

СЕКЦІЯ II. ПІДПРИЄМНИЦТВО, ТОРГІВЛЯ ТА СФЕРА ОБСЛУГОВУВАННЯ

SMART CITY DEVELOPMENT: THE ROLE OF COOPERATION AND PARTNERSHIP BETWEEN STARTUPS, BUSINESS-SECTOR AND STATE INSTITUTIONS

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The development of smart cities is a key task of the modern world, as they provide decisions to some of the most urgent global challenges. With the ongoing trend of urbanization, these cities have the capacity to enhance the management of resources, diminish environmental harm, elevate the quality of public services, and ultimately enhance the overall quality of life. Thus, the cooperation between startups, businesses, and governments is essential to drive innovation and create sustainable, connected urban environments that will benefit current and future generations. Startups bring the innovations and flexibility needed to create smart technologies and solutions. Business can provide resources and investments for infrastructure development and introduction of new technologies. The state institutions, in turn, play an important role in creating a regulatory environment that stimulates innovations and ensures the sustainability and safety of smart cities. Only the joint efforts of all three sectors will make it possible to effectively develop smart cities and ensure their successful future.

The basic literary sources concerning the topic of smart city underline the significance of cooperation between municipal governments and various stakeholders, including businesses, non-profit entities, and community organizations. The necessity of such cooperation has been proven for the realization of smart city objectives, as exemplified by the outcomes of the research conducted in Amsterdam [1].

«Smart city» projects are typically government-led, given the government's primary role in citizen welfare. However, the substantial market potential often exceeds the capacity of public sector budgets, with only 16% of cities able to self-finance the necessary infrastructure, as found by Fishman and Flynn [2]. As a result, most governments have explored opportunities to involve both the private sector and startups in smart city development and as funding them may not be the most cost-effective as well, it carries significant potential for innovation and efficiency improvements.

The government plays a crucial role in fostering an entrepreneurial ecosystem that can benefit smart city development. By enacting supportive policies, providing incentives, and

simplifying regulations, governments can attract and retain entrepreneurial talent while encouraging investment in startups [3]. The public sector can identify innovative startup solutions for service delivery challenges and to cooperate for integrating them into the public service framework [4]. Overall, government involvement is pivotal in nurturing a thriving startup ecosystem, contributing to the advancement of smart cities.

Entrepreneurship plays an essential role in driving innovations and technological advancement within the knowledge-based economics of smart cities. These ventures cultivate collaborative environments, fostering the exchange of knowledge and ideas through networks, incubators, and co-working spaces. This cooperative atmosphere fuels innovations, fosters partnerships, and heightens the competitive edge of smart cities [3].

Cooperation and command efforts between businesses and startups are vital for making cities smarter. Startups with their creative and innovative approaches provide businesses with accelerated access to cutting-edge technology, pre-existing solutions, and the opportunity to lead with innovative products and services, while also offering unique problem-solving capabilities that corporations may lack [5]. In turn, startups also stand to gain significantly from this cooperation. Their groundbreaking ideas find a platform for realization, and they can leverage the resources and expertise of corporations to turn their concepts into reality, ultimately expanding their impact. Companies frequently organize events to facilitate idea exchange. These initiatives are designed for a wide audience and encompass startup competitions, innovative project contests, online hackathons aimed at generating ideas and solving problems, and acceleration programs focused on searching for innovations aligned with business goals. These hackathons, startup competitions, and events are essential tools, particularly when existing solutions are scarce, and the aim is to foster the generation of fresh ideas [5]. Furthermore, when startups cooperate with business partners equipped with the resources and expertise to turn startup concepts into reality, they can make substantial contributions to the evolution of smart cities. These cooperative efforts not only generate employment opportunities but also elevate the quality of life within the smart city.

Worldwide experience confirms that public-private partnerships (PPPs) are essential for advancing the startup ecosystem and, consequently, fostering the development of smart cities. For instance, The UK offers comprehensive financial support through various mechanisms, such as StartUp Loans, Finance Hub, ART Business Loans, and the Better Broadband Subsidy Scheme, to promote entrepreneurship and assist in the establishment of startups, while also operating 38 Growth Hubs in England specializing in public-private partnership projects and aiding novice entrepreneurs with advisory services, networking, and business setup [6]. Switzerland possesses a robust startup ecosystem marked by cooperation between hubs, high-tech companies, venture firms, university faculties, and investment funds, exemplified by the SwissParks.ch association, which includes over 1,000 innovative projects; furthermore, the country consistently dedicates over 3% of its GDP to fund scientific and corporate research, offering substantial startup funding, and fosters startup growth during their early development stages through business incubators, investment agencies, and crowdfunding platforms [6]. Estonia, through organizations and entities like the «Estonian Development Fund» and «Enterprise Estonia», supports local startups and actively encourages foreign company entry by providing financial and informational aid and fostering a conducive business environment [6]. Finland hosts one of Northern Europe's most significant startup conferences, known as Slush, and the Finnish government takes an active role in supporting startups. The culture of entrepreneurship is highly cultivated among students, who serve as drivers of innovation [6].

The essential need for cooperative alliances among startups, businesses, and

governmental bodies is a cornerstone in advancing smart city development. These partnerships unite a wealth of expertise and resources to craft customized solutions, fostering sustainability and efficiency within urban environments. Furthermore, they have a crucial role in closing the gap between ideas and their practical implementation, ensuring that smart city initiatives can be readily scaled and proven effective. Beyond enhancing urban living, these partnerships stimulate economic growth by attracting investments and creating employment opportunities. In the journey towards smarter cities, cooperation and partnership are the priority drivers of success.

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