

# IT Approach to Integrated Local Development Planning

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**Abstract - According to the constitutive theory of integrated local development planning, the foundations of this concept are partial (public/state) and integrated (private-public) systems. In the transition to an integrated local planning system, the question of designing suitable practical software with the input of developmental information has been raised, which makes it an urgent problem that needs to be addressed. This is the reason why this scientific paper has been prepared, with the purpose to further elaborate the developmental information for such software, since the quality of local community development plans, using an integrated model, depends on it.**

**Keywords: local development, integrated planning, planning software, efficiency.**

## 1. INTRODUCTION

General computerization and digitalization of local communities are currently being implemented in the form of inadequate city and municipal information systems [1]. Such systems, when it comes to the local development, are generic and dysfunctional, since they not only serve the local development, but they also represent a mosaic base of information for heterogeneous use. Such software does not respect the specifics of an efficient integrated local development; therefore, it is necessary to create an IT program and a software; which will be used by experts involved in local integrated development in the process of drafting adequate planning documents such as: strategies for development, medium-term development plans and short-term development

plans, with accompanying development programs.<sup>1</sup>

For this process it is especially important that the collected developmental information entered into the software is representative, since the practical quality of the integrated local community development plan directly depends on it [2]. Having this in mind, the purpose of this paper is to improve the representativeness of this information leading towards the development and implementation of effective integrated local development plans. Therefore, to develop this theoretical work, the developmental information observed here must be determined substantially and functionally by following the requirements of the structures of integrated local development plans.

Of course, all this depends to a large extent on the legal municipalities' regulation in the field of the local development planning [3].

Furthermore, an appropriate integrated research project has been used in terms of defining conceptual factors of the research (problems, objects, goals, hypotheses, methods, and research techniques). In this context, the collected research material is structured into five basic chapters, followed by conclusions and the literature.

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<sup>1</sup> In this context, for example in Serbia, within the enacted Law on the Planning system of the Republic of Serbia, an obligation has been foreseen in establishing a unified information system in this field where a Government office for Information, Technology and Electronic administration has been set up to deal with it.

## 2. THE ESSENCE OF INTEGRATED LOCAL PLANNING

In order to systematically approach the determination of the required developmental information, it is necessary to briefly present an integrated system of local development planning [4]. In the observed theory of local development planning, two conflicting systems were identified - partial and integrated [5]. The partial planning system has traditionally been autonomous state planning, which does not take into consideration all developmental factors of the local community [6]. That is why this system of development planning has become less efficient but remains transitional especially in less developed countries [7]. In contrast, the integrated system of local development planning has almost emerged in developed countries under the influence of science and the increasing influence of the non-governmental sector and citizens' initiative. New forms of specific partnerships with the state have made a special contribution to this process [8]. This private-public partnership inevitably penetrates all other areas of the government [9].

Compared to the partial system, the integrated planning system of local development is imbued with a set of the integral components embodied in: the interests of the state, the interests of the local community, active participation of the non-governmental sector and the constructive attitude of the international community [10]. On this basis, the adopted integrated local development plans are undoubtedly significantly more efficient than the partial plans, which is why the world has now begun to rapidly replace the partial with the integrated local planning system [11]. These significant changes in the local planning, politically new and complex, require some time and a completely new technological approach to gathering and processing information relevant to the local development planning [12].

## 3. DEVELOPMENTAL INFORMATION SELECTION CRITERIA

In the new theory of integrated local development planning, the designing of developmental information software has been derived from designing the local development model structures, in principle, by the corresponding sets of developmental information without their systematic elaboration [13]. This is

the reason why the purpose of this paper is to solve this problem by making the basic criteria for information to be treated as scientifically and professionally relevant. The selection of these criteria is indisputably complex, and among them, the verification, functionality, feasibility, and justification of these pieces of information, are extremely important [14].

The verification of developmental information requires that every information is scientifically and professionally verified. This implies that every information needs to be validated by the relevant scientific public. The same applies to the professional verification of developmental information that needs to pass the verification process by the expert public. The experts should bear in mind all of the mentioned when they request that certain information enters into the base of information for the local development plan.

The functionality of developmental information refers to the fact that each information should correspond to the role of a particular segment of the local plan. Information can also play the role of eliminating an overridden program, the role of innovating an existing program or the role of an entirely new development program. In the case of failure, confusion appears within the accumulated developmental innovations and reduces the effectiveness of the software.

The feasibility of developmental information implies the need that the provided information can be practically and rationally delivered with certainty. In this context, it should be emphasized that almost any developmental information can be derived, but the question of its rationalization is primarily from an economic point of view.

The justification of developmental information implies that the information is checked from several relevant aspects, such as economic, social, environmental, security, and sustainability.

Of course, in case that some of these elements are not fulfilled, such developmental information must be rejected. Overall, developmental information covers all types of information that may have an elemental character or the character of very complex development projects and programs.

#### 4. E-GOVERNMENT AND LOCAL DEVELOPMENT

When creating practical software for the development of integrated local development plans, the concept of e-government<sup>2</sup> in the process of collecting and processing developmental information and finally developing the software for simulation, the implementation and monitoring of implementation of all stages of local development is of particular importance. Such software can be created on a micro-scale - for each local community individually and/or for the whole country. The second phase allows adjustment for each local government, according to its specifics.

When it comes to the use of developmental information in the software and the development of integrated basic local development plans, the key requirement is that this process should be led by a team of integrated planning experts, who will be provided with technical assistance by educated local planners. External experts involved in the creation of basic plans of local development should examine the available developmental information and, if necessary, add new information, which is primarily related to the need to systematically connect local government with both its closer and its more remote environments [7].

After drafting the local plan, the next step in the process is a broad public debate, for which the competent body (local government assembly) considers and adopts the prepared proposal of the basic integrated plan for the local government development. The procedure for

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<sup>2</sup> The term E-Government refers broadly to facilitating the process of collecting, processing and exchanging information, communication, and transactions between and within state institutions. At the same time E-Government covers the facilitations of the process of data collection, processing and exchange, information flow, communication, and transactions between state institutions, citizens, and businesses. E-Government consists of E-Administration, E-Democracy, and E-Justice. "E" in these terms refers to the "electronic" conduct of administrative, judicial, and any other proceedings pending before a public authority or in connection with the State and its institutions.

drafting other local development plans (midterm and annual) is much simpler as it comes down to concertizing and operationalizing the basic plan - which is the reason why it will not be presented in this paper.

This sequence in the creation and implementation of the registry first, then the independent software, and finally the general planning information software, is justified from several aspects. Namely, as such, it practically enables the gradual training of operational representatives of local government in providing and using relevant planning information, thereby enhancing their planning competence - which is the best solution for raising the quality of all plans of local government development [15] [16]. Also, such an order in the provision and the use of planning information has a flow of movement from simpler to complex models of systematical information.

The basis for the creation of planning information are the databases available to state authorities and local government units, which are generated through electronic administration<sup>3</sup>

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<sup>3</sup> Administration (E-Administration) is by definition E-Government, originally covering and facilitating administrative procedures. The term E-Administration refers to how the public management is organized in order to increase efficiency, transparency, ease of access, and ability to respond to citizens request, trough intensive and strategic use of information and communication technologies in public sector internal management (relations within and between individual administrations) as well as in everyday relations with citizens and other users of the public services. The definition from the perspective of information and communication technology is the definition that we are most interested in stating that: E-Administration refers to the use of information technologies (e.g. WAN, Internet, mobile computing) by public authorities that have the power to change relationships with the citizens, businesses, and other branches of public administrations (ministries, agencies). From the above definitions we can conclude that E-Administration is not only an internet portal of public administration but it is a complete information and communication system used by all (employees in public administration, citizens, business people, employees in private business entities, companies, etc.).

into a single system - a register of information for planning local development. The implementation of the projected information register means that it is directly downloaded as a form and then used in the function of drafting community planning documents.

Development of the software for simulation and monitoring of the local development involves the creation of a software application using digitized information technology. This software represents the most efficient solution in the process of digitalizing local development planning and represents a major shift over standard registry models for collecting and processing data relevant to local community development. It should also be emphasized that this software model is recognizable for decentralized countries. However, this remark does not have an absolute character, as other countries that insist on accelerating economic and economic development can opt for such a software.

##### *5. DIGITALIZED DEVELOPMENTAL INFORMATION USE EFFECTS*

Digitalized developmental information is a powerful tool for developing highly effective basic and derived community development plans. However, success requires the fulfilment of a set of basic and derived conditions.

The basic requirement relates to the need to adapt legal regulation and development planning in local communities in accordance with the new theory of integrated development. On the other hand, the structure of the necessary derived conditions for a successful replacement of current partial with an integrated system of local development planning from the aspect of developmental information consists of the following conditions:

- The developmental information entered into the software is scientifically and professionally verified, thus best guaranteeing its quality;
- Any recorded developmental information is tested for eligibility before entering the application;

- Required investments in publicly available developmental information are in line with the budget for the development of local communities;

- The private character investments in developmental information are appropriate to the real investment power of the interested private organizations for investing in the development of local communities;

- The local planners are educated to identify and enter the data into the application, in particular, the developmental information that is important for the further development of their local communities;

- The preparation of these plans is made by external experts with the support of the local planners;

Fulfilment of all of these conditions creates a reliable basis for effective integrated planning of local development for the benefit of local communities and the state as well. At the same time, the collaboration between the public and private sector in local planning, by the principle of merged courts, will encompass all other areas in the management of society with primarily positive implications - which provides a major opportunity for the overall development of the entire country.

##### *6. CONCLUSION*

In the context of integrated planning and the digitalization of developmental information, it is possible to draw several conclusions. In the introductory part of the paper, the advantages of integral planning theory of local development are pointed out as a more efficient and vital system that becomes important by the software development of adequate development information.

This information is globally determined and, in order to be practical, it needs to be scientifically systematized. In this context, it should be emphasized that this system is based on the planning collaboration of private and public sectors. That is why this system, with respect to the partial one (public/state), has all the advantages and a good perspective.

Developmental information systematization in the context of integrated local development planning is based on defined criteria for their selection. Only successfully verified developmental information is accepted for further processing. Gathering such development information, processing and entering software to simulate and monitor all stages and effects of local community development, guarantee a high degree of effectiveness of the projected local development plans.

The paper identifies new scientific knowledge related to the proper treatment of developmental information, thus enriching the new theory of integrated local development planning.

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