Agenda Uruguay Digital 2020

Transforming with equity

Uruguay Digital

PRESIDENCIA
República Oriental del Uruguay

Agenda Uruguay Digital 2020

Transforming with equity

The Agenda Uruguay Digital 2020 integrates the different priority initiatives in order to advance in the country's digital transformation in an inclusive and sustainable manner, through the smart use of technologies.

This is motivated by the fact that more and more Uruguayans could take full advantage of the benefits of the information and knowledge society under equal opportunities.

www.uruguaydigital.uy

agesic
DESARROLLANDO EL URUGUAY DIGITAL

Contents

A. GENERAL OVERVIEW

THE JOURNEY SO FAR

TOWARDS DIGITAL TRANSFORMATION

STRUCTURE OF THE AGENDA

B. PILLARS OF THE AGENDA

SOCIAL POLICY AND INCLUSION:
"Using digital technologies to transform opportunity structures"

SUSTAINABLE ECONOMIC DEVELOPMENT:
"Building a competitive digital economy"

GOVERNMENT MANAGEMENT:
"Innovating in the relationship between citizens and the State"

GOVERNANCE FOR THE INFORMATION SOCIETY:
"An enabling framework to favour its social take-up"

C. OBJECTIVES AND GOALS

D. IMPLEMENTATION FRAMEWORK

General overview

The journey so far

Over the past decade, Uruguay underwent a period of significant economic growth and social development, matched with tangible and visible digital development in various fields.

Ensuring the population's access to digital technologies and bridging the digital divide have been a priority for the country, addressed through different public policies in order to guarantee the rights of all social sectors to the opportunities provided by the information and knowledge society.

"Uruguay Digital" brings together the efforts of diverse stakeholders from the public and private sectors, academia, organised civil society and technologist, and is set in the framework of a country commitment. This has been an ongoing and evolving process, reflected in the previous agendas of 2008, 2010 and 2015, which enabled decisive progress in infrastructure development and service coverage, while prioritising direct and concrete benefits for citizens. Always seeking to maintain the spirit of inclusion and equity, which is characteristic of the country.

The progress achieved over the past ten years is evident: the country has a wide coverage in telecommunications infrastructure, every household is being connected with fibre optics, free Internet plans are offered to the population, connection rates are the lowest in the region and at the highest speeds, all children attending public schools have their own computer with Internet connection which they share with their families, the population has basic digital literacy skills, and outstanding initiatives are being carried out such as the individual livestock traceability, the digital government strategy and the national electronic health record.

The significant effect of these actions has contributed to correcting disparities, closing the access gap between higher-income and low-income population, and democratising services, turning digital development into a hallmark of Uruguay nationally and internationally.

Towards digital transformation

Uruguay now has the conditions to accelerate the country's social and economic development, by addressing current challenges of the information and knowledge society and anticipating those that may arise in the future.

The "Agenda Uruguay Digital 2020" is thus framed in a context that implies going beyond the deployment of infrastructure and technological tools to improve and support traditional processes. Its objectives seek to expand the capacity for innovation that triggers transformation of processes, without disregarding solutions to pending needs in the access and use of digital technologies.

The Agenda seeks to prioritise, articulate and disseminate a series of actions aimed at establishing a comprehensive vision in line with the country's strategic development goals, while also contributing to achieving the global goals in the 2030 Agenda for Sustainable Development.

The Agenda focuses on the critical factors that condition digital transformation, such as strengthening specific skills, the full incorporation of technology into productive sectors, deepening the ties between State and citizens, and counting on an enabling framework to develop the agenda.

Structure of the agenda

The "Agenda Uruguay Digital 2020" integrates the different priority initiatives in order to advance in the country's digital transformation in an inclusive and sustainable manner, through the smart use of technologies.

The Agenda is aligned with the public policy priorities defined in the national strategic and budget planning processes for the five-year term. Therefore, it provides an account of the initiatives defined in the discussion and participation mechanisms of the involved agencies. It is likewise in line with the context of international agreements such as the World Summit on the Information Society and the Digital Agenda for Latin America and the Caribbean.

The Agenda is not intended to be an exhaustive list of the existing projects nor does it include declarative goals. It is structured on the basis of four pillars that bring together a series of concrete objectives and commitments with specific and verifiable goals, which enable follow-up and compliance monitoring.

Pillars of the agenda

The Agenda has four key pillars as the foundations for the Uruguay Digital 2020. Each pillar has a set of objectives, commitments and goals that will contribute to their achievement.

SOCIAL POLICY AND INCLUSION:
"Using digital technologies to transform opportunity structures"

Digital technologies have the potential to transform the country's opportunity structures and Uruguay has been advancing in that direction. During this period, focus will be on closing the digital divide generated by the uneven acquisition of competencies, and prompting interest and training in increasingly sophisticated skills.

SUSTAINABLE ECONOMIC DEVELOPMENT:
"Building a competitive digital economy"

Digital technologies affect the ways in which production, distribution and consumption take place, bringing about changes in all the dimensions of economic development. Uruguay presents a solid foundation for advancing in the digital economy, with state-of-the-art infrastructure, a strategic vision and the articulation of actions by all stakeholders to enable its development both within and outside its borders.

GOVERNMENT MANAGEMENT:
"Innovating in the relationship between citizens and the State"

Uruguay has modernised its public administration through the significant incorporation of technology into the processes. Advancing in the government's digital transformation also entails the strategic management and use of data, and enabling the incorporation of digital trends and emerging technologies to create public value, innovating for better decision-making and the adoption of new models for citizen-State relationship.

GOVERNANCE FOR THE INFORMATION SOCIETY:
"An enabling framework to promote social take-up"

The information society evolves in a dynamic, decentralised manner and in multiple dimensions that challenge articulation and collaboration. Uruguay has developed an ongoing digital policy, with an ecosystem that promotes and needs extensive stakeholder participation, requiring a solid strategy that provides guarantees of trust and security in order to make full use of its possibilities.

Objectives and goals

Objective I:
Digital skills for inclusive progress

Intensify the population's adoption of advanced digital skills, from young people to the elderly, through education and research processes. This also includes specialised training in digital technologies for the ICT industry and the various sectors of the productive matrix.

COMMITMENTS AND GOALS

1. Digital inclusion of 100% of low-income retirees by distributing tablets with Internet connection and training through the Ibirapitá Plan.
2. Develop digital skills in information, communication, content creation and problem-solving in specific communities, with a goal of reaching 60,000 people.
3. Provide training in programming to 5,000 young people, promoting their integration into the labour market in the ICT sector, through initiatives such as "Young Programmers"
4. Add 5 new curricula to the existing university offer containing ICT specialisation components and transform the teaching-learning processes through the incorporation of digital technologies and the offer of filmed courses to facilitate active learning.
5. Incorporate knowledge and technological value in all sectors of the productive matrix by training 1,000 students and workers in the acquisition of crosscutting skills (abstract, computational or scientific thinking) and their implementation in areas such as domotics, robotics, biotechnology and nanotechnology.
6. Create the National Repositories System to enable sharing and consulting scientific papers, dissertations and textbooks, produced nationally at university level and made accessible through the Timbo Portal.

Responsible institutions

National Public Education Administration, National Research and Innovation Agency, Uruguayan Chamber of Information Technologies, Ceibal Centre, Ministry of Education and Culture, Ministry of Industry, Energy and Mining, public and private education institutions, University of the Republic.

Objective II:
Innovation for social welfare

Promote wellbeing by integrating efforts in education, health, social development, employment and culture, in order to enable timely and decentralised access to information and quality public services, taking advantage of the potential of digital technologies.

COMMITMENTS AND GOALS

7. Integrate information on students' education records at all levels of education to enable their effective insertion, support, retention and follow-up, with particular emphasis on the transition from one educational cycle to another and on those social sectors that present the highest dropout risk.

8. Achieve the adoption of the National Electronic Health Record by 100% of the comprehensive healthcare providers in at least 3 areas (e.g. emergencies, ambulatory care, hospitalisation, surgery or others), the adoption of the Oncological Electronic Health Record by 100% of public and private oncological health services, and establish regulatory and technical instruments to enable electronic prescribing.

9. Establish the Tele-assistance programme within the National Care System, to ensure immediate and timely referral of mild or moderately dependent people living in their own homes, when faced with needs that require the intervention of third parties.

10. Integrate workers' updated employment information in real time, unifying labour and payroll records in a single document, and making the digital pay stub available for all workers.

11. Devise a cultural platform providing comprehensive access to cultural assets (shows, events, traditional festivities, projects, contests, among others) and geo-referenced cultural infrastructure.

Responsible institutions

State Health Services Administration, National Public Education Administration, Agency for Electronic Government and Information Society, Ministry of Social Development, Ministry of Education and Culture, Ministry of Labour and Social Security, Ministry of Public Health, University of the Republic.

Objective III:
Strategic investment in infrastructure

Strengthen the telecommunications infrastructure in order to continue advancing towards universal access to the population and to achieve substantial improvements in capacity and quality, taking into account the technological dynamism and development of new digital services.

COMMITMENTS AND GOALS

12. Achieve 65% of households with fibre-to-the-home (FTTH) coverage, 90% of households with broadband Internet connection, and 65% of the national territory with LTE coverage.

13. Increase the total bandwidth capacity to meet the country's current and future demand for Internet connectivity and international communications with state-owned infrastructure, ensuring greater independence and security through the construction of submarine cable systems to connect Uruguay with the region and the world.

14. Optimise the use of the national radio electric spectrum and make new bands available to facilitate the development of telecommunication services.

15. Develop connectivity infrastructure and management platforms to facilitate the deployment of applications based on the Internet of Things.

16. Design, install and operate in Uruguayan territory a relatively low-cost radio telescope with an innovative design to facilitate, amongst other things, the processing of large data volumes and the development of domestic cutting-edge industries

Responsible institutions

National Telecommunications Administration, Municipal Governments, Ministry of Industry, Energy and Mining, Regulatory Unit for Communications Services, University of the Republic.

Objective IV:
Digital economy and innovation for competitiveness

Consolidate mechanisms to promote the digital economy, stressing the creation of greater added-value, and driving the digital transformation of micro, small and medium-sized enterprises to increase productivity, growth and innovation of the productive sectors.

COMMITMENTS AND GOALS

17. Expand coverage to reach 90% of small, medium and large enterprises with broadband Internet connection, while maintaining competitive connectivity rates.

18. Sponsor the development of 50 innovative projects aimed at solving competitiveness problems of businesses across all sectors and the development of the audio-visuals, applications and videogames industry.

19. Maintain, enhance and consolidate the national sanitary status through real-time availability of the location of specific veterinary products once they have been marketed.

20. Expand the development of the agricultural information society through the interoperability of 4 services.

21. Create a Digital Manufacturing Laboratory focused on priority industrial sectors and set up a platform for content sharing and dissemination.

22. Strengthen the national e-commerce supply by facilitating management technology for 3,000 MSMEs and the development of training programs for 4,900 entrepreneurs.

23. Expand the financial inclusion process through measures to facilitate access and reduce costs of financial services

Responsible institutions

National Telecommunications Administration, National Research and Innovation Agency, Ministry of Economy and Finance, Ministry of Livestock, Agriculture and Fisheries, Ministry of Industry, Energy and Mining.

Objective V:
Smart management of environmental information and emergencies

Improve the prevention, mitigation and attention to environmental and emergency impact, monitoring the quality of strategic natural resources and managing the likelihood of the occurrence of natural events.

COMMITMENTS AND GOALS

24. Monitor the water quality of national watersheds through information management of environmental variables obtained from different sources, starting with the Santa Lucia river basin.

25. Develop national bioinformatics through the creation of a metagenomics centre and postgraduate programmes in this field.

26. Map the non-ionising radiation levels of the radio electric stations and conduct ongoing monitoring of compliance with the established limits.

27. Increase emergency management and disaster risk reduction capabilities, through the protection of people, significant assets and the environment, and the development of information, communication and multirisk early warning systems.

Responsible institutions

National Telecommunications Administration, National Research and Innovation Agency, National Emergency Directorate, Ministry of Livestock, Agriculture and Fisheries, Ministry of Industry, Energy and Mining, Ministry of Housing, Land Planning and the Environment, National Secretariat for the Environment, Water and Climate Change, public and private education institutions, Regulatory Unit for Communications Services, University of the Republic.

Objective VI:
Proximity government

Encourage different ways of approaching the relationship between citizens and the State, promoting transparency, accountability, citizen participation and the development of better services, generating direct contact channels with people and improving the quality of care in the services provided.

COMMITMENTS AND GOALS

28. Achieve 100% availability of the Central Administration formalities so that these can all be initiated, tracked and completed online.

29. Bring services closer to the population through a uniform front-end support at all Central Administration, the set-up of the "Citizen Response Centre" and of the citizen and business portals.

30. Deepen the open government culture, implementing e-participation mechanisms at 100% of central government agencies and increasing by 100% the offer of open government data.

31. Strengthen the culture of transparency through the adoption of the unified and traceable public information system for queries on public information at 100% of the Central Administration agencies.

32. Achieve 70% of Internet users using online government services through awareness-raising and dissemination campaigns.

Responsible institutions

Agency for Electronic Government and Information Society, Office of the President of the Republic and involved agencies.

Objective VII:
Whole-of-government and smart government

Expand the development of infrastructures, platforms, architectures and systems in order to advance towards a State that acts as a unit, and intensify the use of data for decision-making, public policy guidance and ongoing improvement through proactive services that anticipate needs.

COMMITMENTS AND GOALS

33. Develop the Central Administration data architecture and information systems and have federated records of people, enterprises, public services and addresses available as metadata on the interoperability platform.

34. Deploy the spatial data infrastructure with at least 3 levels of geographical information layers, as a tool to support decision-making at territorial level.

35. Conduct reengineering of the public records systems and of the State's crosscutting systems (SIIF, procurement channel).

36. Devise a general inventory of all state-owned real estate and an integrated system to record, manage and monitor this inventory, in order to make decisions that will best contribute to preserving the public sector real estate.

37. Provide electronic invoicing in State contracting, centralising its reception for the entire Central Administration and integrating these to the administrative management systems.

38. Conduct strategic management monitoring, coordination of the implementation of public policies and communication of the government's results through smart analytics-based solutions.

39. Application in all ministries of data models for big data for conducting descriptive and predictive analytics of events affecting the community and for designing proactive services.

Responsible institutions

Agency for Public Procurement and State Contracting, Agency for Electronic Government and Information Society, Ministry of Economy and Finance, Ministry of Education and Culture, Office of Planning and Budget, Office of the President of the Republic and involved agencies.

Objective VIII:
Trust and security in the use of digital technologies

Build secure environments and trust-based forms of interaction, in order to promote full participation in the information society.

COMMITMENTS AND GOALS

40. Adjust and update the regulatory framework on priority issues to support the development of the "Agenda Uruguay Digital 2020": privacy, cybercrime, e-waste and e-consumer protection.

41. Articulate multi-stakeholder actions and enhance their cooperation through a National Cybersecurity Operations Centre (SOC Nac) through public-private participation.

42. Develop an awareness-raising plan on the proper use of the Internet, reaching out to 20% of Internet users in the priority segments of the population.

43. Expand coverage to reach 30% of the population with electronic identity mechanisms (ID card, mobile ID, etc.), using these for authentication purposes and digital signing of documents.

44. Achieve compliance with the minimum requirements of cybersecurity maturity models and operational continuity in 100% of the Central Administration agencies.

Responsible institutions

Agency for Electronic Government and Information Society, Ministry of Economy and Finance, Ministry of Housing, Land Planning and the Environment and involved agencies.

Objective IX:
Production of national ICT statistics

Strengthen the necessary institutional frameworks in order to articulate, monitor, measure and promote the ICT sector, guaranteeing regular data production and statistics that serve as input to the appropriateness of digital policies and the decision-making processes.

COMMITMENTS AND GOALS

45. Improve local capacity for the production of national statistics on the information society, in line with international standards, providing a technical field for dialogue and collaboration between the relevant agencies.

46. Incorporate the outlook on diversity in the treatment of statistical data of the ICT sector, in order to provide robust and timely data for the design of equitable public policies.

Responsible institutions

National Telecommunications Administration, Agency for Electronic Government and Information Society, Ceibal Centre, National Statistics Institute, Ministry of Industry, Energy and Mining, Regulatory Unit for Communications Services and involved agencies.

Implementation framework

Encouraging the progress of the information and knowledge society by promoting the best use of information and communications technologies by individuals, enterprises and the Government, is part of the mandate entrusted to the Agency for Electronic Government and Information and Knowledge Society of the Office of the President of the Republic.

The Council for the Information Society was created in order to advise on the country's digital agenda, and is a body that provides guidance in the drafting and prioritisation processes, as well as on the monitoring and assessment of the initiatives contained in the agenda.

For the period until 2020, the Council for the Information Society held an initial meeting with the aim of reviewing the main outcomes of the previous agenda and to agree on the roadmap to be addressed. This was followed by instances of dialogue and interaction with the focal points appointed by the authorities, in order to identify the set of priority actions, which were approved by the Council during the final meeting of the drafting process. This is how the measures contained in this instrument were defined.

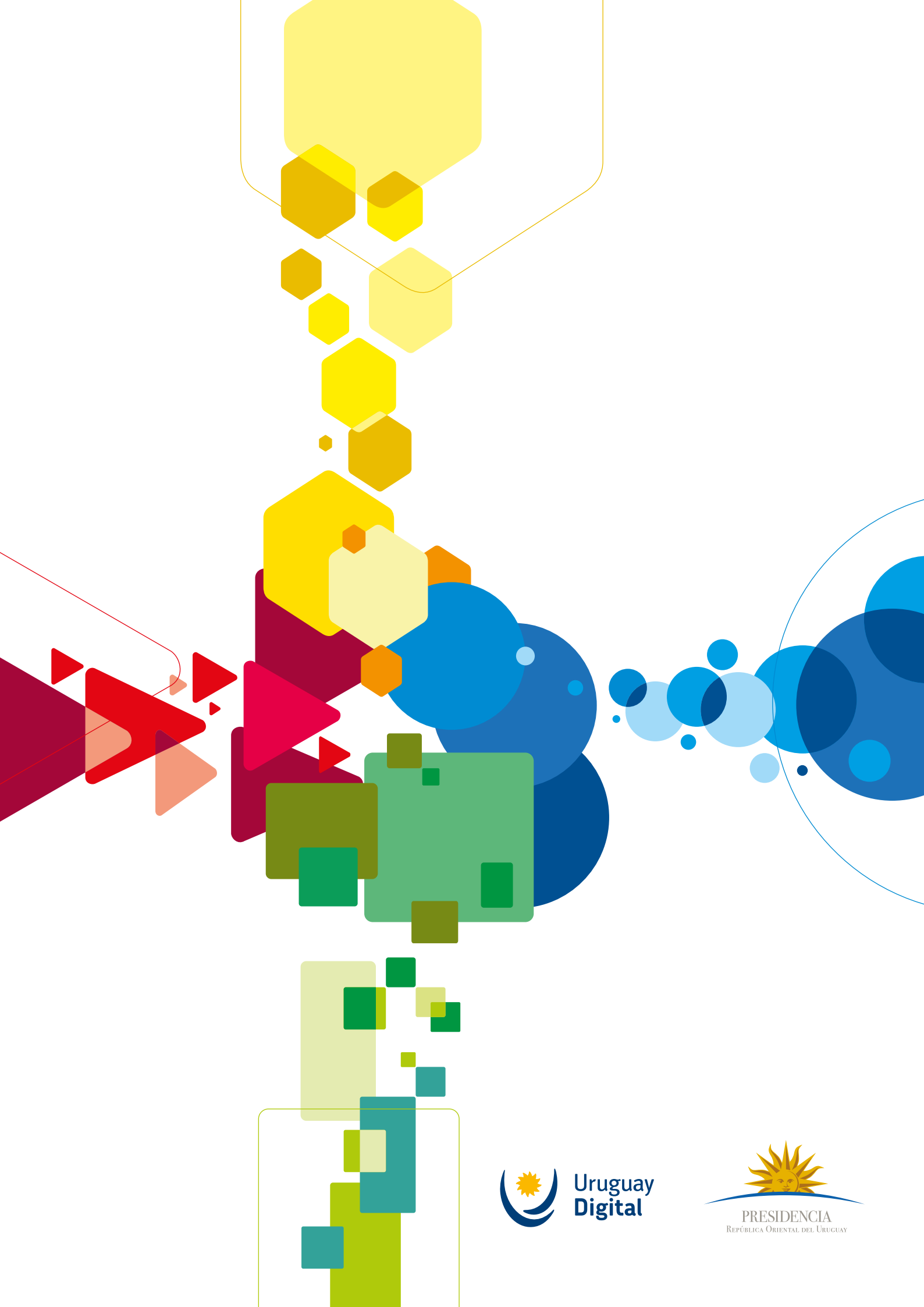
Likewise, the Council decided to include goal 47 in the Agenda:

47. Address, in the framework of the Council for the Information Society, a set of challenges for digital transformation that could be incorporated as new commitments in the mid-term evaluation of the "Agenda Uruguay Digital 2020": (a) Create a national information technology research centre; (b) Include the teaching of computer science as a subject in secondary education.

Monitoring and evaluation will be conducted with the focal points in the responsible institutions based on the quarterly monitoring of the battery of indicators defined for each goal and taking into account gender and diversity mainstreaming. The Council will be convened semiannually to discuss the progress in the implementation of the actions. Reports on the implementation of this agenda shall be prepared and published annually and its discussion shall be promoted in the instances of dialogue with all the stakeholders in the Uruguayan Internet Governance Forum.

This information shall serve as input for the mid-term evaluation to be conducted in 2018 and, if required, the agenda shall be updated bearing in mind the changes in the environment and the outcomes obtained at the time of the review.

Throughout the entire period, the degree of progress towards the goals shall be publicly available at www.uruguaydigital.uy



Uruguay Digital

PRESIDENCIA
República Oriental del Uruguay