

Call for Proposal

MAPPING ACADEMIA AND INDUSTRIAL SECTORS

Terms of Reference

Mapping Consultant

OBJECTIVES

IRALEB seeks an external consultant to carry out a mapping of the main academic and industry actors contributing to the ecosystem, their current roles, strengths and weaknesses, opportunities, needs, relationships and interactions with other actors, and their innovation maturity level, as a basis to build the strategy and design project activities for a solid and thriving innovation ecosystem, with a specific focus on health care, agrifood and digital/CCI sectors. The mapping is taking place during the inception phase of the project and its output and results will be a baseline for all upcoming activities. The mapping for universities will focus on assessing their intellectual property policies, technology transfer structure, capabilities and resources, and research profiles in the targeted sectors. For industries mapping, direct attention towards needs and challenges, innovation trends, R&D resources, internal capacities and resources and viable approaches to enhance the value of their products and services.

Targeted sectors within this mapping:

- 1- The agrifood industry is strategic to recover from the crisis, It involves production, processing, and distribution of agricultural products. It plays a crucial role in global trade and economic growth.
- 2- The health sector includes a strong cluster of pharmaceutical players, highly renowned medical schools and research facilities, and service provision. It may benefit from Lebanon Innovate's capacity-building and demonstration actions for new technologies and direct support to local innovators.

- 3- The ICT/CCI sector involves creation, management, and distribution of information through technology, such as hardware, software, and digital media. It is a rapidly growing sector that is driving innovation and economic growth across many industries.

REQUIREMENTS

1- [Mapping of academic institutions.](#)

This activity is important as its output and results will be a baseline for all upcoming activities. It consists in identifying the universities in the area, understanding their areas of expertise and research portfolio and strengths, their IP and technology transfer resources and needs, and analyzing their collaborations and partnerships with other institutions and organizations.

This activity will provide a comprehensive assessment of the research status in Lebanon. Capitalizing on the finding of the report on “Academic Generated Industrial Innovation in Lebanon” published by IRALEB in 2022 and taking into consideration THE NEXT SOCIETY project findings. Indicators to identify research strengths, research portfolio and topics (research productivity mapping, publications from academic databases, conference proceedings, and research projects), citation data (as a measure of the capacity to spread knowledge), type of collaboration needed with stakeholders (local-international), TT staff and skills, internal resources etc A dedicated focus will be on assessing TT capabilities and mapping dedicated structures/services, including IP support for researchers.

Needs and challenges hindering TT and business development capabilities will be identified, while assessing their innovation maturity level, market orientation, technologies needed and mastered, and gaps towards commercialization.

2- [Conducting an industry value chain assessment.](#)

This activity will bring insight into the primary industrial needs and challenges and identify potential paths to increase the value of products/services targeting the local/national/global market while reducing costs. The study should cover an average of 90 industry stakeholders (in sectors’ of focus) and will involve activities that may include desk research, in depth interview, focus groups or site visits. R&D expenditures and industrial needs will be conducted to define industries involved in R&D by region and specialization. Site visits with the professors of partner universities and experts (not less than 8 professors per visit) should be organized to outline projects conveyed by industrial experts to researchers to find strategic partners and match industrial needs and academic

proposals (collecting professors' feedback after the visits). A broader consultation will bring together a broad spectrum of actors from each field to identify value chain priorities, innovation needs, R&D capabilities, staff skills, challenges, risks and opportunities. At least 30 challenges (10 by sector) should be identified from this mapping.

KEY ACTIVITIES

Activity 1- Analyzing the current state-of-play of 13 major universities institutions in Lebanon (identify research projects, technologies, assets and resources, external ecosystem)

Based on the IRALEB report surveying the needs and challenges in the academia domain and on the networks identified and/or established in previous projects and activities, a mapping of the existing potentials in the 13 universities member of IRALEB. This mapping will yield the identification of needs to foster the development of the socio-economic ecosystem, with a specific focus on the area of innovation. The needs can be of different natures: technological, regulations, processes, communication, networking, infrastructure, financial, etc. For this purpose, surveys and personal consultations will be conducted as well as focused targeted questionnaire. Besides the survey, the project team shall meet with a carefully selected subset of institutions to represent the whole sector. These targeted meetings will allow a better understanding of the present situation. They will also permit to validate the survey's findings, as well as discuss and analyze the current assets, resources needs and challenges through interviews (closed ended interview) directed to deans of the selected pertinent universities or concerned professors. When a first draft of the mapping becomes available, a consultation shall be performed, and the collected feedbacks will serve readjusting the mapping. The final mapping will also include the risks and opportunities, which will serve better understanding the landscape of the Lebanese research and knowledge production at large.

The key activities should include:

- Desk research
- Drafting a questionnaire identifying assets, needs and challenges, opportunities and interviewing the key players in the different areas (Skills and people, Resources: Funding/finance, Infrastructure, Regulatory environment, Facilitators and innovation ecosystem)
- Maturity Assessment of University Institution (champions, centralized TTO, industry liaison, TTO)

- Developing a first mapping of the assets and resources as well as needs and challenges.
- Conducting consultation about the first mapping and collect feedbacks.
- Finalize the report.

Key Deliverables:

- List of Stakeholders Identified and interviewed for the mapping along with recommended stakeholders further interested in collaboration.
- Funding sources, research outputs, academic rankings, and collaborations in universities.
- List of identified factors such as the number of patents and licenses generated by the institution, the number of spin-off companies created, the amount of industry-sponsored research conducted in the targeted sectors.
- Identified champions who will be mobilized to share knowledge and promote innovation opportunities. These stakeholders (mainly researchers, innovators, start-ups and SMEs) should become familiar with advanced technologies and innovation services, showing how to improve innovations including product design and development capabilities, make production processes more efficient and grow commercialization opportunities.
- Final assessment Report with the Main Findings, Priorities, key recommendations for each university, and Key outcomes for moving project forward for 13 universities.
- Research of existing reports and details, focus groups &/or interviews, report development including the findings
- Report also to identify researches from the mapped universities (at least 45 academic researches)
- Power point summary

Major points to include:

- Recommendations of potential stakeholders to be members of the knowledge innovation communities (KICs with 45 members)
- Database of contact details for: key faculty, staff, researchers dealing with technology transfer and innovations.
- Report to include evaluation of the existing technologies and R&D labs inside the mapped universities in the 3 priority sectors: curriculums, majors, IT infrastructure, level of equipment inside the labs, availability of the TTO etc.
- To assess the extent to which the university has an enabling environment and resources for developments of new technologies and incubating a decent number

of researches that are market driven and can be commercialized (programs, labs, staff skills, relationship with stakeholders).

- Assessment of current status of IP policies.
- Key faculty staff to be identified with assessment of their level of knowledge in IP and technology transfer, licensing, technology evaluation.
- Report to include also a needs assessment on the current researches whether new or ongoing, stage, potential, required steps/ funding to completion.
- Assessment related to the TTO's, if anything has been done, existing plans, new ones, staff knowledge (challenges and needs to establish the TTO).
- Any existing projects being undertaken by the private sector, NGO's or other external parties related to technology transfer to be identified to avoid overlaps and structure better the assistance.
- Partnerships and collaboration with industries

Activity 2: Conduct External Industry Value Chain Assessment to Lebanon's priority industries; health care, agrifood and digital sectors

Based on the IRALEB report surveying the needs and challenges in the industrial domain and on the networks identified and/or established in previous activities and projects, a thorough mapping of the industries in the three targeted sectors will be conducted to understand the different companies and organizations operating within these industries, identify the key players in each sector to identify potential areas of growth as well as the needs and challenges Hence, the current state-of-play in relation to the incubation industry in Lebanon will be analyzed.

Below is an elaboration of this activity's tasks:

- Desk research
- Draft a questionnaire on R&D expenditures and industrial needs
- Hire surveyors & train them to fill questionnaire
- Survey of the needs and challenges throughout the networks identified for 90 industries.
- Based on the results, define industries involved in R&D by region and specialization and their challenges (at least 30). These Projects proposed by industrial experts will be conveyed to researchers to find strategic partner & Matching between industrial needs and academic proposals
- Organize site visits with the professors of partner universities (4-5 industries/day for 5 days with at least 8 professors by visit)

- Interviewing the key players in the different networks for a precise identification of the needs, challenges, risks and opportunities.
- Develop a detailed report of the findings -first mapping of the needs and challenges along the report of the academia
- Validate the findings: Present the first mapping through powerpoint, collect feedback and finalise...

Key Deliverables: List of identified stakeholders and identified factors such as market size and growth, industry trends and challenges.

- Value Chain Assessment Report

- Surveys

Main identification of needs/ challenges in the 3 priority sectors leading to defined needed products/ innovations to promote the sector and establish soft landing opportunities in new markets. Primary data will be collected through 90 surveys and interviews mainly with industrialists on their R&D and costs. The visits to include the university professors from the mapped universities in order to be able to establish linkage between the industry needs and the researches.

Targets:

2 Additional clusters to be mapped, identification of 30 industrial challenges.

QUALIFICATIONS AND ELIGIBILITY

The consultant will work under the overall direct guidance of the Head of IRALEB Executive Board and Director, in close coordination with the Project Manager and IRALEB Innovation Specialists.

Applicants must fulfill the following requirements:

- Proven experience in the economic development sector
- Proven experience in working on research, mapping, projects at policy or ground levels.
- Possession of strong network and links to different organizations working in the field
- Excellent moderation skills and experience in qualitative research
- Excellent English writing skills
- Strong understanding of IP , technology and innovation

TIMELINE AND APPLICATION

Work will take place between April and July, 2023. Structural report should be provided by end of May, preliminary report should be submitted by end of June -60% of the report- and final deliverables by end of July, 2023 at most. Total budget should range between 11,000 Euros and 15,000 Euros.

Candidates should submit the following documents:

- Technical (maximum 2 pages) describing the methodology to conduct the work based on the content suggested in sections: "Objectives, requirements and key activities", elaborating it further. An implementation calendar should be delivered, including planned consultation with key stakeholders.
- Financial offer: the consultant(s) should state the personnel dedication expressed in days (1 day = 8 working hours) as well as a lump sum for other costs related to the implementation of work.
- Profile and project references (maximum 2 pages): the consultant(s) should submit a brief explanation of the candidate (CVs shall be included as annex) and project references on the topic.

Offers must be submitted in hardcopy by **Wednesday 3rd of May 2023**, not later than 2:00 pm in two sealed envelopes, delivered at IRALEB Offices at the Ministry of Industry Building 9th floor (Beirut, Adlieh, sami solh) against a written receipt:

1 - The first sealed envelope will include information about the applicant (profile and references) and technical description of the offer.

2 - The 2nd sealed envelope is to include the financial offer.

For further inquiries, we can be reached on 01-429328, 03-236645.

For interested candidates, it is recommended to notify us in advance that you will submit a proposal by sending an email to lira@liraprogram.com.

IMPORTANT:

The header of the technical and financial offers must clearly note the candidate data (Name, address, country, telephone, email and fiscal identity number or other official number).

Offers will be assessed according to the following criteria and scores:

Points	Criteria
Maximum 40 points	Quality of the technical offer to meet the work objectives
Maximum 40 points	Proven track-record
Maximum 20 points	Financial offer

CONTEXT & BACKGROUND

The Lebanese Research and development network is challenged by the lack of funding for applied research, lack of Intellectual Property (IP) policies and support as well as weak links between academic research and industrial needs and lack of cooperation between the different key actors. Further, one of the main impediments researchers face in Lebanon is the lack of appropriate support to manage and administer research projects.

Lebanon Innovate will implement actions to transform innovations and technological findings emerging from universities into market ready products and commercial ventures. Specifically, the project will address the following needs emerging at the national level:

- Improve the industrial sector's competitiveness, targeting agrifood, health care, and ICT/Creative & Cultural Industry (CCI) as the most needed and promising to drive the country's economy.
- Foster an enabling environment to boost innovation and capacitate stakeholders, especially in creating and sharing knowledge and commercializing technologies.
- Strengthen cooperation between industry and academia to promote innovation and knowledge transfer and support the commercialization of products, limit brain drain.
- Connection and exchanges with the diaspora networks will help retain and re-attract specialized talents to Lebanon to drive innovation.
- Seek regional and international markets, as the limited size of the Lebanese market hampers the development of a nonservice-based economy.

Lebanon Innovate will relaunch an entrepreneurial ecosystem around a network of universities, research institutions, public bodies, and other highly qualified and internationally recognized public and private entities.

It will rely on four pillars:

- (i) Renewed and flexible strategies for collaboration among the research system, the production system and territorial institutions,
- (ii) Empowerment and capacity building of the main actors,
- (iii) Suggesting regulations and procedures that enforce transparency and protect actors' rights, and
- (iv) Strengthening of the collaboration with European counterparts. Capacity-building initiatives will reinforce knowledge management in academia and industry, promoting policies and skilled talents to develop, protect and commercialize IP innovations.