Technological Aspects of Land Administration Systems in the West Balkans

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Serbia

- Turbulent history
- Property records are in poor state
- 70% of apartments not registered
- Rural land transactions often not registered
- Government recognised that effective property registration is prerequisite for economic growth

Real Estate and Cadastre Registration Project in Serbia

- Republic Geodetic Authority (RGZ) is responsible for Cadastre and Land Registry in Serbia
- Focus on both operational development and institutional strengthening
- Preparation phase of the project: legal reform, registration, cadastre, IT, training, finance management and economics, monitoring and evaluation
- Based on user requirements

Business Alignment

- Customer and market orientation
- Costs and revenues will be in balance
- IT Systems will extend continuously
- Computerised data set will increase the demand

Business processes

- Conversion is critical factor for success
- Workflow management
- Performance measurement
- Substantial part of the production by private companies
- Training of employees
**ICT Policy**

- RGZs business will fully depend on ICT
- Alignment business – ICT
- Step by step approach
- Proven technologies
- Sustainable standards
- Mission critical activities will not be outsourced
- Reduction of complexity in existing systems
- Quality, risk and communication management

**ICT Services**

- Continuous availability of ICT services
- Service level agreements
- Concentration of services (step by step)
- Helpdesk

**Conversion Strategy**

1. Data Merge LO => RC
2. Data Replication RC => CO

**Workflow**

- Guides User through all steps in a Job
- Controls the Work Process
- Includes manual- & automated steps

**Registration domains**

- Deeds/Transactions
- Cadastral Register
- Cadastral No:
- F&B Sketch/Book
- Addresses
- Spatial units
- Customers
- ERP, Financial
**ICT domains**

- Data
- Applications
- Users
- Security
- ICT Management
- Infrastructure
- Portal

**Security**

![Security diagram]

**Portal Firewall**

- Personal firewall
- DMZ
- DNS hosting
- Mail server
- Virus scanner
- Remote management
- SSL proxy
- WEB servers
- LAB network
- Corporate intranet

**Network, Cadastral Data Exchange**

- Citizens
- Municipalities
- conveyors
- Conveyors
- Financial institutions
- Municipalities
- Private Surveyors
- Real Estate Agents
- Conveyors
- RGZ
- Citizens
- Utilities
- Real Estate Agents
- Financial institutions

**e-Payment (example NL Cadastre)**

![e-Payment diagram]

**Step by Step Approach**

- Complex
- Time consuming
- Parallel running old and new systems
- Smooth, save, manageable
- Constant learning process for employees
- Can be very well communicated
Organisational Change

- Customers are not interested in the structure of the organisation, customers are interested in quality products and services
- Customers are interested in standardised approaches
- Employees are interested in careers
- Employees are conservative, they should be convinced themselves that changes are needed
- >>Management, user board, user involvement

What is so specific about implementation?

- Involvement of users!
- Start small, think big
- Substantial learning curve, self learning
- No competition, monopolies to be protected? Or citizens to be protected?
- Very difficult to design a complete set of specifications
- Procurements not leading to the best solutions but to extra complexity
- Willingness to change
- Willingness to co-operate: ICT infrastructures only work if there is real co-operation
- Communication with the customers: management of expectations
- Interorganisational workflows lead to delays
- 100%-quality requirements ... scale 1:0,5... or correct legal attributes
- Technology is available, the volume of data is big
- Links with ERP, CRM, etc
- Building infrastructures takes a generation

Message

- It is very easy to make things very complex, it is very complex to make it easy
- The government is there for the people, not the other way around

Recommendations

- Appoint task force
- Inventory of existing IT facilities
- Relate RGZ employees to domains
- Develop standards
- Regulate ICT management
- Incremental implementation
- Do not outsource mission critical ICT management
- Introduce workflow management
- Install standardised hardware
- Production db regional, information supply central

Thank You

Big Bang Approach

- Easy to implement
- Long period of preparations, introduction to customers and employees
- Intensive testing
- Replace old by new, no parallel running
- Fast, less costly (may be...; risk is in the time short after implementation)
- Carefull planning