

Elisa Korentayer, *Harvard University*

Pablo Jenkins Villalobos, *Intel Corporation*

“ In 1985, without any expectation, PCs suddenly became affordable in Costa Rica. In the next few years, primary school children started using computers every week, businessmen joined together to gain understanding at the IT Research Club, and universities forged ahead with Internet precursors.”

—*IT professional, Costa Rica*

“ There are only two ways to work in IT—with Intel or on your own.”

—*Costa Rican IT professional*

In recent years, Costa Rica has become well known for its progressive policies toward high-tech investment. The country ranks fifth in Networked Readiness within Latin America and forty-fifth overall. Costa Rica's high quality service industry, ICT workforce, and advanced investment policies have attracted Intel and others, which, in turn, has significantly increased and diversified the country's export revenue. However, Costa Rica's appeal as a base for technology companies belies such internal challenges as lagging telecommunications policies and substandard ICT access for the average citizen.

Observers are quick to point out that the Instituto Costarricense de Electricidad (ICE) leverages its telecommunications monopoly to subsidize its electricity monopoly. The quality and speed of telecommunications services overall are limited (Ranking in Effect of Telecommunications Competition: 65). Many critics feel that opening ICE up to private-sector competition is essential for progress on the technology front.

Overall teledensity is high, particularly when compared to Costa Rica's Central American neighbors, but there is a long wait for new lines (Ranking in Business Telephone Lines: 70). The quality of Internet service is poor, with high connection fees and slow connection speeds. In response to increased demand, the ICE and the Ministry of Science and Technology have launched a pilot program to connect fiber rings throughout the country. They also plan to deploy 100,000 DSL lines at US\$40 per month with download speeds of 128 Kbps and 256 Kbps.<sup>1</sup>

To further improve education and augment high literacy rates, the government has established aggressive “ICT in the classroom” policies. Fifty percent of elementary schools and 100 percent of high schools have computer labs (Ranking in Internet Access in Schools: 35).<sup>2</sup> Education outside

of San José, the capital city, is poor. Higher education institutions offering ICT instruction focus on theoretical coursework, leaving significant instruction to private companies. The Instituto Tecnológico offers more applied instruction and provides internships (Ranking in Quality of IT Education: 26).

Incentives for foreign technology companies include low customs tariffs, free zones with tax holidays of twelve to eighteen years, and reinvestment incentives. Intel, Microsoft, Motorola, and other well-known multinational ICT firms have Costa Rican facilities.

Costa Rica's internal technology market is small and predominantly foreign. The local venture capital community is still in its early stages. Most companies finance themselves with loans and operating income, making investment in research and development difficult. Minimal incubation opportunities and a low level of managerial and business preparation in technology start-ups limit dot-com competition (Ranking in Dot-com Competition: 66) and e-commerce prevalence (Ranking in e-Commerce micro-index: 56). Costa Rica's 150 software companies are beginning to export more within the Latin American region.

The government and business community rate technology as a national high priority. CINDE, the national investment board, has strong government support for marketing Costa Rica and attracting foreign investment. The country still lacks a long-term plan for addressing many internal challenges and fares relatively poorly in e-government initiatives (Ranking in e-Government micro-index: 48).

## Key Facts

Population	4,023,000
Rural population (% of total population) 1999	52.40 %
GDP per capita (PPP)	US\$9,236
Global Competitiveness Index Ranking, 2001–2002	35
UNDP Human Development Index Ranking, 2001 (adjusted to GTR sample)	35
Main telephone lines per 100 inhabitants	24.94
Telephone faults per 100 main telephone lines	42.10
Internet hosts per 10,000 inhabitants	18.29
Personal computers per 100 inhabitants	9.94
Piracy rate	68.00 %
Percent of PCs connected to Internet	1.87 %
Internet users per host	33.98
Internet users per 100 inhabitants	6.21
Cell phone subscribers per 100 inhabitants	5.19
Average monthly cost for 20 hours of Internet access	US\$20.00

**RANK**

## Networked Readiness Index **45**

### Network Use component index **48**

### Enabling Factors component index **45**

#### ■ Network Access **52**

Information Infrastructure 64

Hardware, Software, and Support 40

#### ■ Network Policy **49**

Business and Economic Environment 40

ICT Policy 57

#### ■ Networked Society **33**

Networked Learning 33

ICT Opportunities 24

Social Capital 42

#### ■ Networked Economy **54**

e-Commerce 56

e-Government 48

General Infrastructure 57