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KOMMUNIKATSIOONI-  
MINISTEERIUM

# e-government: The Art of Shifting Paradigms

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## How it all started?

- Year 1880 US census took 8 years to process
- Year 1890 census needed 6 more categories
- Herman Hollerith proposed the solution, where punch-cards were used
- Census data processing took 1 year.
- 1896, the company named International Tabulating Machines was formed
- 1924 it became International Business Machines ..



# Classic Innovation Cycles

- Innovation
- Growth Boom
- Shakeout
- Maturity Boom



## At the beginning .. (Innovation)

- Application of IT technologies on existing bureaucracy processes
- Clearly visible efficiency growth
- Funding (although not large) will be allocated easily
- Mechanistic work labor will be reduced



## Management challenges .. (Innovation)

- No coordinated IT management, every project is isolated attempt to make things better
- Results can be easily defined and progress measured
- Lack of standards and interoperability
- Lot of publicity stunts



# Public Administration challenges .. (Innovation)

- Workforce must be reduced, what makes the entire process unpopular
- Lot of instruments and standards will be created, but everybody wants to do his own
- The process is clearly driven by IT companies and their lobby organizations
- Messages to public consist mostly about “how paper is eliminated and cues shortened”



## And then .. (Growth Boom)

- All institutions will understand, that IT makes life easier and institution popular, so everyone wants to byte a share!
- Separate coordination body will be formed, what shall take care of IT affairs
- State budget will get separate section for IT
- Lot of preaching at public press and conferences
- Processes are still the same as 20 years back ..



## Management challenges .. (Growth Boom)

- IT companies are clearly driving the whole show
- Lack of standards becomes a real problem, so coordinating body starts creating unified data exchange layers and policy
- Although central IT coordination body is in place, all institutions are trying to manage their projects themselves





# Public Administration challenges ..

## (Growth Boom)

- Institutions are trying to separate their IT budget, so they could manage it themselves
- Serious lack of effort and coordination in selling the services to public servants and citizens
- The digital certificates (what are likely introduced at this phase) do not have enough application support and real-world usage
- Local governments are often forgotten and excluded



## SHAKEOUT! .. (Shakeout)

- Central body has lost control over IT affairs, because standards are there and everyone is good in implementing these themselves
- As the IT coordination seems to be more of legislation task, the separate body will be submerged to one of the other ministry (Typically to Ministry of Economic affairs or Ministry of Communications)
- Public administration issues and Knowledge-based economy issues become seriously mixed



## Management challenges .. (Shakeout)

- Besides legislation and EU affairs, the central IT controlling body is meaningless
  - Lack of horizontal power
  - Lack of financial control
- State budget becomes opaque about how the IT money is distributed



# Public administration challenges .. (Shakeout)

- Although the IT is widely used, citizens are starting to question the whole thing, because administration processes and attitudes have not changed
- IT is not that popular any more, so financing is hard to come by
- Public press becomes offensive, because the bubble has burst and zero visibility is provided by government about “what’s next?”



## What's next? .. (Maturity Boom)

- Public administration processes are re-engineered, to exploit all the possible data exchange benefits
- Children are catching up with services and when growing up, start driving the demand curve



## Management challenges .. (Maturity Boom)

- Consolidating financial control
- Consolidating project management control
- Reforming the IT control body to be “IT and Public Administration Processes” office.
- Establishing horizontal powers for controlling body



## Public administration challenges .. (Maturity Boom)

- Extensive administration processes re-engineering is extremely hard to come by
- Creating real-world favorable e-environment for SME's is much more difficult than preaching about the Lisbon strategy and knowledge-based economy
- Making government IT institutions popular, so the skilled staff is willing to work there
- Privacy and security issues



## Current state in Estonia

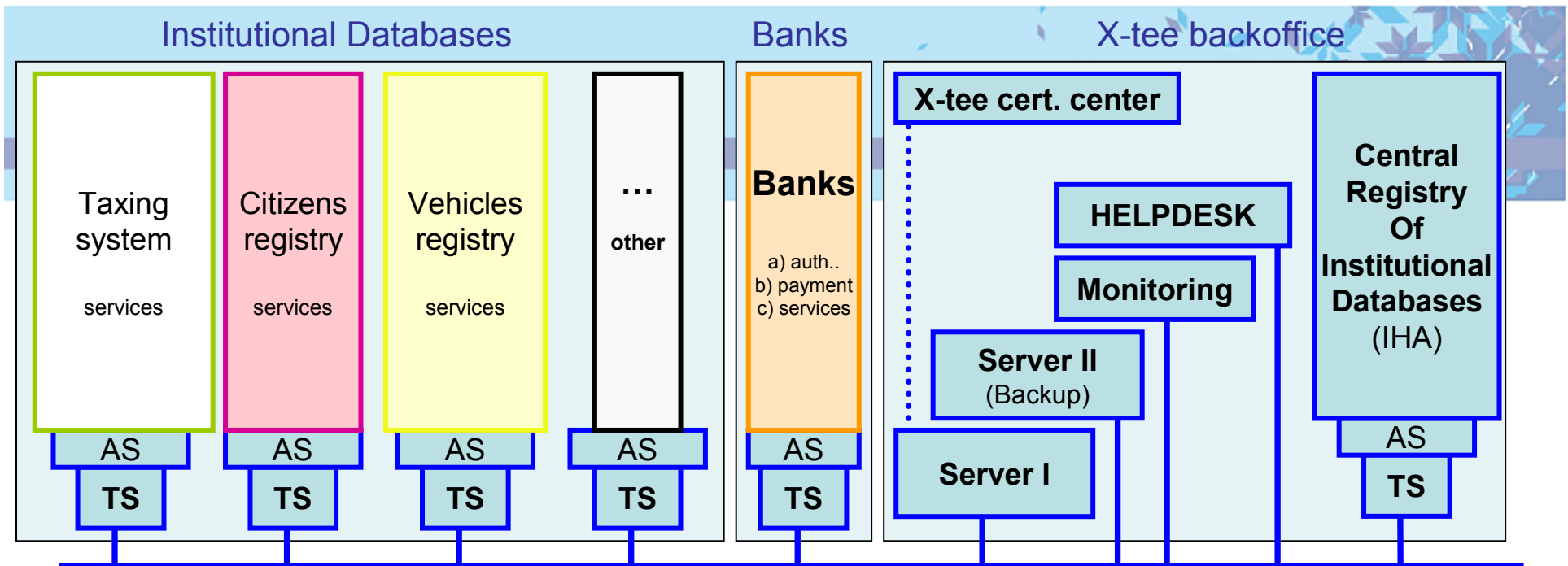
- 1.3 million people
- About 0.6 million PKI ID-Cards issued
- Mandatory digital ID-Card
- Centralized data exchange layer – X-Tee
- About 200 different governmental databases
- Annual IT budget about 19 million EUR
- 80% of banking transactions electronic
- Clearly a transition phase from Shakeout to Maturity





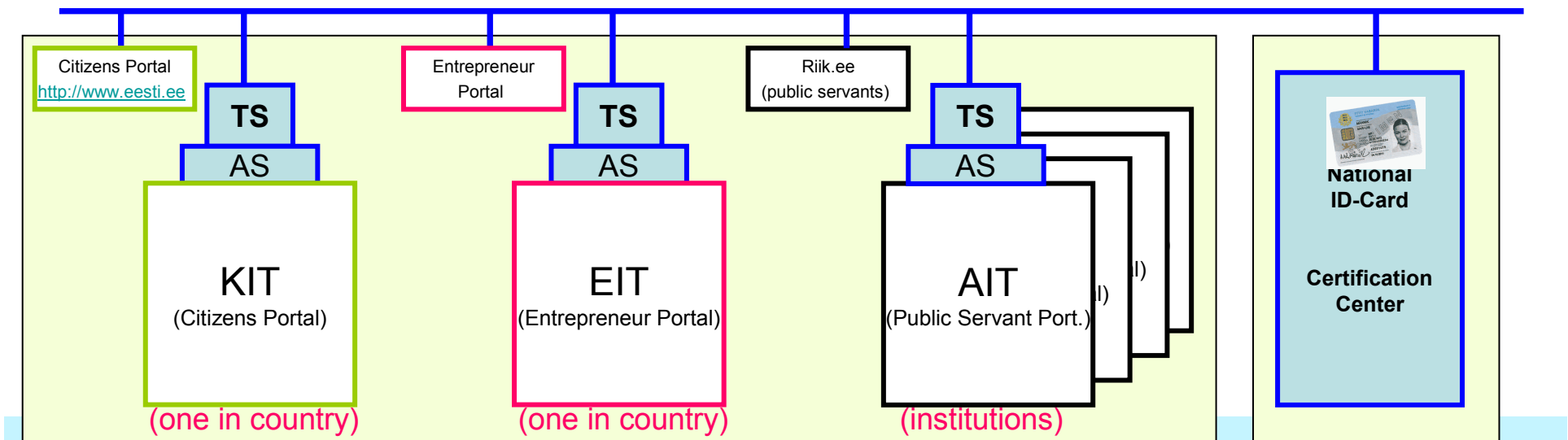
# Principles of current development in Estonia

- Avoid creating services what mimic bureaucracy
- Improve institutional communication, rather than methods of how citizen carries data between administrations
- ID-Card and digital identity is corner stone for interaction with citizens
- Data is used through centralized means of communication: X-Tee (X-roads)
- Coordination revisited



X-tee

(over internet)



Centralized systems developed by Government

Cert. Center



## Benefits

- Very effective data usage – single source of data principle
- Fast and effective deployment of new services through creating different “views” on data
- Well-defined security measures
- Extensive tracking capabilities
- Distributed architecture minimizes risks



## How-To?

- Legislation
- Attitudes
- Acceptance
- Coordination and project management



# Legislation

- Most of the IT legislation is supportive for other acts
- Push towards coordinated efforts
- Push toward more protection and privacy



## Cavities in legislation

- Privacy issues over technological solutions
- Over-regulation
- No mandatory instruments for authorization



## Attitudes

- Many truly innovative projects can be easily killed by hesitation by decision-makers, as “The law says so, so this is the way it shall be!”
- IT companies do not like losing the control on decisionmaking
- Local governments as main sales channel to citizens



## Acceptance

- Privacy enthusiasts are questioning every step
- E-Services must be sold and marketed to citizens as any other goods
- Benefits must be clearly visible to citizen
- Deploy user self-monitoring to avoid unauthorized data usage





## Coordination and project management

- Building e-services shall be IT project, not an initiative. Initiative shall be in re-engineering administration processes
- Money is everything!
- All steps of product development and deployment must be present
- Project documentation
- Central responsibility



## And then .. ? Then next cycle takes over!

- New public administration concepts call for new relation between citizen and country – globalisation at its best!
- Offshore citizenships
- Freedom to work and live whenever on the planet
- This all calls for m-government..!



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**The End**