



BORIS IHAROŠ

# THE MODEL OF PREPARATION AND EVALUATION OF SUSTAINABLE URBAN DEVELOPMENT PROJECTS

## MODEL PRIPREME I VRJEDNOVANJA PROJEKATA ODRŽIVOGA URBANOGA RAZVOJA

BORIS IHAROŠ (1971, Sisak) has a degree in architecture, Master of Science degree in interdisciplinary field of technical and social sciences and Ph.D. in architecture and urban planning. He works in the field of sustainable urban development and participates in the preparation of projects supporting territorial development and intended for international financing.

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The doctoral thesis and the research conducted in it consider the issue of preparation and evaluation of sustainable urban development [SUD] projects in the architectural and urban domain. The research framework represents financing through European funds. In general, and in relation to EU policies, sustainable urban development projects seek to achieve territorial cohesion, cooperation and partnership between cities and encourage balanced development. The results of the research indicate the emphasized importance of quality preparation of SUD projects in order to achieve these goals. The research is a continuation of previous theoretical knowledge and thus indicates the need for further research on the topic whose broader context is interdisciplinary.

The conducted research included analyses of 28 SUD projects at the level of formed urban areas of the Republic of Croatia, analyses of 16 SUD projects at the city level and analyses of the existing method of project preparation. Based on the conducted analyses three main research segments were identified and greatest problems observed as follows: (1) Identification of sustainable urban development projects, (2) The process of creating a conceptual solution, and (3) Preparation and evaluation of sustainable urban development projects. The analyses carried out according to the established evaluation criteria led to the results on the basis of which a link was established between the problems of project preparation at the level of urban areas and at the level of the city. Through this research, it was recognized that the problems of the existing method of preparation and part of the project quality problems relate exclusively to the organizational aspects of project preparation, and that the key to solving them is, therefore, precisely in the management of the project in an interdisciplinary manner. Also, it was noticed that problems can be solved by addressing them in a quality manner in the early phase of preparation. In this regard, from the architectural-urban aspect, the conceptual solution was recognized as the earliest design phase

in which it is possible to implement multiple sustainable development measures that ensures the quality and sustainability of the project, with the importance of interdisciplinary preparation of project documentation. Related to the preparation process of conceptual solution, research on SUD projects has shown that city authorities do not pay enough attention to Terms of Reference [ToR] that form the basis for designing process. ToR represent a basic document that contains unified instructions for designers. It should be created by an interdisciplinary project team in cooperation with representatives of the city. In addition to architectural and urban planning indicators, the ToR should also contain requirements for achieving project quality according to the general selection criteria for EU financing and guidelines related to circular economy and green infrastructure envisaged in the strategic documents of the Republic of Croatia. The research has shown that the importance of ToR was not recognized, which indicates a lack of understanding of the basic processes and activities of the preparatory phase, the purpose of which is to ensure the quality of projects. As a response to the observed problems, and with the aim of creating sustainable SUD projects of quality, this paper has created a new conceptual solution process that is based on an interdisciplinary approach and includes architectural-urbanistic and economic elements.

As the main result of this research a unique model for preparation and evaluation of SUD projects was established and offers solutions for previously identified problems. The model is harmonized with European and national policies, supports polycentric development and enables the selection of SUD projects according to the real needs of cities, emphasizing the preparation of quality project documentation as a prerequisite for EU funding. The research established a model that, in addition to scientific contribution, has a practical application by providing support to cities – initiators of public projects in the field of SUD, and architects, urban planners, engineers and

other experts in preparing quality and sustainable projects. The model is aligned with the Project Cycle Management [PCM] methodology which is according to European Commission a main tool for the implementation of all programmes and projects financed by EU funds. With this research, the main phases of PCM are fully accepted, with the fact that the preparation of projects takes place within two phases – identification and formulation. The proposed model of preparation finds its origin in these phases and builds on the processes that are necessary for the preparation of projects from the perspective of the architectural and urban planning profession, taking into account the social and economic aspects that are an inseparable part of project preparation. The model is designed and unified with five key processes: (1) project selection, (2) planning, (3) technical development, (4) public invitation, and (5) selection procedure and also indicates the preparation segments (key processes) in which it is possible to solve the identified problems with adequate project management skills, which implies an interdisciplinary project team in charge of complex and multi-layered problems that arise during project preparation. The basic assumption of this model is that the successful preparation of SUD projects depends on the members of the interdisciplinary project team who possess professional knowledge, competencies and mandatory previous experience in the preparation of EU projects.

The model with such assumptions becomes a valuable tool for the preparation of quality and sustainable projects, the implementation of which contributes to the development of Croatian cities and urban areas and improves access to various public content that is a prerequisite for achieving a better quality of life for the citizens of the Republic of Croatia.

The scientific contributions of this research are manifested through: (1) Establishing the SUD project identification system, (2) New procedure for creating conceptual solutions, (3) Defining a set of harmonized criteria, (4) Establishing an evaluation system, and (5) Establishing a unique model for the preparation and evaluation of SUD projects.