

ITU - GSR 2011 DISCUSSION PAPER:

SETTING NATIONAL BROADBAND POLICIES, STRATEGIES AND PLANS

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Mini-Case Studies

The reference materials used to prepare this chapter are complemented by a number of mini-Case Studies dealing with Fiji, Papua New Guinea, Argentina, Brazil, and Hong Kong China. Each of these Case Studies is fascinating in its own right. The experiences of these countries with broadband implementation and regulation offers valuable insight into the task of broadband rollout and should be of interest to many other countries in similar circumstances.

2.5.3 Case Study 3: Argentina – Showing the way with preparations

Argentina is Latin America's third largest economy with a high rating on the human development index. Analysts point to the country's foundation for future growth due to its market size, levels of foreign investment, and percentage of high-tech exports as a share of total manufactured goods. Broadband is therefore particularly important to the future.

2.5.3.1 Developments in Broadband

Argentina sets an excellent example of thorough and well-consulted preparations in developing a National Plan, *Argentina Conectada*¹ (Argentina Connected). This Plan has elements that should appeal to both developed and developing countries.

In October 2010, the Government of Argentina, recognizing the importance of broadband for social and economic development, launched a major initiative to increase broadband connectivity for individuals, businesses, educational institutions and government offices across the nation. The initiative is built upon the premise that the development of broadband requires not only the availability of basic data transport infrastructure and affordable connectivity services, but also appropriate applications and content, a large installed base of terminal equipment, and the expansion of ICT skills among citizens of Argentina.

An integrated public policy approach to the design and implementation of a national telecommunication plan is thus required to promote such a complex ecosystem. The National Plan was released in October 2010, and combines under a single connectivity initiative several other efforts already under way. In particular, it integrates ongoing programs aimed at digitalizing terrestrial broadcasting, providing ICT equipment and training to public-school students, extending connectivity to remote areas, and establishing public access ICT centres, among other programs.

The Plan is guided by the following strategic guidelines:

- Digital inclusion for all citizens and universal broadband connectivity across the Argentine territory;
- Optimization of spectrum use;
- The promotion of local content and employment in the ICT sector;
- The development of next-generation telecommunication infrastructure;
- The promotion of local R&D; and
- The strengthening of competition in telecommunication services.

2.5.3.2 Where Argentina stands today

Argentina has a long tradition of well-developed public utilities such as water, electricity and telecommunication services. It ranks high within Latin America in broadband adoption. In September 2010, *Argentine Conectada* reported that the number of residential broadband connections reached 4.5 million people (an increase of 30 per cent from the previous year) in a population of some 40 million. About a third of households are already connected.

While this sustained growth suggests the presence of a competitive market environment, a closer examination reveals several challenges that result from well-understood market failures in the provision of broadband services. Among them are:

- The large regional disparities in broadband penetration, which reduce development opportunities for the poorest regions;
- The limited capillary presence of the backbone infrastructure for data transport, which results in high prices and low service quality outside the main urban centres;
- The limited connectivity among public schools, libraries, and government offices;
- The inadequate skills and low penetration of terminal equipment among disadvantaged households, which reduces demand incentives; and
- The limited development of local content and appropriate electronic services, which also reduces broadband demand.

In summary, despite the rapid development of broadband in Argentina over recent years, the government has a key role to play to ensure:

- a) balanced growth of the broadband ecosystem and
- b) wide distribution of the benefits of such growth across regions and social groups. In particular, the State has an important role in:
 - orienting private investments to ensure wide regional coverage of advanced services;
 - making complementary public investments in basic transport infrastructure to promote competition in non-replicable network segments;
 - promoting service affordability and appropriate service quality benchmarks; and
 - stimulating broadband demand through complementary investments in digital literacy, content and applications, research and development, and public access centres.

2.5.3.3 Key Initiatives

The table below presents the key initiatives articulated under *Argentina Conectada* for each of the components of the broadband ecosystem. At the centre of the government's strategy is the creation of a national fibre-optic network backbone operated by AR-SAT (Empresa Argentina de Soluciones Satelitales S.A.), a government-owned corporation with extensive experience in telecommunication services.

AR-SAT will fulfil connectivity demands in the public sector and operate under open network principles in the wholesale data transport market. This strategy is complemented with financial stimulus to local operators in the last-mile segment, as well as the establishment of public access centres across the nation. The goal is to double the available fibre-optic backbone infrastructure and the number of broadband subscriptions within a five-year period (2011-2015).

Table 4: Argentina Conectada: Key initiatives		
Component	Current Situation	Initiatives
<i>Data transport infrastructure</i>	Low capillarity, few data exchange points for local traffic.	Deployment of federal fiber optic network and NAPS at provincial level through AR-SAT.
<i>Telecommunication services</i>	Incomplete coverage, high cost and low quality in semi-urban and rural areas.	AR-SAT operation in wholesale data transport segment. Public financing to local operators in last-mile segment. Optimization of radio spectrum use to stimulate mobile broadband. Establishment of public access centres in libraries, community centres and selected public spaces.
<i>Terminals and equipment</i>	Regional disparities, limited adoption in public schools and SMEs	Laptops to public-school students (Conectar Igualdad program). Financial stimulus to PC adoption (Plan MI PC2).
<i>Applications and content</i>	Limited availability of educational and e-gov applications, as well as local content.	Financial stimulus to local application and content production. National educational portal. National e-gov plan CIVITAS2
<i>Human capital</i>	Disparities in ICT skills, limited development of higher education in ICT area.	National digital literacy program. Support to ICT-related higher education. Financial stimulus to R&D in ICT sector. Creation of National Telecommunications Institute.

2.5.3.4 Execution Strategy

Argentina Conectada was the product of several months of collaboration among multiple government agencies and extensive consultations with the private sector, academia and other civil society organizations. This multi-stakeholder approach is reflected in its execution strategy.

Under the leadership of the Ministry of Federal Planning, Public Investment and Services, the Planning and Strategic Coordination Commission will be responsible for the overall execution of *Argentina Conectada*. In this regard, the Planning and Strategic Coordination Commission will articulate the efforts of several thematic working groups in which multiple government and non-governmental actors participate. The regulator plays a key role in the activity.

These Working Groups are as follows:

- Digital Inclusion;
- Spectrum Optimisation;
- Universal Service;
- National Production and Employment;
- ICT Capacity Building and Research;
- Connectivity and Infrastructure; and
- Competition.

2.5.3.5 Summary

In summary, Argentina has a well-developed broadband plan in place that has broad support and involvement of stakeholders. The Plan revolves around the creation of a national backbone fibre-optic network operated by AR-SAT, a government-owned corporation offering open access at a wholesale level. The strategy is complemented by financial stimuli to local operators over the last mile segment, and the role of the regulator will evolve as the Plan matures into implementation.

To download whole *Discussion Paper: Setting national broadband policies, strategies and plans* please visit:

<http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR11/documents/03-Broadband%20Policies-E.pdf>

ⁱ See www.cnc.gov.ar