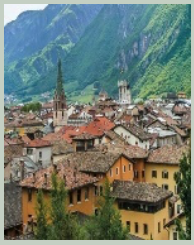
The issue of sustainable, or green, entrepreneurship has recently become widely discussed in literature (e.g., Brandt & Svendsen, 2016; Demirel et al., 2019; O'Neill & Gibbs, 2016). Individuals who combine an entrepreneurial action with socio-environmental awareness, thus not seeking exclusively profits maximization may be defined as sustainable, or green, entrepreneurs (Gibbs & O'Neill, 2014). While the popular image sees entrepreneurs as profit-maximization seeking actors, green entrepreneurs display different mindsets "evidenced through donations to environmental causes, employee-friendly working conditions, an interest in wider social and environmental issues beyond bottom-line profits, and a concern for the longer term implications of their business activities" (Gibbs & O'Neill, 2014, p. 1093). Green entrepreneurs are those who develop business initiatives based on sustainability and green values, and they have a central role in pursuing sustainable development through the spread of sustainable products and processes (Gasbarro et al., 2017; Parrish & Foxon, 2006). The central role that green entrepreneurship is gaining is demonstrated by the increasing attention dedicated to the topic by several differentiated fields of knowledge such as urban studies (Yu & Gibbs, 2020), management (Mrkajic et al., 2019), economy (Unay-Gailhard & Bojnec, 2019), innovation

(Cojoianu et al., 2020). The impact of green ventures is not just related to their private profits but is able to generate positive externalities as well, in particular when they create scalable business models that trigger the transformation of their supply chains (Silajdžić et al., 2015). If able to do so, green entrepreneurs have the potential to strongly contribute to the sustainability transition in cities. However, the extent of their contribution to such transition is also determined by the networks in which they are embedded, that are conditioned by spatial contexts and multiple relationships with local public and private actors (Yu & Gibbs, 2020). In other words, the role of governs is fundamental to sustain green enterprises, thanks to whom cities are more likely to achieve an effective and successful sustainable transition.

An extreme case of the extent to which green entrepreneurs may drive cities towards a sustainable transition is that of the town of Babcock Ranch, located in Florida in the United States, which is one of the first solar-powered town in the world. Currently under development, Babcock Ranch is a newborn city founded by a sustainable-oriented entrepreneur working in the field of real estate. The town is built upon the concept of the sustainable use of products and resources. It aims at hosting about 50 thousand inhabitants and 6 million squares of commercial space in the next years and is powered by a solar field composed of 650 thousand solar panels. All buildings are built following strict environmental and energy efficiency measures, and most of the urban space is covered by natural areas and sport infrastructures. The building sector, indeed, is among the most impacting ones about the relationship between green entrepreneurship and cities. With reference to Italy, many firms, supported by local governs, have developed in time green technologies aimed at implementing effective waste and energy management measures. In Italy, for example, the Kerakoll GreenLab is the prototype of a building thought as an ecosystem in balance with the surrounding environment and capable of self-producing energy, recovering rainwater to purify it and guaranteeing the highest levels of indoor air quality and well-being. Besides its technical characteristics, the building hosts one of the most advanced labs for the research about green materials for buildings. Green initiatives such as the one just described realize their potential at maximum when they meet favorable local policies and support. Oslo, for example, has been awarded with the European Green Capital of 2019 by European Commission, due to its strong impact towards the mitigation of climate change. Among the several initiatives involving sustainable mobility, green buildings and waste management, Oslo also established a network of businesses, citizens and NGOs called "Business for Climate Network" that group about 100 companies that design and implement strategies consistently with the sustainable goals of the city. Similarly, the city of Nijmegen, that won the prize in 2018, developed its sustainable strategy also trying to attract green investments coming from private businesses.

In line with the discussion provided in the previous number of this section, the following sub-sections underline some virtuous initiatives related to the Italian context. Indeed, one of the aims is to identify recent and relevant practical examples that show how Italian cities are facing the different challenges discussed.

Green entrepreneurship in Trento



Habitech is a technological district for the energy and the environment located in the area of Trento, in the north of Italy. Composed by 300 private green firms mainly operating in the building sector, it is supported by local authorities that are part of the consortium such as local governs of several towns in the area of Trento. The mission of Habitech is to drive the transition of energy and building supply chains towards sustainability. It promotes and manages complex innovation processes valuing the real estate assets of the surrounding area. Given its expertise along the whole supply chain, it operates through five different brands. In the last years its cooperation with local territories has even increased as it also participates in local green initiatives such as Car Sharing Trentino, going beyond the commitment into buildings and real estate green management, reinforcing the relationship with governmental actors.

Green entrepreneurship in Naples

Amicar Sharing is the first fully electric vehicle sharing service with zero emissions and integrates public and private transport in Naples. It is promoted by Gesco, the largest group of social enterprises in Campania region – to which Naples belongs -, actively committed to the defense of the environment and sustainable mobility and sees the collaboration with several business partners along the whole supply chain and the eShare platform developed by Be Smart. Amicar Sharing has an electric car park located in the main streets of Naples and in key points of the city. The service offers the possibility to move at low cost, to park for free in the affiliated car parks of the city of Naples, to move freely in the limited traffic areas and preferential lanes. Amicar Sharing contributes to the reduction of environmental and noise pollution, and to the reduction of costs for city mobility, with the aim of reducing urban traffic. Amicar Sharing is part of the activities of the Gesco group of "Mobility for all", together with the disabled transport service Amicar Care.

3. Discussion and conclusions

The aim of this work is to shed lights on late advancements in research about the topic of green entrepreneurship in the urban context, a topic of great relevance extensively discussed by both urban and economic studies. Green entrepreneurs are driven by motivations that overcome the mere profit-maximization, seeking for the creation of socio-environmental value (O'Neill & Gibbs, 2016). Through the overview of recent literature and of some practical cases, it is possible to understand the relevance of green entrepreneurs for the sustainable transitions of cities and territories. However, in order to make this aim effective and efficient, the support of local authorities is a fundamental requirement (Gasbarro et al., 2017; Yu & Gibbs, 2020). The cases presented in this work also underline the importance of the public-private relationship to practically implement green strategies in urban and regional contexts. Future studies may furtherly investigate the ways through which such interaction takes place, and under which conditions green entrepreneurs may deliver the highest possible value for their performance and for the local communities. The understanding of such mechanisms would be even more relevant nowadays, after that the pandemic of Covid-19 has imposed new paradigms for the sustainable development of cities (Capasso & Mazzeo, 2020).

References

Bai, X., Dawson, R. J., Ürge-Vorsatz, D., Delgado, G. C., Barau, A. S., Dhakal, S., … Schultz, S. (2018). Six research priorities for cities. *Nature*, *555*, 23–25. https://doi.org/10.1038/d41586-018-02409-z

Brandt, U. S., & Svendsen, G. T. (2016). When can a green entrepreneur manage the local environment? *Journal of Environmental Management*, *183*, 622–629. https://doi.org/10.1016/j.jenvman.2016.09.007

Capasso, S., & Mazzeo, G. (2020). Health emergency and economic and territorial implications. First considerations. *TeMA Journal of Land Use, Mobility and Environment*, 45–58. https://doi.org/10.6092/1970-9870/6866

Carpentieri, G. (2020). *La smartness e la competitività della città resiliente. Sfide e minacce per le città del ventunesimo secolo.* (Vol. 6). FedOA-Federico II University Press. https://doi.org/10.6093/978-88-6887-088-1

Carter, J. G., Cavan, G., Connelly, A., Guy, S., Handley, J., & Kazmierczak, A. (2015). Climate change and the city: Building capacity for urban adaptation. *Progress in Planning*, *95*, 1–66. https://doi.org/10.1016/j.progress.2013.08.001

Cojoianu, T. F., Clark, G. L., Hoepner, A. G. F., Veneri, P., & Wójcik, D. (2020). Entrepreneurs for a low carbon world: How environmental knowledge and policy shape the creation and financing of green start-ups. *Research Policy*, *49*(6), 103988. https://doi.org/10.1016/j.respol.2020.103988

Demirel, P., Li, Q. C., Rentocchini, F., & Tamvada, J. P. (2019). Born to be green: new insights into the economics and management of green entrepreneurship. *Small Business Economics*, *52*(4), 759–771. https://doi.org/10.1007/s11187-017-9933-z

Gargiulo, C., & Russo, L. (2017). Cities and Energy Consumption: a Critical review. *TeMA Journal of Land Use, Mobility and Environment*, *10*(3), 259–278.

Gasbarro, F., Annunziata, E., Rizzi, F., & Frey, M. (2017). The Interplay Between Sustainable Entrepreneurs and Public Authorities: Evidence From Sustainable Energy Transitions. *Organization and Environment*, *30*(3), 226–252. https://doi.org/10.1177/1086026616669211

Gibbs, D., & O'Neill, K. (2014). Rethinking sociotechnical transitions and green entrepreneurship: The potential for transformative change in the green building sector. *Environment and Planning A*, *46*(5), 1088–1107. https://doi.org/10.1068/a46259

Carpentieri, G., Zucaro, F., Guida, C., & Granata, L. (2019). GIS-Based Spatial Analysis for the Integrated Transport-Land Use-Energy Planning: An Application to the Great London Area. *Journal of Civil Engineering and Architecture, 13*, 469-481. doi: https://doi.org/10.17265/1934-7359/2019.09.001

Haase, D., Kabisch, S., Haase, A., Andersson, E., Banzhaf, E., Baró, F., … Wolff, M. (2017). Greening cities – To be socially inclusive? About the alleged paradox of society and ecology in cities. *Habitat International*, *64*, 41–48. https://doi.org/10.1016/j.habitatint.2017.04.005

Jabareen, Y. (2013). Planning the resilient city: Concepts and strategies for coping with climate change and environmental risk. *Cities*, *31*, 220–229. https://doi.org/10.1016/j.cities.2012.05.004

Mrkajic, B., Murtinu, S., & Scalera, V. G. (2019). Is green the new gold? Venture capital and green entrepreneurship. *Small Business Economics*, *52*(4), 929–950. https://doi.org/10.1007/s11187-017-9943-x

O'Neill, K., & Gibbs, D. (2016). Rethinking green entrepreneurship – Fluid narratives of the green economy. *Environment and Planning A*. https://doi.org/10.1177/0308518X16650453

Parrish, B. D., & Foxon, T. J. (2006). Sustainability entrepreneurship and equitable transitions to a low-carbon economy. *Greener Management International*, *55*, 47–62. https://doi.org/10.9774/GLEAF.3062.2006.au.00006

Ramaswami, A., Russell, A. G., Culligan, P. J., Rahul Sharma, K., & Kumar, E. (2016). Meta-principles for developing smart, sustainable, and healthy cities. *Science*. https://doi.org/10.1126/science.aaf7160

Salata, K., & Yiannakou, A. (2016). Green Infrastructure and climate change adaptation. *TeMA Journal of Land Use, Mobility and Environment*, *9*(1), 7–24. https://doi.org/http://10.6092/1970-9870/3723

Silajdžić, I., Kurtagić, S. M., & Vučijak, B. (2015). Green entrepreneurship in transition economies: A case study of Bosnia and Herzegovina. *Journal of Cleaner Production*, *88*, 376–384. https://doi.org/10.1016/j.jclepro.2014.07.004

UN. (2020). Make cities and human settlements inclusive, safe, resilient and sustainable. Retrieved from https://sdgs.un.org/goals/goal11

Unay-Gailhard, İ., & Bojnec, Š. (2019). The impact of green economy measures on rural employment: Green jobs in farms. *Journal of Cleaner Production*, *208*, 541–551. https://doi.org/10.1016/j.jclepro.2018.10.160

Yu, Z., & Gibbs, D. (2020). Unravelling the role of green entrepreneurs in urban sustainability transitions: A case study of China's Solar City. *Urban Studies*, *57*(14), 2901–2917. https://doi.org/10.1177/0042098019888144

Zucaro, F., & Morosini, R. (2018). Sustainable Land Use and Climate Adaptation: A Review of European Local Plans. *TeMA Journal of Land Use, Mobility and Environment*, *11*(1), 7–26. Retrieved from http://dx.doi.org/10.6092/1970-9870/5343

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