

## **Business Process Modeling – The Principle Outgoing Point Related to Improvement of Self-Governmental Institution Management**

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### **Abstract**

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The paper deals with analysis of issues related to business process modeling applied within self-governmental institutions and concerned to municipality management within actual environment represented via set of appropriate legal norms and standards valid in the Slovak Republic and abroad. The analysis is aimed to identification of key factors, which affect business process model implementation within management of self-governmental institutions. However, there are presented several business process modeling results achieved within magistrate of Košice City as well.

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**Keywords:** business process modeling, regional self-governmental institutions, Slovak Republic

### **Introduction**

At present, business process modeling and business process management are considered to be the terms applied in the Slovak Republic and in abroad very frequently. Simultaneously, these terms become a significant subject discussed among managers working within public and private sector. On one hand, there are expected results related to efficient functionality of firms and companies; however we have to do best in surviving the firms and companies within strongly competitive environment as well. On the other hand, the business process management and modeling represents a good mirror related to actual functionality of business processes running within firms and companies too, while this is considered to be the light motive for providing the above-mentioned activities.

With respect that requirement, analysis of changes, which should be done related to these business processes plays a role of principal importance as well.

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An explanation of basic principles concerned to modeling of business process running within self-governmental institutions to achieve a visible improvement of their management is considered to be the principle aim of that contribution.

## **1. Business Process Modeling Provided within Self-Governmental Institutions in the Slovak Republic and Abroad – The Principle Issues**

There are two principle terms closely related to business process modeling and play a role of great importance as well, while the first is denoted as "*business process*" and the second one is called "*model*". In general, any business process represents a logical sequence of functions and steps providing inputs into pre-defined an required outputs. However the business process might be considered to be as set of activities leading to expected and successful results (see also Cambridge Dictionary<sup>2</sup>). On the other hand, the business process might be defined as a chain focused to achievement of pre-defined goals or aims (see also Oxford Dictionary<sup>3</sup>). However, the business process might be interpreted as a set of subsequent procedures, interconnected among each other, which consume one source or more resources (material, values and information) and provide their conversion into pre-defined outputs suitable for the customer. With respect to the above-mentioned explanation, the following business process definition might be postulated: "*Business process is considered to be a set of natural chains related to interconnected activities running in the firm or company*". However, the term business includes non-profit organizations and public administration institutions, providing services for their customers as well. These assumptions create basis for business process modeling described in that contribution.

The model is considered to be the second term, which should be discussed in more details. The term "model" is being interpreted within two-stage abstraction. The first stage: "there is *an object*, where an adequate system is defined", the second stage: "*there is a system*, where an adequate model is defined". In general, the model represents a simplified visualization of the actual event. The main reason for a model creation is that we are interested in investigation of characteristic features related to the object to be analysed (Řepa, 2012, p. 70).

With respect to that postulate, we can say, "a modeling is a process, which enables replacing the real system by an adequate model" (Mihaliková, 2011, p. 94).

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<sup>2</sup> [http://dictionary.cambridge.org/dictionary/british/process\\_1?q=process](http://dictionary.cambridge.org/dictionary/british/process_1?q=process)

<sup>3</sup> <http://www.oxforddictionaries.com/definition/english/process?q=process>

An interconnection of both above-mentioned terms creates basic principles of business process modeling, while might be postulated, while the following sentence might be postulated “the *information model of organization*” might be considered to be a final result of that interconnection. The *information model of organization* consists of four principle dimensions postulated as follows (see also Table 1):

- Global model of objects
- Object detailed model
- Global model of processes<sup>4</sup>
- Process detailed model

Each of the above-mentioned dimensions represents a specific model with a unique description (Řepa, 2012, p. 79).

**Table 1 Information model Double Dimensions**

Global conceptual model of objects – system of objects – CD	Global conceptual model of processes – system of objects - GM
Detailed process model of object – object lifecycle – STD	Detailed process model of process – process sequence - DM

Source (Řepa 2012, p. 79)

However, the business process modeling is being done more and more intensively within public and private sector as well. The paper deals with business process modeling within public administration sector within regional self-governmental institutions especially. As a result of that, two principle factors shall be considered. The first one is closely related to the term of business – which is concerned to all firms, companies, organizations and institutions, incl. Institutions of public administration or governmental institutions and also regional self-governmental institutions, because they provide products and services for their customers<sup>5</sup>. Therefore, an information model is being created for those institutions as well.

<sup>4</sup> The terms „process“ and „business process“ has the same semantic content in that paper.

<sup>5</sup> Self-governmental institutions provide a lot of services for their clients – they might be closely related to maintenance and administration of local ways, streets or avenues, street lighting and public security, however they provide services related to communal waste transfer, sorting and destruction as well. On the other hand, those institutions deal with certification of documents and signatures put on the documents, issue of different certificates (identity card, passport, etc.) And provide obligatory and solicit information for the customers too. The customers pay for those services via fulfilment of their tax duties or appropriate administrative fees

*A strong or a very strict interconnection of public administration institutions with a set of appropriate and valid legal norms and standards* is considered to be the second significant aspect, which shall be respected as a matter of great importance. This aspect is also emphasized in the constitution of the Slovak Republic (see also article 2 and section 2), which postulates the principal duty for governmental institutions to develop their activities and to provide services with respect to metes and bounds postulated via appropriate legal norms and standards, while there are a lot of codes, laws and regulations in the Slovak Republic and in abroad as well. All activities and provided services within municipality to be investigated are being regulated based on the code no. 369/1990 col., which deals with rules for establishment of municipalities as amended further rules and prescriptions. However, there is a set of other rules and regulations postulated within further branches and institutions as well, financial, commercial, legal, etc., as for instance.

There is a set of further legal features and signs valid also in abroad in order to support and proof the above-mentioned statement. They might be postulated as follows:

- Traditionally, two types of legal system and culture, which exist and are being applied: European (continental) and Anglo-American. The Slovak Republic prefers the *European (continental) legal system and culture* together with most of other European countries (Czech Republic, Poland, Hungary, Austria, France, Germany, Sweden, etc.) This type of legal system and culture is closely related to written form of legal norms and standards. This aspect is concerned to all legal norms and standards incl. The constitution<sup>6</sup>, while all the above-mentioned states and countries shall respect that aspect<sup>7</sup>.
- The strong interconnection between governmental authorities and appropriate legal norms and standards is a matter of principal importance in all legally consistent states, where the principle of government of laws (the law stands over the state) is being applied.

In general, the states or countries meet the principle state definition character signs, while the principle of constitutional government and legitimacy is considered to be the target characteristic sign of the legally consistent state. A requirement of strict constitution compliance and a conformity of all legal norms and standards and subordinated norms and standards as well as power execution incl.

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<sup>6</sup> The Constitution is considered to be the principle code for the state or country, which respect the European (Continental) legal system and culture and has the strongest legal power.

<sup>7</sup> However, the State is bound by Common Law within Anglo-American legal system and culture as well, while so called non-written juridical system of law (law of practice) is being applied. This system is applied in Great Britain, USA, Canada, New Zealand, etc. (See also Ottová, 2010, p. 185-186).

Rights and duties with respect to the constitution is considered to be the main principle of constitutional government. An inevitable regulation of all organs with respect to a set of valid legal norms and standards is considered to be the second part of the above-mentioned principle of constitutional government. However, the governmental organs creating the above-mentioned legal norms and standards create an integral part of those legal aspects as well (Ottová, 2010, p. 75).

When considering and discussing the interconnection between legal and public administration environment one important characteristic sign related to the legally consistent state should not be forgotten, while that sign is denoted as the limited government principle. The principle closely related to governmental power limitation creates an integral part of the constitution within any democratic state or country. With respect to that principle, the governmental institutions are entitled or allowed to provide their acting based on a in a range competences postulated in the constitution and within appropriate legal norms and standards. On the other hand, the citizens are allowed to do anything what is not prohibited or forbidden. When considering a functionality of states or countries, which do not respect democratic principles, the previous sentence has a contrary meaning (Jesenko, 2007, p. 332-334).

The Slovak Republic<sup>8</sup> is also doing best to achieve and respect the legally consistent state principles and aspires after observation of signs related to the above-mentioned principles existing in EU countries as most as possible, in spite of several difficulties with their practical implementation. The lower level of legally consistent state principles is observed in Cuba, Byelorussia, North Korea<sup>9</sup>, etc.

- The Slovak Republic together with Czech Republic<sup>10</sup>, Hungary and Poland creates an integral part of informal association related to four Middle-European countries denoted as Vysegrad group (V4). This association has been created in order to initiate a common effort related to economic and cultural co-operation and regional development. On the other hand, this association represents a co-ordinating element concerned to political attitudes related to EU and other foreign countries. As mentioned above, any village, town or city is on duty in observation the constitution and the act, which provides regulation of municipal establishment environment, while that act plays a role of principle importance in management any municipality as well.

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<sup>8</sup> However, legally consistent state principles create an integral part of the Slovak Republic Constitution as well, (see also Article 1, Section 1).

<sup>9</sup> Those states have extraordinary problems with observation of fundamental rights and freedoms.

<sup>10</sup> However, the Slovak Republic is much closed to Czech Republic of many common aspects in history, culture and geography as well.

A similar set of rules and regulations related to regional self-governmental institutions creates an integral part of legal order existing and valid within all V4 countries.

- The term of *regional self-government* (územná samospráva) creates an integral part of the *Slovak republic constitution* and is denoted as the *regional self-government* and the term *municipal corporation* is postulated and interpreted within Act-369/1990 Col. concerned to municipal establishment as amended.
  - However, the term of *regional self-government* (územní samospráva) creates an integral part of the *Czech republic constitution* (see also head 7) as well and is denoted as the *regional self-government* and the term *municipal corporation* is postulated and interpreted within Act-128/2000 Col. Concerned to municipal establishment as amended.
  - The term of *regional self-government* is closely related separate head of the *Hungarian constitution* (see also head ix) and is denoted as *local self-government* and the term *municipal corporation* is postulated and interpreted within Act-IXV as amended in 1994, 1996, 1997 and 2003.
  - The term of *regional self-government* is closely related to Chapter VII of *Polish constitution* and is denoted as *local self-government* and the term *municipal corporation* is postulated and interpreted within act- no. 0, pos. 594 dated on March 8, 1990 as amended.
- With respect to previous points and sections we are allowed to postulate that the conditions for functionality of *local self-government* and *municipal corporation* are quite similar within v4 countries. However, Austria has a similar territorial structuring of regions as well, while that country is divided into municipal corporations and districts. On the other hand, Austria creates an integral part of countries, which have a continental type of legal system and culture with an appropriate system of local self-government, while this term creates an integral part of Austrian constitution too.

When looking at previous provisions and sections, the subsequent conclusion might be defined: "modeling of business processes running within self-governmental institutions and organizations is closely related to limitations defined by appropriate legal norms and standards, while the following specific aspects might be postulated:

1. A functionality of business process running within self-governmental institutions and organizations, to be modelled, is closed to decisions made by lawmakers.<sup>11</sup>

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<sup>11</sup> In the Slovak Republic, the laws are enacted and amended via parliament and the National Council of the Slovak Republic is considered to be the only one lawmaker. However, the governmental institutions are entitled to regulate some of their activities via their own rules and regulations as well, while they are based on statute, which has a general validity or they may apply internal norms and standards for those purposes. A set of different regulations related to local taxes and fees or development assurance might be considered to be a good example.

2. The business process modeling results might/should generate a set of appropriate changes within existing legal norms and standards because of self-governmental institution functionality improvement and efficiency.
3. The results of modeling performed only by government "by creating" processes can be changed without fundamentally changing legislation (using shared services).

## **2. The Principle Goals Related to Business Process Modeling Provided Within Territorial Self-Governmental Organizations and Institutions**

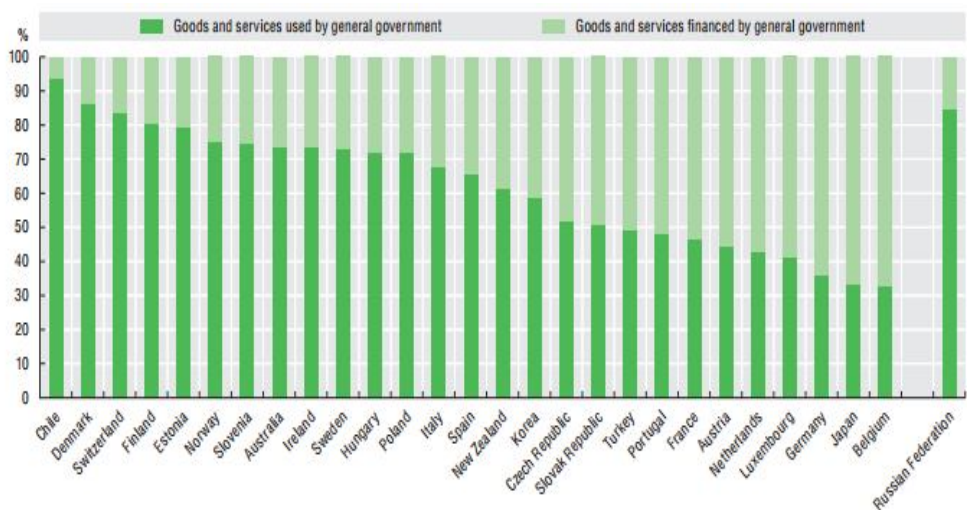
- a) There are different directions related to business process modeling, while that activity meaning is visible in the business process *information function* especially, because the external and internal clients<sup>12</sup> are allowed to have a real image how the actual business process are running and operating. Many different business processes are running and operating within various self-governmental institutions and organizations and they are described with the use of lawyer's language, which is hard to understand for people living in those regions. On the other hand, that fact is contradictory, when considering an idea that all self-government institutions should be much closed to their clients. However, the business process modeling enables an easier orientation in business process functionality as well, while the term functionality means a set of functions and phases, from the business process beginning up to business process end.
- b) Any firm or company operating within private or public sector consists of four principle elements postulated as follows: *organization structure, human resources, business processes and check and control tools and mechanisms*.

The experts who deal with business process management postulate the statement, that mistakes and errors observed in business process functionality represent 85 percent of problems occurring in the firms or companies and human resources factors generate remaining 15 percent of problems (Madison, 2005, p. 3). This is a reason, why business process modeling is a matter of principle importance and requires an appropriate attention. If we know a functionality of business processes running within governmental or self-governmental institutions, it indicates, where and when the business process reengineering shall be done in order to achieve an optimal running and functionality of not correctly set and operating business processes. On the other hand, the business process engineering enables to achieve an improved rebuilding of business process running and operating in the firm or company from measured time, cost and quality point of view.

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<sup>12</sup> Firms and companies (natural and legal personalities) are considered to be external clients, while the majors and city managers are considered to be internal clients related to business process modeling.

- c) A set of shared services (outsourcing) is considered to be a very significant approach related to assurance of public services in the state or country in a lot of cases, while its operation, clearance operations, catering, security, administration and maintenance of buildings, waste treatment services and transport represent the areas, where outsourcing plays a role of great importance (McIvor, 2005, p. 2). The private sector is being preferred in Belgium, Japan, Germany and Luxemburg, while it participates within 60 – 70 percent at the business as a whole. On the other hand, the insourcing is utilized in Denmark, Sweden and Finland mostly. A utilization of outsourcing in providing of public services is shown in Fig.1.



**Fig.1 Structure of Costs For Public Service Outsourcing Within OECD Countries Source: Government at a Glance, OECD, 2011**

Business process modeling is considered to be an efficient tool, which is discovering an area and a set of advantages for outsourcing applying. A co-operation between Kosit Company in Košice (Slovak republic) and the city of Košice, which provides services for that city in waste processing (collection, transfer, disposal of communal waste) is considered to be a good example in outsourcing utilization. However, a winter and summer maintenance of the city streets and avenues creates an integral part of that co-operation as well.



- d) However, the business process modeling enables providing more rational of changes in competences as well and this is a strong positive action too. The changes might be understood in a small range (replacement of competences among employees and internal organization units) or in a large range, when a set of significant reforms is being implemented, decentralization or centralization, as for instance. A transfer of several competences from governmental institutions to self-governmental institutions acting in villages, towns and cities and regions is considered to be a set of greatest and most significant competence changes provided in the Slovak republic. As a result of that reform (provided in 2004) more than 400 competences have been transferred from governmental to self-governmental institutions and organizations, e.g. communications over land, social help, regional development, tourism, theatre activities, health and education policy, regional planning<sup>13</sup>, etc. The main aim of the competence decentralization was an accession of public services to citizens and the interest in contribution to provide public administration services more efficiently, while the business process modeling is able to help in making decision if an appropriate change should be done, as well as the change range and a set of adequate conditions related to the change.
- e) The modeling of business processes running in self-governmental institutions and organizations plays a role of great importance related to assurance of inevitable information support for those processes, with respect to progressing trend of it implementation and operation within those organizations. As a result of that, sets of WEB portals are being implemented and operated to provide electronic services for citizens, while they are very useful for simplex (downloading of appropriate electronic documents) or duplex communication (via downloaded filled out and re-sent forms), while they are getting in the information system again and are being processed with respect to business process running within appropriate municipal organization or institution<sup>14</sup>. The client is able to communicate with so-called virtual municipality with a possibility to find needed navigation steps and information related to his/her actual problem solution.
- f) There are considered everyday of special (sporadic) situations, where the citizen shall be fixed as soon as possible in order to achieve a quick and positive solution of his/her problem or requirement.

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<sup>13</sup> See also Act no. 416/2001 Col., which deals with transfer of competences from governmental to self-governmental institutions in municipalities and regions.

<sup>14</sup> The form for information accession is considered to be a good example for those purposes.

The problem areas might be very different: looking for an answer related to housing problems<sup>15</sup>, business<sup>16</sup>, and family<sup>17</sup>, as for instance.

However, implementation of systems within public administration seems to be efficient for territorial self-governmental institutions as well, while a compulsory and volunteer release of information<sup>18</sup> becomes easier and simplified. The self-governmental organizations and institutions are on duty to do that with respect to the Code no. 546/2010 Col.

### **3. Several Results Related to Business Process Modeling Provided Within Košice City Magistrate**

An organization information model consists of four principle dimensions postulated as follows:

1. Global model of objects
2. Detailed model of the object
3. Global model of processes
4. Detailed model of the process

An interconnection among them is shown in Fig. 2, where a common intersection related to object and process view is observed.

On one hand, both of the above-mentioned views represent supplementary components for each other; on the other hand they are quite different of each other as well.

The object model represents the static model of reality, while the actual business incl. An appropriate governmental or regional self-governmental creates an integral part of that reality. *The object model* describes the reality composition, incl. reality fixed or static components (objects) together with a set of adequate interconnections and relations among them. However, that model type deals with description of features concerned to those objects as well, while we cannot find any information related to reasons for their behaviour, because the process model describes those reasons. On the other hand, the process model is considered to be a dynamic model, which describes a set of functions, activities or steps from beginning to end related to actual business process functionality.

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<sup>15</sup> A set of steps and conditions related to public-assistance dwelling disposal.

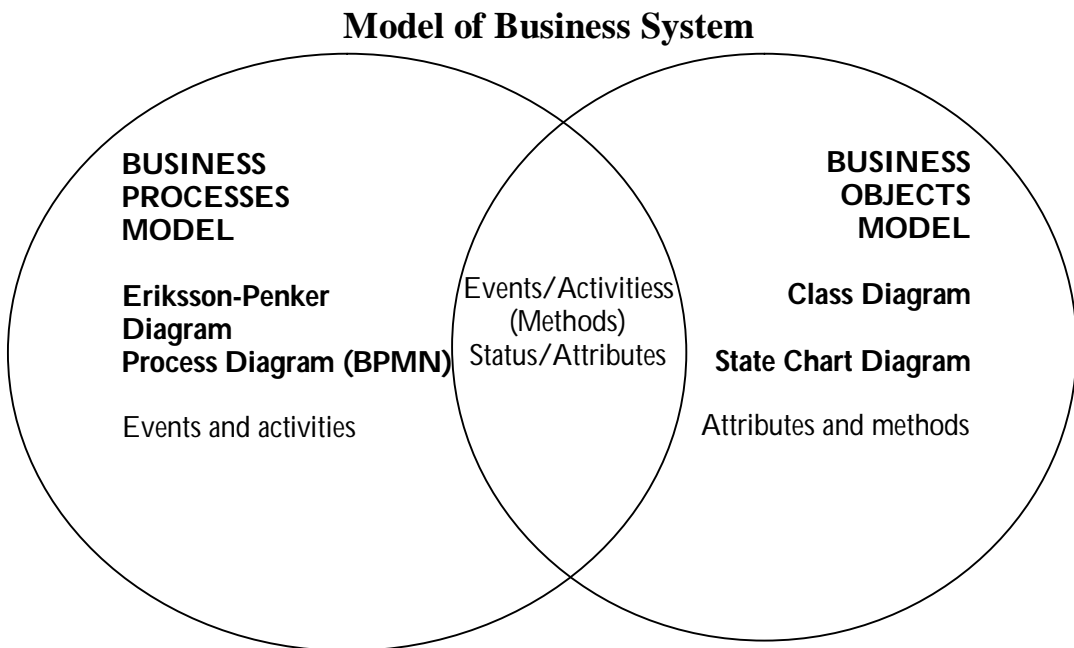
<sup>16</sup> Information, which deals with business forms, tax and fund contributions.

<sup>17</sup> Financial support for parents, rules related to child adoption, etc.

<sup>18</sup> Invoices, orders, contracts, etc.

However, the process model represents a need of looking for a superior reason for an appropriate behaviour (in form of aim or external event), which is independent on rules of life concerned to actual objects as well (Hammer, Champy, 2006, p. 123-127).

**Fig. 2 Two Principle Dimensions of Business System Model**

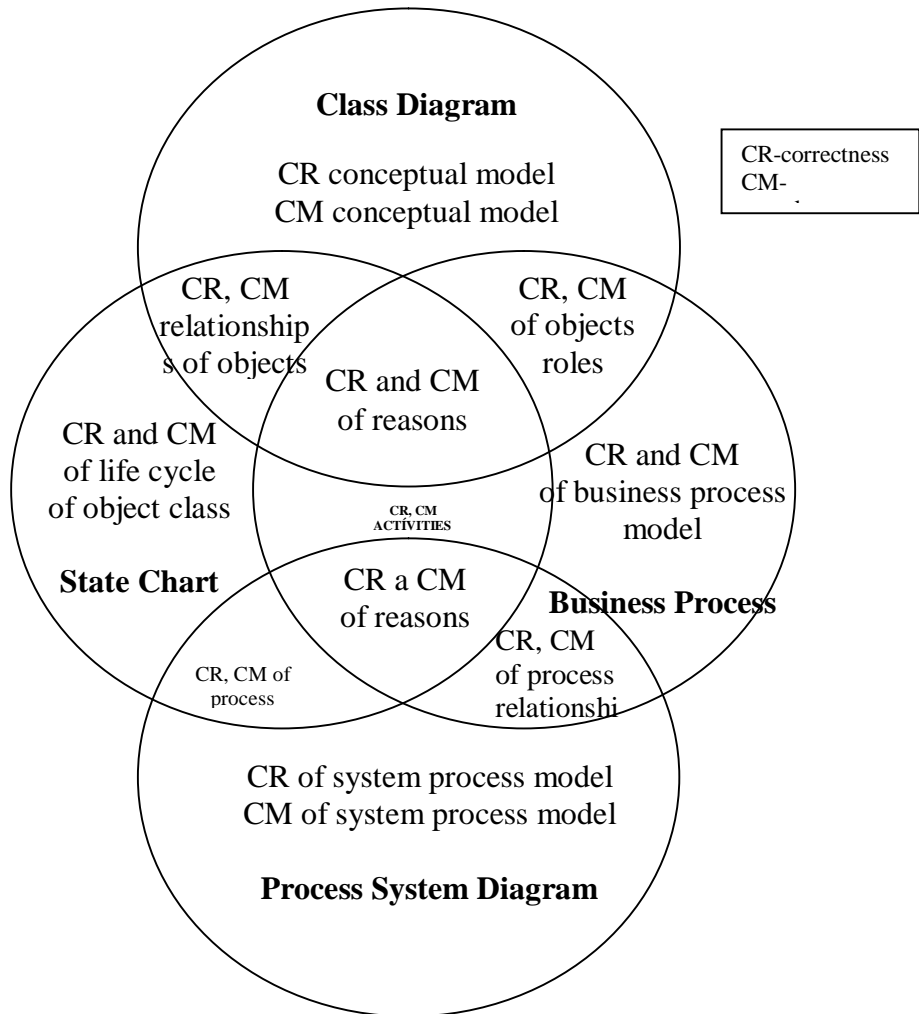


Source: Řepa, 2012, p. 83

#### A. The Starting Points - Sources and General Characteristics of Model Consistency

An investigation of model consistency (propriety and integrity in interconnection among each other) is considered to be a systematic tool for analysis of interaction among created models.

The term of consistency means a propriety and integrity of models and relations among models (see also Fig.3).

**Fig.3: Several Facts Concerned to Consistence of Models**

Source: Řepa, 2012, p. 124

As mentioned above, the term consistency represents a research related to complexity and propriety of models, while those criteria might be independent of each other. However, when considering relations among those models, the terms consistency and propriety cannot be separated anymore. A semantic of model consistency term includes the following subordinated terms:

- Integrity and propriety criteria related to:
  - Conceptual model of objects (CD)
  - Process model of the object (STD)
  - Conceptual model of processes (GM)

- Process model of the process (DM)
- Criteria of integrity and propriety concerned to roles, actions (activities) events and reasons existing among models
  - Relations GM versus DM
  - Relations CD versus STD
  - Rolles GM versus STD
  - Rolles CD versus DM
  - Activities (actions) DM versus STD
  - Events and reasons CD versus STD, GM versus DM

The results related to investigation of object and business process model consistency might be utilized within two generalizing directions:

- They might play a role of supporting materials for subsequent analysis purposes, e.g. Business process improvement and reengineering.
- However, they might play role of supporting materials in identification of relation between object and process view at the reality.

It should be noted; that the integrity and propriety of events is considered to be the universal criterion of consistence related to all of four model types<sup>19</sup>. Each of those events as follows:

- The event should be at least one reason for a change of the object state within description of transition between appropriate states (STD).
- The event should be at least one reason for a process activity within actual business process model (DM).
- The event should be at least one reason for a creation or change of the object instance within at least one relation among objects within CD.
- The event should be at least one reason for a communication of at least one business process with other process (or the organization environment) within conceptual model of processes.

## B. Application for Selected Models

We are dealing with business process denoted as administration of territorial planning and construction proceeding, when modeling a business system related to self-government of Košice City<sup>20</sup>.

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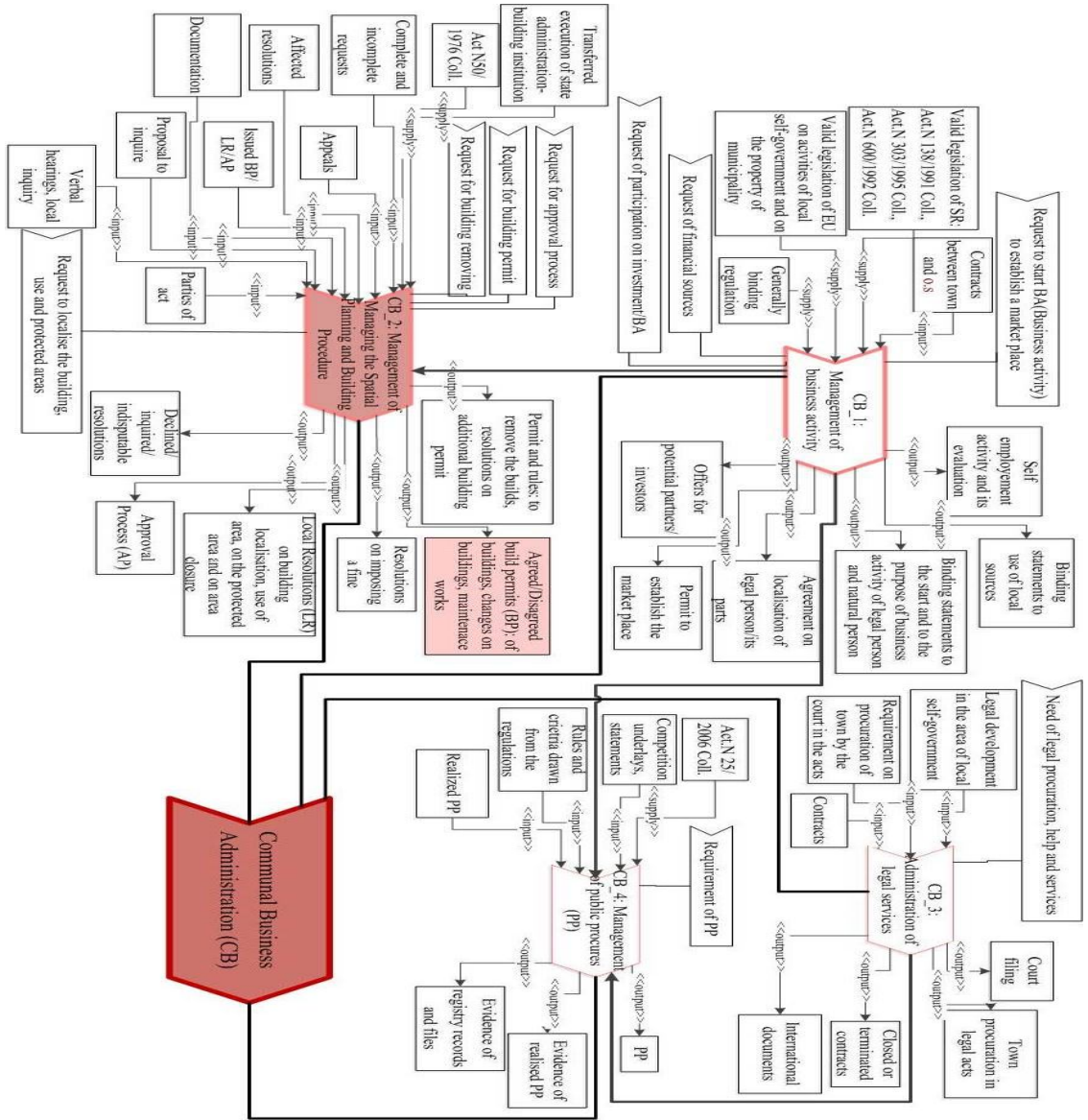
<sup>19</sup> A set of events is considered to be a general interconnection among above-mentioned views and express a context interconnection of those views – it means they express the reasons.

<sup>20</sup> This process running and behaviour is regulated with respect to Code no. 50/1976 Col about regional planning and construction and building rules (Building Act) as amended.

This business process creates an integral part of communal business administration within magistrate of Košice City. The following figures represent appropriate models to be investigated from consistency point of view.

### **1) Global model of Communal Business Administration (CB)**

The resort of *Communal Business Administration of Košice City* contains the key process CB\_1 Management of Business Activities, CB\_2 Management of Spatial Planning and Building Procedure and support processes CB\_3 Administration of Legal Services and CB\_4 Management of Public Procurement. Inputs and outputs and other events demonstrated in figure. The detailed form is demonstrated on CB\_2.



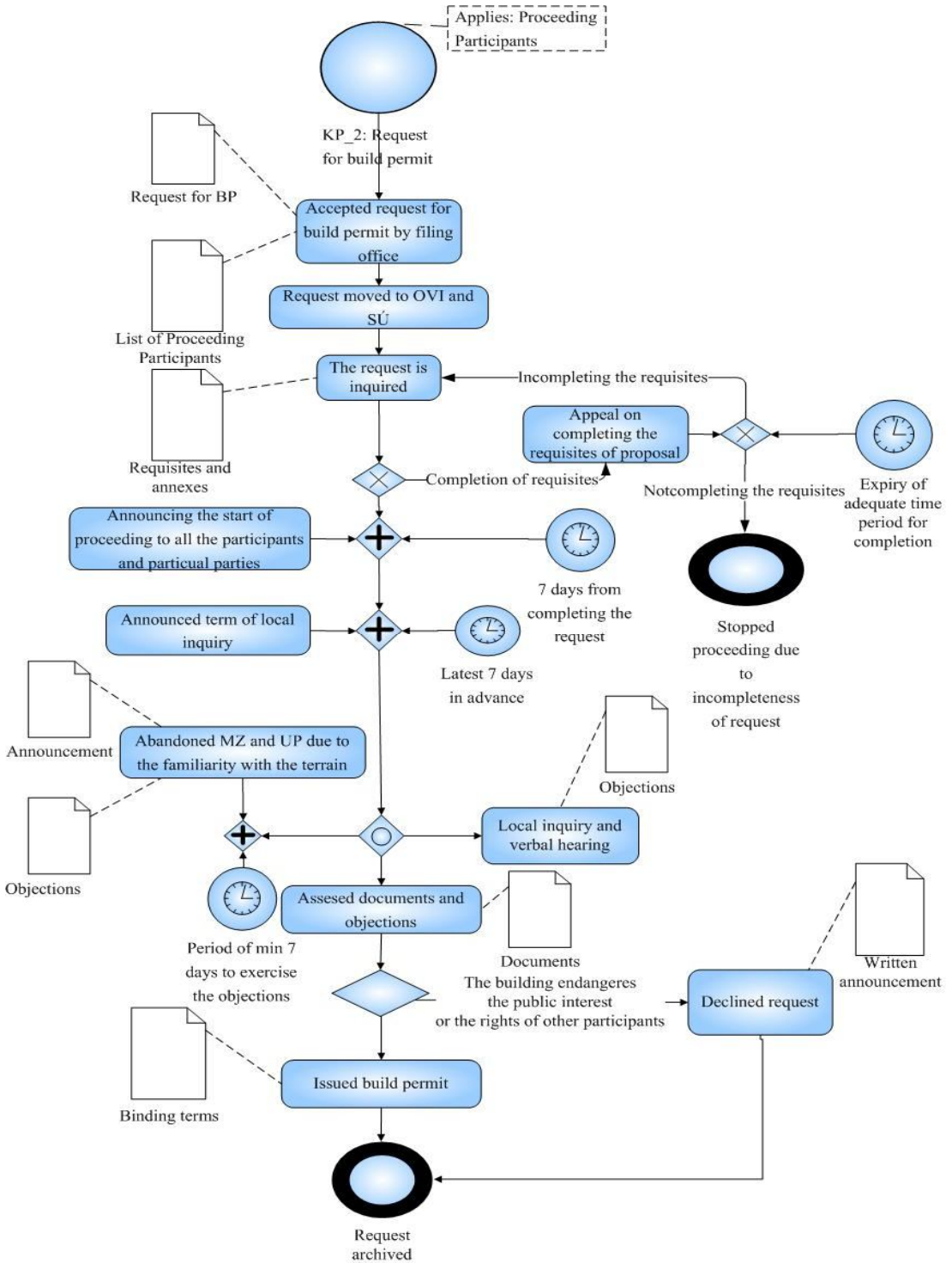
**Fig. 4 Global model of Communal Business Administration**

**2) The detailed model of CB\_2 Process the Report of Managing the Spatial Planning and Building Procedure**

The whole process procedure as it is described in the Act. n. 50/1976 Coll. on Spatial Planning and Construction (Building Act), as amended. The process of building procedure starts by applying for a building permit/permission, a review of the fulfillment of the conditions of filing, where the underflow after a reasonable period of time results in a standstill due to incomplete documents.

Seven days of its completeness the Municipality of Košice City (Department of Construction, Investment and Construction Authority) announces the initiation of proceedings to all participating/known parties and persons concerned and ordered to the local investigation related to an verbal hearing where the principle of concentration of the plea. In case of knowing the conditions on the opinion of the building office may announce that abandons the local investigation and an verbal hearing and set a deadline to object. After an assessment of all documentation and evaluation of objections, the process is completed and a written decision rejecting the application or Municipality of Košice City is issued the necessary building permit and also determines the binding conditions. The final stage of the process is archiving applications.





**Fig. 4: The Detailed Model of Process the Report of Managing the Spatial Planning and Building Procedure**

3) Class Diagram of CB\_2 Process

Class diagram of process CB\_2 Management of Spatial Planning and Building Procedure, namely the building permit approval process includes the following classes: party of application, purpose, construction management, permit, building permit, appeal and review of the decision. The main sources of information to define the classes and objects selection application for building permit is valid Building Act.

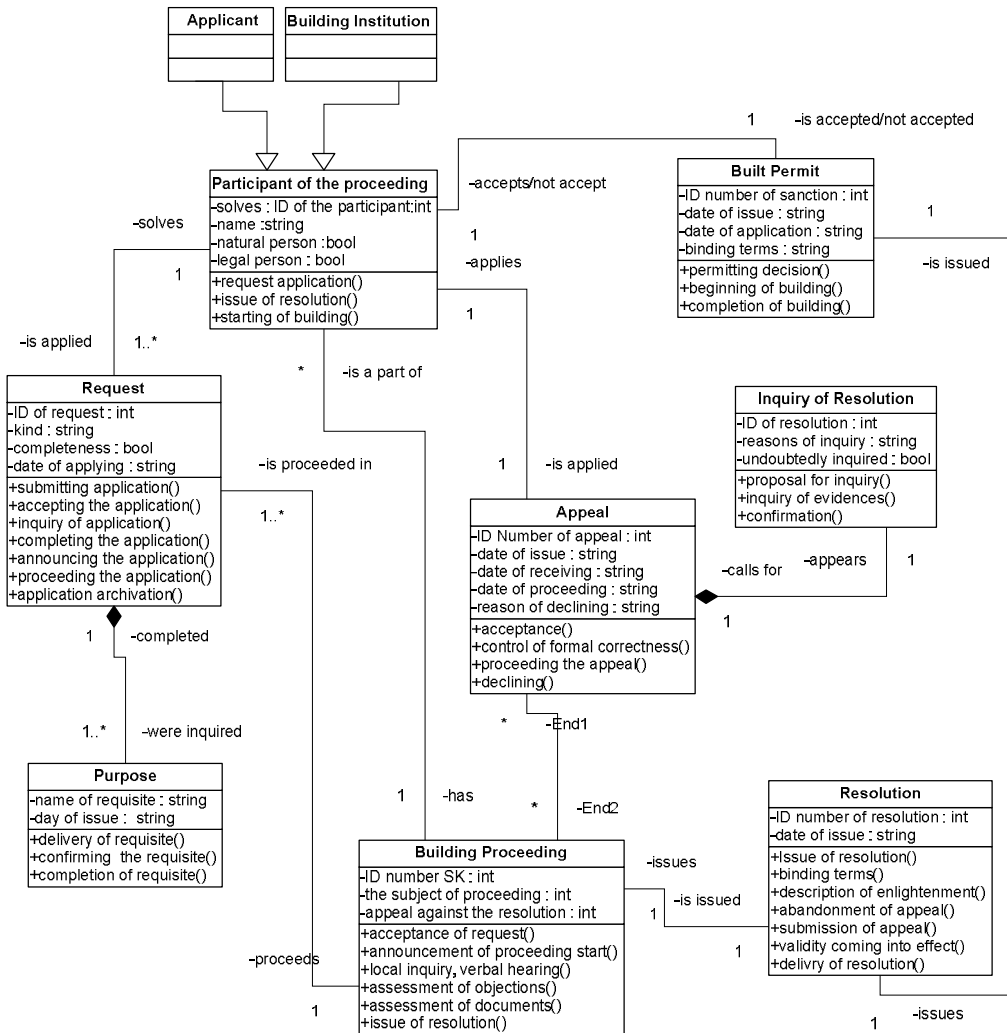
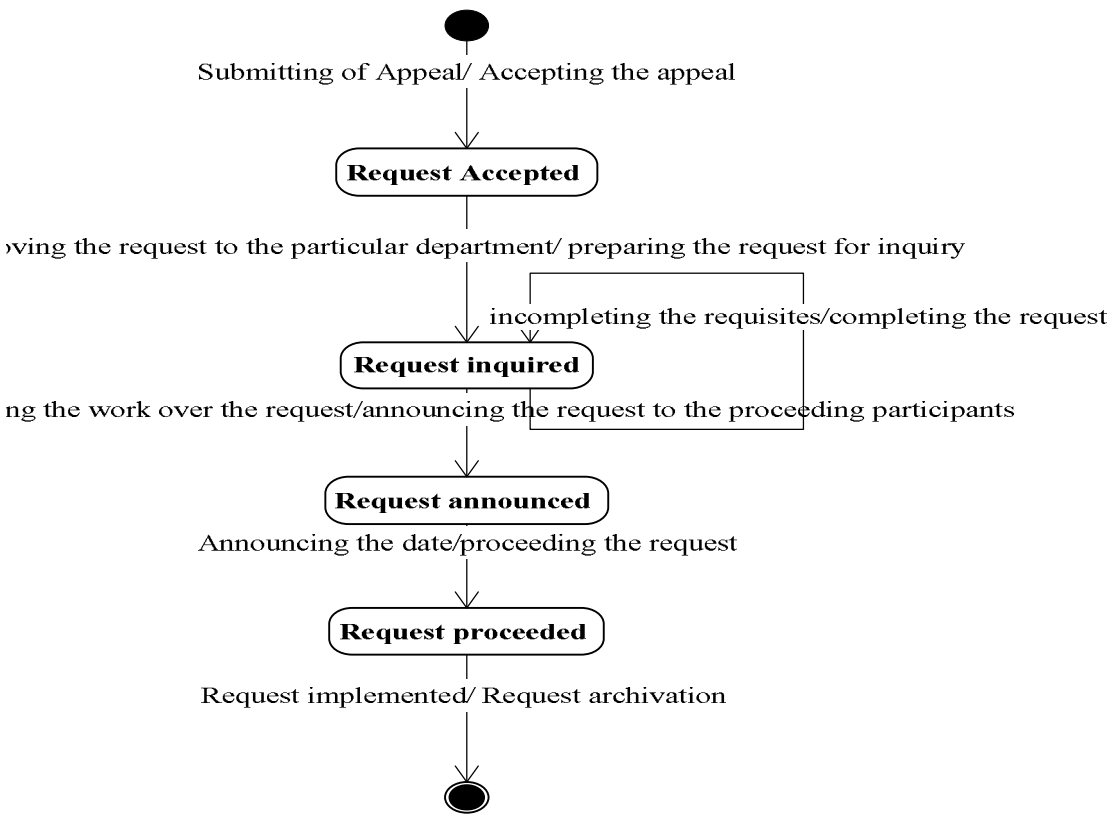


Fig. 5 Class diagram of Process the Report of Managing the Spatial Planning and Building Procedure

#### 4) Status Diagram of REQUEST Class

The process model of Request class application in the process of building permit (process CB\_2 Management of Spatial Planning and Building Procedure) still provides a clear description of the life cycle of the building. The detail view begins with the application to the archive, and thus captures every possible behavior (behavior) of the object. It is visibly and directly tied to the class diagram CB\_2 process.



**Fig. 6 Status Diagram of Request Class**

With respect to previous considerations and considerations postulated in (Řepa, 2012) an interconnection among process with objects is being analysed and the analysis results are postulated as follows (see also Table 2):

- Each object class related to class model shall create an integral part of the process model (GM) at least within one input, output or external aspect of that model.

- Each process input, output or any process external aspect (DM) shall create an integral part of the class, where it plays a role of class or association among classes. However, there might be a combination of both above-mentioned aspects as well.
- Each event specified within class life-cycle transition descriptions (STD) shall correspond to that event, which is being specified within description of some process or processes (DM, GM).

**Table 2: Example of Object and Process Consistency Related to Administration of Territorial Planning and Building Proceeding**

Class CD	Input		Output		Association	Event	
	GM	DM	GM	DM		STD	DM, GM
Proceeding participant	Proceeding participants	Building proceeding participant List of building proceeding participant			Makes a solution Creates a part Accepts Does not accept Submits	The Building proceeding participant submits application  Information for proceeding participants about application	The building licence application submitted by the Building proceeding participant  Information about the proceeding commencement all proceeding participants and concerned personalities
Application	Building licence application Completed Non-completed	Building licence application	Building licence application Approval Withdrawal		Submitted Has been completed Is being treated in	Application acceptance Application advance Application processing actions completed	Building licence application accepted Building licence application postponed to department
Aim	Documents	Attachement requirements	Authorizaton of newbuilding repair, maintenance		They were investigated	Application investigation and completing	Application investigated. Appeal to complete application Time expiration for application completing

**Table 2: An Example of Object and Process Consistency Related to Administration of Territorial Planning and Building Proceeding (Continued)**

Class CD	Input		Output		Association	Event	
	GM	DM	GM	DM		STD	DM, GM
Stavebné konanie Building proceeding	Governmental administration transfer (building office competence Act. 50/1976 Col. Oral treatment, local investigation	Annoucement Documentation		Complains	Has, Treats Issues End 2	Term announcement Application treatment	Term announcement Desisted Local investigation done, oral treatment Complain submit time expired Documents and complains have been judged
Decision	Building licence is issued		Application approved/withdraawed	Building licence/written decision	Is being issued Issues	Treatment done	Bulding licence issued / Bulding licence application withdrawn via written decision
Building licence	Building licence		Building licence	Building licence with obligatory conditions	Is issued Is accepted akceptované/ is not accepted	Application archiving	Building licence issued Application archiving
Appeal	Appeals		Appeals withdrawn		Is submitted Recals End 1	Application submission	
Decision investigation	Investigation proposal Impugned decisions		Investigated /Undoubt decisions		Increases	Application treatment	

Source: Prepared by contribution author (the consistency is being expressed in table rows- free (blank) fields might indicate inconsistency. This is a subject of further investigation, with respect to reasons described within contribution, while some of directions are postulated in the contribution conclusion.

### Findings for Practice

The territorial self-government provides different products and services and is considered to be the business subject, which satisfies various and growing needs for the clients. A solution of any problems, which the citizens have in their lives, is considered to be the principle aim of that organization operating based on business process management. A need to gain a building licence might be one of similar situations occurring within such organizations.

This type of licence is being issued by building office existing within municipality (village, town, city), while that event creates an integral part of the process denoted as administration of territorial planning and construction proceeding as well<sup>21</sup>.

The activities provided by City of Košice magistrate (and other municipal and civic authorities) concerned to the above-mentioned objective is regulated with respect to Code no. 50/1976 Col concerned to regional planning and construction and building rules (Building Act) as amended, which create basis for business process modeling from the object and process point view. When looking at that code citation, we can see, that the code has been created more than forty years ago. This a very long time and that code has been amended several times, while latest amending became valid in December 1, 2013 and is denoted as Amending no. 368/2013 Col.

The above-mentioned amending was closely related to that business process course. On one other hand, the society development is dynamic and the latest code version cannot be considered to be the final one as a result of that. On the other hand, that business process modeling seems to be a good tool for discovery of new possibilities related business process optimization changes, while the complexity and propriety analysis of events might be a good supporting material for establishment of inconsistency elements. As a result of that a set of legal changes might be proposed subsequently.

When looking at Table 2, we can postulate the fact, that several blank fields have created, which might indicate the above-mentioned inconsistency. This fact can be postulated as a result of analysis related to the created models. When considering three investigated criteria, we can say, the above-mentioned models seem to be consistent from event propriety and integrity point of view. However, it does not mean, there are no further possibilities for improvement of that business process functionality. The blank fields are observed a result of that, a set of appropriate legal norms and standards do specify an appeal possibility in more details. However, the appeal is allowed as well, in spite of that it is not postulated in law explicitly. As a result of that, a set of rules postulated within adequate internal norms and standards are being applied<sup>22</sup>. However, this fact may generate several ambiguities related to the business process course and running too.

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<sup>21</sup> The municipality, town or city provides competences of the building office via governmental administration transferred activity

<sup>22</sup> See also Act 71/1967 Col about administrative procedure as amended.

However, the opinion that the Building Act is obsolete might be accepted in principle and its quite new version is required, in general. The Building Act new version should be able to solve the problems creating an integral part of the building licence issue process too. They are considered to be principle problems and failures and might be postulated as follows:

- The business process duration<sup>23</sup> is considered to be the first one, because that process running takes a lot of time in our country. As result of that, many applicants apply illegal practice steps, incl. corruption and are doing best to evade the law. We comparing it with rules in our neighbouring countries – e.g. Czech Republic, no building licence is needed for building of small family house. On the other hand, in Austria, time for building licence issue is not longer than one month (in spite of higher fees). However, the time for building licence issue valid in the Slovak Republic takes one year or more. A fusion of building proceeding and area management might enable creating of one process with full range functionality.
- A bureaucracy, which is considered to be an integral part of the entire public administration, as the people say. Our parliament aim should be to remove bureaucracy and not to allow it become stronger and stronger, because we are living in the 21<sup>st</sup> century. When considering the building licence issue, a set of appropriate documents<sup>24</sup> represents a great load within the business process running. However, the attitudes and opinions of appropriate organizations or authorities seem to be a bottleneck, which plays a role of great importance as well. The problem solution is being offered via transfer of load<sup>25</sup> to building office, it means to village, town or city. The proceeding related to building licence acquisition would not have to be broken because of further “forgotten” attitude or opinion. The existing Building Code allows to require an undefined number of opinions and attitudes, while some of the might be considered to be redundant.
- Absence of appropriate sanctions enables making substantial delays within the process running. However, the delays might occur at the side of offices, proceeding participants or aggrieved persons<sup>26</sup>.

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<sup>23</sup> We mean the process from building licence application submitting up to building licence issue.

<sup>24</sup> These documents shall create an integral part of each building licence application.

<sup>25</sup> The Load is concerned to acquisition of attitudes and opinions of the above-mentioned organizations or authorities.

<sup>26</sup> Abusing of system with incorrect setting is considered to be a usual or common practice. In many cases, the aggrieved persons submit appeal against territorial or building decision, in spite of that the building absolutely corresponds to village territorial plan or there are no public interest treaties or treaties

Any time limits (postulated within law) are not efficient, when no adequate sanction exists in the case the time limits ignorance or violence. Of course, there is a possibility for aggrieved person to inform a supervisory organ or court about such attitudes or actions provided by appropriate authorities, however the whole process is being prolonged more and more in such cases.

- An absence of approved general city or village plan is considered to be the fourth reason of failure related to permitting procedure (process). The governmental authorities are doing best in solution that problem, an existence of general city or village plans could enable a rather efficient shortening of the process from more points of view. In the case of existence of approved general city or village plans, the building office would not need any opinions of aggrieved organs; however it could make a decision in form of territorial agreement as well. On the other hand, the building office could present its opinion related to conformity of documents with approved territorial plan. In Czech Republic, the above-mentioned process is running based on the same principle, while a building notification is quite sufficient for those purposes. However, the situation in the Slovak Republic is quite different, you can find an approved general city or village only in municipalities having more than 2000 inhabitants. This situation shall be changed as soon as possible in order to achieve a significant optimization of the above-mentioned process, while the approved general city or village plan shall be obligatory for any village, town or city. However, there are needed adequate financial facilities for those purposes as well.
- Implementation and operation of IT system within information support of business process denoted as Building licence acquisition (hereinafter known as electronization) is considered to be a matter of principle importance, in spite of that it is postulated as the latest one. However, we say, the above-mentioned term electronization is considered to be the answered question, "How to accelerate that process?" as well. Although, the electronization should be the prior activity within information support of the process denoted as Business licence acquisition, its advance is very slow on governmental and self-governmental level too.

The electronization should enable managing all of the above-mentioned business process<sup>27</sup> information support with the use of adequate IT systems.

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concerned to rights of other proceeding participants. This type of wilful and wanton misconduct should be punished with the use of an adequate sanction.

<sup>27</sup> At the beginning of that business process is a building licence application and at its end, the client should get an appropriate written decision related to that process



On the other hand, it should enable summarization of all data related to building activities provided in the Slovak Republic. For us, the electronization of governmental and self-governmental administration is considered to be a dream in the distant future and a set of promises given by political parties, while for other countries the electronization of governmental and self-governmental administration creates an integral part of living standard for their inhabitants, e.g. in the USA.

In conclusion, we can say, the modeling of business processes running within self-governmental institutions is considered to be an adequate tool for business licence approval process optimizing and elimination of the above-mentioned negative aspects as well.

## **Conclusion**

The paper deals with modeling of business processes running within self-governmental institutions and organizations, which create an integral part of Košice City magistrate. I have investigated the business process denoted as Building licence approval and issue, which is regulated with respect to an appropriate law and several specific aspects might be observed there. As a result of that, quite different approach has been applied for those purposes when comparing it with traditional business process modeling methods. The reader may find a set of basic principles (theoretical basis) closely related to the above-mentioned type of business process modeling, which creates good fundamentals for design and implantation of real business process models. At present, the above-mentioned business process modeling continues, while two different modeling tools are being applied, tested and evaluated (ATTIS and Power Designer) in order to apply one of them as a standardized tool for modeling of business processes running within self-governmental institutions and organizations.

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## Legislation

Constitution of SR n460/1992 Coll. as amended

Act n. 369/1990 Coll. on municipality as amended

Act n. 416/2001 Coll. on the transfer of certain responsibilities from the state administration to municipalities and higher territorial units

Act n. 50/1976 Coll. on the zone planning and the building code (the building act) as amended

Act n.71/1967 Coll. on administrative procedures (administrative code) as amended