

# Managing Change toward E-Government

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## Abstract

The main goal of the paper is to present the characteristics of business renovation efforts and readiness for electronic business (e-government) in Slovenia. Renovation is presented as the highest level of strategy for managing change that commonly cannot be handled by continuous improvement and reengineering methods or organizational restructuring. This framework is expanded to e-business models considerations. The paper stressed the necessity for changes in organizational culture, management techniques, socio-economic restructuring and other changes leading towards a shift in organizational restructuring in the context of globalization (e-government, e-business, etc.). The case of business renovation project in one of the Slovene Ministries is also presented.

## 1. Introduction

Business Renovation (BR) or business process renovation integrate radical strategic method of Business Process Reengineering (BPR) and more progressive methods of Continuous Process Improvement (CPI) with adequate Information Technology (IT) and e-business infrastructure strategies. Process renovation is a re-engineering strategy that critically examines current business policies, practices and procedures, rethinks them through and then redesigns the mission-critical products, processes, and services (Parsad 1999). In the paper, business renovation is presented as the highest level of strategy for managing change toward electronic business (e-business) that commonly cannot be handled by continuous improvement and reengineering methods or organizational restructuring (Jacobson 1995). BPR efforts in 90-s has mostly been addressed on internal benefits such as cost reduction, organization's downsizing and operational efficiency which are rather tactical than strategic focuses. CPI, on the other hand, mostly relies on improving existing business processes whit no intention of changing it. BR argues for a balanced approach in which we attempt to manage realistic changes rather than always seeking radical change. For a thorough and effective renovation, organizations should combine radical shift (BPR) with those that permanently increase business efficiency and effectiveness (CPI).

E-government is the execution by electronic means of interactive, inter-organizational processes and represents a shift in business doctrine that is changing traditional organizational models, business processes, relationships and operational models that have been dominant in the public sector in the past decades. The new doctrine of e-government requires organizations to integrate and synchronize the strategic vision and tactical delivery of services to its clients with the information technology and service infrastructure needed to meet that vision and process execution. In the next few years, successful countries will restructure their public sector, process and technology infrastructure for successful e-government execution.

E-government has, of course, different meaning to government and its constituents.

- For Government:
  - Higher quality service at a lower cost to taxpayers;
  - Make it easier to comply with rules and regulations;
  - Decentralization of power and decision-making.
- Citizens expectations are:
  - Greater degree of access to programs, services, and information;
  - Feeling of being more connected to a government that is relevant.
- For business:
  - Reduced direct and indirect costs of compliance;
  - Take full advantage of government economic development initiatives.

In our paper efforts in the field of e-government enrolment in Slovenia are presented. In the Section 2 current status and plans for e-government enrolment are presented, followed by Section 3 in which some theoretical background and our views are described. The main part of the paper is Section 4, where the case of business renovation project in one of the Slovene Ministries is presented. We believe that the organizational-wide business process reengineering projects cannot be seen only as a problem of automation and implementation of modern technology

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or efficiency improvement of existing processes because there is more to organizational changes than just the technological view. BR projects should be focused on all related key business elements: business processes, people and finally the technology. E-government is not only enabling the redesign of internal organizational processes, but is extended into inter-organizational processes.

## **2. What does e-government mean to government and its constituents in Slovenia?**

By adopting the “Strategy of E-commerce in Public Administration for the Period 2001-2004” (further: SEP-2004), in February 2001, the Government of Slovenia has defined the primary strategic orientations for the next essential phase of informatization of public administration, which is the development of e-government. As a result, Slovenia is following a number of most developed European countries, which are approaching the accelerated development of e-government in a similar way. In SEP-2004, we can find a complete definition of the meaning of e-commerce and e-government for the development of public administration in Slovenia, the enlargement of its efficiency and quality of its services. In addition, SEP-2004 defines the main developmental areas and key projects, which are to be implemented within the range of realization of set objectives (Government Centre for Informatics, 2001).

Although, as a result, Slovenia has started a new developmental cycle of technological modernization of administration and have launched a number of new projects, we have concluded that development is not progressing as planned and expected. This is not only a problem in Slovenia, but based on analyses carried out in EU, also a problem in mostly all other countries. Due to the lack of experience in most cases, plans and deadlines for introducing e-government were in all places too optimistic. After a year or two, we can see that in most countries it was relatively easy to achieve the first (information) stage, which refers to the introduction of information services, as this step does not require specific changes in internal operations of administration and in business processes and procedures. Also in Slovenia, we have achieved quite a lot on this level. On web pages of administrative bodies, users can acquire a lot of useful and practical information, which makes it easier for them in finding solutions for administrative affairs and in communicating with administration (Government Centre for Informatics, 2001).

Much more complex is the introduction of more demanding, so-called transaction services, which enable all phases of a selected administrative procedure or process to be executed electronically. Also demanding is the authentication and payment of administrative taxes and the interconnectivity of various data sources. As a rule, this requires a complete renovation of internal business processes and procedures, the integration of registers and public databases, the alteration and completion of material legislation and the development of new organizational regulations, classifications, and standards. At this point, the development of e-government in most developed countries has come to a standstill, which is evident from viewing web portals of these countries. We can find very little transaction services. The same has also occurred in our public administration.

The introduction of e-services will run parallel with system activities, which are within the scope of transformation of public administration (e.g., complete functional analysis, renovation of business processes, methodologies and standards...) and require a longer time period. A significant part of e-services, with regard to needs and technological possibilities, can be introduced in parallel, which enables expeditiousness and will also reduce the lag we have with other EU Members. Slovenia is a state, which by tradition already has well-informative key public-legal registers, although not yet integrated into a whole, they represent the precondition and excellent foundation for a faster introduction of e-services.

Problems, which need to be solved as soon as possible, are, in a minor sense, of technological nature (Government Centre for Informatics, 2001). They predominantly extend to the internal renovation of administration operations, its reorganization, greater process orientation and close coordination and cooperation among various departments, and even branches of power (executive, legislative, and also judicial). It has to do with deep structural changes in the operation of administration, which will be successfully and quickly implemented only with a total and well-considered approach, as used in the modernization and reformation of administration up to the present.

Organizations and bodies in state administration, which with common cooperation and active operations need to assure the conditions and the implementation, are defined in document SEP-2004. In the operationalization of the implementation of the e-government, the organisations and bodies in state administration with key roles are (Government Centre for Informatics, 2001):

- Government of the Republic of Slovenia;
- Commission of the Government of the Republic of Slovenia for Informatics in the Area of Public Administration;

- Government Professional Group for Information-Telecommunications Technology;
- Programme Council E-government;
- Government Centre for Informatics RS;
- Ministries, Agencies of Ministries, Administrative Units, and Government Bodies (Departmental Bodies).

After the adoption of SEP-2004, there have been positive shifts made in the area of informatization and Internet access in the Republic of Slovenia. Despite inconsistency of data (sources), benchmarking development in this area, particularly with Candidate Countries, shows us nevertheless a satisfactory representation. Particularly the number of Internet users in the Republic of Slovenia has increased. The latest data shows us that we have over 600.000 users. Also new providers of Internet services (cable operators, operators of mobile TC services) have been established and the number of users of modern technologies and services (ISDN, ADSL...) has also increased. As a result, the base of potential users of public administration e-services has also increased. In addition, we have to emphasize, which is in accordance with EU guidelines (cheaper, faster, more secure Internet, investing in people and know-how, stimulating the usage of the Internet), that establishing a unified system of e-government with proper infrastructure increases first of all the efficiency of administration and offers unquestioned benefits for citizens and residents, although a number of them will still use classical channels in administrative and public-legal procedures.

Past experience in introducing e-government in the most developed countries (Singapore, Canada, Australia, New Zealand...) in this field has shown us that the root of the problems, which have to be solved in introducing e-services, has moved from the technological into the organizational and process domain. The essence of e-government is to radically change the ways and mechanisms of operating administration and, as a result, also basic principles, on which these mechanisms have been developing in the last decades or even centuries. Let us mention some of the organizational postulates, on which the whole business system of administration has been based on in the past, and which has already been removed partially or completely by e-government. The operation of administration in the past was based on the whole on classical paper business, personal contact with clients in solving administrative affairs, autographic signature as a mean of identification, local jurisdiction in solving administrative affairs, etc. e-government gives us completely new solutions and approaches in all mentioned items. Without interventions in internal operations of administrative bodies, we can implement only the simplest, so-called "information solutions", which offer users information online, on web pages and portals. More complex so-called "transaction services" – which cover all work phases of the implementation of administrative procedures and are implemented electronically – require complete renovation of administrative operations, business processes, and administrative procedures.

Within the framework of development of a new "organizational paradigm", which will be based on the operation of e-government, all State Bodies and other institutions from the public sector will have to perform the following as soon as possible (Government Centre for Informatics, 2002):

- Analyze all current organizational structures and processes and adjust them to the possibilities and requirements of e-government;
- Analyze the delegation of authority in solving administrative and other affairs among administrative bodies and inside them;
- Prepare new organizational regulations, which will regulate internal operations and the implementation of business processes of State Bodies within the framework of e-government;
- Analyze in detail all (action and other) administrative procedures and processes and renovate them in accordance with defined starting points and principles of development of e-government, and the possibilities that information technology can offer;
- Develop classifications and nomenclature for business processes, administrative procedures and documents, services, life situations, etc., and standardize them;
- Develop a Register of Procedures and Documents as the central building block of future operations of e-government;
- Develop a Catalogue of Life Situations as a result of upgrading the Register of Procedures and Documents;
- Develop (or adopt) metrics for monitoring and measuring the efficiency of the work of administrative bodies;
- Develop a strategy for the transition of "classical" e-government from the aspect of optimal utilization of work of administrative bodies;
- Develop a strategy for training employees for working with new information solutions (for e-services).

### 3. BPR, CPI and E-business

BPR is an organizational method demanding radical redesign of business processes in order to achieve better efficiency, quality and more competitive production (Hammer and Champy 1993). It is also a method of improving the operation and therefore the outputs of organization (Kettinger and Grover 1995). It means analyzing and altering the business processes of the organization as a whole. BPR was first introduced in a research program at MIT (Massachusetts Institute of Technology) in the early nineties. The term was used in the description of Davenport and Short's 1990-research project (Davenport and Short, 1990). They found out that the implementation of modern information technology in organizations means not only automation of managerial and production tasks but also has an enormous and direct effect on the means and quality of the work done. Many leading organizations have conducted BPR in order to improve productivity and gain competitive advantage. A study by Dhaliwal (1999) showed that about 50% of firms surveyed in Singapore (in some cases comparable to Slovenia) were engaged in BPR projects, with 37% of the firms indicated their intention to take up BPR projects in next few years. However, regardless of the number of companies involved in re-engineering, the rate of failure in re-engineering projects is over 50% (Hammer and Champy 1993). Some of the frequently mentioned problems related to BPR include the inability to accurately predict the outcome of a radical change, difficulty in capturing existing processes in a structured way, shortage of creativity in process redesign, the level of costs incurred by implementing the new process, or inability to recognize the dynamic nature of the processes.

On the other hand CPI integrates methods such as industrial engineering, systems analysis and design, socio-technical design and total quality management (Davenport, 1993), (Galliers 1998). Continuous improvement refers to programs and initiatives that emphasize incremental improvement in work processes and outputs over an open-ended period of time (Davenport, 1995). Several researchers suggest that using CPI techniques increases dramatic gains, TQM is particularly suggested to be integrated with BPR (Al-Mashari and Zairi 1999).

For a thorough and effective renovation project, organizations should first meet certain conditions before starting such a project. First, organizations should abandon all the obsolete rules and procedures that have been used up to that time. Breaking rules is how we recommend that people learn to think inductively about technology during the reengineering process (Hammer and Champy 1993). Application of Information Technology (IT) can break old rules that limit the manner in which work is performed (some typical examples are given in Turban et al. (1998)). In addition they should abandon other inadequate organizational and production principles (Kelly, 1998). Global competition, economic downturn, and the potential offered by emerging technologies are pushing organizations to fundamentally rethink their business processes (Kalkota and Robinson 1999). At this point, the design of a renovated and redesigned organization should start.

Business renovation has gone through a number of eras and different orientations in the last fifteen years (Figure 1), yet it continues to make steady progress in terms of adoption and the value it provides.

\*\* Fig. 1 \*\*

BR business impact and orientation

At the beginning of Total Quality Management (TQM) era work process automation projects were normally influenced by modern information technology and focus on one particular business process, usually within the department or business function. They do not radically change any existing procedures but merely automate existing procedures. In such cases (applying technology) the focus of the renovation was narrow; only the limited procedures of the particular process were changed.

It should be pointed out that the higher level of procedures' automation brings more or less negative results. Even if some of the achievements of such actions are positive, they prevent the managers from seeing all the opportunities offered by the informatization of a redesigned business process and an infrastructure role of informatics. Radical process innovation was encouraged by some quality experts (Davenport 1993). There is a natural process improvement sequence that occurs as organizations apply TQM to their work. Watson (1994) suggests the elimination sequence procedure. He stated that most problems could be attacked through the application of the basic quality tools of problem solving and quality improvement processes before there is a need to automate work processes or seek IT intensive solutions.

BPR was the buzzword of the mid-1990s, and although there were plenty of successes, there were many more failures (Hammer and Champy 1993). To many, BPR remains a dirty word, bringing back memories of head count reductions, budget cuts, facility closures, expensive consulting engagements and endless reorganizations that destroyed morale and confused employees, partners and customers. By the time it was recognized that successful BPR required careful change management, the damage was done. The BPR craze encouraged organizations to focus on internal process and internal (mostly transactional) ERP applications. Today, the e-business craze has reinvigorated interest in process, this time on a grander scale that spans organizations. The difficulties of formulating and adopting new process, a lack of cooperation between vendors, and the sheer difficulty of interorganizational coordination will likely lead to yet another era: the era of e-business.

### ***3.1. E-business models***

E-business era dramatically and strategically change traditional business models. Direct access to information and their quick and cost-effective global reach enables radical changes in all economic sectors and changes in companies of all sizes and business activities. Reach and richness of information over open network infrastructure gradually expand organization's boundaries towards extended organizations and strategic alliances with modular or networked structure. Kalakota and Robinson (1999) stated that 'the ability to streamline the structure, influence and control of the flow of information is dramatically more powerful and cost-effective than moving and manufacturing physical products'. Companies of all sizes adopt e-business infrastructure and redefine own value chain to value network, converging to new business models.

E-business infrastructure represents the share of total economic infrastructure used to support electronic business processes and conduct electronic commerce transactions. E-business infrastructure includes hardware, software, telecommunication network, support services and human capital used in electronic business and commerce. Major features and value drivers of e-business infrastructure are: cost leadership, total customer service and emerging new business models. Strategy has always relied on cost differentials and e-business infrastructure has enormous cost leadership potentials. For example, the cost of an Internet-based banking transaction is about one-fiftieth to one-hundredth of the cost of a human teller transaction. Another feature of e-business is multiplication of electronic transactions and additional e-business processes which support existing business model. Additional e-business processes offer complementary products and services to customers. Total customer service is offered through value network partnerships using Internet as business channel.

Let's consider total customer service and additional e-business processes through a simple example of an on-line retail book purchase: customer logs on his computer, access particular Internet site, choose a specific title, pays it with his credit card and choose delivery options. Additional e-business process involve electronic marketing to reach customer, electronic search to find a title, virtual community issues (suggestions, opinions, reviews), electronic procurement and payment, electronic authentication of credit card, electronic support for delivery, electronic customer support. These processes are conducted over network infrastructure and they involve multiple e-commerce transactions with many parties, where some play multiple roles. So, e-business model blocks are building across capabilities and add value activities for all participants and final customer.

E-business solutions means abandoning chain and linear structure of value creation and focusing on value network structure which organization builds together with their partners, customers and suppliers. So, business strategy is building across information flow and value creation flow, which means that technology, becomes key driver of business strategy. 'Technology is no longer an afterthought in forming business strategy, but the actual cause and driver' (Kalkota and Robinson 1999). For every organization, no matter of business activity or size, e-business offers cost reducing opportunities and value-adding activities through total customer service, but key value add driver is in change of existing and creation of new business model.

Traditional companies from 'old economy' urgently need to build on and re-evaluate their current business models and create new ones. So, e-business initiatives have truly strategic imperatives: creating totally different business model. An e-business model generally means the adoption of organization's current business model to Internet economy. Main purpose of developing and analyzing business models is to found revenue and value generators inside reversible value chain, or business model's value network. Traditional business models were (and still are) quite a simple. Thanks to technology revolution and convergence, Internet economy dramatically increases the number and combinations of possible business models and creates new hybrid models.

There have been number of attempts to formally describe and classified a business model for e-business era. Venkatraman and Henderson (1998) define a business model as a coordinated plan to design strategy along three vectors: customer interaction, asset configuration and knowledge leverage (Venkatraman 2000). Some authors (Bosilj-Vuksic et al. 2001) relates the high capitalization of Internet companies to new business models. Other definitions rely on business models revenue and value potential.

Timmers (1998) defines business model as 'an architecture for the product, service and information flows, including a description of the various business actors, their roles, potential benefits and sources of revenues for the model'. Timmers identifies eleven business models (e-shop, e-procurement, e-mall, e-auction, trust services, info brokerage, value chain service provider, virtual community, collaboration platform, third party marketplace and value chain integrator) that are currently in use or being experimented and classified them along two dimensions: degree of innovation and functional innovation. Some propose that firm's business model is an important locus of innovation and crucial source of value creation and define business model as 'architectural configuration of the components of transactions design to exploit business opportunities'. It describes the ways in which organization enables transaction that create value for all participants. They also describe a revenue model through combination of subscription fees, advertising fees and various transactional incomes. They offered nine business models: brokerage, advertising, infomediary, merchant, manufacturer, affiliate, community, subscription and utility with a number of revenue models: transaction fees, percentage of sale, set-up fee, fee per transaction, advertising fees and others (Bosilj-Vuksic et al. 2001).

Mahadevan (2000) brings logistic streams into consideration and defines business model around three dimensions that are critical to business: value stream, revenue stream and logistic stream. The value stream identifies value proposition for business partners, buyers, sellers, market makers and portal. The revenue stream is a plan for assuring revenue generation and the logical stream are related to the supply chain design for the business. Mahadevan sees overall market space broader and divide it into three structures: portals, market makers, and product/service providers, all of them separated into business to business (B2B) or business to customer (B2C) segments.

E-business models offered major organizational changes, from internal modes of process-based structures to external modes of partnership-alliance based organization structures. Despite lack of e-business model theory, e-business models differ from its theoretical strategic antecedents. Product value chain model follows product flow through an organization, while business model describes steps needed to complete a transaction. Value chain concept is mainly concerned with adding value in the production of a product, while the business model value adding perspectives include all the participants to transaction, including suppliers, partners, strategic-alliances and final consumers. Business model concept applies to both on-line and off-line businesses but their strategic analysis importance stated as: 'the unit of strategic analysis has moved from single organization to business model - an enhanced network of traditional suppliers, manufacturers, partners, investors and customers' (Bosilj-Vuksic et al. 2001).

#### **4. Business Renovation Project at the Ministry of Education, Science and Sport**

Ministry of Education, Science and Sport (Ministry) was founded by integration of two ministries, Ministry of Education and Sport and Ministry of Science and Technology. At the Ministry was found out that their business processes are not well defined, many activities are duplicated and performed to slowly. The Ministry also has very inefficient information system that is not suitable for introduction of e-government services.

Slovenian government also started anti-bureaucratic program that was an additional reason for starting BPR project at the Ministry. The goal of the project is, according to Action Plan E-government Up to 2004 (Government Centre for Informatics, 2001), to remove inefficiencies in business processes, to change organizational structure and to introduce suitable information technology that will support renewed business processes. The project has three main phases:

- Identification of key business processes and their modelling;
- Analysis of key business processes on the basis of their models;
- Modelling renewed processes and proposing organizational changes.

The project started with formation of project group (Figure 2) consisted by members from the Ministry and consultants from Business Informatics Institute (BII), Faculty of Economics, Ljubljana. Then we prepared a

workshop for Ministry project group in which they were acquainted with project goals and the methodology. After the workshop, five key business process groups were identified by discussion and brainstorming:

- (1) Strategic planning;
- (2) Working program preparation;
- (3) Laws and provisions preparation;
- (4) Financial processes;
- (5) Administrative processes.

**\*\* Fig. 2 \*\***

Project Group

The processes were modelled by interviewing people from Ministry (Figure 3) who perform the activities. This phase of the project was very difficult and demanded almost six months. Models had to be changed several times. Another problem was obtaining actual time of performing activities, because people often exaggerated.

When all five key processes were modelled, we started with their analysis. Many inefficiencies were found out by observing the models. We also performed several simulations to find out the actual time needed to carry out business processes.

**\*\* Fig. 3 \*\***

Organizational Chart of the Ministry

#### ***4.1 Administrative processes***

The administrative processes group includes some of the most frequently executed processes and are therefore very interesting for a detailed examination and analysis in the BPR and informatization project as significant improvements in efficiency can be expected.

This group consists of more than 30 processes, however some of them are of the same type, but for different areas (e.g. elementary schools, high schools, universities) and therefore their substantial activities are executed in different departments.

Also, most of the administrative processes that are not of the same type have at the high level of abstraction similar typical structure. The structure of these processes is shown on the Figure 4.

**\*\* Fig. 4 \*\***

Typical Structure of the Administrative Processes

One might think that the way the similar processes are carried out is unified. However, in the analysis we have observed several differences in:

- The way how an application can be handed in. For some processes offices/services accept applications that are personally and directly handed in and not via the dispatch centre. This causes several problems and mistakes later in the process with keeping the record of the matter. Moreover the procedure is not always in accordance with the Regulation for the office operation;
- The way how the formal and substantial examination of the application is performed. In some cases both examinations are done at the same time, and in some cases separately, which can lead to two separate completion requirements. Where the application can be personally directly handed in it is sometimes checked immediately at the acceptance time;
- The way in which the parties are informed about the completion requirement: in the written form, by telephone, or sometimes via e-mail. It is clear that in different offices/services do not understand the regulations in the same way;
- Who signs the decision statement? For most of the processes this is the Minister. This requirement is the main source of delay for most of the processes (from a few days up to a several weeks) as the Minister has high workload and is for some process owners at a distant location. Even worse is that this signature by the

Minister is mostly of a formal nature. Only in few cases there are authorized officers in the offices/services that are the owners of the processes;

- Where the folder of a matter is deposited. The archives are of three different types: in the dispatch center, personal archives, and archives at the offices/services.

The substantial part of the most processes is carried out in the General Affairs and Human Resource Service, and of quite a few processes in the Sports Office. There are two views and opinions where the substantial part of the processes should be carried out:

- One opinion is that the substantial part is knowledge intensive and that the related activities should therefore be carried out by the offices of the appropriate area (e.g. primary education, science);
- The second view considers the General Affairs and Human Resources Service as the organizational unit that is specialized in the administrative procedures and should therefore carry out the main parts of administrative processes.

In practice ownership of the processes is assigned more or less by the principle of the least workload in offices and services. There are also historical reasons (integration of two ministries) for some of the ownership assignments. However it has to be noticed that in the case of administrative processes the ownership of the processes is well defined.

Several other inefficiencies and problems were observed in the analysis:

- Ministry is physically located at several distant locations, which is one of the reasons for the delays in the processes, as the documentation has to be transferred between the locations several times;
- The rate of incomplete applications is very high for some processes (even as high as 90%). The reason for this might be insufficient information about the required documentation attached to the application form and about the procedure itself. In some cases it is difficult to define the required documentation before the application is professionally examined;
- Keeping of records about the matters is not unified and sufficient. Records about applications from the dispatch centre are not available to the other units for follow-up. Records are sometimes in written form and duplicated;
- There is no workflow system.

In the first phase of the analysis we have examined some processes with the highest application frequency in more details. One of them is "Promotion of the employees in education to a higher professional title" which has about 2500 applications per year. The rate of complete application is 60%, after the completion of incomplete application this rate is 80%. The owner of this process is the General Affairs and Human Resource Service, where the application is professionally executed by four officers. The applications are always accepted only in dispatch centre. The application state is recorded four times, always twice: manually and using a computer program. The Minister signs the decision statement.

The simulation of the process that we have carried out showed that the mean execution time for one application is 49 days. The effective work time is less than one day. The rest of the time is the delay in the process (signing, transfers of documentation, waiting for the completion of the application etc.).

#### **4.2 Financial Processes**

One of the identified key business processes group were financial processes. They represent the backbone of the overall activities of the Ministry. Through financial processes, sufficient funding is provided for developing educational, science, sport policies as well as international cooperation. In other terms, financial processes are present through overall organizational structure of the Ministry. All the financial processes start in the departments that cover specific filed of the Ministry (i.e. Pre-School and Primary Education Office). The processes flow through the departments and at some point enter the Financial Service (Figure 5). The financial processes can be categorized into the following subgroups: budget preparation, budget approval and spending.

The processes start with the budget preparation on the department level. The proposal has to be approved by the Financial Service. After the proposal has been approved, the negotiation between the Ministry, represented by the Financial Service, and the Ministry of Finance start. It is interesting to observe that on the state level, the Financial Service of the Ministry and the Ministry of Finance negotiate on the Ministry's budget as well as its allocation. After the Ministries come to an end of the negotiation process, the Financial Service notifies the departments of the



yearly budget. After the budget has been approved, the spending can occur. The spending subgroup of processes is very complex from the organizational point of view since it is an interaction between the departments and the financial department.

Since financial processes are present through all the organizational structure of the Ministry someone might intuitively think that they are the same in all departments. The analysis showed that they all differ. It is not only the small differences and deviations on the activity level, but there are major discrepancies on the process level. By detecting these discrepancies, the major goal of the project has been identified – the detection and simplification of the processes.

Apart from the discrepancies in the processes, the analysis also showed that the owner of the activities is sometimes not defined. This has been especially detected on the department's organizational borders. Due to lack of the ownership, these activities are major bottlenecks of the financial processes.

**\*\* Fig. 5 \*\***

Schematic View on Financial Processes Flow Inside the Ministry

### **4.3 Discussion**

While working on the project the following key findings were identified:

- Before the informatization the administrative processes should be unified;
- The ownership of the administrative processes should be redefined;
- The administrative processes are insufficiently monitored in terms of keeping records about matters;
- Ownership of the activities in the financial group of processes that are close to the organizational borders should be clearly defined;
- The financial group of processes should be reengineered prior the informatization, since they are present through all the departments and are carried out differently at the present.

The above mentioned key findings indicate that prior to informatization and web presence several aspect should be considered, such as: process reengineering and/or renovation, business process orientation an related organizational changes, business cultural changes etc. This is in line with the previous work of Burke and Peppard (1995) who believe that in business reengineering project is a mix of processes, structure, people, culture, technology should be taken into consideration (see Figure 6).

**\*\* Fig. 6 \*\***

Leavitt's Diamond

### **5. Conclusion**

E-government as a part e-business approach represents a shift in business doctrine since it changes traditional organizational models, business processes, relationships and operational models. The new doctrine of e-government requires an organization to shift towards new business concepts and introduce modern IT by strategic Information System Planning and BPR. The redesign of business processes and implementation of application program solutions can best face the challenges of today's ever-changing business environment. The rapid and constant changes that are very common in today's business environments affect not only business itself, but also its supporting applications. As a result, information systems require constant change, renovation and adaptation to meet actual business needs. At the end we also have to point out some recommendations to Government Leaders. We believe they can embrace the new e-government paradigm only by:

- Creating an environment of technology, enlightenment and receptivity;
- Treat this as a holistic organizational transformation, not a technical issue;
- Challenge your core assumptions and value propositions;
- Proactively establish a distinctive internet presence.

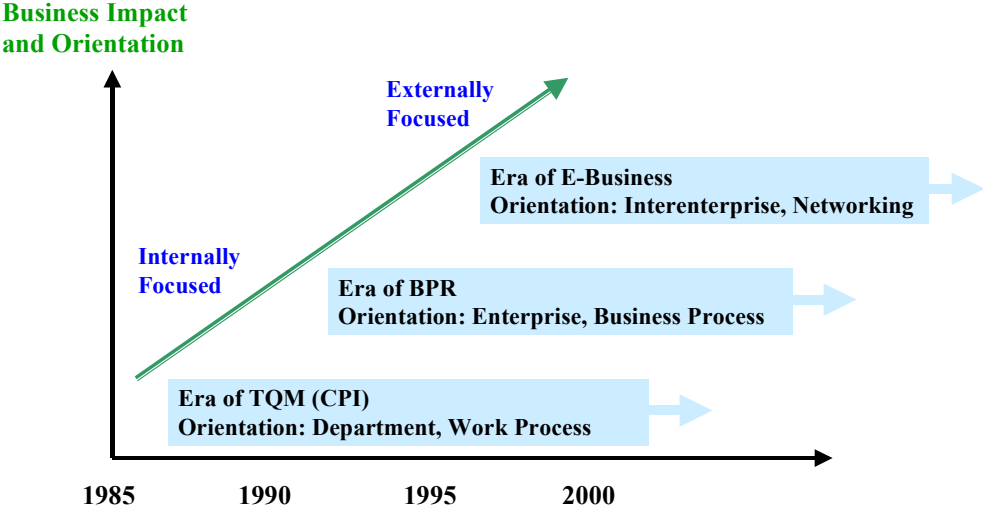
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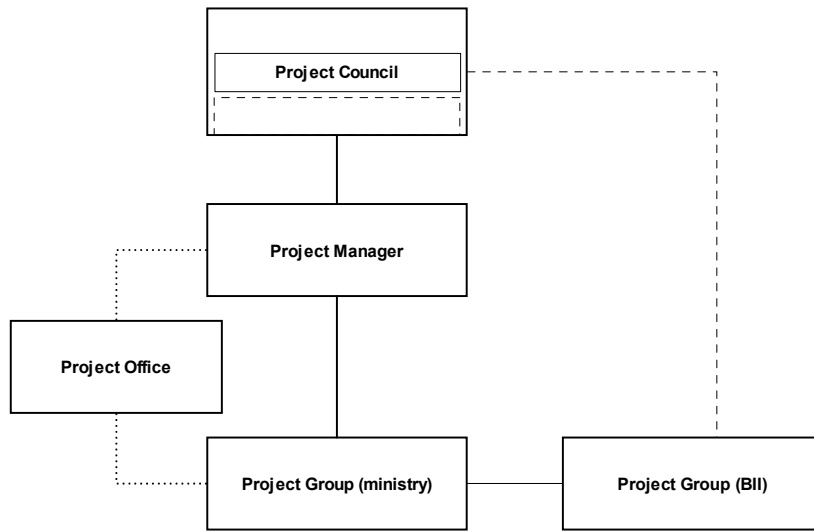
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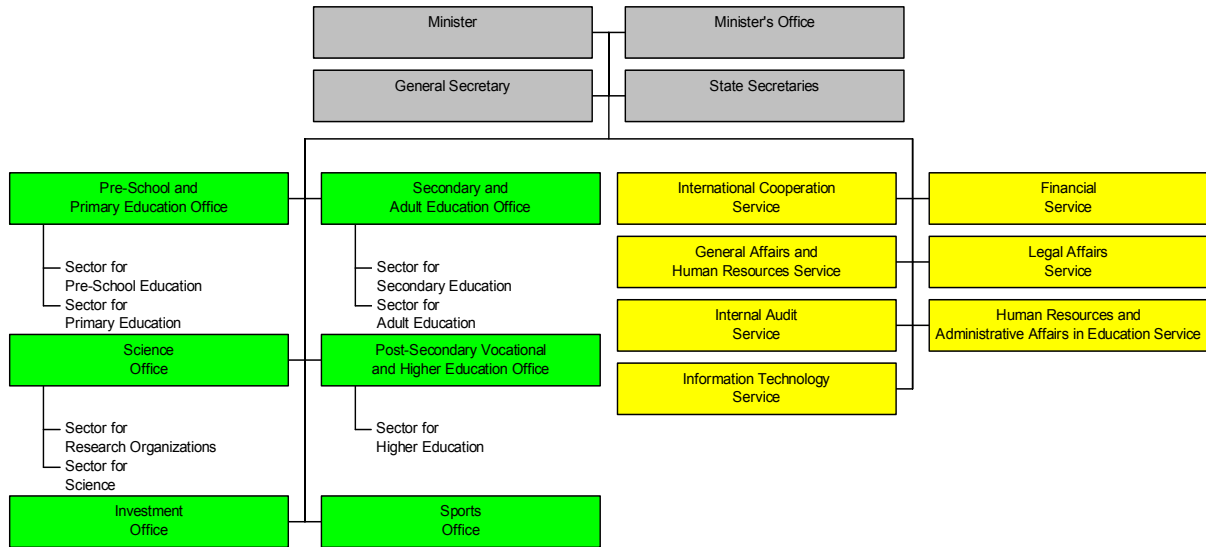
Figure 1: BR Business Impact and Orientation



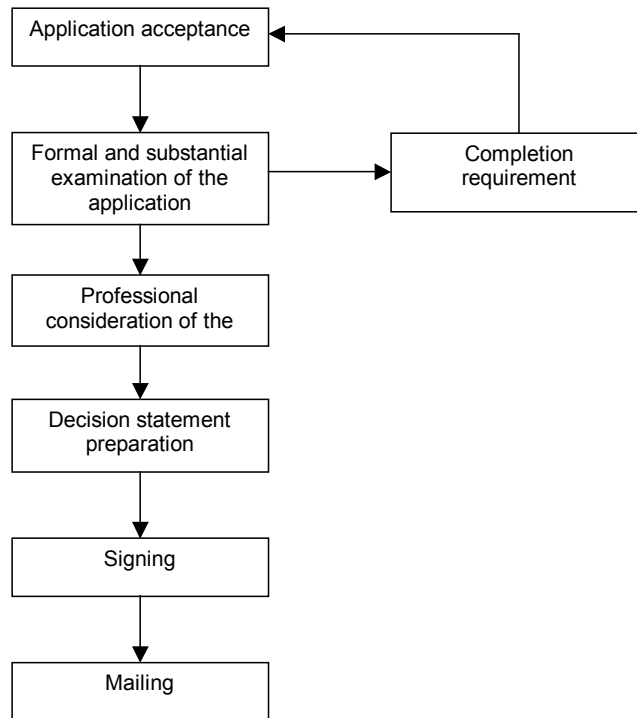
**Figure 2: Project Group**



**Figure 3: Organizational Chart of the Ministry**

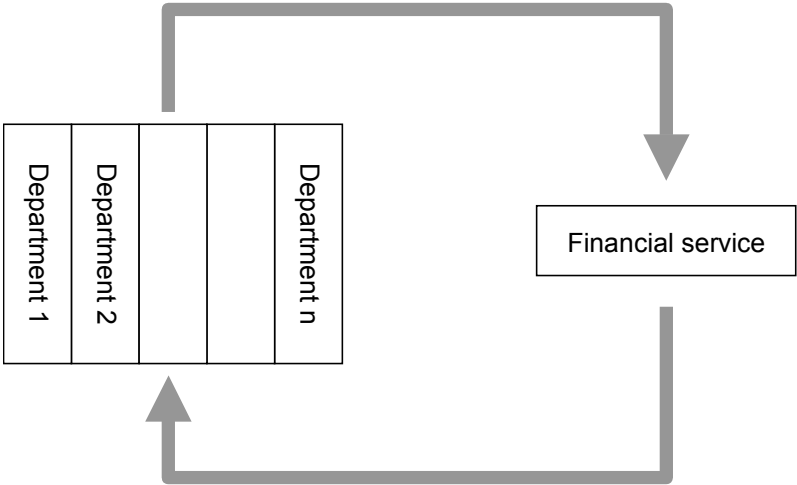


**Figure 4: Typical Structure of the Administrative Processes**





**Figure 5: Schematic View on Financial Processes Flow Inside the Ministry**



**Figure 6: Leavitt's Diamond**

