

Technology transfer in Lebanon 2019-2020



General findings:

Government

Relation of TT to national economic strategy

- Main frameworks
 - **SME strategy (2014)**: recognises importance of university-industry engagement
 - **“Lebanon’s Economic vision and ways to achieve it” (2017)**: knowledge economy
- **Few instruments** to facilitate innovation and new product development:
 - Lebanese Industrial Research Programme (**LIRA**): collaborative research
 - **Article 331**
 - **Promotional activities and networks** that relate to university-industry development

Relation of TT with national regulatory framework of IP

- **Lebanese Intellectual Property Office** hosted by the Ministry of Economy and Trade
- Lebanon is signatory of various international IP agreements, but **not of PCT**
- Some training and awareness raising activities to universities and business, as well as workshops organised by WIPO
- Little use of IP or its enforcement by holders

General findings:

Government

Relation of TT with national IP and Innovation strategy

- **CNRS-L** mission involves **policy making and implementation in R&D and innovation** → principal funding body
- STIP includes technology dissemination, transfer and innovation
- Efforts to implement STIP slowed down due to financial constraints
- CNRS-L has partially implemented STIP with internal resources and its main programmes
- **MoEHE** has required **universities to allocate 5% of its budget to research: rule poorly implemented**
- **Funds allocation partially allocated according to the potential of Research outputs**

General findings:

Universities and Research organisations

- Main focus on **teaching**
- **Few unis have registered IP Policies** in WIPO (AUB, U.Notre Dame, Beirut Arab U)
- **No TT function** (unless AUB)
- **Contract Research:**
 - Little meaningful data available
 - Notre Dame U.: contract research policy
 - Constrained by: firms activity profile (service&trade), investment profile (conservative), lack of faith in universities as innovation agents
- **Spin-offs:**
 - Little meaningful data available
 - Some universities involved in start-up incubators (i.e. USJ – Berytech, AUB – Speed)
 - Most firms are not technology based firms
 - Interest of universities in supporting spin-off and start-up creation but policies and programmes are needed
- **Faculty and researchers:**
 - Faculty are primary educators rather than researchers, limited capacity and funding to pursue research interests and commercialisation
 - Small number of PhD Programmes (19 at The University Directory 2015)
 - Difficult for postdocs for finding a job

General findings:

Industry

- Local industry: **neither a leading technology supplier nor a source of demand for IP or R&D activities**
- **Few policy instruments** to stimulate R&D demand from PROs
- **Low IP activity**
- No sources of information about IP (sign of low interest or low awareness about benefits of IP in comparison to international firms?)
- Increasing number of private research institutes using services or university staff
- The main interest of firms when contacting universities is recruiting talent

Support organisations

- At least eight incubators providing support to TT and start-up creation
- Berytech is the most successful and it houses the first venture capital fund for technology start-ups
- **Incubation activities have been successful in stimulating a start-up community and attracting investment**
- Lebanese incubators are playing a role in **encouraging IP and innovation-led start ups**

Key points of TT activity in Lebanon

- **Start-up incubation** as dominant strategy towards a knowledge-led economy
- **Active incubator community**
- **Article 331**: main instrument enabling the incubator community
- **Only AUB has an official TTO**. Its focus is on identifying and protecting IPR rather than its commercialisation

Challenges

- No interest of firms in accessing university innovation
- Further stimulation than article 331 required
- Development of the IP system
- Fiscal position is a hindrance to progress

Strengths

- Incubator and start-up ecosystem with good human capital
- Accessing technologies from overseas and adaptation deployment to local business models vs traditional university to business TT
- Attraction of academic employment

Recommendations:

Government

- Review outcomes and ongoing benefits of **Article 331**
- **Define TT strategy:** targets, resources and expertise → stakeholder consultation and analysis to identify realistic opportunities
- **Implement the ESCWA recommendation to create a centralised TTO:**
 - pilot the model
 - governmental oversight and structure
 - budget, including proof of concept
 - staff: training and skills
 - universities commitment: staff and patent Budget
 - build capabilities on partners: train the staff for identifying and selecting projects
- **CNRS-L: monitoring of TT outputs** and use this information for **allocation of resources**
- **Smart Specialisation Strategy** approach for fostering innovation within businesses

Recommendations:

Intellectual Property

- Entry the **PCT system**
- **Reform the IP system:** examination led process of awarding patents, increase searching capabilities (tools and infrastructures)

Universities

- **Adopt IP policies** that incentivise staff and students to commercially exploit ideas and research outputs → provide templates to facilitate
- **Appoint dedicated staff to the role of TT** → provide training and procedures

Incubators

- **Support IP and technology-led businesses**
- Implement programmes for **supporting growth and sustainability** of start-ups

Business

- **Increase aware** about benefits of **innovation** and the potential of **interaction with universities**
- Provide standard **template agreements** to facilitate negotiation when building **firm-university partnerships** and for **contract research**

Thanks !!!
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