

Business and ICT Strategies of SAGW Solid Base for Inter Institutional Integration and Data Sharing

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Abstract. Business strategic plan of the State Authority for Geodetic Works (SAGW) followed by three sub strategies aims to trace the safety and sustainable path for better future of the institution, which means improvement of its geodetic, cartographic and cadastral services. Achievement of main business strategic goals of SAGW were supported by preparing of ICT strategic plan based on MIT strategic alignment model, where the future of institution was mapped as organization with fully implemented modern ICT systems related to its responsibilities.

Business and ICT strategic plans were prepared based on real user requirements, contemporary trends and current situation within the institution, scientific trends and market. Six strategic goals followed by twelve ICT projects would transform SAGW in to a modern governmental institution providing digital geospatial information according to international standards ISO, INSPIRE, CADASTRE 2014, OGC ect. This could be observed as solid bases for a future inter institutional data sharing.

Keywords: ICT, business strategic plan, ICT strategic plan, MIT strategic alignment model, SAGW.

1 Introduction

Increasing market needs and the accelerating development of the Information and Communication Technologies (ICT) are pushing geodetic, cartographic and cadastral organisations towards organisational changes so they can meet challenging user requirements. In order to achieve their statutory duties, usually given by the law, and be a competitive player on the market field, these organisations should develop and implement adequate business and ICT strategies.

Initially organisational set up should be tailored for doing business in these modern times and with a vision for the future. Applicable model could be: “The MIT Strategic Alignment Model”. Identifying and satisfying user requirements are recognised as a critical success factor, specific attention to this issue has to be dedicated when developing strategies, this can be accomplished by executing appropriate analyses of the ‘user requirements’ - both internal and external users.

Business and ICT strategies should be developed in alignment, based on the results of the analyses of the user requirements. Vision and mission statements, within the strategies, should be clearly stated. The strategies should include actors, factors, and actions chosen to reach a long-term goal, presented in a logical sequence of steps.

Recognising the need for improvement in its performance, State Authority for Geodetic Works (SAGW) - now called Agency for real estate cadastre - approached in development of Business and ICT strategies which would lead to a sustainable organisational development, standardised product and services, and all this will facilitate future data sharing and exchange with other relevant institutions, e-Justice ICT system as well.

2 Improve Organisations Based on MIT Strategic Alignment Model

Like in many other industries, geodetic, cartographic and cadastral organizations search for various methods, models or techniques of doing business to improve their performance. Intensive and efficient use of ICT in every day working activities facilitates organizations to ease and improve their performance in order to meet more demanding user requirements and to facilitate their way towards cost recovery. ICT is more seen as a driver for a change of the today’s businesses and a tool for creating new businesses. One of the models where business and ICT are in alignment and supporting each other in harmony, on strategic and on operational level is the Strategic Alignment Model.

Strategic Alignment Model was originally presented in 1992 at Massachusetts Institute of Technology (MIT) by J. Henderson, J. Thomas and N. Venkatraman. Since 1992 the MIT model was accepted by many different domains ICT depended.

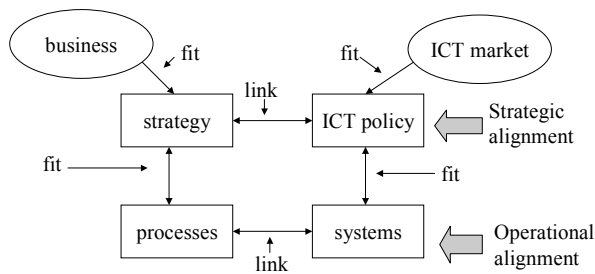


Fig. 1. The MIT model adopted by prof. Molen [1]

The model, termed the Strategic Alignment Model, is defined in terms of four fundamental domains of strategic choice: business strategy, information technology strategy, organizational infrastructure and processes, information technology infrastructure and processes-each with its own underlying dimensions [1].

This model implies that effective and efficient utilization of information technology requires the alignment of IT strategies with business strategies, and reflects the view that business success depends on the linkage of business strategy, information technology strategy, organizational infrastructure and processes, as well as IT infrastructure and processes [2].

The strength of this model lies in its ability to establish a relationship between the strategic and operational aspects of the organization's objectives and its ICT policy [3]. The model gives a good basics and shows on very simple way how a modern organizations business should be set up.

Since 1992 when the MIT model was originally presented, markets become more demanding and expansion of technological and ICT development occurs. Many examples in the different industries but also geodetic, cartographic and cadastral organizations shows that as soon as they recognize the need for aligning their business strategy with ICT strategy both on strategic and operational level sooner they could realize the value and the benefits of investments in adequate ICT domain. Acceptance of this model would provide organizations flexibility to change business strategies where ICT domain would follow, in order to meet more demanding user requirements, in their transition towards cost effective and for achieving efficient solutions [4].

3 Analyses of User Requirements

Efficient and effective performance or doing business of one organization lies down in optimal use of skilled human resources and availability of the well organized and institutionalized technology in order to best identify and meet system and user requirements. Meeting these requirements is becoming a critical success factor and it is more recognized as such by different businesses. Well performing geodetic cartographic and cadastral organizations, worldwide, also consider achieving user requirements as a critical success factor and analyses of these requirements becomes a regular practice in their every day working activities. Dutch Kadaster is very good example regarding this issue. Last survey conduct by Dutch Kadaster, examining user's wishes on information, showed that customers would like: digital, up to date, reliable and legal certainty, complete, rapidly accessible, tailor made and quality assured information [5].

A land administration system is in part an administrative system that must meet the needs of good government. It must also address the requirements of non-governmental institutions and the general public. Before altering an existing system or introducing a new one, it is essential that the requirements of those who will use or benefit from the system are clearly identified [6].

Recognized accomplishment of the ‘user requirements’ as a critical success factor, it is one of the main elements of this study too. Specific attention should be put on analyzing user requirements in the period of development of business and ICT strategies and in regular working activities of particular geodetic, cartographic and cadastral organizations. Internal and external users should be analyzed with respected relevance within their own domain.

Results from the analyses of user requirements - current and possible future requirements - should be used as an important input while practically developing business and ICT strategy for a geodetic, cartographic and cadastral organization. In the paper [7] more details about the methodology, technique, interviews, template questionnaires and practical analyses of the user requirements could be found.

Meeting user requirements - a critical success factor - is becoming a bigger challenge for all business. Organizations which succeed in this are more efficient in their performance, their products and services are increasingly demanded which gives them opportunities for improvements and further development. Follow the motto: *Learn from the users what to do and how to do it* [7].

4 Developing Business and ICT Strategies

One of the definitions for the term strategy in the literature is: Strategy, it is a course of actions involving logical combination of actors, factors, and action chosen to reach a long-term goal or vision. Strategy incorporates a logical sequence of steps [8].

A strategy can also be defined as description of the path from the ‘As-Is’ situation where particular organization or domain currently is, to the ‘To-Be’ situation or desired improved future state.

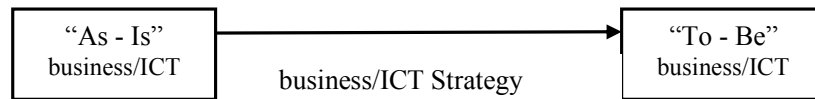


Fig. 2. Strategy – description of the path from “As-Is” to the “To-Be” situation

It is required to have a clear picture of the ‘To-Be’ situation – business/ICT situation – for better determining the directions and the way how to accomplish the desired future. It would determine in which direction improvements and development of business and ICT within the organization should go. Defining the ‘To-Be’ situation should be based on the good overview of the “As-IS” business/ICT situation and knowing the possibilities that technology and standards are offering nowadays and future developments in this domains. Another important input would be the results from the analyses of the user requirements, both internal and external. Also lessons learned or ‘Good Practices’ from similar organizations from other countries could be helpful while formulating vision statements [9].

Business and ICT strategies should be developed in alignment, based on the results of the analyses of the user requirements. A strategy has to contain and start with a vision and mission statements. It is recommended that these statements are clearly

