

## TECHNICAL COOPERATION PROFILE

NOVEMBER 6, 2007

### I. BASIC PROJECT DATA

- **Country/Region:** Dominican Republic
- **Program Name/Number:** Support for the Establishment of a Wireless Technology Innovation Center (WiTIC) (DR-T1024)
- **Team Leader/Members:** Eduardo Rodal (SCL/SCT), team leader; Juan Carlos Navarro (SCL/SCT), Astrid Wynter (CDR/ICS), Cristina Landazuri-Levy (LEG/SGO) and Patricia Reyna (SCL/SCT).
- **Date of Request:** June 2007.
- **Beneficiary:** The Cyber Park at Santo Domingo
- **Executing Agency:** The National Competitiveness Council, the Dominican Republic and the Cyber Park at Santo Domingo
- 
- **Financing plan:**

IDB (KPK):	US\$	216,000
Local Counterpart:	US\$	54,000
Total:	US\$	270,000
- **Tentative dates:** QRR: November 2007  
Approval: Dec. 2007

### II. BACKGROUND AND PROBLEM STATEMENT

- 2.1 During the 1990s and until 2004, The Dominican Republic achieved sustained and high economic growth, with tourism services and labor-intensive manufacturing and assembly industry as leading economic sectors. After an hiatus due to the financial crisis in 2004, the economy achieved a 10.7% real GDP growth in 2006 and it is expected to grow 5~6% for the coming years. Beside of this numerical growth trend, the DR faces an important challenge of its leading economic sectors; with the entry into force of the DR-Central America Free Trade Agreement (DR-CAFTA) in 2007, the DR's trade advantages such as quota and

low tariff in maquila industry will be removed. Thus the DR can not rely on the conventional growth generating industries but should find another higher value added growth engine for their continuous economic growth.

- 2.2 The telecommunication sector experienced record growth of 24% in 2001~2004. The share of mobile phone related industry in telecommunication sector was 33% in 2000 and grew up to 56% in 2003. In 2003 and 2004, the telecommunication sector continued to grow by 15% and 18% respectively, mostly due to the continuing increase in mobile phone usages.<sup>1</sup>
- 2.3 As a result, the DR authorities consider the Information technology, specifically the telecommunication sector as one of the most important competitive factors to increase economic activities allowing the country to be competitive in global marketplace. In March 2007, the President of the Republic launched the National Plan for Systemic Competitiveness presenting the long-term vision for the country's competitiveness, including a strategy for innovation and technological development and the creation of a National System of Innovation and Technological Development (SNIDT)<sup>2</sup>.
- 2.4 The Cyber Park in Santo Domingo is one of the three pillars of SNIDT. It is established in 2000 to provide to technology firms and specialized research centers with the basic infrastructure including training programs. The Park aims to attract the range of businesses that offer information services such as manufacturing and maintenance of hardware and software and it is the physical place where the feasibility study proposed in this TC profile will take place. This feasibility study will assess the viability of establishment of wireless technology development labs within the Cyber Park.

### **III. PROGRAM OBJECTIVE AND DESCRIPTION**

#### **A. Objective**

- 3.1 The objective of this project is to verify the technical, economic, and financial feasibility of a Wireless Technology Innovation Center (WiTIC) and a Wireless Technology Holding Company in the Dominican Republic, and prepare a business plan for the start-up of the Center. The WiTIC will include a state of the art wireless research laboratory that will focus on the development of wireless broadband and radio frequency identification (RFID) technologies and applications. The Wireless Technology Holding Company will commercialize the intellectual property developed in the Center.

---

<sup>1</sup> *Dominican Republic – Telecoms Market Overview and Statistics*. Paul Budde Communication Pty. Ltd., 2006

<sup>2</sup> Plan Nacional de Competitividad Sistémica. Consejo Nacional de Competitividad, presidido por el Presidente de la Republica. March 21, 2007.

- 3.2 The wireless networking and applications research laboratory at the Center will be staffed with world-class engineers and researchers, capable of quickly gaining international recognition in the research community. The Center will leverage research institutions in Korea, the U.S., and the DR. The research laboratory will be a hands-on facility where graduate students can engage in experimental and innovative research projects, and where the educational ideas can be tested.
- 3.3 Technologies selected from the research laboratory for development will be transferred to the holding company, which will provide initial financing, office space and other necessary start-up functions. As the companies mature, the holding company will facilitate the arrangements for venture or corporate financing.
- 3.4 The proposed study will focus on the economic impact of the Center on the DR and will specifically identify the technology areas that are likely to result in exciting new business opportunities for the DR. The study will also address plans for international collaboration and partnerships in technology development, as well as financing requirements and organizational plans for setting up and running the Center.

**B. Description**

- 3.5 The study will identify options for making the establishment of the WiTIC feasible, and will include:
  - a. An analysis of wireless communications market segments within the IT focus area. The study will focus on opportunities in Radio Frequency Identification (RFID) and in electronic transactions via handheld devices such as Personal Digital Assistants (PDAs) and mobile phones. It will include a demand analysis (an assessment of the market potential) for these technologies in the Dominican Republic and other countries, as well as an evaluation of supply factors.
  - b. An assessment of the availability of technical, managerial and marketing resources in the DR to exploit the selected areas and a plan to address any shortfalls. This plan will identify possible technical exchanges with leading institutions in Korea such as *Electronics and Telecommunications Research Institute* (ETRI).
  - c. An estimate of the economic and social benefits/cost of establishing the Center as well as any potentially negative impacts.
  - d. A 5-year organizational/institutional plan for the Center including the definition of the qualifications for key management and employees, and any legal considerations or requirements.
  - e. A financial plan for the Center that will include the cost to setup and run the facility at the Cyber Park for a period of 5 years. This financial plan will

identify possible financing resource from domestic and international institutions.

- 3.6 A team of international and national specialists will conduct the study. The consulting team will provide the professional and specialized services required to analyze the technical, managerial and financial feasibility of establishing the proposed Wireless Technology Innovation Center at the Cyber Park taking into account economic and social impacts.
- 3.7 Procurement of the consulting services will be conducted in accordance with Bank policy and the required technical quality for the study would be obtained at the best competitive prices in the market.
- 3.8 The outputs of this study will be: (i) a market study (demand and supply) of the Wireless industry (ii) a report analyzing the benefits, risks and costs of creating the WiTIC and the Holding Company, and (iii) a business plan for setting up the proposed Center that addresses the items specified in paragraph 3.5 above, in particular estimating the financial resources (with possible funding sources) and time required for the Center to reach self sufficiency.
- 3.9 The execution and disbursement periods have been estimated to be 9 and 12 months respectively.

#### IV. COST AND FINANCING

- 4.1 The estimated budget for technical cooperation is US\$270,000 of which US\$216,000 (80%) will come from the Knowledge Partnership Korea Fund for Technology and Innovation, and US\$54,000 (20%) will be provided by local counterpart funding. A detailed schedule is illustrated in the following table;

Components	KFT	Counterpart	Total(US\$)
1. Consulting service for the Feasibility study	216,000	-	216,000
2. Coordination and Administrative Support	-	40,000	40,000
3. Contingencies	-	14,000	14,000
TOTALS	216,000	54,000	270,000

## **V. EXECUTING AGENCY AND EXECUTION MECHANISM**

- 5.1 The National Competitiveness Council (CNC - Consejo Nacional de Competitividad) will be the executing agency for this Technical Cooperation operation. As this will be a feasibility study of limited duration (4 months), the time and expense required for the Cyber Park to adopt and implement Bank procurement procedures for the selection of the consulting team, and to set up the accounting and reporting requirements for executing this operation, are not justified. The CNC, specifically the administrator of the Competitiveness Fund (Fondo de Competitividad - FONDEC) is currently executing a Bank financed project (1474/OC-DR). As such, the CNC is experienced in and knowledgeable about IDB execution procedures, particularly those relating to the selection and hiring of consulting services. The CNC would manage this TC following the rules applicable to projects of a similar amount financed under the Competitiveness Fund, which have been approved by the Bank. The Cyber Park will bear the technical responsibility; to supervise the work of the consultants; to provide orientation and guidance to the consulting team; and to review the outputs to be submitted to the Bank.

## **VI. MAJOR ISSUES**

- 6.1 The potential risks associated to this project are; (i) possible difficulty of funding financial source for the establishment of the Center even if its feasibility will turn to be viable (ii) the current status of the relevant industry for the Wireless market that might not be well developed in the DR and; (iii) the possibility that current government could be replaced in the next Presidential election (May 2008).
- 6.2 The feasibility study of this Technical Cooperation will not only assess the viability of Wireless Center in the DR but also will find the ways to deal with relevant risks associated. Furthermore the pre-presidential election survey indicated that the voting decision of the DR people to re-elect the current president next year is above 40% thus, the strong commitment of the current government to foster high technology in the country could be continued in the long run.

## **VII. ACTION PLAN**

- 7.1 Once profile is approved, the Plan of Operations will be developed in time to have the CRG in November, and the final approval in December (December 2007).

### VIII. ENVIRONMENTAL AND SOCIAL STRATEGY

- 8.1 Because this TC will only support the elaboration of pre-feasibility and feasibility studies, it is not anticipated to have a negative direct environmental or social impact, and it has been classified as a "C" according to the Safeguard Classification tool. However, the Terms of Reference of this TC will include an activity to evaluate any possible social or environmental issues and integrate them as part of the business plan envisioned.

### IX. EXECUTION AND RESPONSIBILITY WITHIN THE BANK

- 9.1 The Science and Technology Division (SCL/SCT) will have technical responsibility for the operation. Eduardo Rodal is the designated Team Leader and may be contacted by e-mail ([eduardorod@iadb.org](mailto:eduardorod@iadb.org)), telephone (202-623-1554) or fax (202-312-4047).

### X. APPROVAL

  
\_\_\_\_\_  
Carlos Gonzalo Rivas  
SCT/CHT  
\_\_\_\_\_  
Moises Pineda  
Representative CID/CDR



REPÚBLICA DOMINICANA

*Secretaría de Estado de Economía, Planificación y Desarrollo*

Santo Domingo, D. N.

"Año del Libro y la Lectura"

RECIBIDO  
2007-06-26 P 5:04  
RE: BID EN RD

00608

30 JUL 2007

**Moisés Pineda**

Representante Residente

Banco Interamericano de Desarrollo (BID)

Su Despacho.

**Asunto:** No objeción para la realización de estudio.

**Ref.:** Comunicación del Presidente del Parque Cibernético de Santo Domingo.

Estimado Señor Representante:

Por este medio tenemos a bien informarle que la Secretaría de Estado de Economía, Planificación y Desarrollo, no tiene objeción a que sea tramitada, ante el "Knowledge Partnership Korea Fund for Technology and Innovation", administrado por esa Banco, una Cooperación Técnica No Reembolsable, con el objeto de realizar estudio de factibilidad para la instalación de un Centro de Investigación y Desarrollo de Tecnologías Inalámbricas (WiTic) en el Parque Cibernético de Santo Domingo en República Dominicana, por un monto de US\$300,000.00.

En tal sentido, hacemos de su conocimiento que la contraparte local de dicha Asistencia Técnica estaría a Cargo del Parque Cibernético de Santo Domingo.

Sin otro particular por el momento le saluda,

Atentamente,

  
**ING. JUAN TEMÍSTOCLES MONTAS**

Secretario de Estado de Economía, Planificación y Desarrollo



Anexo: Citado.  
JTM  
AB/RY

Ent. no. 1443/07