

INTEGRATED INFORMATICS SYSTEM FOR PUBLIC MANAGEMENT

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Abstract: *This paper presents Integrated informatics systems for public management and the implementation of the institutional architecture in public administration. Being implemented in Baia Mare City Hall, institutional architecture reunites the quality and environment management systems and the integrated informatics system into a uniquely assembled concept able to sustain the administration's activity in real time. For the strategic planning at the town level to be relevant, effective and efficient, the public administration authorities must take into account the importance of conducting certain analyses and of some strategic documents at neighbourhood level. The Urban Development Integrated Plan of the city of Baia Mare, is aimed at the public intervention on a well-defined area needing regeneration because of social, economic, territorial, functional and environmental discrepancies, as compared to other urban areas of the municipality. The perspective of the Urban Observer has as its basis on the permanent monitoring of urban indicators as well as the implication of all interested parties, including the citizens in view of defining the strategic directions of town development.*

Keywords: *informatics system, sustainable development, strategies, the institutional architecture, models*

JEL classification: *J11, R11, R23*

1. Introduction

Integrated informational system is a dynamic tool that achieves a constant contact with the realities of the social environment it serves. As the operational tool of the public management, integrated informational system enables real-time monitoring of all activities and facilitates the development of an innovative management based on real time information allowing the processes and decision-making to be fully automated (Malhotra, 2005). Implementation of integrated informational systems in public administration is imposed by the lack of an objective analysis tool, quick and interdisciplinary support decisions that can substantiate strategies at regional level (Applen, 2002).

The concept of the Urban Observer has an extremely ample area of active structures at all territorial levels (national, regional, county level, town level, neighborhood level) in the field of urban development. Being experimented in the field of integrated and participative strategic planning in Romania, the Baia Mare municipality has created a model of Urban Observer in the local context specific to Romanian cities. In this context Baia Mare city has promoted a participative planning process, innovative for cities in Romania in which there has been conducted the analysis of needs and the

potential of the municipality neighborhoods. Another element of novelty which permits the rapid visualization of the main problems identified in each neighborhood is the utilization of thematic maps which accompany the quantitative description of data, such as (Anghel, 2006; Anghel, 2013):

- the map of population density in the neighborhoods
- the map of social risk in the neighborhoods
- the map estimating the unemployment rate in the neighborhoods
- the map of real estate value in the neighborhoods
- the map regarding levels of in the neighborhoods.

The development strategy of a local community represents the determining of long-term goals and objectives of collectivities, adopting local policies and allotting resources to complete those, taking into account the citizens' needs, expectancies and wishes and the components of the local political system (Rosenbloom, 2004). From the point of view of strategic management the instruments proposed within this paper envisage a three-dimensional approach of processes: the urban dimension, the zone of influence or the supra-urban dimension and the sub-urban dimension.

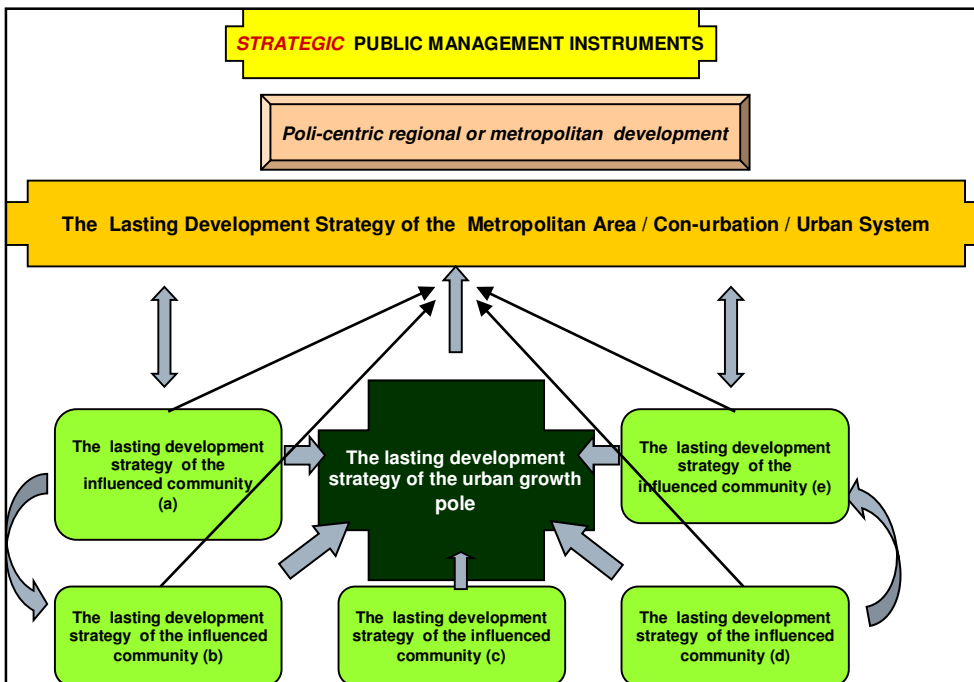


Figure 1: Analysis of supra-urban development in relation to a growth pole
Source: Anghel, 2013

2. Integrated informatics systems for public management, implementation of the institutional architecture in public administration

The system includes the assembly of data and information from local and central public administration documents, information circuits, fluxes and procedures as well as means of dealing with information (Radulescu, 2010; Alavi & Leidner, 2001).

Seen from the managerial point of view, the information system can be considered one of the main components of the real time governance of administrative institutions. It has the role to implement the concept of e-governance, according to the e-Administration National Action Plan (Aitken, 2003; Benston *et al.*, 2004).

GIS Urban – SIGMA, applied in Baia Mare City Hall is an integrated informatics system resulted from implementing a solution to interconnect specialized independent informatics components with the purpose of standardizing and jointly using the information found in different modules, and also for compiling the data obtained from various sources in order to obtain inter - department reports or statistics (Mullins, 2001; Matei, 2009).

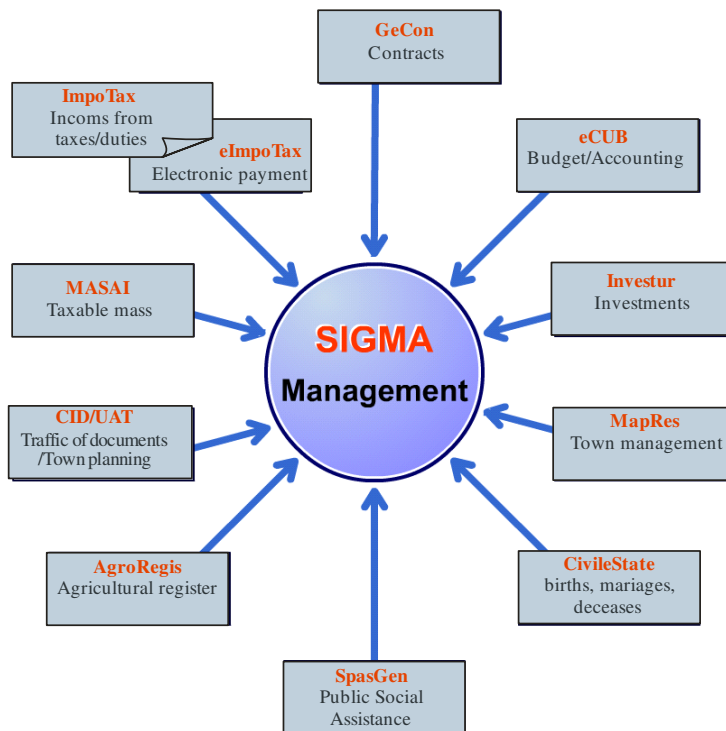


Figure 2: Management of SIGMA processes

Source: Anghel, 2013

The development of inter – institutional cross-operation has been defined by the “e-Europe Action Plan 2005”, during the Seville Summit. Institutional architecture, the basic component of cross-operation, reunites all organizational architecture models according to institutional categories and activity areas.

Being implemented in Baia Mare City Hall, institutional architecture reunites the quality, environment management systems and the integrated informatics system into a uniquely assembled concept able to sustain the administration's activity in real time.

For example, describing the existing system architecture and projecting a new architecture (hardware and applications) has been accomplished using one of the renowned System Models and for emphasizing data architecture at macro level the Class Model has been used, specific for the MULL standard (Unified Modeling Language), used in software modeling.

Another example, necessary in the improvement of fiscal policies in the context of institutional architecture, is represented by determining the optimal tax level, which can be done by analyzing the incomes, a support offered by the Business Intelligence type applications.

The process chart concerning the improvement of local tax policies and attracting alternative resources is presented in figure 3:

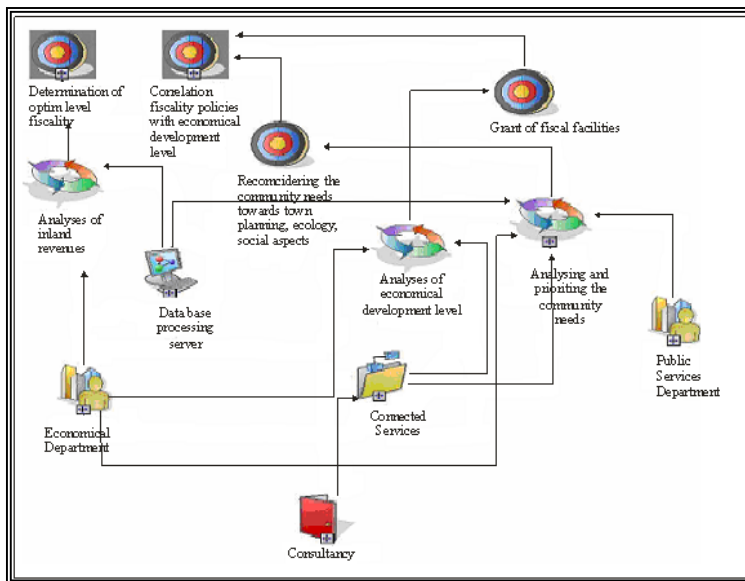


Figure 3: Process chart concerning the improvement of fiscal policies
Source: Anghel, 2013

3. Implementation of the Urban Observatory, Case study Baia Mare

Besides its contribution to the *spatial concentration of urban development interventions*, the Urban Observatory is the latest instrument for *involving the community* in the development planning process, successfully applied both in the European Union and throughout the world, as well.

The Advantages of the Urban Observatory are the following (Anghel, 2006; Anghel, 2013):

- Contribution to the spatial concentration of urban development interventions
- Sharing strategic vision with the main stakeholders in the field
- Response to the most important needs of the citizen

- Building a “workshop”, permanently open to all interested parties in the field of developing urban, sector and territorial indicators.
- Building a monitoring system for urban development strategies and policies
- Setting the basis for making relevant statistic comparisons between urban indicators at county, regional, national, European and world level.

Through an efficient management of the Urban Observatory, a *Plan of Measures* can be developed at neighborhood level. This plan represents the development and life quality increase vision for this neighborhood.

Due to the fact that a plan of measures for a well defined space has to be acknowledged and implemented by all stakeholders (citizens, associations of owners, businesses, NGOs, public administration), the way of acknowledging and institutionalizing this Plan of Measures can be through a *Neighborhood Contract*.

This *Neighborhood Contract* is based on:

- Justifying and analyzing problems, developed in the Urban Observatory;
- Identifying adequate solutions for the Community through the CIVIC instrument;
- Planning action implementation, granting resources and establishing a corporate type responsibility;
- Acknowledging the granted responsibilities by all stakeholders.

The implementation of this Contract in Baia Mare City began in 2003, with the CIVIC project (Creativity, Initiative, Volunteering, Involvement, Consultation), and the year 2010 brought into discussion the implementation of Neighborhood Contracts.

Partnership technique has been used for the nominations. Thus, we have chosen a less sophisticated procedure and we have created the possibility for the educated in the field to promote those names, people and/or groups who have contributed to the sustainable development of the community through their activity.

CiViC events that followed from 2003 to 2010, aimed at fields such as: School system, Architecture, Cults, Education, Art, completed by a meeting between CiViC and members of Parliament. In the years that followed up to now, the number of fields aimed for integration in the CiViC concept has grown, adding the following to the ones already mentioned: Sports, Mass-media, Businesses, NGO, Health, Economic, Urbanism, Strategy, Tourism, Youth.

Using key factors such as “performance recognition” and “continuous competition between values”, the CiViC concept has contributed to the development of communication between Local Public Administration and the Community, has promoted intellectual and industrial values, has integrated as much as possible the idea of transparency, has created strong structures in the sustainable development process.

The multi annual investment program creates the premises of using resources in obtaining priority objectives by establishing the link between development strategy and annual budgets, as well as between financial programming and the execution of investment objectives.

Developed and implemented in Baia Mare city, the program ensures the link between local budgets and its expected allocations, action plan and city development strategy, offering predictability in development and socio-economic stability.

The graphical distribution of these total costs, analysed monthly during a year of implementation is presented below:

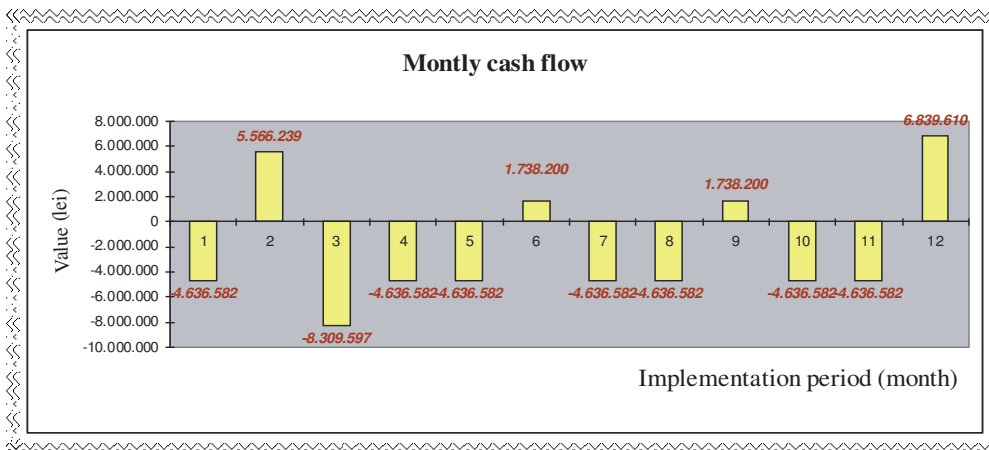


Figure 4: Monthly cash flow for year II of implementation
Source: Anghel, 2013

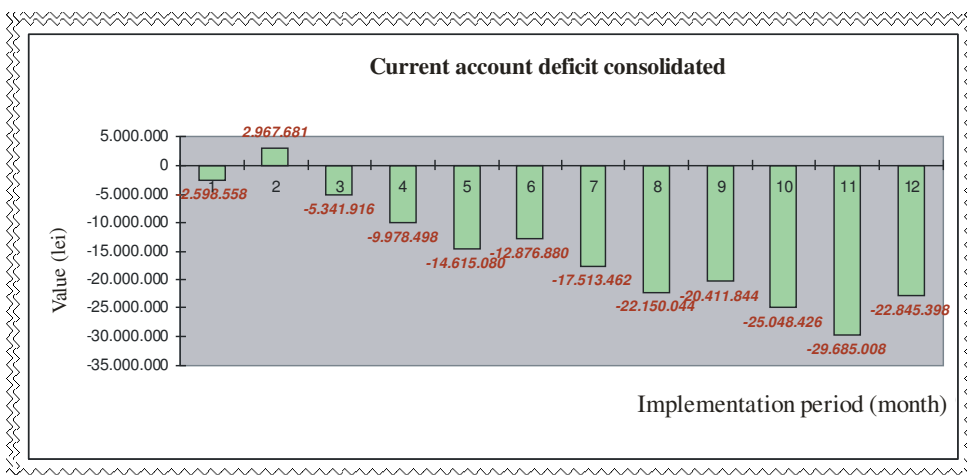


Figure 5: Current account deficit consolidated for year II of implementation
Source: Anghel, 2013

Using these instruments of planning major investment, the predicted effort of public funds management can be controlled and optimally ensured.

4. Integrated Plans of Urban Regeneration

To this purpose the *Integrated Plans of Urban Regeneration* were defined as a modern strategic management instrument, meant to ensure the diminishment of discrepancies regarding life quality and of the urban environment within the reference territorial units. The case study for this type of instrument consists of the Integrated Plan of Urban Regeneration "Phoenix", a plan which envisages the largest "dormitory-type" neighborhood of Baia Mare, which, at the moment signals problems in the infrastructure field and public services, problems of cohesion and

social inclusion and the lack of an economic development specific to the intervention area. The disadvantages of such an approach are the concentration of public interventions in a well-defined urban area to the detriment of other urban areas that require interventions in an extended conceptual analysis (Choo & Bontis, 2002; O'Sullivan, 2007; Scott, 2002); a representation of the application or urban regeneration at the level of the entire community is represented as follows:

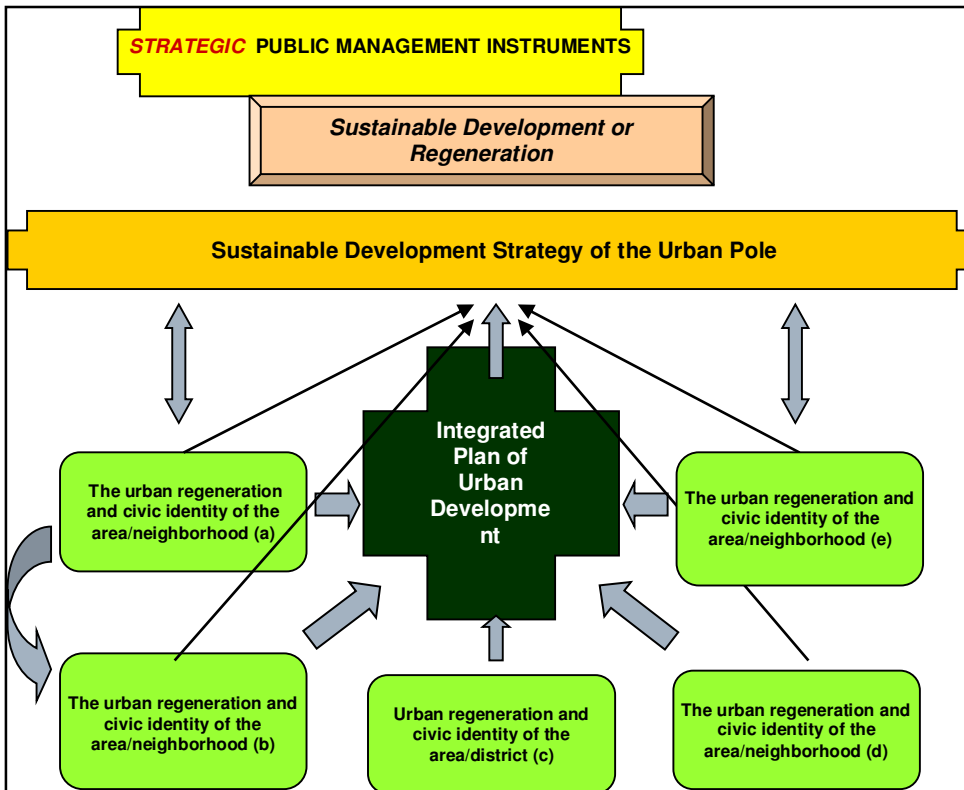


Figure 6: The analysis of the sub-urban development in relation to the entire local community

Source: Anghel, 2013

Within the urban ensemble of Baia Mare, the Vasile Alecsandri area and the area of the Old Town Centre are distinctly identified as integrated urban areas with mono-directed functions, positioned as an interface between the multi-functional urban space and the future residential areas of the mono-family type.

In this context, the functional approach of a Master Plan of urban regeneration for this area offers a series of competitive advantages on a long and medium- term, the most important being the following (Anghel, 2013):

- The integrated approach of some functional urban areas, in relation to the neighborhood creates the premises of a balanced, long-term sustainable development;

- The identification and the allotment of a social, cultural and administrative identity to an urban zone lead in perspective to social stability and an increase in the predictable competitiveness of any zone;
- The decentralization of administrative, economic and social functions at an urban level is the tendency of the third millennium, at all levels this optimal endeavor being correlated with the increase in the cooperation capacities and the social dialogue in a globalization world;
- The credibility of some long-term strategic projections not only renders more efficient the resources allotted for their completion, but also creates a favorable environment for an increase in the level of life quality due to the elimination of some development risks;
- The capacity to integrate distinct measures and actions having the same direct beneficiaries leads to the sustainability of long-term planning of certain objectives, the results and impact on a short- and medium term being synergic and comprehensive for these beneficiaries;

The instruments used were mainly those promoted by the public administration, these having the role to offer consistency to private and public policies. The decisive role of public management in the near future is to build the “frame” for the social and economic development of a well-defined space.

This space must address not only the local identity values (cultural, economic, social of natural and built frame), but also the major challenges linked to the phenomena of globalization or the degradation of the environment.

5. Conclusion

The adaptation of the Urban Observer in the processes of strategic planning starts from the analysis of disparities and specific needs existent at the neighborhood level in view to ensure a balanced development of the territory as well as a pertinent answer to the citizens’ demands, most of the times complex and well-founded and which can be integrally included within the development plans of cities.

Considering the need for an integrated approach of the project portfolio for the Baia Mare Integrated Urban Development Plan, both from the perspective of integrated project and the functional relations between them, it is imperative that the assembled interventions prove synergy in their impact and results.

Thus, the implementation of the Baia Mare City Integrated Urban Development Plan, simultaneously implementing 8 large infrastructure projects, has been financially analysed taking into account the granting of pre-funding, reimbursement charts, work execution charts and the due costs for a planned implementation for a period of 4 years.

The Integrated Urban Regeneration Plan applied in Baia Mare city for a “contiguous” area is *structured* on objectives, development axis, major intervention fields, measures and distinct actions *responding in an integrated manner* to the social, economic, habitat or environment problems of the identified area.

The implementation of the Integrated Plan is a *long-term aim, integrated territory* approach converging with the sector approaches and directly contributing to the implementation of Baia Mare City Sustainable Development Strategy.

The role of “community facilitator” of the city, between the development potential of a metropolitan type and the suburban areas showing deficiencies in life quality, has successfully been demonstrated within the Baia Mare municipality. Both the Urban

System Baia Mare and the urban zone Vasile Alecsandri were conducted by the values and principles developed through the 21 Local Agenda. The distinct approach of these values led to the creation of a self-identity, both on urban and metropolitan levels, which should allow the realization of a common vision for implementing durability.

Through developing a set of integrated measures, applied at the level of a well-defined urban zone, a public intervention can be developed to answer all the long-term necessities of that community.

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