



# **E-GOVERNMENT DEVELOPMENT IN ECUADOR /THE JUDICIARY**

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# ECUADOR



- Location: South America
- Extension: 262.826 km<sup>2</sup> continental territory
- Galapagos Islands: 7.844 km<sup>2</sup>
- Population: 16´ 100.000 habitants.
- GDP: Projected 4.2% 2014 and 4.3% 2015



# ECUADOR'S E-GOVERNMENT



# Overview of e-Government development

- Ecuador realized the benefits of e-G 20 years ago
- Five years later it's real development started
- In 2007 a politic was issued to incentivize use of TICs to deliver public services
- The government did not have a basic inventory of available resources of TICs and HR
- Lack of additional regulations diverted resources to increase the technological platforms
- Many services implemented with no central coordination ( Taxes, Customs, Social Security, etc)



# Overview of e-Government development

- In 2013 an e-G Strategic plan was announced.
- The plan is based in the UN letter and conceptually does not differ from those defined with international entities assistance



# Problems

- Internet penetration
  - [It is in the process to be solved](#)
- Institutional readiness to provide online services
  - New infrastructure of HW and SW platform
  - Better salaries and training opportunities make the public sector competitive with private sector
- Digital divide too wide in many country sectors
  - Community info centers installed country wide
  - Alternative training delivered in the same info-centers



# Challenges

- Plan implementation :
  - High level commitment
  - Focus on elimination of bureaucratic procedures
  - Special program TRAMITON in place
  - Weekly follow up and public exposure
- Cost reduction in central administration
  - Citizens are questioning bureaucracy cost
  - e-G is not a desire any more, is a competitiveness factor for the countries



# Challenges

- Country Cloud
  - It is a major technical implementation (140 government offices)
  - Data and application software migration imply risk (1500 apps)
  - Change management is key to handle HR behavior and their sense of property over the platforms
  - Maturity of the cloud organization to deliver the SLA committed





# Future

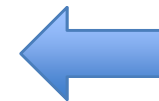
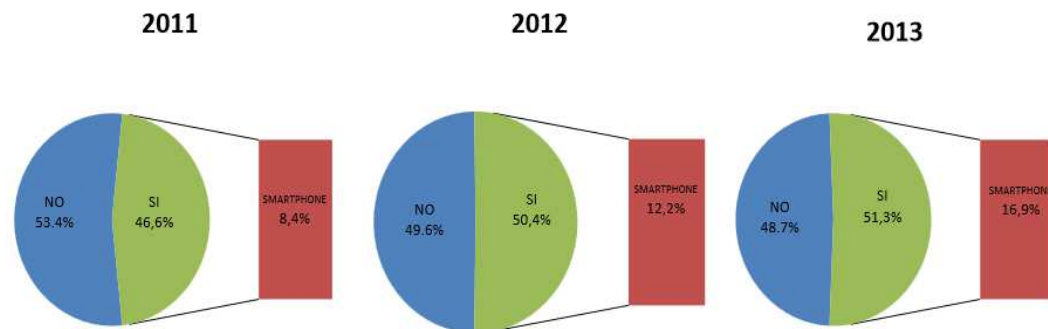
- Tied to our success in solving problems
  - Internet penetration
  - Digital divide reduction
  - Development of qualified HR resources
  - Cloud implementation

**However we have a new critical factor to consider:**

- The need to implement Information Management disciplines
  - Government is not immune to the data problem the world is facing.
  - Data quality ,availability and accesibility to use it

# ECUADOR

- Internet penetration: 66% of population used internet in 2013.
- 45% out of this 66% used internet from their homes
- Active lines: 17 million of mobile phones
- Conventional lines : 2.5 million
- Use of smart phones: 51,3% on 2013





# Future

- Evolution of e-G depends of how good we will manage our data
- Open Government and Online Managed Services are new products that have to be included in our e-G plan
  - Unfortunately both are not well understood by the users
  - Both are interdependent.



# NEED OF DATA QUALITY



# Need and cost of clean data

Using basic parameters to calculate amount of human resources dedicated to search, gather and validate data, I found that 12% of our analysts in the Central Administration spend 100% of their time in doing these.

Equivalent to 3600 person /year.

This number alone justified any project to solve the quality data problem



# Data quality model

Based in the data life cycle and legal institutional frames I defined a unique data model . It included:

- To define data ownership in every institution.
- Initial evaluation of quality reviewing the systems used to capture, detect and correct errors, business rules, latency, stewardess assignment and governability
- To publish a quality indicator in the SNI ( National Information System)and make it available to internal and external users
- Aditonal benefit: give users prerrogative to evaluate the risk of use the data.



# Data quality model

- The project failed!
  - Not considered the real effects of publishing the quality indicator.
- Management is reluctant to be exposed.
- The good News !
  - A new Government entity responsible to keep and administer national registers is actively pursuing a data quality model
  - It is the National Direction of Public Data and Registers, keeps the data of public registers as back up and qualifies the data bases.
  - Also developed a system to allow citizens to validate their own data
  - Acces to data is controlled by strict legal regulations.



# Data quality model

## In summary:

- High level support is required to attain a solid information management system in order to solve the problems of.
  - Quality.                      - Oportunity
  - Availability.                 -Accesibility.

Information Management is a main challenge but not easy to be accepted in the bureaucratic world.





# JUDICIAL SYSTEM



# Judicial System

- Is it a different world for TIC´ s?
  - The functionality is not quite different from the required by other public services.
  - Not for the technological platform rather for the users perception. (Internal and external).
- Thus all TICs are applicable



# Judicial System

- **Peculiarities of Judicial System:**
  - Final user not interested in approach to the system.
  - System has to be flexible it deals with many type of users (lawyers, delinquents, policemen, ordinary people).
  - Processes cross boundaries because require of other institutions.
  - Internal users not willing to accept new technology as they see TICs as engineering oriented tools.
  - Consider TICs not friendly for non technical users
  - It generates huge volume of data
  - Was left aside because of the lack of opportunity of the technological tools.



# Judicial System

The concept of independence of justice is sensitive and has to be considered in every process but:

As any public service the service of Justice must be evaluated in a qualitative and quantitative way

- The qualitative evaluation is done with the data coming from the supporting processes
- The quantitative evaluation from the analysis of the judge sentences
- There is a big world discussion in regarding of the parameters to include in the quantitative evaluation.

Again ...is evident the need of data quality



# Judicial System

- USA and some european countries are using advanced semantic and predictive tools in the core process as well as in the supporting processes.
- ie: UK have three systems on line:
  - CPC: Claim Production Center: CPC accounts the court fees, produces claim, creates court´s record and envelopes and dispatches to the defendant.
  - MCOL: Money Claim On Line: User can take court action against someone if they owe money and won´t pay back.
  - PCOL: Possession Claim On Line: It includes a possession claim for residential property by a landlord against a tenant.



# Judicial System

- JURISTAT: In USA is a system developed by a private attorney's office using predictive tools.

## Benefits for user:

- Knows in advance cost of the trial.
- Knows possibilities to win the case.
- Helps to expedite legal procedures.
- Avoids manipulation and corruption.
- Less operating costs.
- Updated status of the process.

Risks to use predictive models: violation of individual privacy, human rights, free mobility and discretionary preventive detention.



# Challenges

- In Latin America the common objective for the Judicial System is to develop the electronic file. However there is not any common definition yet
- In case of Ecuador we are adjusting our organization to include data management professionals
- We already have a Jurimetric department responsible for information management. Staffed only with mathematics and statistics professionals.
- There is a huge number of alternatives to improve the Justice system using TICs and specially using the right data



# Challenges

- Information management must be considered an “umbrella” project mandatory to implement in every e-G plan.

A main objective is now

“Redefine the role of the court to not only to search the improvement of the processes but to use the information to evaluate the impact of the decisions before and after they are taken in order to help to improve the entire judicial system”.

<http://www.futureofcourts.org/courts-and-big-data>



# THANKS

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