

Colombia

Consultancy on Technological Foresight in Bioscience for Ruta N's Observatorio

TERMS OF REFERENCE

BACKGROUND

The Bank has been asked to support the process of identification of potentially disruptive business ventures in the area of bioscience in the city of Medellin. Ruta N, the local innovation agency, has put in place a process that starts from scanning the scientific and business landscape and ends with the launching of new ventures, all done through a structured process that incorporates consideration of IP issues, financial due diligence, talent availability and management arrangements. The starting point, the identification of market niches and disruptive technologies, is done through the Observatorio, a part of Ruta N skilled in scanning relevant information both in scientific and business sources. The work of the Observatorio, however, admits considerable improvements, through the use of systematic methodologies of technology forecasting, as well as by the recourse to IA in order to speed up and broaden the scope of the information reviewed. This consultancy provides for services aimed at these purposes.:

Thus, the consultancy will support the definition of a strategic roadmap that will be instrumental in guiding policy-making in the area of biosciences, with particular reference to the potential for disruptive business ventures in the city of Medellin. In addition, it will seek to strengthen the capacity of Ruta N to use roadmapping methodology in the future, and will assess the feasibility and provide an implementation strategy for the incorporation of IA in the work of the Observatory.

OBJECTIVE

The purpose of the consultancy is to identify areas of market potential for which firms in the city of Medellin may develop research and technological innovation with commercial potential and assess how these areas might benefit from the application of sustained R&D effort, patenting or licensing, technological upgrading, trade facilitation, venture capital financing, or any other relevant forms of finance for innovation.

It is expected that the consulting firm will provide a general overview of the issues at hand and then provide an in depth analysis of the potential for the creation of a bioscience industrial hub in Medellin. It will also train the Ruta N's Observatorio in the use of roadmapping and similar technology forecasting techniques and produce a first approximation to the potential of incorporating IA in the venture identification process carried out by the Observatorio.

ACTIVITIES

The consulting firm will

1. Scan current market developments and changes in technologies globally and identify technological innovations that are likely to be relevant to the development of a new industry of tech-based ventures in the field of biomedicine in Medellín,
2. Conduct focus groups with local, regional, diasporic and international experts, as needed to provide focus and perspective to the foresight exercise.
3. Review existing studies related to competitiveness, innovation, scientific activity and technological development in Medellín and, if needed, Colombia at large.
4. Review secondary information sources such as industry and innovation surveys.
5. Having tapped all such sources, it will identify the strategic market opportunities and the technological investments and policies required to take advantage of said opportunities (through technology roadmapping or similar methodologies), including the completion of global value chain analyses on the core technologies in biomedicine that have been identified as being of strategic importance for Medellín's economic diversification efforts, always in the area of biosciences.
6. Train Ruta N's Observatorio staff in the use of roadmapping and similar methodologies.
7. Formulate specific recommendations that are susceptible of being used as guidance on an eventual attempt to apply AI to the work of the Observatorio..

DELIVERABLES

Reports:

1. Work plan describing the methodology, the activities to be completed, and a timeline for the development of the consulting firm's report. The formulation of this plan will require a kick-off discussion with Ruta N, intended to set priorities and clarify expectations.
2. An intermediate report, containing an account of activities 1, 2, 3, and 4, and a preliminary discussion of the content of activity 5.
3. A final report including a full account of the content contemplated as part of activities 5, 6 and 7.

Payment plan	
<i>Deliverables</i>	%
1. <i>contract signing</i>	10%
2. <i>at the submission of the work plan</i>	30%
3. <i>upon presentation of a complete draft report.</i>	20%
4. <i>upon the submission and acceptance of the final report.</i>	40%
TOTAL	100%

COORDINATION

Ruta N representatives will have the basic and technical responsibility for the coordination of the consulting firm's activities. He will maintain close consultation and coordination with Juan Carlos Navarro (IFD/CTI) as project team leader at the Bank..

CHARACTERISTICS OF THE CONSULTANCY

Type of consultancy: Carried out by a consulting firm, with a lump sum contract that includes all expenses.

Duration: Up to 4 months starting from the date of contract signing.

Place of work: Consulting firm place of work and Medellin, Colombia. Travel to Medellin will be required (total of 15 days for 2 individuals). Videoconferences and teleconferences are expected. A minimum of two field missions will take place.

Qualifications:

- Private consulting firm, international organization or specialized academic research institution working on the field of technology foresight studies.
- Significant experience with technology foresight studies, technology roadmapping, global value-chain analysis and similar methodologies.
- Experience working in LAC.