



INTELLECTUAL PROPERTY SYSTEM

BENCHMARKING STUDY AND ACTION PLAN TUNISIA – LEBANON - EGYPT



Circular - Textile - Fashion



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I. Introduction:

This report is part of the implementation of the **STAND Up!** project, an international cooperation project initiated wTCin the framework of the **CBCMED** program, in which **CETTEX** participates as a partner. The **STAND Up!** project is an initiative oriented towards the textile and clothing sector that consists of promoting green entrepreneurship and developing the partnership between the countries participating in the project in the field of circular economy and eco-innovation. This initiative aims to contribute to the acceleration of the implementation of the transition plan towards an environmentally sustainable and socially responsible economy in the Mediterranean region for a better use of the resources and products consumed.

The approach of the **STAND Up!** project! is thus based on the development of skills and the support of SMEs and Young Entrepreneurs / Women to develop innovative projects in the textile and clothing sector oriented towards recycling, reuse, eco-design and partnerships between the countries participating in the project to establish joint ventures in business or financing. This approach will have a dual ecological, economic and social effect by reducing the environmental impact of textile and consumer sector activities, creating and activating green entrepreneurship projects, creating sustainable jobs and improving the incomes of companies and young entrepreneurs. It has another significant impact, mainly linked to the initiation of the circular economy sector in the textile and clothing sector.

II. Mission presentation:

The objective of WP6 is to improve the innovation ecosystem in the TC sector through better integration of macro and micro aspects relating to intellectual property rights while referring to international best practices in this field, particularly at the level of the partner countries in the project.



The mission consists of:

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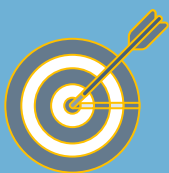
The mission involves two main objectives. Firstly, conducting a benchmarking analysis of the intellectual property systems in Tunisia, Egypt, and Lebanon, compared to Spain and Italy:

- Analysis of the findings of the state of play, subject of the study work by partner country.
- Analysis of strengths and weaknesses,
- Gap analysis,

02

Development of an action plan for the promotion of intellectual property as a vector of sustainable development and circular economy of the TC sector in partners countries **Tunisia, Lebanon, Italy, Spain and Egypt.**





III. Benchmarking and action plan strategy:



1. Methodological approach:

ACTIVITY	DESCRIPTION	METHODOLOGY
<p>Realization of the benchmarking activity between the Tunisian, Egyptian and Lebanese IP system and its European counterparts, particularly Spanish and Italian</p>	<p>Comparative study of innovation system performance indicators and intellectual property rights in the TC sector: this study is based on the work carried out in the project</p> <p>Partner countries with:</p> <ul style="list-style-type: none"> - Spain -Italy: as reference countries - Tunisia, Egypt and Lebanon: requiring development of the innovation system based on intellectual property rights: collaborative research, patents, license fees. 	<ol style="list-style-type: none"> 1. Collection of country reports drawn up by the partners: Spain- Italy as reference countries and Tunisia-Egypt-Lebanon. 2. Development of a grid of qualitative and quantitative benchmarking indicators 3. Analysis of reports and performance of benchmarking work according to grid: comparative study of innovation system performance indicators and intellectual property rights in the TC sector: Tunisia-Egypt-Lebanon compared to the reference countries Spain-Italy - countries partners in the STAND Up! project!
<p>Gap analysis and development of an action plan</p>	<p>This step is carried out for Tunisia, Egypt and Lebanon.</p> <p>It includes analyzing differences in benchmark indicators between the mentioned countries and the other European partner countries</p> <p>This step will be followed by the development of an action plan to enhance the role of intellectual property rights in the innovation of the ecosystem and circular economy market in the TC sector of three countries.</p> <p>The action plan of each partner will be done in consultation and will be subject to the approval of the partner.</p>	<p>Exploitation of benchmarking analysis data: Gap analysis</p> <ol style="list-style-type: none"> 4. Development of an action plan to enhance the role of intellectual property rights in the innovation of the ecosystem and circular economy market in the TC sector in Tunisia, Egypt and Lebanon.



2. Benchmarking indicators:

It is important to note that the benchmarking criteria as presented have been studied before so that the country study work is homogeneous with the benchmarking approach and therefore is used in the same way for the different countries.

It should be noted in this context that the consistency of the reports in terms of data and information that can be used for the benchmarking phase are more or less variable due to two factors:

1. **Availability of data and access to information which is limited in many cases for all partners.**
2. **Lack of information in the study reports of the national intellectual property system.**

Nevertheless, according to the first phase of the work, we consider that we have enough information and analytical capacity to conduct the benchmarking work towards the development of relevant national action plans for **Tunisia, Lebanon and Egypt**.

AXIS	CRITERIA	TYPE
INNOVATION SYSTEM BASED ON INTELLECTUAL PROPERTY RIGHTS	National Intellectual Property Strategy	Qualitative
	Governance system	Qualitative
	Institutional frame	Qualitative
	Regulatory framework	Qualitative
	Mechanisms to promote and support the intellectual property system	Qualitative
PATENT AND TRADEMARK SYSTEM IN THE TC SECTOR	Services of support structures and partner structures	Qualitative
	Role of the TC industrial fabric, research, development system and integration of IPs	Qualitative
PATENT MARKET IN THE TC SECTOR	Statistics by sector	Qualitative
	Eco-innovation and circular economy statistics	Qualitative
	Valuation of patents	Qualitative/quantitative
	Socio-economic impact of development projects	Qualitative/quantitative




IV. Analysis of Intellectual Property system



AXIS	CRITERIA	 ITALY	 SPAIN	 TUNISIA	 LEBANON	 EGYPT
INNOVATION SYSTEM BASED ON INTELLECTUAL PROPERTY RIGHTS	National Intellectual property strategy	<p>Strategy guidelines on intellectual property</p> <ol style="list-style-type: none"> 1. Improve the intellectual property protection system 2. Encourage the use and awareness of intellectual property, especially among SMEs 3. Facilitate access to, and sharing of, intangible assets while ensuring fair remuneration for investments 4. Ensure stricter enforcement of intellectual property 5. Strengthen the role of Italy in European and international intellectual property forums 	<ul style="list-style-type: none"> • Equate the rights of national inventions to the protection granted by neighboring and being the same compatible wTC what is established at European level • Increase the contribution of IPR in textile and clothing sector to reduce climate change by introducing mitigation technologies (CCTM) • Incorporate incentives that • Promote the interaction and complementarity of sustainable technologies and digital tools. • Enhance digitalisation in TC 	<ul style="list-style-type: none"> • Strategic objectives: improve the economic competitiveness of the country wTC high added value, • Orientation towards a model of economic development through knowledge and technological integration • make scientific and technological research and innovation a national priority 	<ul style="list-style-type: none"> • There is no specific Strategy for IPR clothing sector and textile in Lebanon • lack of political priority wTCin the Lebanese government • The use of IPRs in Lebanese business is limited 	<p>The new Egyptian development strategy of 2017, gave more attention to IPR to allow Egyptian textile industry to join global markets : Promote and strengthen the technological capacity of local industries for economic and societal benefits Enhance the usability of IP in Egyptian national industrial sectors Improve IP administration and ensure appropriate enforcement Of Modernization of IP administration by collective management system and institutional changes enhance client orientation level of IP services</p>

AXIS	CRITERIA	 ITALY	 SPAIN	 TUNISIA	 LEBANON	 EGYPT
	Governance system	<ul style="list-style-type: none"> • Directorate General for the Protection of Industrial • Property - Italian Patent and Trademark Office (UIBM) • Under the ministry of Economy and Development, it gathers IP promotion, registration and protection (anticountering policies) International public bodies At the international level, Italy is part of several organizations that deal wTC the IPRs: • World Intellectual Property Organization (WIPO) • European Patent Organization • European Union Intellectual Property Office (EUIPO) 	<ul style="list-style-type: none"> • Spanish Patent and Trademark Office (SPTO) and the Ministry of Industry and Commerce. • Business sector (companies, confederations, federations, associations) • Academic sector (universities) 	<ul style="list-style-type: none"> • The governance model is closely linked to the international nature of the IP system (WIPO) • But also to the history of setting up the first core of trademark and design registration wTC the creation of INNORPI in 1982 • Political level of governance: national IP council type, non-existent • Strategic level: national IP body type, not yet set up • Executive or operational level: INNORPI • traces strategies, plans and executes them, • belongs to a technical department (Ministry of Industry), while the IPs are transversal, 	<ul style="list-style-type: none"> • IPR is mainly managed by the IPR Office of the Ministry of Economy and Trade. • Lebanon's Internal Security Forces (ISF) and Customs have a poor record of IPR enforcement 	<p>1- Egyptian government : IP Development Strategy - Egypt Vision 2030.</p> <p>the main governance body is :</p> <p>Egyptian Patent Office (EGPO): EGPO was established in 1951, became an affiliated organization under the ASRT since 1971 Deals mainly wTC patents and utility models</p> <p>EGPO is active in Egypt's joining of various international agreements, for example:</p> <ul style="list-style-type: none"> • Paris convention in 1951 • PCT in 2003 • WIPO in 1975 <p>In 2013, EGPO was the first office in the Arab region to be appointed as an ISA and IPEA</p> <p>Patents Once an application for the grant of a patent is filed, it is examined wTC respect to compliance wTC the formalities and patentability provided under Law 82/2002</p>

AXIS	CRITERIA	 ITALY	 SPAIN	 TUNISIA	 LEBANON	 EGYPT
	Institutional frame	<p>General Direction for the Industrial Protection</p> <ul style="list-style-type: none"> Chambers of Commerce Directorate- General for Industrial Policy, Innovation and Small and Medium Enterprises : Innovation and circular economy promotion body Patent Information Point (PIP) e Patent Library (PATLIB) In all EU countries, PIP (Patent Information Point) and PATLIB (Patent Library) information centres, accredited at each national patent office, provide practical assistance to businesses, researchers, private inventors and students, and disseminate patent information as widely as possible and offer first aid services to users. <p>PIP Centers provide information services in patent matters, as well as in other related areas, including assistance in the acquisition, maintenance, transfer and protection of industrial property rights.</p>	<p>Spanish Patent and Trade-mark Office (SPTO)</p> <ul style="list-style-type: none"> Autonomous Body attached to the Ministry of Industry, Commerce and Tourism. Deals with the granting of patents and utility models (inventions); industrial designs (creations of form); trademarks and trade names (distinctive signs) disseminates information regarding the different forms of protection of Industrial Property (IP). At the international level, the SPTO is in charge of representing Spain in the different international organizations that are in charge of Industrial and Intellectual Property. Therefore, it has a double function: ModaEspaña and TEXFOR confederations stand out, organizations formed by associations and business federations of the textile sector 	<p>Multitude of structures of the national training, research and innovation system, public administrations and the private sector operating in various economic fields: Intellectual property registration and protection bodies:</p> <ul style="list-style-type: none"> National Institute for Standardization and Industrial Property: INNORPI The Tunisian Organization of Copyright and Neighboring Rights IP asset protection bodies The National Council for the fight against counterfeiting Customs Department of Commerce 	<ul style="list-style-type: none"> R and D : university, designers, research centers Industry/NGO : funds, incubators, accelerators IPR central office: ministry of trade Governmental organizations and institutions 	<ul style="list-style-type: none"> The main public supporter of innovation and IPR, as the main drivers of technology transfer in Egypt through: EGPO The sole government organization that receives, examines and registers patent applications Cooperates with WIPO to protect IP and create an environment for better IP protection IPR awareness and capacity building the Academy of Scientific Research & Technology (ASRT) is a non profit organization affiliated to the Ministry of Scientific Research, established in September 1971 by the Presidential Decree No 2405 as the national authority responsible for science & technology in Egypt. In 1998, ASRT was reorganized by the Presidential Decree No 377 that defined its mission, function and activities.

PATLIB

Centers provide specialized patent search services, including technology monitoring and strategic consulting, in addition to providing practical assistance on other intellectual property rights.

- Order of Industrial Property Consultants ;
- The Order gathers professionals working in the field of Industrial Property. The Register is made up of two sections:
- Patent Section: reserved for 'Patent Attorneys' qualified for inventions, utility models, designs and models, new plant varieties and topographies of semi-conductor products
- Trademark Section: reserved for 'Trademark Attorneys' qualified for distinctive signs, geographical indications and designs
- Netval Association (Network for the valorisation of the research) Born as a network of Italian universities and public research organizations in 2002, it is now an association that represents over the 80% of the Italian public research system and as member of Netval there are 64 universities and 15 public research organisations.

- **Universities** working in collaboration with companies; The Spanish university system does not yet firmly assess the technology transfer achieved by its researchers

- SRT is the Egyptian house of expertise. It brings together outstanding Egyptian scientists and experts from universities, research institutions, private sector, NGOs, policymakers and prominent Egyptian scientists in Diaspora

to deliberate country problems, propose and carry out scientific studies and future strategic basic plans to tackle these problems.

TICO

- Helps in marketing IP so that it can create real value and become commercially useful
- Provides ideation and prototyping seed fund
- Offer technological and innovative solutions based on research findings INTILAC
- National network of 17 general and specialized technological incubators in partnership with Universities, research institutions, NGOs and private sector www.eib.eg
- Electronic portal of innovation
- Online marketplace for Inventors, Innovators, Bankers, Funding Organization, VCs, Investors, Business men, Industry

AXIS	CRITERIA	 ITALY	 SPAIN	 TUNISIA	 LEBANON	 EGYPT
	Regulatory framework	<p>ITALIAN CODE OF INDUSTRIAL PROPERTY (CPI):</p> <p>Since 2005, the Industrial Property Rights Code (Legislative Decree n. 30 of February 10, 2005) has been in force.</p> <p>Its purpose was not only to simplify and modernize the subject matter by gathering under one single text the existing IP laws, but also to harmonize the national regulations with European law and international conventions.</p>	<p>Recent laws:</p> <ul style="list-style-type: none"> • Law 24/2015 on patents has been fully applied. The entry into force of this law, on April 1, 2017, represented a strong change in the system of protection of national inventions, equating their rights to the protection granted by neighboring countries and being the same compatible with what is established at European level • <i>Royal Decree-Law 5/2021</i> on extraordinary measures to support business solvency, it grants economic aid to self-employed persons and companies of a minimum of 3,000 euros and a maximum of 120,000 euros, having to comply a series of loss requirements in economic terms from 2019 to 2020 	<ul style="list-style-type: none"> • The regulatory framework is expanded at several levels, namely conventions, treaties and international agreements and national regulations in perfect harmony with Tunisia's commitments • The first international agreement ratified by Tunisia being the Paris Convention for the protection of industrial property signed on July 7, 1884 	<ul style="list-style-type: none"> • Patent and copyright law • Duties and fees due to the publication of industrial designs, patents, literary and artistic properties • The code of Commerce (The registration of marks and patents in the register of commerce) • Criminal Code • The application of the Paris convention for the protection of the industrial property and the Madrid agreement for the repression of the false or deception indications of source on goods 	<p>Law No. 132/1949, there have been several amendments in the course of developing Egypt's IP legal system and now Law No. 82/2002, including the new code address patents, integrated circuit designs, undisclosed information, trademarks, geographical indications, trade statements, industrial designs, copyright and related rights, and plant variety protection.</p> <p>Law 82/2002 generally attempts to mirror the provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)</p> <p>Several international conventions and treaties, especially: WIPO, 1975 PCT, 2003 IPR trade treaty, 1999</p> <p>Issuing of Egypt law for STI incentives (law no.23) in 2018 can be considered as one of the main decisive actions towards creating enabling environment for innovation, better utilization of IPR and technology transfer</p>

Mechanisms to promote and support the intellectual property system

• Grants • Brevetti+ [Patents]

The incentive is granted for the purchase of specialized services aimed at the economic exploitation of a patent in terms of profitability, productivity and market development.

- Budget of €21.8 million in 2020 and € 23 million in 2021.

- **Voucher 3i** – Investment in Innovation with the purpose of supporting the enhancement of innovation processes of innovative start-ups in Italy and abroad, this call grants financial support to buy specialist consultancy services to complete the patent filing process for ideas more easily.

- Budget for the 2019-2021 period: €19.5 million Beneficiaries: innovative start ups

- **Support measures for the textile, fashion and accessories industry** It is aimed at supporting and promoting, through the provision of non-repayable grants: the textile, fashion and accessories industry, with particular regard to start-ups investing in design and creation • young talents in the textile, fashion and accessories sector

- **European support** The Ideas Powered for business SME Fund

- Free personalized

- Intellectual Property support

SPTO: R&D&I :

Economic incentive that allows a reduction of **up to 50% of the corporate tax rate**

To **recover 12% of the expenses incurred** in textile sample projects

MACHINERY: 35-45% non-refundable subsidy for the acquisition of new machinery or even used ones, production facilities and auxiliary production equipment

SOFTWARE: Non refundable subsidy of 30% - 40% of the costs of the implementation for the digitalization of the Company

INNOVATION DEVELOPMENT:

Aid of up to 45% of subsidy for the implementation of product innovation projects, process improvement and industry 4.0

INTERNATIONAL MARKETING:

Aid of up to 50% non-refundable to promote the internationalization of companies

GOVERNMENT: ASSOCIATIONS UNIVERSITY:

- Encourage participation in research projects and programs
- Gives visibility at international level
- Cooperate in staff training programs and facilitate exchange of a limited time professional

SUPPORT STRUCTURES:

Ministry of Higher Education and Scientific Research and Structures under supervision, such as the ANPR (National Agency for the Promotion of Research), universities Ministry of Industry: Directorate-General for Innovation, Upgrading Office, APII, CTS, Technopoles, INNORPI Ministry of Public Health:

including the “Institut Pasteur” and Other state structures. Research centers and private laboratories.

International structures represented in Tunisia: UNIDO, GIZ, EU COOPERATION, AFD, UNDP, JICA, etc.

The Academy of Scientific Research & Technology: ASRT supports Conducting of research to develop & transfer solutions to real problems of high national priority. Through TICOs network it:

- Facilitate partnerships between academia and industry to allow adoption of research outcomes for society benefit
- Protect intellectual property to enhances adoption of research outcomes and generation of income
- Helps in marketing of IP to create creates real value
- Provides ideation and prototyping seed fund at the institutional levels

Offers technological and innovative solutions based on research findings

By 43 Office in Egypt

This network includes:

Technology Transfer Office, TTO.

Grant and the International Cooperation Office, GICO.

Technology Innovation Support Center, TISC (This office is responsible for helping the community inside the Egyptian universities in the IPR registration process).

PATENT AND TRADEMARK SYSTEM IN THE ITC SECTOR

Services of support structures and partner structures

AXIS

CRITERIA



ITALY

Digitalization: Knowledge share

Knowledge Share is an IP platform designed to facilitate the interaction between universities, companies and investors by providing a portal that enables users to easily access information related to patents and technologies that represent the excellence of the scientific know-how in Italy.

Wipo Green

Wipo Green is an online platform that facilitates connections between people looking for green environmentally advanced service providers that enables users to easily access information related to patents and technologies that represent the excellence of the scientific know-how in Italy.

Wipo Green

Wipo Green is an online platform that facilitates connections between people looking for green environmentally advanced service providers



SPAIN

1- The Spanish Patent and Trademark Office, O.A. (SPTO)

- Granting of patents and utility models (inventions);
- Industrial designs (creations of form); trademarks and trade names (distinctive signs) and titles of protection of topographies of semiconductor products. Likewise, disseminates information regarding the different forms of protection of Industrial Property (IP).
- Grant the various titles of Industrial Property, after examining the corresponding applications.
- Offer technological information services based on information on the different types of Industrial Property granted by the SPTO and by other foreign Offices



TUNISIA

The National Institute for Standardization and Intellectual Property: INNORPI:

prepares and deploys support programs for the benefit of innovation actors in Tunisia, of which we quote, Creation of support centers for technology and innovation (CATI/TISC),

- Agency for the Promotion of Industry and Innovation (APII): CIDT
- The Center for Innovation and Technological Development
- National School of Engineers of Monastir ENIM
- National Agency for the Promotion of Scientific Research ANPR: BUTT
- The Textile Technical Center CETTEX
- The Monastir- Fejja competitiveness cluster MFCPOLE
- The International Center for Environmental Technology of Tunis – CITET: TT environment, and industrial ecology
- The National Waste Management Agency – ANGED



LEBANON

1. Collaboration and Financing: Provide education, skills and support for scaling of circular business models and sustainable solutions

Encourage public-private partnerships and cross- government collaboration) Leverage funding from financial institutions.

2. Strong Governance and Policies: Create incentives for innovative business models and the use of sustainable materials (e.g., through sustainable public procurement, subsidies); invest into research & development.

3. Consumption habit Change: Build consumer acceptance for product longevity that reduces consumption, for service over ownership models Implement discounts/refunds to incentivize sustainable purchases



EGYPT






INTILAC services: Incubate, accelerate, spin, technology push and create jobs

Egyptian Innovation Bank

A forum for the inventor, investor, industrialists, civil society and donors to contribute to the activation of science and technology system and innovations and inventions marketing.

Goals

Inventory, rating and classification of registered/patented inventions and innovations as well as innovative technological ideas and outputs in various fields, and hosting them on the bank's website.

AXIS	CRITERIA	 ITALY	 SPAIN	 TUNISIA	 LEBANON	 EGYPT
	Role of the ITC industrial fabric and research and development system and integration of IPs	<p>Wipo green : the textile industry is starting to change towards green choices. In this section of the database, there are 354 green patents from all the world and with 20 patents Italy is ranked fifth.</p> <p>Economic value the sale, purchase or licensing of intellectual property can generate large profits Increasing the value of the company Good management of IPs assets increase the value of the company for the investors and financial institutions Increasing turnover Companies that own IPRs have 20% higher revenue per employee than companies that do not (36% for patents).</p> <p>IPR- owning companies pay wages that are on average 19% higher than firms that do not own IPR (Intellectual property rights and firm performance in the European Union 2021 report by EUIPO).</p> <p>Secure returns on R&D investments Intellectual property management allows secure returns on R&D investments.</p> <p>Increasing reputation and brand awareness Protection in the event of counterfeiting.</p>	<ul style="list-style-type: none">• Many small and medium-sized enterprises attach little or no importance to protecting their intellectual assets.• Digital tools in Spanish ICT are generating value for the business sector: flexibility in manufacturing process, support decision making with real time information, etc.• The adoption of these tools is reflected given the increasing number of electronic commerce transactions registered in recent years.• The synergy of sustainable technologies and digital tools shows a growing activity expressed in the creation of more than 50 sustainable online companies in 2017- 2020.	<ul style="list-style-type: none">• ITH industrial fabric and research and development system and integration of IPs:• The Tunisian ITH sector is strongly oriented towards export to the European Union and other demanding markets in terms of responsiveness, fashion and ecological standards, thus undergoing continuous normative and technological development pressure,• Therefore, the support mechanisms for innovation managed by the support structures play an important role in the development of innovative techniques and technologies,• Nevertheless, the culture of the Tunisian company means that the major parts of the conclusive work remain secret within the company, Despite the efforts made, the company still does not sufficiently adhere to the IP system.	<ul style="list-style-type: none">• A total number of patents granted by the Egyptian Patent Office during the period from 2006 to 2016, invention, including 783 patents granted to Egyptians, 3,569 patents granted to foreigners.• In 2016, the textile and paper field, where the Egyptian Patent Office granted 10 patents in this field, «4 for Egyptians, and 6 for foreigners.»	

PATENT MARKET IN THE ITC SECTOR

AXIS	CRITERIA	ITALY	SPAIN	TUNISIA	LEBANON	EGYPT
	Statistics by sector		<p>In 2020, a total of 1,483 patents (filed by residents in Spain and non-residents) have been requested before the SPTO. The number of national patents in force as of 12/31/2020 was 28,024. However, the patents granted in 2020 reached the figure of 588 files.</p>	<p>Statistics by criterion of eco- innovation and circular economy:</p> <p>During the period 2000 – 2021, Tunisia identified 12 patents registered eco-innovators of which only 5% are in textile industry</p>	<p>Copyrights, trade-marks, patents, and industrial design.</p> <p>The maximum number of registered projects was 666 in 2018, followed by a 32% drop to 451 in 2020</p> <ul style="list-style-type: none"> - industrial patents and trademarks: 313 in 2018 and 154 in 2021 - No specific statistics related to ITC. 	
	Eco-innovation and circular economy statistics	<p>19.674 Total publications of innovations in TCI in Italy from 2000 to 2021</p> <p>Total green patents related TCI in Italy from 2000-2021: 3.281</p>	<p>On the one hand, the most outstanding sustainable solution is the use of renewable energies, in this case, photovoltaic energy, to optimize the process of the textile production chain in Spain. On the other hand, the most prominent digital tool is IA. And, from the complementarity of both results the Artificial Intelligence (AI) solution that offers an optimization of resources in the design processes</p> <p>Nevertheless, less than 5% (249 inventions) are related to sustainable technology and 152 are related to digitalization.</p>		No official statistics on it	



AXIS	CRITERIA	ITALY	SPAIN	TUNISIA	LEBANON	EGYPT
	Patents valorisation	No information on this subject	<p>There is no mechanism which allows statistics on the valorization rate of inventions in ICT.</p> <p>There are some examples of valorisation work.</p>	<p>Distribution of patents: The private sector monopolizes 80% of the patents filed, this is due to the filings of foreign companies, No Tunisian company filed a patent between 2000 and 2021, Public patents have been the subject of collaborative work with private companies (case of SITEX),</p>	Lack of information on it	<p>The Egyptian patents that were transferred to the Innovation Development Agency</p> <p>Agency and what was marketed from them, as it was mentioned that the year 2016 witnessed the transfer of 7 patents out of the total patents granted during it, and the 7 patents were marketed by 100%.</p> <p>The year (2015) witnessed a great commercialization of inventions that were transformed into the Innovation Development Authority.</p> <p>In 2020 and because of Coronavirus (COVID-19) pandemic, The Egyptian Patent Office has decided to make available patent information on certain antimicrobial treatments in textiles</p>
	Socio- economic impact of development projects	<p>1. IMPROVED BRAND REPUTATION AND FINAL USER LOYALTY Circularity increases brand reputation and final user loyalty.</p> <p>2. NEW BUSINESS OPPORTUNITIES Circularity generates new business opportunities.</p> <p>3. NEW JOBS will be created in the medium-long term.</p> <p>4. COST REDUCTION: in the short term the costs increase. cost reduction is expected in the Medium-long term</p>	<p>General impact:</p> <ul style="list-style-type: none"> • Economic: Source of competitive advantages for the companies Fashion industry access to new and original designs every year • Environmental: More sustainable industrial activities Digitalization allow companies to reduce production cycle and logistics • Social: Increase of e-commerce transactions registered recent years 	<ul style="list-style-type: none"> • Patents conducted by off-shore companies have had a limited positive impact in terms of: • Employment of senior executives (engineers) and supervisors • Better notoriety of Tunisia in the fields of valorization of research • Improvement of export turnover in the sector 		<p>General impacts, No specification for Egypt</p>



VI. ANALYSIS OF THE STRENGTHS AND WEAKNESSES OF THE INTELLECTUAL PROPERTY SYSTEM :



**INNOVATION
SYSTEM
BASED ON
INTELLECTUAL
PROPERTY
RIGHTS**

AXIS

CRITERIA



**TUNISIA
FORCES –CHALLENGES**



**LEBANON
FORCES-CHALLENGES**



**EGYPT
FORCES-CHALLENGES**

**National Intellectual
property strategy**




- (+) A strong political will to develop innovation and industrial ecology, the laws, structures and mechanisms deployed demonstrate this.
 - (-) Public policy: no clear policy to promote intellectual property rights as a factor of development and economic growth
 - (-) Low global ranking in terms of innovation: 110th rank compared to a very good ranking in terms of scientific production (40th rank)
- (-) There is no specific Strategy for IPR clothing sector and textile in Lebanon
 - (-) lack of political priority within the Lebanese government
 - (-) The use of IPRs in Lebanese business is limited
- (+)Egypt Vision 2030 reflects the three dimensions of sustainable development (the economic, the social, and the environmental dimensions).
 - One of the main goals that is related to innovation is to make Egypt one of the top 20 countries in terms of number of patent applications and one of top 40 countries in terms of innovation and quality of research institutions.




Governance system

- (-) the only body in charge of aspects related to intellectual property rights is INNORPI for patents, trademarks and design and OTEDEV for literary rights.
 - (-) INNORPI and OTEDEV, which are cross-cutting structures, report to two technical ministries, namely industry and culture
 - (-) Lack of a structured governance model based on three levels, political, strategic and executive
 - (-) Existing system not scalable and closed
 - (-) The private sector is not clearly included in a governance model
- (-) The IPR Office of the Ministry of Economy and Trade mainly manages IPR.
 - (-) Lebanon's Internal Security Forces (ISF) and Customs have a poor record of IPR enforcement
- (-) As presented: lack of political, strategic structured governance model; At present, Egyptian Patent Office (EGPO) and ARST are the main governance structures.
 - (-) Private sector seems to be at the governance level.

Institutional frame

- (-) Overburdened institutional system; each department sets up its own institutional system
 - (-) Overlapping roles and missions and lack of inter- institutional communication on the subject of intellectual property rights, example of BUTT, TTO (APII, ANPR, INNORPI, Technopoles).
- (+) institutional frame is well represented: R and D system: university, designers, research centers industry/NGO: funds, incubators, accelerators, IPR central office : ministry of trade, Governmental organizations and institutions.
 - (-) no information about how different actors cooperate between them
- (+) institutional frame well represented, covering, patenting, services for innovation, support to marketing and financing.
 - (+) presence of TTOs in almost all Egyptian universities.
 - (-) institutional frameworks do not cover enough the private sector.

AXIS	CRITERIA	 TUNISIA FORCES –CHALLENGES	 LEBANON FORCES-CHALLENGES	 EGYPT FORCES-CHALLENGES
	Regulatory Framework	<ul style="list-style-type: none"> • (+) Tunisian regulations are well developed in terms of laws, international treaties in favour of promotion, management of IPs in harmony with international regulations. • (+) the anti-smuggling system is well structured in terms of regulations and roles of the parties involved, namely, INNORPI, Customs, Ministry of Commerce. 	<ul style="list-style-type: none"> • (+) Patent and copyright low • (-) Duties and fees due to the publication of industrial designs, patents, literary and artistic properties are in charge of inventor or designer, and are costly • (+) The code of Commerce (The registration of marks and patents in the register of commerce) • (+) Criminal Code is applicable in case of counter band • (+) The application of the Paris convention for the protection of the industrial property and the Madrid agreement for the repression of the false or deception indications of source on goods • (-) Lebanon has missed some important international treaties: Lebanon is not a party to the Patent Law Treaty (2000), The Patent Cooperation Treaty (PCT); This breaks international extension of any Lebanon innovation, also, not encouraging international innovators to register in Lebanon. 	<ul style="list-style-type: none"> • (+) The changes in Law 82/2002 supported the intellectual property system by mandating the full examination system for patents and industrial designs. (+) Paris Convention (1951) – WIPO (1975) • (+) Egypt has been a party in the Patent Cooperation Treaty (PCT) since 2003.
	Mechanisms to promote and support the intellectual property system	<ul style="list-style-type: none"> • (+) Existence of several mechanisms for sustainable innovation • (-) Public research policy strongly support scientific publications over patents. • (-) Multiplicity of initiatives for innovation on the same subjects of economic, social and environmental interest • (-) Difficulty for the private sector to access public research structures and share intellectual property rights. • (-) Innovation support mechanisms are partly on standby such as the PNRI, PIRD, VRR. • (-) patenting support is not part of innovation support services in Tunisia • (-) Lack of national skills for drafting and evaluating invention patents 	<ul style="list-style-type: none"> • (-) IPR enforcement is weak especially by internal security forces and custom • (-) lack of incentive mechanisms toward promoting collaborative works and research between public and private for innovation and circular economy • (-) lack of incentives for eco- design and innovative approaches toward a circular economy based on innovation and sustainability. 	<ul style="list-style-type: none"> • (+) Egypt has several programs that support the patent application fees such as ITAC program which is run by Information Technology Industry Development Agency ITIDA which is a part of the Ministry of Commutation and Information Technology. ITAC program can fund the application fees up to 10.000 EGP. • (+) The Academy of Scientific Research and Technology (ASRT) established Technology, Innovation and Commercialization Offices (TICO) in more than 50 universities and research centers. • (-) Lack of awareness of IPRs among professors and researchers inside the universities and research centers, problem of sensibilization and incentives. • (-) Huge gap between the number of researchers in Egypt and the number of patent and utility model applications

AXIS	CRITERIA	 TUNISIA FORCES –CHALLENGES	 LEBANON FORCES-CHALLENGES	 EGYPT FORCES-CHALLENGES
PATENT AND TRADEMARK SYSTEM IN THE ITC SECTOR	Services of support structures and partner structures	<ul style="list-style-type: none"> • (-) Lack of medium-scale know-how (at least) in terms of contractualization of collaborative research work, rights sessions, licensing. 	<ul style="list-style-type: none"> • (-) the Lebanese innovations are weakly linked to research centers and incubators, a non-well-structured system. 	<ul style="list-style-type: none"> • (+) ASRT established The National IPR Academy to help in promoting IPRs among faculty members and researchers by providing several training and workshops about IP. • (+) Digitalization : The Egyptian Patent Office launched (EGPO – SES) (Search and E- service System) https://test-eservice.egpo.gov.eg/#/main
	Role of the ITC industrial fabric and research and development system and integration of IPs	<ul style="list-style-type: none"> • (+) driven up the innovation ladder by the foreign private sector (FDI), which capitalizes 90% of patented innovations in the sector • (+) The potential of the IP market remains a promoter due to Tunisia's openness to the international innovation market and the Tunisian business culture which is increasingly oriented towards the added value of products and services by technological integration and innovation. 	<ul style="list-style-type: none"> • (-) in general, the private sector is not interested in patenting R&D results. • (+) Economic crises has been • turned to opportunities by raising textile waste upcycling value • chain with low cost products at a limited scale. 	<ul style="list-style-type: none"> • (-) In 2016, the textile and paper field, where the Egyptian Patent Office granted only 10 patents in this field, «4 for Egyptians, and 6 for foreigners.»
PATENT MARKET IN THE ITC SECTOR	Statistics by sector	<ul style="list-style-type: none"> • (-) No statistics on the market for patents and other intellectual property rights 	<ul style="list-style-type: none"> • Copyrights, trademarks, patents, and industrial design. The maximum number of registered projects was 666 in 2018, followed by a 32% drop to 451 in 2020 • Industrial patents and trademarks: 313 in 2018 and 154 in 2021 • No specific statistics related to ITC. • (-) lack of awareness of the economic repercussions of IPR violations that do not encourage patenting 	<ul style="list-style-type: none"> • (-) The gap between the number of patent applications by residents and by non-residents is not even close



AXIS	CRITERIA	TUNISIA FORCES –CHALLENGES	LEBANON FORCES-CHALLENGES	EGYPT FORCES-CHALLENGES
	Eco-innovation and circular economy statistics	<ul style="list-style-type: none"> • (-) Patented research in the ITH sector is generally not eco- innovative. 	No official statistics on it	
	Patents valorisation	<ul style="list-style-type: none"> • (-) the public sector is practically not present on the IP market and rather prefers publications to the detriment of invention patents 	Lack of information on it	<ul style="list-style-type: none"> • (+) 7 patents were fully marketed in 2016. • (+) Big effort is ongoing by the action of ASRT, IDR and IEB for marketing and financing innovations and inventions.
	Socio- economic impact of development projects			<ul style="list-style-type: none"> • Not specified









VII. ACTION PLAN:



The IPR action plan is the result of the work of collecting information and mapping the Intellectual Property system in each partner country, Tunisia, Egypt and Lebanon, the analysis of strengths and weaknesses and the analysis deviations from the Spanish and Italian partners. The action plan covers the relevant aspects identified and studied in the different phases of the project.



INNOVATION SYSTEM BASED ON INTELLECTUAL PROPERTY RIGHTS

AXIS	CRITERIA	 TUNISIA	 LEBANON	 EGYPT
	National Intellectual property strategy	<ul style="list-style-type: none"> • Make IPR and innovation a vector of economic, environmental and social development. • Enhance the role and impact of IPRs in the ITH sector. • Raise the level of orientation of companies and research structures towards IP. Improve the IP protection system. • Develop the link between IPRs and the circular economy. • Develop the technical and financial support system. • Promoting digitalization in the IP system 	<ul style="list-style-type: none"> • Make IPR and innovation a vector of economic, environmental and social development. • Develop policies and regulatory frameworks that allow enterprises to easily transition to new business models. 	<ul style="list-style-type: none"> • Develop integration of IPR in the local innovation system. • More involve private sector in IPR promotion strategy
	Governance system	<p>Create a national authority for research, innovation and intellectual property where the private sector is represented through federations.</p> <p>Put INNORPI under the supervision of the presidency of the government or the Ministry of Economy and Development (because of its cross-cutting role)</p>	<p>Develop TTOs (Technology Transfer Offices) related to IPR offices and implemented in the universities, federations and technological structures.</p>	<ul style="list-style-type: none"> • Develop governance model by further involvement of political and strategic level: create an innovation and IPR council. • The private sector is part of the council (federations).
	Institutional frame	<p>Overhaul of INNORPI to become: National Institute for Standardization and Intellectual Property (instead of Industrial).</p> <p>Through the body, re- examine the roles of structures and departments, in order to harmonize the system, eliminate the overlapping of roles, the multiplicity of initiatives and make the innovation and IP system clearer and more efficient.</p> <p>Develop the executive system for combating counterfeiting and protecting IP.</p> <p>Better coordinate public- private action for the promotion of IPs: set up within universities, technology parks, industrial zones, chambers of commerce, support structures, specialized awareness and information systems on IPs and support services for SMEs, researchers and entrepreneurs (collaborative research contracts, licensing agreements, sharing of intellectual property rights, drafting and evaluation of patents, access to information and prior art search, etc. .)</p>	<p>Increasing awareness around existing IP policies in research institutions and universities</p>	<ul style="list-style-type: none"> • Create TTOs into sectoral federations, especially textile representatives.

AXIS	CRITERIA	 TUNISIA	 LEBANON	 EGYPT
	Regulatory framework	<ul style="list-style-type: none"> • Establish an intellectual property code: simplification and modernization of the intellectual property system and harmonization and adaptation with international systems. • Develop the patent system by integrating background research at the level of INNORPI, which gives more value and notoriety to Tunisian patents 	<ul style="list-style-type: none"> • Put on the Lebanon code of intellectual properties. • Acceptance and ratification of The Patent Cooperation Treaty PCT to seek an easy process to register patents worldwide and ensure protection for Lebanese patent award holders worldwide. • Integrate deep research system on anteriority for patents evaluation. • Enhancing criminal sanctions for patent abusers to show a preliminary protection aspect for patent certificate holders. 	<ul style="list-style-type: none"> • Put on Egyptian code of intellectual properties.
	Mechanisms to promote and support the intellectual property system	<ul style="list-style-type: none"> • Set up a sustainable subsidy system for the benefit of players in the IP system (company, start-ups, researchers) which makes it possible to subsidize collaborative research, the drafting of patents, the filing and their maintenance. • Support the establishment of an ecosystem of IP expertise that operates for the benefit of system actors. • Through INNORPI: join the «WIPO green platform» platform to promote the development of ecological patents in the textile sector: information sharing, connection with international structures, incentive for eco-innovative research and patenting relevant results. 	<ul style="list-style-type: none"> • Enhance the collaboration between Fashion Industry and Ecofriendly requirements through incentive mechanisms in order to increase the innovative textile creations and resources in Lebanon. • Enhancing Public sector censorship and advisory sector. • Increase the number of patent experts in Lebanon 	<ul style="list-style-type: none"> • Enhance the sensibility of researchers toward inventions and technological transfer through patents, research valorization contracts. • Put on incentives aiming to promote patenting instead of publishing research works. • Join WIPO green platform to promote ecotechnologies in the industrial sector, especially textile sector.

AXIS	CRITERIA	 TUNISIA	 LEBANON	 EGYPT
PATENTS AND TRADEMARKS IN ITC SECTOR	Services of support structures and partner structures	<ul style="list-style-type: none"> • Creation of a national digital platform for innovation and intellectual property involving all stakeholders in the system; it is a real space for information, exchange, collaboration, synergy and marketplace. The platform opens onto international platforms to allow Tunisian innovation to integrate into the international innovation system. • Develop support services for green entrepreneurship based on patents: mentoring, business plan, partnership, financing, technical support, commercial strategies, etc. 	<ul style="list-style-type: none"> • Taking into consideration WIPO assistance and recommendations. • Set up of a digital IP Platform: Facilitate and increase the knowledge of the interested parties about the services, programs and projects that are carried out in the universities, and publicize the work of the researchers stories and increasing awareness of latest advancements in technology and commercialization • Enabling and facilitating access to government- provided knowledge as well as periodical publications 	<ul style="list-style-type: none"> • Develop the IP digital platform • Develop services of expertise and assistance for private sector to enhance R&D and patenting of innovation results. • Set up a fund for expertise, assistance, reduction, registration of IPR.
	Patents valorisation	<ul style="list-style-type: none"> • Set up a system to monitor technological needs and challenges in the textile industry. • Coordinate the IP offer with the industrial and economic demand of the ITH sector. • Promote the IP market by setting up benefits that are specific to spin-offs and spin-outs. • Set up an investment fund to seed and develop IP- based projects. • Set up a subsidy system to boost the transfer of patents and the sharing of IPs 	<ul style="list-style-type: none"> • Allow through the digital platform, the creation of a market place for IPR, patents and promotion of networking and partnership for spin-off and spin-out • Improving financial support for developing Intellectual Property assets. 	<ul style="list-style-type: none"> • Put on a fund to promote entrepreneurship based on upscaling of IPR, namely spin-off and spin-out. • Implement a technology watch system for researchers on textile sector challenges and needs. • Implement a digital platform for marketing of IPR: ameliorate visibility, exchange between stakeholders



STAND Up!

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