

# TeMA

Journal of  
Land Use, Mobility and Environment

The climatic, social, economic and health phenomena that have increasingly affected our cities in recent years require the identification and implementation of adaptation actions to improve the resilience of urban systems. The three issues of the 15th volume will collect articles concerning the challenges that the complexity of the phenomena in progress imposes on cities through the adoption of mitigation measures and the commitment to transforming cities into resilient and competitive urban systems.

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METHODS, TOOLS AND BEST PRACTICES

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The cover image shows a sea glacier ice that melts away.

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## **REVIEW NOTES – Economy, business and land use**

# Sustainable cities and communities: The road towards SDG 11

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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 aims at understanding where we are in the path towards SDG11 and the strategies to achieve it.

### **Keywords**

Sustainable development goals; Cities; Climate change.

### **How to cite item in APA format**

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## 1. Introduction

Sustainability and sustainable development are issues of increasing relevance in the development of society to make organizations grow respecting social, economic and environmental needs (Molavi, 2018; Pirlone and Spadaro, 2020), and Sustainable Development Goals (SDGs) developed by United Nations (UN) represent the most widespread framework to trace the road towards the achievement of sustainable development by the civil society. Among others, SDG 11 is the specific goal designed for cities. Namely, the goal is called "Sustainable cities and communities" and it consists in making cities and human settlements inclusive, safe, resilient and sustainable. Practically, this calls for the transformation of urban centers into sustainable cities through the access of the entire population to adequate, affordable, and safe housing, basic services and means of transport, especially for the most vulnerable people. Furthermore, through the reduction of negative objectives on the environment, the enhancement of inclusive safe public areas, with a focus on urban peripheries. Finally, the conservation of the common artistic and cultural heritage must be guaranteed. Basically, the SDG 11 embraces many of the most relevant challenges that cities face: from their increasing growth to the waste management, to the adaptation to climate change and preservation of local heritage (Bianconi et al., 2018). SDG 11 is in fact divided in 10 targets that highlight more precisely the objectives that should be pursued by 2030 by those administrations and urban areas that aim to make their communities more sustainable:

- "Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums;
- Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons;
- Enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries;
- Strengthen efforts to protect and safeguard the world's cultural and natural heritage;
- Significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations;
- Reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management;
- Provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities;
- Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning;
- Increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels;
- Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials" (United Nations, 2015).

These targets developed by UN clearly point out that SDG 11 should be addressed by a holistic approach that should take into account the involvement of several actors in the achievement of this ambitious goal. Literature about urban studies has extensively made efforts to understand how these targets should be achieved but only recently it has started observing them in a comprehensive view that involves all of them as pointed out by SDG 11 (e.g., Devisscher et al., 2019; Franco et al., 2020; Koch and Krellenberg, 2018).

Koch and Krellenberg (2018), for example, underline that some critical points exist as, although the 10 targets indicated, there are no clear guidelines about how to achieve the ambitious goals of SDG 11, as SDGs are mostly designed at global level and there is effort to do to translate them at urban level, considering that different urban settlements may present very different characteristics (Fasolino et al., 2020). By studying the applications of three different initiatives in the German context, Koch and Krellenberg (2018) provide evidence that only few targets are really pursued by urban areas as much still needs to be done. The study shows that a significant adjustment of the targets has been done independently by the three initiatives making effective the applications, but difficult to compare initiatives and results achieved because "...it is the responsibility of the cities to thoroughly define individual indicators" (Koch & Krellenberg, 2018). In a different vein, Franco and colleagues (2020) explain in their book that SDG 11 can serve as a mean through which achieving also other SDGs exploring the connections among them. At the same time, they also point out several limitations that the approach of this specific SDG has. In particular, they state that the contextualization of the targets to peculiar urban areas is fundamental and that an integrated approach that overcomes sectoral boundaries should be developed. This suggests that the synergic work among different stakeholders is needed to set the road to the achievement of SDG 11 targets. Among others, firms can also give their contribution to the administrations by adopting production processes that take into account the protection of the cultural and natural heritage of the place where they operate; promote green mobility internally and externally; investing in projects and initiatives for the protection and support of populations exposed to possible environmental disasters. The companies most linked to SDG 11 are those operating in the construction sector, but all the others can contribute. Devisscher and colleagues (2019) in addition conclude that the implementation of the different activities related to the goal depends on cities willingness to prioritize these aspects over others consequently allocating the right amount of resources to pursue an effective strategy. In the following section I will provide two example of initiatives that represent best practices in the Italian context. Finally, I provide some final remarks.

## 2. The road towards SDG 11: Italian best practices

Although the challenges that need to be addressed by cities and communities, some initiatives show how cities can develop activities aimed at becoming sustainable in the sense provided by SDG 11. In the following boxes I provide two examples referred to Italian urban areas.

**Porto bene comune project.** The port city of Civitavecchia, situated in the metropolitan area of Rome, is developing a technological revolution. For 70 years, the city has paid the price of the energy easement to which it was voted following the construction of the industrial mega-centers for thermoelectric production. The city was promised employment and progress, but it got pollution, a high rate of disease and, on the verge of coal decommissioning, new gas plants and not even more jobs. The visionary project aimed at regenerating the city has become a concrete possibility thanks to the Next generation Eu plan, towards a zero-emission continent in 2050. The project "Porto bene comune" aims at developing a totally green futuristic port, autonomous from an electrical and thermal point of view, with renewable energy and hydrogen, capable of accumulating energy and using it when necessary. All buildings powered by renewable sources: solar panels on the surfaces; small wind plants as elements of urban architecture, off-shore wind far into the sea; electrified docks, ships powered by land with sustainable energy, solar, wind, electrical storage and green hydrogen produced on site; all port handling, tugs, cranes, shuttles for tourists: all with zero emissions. In short, a revolution, with the aim of extending the same method to the entire urban and suburban area in the future. Civitavecchia, located at the center of a territory rich in history and art from Tarquinia to Cerveteri, could thus recover the ancient tourist vocation, transform its port into a large open-air laboratory, revive the local economy, increase work, train new professionals and, finally, also to favor an innovative tourism for the avant-garde solutions adopted.

**Il Capitale Verde project.** Developed from the University of Verona, the project, which has materialized with the stipulation of a subsidiarity pact lasting five years, aims to raise awareness among the younger generations and the entire citizenship about the importance of enhancing and caring for the green capital of cities, urban common good, promoting knowledge and developing actions and tools for a sustainable and participatory protection of the green heritage. The project proposes two main actions: the first consists in identifying areas of the city, owned by the Municipality, where, every year, new trees will be planted. The first seeds of "Capitale Verde" - 12 Ginko Biloba - one for each Department of the University of Verona, were planted in 2018 in the university area and symbolize the pillars



of research and teaching. In November 2019, another seventy trees have been planted, equal to the number of bachelor's and master's degree courses activated by the University. For this second planting, the choice of the species took place in a participatory manner through a 'Vote your tree' survey which was attended by over a thousand students and employees of the University. The second action is instead aimed at developing a digital tool – a mobile App - which, by sharing the skills of the two institutions involved, allows easy access to knowledge of the characteristics of the urban tree heritage (quantity, type, state of conservation, etc.) and promotes innovative, stimulating and fun environmental education initiatives. According to the spirit of the project, the App, available from 2019, represents the tool to stimulate, through specific calls to green action, a participatory and collective census of the 'Capitale Verde' of Verona, and to involve citizens in an interesting experiment of citizen science.

These two examples provide evidence that different stakeholders can provide their contribution in the achievement of SDG 11 (in this case, the municipality and the University). Other cases could highlight also the role of other actors such as companies or regional institutions. However, the evidence provided should be thought as activities that should be integrated into wider development plans, rather than standalone projects that would not provide overall benefits to the local communities.

### 3. Discussion and conclusions

This note was aimed at shedding light on research about SDG 11 which aims at developing sustainable cities and communities. The evidence provided here show that challenges and opportunities characterize the road towards the achievement of these important targets. All in all, tackling SDG 11 needs to collaboration among several actors whose role should be to harmonize targets with respect to local specificities but still in a way that allows policymakers to compare progresses made between different urban areas, i.e., finding a balance between global standardization and local adaptation. I have provided some evidence from Italian best practices. However, although the relevance of the cases described, these initiatives should be integrated into wider plans aimed at embracing all the targets identified by UN.

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