



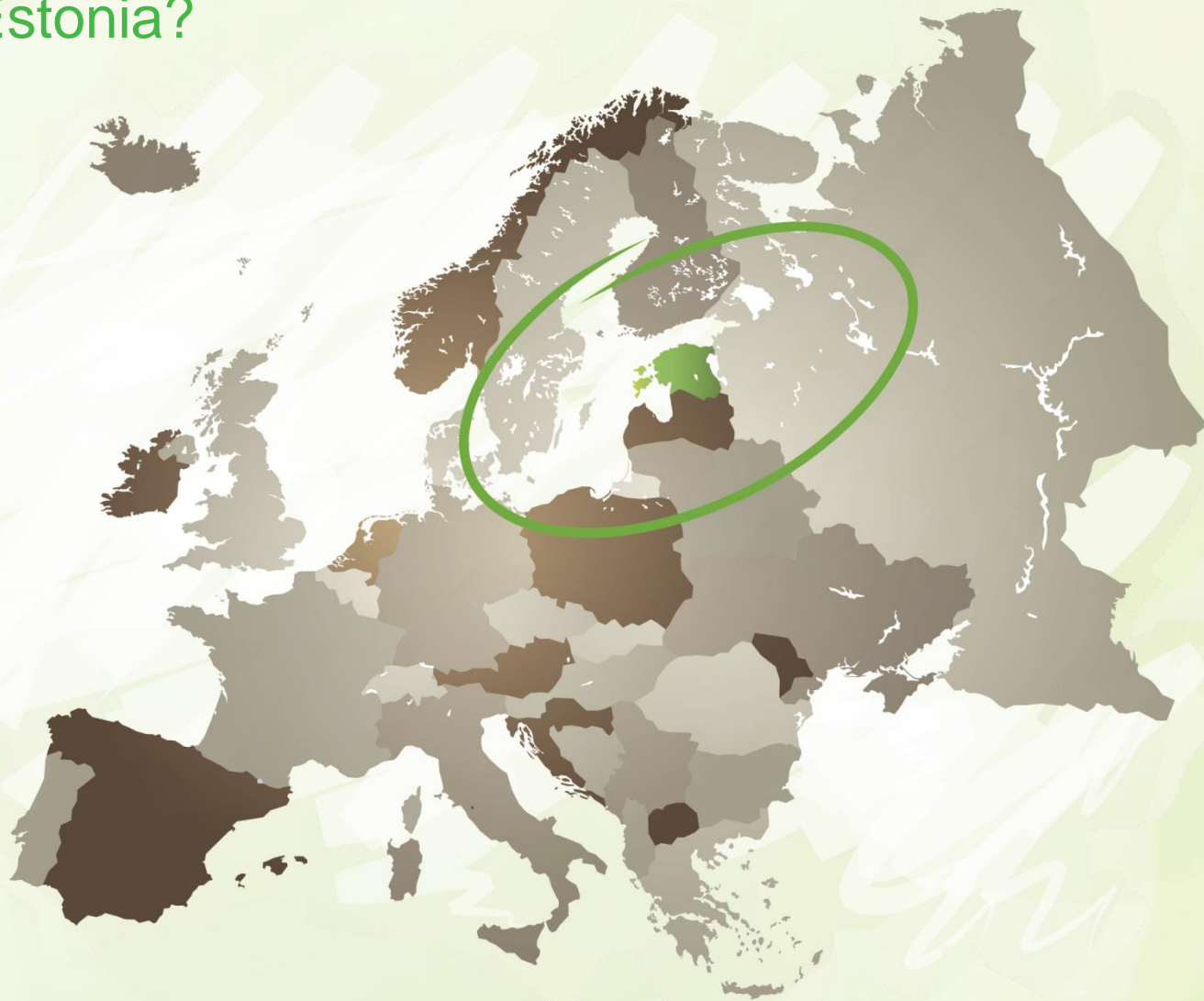
e-Governance Academy

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The Development of e-Governance. Building Blocks and Frameworks: Information Policy, Management and Coordination, Public Key Infrastructure, e-Services

Nele Leosk
November, 25, 2013

Where e-Estonia?




What is e-Governance Acedemy?

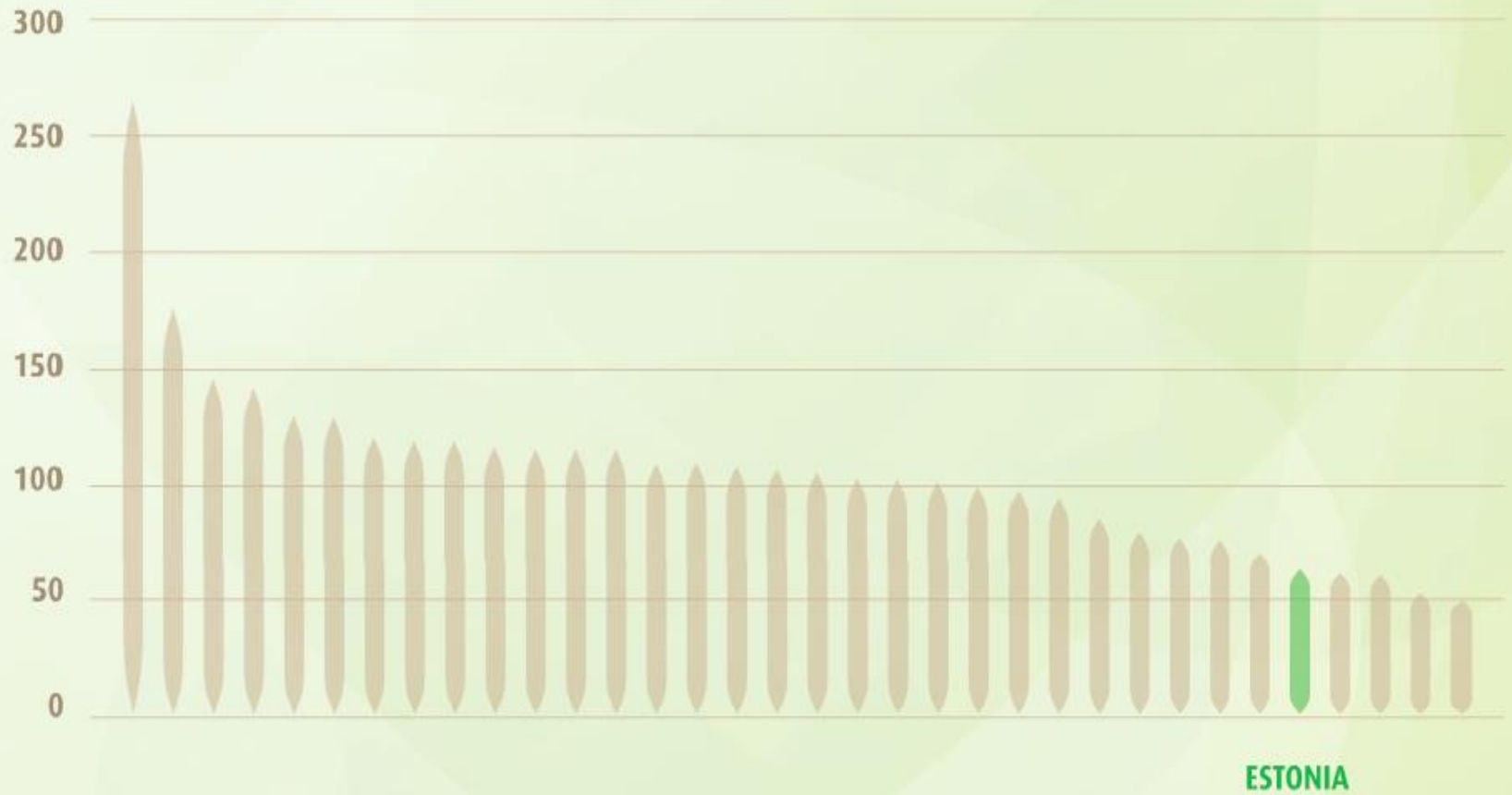
- ✓ Non profit think tank founded for the creation and transfer of knowledge concerning **e-governance, e-democracy and the development of civil society**
- ✓ by OSI, UNDP and Estonian Government in 2002
- ✓ Network-based organisation (national and international experts, practitioners)



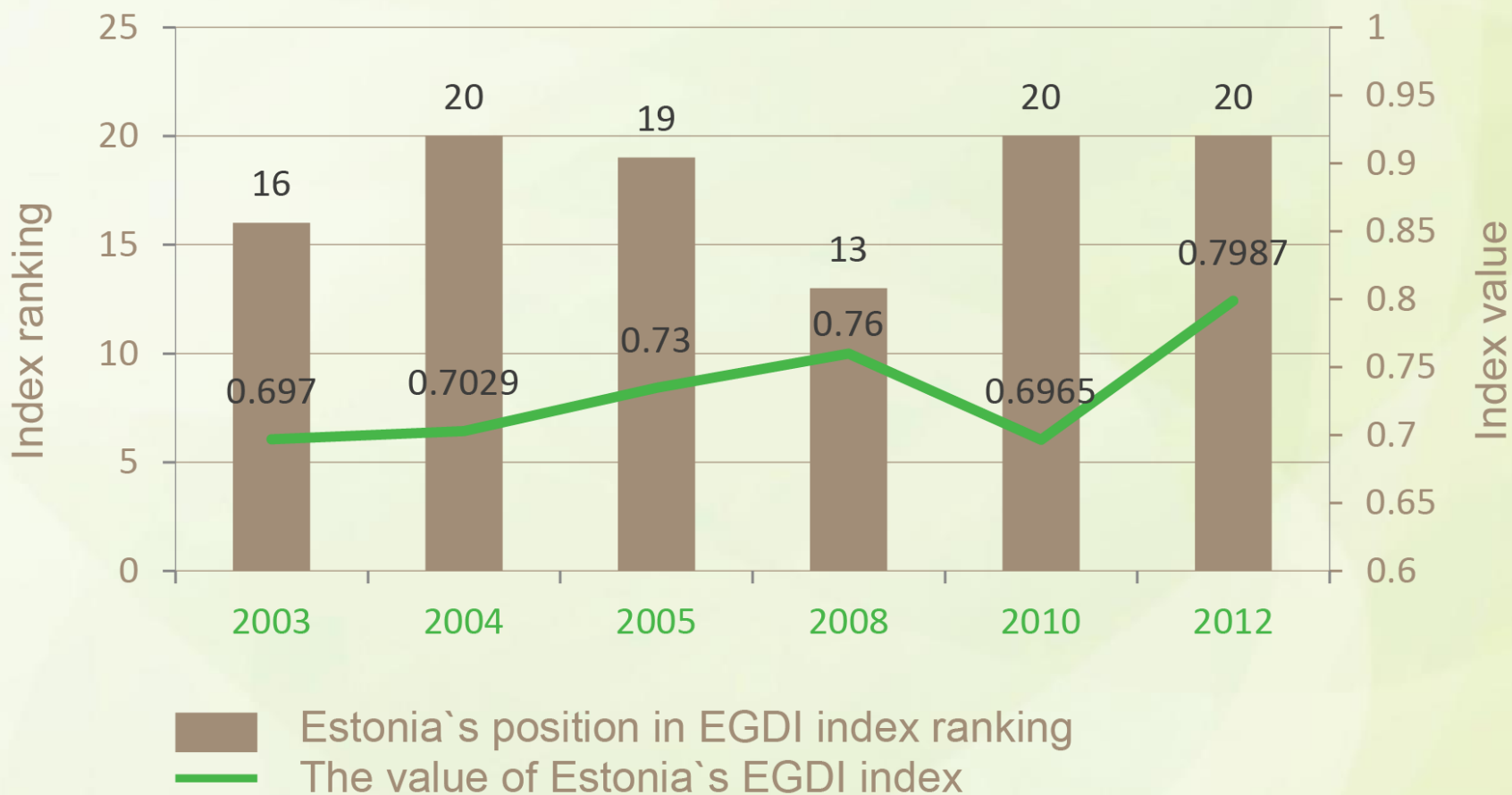
E-Estonia. Why?

- ✓ Internet penetration – 76 %
 - ✓ 98% of under 35's are frequent internet users
 - ✓ Fully functional e-government infrastructure
 - ✓ 9 years experience of complex e-service provision
 - ✓ 92% of Personal Income Tax Declarations submitted on-line
 - ✓ I-voting on all elections since 2005
 - ✓ First ever cyber-riots
 - ✓ „Cradle“ of Skype
- 

GDP per capita



Estonia's position in UN EDGI index in 2003-2012



Source: United Nations E-Government Surveys 2003, 2004, 2005, 2008, 2010, 2012

The comparison of Estonia and top 10 countries in EGDI index in 2010 and 2012


Rank	Country	EGDI (2012)	EGDI (2010) ¹
1	South Korea	0.9283	0.8785 (1.)
2	Holland	0.9125	0.8097 (5.)
3	United Kingdom	0.896	0.8147 (4.)
4	Denmark	0.8889	0.7872 (7.)
5	USA	0.8687	0.8510 (2.)
6	France	0.8635	0.7510 (10.)
7	Sweden	0.8599	0.7474 (12.)
8	Norway	0.8593	0.8020 (6.)
9	Finland	0.8505	0.6967 (19.)
10	Singapore	0.8474	0.7476 (11.)
	Mean of the 10 ten countries	0.8808	
20	Estonia	0.7987	0.6965 (20.)

Source: United Nations E-Government Surveys 2010, 2012

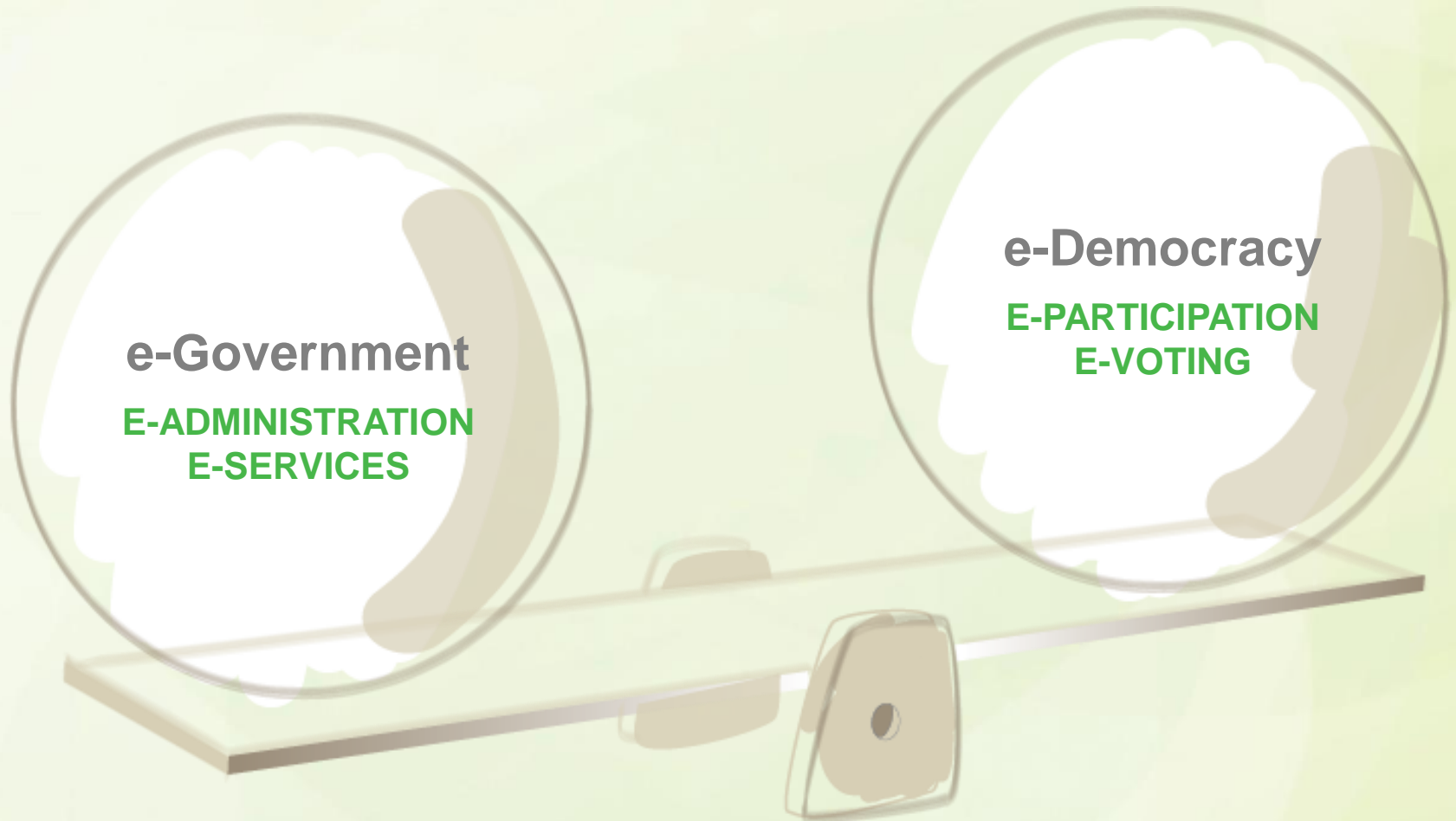
¹The index values (and ranking) can not be taken at face value as in 2012, the methodology was changed a little

How we got there?

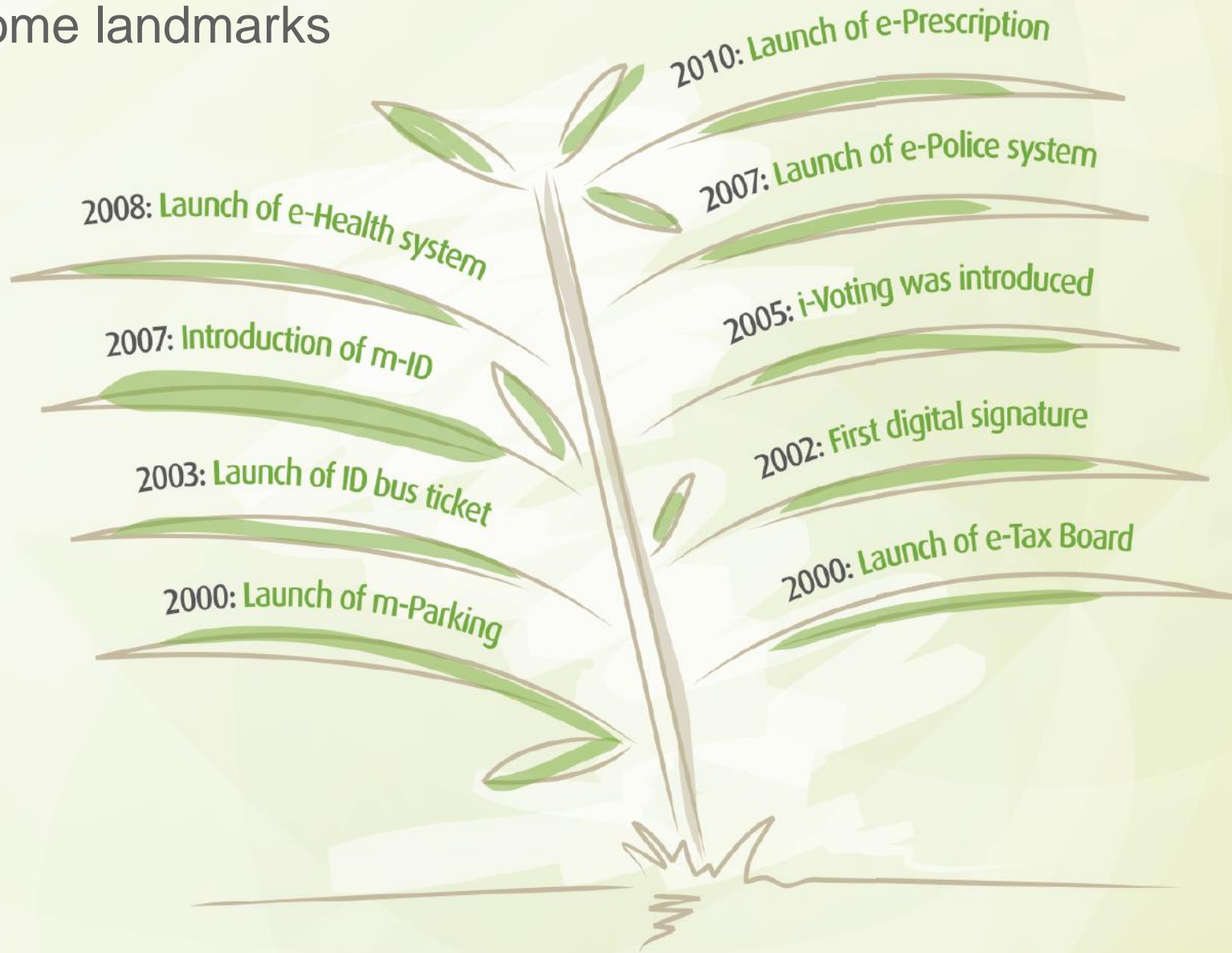
- ✓ 1996: Tiger Leap Foundation to support ICT in schools
 - ✓ 2002: Computer and Internet usage courses for 100 000 citizens - look@world project
 - ✓ 2009/2010: Come Along, computer usage courses for 100 000 citizens

 - ✓ Public-Private Partnership
 - ✓ General consensus, pol. support, guaranteed finances
- 

What is e-governance?



Some landmarks



Examples of e-services: e-declarations

e-Tax board: e-declarations submitted to the tax board



Example of e-services: Parental benefit



18 data requests between

5 information systems

+ calculation

= 7 documents in real life

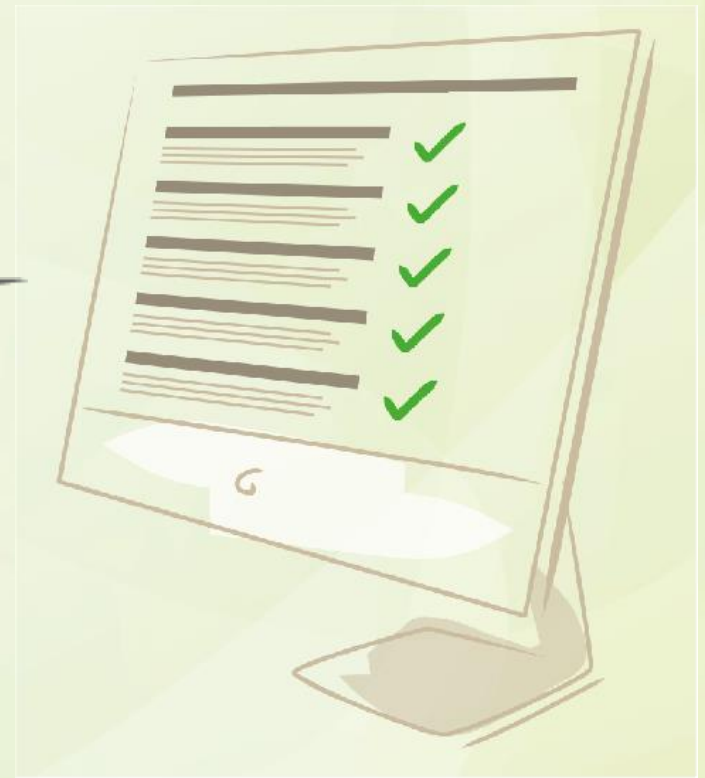
= **3 minutes data input + 1 mouse click**

Example of e-services: New company within 18 minutes

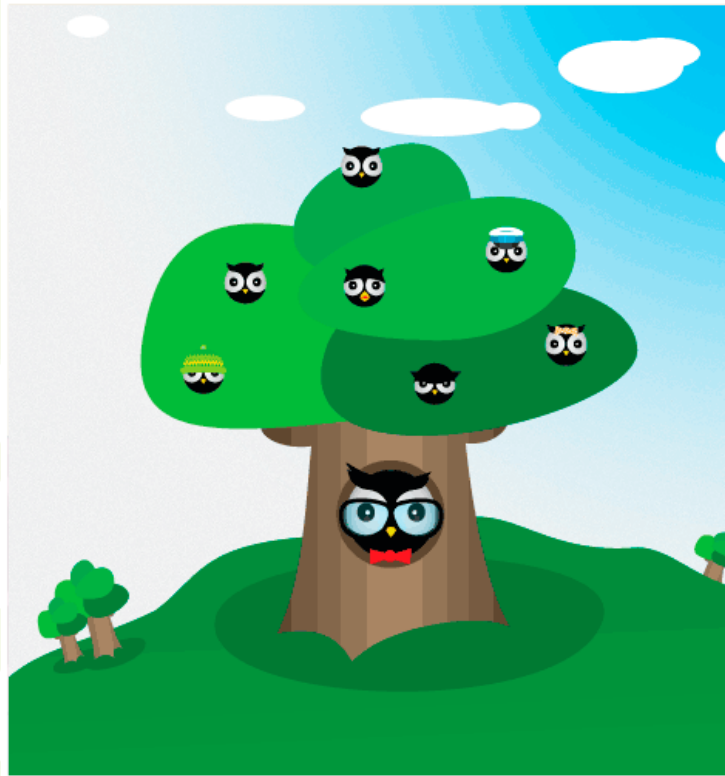
- ✓ Easy step by step process to register a new company
- ✓ No need for notary
- ✓ No paperwork at all

In the portal you can:

- Register a new entity
- Change existing info in commercial register



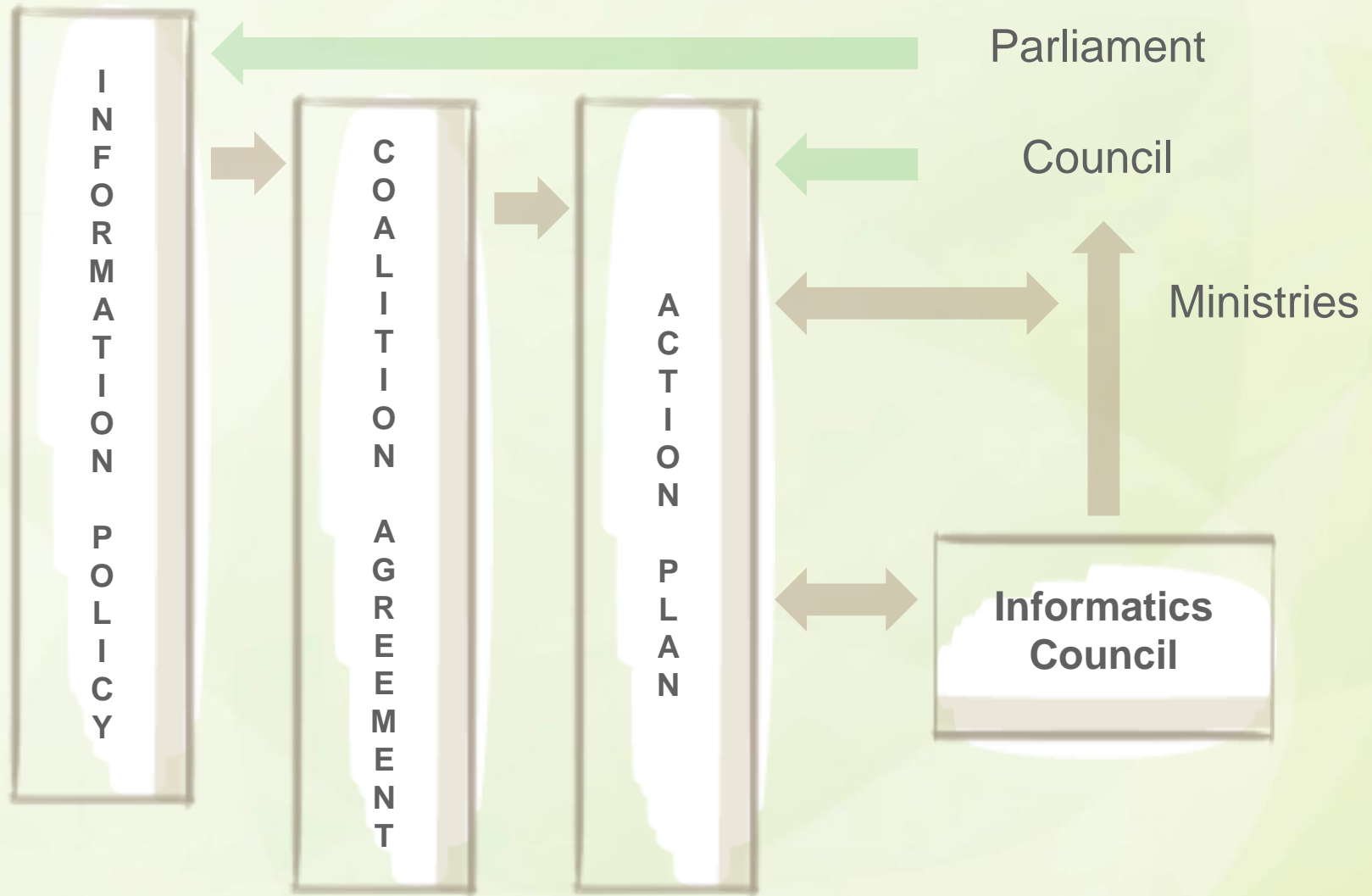
Example of e-services: e-School



In the portal you can:

- Check the grades, assignments, comments, absences etc
- Communicate with parents, pupils, teachers, and headmaster
- It is basically an electronic diary

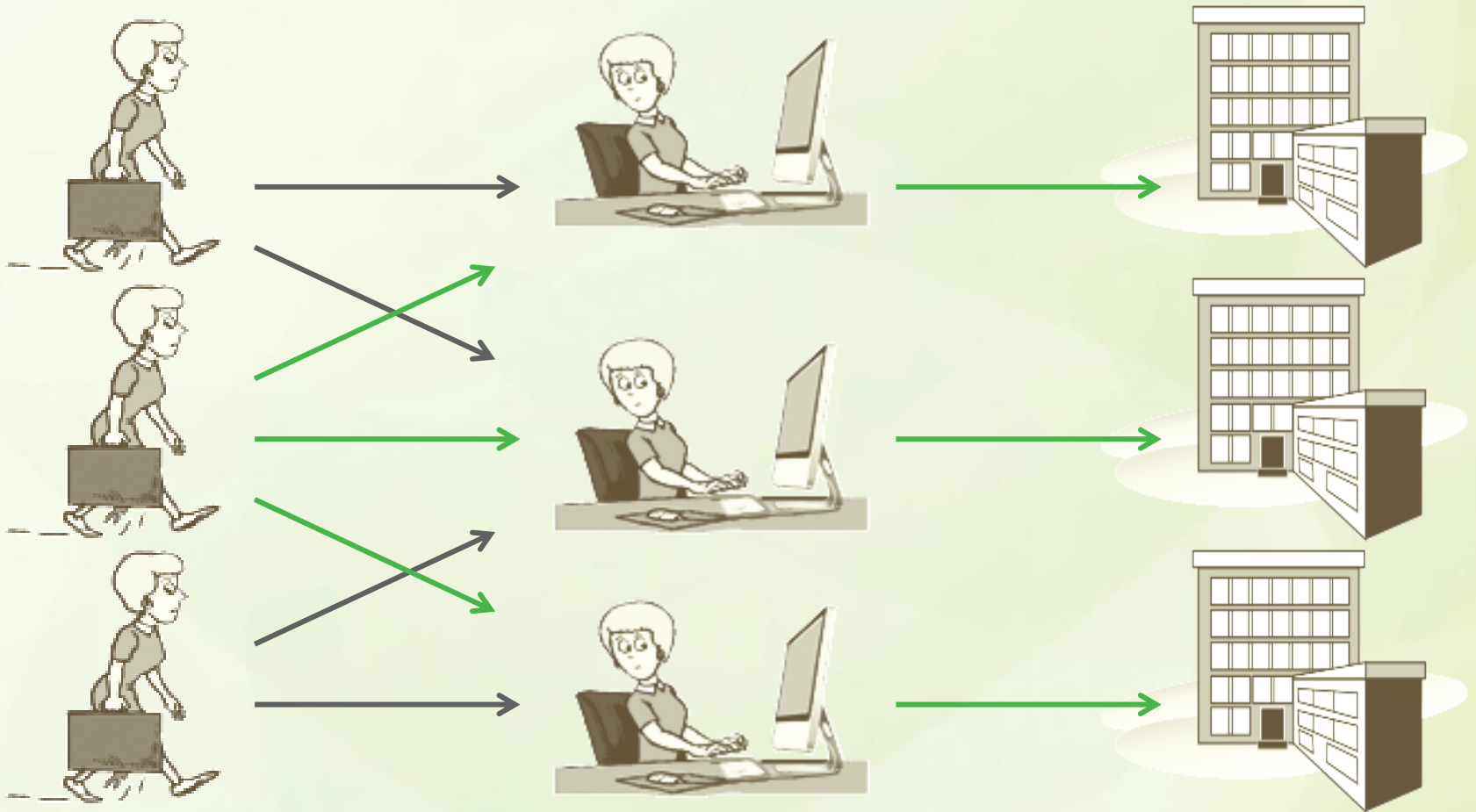
Organizational framework. Policy



Example: Info-political principles in Estonia

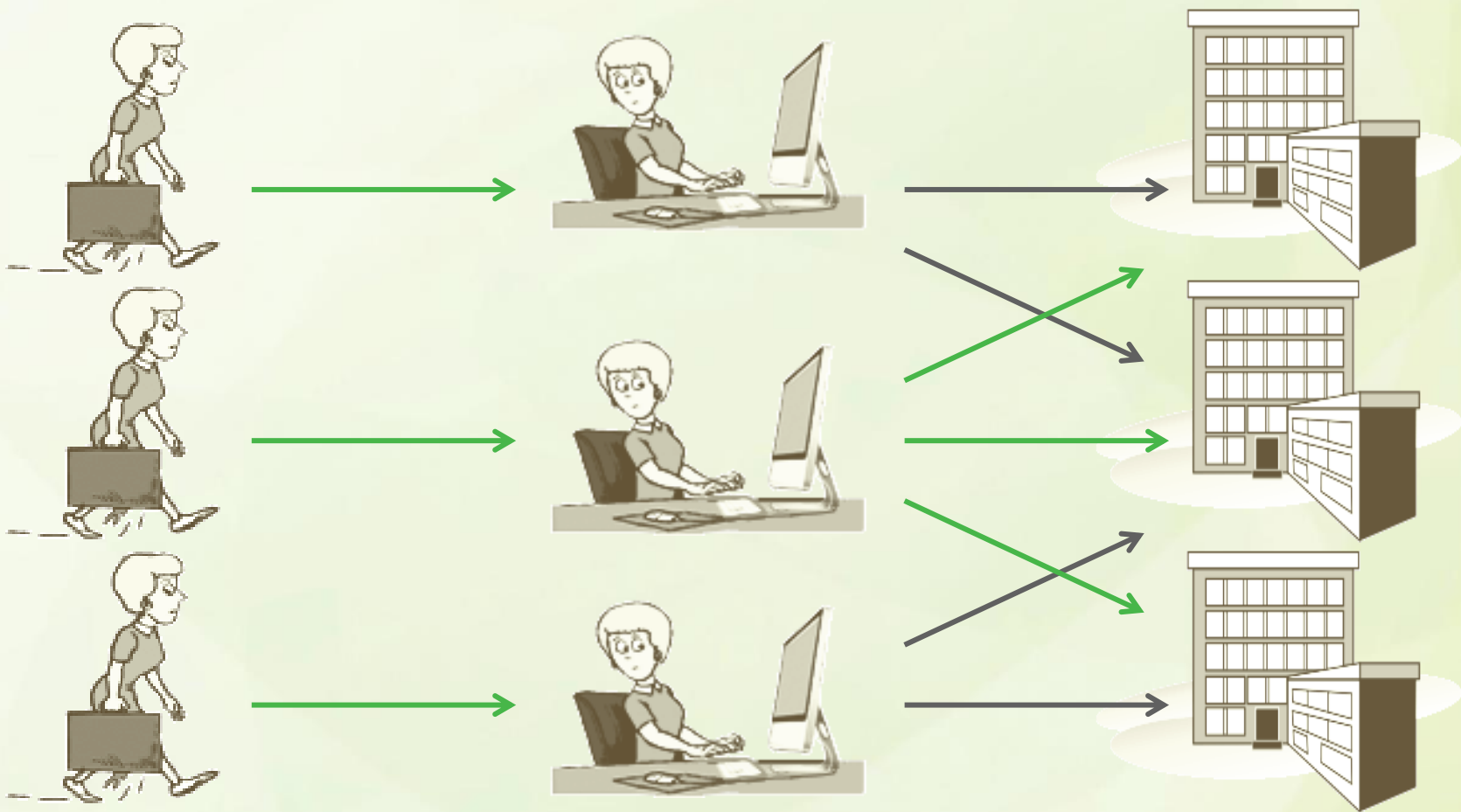
- ✓ Citizen (customer) orientation
- ✓ Leading role for the private sector
- ✓ Efficient and transparent public sector.
eDemocracy and participation.
- ✓ Functioning model for protection of personal data
- ✓ Measures against digital divide
(ID-cards example ...)
- ✓ Neutrality concerning technological platforms
- ✓ etc

Progress. Public Service Model I (byrocratic state + Internet)



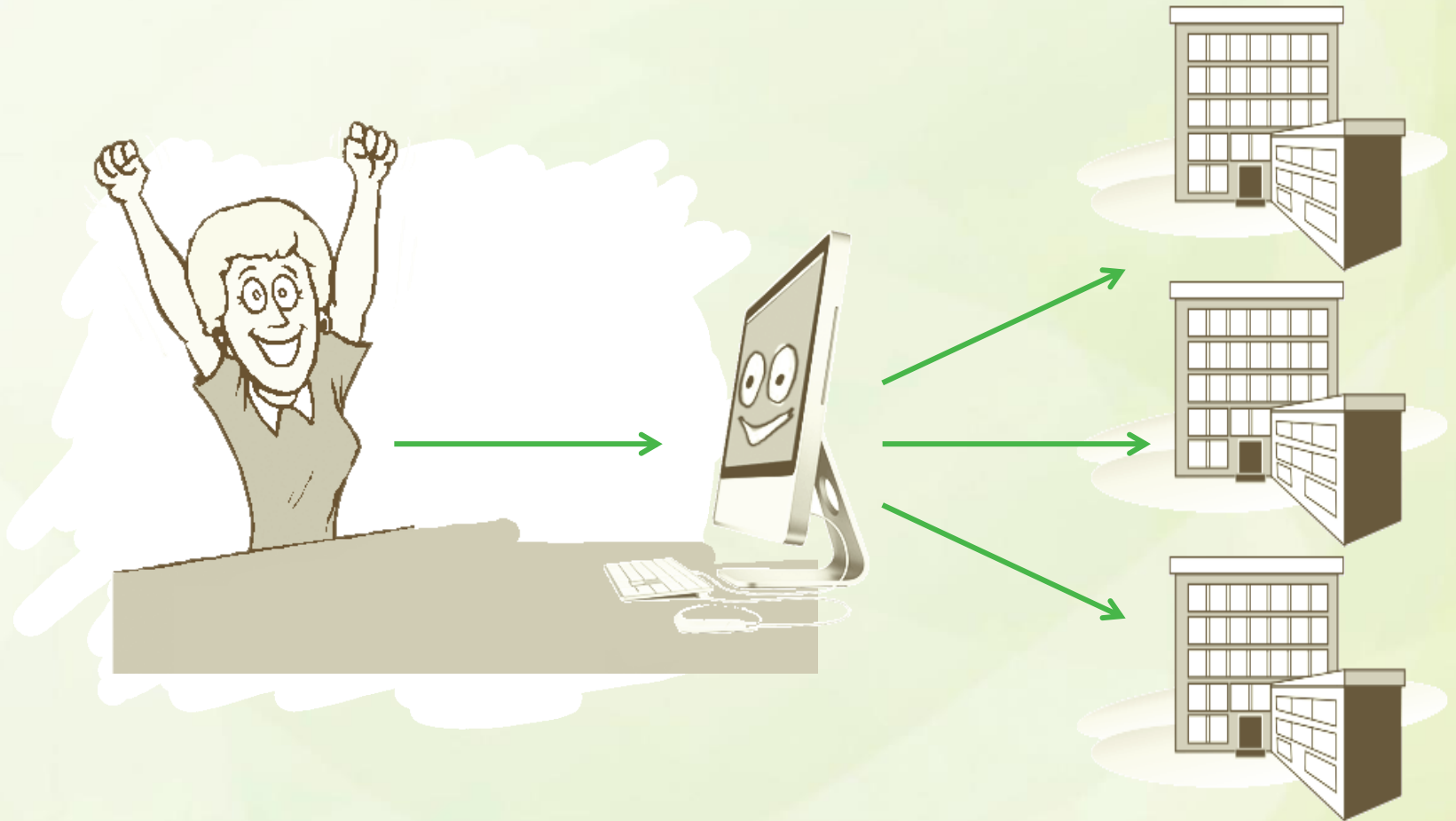
Public Service Model II

(One stop shop)



Public Service Model III

(24/7 self service)



e-Government policy



Organization



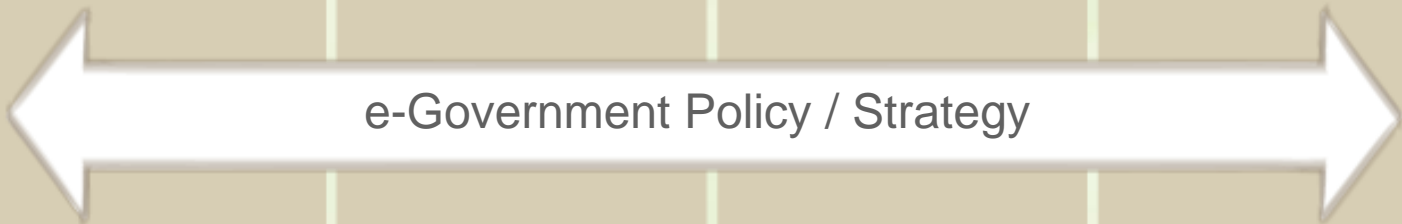
Legal
framework



Fiscal
framework



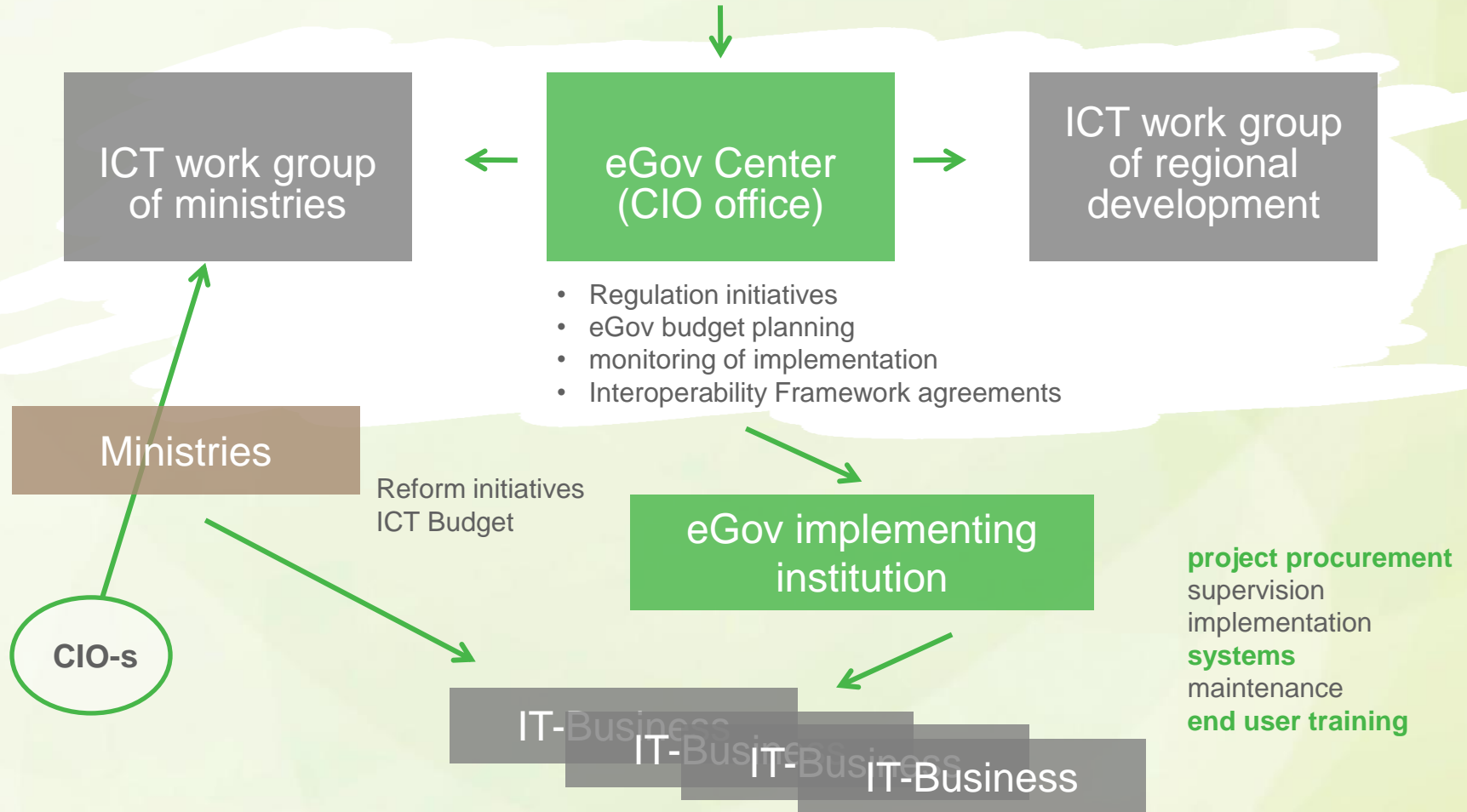
Technical
architecture



e-Government Policy / Strategy

State Chancellery


State Chancellery / Ministry



Nature of document

Nature of document	Name of Document	Nature of regulation
Policy and strategy documents	eGov Strategy, Interoperability Framework	Infopolitical agreement, strong recommendation
Laws and sub-acts	Databases acts, Personal Data Protection Act, Digital Signature Act etc.	Compulsory
Framework descriptions	Architecture descriptions	Strong recommendation
Interoperability Related Standards	Documents, digital signature, security, message transfer etc.	Advise and recommendation

Budgeting

- ✓ Separate article of state budget: expenses for IT- subdivided into HW, SW and project work ordered from outside of government structures. For the last 12 years this budget has formed about 1% of the state budget.
 - ✓ All ministries, county governments and boards have independent IT budgets which are planned in cooperation of all CIOs.
 - ✓ For joint actions of several ministries the IT budget is often included in the budget of the ministry that is coordinating the work.
- 

E-Government infrastructure



Electronic Identity:

Authentication of a user by digital certificate imbedded in the ID card or SIM card



Digitalized information:

Information systems and databases in all levels of government

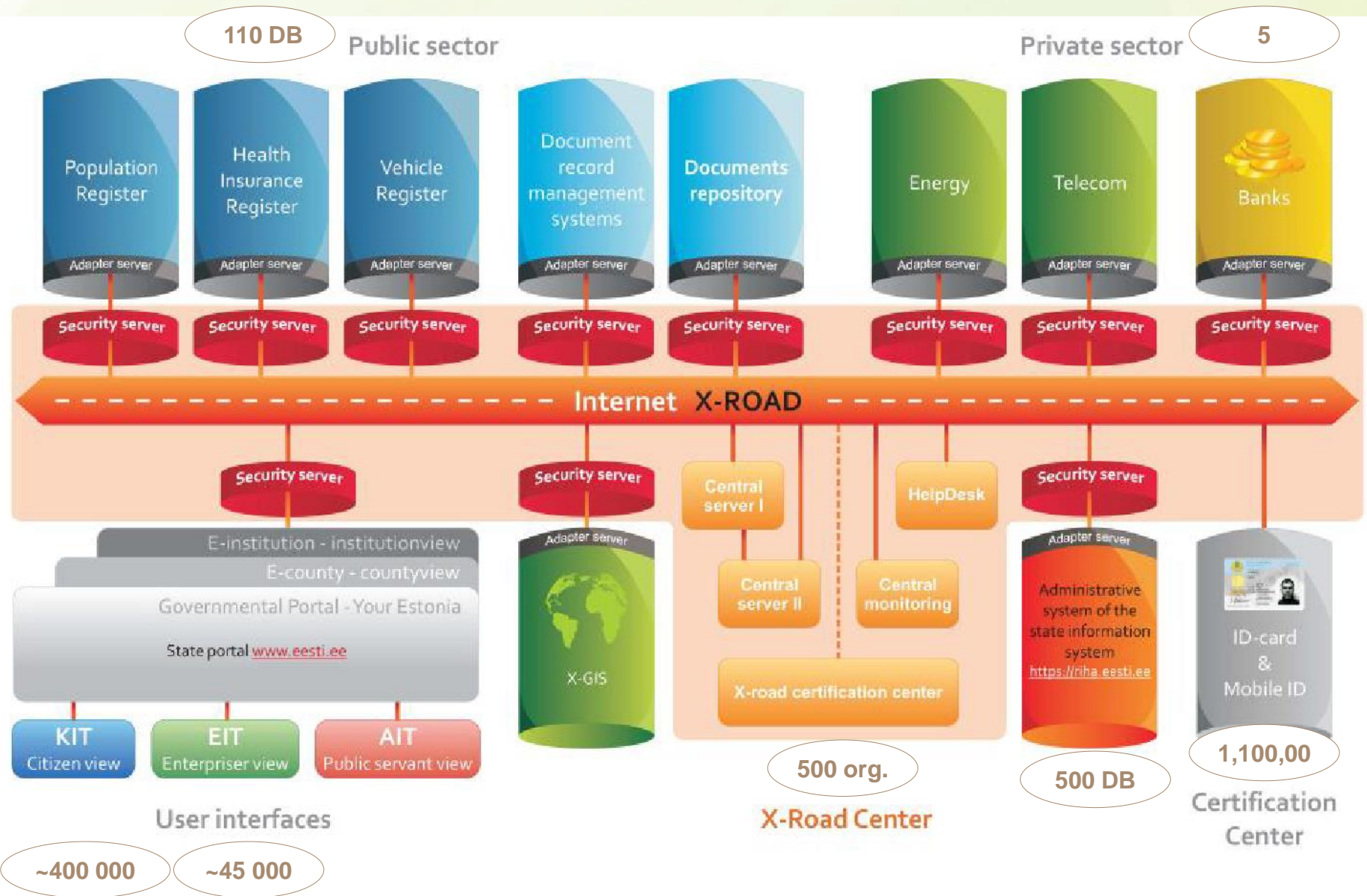


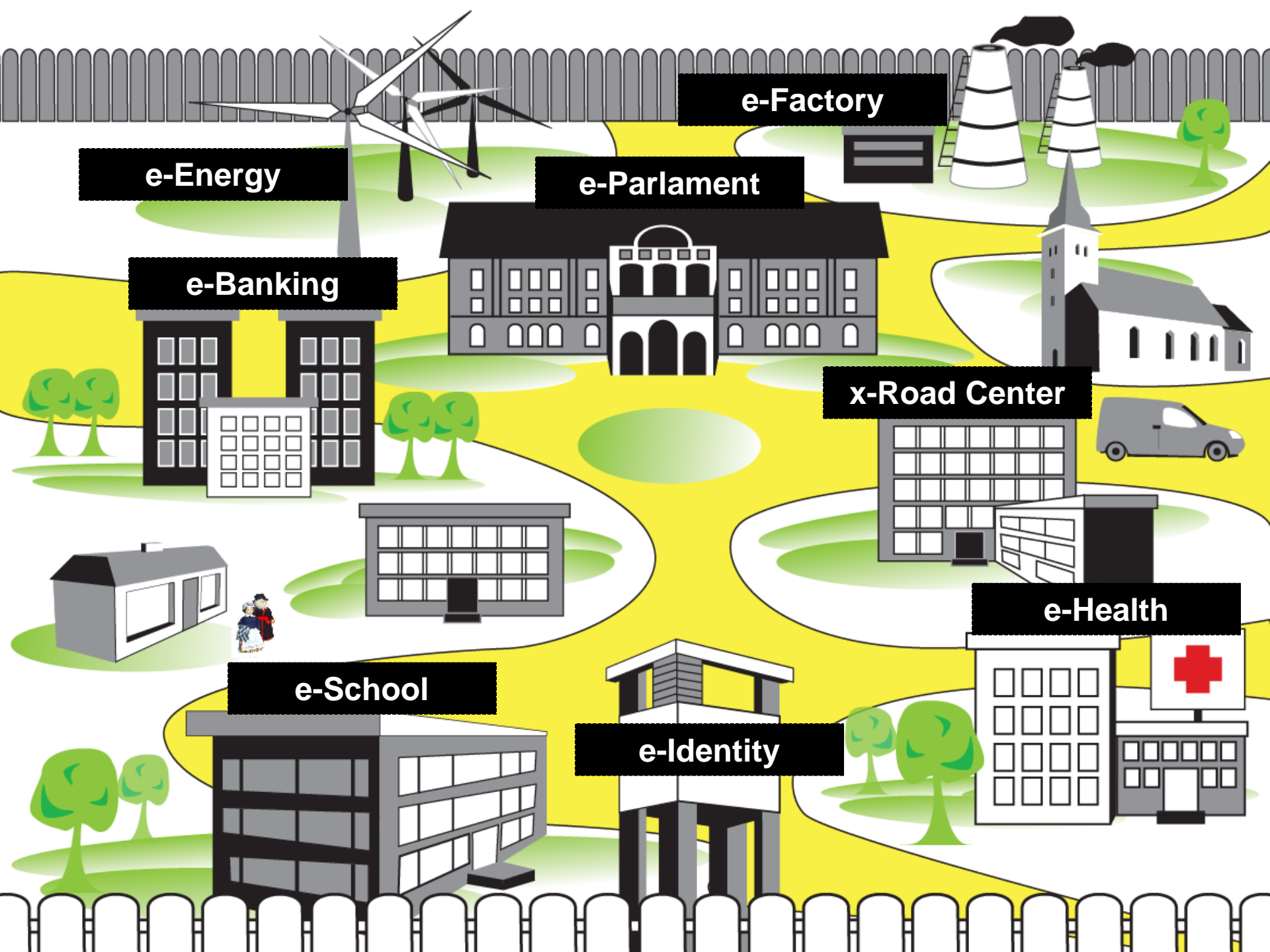
Formalized exchange:

X- road - the connection of government databases by a data exchange service layer



X-Road Estonia





e-Factory

e-Energy

e-Parlament

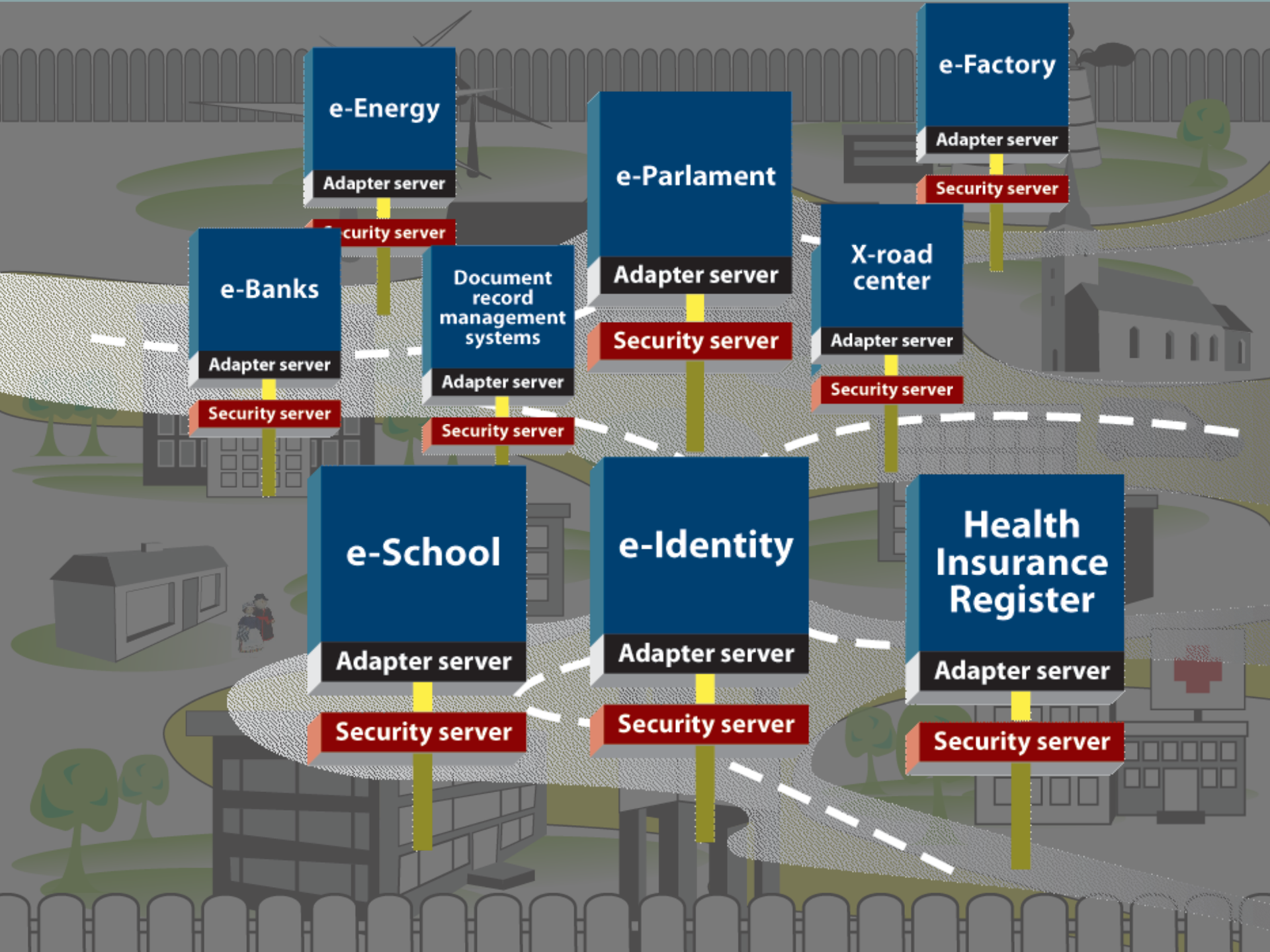
e-Banking

x-Road Center


e-Health

e-School

e-Identity



The central components in the architecture:

- ✓ Government network GovNet
 - ✓ The Data Exchange Layer;
 - ✓ The layer of personalized portals (citizen portal(s), entrepreneur portal(s), civil servant(s) portals);
 - ✓ The register of registers, catalogue of services and the management system for the state information system;
 - ✓ The layer of geoinformation systems;
 - ✓ The layer of document management systems and document exchange centre;
 - ✓ The system of classifications;
 - ✓ The system of address details;
 - ✓ The security system
- 

National chip-based Identity Card



Inside 16 Kb RSA crypto chip are:

- 2 private keys;
- authentication certificate;
- digital signature certificate;
- personal data file

Issuing authority:

Estonian Citizenship and Migration Board

Service contractor:

TRÜB Switzerland

Start of issue:

January 1, 2002

Conformance with:

ICAO Doc. 9303 part 3

National e-services portal



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Выбирайте трудовой договор

Заключение трудового договора защищает работника и создает доверительные трудовые отношения с работодателем. Письменный трудовой договор обеспечивает вас правом на отдых и социальные гарантии, так как работодатель платит за вас социальный налог.

Проверьте на государственном портале, платит ли **ваш работодатель налоги с вашей зарплаты**.

Также можно посмотреть, поставил ли работодатель вас на **учет в Больничной кассе**, и есть ли у вас действительная медицинская страховка. **Найдите свои права и требуйте заключения трудового договора!**




[➔ Подробнее о трудовом договоре](#)

- ➔ **Передача данных в Больничную кассу**
Теперь на государственном портале работодатель может передавать данные о медстраховке в Больничную кассу.
- ➔ **Справка А1 (Е101) от Департамента соцстрахования**
О выдаче справки А1 (бывш. Е101) можно ходатайствовать самостоятельно или в качестве работодателя для своего работника или в качестве чиновника для сотрудника своего учреждения.
- ➔ **Оформите пособие для первоклассника**
На государственном портале можно ходатайствовать о школьном пособии для жителей Таллинна и различных волостей.
- ➔ **Ваши нотариальные документы**
При помощи этой э-услуги частные лица и предприниматели могут просматривать свои нотариальные документы и скачивать их копии.
- ➔ **Подтвердите выбор спортклуба для ребенка**
Родители из Таллинна и Виймси могут подтвердить выбор спортклуба или спортшколы для перечисления муниципального пособия.
- ➔ **Ссылки на другие инфосистемы**

Some conclusions

- ✓ Cooperation and coordination is the key, technology is the simplest part
- ✓ View IT developments together with public administration reforms;
- ✓ Important role of Centre in coordination of the actions;
- ✓ Training of CIO-s (IT managers) and partners from private sector;
- ✓ Medium push from legal framework;
- ✓ Figuring out what might be the motivation;
- ✓ Step-by-step approach, no need to enter to “business” of the “back-office”

Some conclusions

- ✓ Process from operational technical system to wide implementation takes 2-3 years – “honeymoon period” of the project
 - ✓ Money, spent once for development of basic components of the architecture will give high profit in the phase of development of single e-services... but it will be clear only after several years... and this might not be the motivation for public institutions
 - ✓ Driving force is often not from the top management of public institution but somewhere else – find this person ...
 - ✓ We are a lot more conservative than we think
- 



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Thank You! Questions?

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