Developments of the State Authority for Geodetic Works from IT perspective



Todorovski Dimo Republic of Macedonia



State Authority for Geodetic Works



- § registering ownership rights
- § survey and cadastre
- § cadastral and topographic maps
- § c.a. 900 employees
- § main office and 30 local offices
- § budget €4 mill; €2.5 mill. revenues





IT Background

- § CIS application from 1980
- § IT department
- § digital maps: 15%
- § IT resources
- § products/services only given by law
- § projects ongoing
- § IT not recognized as a discipline





As-Is IT in SAGW

- § Hardware and Software
- § communications
- § human resources





On going projects in SAGW



- § e-Cadastre
- § JICA project
- § Real Estate Cadastre project funded by the World Bank
- § SIDA project





IT Strategies



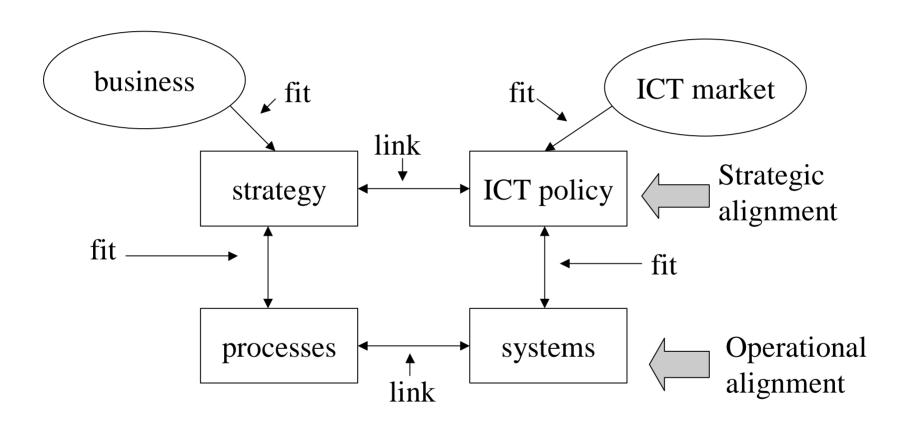
- § 2004 within PHRD project
- § 2006 ICT strategy for SAGW (MSc Theses)
 - S Currently: work group within SAGW for ICT Strategy





Strategic Alignment Model





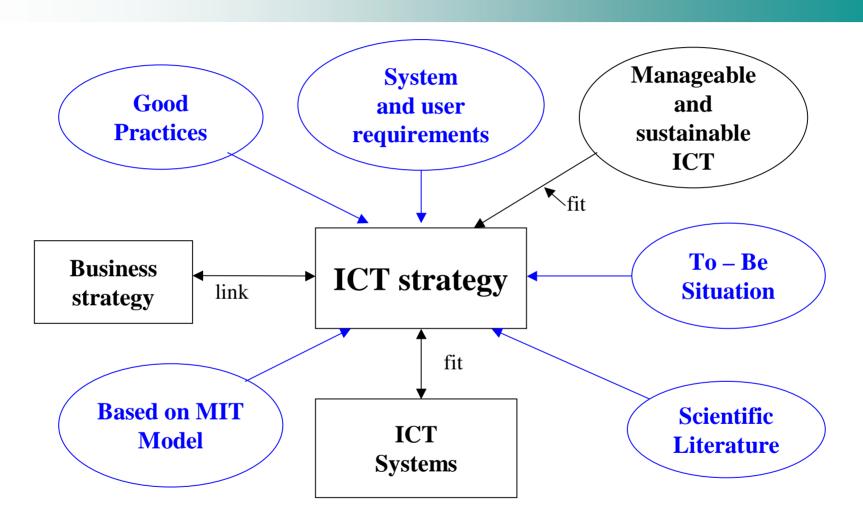
The MIT Model adopted by prof. v.d. Molen (Henderson and Venkaterman, 1993)







Conceptual framework for ICT strategy







Analyses of User Requirements



- § internal users
- § external users
- § list of user requirements

SWOT analyses

- § business domain
- § ICT domain
- § formulation of alternative strategic choices





ICT strategy for SAGW

Vision: 'To-Be' situation for SAGW from ICT perspective

- § business
- § business processes
- § ICT policy
- § ICT systems

Step-by-Step approach







Steps to be followed



Step 1a: Strategic business/ICT decision

Step 1b: Strategic ICT decisions

Step 2: DIGITAL DATA CREATION

Step 3: CAPACITY BUILDING















Steps to be followed

Step 4: INSTITUTIONAL REGULATIONS



Step 5: HARDWARE AND SOFTWARE INFRASTRUCTURE FOR THE ICIS



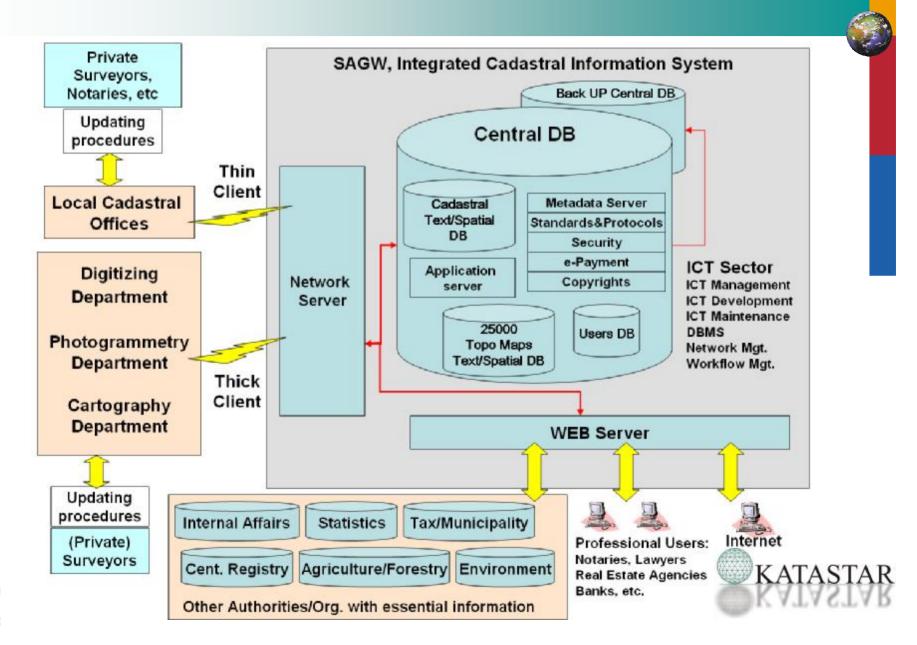
Step 6: DEVELOPMENT OF THE INTEGRATED CIS FOR THE SAGW



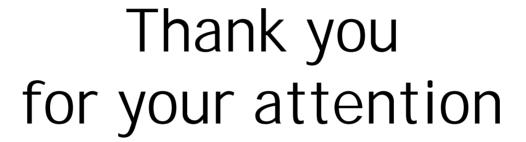




Future ICT infrastructure for SAGW







www.katastar.gov.mk





Step 1: PREPARATIONS



- § transform SAGW towards customer oriented organization
- § revise or develop a new Business strategy
- § promotion and recognition of ICT as a strategic discipline
- § establishment of functional and operable ICT sector
- § appoint a SAGW ICIS Taskforce
- § overview of the current ICT situation
- § list of the current and possible future users of ICIS
- § assessment of the functionality and operability of the e-Cadastre system
- § standards





Step 1a: Strategic business/ICT decision



§ what should be the sustainable content of the digital cadastral maps?





Step 1b: Strategic ICT decisions



- § centralized or decentralized approach for ICT organization
- § thin client or thick client concept





Step 2: DIGITAL DATA CREATION



- § conversion of analogue maps into digital
 - § quality of Digital maps
 - § digital data catalogues and metadata
 - § priority areas for digitizing analogue maps
 - § updating procedures of digital graphical data
- § development of new innovative digital products and services
- § data modeling





Step 3: CAPACITY BUILDING



§ SIDA project





Step 4: INSTITUTIONAL REGULATIONS



- § internal institutional regulations
- § external institutional regulations





Step 5: HARDWARE AND SOFTWARE INFRASTRUCTURE FOR THE ICIS

- § hardware
- § functional network communications
- § software





Step 6: DEVELOPMENT OF THE INTEGRATED CIS FOR THE SAGW

- § ICIS infrastructure
- § DB and DBMS concept of working
- § workflows development
- § workflow management
- § Integrated Cadastral Information System
- § distribution of digital data





