INTRODUCTION

ALESSIO BARTOLACELLI – CHIARA FELIZIANI – FRANCESCA SPIGARELLI

"Smart city" is a wording that has been in vogue for some years and in different contexts. It is present, in fact, in the narrative related to many international and European policy documents or legal texts, as well as in academic essays belonging to different disciplines, or in more colloquial environments.

Confirmed by the broad use of the expression, "smart city" is a wording which has multiple meanings, or it can refer to different aspects of the cities' life. That is mainly because more elements combine to make smart a city. Urban planning, transport system, social inclusion policies are just some of the aspects that compete in doing so. Indeed, digital and telecommunication technologies play a growing and relevant role in the context of cities and, above all, in the smart management and regulation of them. This has become even more clear after the advent of the COVID-19 pandemic.

The contribution of new technologies within the context of smart cities is explicitly recognised by important international documents, such as the New Urban Agenda (UN Doc. A/71/256, 25 January 2017) and the 2030 Agenda for Sustainable Development (UN Doc. A/RES/70/1, 21 October 2015). Technologies are considered a fundamental tool to reach in a more effective and efficient way the above-mentioned goals. Technologies can also guarantee a smart regulation of cities in their several aspects: energy supply, transports, health services and so on.

In this context, this section of the book is devoted to exploring with a multidisciplinary approach, some applications of new technologies and artificial intelligence to different relevant aspects of the city life, for the benefit of its inhabitants and business.

In the first paper, E. Frontoni and L. Romeo underline that "the AI algorithm may provide an affordable solution to support cities to become self-regulated by exploring cities as real-time, living dynamics systems and overcoming the challenges" related to – for example – energy saving, traffic congestion, ageing population and health.

Again from an engineering perspective, the paper written by A. Arteconi is focused on the process of Energy Transition. Moving from the assumption that "the present energy scenario is characterized by an increasing penetration of renewable energy sources (RES)" and that such a penetration "introduces uncertainty in the available production capacity", the essay describes the features and the potentialities of the Electric Smart Grid in guaranteeing the efficiency of the energy supply.

The paper of G. Menegus focuses the attention on the legal implications of technologies applied to services within the cities. It analyses "the concept of regulatory intermediation in its applications to home-sharing platforms". In doing so, the essay focuses on two case studies, i.e. the French 120-day cap and the Italian local agreement for the tourist tax collection, and underlines lights and shadows of these platforms.

Finally, the contribution by M. Paroli takes into consideration the impact of technological innovation and AI on intermodal transport, with a specific focus on a case study in the Port of Ancona. In particular, the paper considers the interaction between the TinS (Secure transfer) project with an AI technology (A3iu software) to allow an

autonomous identification of people and vehicles in the Port of Ancona. Such implementation sees the cooperation between the Port Authority, Customs Agency and Customs Police, optimising the overall efficiency of the entire Port infrastructure.