WSIS+10: overall review of the implementation of the WSIS outcomes

10-Year Country Report

Section I: Executive Summary

- **Introduction**

Uruguay is the smallest Spanish-speaking country in South America. We are 3.3 million people in a low-relief plain well endowed with natural resources. We have one of the lowest population densities in the world. 40% percent of Uruguay's population lives in the capital city of Montevideo. It is a country with well-aligned priorities which are firmly grounded on fairness and quality of life.

Despite being similar to developed countries from a socio-demographic perspective, the Uruguayan economy is smaller in size and weight, though it must move within the same highly competitive global system. Given this, we understand that in order to improve the welfare of our population and to propel our economic growth, smart use of technology is essential, to enhance several aspects as the quality of education, government services, and productive development.

- **Country at a Glance**

Connect all villages with ICTs and establish community access points	
Proportion of households with Internet access	48,4%
Proportion of individuals using the Internet	55,1%

Connect all secondary schools and primary schools with ICTs	
Proportion of schools with a radio used for educational purposes	88,2%
Proportion of schools with a television used for educational purposes	94,1%
Learners-to-computer ratio	1:1
Proportion of schools with Internet access	97%

Connect all scientific and research centres with ICTs	
Number of public scientific and research centres with broadband Internet access	63
Presence of a national research and education network	Yes
Number of public scientific and research centres with Internet access to a NREN	63

Connect all public libraries, museums, post offices and national archives with ICTs	
Proportion of public libraries with broadband Internet access	26%
Proportion of public libraries providing public Internet access	32%
Proportion of public libraries with a web presence	40%
Proportion of museums with broadband Internet access	57%
National archives organizations with broadband Internet access	100%
National archives organizations with a web presence	100%
Proportion of items in the national archives that have been digitized	31,1%

Connect all health centres and hospitals with ICTs	
Proportion of public hospitals with Internet access	100%

Connect all central government departments and establish websites	
Persons employed in central government routinely using computers	43,3%
Persons employed in central government routinely using the Internet	43,3%
Proportion of central government organizations with a Local Area Network	100%
Proportion of central government organizations with Internet access	100%
Proportion of central government organizations with a web presence	100%
Level of development of online service delivery by national governments	48%

Adapt all primary and secondary school curricula to meet the challenges of the information society, taking into account national circumstances	
Proportion of schools with computer-assisted instruction	100%
Proportion of schools with Internet-assisted instruction	100%

Ensure that all of the world's population has access to television and radio services	
Proportion of households with a radio	90,9%
Proportion of households with a TV	97%

Ensure that more than half the world's inhabitants have access to ICT's within their reach and make use of them	
Proportion of households with telephone	64,8%
Mobile cellular telephone subscriptions per 100 inhabitants	147,1%
Proportion of individuals using a mobile cellular telephone	71,6%
Proportion of individuals using the Internet	55,1%
Proportion of households with Internet access	48,4%

** Data for the year 2012. Part of the "WSIS Targets Questionnaire" sent on September 2013*

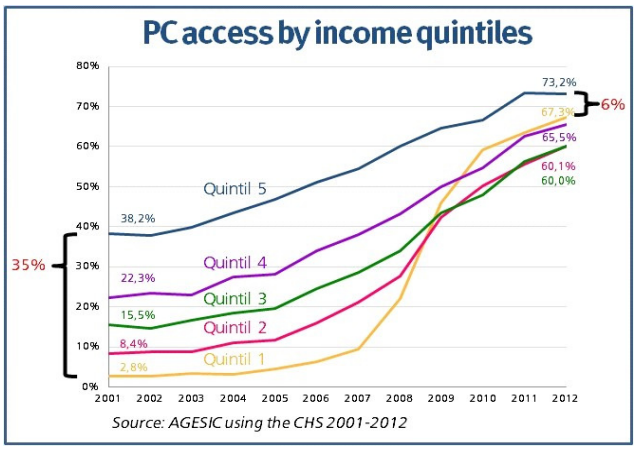
HIGHLIGHTS

» The Government offers a universal access plan that includes 1GB of traffic per month without cost

» With the FTTH project we are bringing fiber connections to every home in Uruguay

» Plan Ceibal made Uruguay the first country to offer all students and teachers in the national public education system a free personal computer, and has had a redistributive effect ensuring that the most Uruguayans have access to these tools, in many cases for the first time

» The country has closed the gap in PC access between upper- and lower-income households. Public policies for digital inclusion have played a commanding role in narrowing this gap to only six per cent today

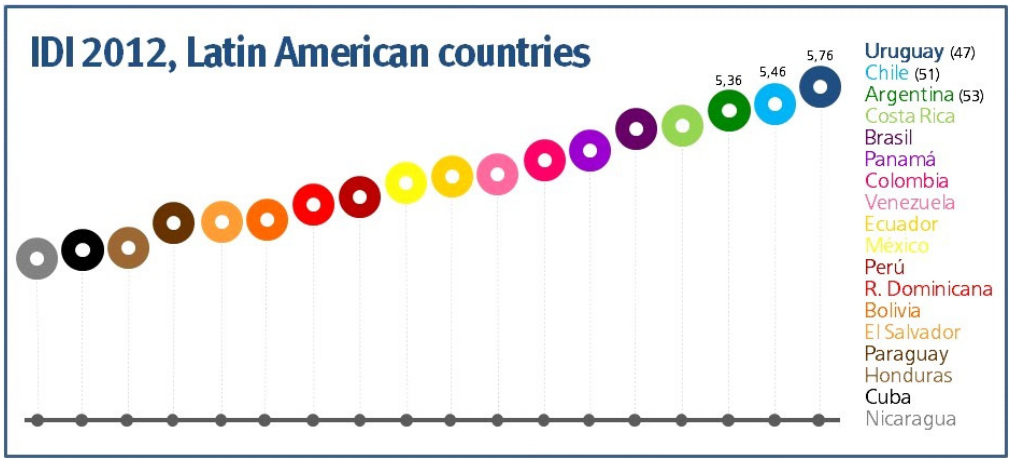


» The right to access to computers has been accompanied by the right to access to Internet, with the strong commitment that no child should walk more than 300 meters from his or her home in order to access to Internet

» Uruguay is one of the main software exporters per capita

» 100% livestock traceability, a significant achievement considering that Uruguay boasts the highest cattle per capita rate in the world

» Uruguay has led the development of ICTs in Latin America for 3 consecutive years, according to the IDI



- **Implementation at National Level**

Starting in the year 2007, several administrations have made an important effort to achieve consensus on the country's digital policy. The development of this policy has involved a systematic and continuously work that has reflected in the three versions of the Digital Agenda for Uruguay that have been issued to date.

Uruguay's digital agenda is not a government plan; it is a country-wide commitment, a multi-stakeholder agreement between government, academia, the private sector and organised civil society. All of these stakeholders are involved in its design, implementation and monitoring, through a National Council for the Information Society.

Perhaps the most relevant aspect is that the agreements in this public policy are not limited to technology: rather, it's a national plan whose focus is on social inclusion and on the strengthening of national capacities through the use of ICTs.

The Digital Agenda for Uruguay 2011-2015 has 59 concrete and measurable goals that correspond to 15 objectives that emerge from six areas of action (in line with WSIS and eLAC): Access; Education and culture; Electronic government; Productive development; Health; and Environment.

For a full look to the Digital Agenda for Uruguay 2011-2015, please refer to the English version of the document:

http://uruguaydigital.uy/wps/wcm/connect/pvurudigital/uruguay-digital/home/digital-policy/the+digital+agenda+for+uruguay

Section II: Main achievements by Action Line

• C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development

Since 2007, Uruguay has developed its digital policy throughout different administrations, with a continuous, coherent and evolutionary effort in relation to the country's institutional strengths. These is reflected in the three versions, to the date, of the Digital Agenda for Uruguay, with objectives aligned at a regional (eLAC) and worldwide (WSIS) levels. The Digital Agenda for Uruguay is a multi-stakeholder effort. All the interested parties take action in its orientation, execution and follow up, through a National Council for Information Society.

• C2. Information and communication infrastructure

- To develop the infrastructure necessary to optimize connectivity between countries and to reduce costs:
  - Network for South American Connectivity: a project in which Uruguay participates with the countries that are part of UNASUR (Union of South American Nations), which includes an "optical ring of the South".
  - Uruguayan Academic Advanced Network of data transmission -RAU2-: high speed academic and research network for exchanging information and for an efficient and effective collaboration of scientists, academics and researchers within and outside the country. It is integrated with the Latin American Advanced Networks Cooperation -CLARA- and through it with this types of networks in the world.
  - RED.uy (Network.uy): connectivity infrastructure for governmental agencies, to be interconnected in a secure manner, with the proper levels of service, computer security, high speed and availability.

- To Universalize Internet access:
  - Universal Internet Household Service: Through affordable connectivity prices, the governmental National Telecommunications Administration (ANTEL) has created a service of universal connectivity that supposes a unique small payment without further monthly costs, for a fixed connection of 512/128kbps and one gigabyte of traffic per month.

- To strengthen and improve the infrastructure of Internet connectivity:
  - Optical Fiber To The Home (FTTH) across the country: this project has been initiated in 2011 by ANTEL, and by October 2013 there were more than 655,000 households with coverage and about 237,000 already connected.
  - 4G and other services: Currently 4G and LTE services are already being provided with partial coverage but they are increasing continuously. Also, actions have been taken in order to improve connectivity services in rural areas, by means of changing the technology of Ruralcel services to 3G (Uruguay has 3G nationwide coverage since 2008) and the provision of Rural Internet using cell technology.

• C3. Access to information and knowledge

Although the country aims to bring the Internet to every home (by the above mentioned plans, such as universal service and FTTH), with the MEC Centres have been developed educational and cultural spaces that provides communities with access to education, to scientific and technological innovation and cultural services.

The Access to Public Information Act was promulgated in 2008. According to the Transparency Index 2013, Uruguay is the most transparent and least corrupt country in Latin America, ranked 19th globally.

TIMBO Program makes scientific publications available for the community, through the National Agency for Research and Innovation (ANII in Spanish).

• C4. Capacity building

The National Plan of Digital Literacy promotes digital literacy in adults, as a way of reducing the generational digital divide, boosting the use of ICTs in this population in order to improve and increase their access to educational and cultural commodities and services, therefore contributing to a better social inclusion.

Uruguay is the first and only country that as provide a free personal computer to every child in the national public education system. With the Plan for the Educational Connectivity of Basic Informatics for Online Learning (Ceibal for its acronym in Spanish) the government has delivered a laptop to all students of public primary and secondary schools and their correspondent teachers, as well as connectivity from their educational institutions, aiming at reducing the digital divide. Ceibal intends to facilitate the access to technology to said students and their families, regardless their social status and geographical origin, thus democratizing knowledge and boosting learning processes in the academic field, as well as within everyday experience of students; and at the same time ensuring the students' and teachers' digital literacy.

Many projects have arisen due to Ceibal, as the Butia project (education in robotics), a simple and low-cost platform that allows the students of public schools to familiarize with the programming of robots' behavior.

• C5. Building confidence and security in the use of ICTs

The Personal Data Protection Act was promulgated in 2008. The country's legal framework was declared adequate by the European Union and became the first non-European state to accede to "Convention 108".

In 2008 the National Response Centre for Computer Security Incidents (CERTuy) was created. The Department in charge of CERTuy also advise government agencies in the definition and implementation of policies, methodologies and best practices in information security. Uruguay participates actively in the hemispheric network of CSIRTs and has transferred its knowledge to other countries in the region to develop their own response teams.

Following several regulatory background, in 2009 is promulgated the Document and Electronic Signature Act. In 2010-11 the public-key infrastructure (PKI) was developed and during 2013 the first Certification Service providers were accredited.

• C6. Enabling environment

In Uruguay, the regulatory framework has been developed with the active participation of the academia. There are multiple advisory boards, in areas such as information society, businesses, public computing, information security and geo systems as well as working groups on issues such as e-Health, e-Commerce and Open Government, by mention a few.

• C7. ICT Applications

- E-government
  - Different solutions for innovating in the relationship between the citizens and the State has been provided, such as one-stop shops (e.g. portal.gub.uy, tramites.gub.uy, datos.gub.uy, register a company in one day), transversal solutions (e.g. GRP and e-Records), or single solutions (e.g. registration of brand and patents, interaction with state banks, taxes and several administrative formalities) by different channels (such as web and mobile). Some of these services are offered by third parties, as part of the open government plan implementation.
  - Models for the digitalization of administrative formalities were designed to increase online services; these are easy-to-use tools that allow to identify, prioritize, simplify the formalities and to manage change and communicate the results. Along with a legal framework that instructs government institutions in the steps from publishing the information related to their formalities and eliminate non-essential requirements, up to establish action plans to offer their services online.
  - Platform for Electronic Government, that allows integration of services provided by several organisms, promoting the exchange of information between government agencies, with almost a hundred services for interoperability exposed.
  - Cloud of the State: management of shared IT assets (IaaS, PaaS, SaaS), that has the advantage of being scalable, fast, shared, efficient, stable, available.

- E-business
  - The e-Tickets and e-Invoices system is available to every company, with more than 40 large companies using this solution and more than 100 million tickets and invoices issued electronically. Other 300 companies are certificating and testing their solutions at this moment.
  - Foreign trade one-stop shop implemented, to provide in a single point all import, export and transit information and facilities.
  - Dispositions to promote financial inclusion and the use of e-payment: Over 40,000 households benefiting from family allowances have opted for payment of benefits through a debit card provided by the government, and they also access to a total discount of VAT on purchases made using it.

- E-learning (see section C4)

- E-health
  - SALUDuy promotes the adoption of ICTs to improve and expand health care and information systems on health provision, with emphasis on the Electronic Health Record, as an element enabling said plans. Also, other digital solutions has been developed, such as death certificates, perinatal medical records and electronic certificates of birth, granted with the "Inter-American Prize for Innovation in Effective Public Management- 2013", by the OAS

- E-employment
  - Via Trabajo is a management platform for Employment Public Services that allows managing different services related to labor and professional training offered to the community. Workers as well as companies register in to it as a meeting point between employments supply and demand. It includes also the management of other services aimed at increasing employability (for example, employment counseling workshops, training courses, access to information about training institutions, etc.).

- E-environment
  - A law project for waste was elaborated with the participation of several stakeholders, which is in process at the Parliament. Public companies made recycling campaigns and multiple lectures, workshops and seminars on e-waste management and its impact on environmental care.
  - Uruguay is in a process of improving its energy matrix, reaching over 50% of renewable sources in 2013.
  - Best practice guidelines for energy reduction in the manufacture and use of ICT were published, as well as a plan to optimize the use and consumption of energy in public offices.

- E-agriculture
  - Uruguay is the only country that has developed an information system to apply individual traceability in bovine cattle, a significant achievement considering that Uruguay boasts the highest cattle per capita rate in the world. The National System of Livestock Information allows the identification and registration of 100% of the national livestock and is an instrument for determining status and path of its tracing. It is also an essential tool for the epidemiological surveillance and control of diseases and to prevent cattle rustling.

- E-science
  - Uruguayan Academic Advanced Network of data transmission -RAU2-: high speed academic and research network for exchanging information and for an efficient and effective collaboration of scientists, academics and researchers within and outside the country. It is integrated with the Latin American Advanced Networks Cooperation -CLARA- and through it with this types of networks in the world.

• C8. Cultural diversity and identity, linguistic diversity and local content

"Digital Museums" project, in which the collections of the National Museum of Natural History and the National Museum of Anthropology were digitized.

• C9. Media

The Digital Terrestrial Television spread has been initiated, under the Japanese-Brazilian standards (ISDB-T), to reach all Uruguayans in an open, free and interactive manner. The analog switch -off is foreseen for 2015.

• C10. Ethical dimensions of the Information Society

Campaigns on data protection and information security have been promoted across the country to raise people's awareness on these issues.

• C11. International and regional cooperation

Since 2005 Latin America and the Caribbean adopted a plan of action on the information society (eLAC), which arose as a shared vision in the approach to 2015. Last April the Fourth Ministerial Regional Conference on the Information Society was celebrated in Montevideo, reiterating the firm determination to enhance regional collaboration, undertaking joint efforts to highlight the progress made in the WSIS outcomes and to participate actively in the discussions that will guide the agenda beyond 2015. Uruguay is the Chair of this regional mechanism, and also participates in every of its 14 working groups.

The country has also assisted several countries of the region in different topics such as the development of national e-strategies, computers for education, e-government and information security. Has driven the achievement of resources for the development of regional projects in areas such as public software and e-health, and is an active member of regional workspaces as the Network of e-Government of Latin America and the Caribbean (Red GEALC).

Section III: Select Case Studies

Case 1 - Plan Ceibal

Through Plan Ceibal, Uruguay gave a laptop to every student and teacher of the Public Educational System of primary and middle high school from 1st to 9th grade; it also connected all public schools across the country to the Internet. Plan Ceibal has added educational platforms, content and tools to facilitate teaching and improve education. It has democratized technology access as a key tool for education in the knowledge society drastically reducing the digital gap, transforming a privilege of few into a right for all. Uruguay was the first country in the world to implement such a social inclusion programme.

Plan Ceibal is managed by the Centro Ceibal para el Apoyo a la Niñez y la Adolecencia created by Law No. 18,640 and reports directly to the President of the Republic. The law provides Centro Ceibal with an annual budget of UY$1bn which is financed by the Central Government. Additional funds have been made available by the Ministry of Finance to fund specific programmes. Over the last 3 years the average annual budget has been the equivalent of US$56m.

The aim of Plan Ceibal was initially to bridge the digital gap between poor and rich households in Uruguay while at the same time incorporating technology in education. The starting point was an 11-fold difference in the ownership of PCs between the poorest and the richest households in the country in 2006 (5% vs 55%): in 2012 this gap was down to 10 points (73% vs 83%). All but 40 schools without electricity were connected to the internet by 2012 and even these last 40 will have solar-powered connectivity in 2013.

Timeline:

- 2007 - In May Plan Ceibal is launched in primary school in the Department of Florida and by the end of the year all schools in Florida are covered (laptops and connectivity).
- 2008 - Plan Ceibal expands to the rest of the Departments in Uruguay (excluding Montevideo & Canelones). Ceibal's Educational Portal (www.ceibal.edu.uy) is launched and the creation of Open Educational Objects aimed at teachers commences. Formal teacher training in the introduction of ICT in education starts. Introduction of programming at primary school level (Scratch and E-Toys).
- 2009 - Expansion to Montevideo/Canelones covering the entire primary school population of the country. Internet connectivity reaches 90% of the country's schools. Private schools can participate on a voluntary basis.
- 2010 - Expansion into the first 3 years of public secondary education and technical (vocational) education. Connectivity expansion into public places: no urban child should have to walk more than 300mts to reach Ceibal's network. Introduction of robotics kits into secondary school technology labs. Pilot in kindergartens. Assistance to similar projects in other countries begins. Internet connectivity reaches 95% of the country's schools.
- 2011 - Replacement of laptops after 4 years of use begins. Focus shifts to educational activities: robotics, scientific sensors, nationwide online evaluation, digital libraries established, and the first online mathematics Olympics launched

(21,000 children participated).

- 2012 - Focus on education reinforced through the launching of a Learning Management System (Plataforma CREA), pilot of an adaptive mathematics platform, pilot Ceibal in English Programme (English language to primary schools through videoconference).
- 2013 - Ceibal in English (reaching 1,000 classes per week), Learning Management System CREA and Mathematics platforms deployed, Digital Libraries strengthened through agreements with the main publishers of children´s books and school textbooks. Pilot with tablets in kindergartens and first year of primary school.

Results:

Plan Ceibal started in May 2007, with a pilot scheme conducted with 200 children from Villa Cardal, a small town in the Department of Florida, in central Uruguay. After nearly 6 years, Plan Ceibal has spread to the entire primary school population and to the first three years of high school in Public Educational System (ages 6-15). It has also delivered laptops to public kindergartens, teacher training centers and community classrooms. The indirect users are all families in Uruguay, in which one of its members attended or attends such spaces.

With an annual budget of about USD56 million and over 600,000 direct beneficiaries (numbers as of mid-2013), Plan Ceibal costs less than USD100 per child or less than 5% of the annual public expenditure in education for children in this age bracket.

Plan Ceibal supports the inclusion of technology projects in education in other countries and has assisted in the design of strategies to facilitate their development and enhancing their effectiveness. The country is collaborating with similar projects in Paraguay, Brazil, Paraguay, Colombia, Argentina, Armenia, Rwanda and Ecuador.

Conclusion:

Over the years, Plan Ceibal has added computers, platforms, content and tools to facilitate teaching and improve education. It has democratized technology access as a key tool for education in the knowledge society drastically reducing the digital gap in Uruguay, transforming a privilege of few into a right for all. Plan Ceibal is just starting.

Case 2 - Fiber To The Home

The Government of Uruguay, through its telecommunications company ANTEL, has taken up the challenge to make a quantum leap in the last mile access to households, by connecting all households via optical fiber. The goal by 2015 is to cover 75% Uruguayan households.

The development of this project is outstandingly meaningful to the information and communication Infrastructure. This means a contribution to the development of the national broadband, which has a direct impact on making access to information

society services available.

A proper coordination among several companies and Antel's staff has been carried on for quick deployment: About 40 companies take part in the installation, involving about 3.000 non-Antel's employees.

By the end of October 2013 the following has been accomplished:
- More than 655.000 connected households (26% of households with coverage, excluding Montevideo)
- About 237.000 activated services.
- More than 30% data services provided via optical fiber throughout the country.
- Services available in more than 20 cities in the country.
- Available and active services with speeds up to 1Gbps for universities and massive services with speeds up to 120Mbps for households.

Project is developed uninterruptedly. More than 50% of planned goals to the end of the project have been achieved.

Some other impacts:
From the start of the project the speed and quality in Uruguay, evolved from 3.4Mbps in 2011 to a value of 21.4Mbps today ("through the ISP Antel").
Source: http://www.netindex.com/download/2,103/Uruguay/

Case 3 - Models for the prioritization and simplification of procedures, change management, communication and monitoring

When addressing e-Government strategies, questions like the following arise: What to do to improve the interaction between citizens and the State? How to simplify procedures? Where to start and based on which criteria? How to be prepared to face barriers to change? How to communicate that these changes are taking place? In view of the need for making online procedures massively available, the need for elaborating a set of models for prioritization, simplification, change management, communication and monitoring was determined.

A multidisciplinary and inter institutional team started establishing the whole set of procedures of the Central Administration. Likewise, by means of surveys, a number of weighting criteria were quantified based on different variables that are considered as important by the citizens, companies and the State itself. This allowed creating a model for the prioritization of procedures, whose product is a three-axis graphic matrix where each procedure is analyzed in terms of volume and the according to the importance of its simplification.

Based on an analysis carried out for each type of existing typology and the assets of the IT available in the Administration, a simplification model was created which allows establishing, for each procedure: a description of the solution, a conceptual technological architecture, diagram of processes and a set of good practices and success criteria to take into account for its simplification.

Taking into account the industry's good practices and by means of a questionnaire that analyzes the strategy variables, organizational alignment and capacity, a model for change management was created, which allows identifying facilitators and risks of the simplification and automation of each procedure, thus making an analysis for each group of interest to elaborate a change management plan. Similarly the model for communication was created, for which groups of interest and different communication channels were studied. Finally, the model for monitoring was elaborated, in which a matrix of indicators is established to follow the fulfillment of the simplification of procedures.

The project, started in 2011, was completely executed by 2012, obtaining the models for prioritization, simplification, change management and monitoring as a result. In 2013 and as part of a simplification strategy of Uruguayan Government, these models are being implemented by a team of more than 400 people of the Central Administration and whose results are periodically reported to the Council of Ministers.

It also allowed identifying aspects to be improved, such as the need for having all the procedures of the Central Administration and improving the accuracy and quality of the information on the procedures offered to the citizens through different channels, this being one the main reasons of users' dissatisfaction. The above mentioned has allowed taking further actions that have already yielded important results: legal provisions that set the road map to be followed, an analysis of the universe of procedures and all the information related to them, the unification of said information through the Portal of Uruguayan State, the determination of the validity of the information therein presented as the only information than can be required and the elimination of the first procedures identified as unnecessary.

Conclusion:

The offer of procedures through electronic means to facilitate the interaction between citizens and the Sate is a commitment that has been assumed by governments since the beginning of this century. For more than 10 years the public administrations have created different strategies that have left as important lessons, the necessity of simplifying and improving the procedures before introducing the technology in order not to "automate the chaos" and to allow approaching these processes one by one. Here lies the main contribution of this project: to enable a series of tools for a comprehensive approach to the problem that leads to effective solutions and with a great impact on the provision of better services for the citizens.

Case 4 - National System of Livestock Information

The National System of Livestock Information assures the traceability of bovine livestock from the establishment of animal source, according to the dispositions and regulation of the Ministry of Livestock, Agriculture and Fisheries.

A unique and centralized database was created, as a way to ensure consistency and be ease to upgrade. The integration into a single system, inventory data (from the annual affidavit) and movements or changes of ownership, allows among other things, the maintenance of an account updated current producer, and the adoption of more effective health measures for the benefit of all producers.

Various forms used, particularly the property and transit guide, have been redesigned acquiring an aspect known as producers (similar to the present affidavit, to the last agricultural census and the latest census of population and housing). Thus, it has been possible to automate the processing of such forms to improve the quality of data, the process efficiency and the consultation thereof from anywhere in the country.

Improvement in the Traceability System: The system has as one of its two key strategies to improve the current system of group traceability of the Controller of Livestock Division, supporting its management with the incorporation of new technologies. This process is part of the actual regulations, and without changes in current operations.

Integration of Geographic Information System: The territorial distribution of animal population, and the details of their movements, is a fundamental factor to be considered from the sanitary point of view. That is the reason why geo data was implanted, fully integrated into system, allowing from the information collected in the Annual Affidavits and Property Guides and Transit, located on the map each of the registered establishments in the Controller of Livestock Division, and display the source and destination of each movement by date, species and category. This technology had rapidly showed good results both for operational decision taking and strategic.

Results:

- Identification and registration of 100% of the national livestock, instrument for determining status and path of its tracing. Essential tool for the epidemiological surveillance and control of diseases that are of official health campaigns.
- Getting the most demanding market 481 high quality meat.
- The 20% of users make use of it, adopting voluntarily.
- In terms of sustainability since 2010 we began the process of institutionalization and became financed by the National Budget.
- Uruguay is the only country that has developed an information system to apply individual traceability in bovine cattle.

Other services have been developed taking advantage of the existence of this system, as the provision of readers to the police, that can identify quickly and easily from anywhere in the country and in real time, information on the origin, path and destination of cattle in movement, as well as validation of the documentation and sanitary alerts to prevent epidemiological outbreaks.

This system ensures the high standards of the Uruguayan livestock and facilitates the entry of its products to the most demanding foreign markets.

Section IV: The Way Forward and the Vision Beyond 2015

Inequalities within countries, between countries and regions continue to exist and must be resolved.

To include everyone in the information society is the most important challenge from a social point of view. In order to achieve this, it is necessary to address all kind of inequalities: the pre-existing socio-economic ones, those inherent to access to technology and those arising once one is immerse in the digital world.

The deployment of access infrastructure must continue, with greater emphasis on providing connectivity to less advantaged social sectors, and to cover all the territory and not only the main cities. Citizens are increasingly demanding better government services, through multiple channels; seizing new devices that allow a digital deployment at levels we still cannot even imagine. New ways of learning should be implemented. Informatics should be taught as a basic science, and the specialized education in ICT should be extended, given the increased demands of human capital formed in these areas. The progress towards an improvement in the provision of health services is still very incipient: the alignment of all health care providers with regards to the use of ICTs in their clinical management and services should be a priority. To strengthen information security and to ensure privacy to the citizens has become one of the main topics, and actions should continue in this direction. At these and any other line of action, institutionalization remains a great challenge: the development of the information society must overcome the barriers of the changes in administrations and move steadily forward, building on what has been built.

A balance must be reached. Balance between what should be regulated and what should not. Balance among the issues that must be decided through a multi-stakeholder process and the decisions that governments must take. Balance between digital economy and social inclusion. Between openness and privacy. Between property rights and sharing. Between globalisation and country jurisdiction. And so on. With technology, boundaries between multiple issues have become rather diffuse and is necessary to seek the necessary balance to build the people-centric, inclusive and development-oriented Information Society that we all want.

This report was prepared by the Agency for e-Government and Information Society (AGESIC), with significant contributions from a wide range of stakeholders specialized in each area.