

REQUEST FOR EXPRESSIONS OF INTEREST CONSULTING SERVICES

Selection # as assigned by e-Tool: CH-T1222

Selection Method: Full competitive

Country: Chile

Sector: Telecommunications

Funding – TC #: CH-T1222

Project #: ATN/KK-17731-CH

TC name: Improving Interoperability of Digital Infrastructure

Description of Services: *The general objective of this Technical Cooperation (TC) is to identify and define industries that are intensive in the use of 5G in a way that allows the design of public policies that enable efficient and effective deployment and adoption of this technology, according to the interests of the country*

Link to TC document: <https://www.iadb.org/en/project/CH-T1222>

The Inter-American Development Bank (IDB) is executing the above mentioned operation. For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest. Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (<http://beo-procurement.iadb.org/home>) by: *April 3rd, 2020*, 5:00 P.M. (Washington D.C. Time).

The consulting services (“the Services”) include:

- Identifying economic sectors present in the country, which have the greatest potential to use 5G.
- Define the industries that have the greatest potential to be intensive in the use of 5G technology in Chile, based on their current level of development, but at the same time considering future perspectives.
- Identify and categorize the main 5G applications of the industries defined according to their impact and / or expected importance for the respective industries.
- Classify the applications according to the use case (s) to the corresponding one, that is, eMBB, mMTC and / or URLLC.
- According to requirements and classification of use cases of the different identified 5G applications, define the network architecture, that is 5G-SA or 5G-NSA and suitable spectrum bands, this for the short and medium term.
- Classify the industries identified according to their preparation to implement 5G technology and define the time horizon on which it is expected that the main applications of 5G can be adopted.

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: [Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work](#) - GN-2765-1. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting Firm is presented in a Consortium, it will designate one of them as a representative, and the latter will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described below in the [draft summary](#) of the intended Terms of Reference for the assignment. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative.

[Special requirements according to the Donor Trust Fund \(DTF\), if applicable.](#)

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: [\[Antonio Garcia Zaballos, antoniogar@iadb.org\]](mailto:Antonio Garcia Zaballos, antoniogar@iadb.org)

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Chile

Institutions for Development / (IFD/CMF)

Improving interoperability of digital infrastructure in Chile

Términos de Referencia

Background

The use of Information and Communication Technologies (ICTs) services and applications available over the Internet can reinforce sectors such as education, health, business and government, with broad implications for economic development, competitiveness and innovation. Yet, harnessing the benefits of this new digital economy increasingly relies on the availability of broadband Internet in a country as evolving services and applications require broadband speed and bandwidth.

Broadband infrastructure is an enabler of development. According to several studies, a 10% growth of broadband penetration is associated with a 1.21% increase in the Gross Domestic Product (GDP) of high-income countries and a 1.38% increase in the GDP of low-income countries (World Bank, 2009). It is estimated that in the case of the LAC region, for a 10% growth in the penetration rate of broadband services, the GDP can be increased by 3.19%; the productivity by 2.61% and more than 67,000 jobs can be created.

In a Trans-Pacific era when the communication with Asia increases explosively, the improvement of international connectivity between Chile and the improvement of the interconnection with the rest of Latin American Countries as well as between Chile and Asia (Korea) has become an urgent challenge facing the region.

In this regard, the deployment of a submarine cable between Latin America and the Caribbean and Korea was perceived as a priority by many Governments and this is the reason why the Bank approved the TC, RG-T3250. However, due to the increasing dependency of the Latin American and the Caribbean broadband traffic of North America, it is needed more interconnection across the countries. To improve this connection, it is needed the deployment of optical fiber rings across the Latin American countries so that the connection with the submarine cable to Asia becomes even more meaningful.

Having a better interconnected region could bring several benefits. First, it may allow all the countries of the Region to be connected one to another making the integration a really and boosting the digitalization across the pacific alliance member countries. Second, the improvement in the interconnection could improve the quality of the broadband services as well as could reduce the international internet connectivity cost.

Objectives of the consultancy

The general objective of this Technical Cooperation (TC) is to identify and define industries that are intensive in the use of 5G in a way that allows the design of public policies that enable efficient and effective deployment and adoption of this technology, according to the interests of the country.

The specific objectives of this consultancy consist on:

- Identifying economic sectors present in the country, which have the greatest potential to use 5G.
- Define the industries that have the greatest potential to be intensive in the use of 5G technology in Chile, based on their current level of development, but at the same time considering future perspectives.
- Identify and categorize the main 5G applications of the industries defined according to their impact and / or expected importance for the respective industries.
- Classify the applications according to the use case (s) to the corresponding one, that is, eMBB, mMTC and / or URLLC.

- According to requirements and classification of use cases of the different identified 5G applications, define the network architecture, that is 5G-SA or 5G-NSA and suitable spectrum bands, this for the short and medium term.
- Classify the industries identified according to their preparation to implement 5G technology and define the time horizon on which it is expected that the main applications of 5G can be adopted.

Activities

- Identify and select the economic sectors and their respective industries disaggregated at group level according to ISIC classification 4.CL 2012, which by their characteristics - current or projected in the medium term - have the potential to boost demand for 5G. Justify the selection through an economic model and technical analysis.
- Analyze all the different relevant sources of information, such as INE, Central Bank, Sofofa, SNA, among others, that define a framework for characterization of the current level of technification and potential evolution of the industries that require 5G.
- Identify and select the main 5G applications for the selected industries, specifying their development status and expected time for commercial availability.
- Classify 5G usage applications according to the use case or cases to which they correspond (eMBB, mMTC and / or URLLC). In addition, identify, if applicable, other technologies that together with 5G should be used for the applications in question.
- Define a scale of priorities and criteria to establish the industries that have the greatest potential for intensive use of 5G, as well as the expected temporality of occurrence.
- Define criteria to establish a ranking of industries based on their potential for 5G use intensity.
- Classify the selected industries according to network architecture needs - 5G-SA or 5G-NSA - and appropriate spectrum bands, this for the short and medium term.
- Design an index and / or methodology that allows the identified industries to be classified according to their level of readiness to implement 5G technology, this for the short and medium term.

Informes / Entregables

The consulting firm will submit a report detailing the economic sectors and industries in particular that have the greatest potential to be intensive in the use of 5G in Chile.

Schedule of payments

- 20% upon approval working plan
- 40% upon approval first draft of the report
- 40% upon approval of final deliverable of the report

Qualifications

Extensive experience in the telecommunications sector and strategic sectors where 5G could have an impact is required. Specifically, the team should have a multidisciplinary team conformed of: i) project management; ii) knowledge of telecommunications and / or electronic engineering; iii) specific domain of national or international broadband infrastructure; iv) economic-financial feasibility analysis; v) general knowledge of the applicable local regulations and procedures of multilateral credit organizations; vi) experience in project design to promote the digitization of sectors; and vii) ability to provide detailed and accurate market research. Likewise, knowledge of the current local social, economic and political context is required, especially those measures associated with telecommunications and productive investment.

Characteristics of consultancy

- Category and modality: Firm
- Duration of the contract: 6 months
- Place of work: Consulting firm residence and at least two trips to Chile may be required.
- Coordinator: Antonio García Zaballos (IFD / CMF), Especialista Líder en Telecomunicaciones, antoniogar@iadb.org, Teléfono (202) 623-2980.