



معهد البحوث الصناعية

INDUSTRIAL RESEARCH INSTITUTE
INSTITUT DE RECHERCHE INDUSTRIELLE

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IRI: Its Purpose & Function

The Industrial Research Institute is a Lebanese institution for studies, industrial research, and scientific testing and analysis. IRI is a non-profit, non-commercial, public utility organization having an independent legal personality with the right to own, purchase, sell, insure, accept donations, take loans, and engage in litigation and similar activities. IRI was founded in 1953 and was linked to the Ministry of Industry pursuant to Article 3 of Law n° 642 of June 2, 1997.

IRI enjoys financial and administrative independence and is subject to post-auditing by the Court of Accounts in what concerns the contributions of the government to IRI.

IRI's headquarters are located in Hadath, and it is entitled to establish branches in all parts of the Lebanese Republic and abroad.

IRI is an independent national research center, and combines:

- Knowledge, expertise, and specialization
- Scientific material and equipment
- Data and technical documents.

IRI offers specialist scientifically reliable services to the national economy as well as existing industry and those which can be established with the aim of industrial development. The services include:

- Consultations

- Studies and research
- Testing, metrology, and analysis.

IRI, through its activities and operations, seeks to achieve the following goals:

- Conducting research and studies to enable the establishment of new industries
- Conducting research and studies on various materials and items to learn their properties and determine their uses and applications
- Offering specialist consultations on technological, administrative, and economic matters related to existing industry with the aim of industrial development and encouraging the creation of new industries
- Offering internationally accredited services in testing, analysis, and metrology related to materials and items, and issuing certificates of quality and conformity certificates
- Collaborating with national and international official bodies, and economic institutions and trade unions with the goal of fostering economic development.

IRI brings together a reliable body of experts, specialists, and engineers in many fields to carry out its activities, supported by another body of administrators, accountants, and clerks who undertake administrative tasks and other internal services.

Our Ethical Standards

In carrying out its functions, the Institute adheres to ethical and professional standards whereby it safeguards the clients' best interests. Furthermore, IRI regards as the client's property any in-

formation, processes, patent or techniques developed during work with the client and safeguards such matters in complete secrecy.



A Stunning Development and a Transparent Proof



Dr. Bassam Frenn

Lebanon and the whole neighboring region are plagued with a general disturbing spirit that engulfs the countries and endangers them and threatens with a complete public paralysis.

The Lebanese government is under a permafrost condition while facing multiple intrusive threats... In this atmosphere, we have strived to overcome obstacles and differences, avoiding deviations caused by the whims and gossips of others and facing prejudice towards the Industrial Research Institute and its managerial, scientific and technological competencies and towards each and every one of us, and me personally.

The Industrial Research Institute (IRI) is known for the hard work of its competent management and active staff, confirming year after year its importance, not only to the industrial sector, but also other sectors, including public administrations concerned with public safety and health in Lebanon.

Once again the IRI proved its credibility in conducting tests, examinations and measurements, whether by applying the requirements of the decrees on mandatory standard specifications, or specific requirements requested by NGO's (manufacturers, merchants or others), as well as the

implementation of conformity assessment needed for customs files, studies.

The laboratories with their competent supervisors continue to provide analytical services in assisting the various Lebanese ministries (Ministry of Industry, Ministry of Health, Ministry of Environment) in their public control campaigns. Campaigns conducted in order to ensure food safety, control of production and promotion of food products, allowing the government various benefits thus saving thousands of dollars, expanding the control base, and protecting the Lebanese industrial production from imported products which don't conform with the technical standard specifications.

Since mid-2014, the Institute was entrusted with additional tasks of the technical implementation of about 77 new mandatory legal standards via testing and examinations, as the institute is expanding the scopes of accreditation for its testing services.

The IRI is also concerned in taking advantage of solar energy and spreading the culture of the green economy, through clean production.

In addition, the IRI is supporting the clean environment, and carrying out studies in the field of environmental audit of a number of factories, which contributes to the reinforcement of a clean fostering environment.

The IRI expanded its innovation and innovators base by supporting innovation projects financially in order to help the creation and implementation of projects.

One cannot count all the activities conducted by the IRI, because all this apparent human effort, which is translated by the results of a standard process, is in line with hidden efforts. Those are the efforts deployed in research, discussion, planning, preparation, and studying strategies to adapt to scientific events...

For this reason, we are publishing the 2014 annual report, noting that it is a meaningful argument and transparent proof of the role of the IRI, its achievements and stunning development over a decade and a half, accomplished under our supervision.



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*Activities of the
Minister of Industry*

The Minister of Industry, Dr. Hussein Hajj Hassan, was assigned the tasks of his predecessor Minister Freij Sabounjian in the Ministry of Industry on February 19, 2014. He gave the Institute a special attention; many activities were held under his auspices and in his presence.

He also valued the accomplishments of the Industrial Research Institute and its departments, as well as the tasks entrusted to it through its scientific and technological centers.

The minister also gave many guidelines regarding the policy that should be adopted in the industry, the industrial environment, the green industry and renewable energy, etc.



The Industrial Research Institute and the Cleaner Production Center distributing certificates to the Center

Minister Hajj Hassan calls for supporting sustainable production, avoiding resource depletion and reducing pollution

Frenn: What the Institute accomplished in years annoyed enviers who lead media towards "distorting the truth"

The Industrial Research Institute and the Lebanese Cleaner Production Center (LCPC) organized on March 19, 2014, a ceremony for the distribution of certificates to experts and industrial institutions that underwent the Cleaner Production program, organized by the LCPC in collaboration with the United Nations Industrial Development Organization (UNIDO) and the Embassy of Austria.

Among the participants in the ceremony were the Ambassador of Austria Ursula Fahringer, the representative of the Regional Representative of the UNIDO Cristiano Pasini, Ms. Nada Sabra, the Director General of the IRI Bassam Frenn, the Director General of the Ministry of Environment Berg Hatjian, the Director General of the Institution for Standards and Metrology by proxy, Ms. Lina Dergham, the Director of the Lebanese Center for Cleaner Production (LCPC) Ali Yaacoub, representatives of the production institutions that participated in the session, as well as industrialists and experts.

depletion of natural resources, reduce pollution and control prices. Through research conducted in collaboration with the UNIDO and the UNDP, and with the support of neighboring countries, the IRI and the LCPC, are able to develop this equation and help industrialists apply it. Our aim is to maintain the production at a low cost in order to be able to compete with other markets and increase export. In addition, our goal is to reinforce the clean production, especially in the absence of abundant natural resources in Lebanon, such as, the recently explored oil and gas which some parties don't want to extract for political reasons. On the environmental level, we are facing problems in industries due to the lack of organized and well classified industrial zones, thus leading industrial enterprises to randomly spread across Lebanese towns and villages. So, we ought to address this problem".

He added: "We also need an equal trade. It is noteworthy that we are seeking to strengthen our rela-

Minister Hajj Hassan

The Minister of Industry Dr. Hussein Hajj Hassan, patron of the ceremony, said that: "The production and industry are the benchmark of the development of countries. Developed countries are industrialized countries whose balance of exports registers a surplus in comparison with imports. In Lebanon, we must adopt the sustainable production equation to avoid the





tions with Arab and foreign countries, however these countries are also required to open their markets to our products without resorting to the use of barriers, hurdles or different pretexts, for example, the pretext of specifications or abiding to agreements, knowing that they are breaching these agreements to protect their production. I cannot but ask here: is there a country in the world that does not protect its production? The industrial sector in Lebanon needs to convince politicians and not the Lebanese people to adopt an integrated and sustainable strategy to mobilize this sector. This strategy surely exists. It is also enough to follow the same lead as other countries in order to protect our markets. We must generalize this way of dealing with other sectors. We have warned of the intention of some politicians who are against the Ministry of Industry in Lebanon. To those people we say that we are not against tourism, or the banking, service and trade sectors, but we are against considering that these sectors are enough to build a sound national economy. Without the Ministry of Industry, employment opportunities recede, especially for those who do not have high qualifications or a certain profession. Unemployment is hitting the society, thus increasing poverty, social problems, and security problems. As for those who have high qualifications, they immediately find a job in Lebanon and abroad."

Minister Hajj Hassan attributed the high cost of pro-

duction in Lebanon to "the adoption of a real estate and rents policy leading to a rise in real estate without controlling the profits of the real estate improvement or imposing fees and taxes on income profits from real estate improvement. When putting this case, the wealthy immediately unify their efforts to prevent the adoption of these reform measures."

He also added that: "There's another reason for the high cost of production associated with the high cost of energy in Lebanon. When we discovered oil and gas, some started intentionally delaying their extraction for political reasons."

He concluded by thanking the IRI and the LCPC for organizing this session, valuing the cooperation with the UNIDO and other organizations to develop the industrial sector in Lebanon.

Bassam Frenn

Dr. Bassam Frenn gave a speech in which he said: "I would like to welcome you all at the Industrial Research Institute and thank you for attending this ceremony. A special thanks for his Excellency Dr. Hussein Hajj Hassan, for honoring us with his presence at this ceremony held under his auspices, at a time when the government is awaiting to be granted confidence votes from the Parliament. We feel in the presence of his Excellency, an expressive indication of his interest in the IRI, and the importance of the growing role of this Institute at the national eco-

conomic level. We have already witnessed throughout the past four years during his tenure in the Ministry of Agriculture, a work relationship and cooperation with His Excellency Minister Hajj Hassan characterized by a high degree of responsibility and expertise, generating confidence and trust in the scientific, institutional and academic approach. Minister Hajj Hassan adopts this strategy in the Ministry of Industry and at the head of the Board of Directors in the Institute, encouraging us to deploy additional efforts so as to achieve greater successes.

The Industrial Research Institute is now acknowledged on the European and Arab levels and many known organizations are cooperating with it. The IRI is assuming scientific training tasks in similar institutions and laboratories in African and Arab countries. Our employees are participating in international forums, where their contributions received congratulations and appreciation, noting that they often win international awards”.

Ali Yaacoub

Dr. Ali Yaacoub gave a speech in which he said: “The access to sustainable industrial development requires a tax reform and investment in human resources, as well as bridging between the industry and the environment through cleaner production. The experience

of the center helped the industrial sector participating in the Cleaner Production Center program save about 4 million dollars annually.”

Ambassador of Austria

The Ambassador of Austria Ursula Fahringer highlighted the importance of reinforcing cooperation between Austria, the Institute and the Center to activate the cleaner production program, and praised the success of the center in maintaining the environment and its continuous support for the industry.

Cristiano Pasini

Ms. Sabra read the speech of the Regional Representative of UNIDO in which he said: "The LCPC, after being elected as the representative of Arab countries in the global network of national cleaner production centers founded by the UNIDO and the United Nations Environment Program (UNEP), consolidated the regional role of Lebanon in this field."

Awards and Certificates

Minister Hajj Hassan distributed certificates to representatives of the following industrial enterprises: Khoury Dairy, El Araby Group for Trade and Industry, and Tanmia.

End of the field trip of the Arab managers of cleaner production centers

Minister Hajj Hassan: “we must ensure that our production is clean to avoid environmental problems”

Dr. Frenn: “Green industry contributes in applying the concept of sustainable development”

In collaboration with the ESCWA, the Industrial Research Institute (IRI) and the Lebanese Cleaner Production Centre (LCPC) organized a field trip for coordinators of the green help offices and managers of cleaner production centers in the Arab countries, which included a number of owners and managers of Lebanese factories. During this trip, participants got acquainted with the tasks of the LCPC and activities within the framework of sustainable development and green industry.

The Minister of Industry, Dr. Hussein Hajj Hassan ended the field trip in September 25, 2014, in the presence of the Director General of the IRI, Dr. Bassam Frenn and the Director of the LCPC, Dr Ali Ya-coub and many other personalities.

Bassam Frenn

In his speech, Dr. Bassam Frenn valued the contribution of the green industry in applying the concept of sustainable development by saying that: “This concept has become integrated seeing that experts in the industrial sector gradually started accepting this concept, given its returns on the economic, environmental and social levels. In Lebanon, the Industrial

Research Institute became a pioneer in this field, disseminating the usefulness of green activities on industrialists and encouraging them to adopt international environmental principles and standards developed for this purpose. Our industries are mostly mild, and the majority of our institutions are small and medium-sized; they adopt quality standards and specifications and adhere to green spaces and conditions of industrial licensing, which are not consequently considered, in the conventional form, a scary source or a threat to environmental pollution.”

He added: “Unfortunately on the other hand, major industrial countries did not comply with signing international agreements about respecting environmental issues, while some of them signed these agreements, but are working on constantly breaching their content. Other countries did not only do so, but recently started readopting conventional production methods, in order to reduce the cost of production and maintain competitiveness.”

He added that: “The sustainable development of communities, is mainly related to securing job opportunities for citizens in any country, and is necessary in a country like Lebanon, where citizens are



plagued by the thorny economic hardship. It is interacting more than before, because of the very high unemployment rate, due to the presence of foreign labor, competing with the Lebanese labor on many levels, the most important of which is low-paying wages. Therefore, we urge international organizations, including the ESCWA, which falls under the UN umbrella, to help us find appropriate solutions to this economic problem, which if aggravated, will have direct repercussions and consequences on the Lebanese society and the refugees”.

Hajj Hassan

Minister Hajj Hassan said that: “The industrial development made, since the eighteenth and nineteenth centuries, a great achievement on many levels, including luxury, technology, transport, engineering and medicine. The world was evolving steadily and no one was thinking about green economy fifty years ago. Advocates of the green concept started gradually appearing in Europe during the late seventies, and the talk about climate change and its impact on the world started in the mid-eighties (forests, floods, droughts, desertification....) due to a contradiction between development and civilization on the one hand, and the environment and cost on the other hand. The invasion of some of the major economies of different countries around the world is related to the destruction of the environment after the world has become a single market. Today, the world has to assume remarkable and serious responsibilities regarding the fate of rain forests and the Amazon forests, which were the world’s lungs, the mountains of ice in the Antarctic, water currents and high earth temperature... and we cannot but expect the worse.” He added by saying: “The size of the Arab countries economies is very small. We produce raw materials, export them and then import them after being manufactured. If our industry is not contaminated it is because of the size of production. But pollution in Arab countries comes from other sources. Have we found a solution to the problem of household waste, hospitals and sanitary sewage? The cleaner production centers are getting more involved in the industry and performing their role. Even if we have a small-sized industry, we must ensure that our production is clean

to avoid environmental problems and preserve natural resources, the most important of which is water. It is to be noted that resources are declining and the population is growing.”

The Minister of Industry focused on “the importance of energy efficiency in the industry because of its economic and environmental returns.” He also said: “The integration and coordination at the level of scientific and technical centers in the Arab countries, is a very important for development and progress, however, leaders and decision-makers bear the responsibility of failing to achieve all this”.

Rim Najdawi

The Director of the Sustainable Policies Department in the ESCWA, Rim Najdawi said: “The international community has agreed on the importance of the green economy in building a more sustainable economy, preserving the Earth’s resources and using them efficiently, and the ESCWA supports this approach that aims towards strengthening the capacities of member states and the shift towards a green economy. We have developed a number of offices in the Arab countries to achieve this goal and we are working in collaboration with cleaner production centers.”

Ali Yaacoub

The Director of Lebanese Cleaner Production Centre Dr. Ali Yaacoub, gave a welcoming speech in which he explained the objectives of the three-day field trip to factories, on the basis that the industry is a bridge towards sustainable development. He said: “We want this Lebanese center to become an essential part of the global network that puts the industrial and environmental progress among its priorities, in light of the application of concepts and standards that enabled the Lebanese industry to increase exports, reduce the production cost, preserve natural resources and invest in human resources.

Distribution of certificates

At the end, Minister Hajj Hassan and Dr. Frenn distributed certificates to participants from nine Arab countries.

Conference on the strategies of limiting natural disasters

The Minister of Industry, Dr. Hussein Hajj Hassan focuses on the current situation of buildings: “Human disasters lead to random and poor congregations”

*Dr. Bassam Frenn: “Human disasters, a destroying tendency”
The IRI is capable of assessing damaged buildings*

In mid-October 2014, the Industrial Research Institute organized a conference to discuss strategies related to the dangers resulting from natural and human disasters, hosted by the Innovation and Technology Centre at the IRI, in collaboration with the European Union and TAIEX, in the Radisson Blu Martinez Hotel in Ain El Mraisseh.

The conference was held under the auspices of the Minister of Industry, Dr. Hussein Hajj Hassan, and was attended by the Director General of the IRI, Dr. Bassam Frenn. Among the participants were delegates from European diplomatic missions and the European Union, as well as Lebanese and European experts and representatives of concerned ministries, departments and institutions. The Director of the Centre for Innovation and Technology Naji Abi Zeid, the representative of the European Union Alexy Mori and the national coordinator of TAIEX Maha Sablini, all gave speeches on the subject. Sablini explained

the advantages of services provided by TAIEX to the Lebanese public sector, especially at the level of organizing workshops and visits to European governmental institutions and offering equipment and technical assistance.

Bassam Frenn

Dr. Bassam Frenn defined natural disasters such as “fires, desertification, drought, environmental pollution, earthquakes, floods and other ... noting that some of them are caused by the nature, and not humans, and others are caused by the normal tendency of people towards development, progress and prosperity. This is a deadly and destructive ambition. In Lebanon, most of the natural disasters result from earthquakes, due to the location of our country in an active region. The damage done on buildings due to earthquakes was a clear proof of the fragility of buildings. Therefore, construction operations in Lebanon need to be developed to increase buildings cohesion and resistance. In the Industrial Research Institute, we are striving to meet all demands in this field. The Institute’s engineers keep pace with new construction concepts, by ensuring the safety of designs. They are also able to assess the situation of the buildings affected by earthquakes or attacks during wars. The activities conducted after the Israeli aggression in July 2006 were a clear proof



of the Institute's capacities”.

Minister Hajj Hassan

Minister Hajj Hassan praised all the efforts deployed in critical conditions at the level of holding conferences and seminars, which shows that the Lebanese determination to progress and look forward. He said, “The Lebanese people must overcome these difficulties despite their different points of view in politics. Lebanese people are still united and refuse discrimination. He praises the Lebanese people on the high-tech skills that they are showing, blaming politicians for neglecting the needs of the society”.

He added by saying, “Concerning the subject of our conference, we must say that it is very important because it addresses the way to deal with earthquakes and disaster management in Lebanon in general. This requires a general strategy for dealing with disasters. There are several natural disasters which also include epidemics outbreaks, earthquakes, fires, desertification, drought, environmental pollution and flooding. We need to determine the missing legislations, decrees and ministerial decisions on the level of construction safety, and disseminate all missing information so they can be exchanged between ministerial authorities, the Order of Engineers and Ar-

chitects, municipalities and all relevant institutions.” Hajj Hassan also asked the following question, «Have we completed technical regulations, standards and specifications required for construction safety? Who is ensuring their application? Is there any follow-up or sanctions imposed on violators of mandatory specifications related to ready mix concrete for example?»

Minister Hajj Hassan focused on the importance of dealing with the existing buildings which do not take into account the functional and technical specifications required, pointing out to “social earthquakes and poor and disaster areas in various Lebanese regions, as well as the need to anticipate disasters, address the current situation of random congregations, reinforce coordination between concerned ministries and departments, conduct virtual maneuvers and secure the necessary equipment for rescue”. Hajj Hassan also talked about the draft law of the Disaster Management Authority Act, which must be issued in a way to avoid conflicts of power between the aforementioned bodies, so that the government heed the warnings of the past gaps to better manage disasters”.

*Scientific course in welding techniques for engineering students
at the Lebanese University*

*Minister Sabounjian: «A vision for the future to benefit from
scientific research.»*

*Mr. Hussein: «Scientific and technological integration
of the modern state.»*

*Frenn: «It's a technology fostering strategy that the Institute is
promoting in university and scientific environments»*

The Industrial Research Institute organized a training course for students of the Faculty of Engineering at the Lebanese University, in the field of welding and non-destructive tests, within the context of the cooperation between the University and the Institute. Through this training course, the IRI aimed to help engineering graduates getting acquainted with this technology.

At the end of the training course, certificates were distributed to participants, during a ceremony organized by the Industrial Research Institute on February 6, 2014 in the conference hall, and attended by the Minister of Industry Vrej Sabounjian, the President of the Lebanese University and former Minister Adnan Hussein, the Director General of the IRI Bassam Frenn, the Dean of the Faculty of Engineering Rafic Younes, the Directors of the first, second and third sections in Engineering Faculties, Chayban Haykal, Marlene Kardahi and Mohammed Hamdan, as well as directors from the Institute, university professors and graduate students.

Dr. Frenn opened the ceremony with a speech in which he congratulated the graduates on «their participation in the scientific training course during which the IRI granted certificates in welding technology, according to international standards and technologies, within the context of the implementation of the technology fostering strategy that the Institute is promoting in university and scientific environments. The IRI is looking to bridge between technology and concerned experts and specialists, and is contributing to the application of the content of the 423 law, whereby welded constructions are supervised by the Industrial Research Institute, or any accredited institutions assigned by the IRI.»

He added that: “The Institute affirms its commitment to its strategy aiming towards opening its laboratories doors to all disciplines, and offering its expertise and scientific and technical skills to public and private sectors, especially the latter, thus making the Lebanese industrial sector and its production benefit from indispensable services. The IRI is still follow-





ing the same path and holding on to its strategy, without being influenced by infamous attacks».

Mr. Hussein

In his speech, the President of the Lebanese University Adnan el Sayyed Hussein thanked «the Industrial Research Institute, its management and staff, for providing an opportunity for students of the Faculty of Engineering to participate in a professional and applied session in this advanced edifice in our region.» He also said: «There is a cooperative relationship between the Industrial Research Institute and between the Lebanese University and the Ministries of Industry and Education, paving the way for the establishment of a modern state in Lebanon. This state would encompass successful institutions just like the IRI which has become, thanks to its management team, equipped with the best modern laboratories that ensure the quality of manufactured and imported products, protect the health and safety of the Lebanese citizens.» Mr. Hussein highlighted the «necessity to protect this edifice at the security, judicial and legal levels, keeping it away from any interference.»

Minister Sabounjian

Minister Sabounjian praised «the ongoing cooperation between the Lebanese University and the IRI. It surely paves the way for an interactive relationship with other private universities, in order to expand the horizons of university graduates in the labor market. Both the University and the Institute carry a vision for the future to benefit from scientific research while using technology to serve the community, develop the industry, improve the quality of production, protect consumers, and create new jobs. It is an opportunity

for me to pay tribute to His Excellency the President Adnan Hussein, since the Lebanese University was the first university to sign the protocol of cooperation with the achievements of the industrial research program. As for the IRI, it is getting more and more involved in the development of creativity. It added to its increasingly growing structure the Innovation and Technology Center, in collaboration with the European Union. It is a center for young potentials, especially industrial projects offered in universities. It encourages its innovators to put these projects in use and adopts them in exchange for a ten thousand euros grant per project, within the framework of the “innovation voucher” project.»

He added: «The Industrial Research Institute, thanks to its responsible management, performs the role entrusted to it in caring for the Lebanese consumers health through laboratory tests conducted in highly equipped laboratories. It also offers services to industrialists, the industrial sector and other economic sectors.»

He also talked about the «necessity of increasing government spending on scientific research, particularly in its applied part, and urging institutions and manufacturers to finance these research centers, as long as they will be among the beneficiaries of the research results.»

The Industrial Research Institute examines gas canisters and their kits

The Minister of Industry, Dr. Hussein Hajj Hassan, declared that the Industrial Research Institute will examine the gas canisters kits which are the valve, the clock and the pipes to make sure they are safe.

The Minister of Industry had held in July 8, 2014, a meeting with Farid Zeinoun, the Head of the Union of Workers and Distributors in the Gas Sector, to discuss issues like organizing the gas sector, filling gas canisters and distributing them in a safe way.

Hajj Hassan and Zeinoun looked into the results of the work carried out by concerned parties in the sector, in the Ministries of Industry, Interior and Municipalities, and Energy and Water in terms of inspecting filling centers. It is to be noted that 45 out of 85 filling centers across Lebanon were inspected, to inform owners of filling centers about the required conditions and specifications before granting them a legal authorization.

During the aforementioned meeting, was also discussed the importance of replacing gas canisters after setting the practical mechanism for applying this



measure, which leads to the disposal of unsafe canisters. Minister Hajj Hassan, declared that the Industrial Research Institute will examine the gas canisters kits which are the valve, the clock and the pipes to make sure they are safe.

On July 3, the Council issued the decree No. 119 about giving a legally binding status for the national standard specification related to oil, gas and gas canisters and their kits, and under which the IRI will have to assume the task of examination, inspection and measurement.





2

Activities of the Director General

*Frenn supports the activities of the Institute
and specialized departments,
Oversees and tracks more than half million transactions
and reviews annually*

The activity of the Industrial Research Institute's management headed by the Director General, Dr. Bassam Frenn is not limited to administrative tasks; the ever-increasing IRI activities are seeking to develop year after year.

In 2014, the IRI conducted more than 330.000 tests and examinations in its laboratories, and controlled more than 41.000 customs files on land, sea and air customs border crossings. The Institute also conducted 14.500 different measurement tests, and 35.000 external examinations, all at a rate of not less than two thousand tests daily, locally and abroad. It also held about 51 training workshops for the Institute employees or for other participants on technological, scientific and other topics. These workshops were attended by hundreds and prepared by dozens of specialists and experts. Frenn is always ready to widen the scope of tasks entrusted to him, receiving hundreds of daily revisions related to industrial affairs, transactions, tests, public administrations and others....

The Director General of the Institute, Dr. Bassam Frenn supervises and leads the activities of the specialized departments, the most important of which are the Euro-Lebanese Centre For Industrial Modernisation (ELCIM), the Lebanese Cleaner Production Centre (LCPC), the Centre for Innovation and Technology (CIT), Lebanon SoftShore Cluster, the Centre for Welding, and the renewable energy activities. Not to mention the tireless efforts to promote the scientific and moral presence of the Institute at similar European institutions and international forums, and expand the scope of international certifications obtained by the Institute at the international lev-

el. It now includes 400 testing methods in the field of microbiological, chemical and physio-chemical, wheat, grains, electrical, civil engineering and metrology tests.

Added to the tasks performed by the Industrial Research Institute last year, are the auditing, testing and inspection of goods, equipment and construction under legal mandatory decrees for 77 specifications. The Ministries of Industry, Economy and Health brought samples of food, health and industrial products as part of the comprehensive control campaign of the concerned ministries, what makes the Industrial Research Institute, thanks to its conscious and rational management that is keen on its development and modernization, a unique institution in Lebanon like no other in the Middle East.

The Director General of the Institute, Dr. Bassam Frenn, personally supervises the local specialized seminars and abroad scientific meetings. These local seminars were held under the auspices of the Minister of Industry, and during which Frenn gave speeches of a visionary aspect.

The Director General of the Industrial Research Institute responds to «malicious accusations»

The numerous missions of the Industrial Research Institute serve the industry and its wide-range of activities include research, consultancy and services for industrialists

On March 19, 2014, cleaner production certificates were distributed, in the Institute Conference Hall at the Lebanese University Campus in Hadath. The event was held under the auspices of the Minister of Industry, Dr. Hussein Hajj Hassan, and was attended by the Ambassador of Austria Ursula Fahringer, the Director of the UNDP in Lebanon, the UNIDO representative by proxy Luca Randa, and the Director of the Lebanese Cleaner Production Centre, representative of Arab States, Dr. Ali Yaacoub.

Dr. Bassam Frenn welcomed all the attendees at the Industrial Research Institute. He particularly thanked,



“His Excellency the Minister Dr. Hussein Hajj Hassan, who honored us with his presence among us in this ceremony held under his auspices.” He pointed out to the false accusations addressed to the Industrial Research Institute, by saying: “We cannot overlook the accusations addressed by a small category, having narrow personal interests against this scientific institution, through relying on the media as a platform aiming to discredit the Institute. With unprecedented disdain and far from the truth, the media - which we respect – didn’t seek to promote the Institute, but published dishonest allegations without validating them, thus forgetting its original role.

I do not know, how the Institute is accused of negligence in the field of innovation, for example, knowing that it established the Centre for Innovation and Technology (CIT), which encourages innovators and awards them in order to motivate them towards reinforcing their innovative work. We are sad to hear accusations claiming that the Institute is not helping industrialists to reduce production costs; this is a malicious accusation, reflecting bad intentions towards the Institute and its administration. Parties which addressed these accusations are well aware how the



Institute has helped industrialists to reduce the cost of their production, either through the LCPC or EL-CIM, beside the assistance provided by the Institute to industrialists at the level of laboratories at a cost equal to half the actual cost”.

The Director General of the IRI also said: “Accusing the Industrial Research Institute of failing to guide industrialists to use these advanced technologies adopted around the world, and develop ways of mechanization – is no less shocking than previous accusations, noting that the Institute performed more than 700 feasibility and rationalization study for industrialists in various sectors”.

He also tackled the tasks carried out on non-industrial sites, noting that they are in the interest of industrialists themselves, explaining that: “The activities of the Industrial Research Institute aim to guarantee the rights of industrialists, their associations, orders and communities in all fields ...

When the IRI is asked to test the products and goods in the commercial market and make sure they comply with mandatory standards, it is not only serving trade and traders, regardless of industrialists, as some might claim. Aren't commercial goods also industrial goods? Does their control protect the industrial production, prevent dumping and protect the consumer in Lebanon? What is the difference between testing products and goods in the factory, warehouse, or in the market? Does this mean that the Institute does not serve the Lebanese industry?

There are some malevolent parties that are causing harm because they don't seek to provide help for the industrial sector, and are failing in this field. Thus, they cannot handle to witness the success of the IRI in providing all kind of help to industrialists.”

In his speech, Frenn also mentioned the progress accomplished by the IRI from a small-scale institution into a major one: “15 years ago, we started with ten employees. Today, the IRI became a wide institution accomplishing varied tasks and including highly specialized scientific, technical, economic and financial cadres. Its wide range of activities encompass research, consultancy and services for industrialists, as well as laboratory tests on imported and exported goods to prevent any commodity which doesn't meet specifications and standards from entering local and

foreign markets. Our goal is to develop and modernize the industry and guarantee the interests of citizens.

He added that: “The Industrial Research Institute is now acknowledged on the European and Arab levels and many known organizations are cooperating with it. The IRI is assuming scientific training tasks in similar institutions and laboratories in African and Arab countries. Our employees are participating in international forums, where their contributions are highly appreciated, noting that they often win international awards.”

He concluded by saying: “Industrial institutions in Lebanon are mostly small and medium-sized and of a family nature. We are ready to provide training for those who are working in these institutions, while securing necessary industrial and commercial knowledge, encouraging innovation, and improving the quality of products. We are fully aware that scientific research contribute in generating knowledge. Therefore, we set a clear research strategy to support the economic, social and environmental development. The interaction of industrialists with all these activities was dynamic and flexible. This is where our role resides. These are our commitment to the industry and industrialists. We will perform our role with a sense of responsibility with the support of his Excellency the Minister, because we believe in the importance of the industrial sector and its effective role in the sustainable development, economic well-being and social stability.”

«Green Industry» a pioneering strategy of the Industrial Research Institute Frenn: factories owners have made financial savings by adopting cleaner production

The Director General of the Industrial Research Institute also gave a speech at a similar ceremony for the distribution of cleaner production certificates to trainees, on September 25, 2014. This ceremony was attended by the Minister of Industry, Dr. Hussein Hajj Hassan, the Director of the Sustainable Policies Department in the ESCWA, Roula Majdalani, coordinators of the green help desks, and managers of cleaner production centers in Arab countries. The Director General of the Institute tackled the subject of "green industry" and its importance on the environment and industrial savings, as well as its developmental role, by saying:

“The green industry is participating in achieving the concept of sustainable development, thus becoming more integrated seeing that experts in the industrial sector started accepting this concept gradually, given its returns on the economic, environmental and social levels. We wouldn't have attained this level of awareness, if it weren't for the efforts, initiatives and experiments launched by specialists, so as to achieve the IRI objectives. In Lebanon, the Industrial Research Institute is a pioneer in this field, disseminating the usefulness of green activities on industrialists and encouraging them to adopt international environmental principles and standards developed for this purpose“.

He talked about the role of the Industrial Research Institute in the green field, highlighting the development policy it adopted “through closer cooperation with the United Nations Industrial Development Organization (UNIDO), the Arab Organization for Industrial Development and Mining (AIDMO), and other international and European organizations. The Institute embraced specialized centers for this national industry, including the Lebanese Cleaner Production Centre (LCPC), the Euro-Lebanese Centre For Industrial Modernisation (ELCIM), the Centre for Innovation and Technology (CIT) and others. The IRI is also making positive achievements on the level of organizing training and qualification courses for factories workers, in order to adopt cleaner production policy”.



Frenn also quoted testimonials of factory owners, by saying: “In their institutions, they were able to achieve savings in the cost of production and a reduction in the pollution of the environment after the application of guidelines and instructions acquired by their employees and workers in these courses organized by the LCPC”.

He also noted that: “Our industries are mostly mild, and the majority of our production institutions are small and medium-sized, adopting quality standards and specifications, and adhering to green spaces and conditions of industrial licensing. For this reason, they are not considered in their traditional form, a scary source or threat to the pollution of the environment.”

He added that: “Unfortunately, major industrial countries did not comply with international agreements about respecting environmental issues, while some of them signed these agreements, but are constantly breaching their content. Other countries did not only do so, but recently started readopting conventional production methods, in order to reduce the cost of production and maintain competitiveness.”

He concluded by saying: “The sustainable development of communities, is mainly related to securing job opportunities for citizens in any country, and is necessary in a country like Lebanon, where citizens are plagued by the thorny economic hardship, which is aggravating more than ever, because of the very high unemployment rate, due to the presence

of foreign labor, competing with the Lebanese labor on many levels, the most important of which is low-paying wages. Therefore, we urge international organizations, including the ESCWA, which is part of

the UN, to help us find appropriate solutions to this economic problem, which if aggravated, will have direct consequences on the Lebanese society and refugees”.

Workshop on strategies related to limiting disasters

Frenn: The Institute engineers keep pace with new construction concepts. We made great achievements

The indicators show the success of the adopted development and expansion policy

During the workshop on limiting natural disasters held in the Radisson Hotel, the Director General of the IRI, Dr. Bassam Frenn, gave a speech on the importance of the project, by saying: “The Centre for Innovation and Technology of the Industrial Research Institute is pleased to organize a workshop on strategies related to disasters, whether they were natural disasters or human-caused disasters, with the participation of Lebanese and European experts and representatives of relevant ministries, departments and institutions”.

He continued by asking: “How do we face natural disasters? This is no longer a hard question to answer with the progress of research, development of science, and growing competences able to deal with them and limit their damages, after learning from mistakes made while dealing with previous cases, thus avoiding their repetition”.

Frenn also tackled the situation of natural disasters in the world with the disparity in frequency and the size of damages they cause, by pointing out that there are “countries more vulnerable than others as there are cities and areas in these countries that are more affected by disasters than others. It has become possible to take precautions through early warnings and instructions, and urge people to adhere to them in order to avoid risks, preserve their lives and properties, and facilitate rescue operations.”

Speaking of Lebanon, he said: “In fact, according to experts, Lebanon is located in an active region. We

witnessed the occurrence of multiple earthquakes, the strongest of which occurred 53 years ago, on March 16, 1956 in the town of Chehim in the Chouf. Construction operations in Lebanon started taking into consideration tolerance and cohesion capacities, because of the damages done on buildings after the 2008 earthquake (which was a relatively minor one). The Industrial Research Institute is striving to meet all demands in this field. The Institute's engineers keep pace with new construction concepts, by ensuring the safety of designs. They are also able to assess the situation of buildings affected by earthquakes or attacks during wars. The activities conducted after the Israeli aggression in July 2006 were a clear proof of the Institute’s capacities”.

He talked about the efforts deployed to develop standards and specifications to protect against damages of disasters, stating that: “We started working years ago and we are still seeking to establish a system for standards and specifications at the highest levels in Lebanon. We have made many accomplishments, taking into account people’s safety, on the basis of the importance of this subject. The road map starts with putting appropriate frameworks and regulations for construction, including safe buildings against earthquakes, to start building the infrastructure for quality and standards, taking into account the role of standards, accreditation and the IRI in this field”.

He added that: “The Institute has actively contributed in the issuance of the building safety law. The



effective cooperation with the Order of Engineers paved the way for other prospects of joint and future projects, such as examining construction materials used on Lebanese territory, and applying the system of distributing certificates of conformity for buildings according to the international standard "high environmental quality", in partnership with European institutions.

In terms of standards, there is a permanent coordination with the Lebanese Standards Institution (LIB-NOR) which gives the NL conformity mark for the development of the brand management and marketing. The Industrial Research Institute is proud of the

leading role it plays on this level.”

He also talked about the role of the IRI in the issuance of the accreditation law, by saying: “We largely contributed in the issuance of the law on the Lebanese Accreditation Council (COLIBAC), which took us six years”.

At the end, he stated the IRI policy and strategy:

"As for the role of the Institute, indicators showed the effectiveness of the development and expansion policy adopted for more than ten years which shows in:

- The readiness of the IRI laboratories and the international accreditation they received at the highest levels;
- The development of a wide and effective network of local and international strategic partners;
- The high competence and professionalism of the IRI staff, which enable them to perform their tasks meticulously and in internationally recognized scientific ways;

"The continuous development of laboratory and measuring equipment, despite their high cost, because we are determined to anticipate market needs and meet the highest requirements.”

Frenn: cadres and laboratories capacities enabled the IRI to obtain full membership

The Industrial Research Institute, a member of the European Federation of National Associations of Measurement, Testing and Analytical Laboratories

The Industrial Research Institute, which is the only non-European institution, became a member of the European Federation of National Associations of Measurement, Testing and Analytical Laboratories. The Director General of the Institute, Dr. Bassam Frenn applied for membership, on the basis of the

future vision set by the Institute’s management to implement its development strategy aimed at applying a strategy on the medium and long term, serving the industrial sector and the overall business sector in Lebanon and the region.

The membership of the Institute has been approved

in the Extraordinary General Assembly of the Federation, which was held on October 2014, in Lisbon, capital of Portugal.

The meeting was attended by Dr. Frenn, and the Laboratories Division Head at the Institute, Dr. Joseph Matta.

During the discussions, Dr. Frenn presented a complete file showing the readiness of the Institute and highlighting the scientific and technical specifications and capacities of its cadres and laboratories, which are necessary to meet the requirements of the full membership.



As a result, the participants decided to approve the membership request of Lebanon unanimously, with the eligibility to participate in all decisions and policy-making and the right to vote.



The President of the Federation signed the membership certificate, and presented it to Dr. Frenn, who thanked the participating delegates for their trust in the Industrial Research Institute in Lebanon, knowing that it is still performing its mission based on broader relations with research institutions and international laboratories in order to exchange experiences and expand the horizons of cooperation.

Frenn confirmed the fact that these successes continuously achieved by the Institute, are gaining the support of the Chairman of the Board of Directors, Dr. Hussein Hajj Hassan, the Ministry of Agriculture who follows responsibly and with scientific knowledge the application of the Institute's work plan, and projects intended to be implemented in the future.

EUROLAB General Assembly-Warsaw

April 01, 2014

The Director General of the Industrial Research Institute, Dr. Bassam Frenn, and the Laboratories Division Head, Dr. Joseph Matta participated in EUROLAB (European Federation of National Associations of Measurements, Testing and Analytical Laboratories) General Assembly in Warsaw, Poland.



The Industrial Research Institute, which has been affiliated to EUROLAB since 2010, as an international affiliate, has established LEBLAB, in order to allow the transition of the membership from International Affiliate to Associated Member.

Therefore, IRI required a modification of EUROLAB status in order to welcome the new associated member LEBLAB, which allowed the transition of the membership from International Affiliate to Associated Member.

Frenn participates in the 2nd meeting of the Pan-Euro-Med Joint Committee and 20th meeting of the Pan-Euro-Med Working Group in Brussels

May 21-22, 2014

The Director General of the Industrial Research Institute, Dr. Bassam Frenn attended the 2nd meeting of the Pan-Euro-Med Joint Committee of the Regional Convention on Pan-Euro-Med preferential rules of origin (“PEM Joint Committee”) and the 20th meeting of the Pan-Euro-Med Working Group (“PEM Working Group”) in Brussels on 21 and 22 May 2014.

The major topics covered during the meeting were:

- Adoption of the report of the 19th meeting of the PEM Working Group.
- Revision of the PEM Convention-Articles of the Convention and List rules.
- Procedure to adopt Joint Committee recommendations.
- Models of Authorisation numbers issued for approved exporters.
- Extension of the waivers from duty draw-back prohibition applicable in case of diagonal cumulation - Update on the state of play



Frenn also attended the meetings of the Pan-Euro-Med Working Group

October 22-23, 2014

The Director General of the Industrial Research Institute, Dr. Bassam Frenn participated in the 21st meeting of the Pan-Euro-Med Working Group (“PEM Working Group”) in Brussels on 22 and 23 October 2014.

The major topics covered during the meeting were:

- Adoption of the report of the 20th meeting of the PEM Working Group.
- The regional Convention on Pan-Euro-Mediterranean rules of origin, state of play and future

steps

- Revision of the PEM Convention-Articles of the Convention and List rules.
- Procedure to adopt Joint Committee recommendations.
- Models of authorisation numbers issued for approved exporters.
- Protocol on rules of origin – Value limits expressed in Euro and corresponding amounts in national currencies.

Dr. Bassam Frenn participated in the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) 14th conference – Naples, Italy *Tools for growth: driving investment in the Mediterranean region*

Date: October 30, 2014

Place: Naples-Italy

2014 marks the beginning of a new period of EU cooperation with Mediterranean partner countries and the EIB – as the EU bank – will invest some EUR 10 billion in the region over the next seven years. As presented in the Bank’s Roadmap for the Mediterranean, endorsed at the Athens Ministerial Meeting in April 2014, FEMIP will use this period to further strengthen its activities as the region’s large-scale financier, supporting long-term investments in both the public and private sectors.

As partner countries seek to identify and take advantage of new opportunities for growth against a challenging political, social and economic backdrop, the 14th FEMIP Conference will provide an overview of the financial tools available to the Mediterranean countries, where both financing and technical expertise are needed to move forward with projects and investments.

The conference will be split into four discussion-



based sessions, allowing delegates to interact with key figures to gain a better understanding of the opportunities for investment in the region. A high-level panel on strategy in the opening session will be followed by three thematic sessions addressing core development finance activities: lending, blending and advising. Each of these sessions will focus on a particular sector – SMEs, energy and transport – in order to stimulate practical and operational discussions throughout the day.

On Wednesday 29 October, delegates have the

opportunity to attend an international event organised by the Italian Presidency on the occasion of the 10th Anniversary of the Anna Lindh Euro-Mediterranean Foundation. Commencing at 18.00 at the Teatro Mercadante, the evening included the “Mediterranean Awards” ceremony, with high-profile international winners, followed by a musical event and reception-dinatoire.

Within this framework, the Director General of the Industrial Research Institute, Dr. Bassam Frenn participated in the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) 14th conference, on tools for growth: driving investment in the Mediterranean region.

This conference held on October 30, 2014 in Naples-Italy, was organized by the European Investment Bank, in collaboration with the Italian Presidency of the Council of the European Union.

The major topics covered during the conference were:

- The broad range of financial tools available to drive investment in the region, using concrete examples from sectors including SMEs, energy and transport.
- The lending, blending and advising tools available for the Mediterranean as the region’s countries seek to take advantage of new opportunities for growth against a challenging political, social and economic backdrop.

Facility for Euro-Mediterranean Investment and Partnership (FEMIP)

All our work to assist the economic and social development of the Mediterranean partner countries is brought together under FEMIP. The partnership supports growth and job creation in two priority areas:

Private sector support:

1. Micro, small and medium-sized enterprises



(MSMEs), especially those involved in industry, tourism and services

2. **Industrial sector:** cement and steel works, chemical and metallurgical plants, high-tech industries, automotives and agro-industry
3. **Creating an investment-friendly environment** enabling the private sector to flourish by improving infrastructure in the following sectors:
4. **Energy:** power generation, transmission and distribution, renewable energies
5. **Transport and telecoms:** airports, air transport, roads and motorways, bridges, railways, telecoms
6. **Environment:** water and sanitation, solid waste disposal and treatment, pollution abatement, irrigation
7. **Human and social capital:** construction and refurbishment of hospitals/healthcare-centers, schools/colleges, social housing

A partnership role

FEMIP has become a key player in the partnership between the EU and the Southern and Eastern Mediterranean countries, part of a process encouraging economic renewal and openness. We cooperate with several national and multilateral actors and we actively support the goals of the Union for the Mediterranean.

*UNIDO explores the capacities of the Industrial Research Institute
Frenn presents the development and research strategy
to the regional representative of the Institute
An agreement on the importance of establishing a modern and
sophisticated industrial base that attracts investments in the sector*

November 17, 2014

Within the framework of consolidating relations and looking into possible projects to be implemented with the help of the United Nations Industrial Development Organization (UNIDO), the Director General of the Industrial Research Institute, Dr. Bassam Frenn met the Regional Representative of UNIDO, Cristiano Pasini, and they both looked into the stages of the relationship between the Institute and the Organization for years. They also discussed projects carried out by the Institute which are receiving the support and cooperation of the UNIDO.

Frenn and Pasini suggested future projects, noting that the Director General of the Institute explained to Pasini the development and research strategy of the IRI aimed at achieving economic growth, helping Lebanese industrialists and securing a business and exchange environment, thus reinforcing the Lebanese industrial production to become more competitive.

Frenn told Pasini that the Lebanese industrial sec-

tor was a pioneer in the region thanks to the Industrial Research Institute, which was established in the fifties of the last century, and is today considered a support center for the industry in terms of technical, research and laboratory support that is provided to industrialists, as well as research conducted for the establishment of new industries.

Frenn accompanied Pasini on a visit to the entire Institute departments, laboratories and the five specialized centers, where the Regional Representative of UNIDO noticed the serious work carried out by the Institute engineers, researchers, technicians, technicians and administrative staff.

Frenn and Pasini agreed on the importance of creating a modern and sophisticated industrial base that meet local needs, attract investment in the industrial sector and allow the Lebanese products to enter international markets, according to the standards adopted for quality, ensuring the safety of products and obtaining world certifications and specifications. Dr. Frenn emphasized on the efforts deployed by the





Minister of Industry, Dr. Hussein Hajj Hassan at this level. He took the opportunity to thank the UNIDO and underlined the necessity of activating the relationship with the aforementioned organization, developing implemented projects or setting up new projects that will be of great benefit to the Lebanese industrial sector.”

Dr. Frenn and Pasini also discussed the projects that are being implemented by the UNIDO with the Ministry of Industry for the development of production and productivity, the enhancement of the field work in remote areas, rural development and providing more job opportunities for the Lebanese youth, to avoid immigration and limit the depletion of skills



in Lebanon.

There is also a coordination between the Ministry, the IRI and the Lebanese Standards and Specifications Foundation in order to achieve progress in adopting international standards and applying them after studying the suitability of the Lebanese laws, public safety, public health and the environment.

Pasini mentioned the organization's interest in “continuing to provide support for Lebanon and the IRI and help the productive sector improve its competitiveness in various fields, so as to be able to access new markets while fully complying with international requirements in terms of quality and safety standards.

The 6th Edition of the Mediterranean Tourism forum-Meditour 2014 in Barcelona

Lebanon a tourist destination and a major cultural and historic center in the Mediterranean region.

The Director General of the Industrial Research Institute, Dr. Bassam Frenn participated in the 6th Edition of the Mediterranean Tourism forum-Meditour 2014, in the framework of the XXIII ASCAME General Assembly and the VIII Mediterranean Week of Economic Leaders.

This forum held on November 27, 2014 in Barcelona-Spain, and co-organized by the Association of the Mediterranean Chambers of Commerce and Industry (ASCAME), and the Chamber of Commerce, Industry and Agriculture of Beirut and Mount-Lebanon (CCIA-BML), spotlighted Lebanon as a tourist destination and a major cultural and historic

center in the Mediterranean.

The major topics covered during the forum were:

- The challenge of tourism in Lebanon.
- The future of travel and tourism in the Mediterranean region – a vision to 2025.
- The competition and co-operation to achieve win-win collaboration and create a pleasant experience for the multi-center visitor across the region.
- The Mediterranean Green Tourism
- The Mediterranean Tourism Agency





3



IRI Services and Activities

The IRI Services and Activities

Highlighting the trust placed in the Institute, reinforcing its strategy of wide scientific horizon and refuting rumors trying to undermine its clean reputation, the Industrial Research Institute, proved that it is the leading scientific institution in Lebanon and the Middle East, capable of deploying its scientific potential, the capacities of its laboratories and the ability of its personnel, not only in the service of the industrial sector, but also the public sector. The IRI was able to save money and achieve scientific support - fast results - in the campaign of the observation and examination of agricultural, industrial and health products. In addition, it also responded to requests from the Ministries of Economy, Trade, Industry, Health and Agriculture, to conduct tests, some of which were sent to Switzerland. In terms of tests and customs files only, it was able to perform an average of 1282 processes per day, achieving the largest work cell among Lebanese institutions.

Tests, examinations and checking processes, were distributed as follows:

- 330548 tests and analyses related to conformity were conducted by the IRI laboratories during 2014, with an increase of 24725 processes compared to 2013, i.e. 11.84 percent. The

annual growth reached 11.84 percent since 2009, and the average of tests conducted daily arrived to 1140 tests.

- External detections amounted to 73183 detection processes, with an increase of 16600 processes compared to 2013. The growth percentage recorded was 29.3 percent.
- The standardization and calibration tests registered an increase of 61 tests, reaching 14328 tests, i.e. an increase of 0.41 percent.
- The mission of the Industrial Research Institute is to check the compliance of goods arriving to the Lebanese borders with the mandatory specifications. The IRI checked 41236 customs files, with an increase of 274 files compared to 2013, i.e. 0.7 percent.

This is how the Industrial Research Institute proves its worthiness as a scientific institution able to accommodate the needs of the public administration and the private sector in order to carry out scientific and technical tests in many fields thoroughly and skillfully, in addition to conducting scientific research and studies in all economic fields.

Tests and Analyses

In general, electricity laboratories still rank first in terms of the number of tests conducted, followed by soil and civil engineering laboratories with 83110 tests, then chemical products tests. The number of microbiological analyses grew two times, due to testing samples from the ministries of Economy, Trade, Health and Industry.

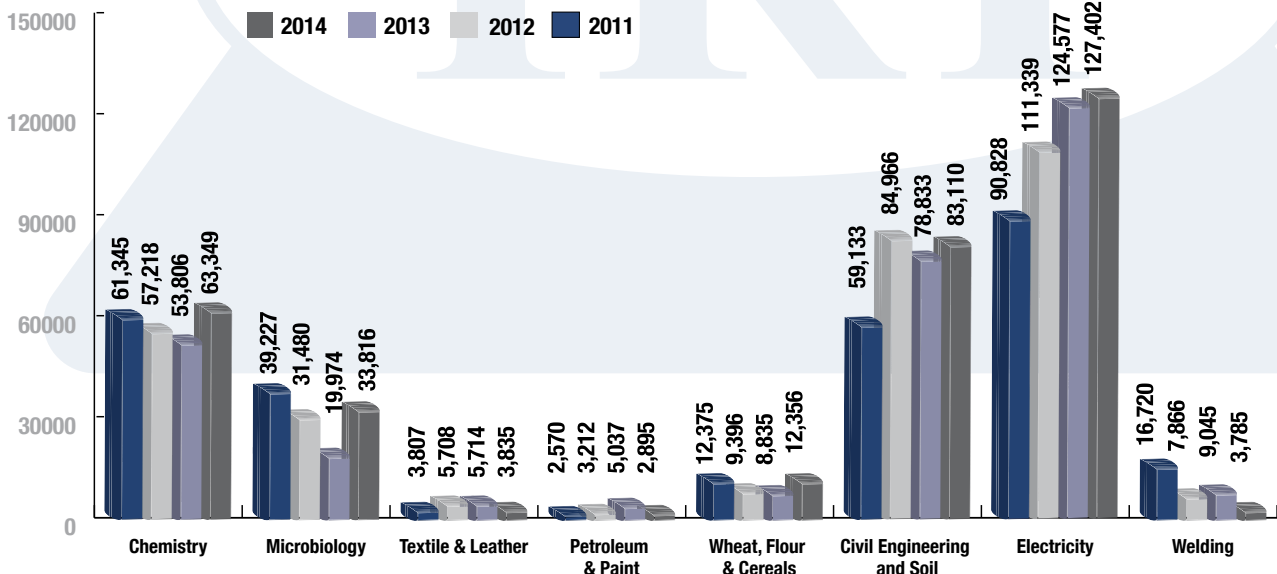
The laboratories activity according to the annex tables is detailed as follows:

Chemical and Physico-chemical Laboratories

The number of tests in chemistry and physico-chemical laboratories reached 63349, with an increase of 9543 and a growth rate of 17.7 percent. It's a remarkable status acquired by these laboratories seeing that they accounted for about 19.2 percent of the total rate registered by laboratories. Their annual growth rate of 18.4 percent since 2009 is witnessing an upward path.

Number of tests for each Lab

Laboratories	2011	2012	2013	2014
Wet & Physical Chemistry	61345	57218	53806	63349
Microbiology	39227	31480	19974	33816
Textile and Leather	3807	5708	5714	3835
Paint and Petroleum	2570	3212	5037	2895
Civil Engineering and Soil	59133	84966	78833	83110
Electrical	90829	111339	124577	127420
Bread (CLBW)	12375	9396	8837	12356
Welding	16729	7866	9045	3785
Total	286006	311185	305823	326763



Microbiological Analyses

The number of microbiological tests increased to 33816, from 19974 in 2013, an increase of 13816 (i.e. 69.3 percent), which is a stunning and impressive development resulting from receiving samples from the public sector. It is to be noted that the capacity of IRI laboratories is greater than their annual production.

These tests represent 10.2 percent of the total number tests, which developed at an annual growth rate of 18.7 percent between 2009 and 2014.

Textile, Leather and Rubber Laboratories

Tests and analyses processes remarkably declined in these laboratories, in a sign of the decline of the local industry in this sector. The number of tests and examinations reached 3835, a decline of 1879 (i.e. 32.9 percent). They now represent 1.2 percent of the total number of tests, compared to 1.9 percent in 2013.

Petroleum and Derivatives Laboratories

The number of tests in the paint, and petroleum and derivatives laboratories declined from 5037 in 2013 to 2895 in 2014, a decline of 2142 tests and examinations, i.e. 42.5 percent.

But the annual growth rate of this type of testing arrived to 8.4 percent since 2009.

These tests represent 0.9 percent of the total number of tests.

Civil Engineering Laboratories

Civil engineering laboratories are considered one of the most active laboratories at the IRI. Their activity is directly related to the construction sector activity

in Lebanon, and is affected by its decline. These laboratories performed 83110 tests and examinations, equivalent to 25.4 percent of the total number of tests, which is an increase of 4277 compared to 2013 (i.e. 5.4 percent).

Their annual growth rate since 2009 reached 10.3 percent.

Electrical Engineering Laboratories

Electrical engineering laboratories continue to achieve a steady growth each year in terms of tests and examinations. These active laboratories account alone for more than 38 percent of the total number of tests and analyses conducted at the IRI. These laboratories conducted 127402 tests compared to 124577 in 2013, an increase of 2.825, i.e. 2.3 percent.

Their annual growth rate reached 14.4 percent since 2009.

Central Laboratory for Bread and Wheat (CLBW)

The number of tests and analyses conducted at the CLBW witnessed an increase of 3519, i.e. 39.8 percent, reaching 12356.

Processes conducted at the CLBW accounted for 3.9 percent of the total number of processes performed in IRI laboratories. their annual growth rate reached 1.9 percent since 2009.

Welding Laboratories

The number of tests conducted at the welding laboratories declined to 3785, i.e. 1.1 percent of the total number of tests conducted in all IRI laboratories.

External Monitoring

The IRI laboratories conducted 35,683 external monitoring processes in 2014 compared to 33,583 processes with a 2100 increase (i.e. 6.25 percent) compared to 2013.

These include 420 processes for monitoring natural gas tanks and checking them, as well as 51 processes

for monitoring oil reservoirs and calibrating them, 132 processes for monitoring boilers, and 35,000 processes for monitoring the pressure of vessels.

In addition to these processes, 37,500 imported and manufactured gas bottles were monitored locally.

External Inspection

Activity	2011	2012	2013	2014
LPG storage Tanks Inspection	395	406	410	420
Fuel Tanks Inspection & Calibration	199	160	53	51
Boiler Inspection	145	130	120	132
Other Pressure Vessels	35,000*	35,000*	33,000*	35,000*
Total	35,739	35,696	33,583	35,683
LPG Cylinders - Locally Manufactured	25,000	24,000	8,000	8,000
LPG Cylinders - Imported	0	0	15,000	29,500

* The accessories resulting from customs files are included

Metrology and Calibration Laboratory

After achieving steady increases in recent years, the number of different calibration laboratories (Metrology) became relatively stable, achieving an increase of 61 tests in 2014, i.e. 0.43 percent (equivalent to 14328 tests).

These laboratories received 1540 measurement devices, an increase of 30 devices compared to 2013. These devices conducted 14267 tests.

These tests were distributed between the fields of temperature, pressure, force, mass, dimensions and electrical devices.

The progress of the activity of these laboratories is detailed as follows:

Temperature

Temperature calibration laboratories received 408 devices that carried 4080 tests (i.e. 10 tests per device) which is the same number of tests conducted in 2013 and 2012. The number of testing devices grew at an average rate of 20 percent annually since 2008, compared to 21.2 percent for the number of tests. Both activities achieved an equal decrease of 5.3 percent

compared to 2013.

Pressure

The number of pressure devices for testing stabilized at 59. These devices carried 472 tests (i.e. 8 tests per device), which is the same number of tests conducted in 2012 and 2013.

Force

Force calibration laboratories received 2 force measurement devices which carried out 16 tests; i.e. 8 tests per device. The number of devices and tests witnessed a 66.7 percent decline compared to 2013.

Mass

The number of mass units reached 911, on which 7885 tests were conducted (i.e. 9.3 tests per unit). The number of mass units increased by 7.5 percent in one year and the number of tests grew by 12.5 percent. The average annual growth rate of units was 13.1 percent since 2008,

and the overall number of tests witnessed a 13.6 percent rise.

Dimensions

In 2013, the number of dimension units declined to 6068 while the number of tests also declined from 544 to 480 – an 11.8 percent decrease since 2013. The average annual growth rate of units and tests stood at 9.5 percent since 2009.

Electrical Devices

The number of tests conducted on electrical devices declined in 2014; the number of devices stood at 92 compared to 117 last year, while the number of tests was 736, compared to 936 last year – i.e. a total of 21.4 percent decrease in the number of devices and tests.

Other Tests

The number of other tests and devices witnessed an 11.1 percent decrease. The number of devices was 8 and the number of tests reached 64.

Technical Subjects	2011		2012		2013		2014	
	Item	Test	Item	Test	Item	Test	Item	Test
Temperature	241	2410	328	3280	431	4310	408	4080
Pressure	103	824	93	744	59	472	59	472
Force	15	120	19	152	6	48	2	16
Mass	618	5844	737	7008	820	7885	911	8480
Length	58	464	83	664	68	544	60	480
Electricity	131	1048	115	920	117	936	92	736
Other (torque meter, sound level, lux meter,...)	28	224	24	192	9	72	8	64
Total	1194	10934	1399	12960	1510	14267	1540	14328

Custom Files

41.236 Customs Files checked by the Industrial Research Institute in 2014

The number of incoming files to the IRI for scrutiny rose to 41.236 files from 18.532 files eight years ago, with an annual average growth rate of 12.1 percent, and an average of 142 files per day compare to 140 files in 2013.

The IRI examines customs files, as part of the tasks assigned to it in 2005, whereby the Institute guarantees the conformity of imported products with the Lebanese standard mandatory specifications.

Customs files witnessed an increase of 274 files, i.e. 1.1 percent compared to 2013. Were it not for the events in Syria and Iraq, which affected the transit traffic at the Masnaa Border Crossing, the number of customs files subject to the checking process would have risen and recorded a bigger growth.

As a result of the examination, 1.625 files seemed not to comply with the mandatory

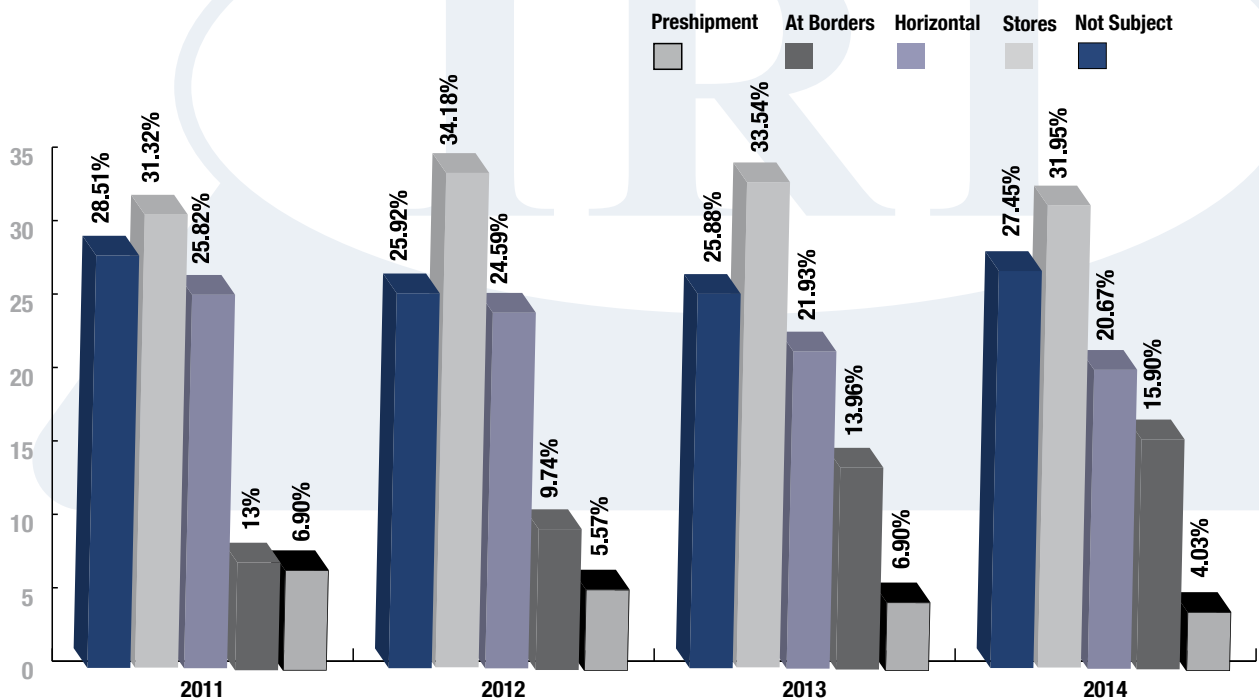
specifications, constituting 3.94 percent of the total custom files. 1589 files were rectified and 36 files were rejected.

The Industrial Research Institute checks around 54 percent of the files in transit centers or under the horizontal specifications and they are all examined and given back to the applicant within one day, whereas 46 percent of the goods being checked are deposited in warehouses before marketing.

Files were distributed according to the industrial sectors as such:

1- Files not subject to checking:

These files are received by the Industrial Research Institute, but they are not subject to the checking process, because they are not subject to mandatory specifications. The number of these files rose from 4.594 in 2007 to 11.319 in 2014, with an average rate of 13.75 percent compared to 14.95 percent



in 2013.

These files are examined at the Institute. Yet, they are marked as “not checked yet”, upon receipt. They do not entail any fees.

2- Pre-shipment examination

The number of files pertaining to goods subject to pre-screening in the source country prior to shipment to Lebanon, decreased to 1.659, forming around 4 percent compared to 9 percent in 2012 and 4.7 percent of the total number of files in 2013.

3- Horizontal specifications

They constitute 30.1 percent of the total number files subject to checking. They are examined and returned to the applicants on the same day. Their number increased from 4.300 in 2007 to 8.522 in 2014 with an average growth rate of 10.3 percent annually.

4- Checking goods to be stored

These files are checked after storing goods in relevant containers. Their number increased to 13.176, accounting for 46.6 percent of the total number of files subject to checking and scrutiny.

5- Examination at border crossings

The number of files checked at border crossings account for 23.3 percent, i.e. 6.560 files. 4.504 files are checked at the Beirut airport, 1.846 files at the port of Beirut, 205 files at the Masnaa Border Crossing, 4 files at the port of Tripoli and one file at the port of Tyre.

Distribution of files by type and crossing gates

Customs files that are being examined and checked at the Industrial Research Institute, are distributed according to the types of goods as follows:

Files pertaining to electrical appliances and goods that represented the broadest segment, accounted for 29.3 percent of the total number of files, i.e. 12,088 files. Together with files pertaining to chemical products and devices, they represent more than half of the total number of files, as the number of recent files reached 8,398 i.e. 20.4 percent. The number of files about medical devices stood at 5,730 with a 13.9 percent rate, followed by files pertaining to clay and soil which amounted to 3,910 with a 9.5 percent rate. The number of shared files reached 3,101 with a 7.5 percent rate.

The number of files pertaining to paint was 2,326 representing a 5.6 percent rate, and that of files pertaining to textile was 1,906 i.e. 4.6 percent. Mechanical files numbered 1,050 and files related to energy stood at 208, whereas the number of files on pressure reached 201.

The port of Beirut accounted for 66.8 percent, i.e. 27.559 files, followed by Rafic Hariri Airport - Beirut with 30.1 percent, the equivalent of 12.428 files. The Masnaa Border Crossing registered a 1.171 percent rate, i.e. 2.8 percent, noting that the number of files declined from 3.025 files in 2011, due to the deteriorating security conditions in Syria.

Customs Files by Type

	Pre Shipment	Chemical	Electrical	Medical	Lifts	Mechanical	Energy	Paint	Pressure	Soil	Textile	Tyres	Common Files	Total
Total	1659	8398	12088	5730	91	1050	208	2326	201	3910	1906	568	3101	41236
Subject	1659	6561	7598	5198	75	631	175	546	64	3791	1552	0	2067	28258
Not Subject	0	1837	4490	532	16	419	33	1780	137	119	354	568	1034	11319
Not Subject %	0.00	21.87	37.14	9.28	17.58	39.90	15.87	76.53	68.16	3.04	18.57	100.0	33.34	27.45
Non Conform	0	46	1006	32	0	0	54	7	3	440	37	0	in E, C&S	1625
Non Conform %	0.00	0.54	8.32	0.59	0.00	0.00	25.96	0.30	1.49	11.25	1.94	0.00	in E, C&S	3.40
Corrective Action	0	41	572	28	0	0	54	6	0	440	27	0	in E, C&S	1589
Rejected	0	5	8	4	0	0	0	1	3	0	10	0	in E, C&S	36

Customs Files by Entry Point

	Pre Shipment	Chemical	Electrical	Medical	Lifts	Mechanical	Energy	Paint	Pressure	Soil	Textile	Tyres	Common Files	Total
MASNAA	0	349	126	14	0	136	3	219	21	43	211	0	49	1171
PORT	1659	5796	7543	1144	85	843	197	1957	152	3812	1474	556	2341	27559
SAIDA	0	0	1	0	0	0	0	0	0	2	0	0	0	3
TRIPOLI	0	42	6	2	0	0	0	0	0	1	7	1	16	75
AIRPORT	0	2211	44112	4570	6	71	8	150	28	52	214	11	695	12428
Total	1659	8398	12088	5730	91	1050	208	2326	201	3910	1906	568	3101	41236
Average / Day	6.33	32.05	46.14	21.87	0.35	4.01	0.79	8.88	0.77	14.92	7.27	2.17	11.84	157.39

Endorsement Certificates

The Industrial Research Institute is keen on reinforcing the Lebanese industry conditions and supporting it. It has granted 25 industrial enterprises the ISO 9001 certification, three institutions the ISO 14001 certification for environmental management system, two institutions the ISO 22000 certification in the

food safety system, three institutions the ISO 13485 certification for the quality medical devices system and one institution the ISO 18001 certification, all this within the framework of developing a number of specifications for occupational health and safety management systems.

ISO 9001 Certified		
Yendis Hair since 2014	Elie Melhem Clinic since 2014	Betomix since 2009
Centre Hospitalier El Youssef since 2005	Château KSARA since 2003	Château Kefraya since 2006
CLINSERV International since 2009	Holcim (Liban) SAL since 2003	Holcim Béton since 2008
Harfouche Trading & Industrial - Pastel Paints since 2004	Integrated Digital Systems since 2004	LECICO since 2008
Lebanese International Technologies since 1999	Medical Distributing & Manufacturing (MDM) since 2003	MIRODEC since 2011
MONDI since 2010	Nakhlé Zgheib & Co. since 2008	Nasri Karam & Sons since 2003
Produits & Solutions Informatiques - PSI since 2002	TUV Hellas since 2008	CET since 2012
SADAPACK since 2012	SOIME since 2012	Al-Balsam since 2013
Building Chemicals Company - Holderchim Building Chemicals since 2014		
ISO 14001 Certified		
Holcim Liban since 2004	Building Chemicals Company since 2014 Holderchem Building Chemicals since 2014	
ISO 22000 Certified		
Château KSARA since 2009	DAHAR INTERNATIONAL FOOD since 2011	
ISO 13485 Certified		
Medical Distributing & Manufacturing (MDM) since 2010	Steritech since 2010	Lebanese International Technologies since 2014
OHSAS 18001 Certified		
Mondi since 2013		

Product Endorsement Certificates

35 products from 10 different companies received a quality certificate from the Industrial Research Institute, during 2014.

10 Companies with IRI certified products (35 products certified)			
Poppins - Corn flakes, choco flakes, honey flakes, frosted flakes - Cereal bars - Honey roundies - Choco bits, choco pops, choco bumps - Daily bran	Cimenterie Nationale -P 52.5 BTNA RMS -P 42.5 BTNA RMS -P 42.5 -CS 42.5 ChB -PAL 42.5	Holcim -P 42.5 BTNA RMS -PAL 42.5 -C-S 42.5 ChB -PAZ 42.5 -P 42.5	LECICO -Sanitary ware
Lematic -Refrigerators, Freezers and Bottle Coolers	Haykal Plast -HDPE pipes	Ciment de Sibline -PAZ 42.5 -PAL 42.5 -PRMS 42.5	Sannine -Bottled mineral water 0.5l, 1.5l,2l
Almaza -Almaza Beer alcoholic -Laziza non alcoholic	Sarkis Co. -HDPE pipes		

People Competences Certificates

In cooperation with the French Moody's Foundation, the Industrial Research Institute awarded certificates to individuals entitling them to audit the quality of systems and products. These certificates were distributed as follows:

- 92 internal auditors
- 95 auditors in the quality of systems
- 3 auditors in environmental systems
- 3 auditors in food systems
- 15 "FREA" Internal Quality Auditors ISO 9001:2008
- 11 "FREA" FOOD SAFETY MANAGEMENT SYSTEMS INTERNAL AUDITORS COURS ISO 22000

Certificates of the Lebanese Welding Center

Under the law number 423/2002, which acknowledges "the Industrial Research Institute as the body that gives accreditations and authorizes the issuance of conformity certificates in the field of welding", the Institute granted 118 certificates for welding through the Lebanese Welding Center and an inspection certificate in nondestructive tests.

Lebanese Welding Center	2011	2012	2013	2014
Welders certified by IRI	55	30	43	118
Inspectors in Non-Destructive testing	1	1	1	1

New equipments in the GCS Laboratory

The GCS laboratory was equipped with two computerized electromechanical tensile machines with high elongation extensometers for testing plastic, elastomers, composites and non-ferrous metals.

These equipments range from 2.5 kg to 10000 kg with an accuracy of 0.5 % and tensile grips capable of holding round and flat specimens.



Improvement Follow-Up Matrix

This form includes all improvements realized as well as potential improvements with inputs from Director General decisions, top management meetings, improvement suggestions, customer feedback, new projects and/or activities performed... etc.

Directorate	#	Activity	Description
ARTD	1	Chemical Laboratories	New Test: Natamycin by 2 different methods (HPLC and Spectrophotometer)
			New Test: Isopropanol
	2	Central Laboratory for Bread and Wheat	Participation in ICC methods
	3	Microbiology Laboratory	Accreditation of new methods:Tempo and Vidas
	4	Textile and Leather Laboratory	Implementation of new Decrees Testing
5	Paint and Petroleum Laboratory	Implementation of new Decrees Testing	







4



Accreditation

IRI seeks to broaden the Scope of International Accreditation

In the framework of the international accreditation according to the international standard ISO 17025 granted to the Institute since 2004; assessors from the American Accreditation Body (ACLASS) carried out an assessment visit at the Institute in August 2014.

An extension of the accreditation scope was granted to the Institute for the following fields as detailed below:

Activity / Field	Item / Test	Standard / Reference Method
Microbiology	<ul style="list-style-type: none"> - Tempo test for quantification of viable aerobic mesophilic E. coli, yeasts and molds, Staphylococcus aureus, total coliforms, Enterobacteriaceae - Vidas SPT, detection of Salmonella spp. - Preparation of samples taken at the primary production stage. - Water quality : MPN 	<ul style="list-style-type: none"> - IT-me/LMB/01: 5/2013 - IT-me/LMB/08: 5/2013 - ISO 6887-6: 3/2013 - ISO 9308-2: 6/2012
Metrology	- Mass	- OIML R 111, Euramet CG 18 & EA-4/02

As of the end of 2014, the accreditation scope covers around 400 testing methods in the microbiological, chemical and physico-chemical, wheat and grain, electrical fields, civil engineering as well as metrology.

Accreditation Projects under preparation

The Institute seeks on the short and long terms to expand the current scope of accreditation and obtain an international accreditation in other fields as detailed in the following table:

Activity / Field	Item / Test	Standard / Reference Method
Electrical	<ul style="list-style-type: none"> - Incandescent lamps - Self-ballasted lamps - Safety of home appliances - Safety of power transformers - Circuit breakers 	<ul style="list-style-type: none"> - IEC 60432-1 Ed. 2.2 :2012 Clause 2.6 / NL 96-1: 1999 Clause 2.6 - IEC 60968 Ed. 2.0: 2012 Clause 12 / NL IEC 60968: 2007 Clause 11 - IEC 60335-1: 2010 Ed.5.0 Clauses 16.2, 16.3 & 27.5/ NL EN 60335-1:2009 Clauses 16.2, 16.3 & 27.5 - IEC 61558-1 Ed. 2.1 : 2009 Clause 24.4 / NL 216-1:2000 Clause 24.4 - IEC 60898-1 Ed. 1.2 : 2003 Clause 9.15 / NL 47 :1999 Clause 9.15
Civil Engineering	Cement: Determination of setting times and soundness	EN 196-3 :2005 + A1 Clause 6.2
Inspection and Auditing	<ul style="list-style-type: none"> - Gas cylinders - Oil and Fuel tanks - Products export - Steam Boilers 	ISO 17020
Product Certification	All products	ISO 17065
Personnel Certification	Welding and non-destructive testing	ISO 17024



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board/AClass
 500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Industrial Research Institute
Lebanese University Campus, IRI Building, Hadath (Baabda)
Beirut, Lebanon

has been assessed by AClass
 and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field(s) of

CALIBRATION & TESTING

Refer to the accompanying Scope(s) of Accreditation for information regarding the types of calibrations and/or tests to which this accreditation applies.

ACT-1898

Certificate Number

AClass Approval

Certificate Valid: 11/03/2014-11/03/2016
 Version No. 0021 Issued: 11/03/2014



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).



5

Internal & External Activities

*Explaining the application of mandatory specifications and the verification of customs files,
The Administrative Director of the IRI Salim Kfoury
Participated in a workshop organized by the Lebanese
Forwarders Syndicate*

The Lebanese Forwarders Syndicate organized a workshop on December 16, 2014, in which the Industrial Research Institute was invited to participate, represented by its Administrative Director, Mr. Salim Kfoury who gave the following speech:

“When the Lebanese economy used to adopt the foundations and principles of the free market economy, Lebanon was importing the majority of materials, goods and products needed for consumption which exceed 90 percent of its needs, without ensuring that these goods and products are in compliance with certain specifications of particular and clear technical requirements to control the quality of these imports.

As a result, the Lebanese government resorted to preventive measures, imposing the necessity of the compliance of goods related to public safety, health and environment with certain specifications. The Industrial Research Institute was assigned to apply some of them, while other departments and ministries such as the Ministries of Health, Economy, and Agriculture were asked to apply other specifications according to the types of goods.”

Concerning the Industrial Research Institute, Kfoury added: “In the year 2014 alone, about a dozen decrees on mandatory specifications related to products in different sectors were issued. So, the IRI was entrusted with the task of applying the aforementioned specifications and making sure that products are conform to their provisions. Therefore, the work of the Institute increased in this context in comparison with previous years. Below is a summary of the work mechanism adopted by the Institute regarding the application of the Lebanese mandatory

specifications:

In parallel with the issuance of these mandatory specifications, the IRI immediately set an application mechanism in cooperation with the Federation of Chambers of Commerce, Industry and Agriculture that was thoroughly discussed with relevant syndicates. On the one hand, it was based on consumer protection, maintaining public safety and respecting the scientific foundations, and on trade facilitation on the other hand.

It also took into account the need to protect consumers, industrialists, traders and the environment at the same time.

Therefore, the mechanism involved internationally approved options, the details of which are the following:

1. Concerning vertical specifications

- The conformity assessment mechanism in the country of origin, i.e. preshipment verification: it is an optional mechanism. The Institute chose some of the world known companies in this field for conformity assessment according to Lebanese specifications; these companies assess the conformity of products in the country of origin before shipment. This enables importers to avoid risks of non-conformity upon the arrival of these products and get a certificate of conformity even before the arrival of goods to Lebanon, without paying additional fees upon their arrival to Lebanon. In 2013, 1,922 customs files were reviewed based on this mechanism.
- The inspection and examination mechanism upon arrival of goods to border crossings:
The Institute, in cooperation with the Customs

Administration, worked hard to pave the way for importers to adopt one of the two following options:

The option of pledging and conformity assessment in importers warehouses:

- Importers, who want to immediately transfer goods into their warehouses without waiting the time required to complete the conformity assessment process, which is purely technical (studying, inspecting, examining, etc ...), can adopt this option provided that they pledge not to dispose of goods or place them in the local market before the completion of the conformity assessment process and the issuance of relevant reports. Then, the goods immediately enter stores and the conformity assessment mechanism is applied after their transfer to the stores. In 2013, 13,738 files customs files were reviewed based on this mechanism.

The option of conformity assessment on border crossings:

- In case importers chose to perform the conformity assessment mechanism for their goods at border crossings, the Institute commits to complete the conformity assessment process within a period of not more than five working days from the date of receipt of the samples at the Institute. This period is applicable and approved since the beginning of the process.

Indeed, the number of files that are reviewed at border crossings is low compared to the rest of the options. In 2013, 5,720 customs files were reviewed based on this mechanism.

Since its establishment, the Institute relies on risks management in all the activities that it performs. For this purpose, the IRI set a developed mechanism known as Type Approval adopted in reviewing customs files, knowing that the product which was already examined is not checked again for a period of at least a year, according to the quality of goods.

2. Concerning vertical specifications

The conformity assessment process is carried out by studying the file from the technical view, often without the need for inspecting and examining goods. In this context, 8,983 customs files were reviewed in 2013.

3. Statistics for 2013:

Below are the numbers of customs files reviewed at the Institute during 2013:

The total number of customs files registered at the Institute: 40,962

The number of files not subject to mandatory decrees: 10,599

Note that these files are registered and examined at the Institute. The latter issues a statement that they are not subject to mandatory decrees without costing the Institute any fees.

The number of customs files reviewed on the basis of the conformity assessment mechanism in the country of origin i.e. preshipment verification performed by international companies: 1,922

The number of customs files reviewed on the basis of the pledging mechanism, i.e. immediately transferring goods to warehouses in exchange for a pledge from the concerned parties not to dispose of these goods and perform the conformity assessment mechanism later: 13,738

The number of customs files subject to horizontal specifications, which conformity assessment process is performed through studying the technical file without the need for inspecting and examining goods: 8,983

The number of customs files reviewed on the basis of the conformity assessment mechanism for goods at border crossings: 5,720

4. Conclusion

These figures prove that the mechanism adopted by the Institute in all its options paved the way for importers to immediately transfer goods into their warehouses through adopting one of the options, which contributed in reducing the number of customs

files reviewed at border crossings. It is to be noted that this significant number used to create problems on border crossings.

In addition, there's the mutual recognition of certificates of conformity mechanism that is essential for countries which signed an agreement on the mutual recognition of certificates of conformity with Lebanon. The conformity assessment process in these countries is performed by relevant national bodies that are approved in these countries, according to the mechanism determined in each agreement.

The Industrial Research Institute develops the Green Building Evaluation System And collaborates with relevant French Institutions

As part of the ongoing efforts to reinforce the Lebanese environmental and energy fields, the IRI has been developing for years the green building evaluation system, called CEDRE (Construction Écologique et Durabilité Réglementaire Environnementale)

The Institute is developing this system through its distinctive relationship with French institutions concerned with the application of the *Hautes Qualités Environnementales - HQE* System, i.e. "High Environmental Quality", such as Certivea Company, which has established Cerway Company two years ago for the application of the foundations of this system outside France.

For this purpose, the Institute is performing several activities in this field, the most important of which is the participation of the Development and Technology Director, Dr. Imad Hage Chehade in the Ec-Orient Workshop, part of project Lebanon 2014. The latter made a presentation about CEDRE system, which was followed by a discussion with relevant specialists. Dr. Hage Chehade also participated in a roundtable on green building and renewable energies in the Beirut Energy Forum in September 2014. This was also a chance for him to present the Institute's activities in these fields.

Finally, we must note that the Industrial Research Institute is the first to develop a special informatics program on the Internet, whereas it publishes all information related to customs files online, enabling importers to follow the progress of reviewing their files while giving them a secret number for each file registered at the Institute. The effort is ongoing, in cooperation with the Customs Administration, to further develop this program and shorten the several stages of the conformity assessment process, which accelerates and facilitates these procedures.

Dr. Hage Chehade and the Division Head of Metrology, Standards and Certification, Engineer Antoine Faycal, visited Paris to discuss mutual cooperation in terms of auditing green buildings, according to HQE System and CEDRE System, the correspondence of the two systems and the coordination between the two institutions. The visit included a training course about the application of the HQE System outside France.

The reinforcement of the cooperation between the IRI and the aforementioned French institutions is in prospect, in order to maintain the highest levels in terms of green building systems and participation as many as possible in relevant exhibitions and conferences should continue.



*The Pilot Project on the roof of a building in the Lebanese University Campus
The European FOSTER in MED project chooses the Industrial
Research Institute building
To be equipped with a photovoltaic system to generate solar
energy for the first time in Lebanon*

The scientific and technical committee of the FOSTER in MED project, backed by the European Union held a coordination meeting at the Industrial Research Institute to decide on the choice of the building to be equipped with an innovative photovoltaic system to generate solar energy. The system is characterized by the fact that it is integrated into the building design in a well-planned way that has not yet been used in Lebanon.

The meeting was attended by experts from the six participating countries (Italy, Egypt, Spain, Tunisia, Jordan and Lebanon) to discuss the rules and principles to be adopted for the implementation of the project and to announce the names of the chosen buildings in each of the concerned countries.

A committee member, Dr. Talal Salem said that: "In Lebanon, the committee opted for the Industrial Research Institute building within the Lebanese University campus in Hadath, seeing that its specifications completely match the ones required to implement the project."

The project manager in Lebanon Mr. Naji Abi Zeid said that: "The goal of the implementation of this pilot project is to build a common experience in the field of photovoltaic technologies in Mediterranean countries, promote the concept of solar energy, and overcome the cultural and legislative barriers that impede the deployment of solar energy technologies in the region".

During the meeting, the committee approved some guidelines for implementing the project and reinforcing the use of this modern technology to support the role of using solar energy.

Roundtable

People in charge of the project and members of the executive committee organized a roundtable attended by representatives of relevant ministries and owners of development and tourism companies and projects, in order to shed light on the crippling problems, and how to address them, so as to promote solar energy as a solution for power generation. The implementation of the pilot project coincides with a comprehensive awareness campaign about the best ways to use solar energy in Mediterranean countries.

The FOSTER in Med project is funded by the European Union, with 4.05 million euros through the ENPI CBC Mediterranean Sea Basin Programme (with a total amount of 4.5 million euros). The project aims to encourage the adoption of innovative solar photovoltaic technologies with the strategic approach in six countries of the Mediterranean region: Italy, Spain, Egypt, Lebanon, Jordan, and Tunisia, represented by 14 members belonging to the partners of the project are: the University of Cagliari (UNICA), the Association of the Mediterranean Chambers of Commerce and Special Agency Industry (ASCAME); the Promotional Services Centre for enterprises of the Cagliari Chamber of Commerce (CSPI); the Confederation of Egyptian European Business Associations (CEEBA); the Industrial Research Institute (IRI); the Royal Scientific Society (RSS); the Chamber of Commerce and Industry of Tunis (CCI Tunis); the Autonomous Region of Sardinia (RAS).

The IRI produces 20 kilowatts of Solar Energy

The Director of the FOSTER in Med project backed by the European Union, Naji Abi Zeid, declared that

the aim of the project which budget is 450 thousand euros is to support and promote solar photovoltaic technologies adopted in developed countries.

He also announced the start of “equipping the Industrial Research Institute building in Hadath with building-integrated photovoltaic panels having a capacity to generate 20 kilowatts of electricity. It is the first time to test this technology in Lebanon. While implementing the pilot project on the roof of a public building, citizens, engineers and designers of the building get the opportunity to test the effectiveness of building-integrated photovoltaic techniques. It is to be noted that the project is being regularly monitored in order to test its performance on the long term.”

Abi Zeid explained that the obstacles which still impede the progress of innovative solar energy technologies in Lebanon are related to the adopted

policies, but also lie in the concept of the acceptance of citizens to use solar energy, especially if the approved sources for power generation, are more suitable for their needs.

He also highlighted the importance of finding solutions to these obstacles, both at the local community level and the legislations and laws level, based on the importance of this subject and the importance of alternative energy in the future.”

In late March 2014, Abi Zeid met partners of the European Union project FOSTER in MED from the six concerned countries in the University Cagliari in Italy, in order to discuss the workflow of the pilot project that aims to equip a public sector building with a building-integrated photovoltaic technology, which is the most advanced technology in the field of using solar energy.

The Industrial Research Institute, a pioneer in renewable energy in Lebanon Activities of the Renewable Energy Laboratory in 2014

1. The Fourth Meeting of the Solar Heating Arab Mark and Certification Initiative (SHAMCI)

Lebanon hosted members of SHAMCI for the first time, as part of the agenda of the fifth Beirut Energy Forum from September 17 to September 19, 2014, to keep up with the solar project for the Arab States, usually held in Cairo. Among the participants in the meeting were: Lebanon, Egypt, Jordan, Tunisia, Syria, Libya, Algeria, and Morocco. The recent activities of the project were presented, and Lebanon (through the energy laboratory of the Industrial Research Institute), Egypt and Tunisia, expressed the readiness of their laboratories to examine solar mirrors within the mechanism used to get the SHAMCI mark.

The Institute participated in all the meetings, as one of the key parties that contributed in establishing the

SHAMCI network in which the IRI is a permanent member.

2. The SHAMCI Workshop in Tunisia

The Institute, represented by the Head of the Laboratory of the Audit and Studies of the Uses of Energy Unit, Engineer Mohammad El Hajjar, participated in a workshop organized by the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE) in Tunisia for five days, on December 15, 2014.

In addition to Lebanon, the following Arab countries participated in the workshop: Morocco, Algeria, Jordan, Tunisia and Egypt.

The workshop aimed at introducing the ISO 9806 international standard specification, which previously held the number of 12975-1.2, on solar

mirrors for heating water and the EN – 12976 and ISO 9459 – 2/5 adopted in the SHAMCI system.

Lebanon and Tunisia were the most effective participants, especially in setting the basic conditions of the examination of mirrors according to the requirements of the SHAMCI system.

During the workshop, a presentation about the ISO 17025 international standard specification on the accreditation of laboratories was given. It is to be noted that SHAMCI system requires laboratories assigned to perform tests, to gain international accreditation according to this standard before the end of 2017.



The workshop also included field visits to energy laboratories and solar heaters of the Tunisian National Laboratory; this was an occasion to discover the potential of Arab neighboring countries.

Seminars & Workshops

In 2014, the Industrial Research Institute organized training seminars and workshops and sent delegates abroad to participate in similar seminars and workshops; these were attended

by 135 employees and workers in the IRI, in which they spent 204 days/participant, including 123 participants in local seminars, 150 days/participant and 12 participants abroad.

The IRI participates in a Workshop for national metrology institutes, Germany

The Industrial Research Institute represented by Eng. Elias Maalouf (Metrology Laboratory Head) participated in a regional kick-off workshop for national metrology institutes on May 8 and 9, 2014 at PTB, Germany.

The workshop addressed representatives from Ministry of Trade and National Metrology Institutes of Lebanon, Egypt, Jordan, Palestine, Iraq and Yemen.

The objectives of the workshop are the following:

- Follow-up of the last metrology workshop that was held in Cairo in 2013
- Determination of regional cooperation initiatives
- Determination of a national project activities

Sudanese Organization for Standardization

The Engineer Elias Maalouf also participated in a workshop on modern technological aspects of

metrology in the headquarters of the Sudanese Organization for Standardization and Metrology in the Republic of Sudan from 15 to 16 September 2014.

Eng. Maalouf also gave a presentation about the uncertainty of measurements and the importance of innovation in the development of measurement science in Arab countries.

During the workshop the following points were discussed:

- The principles of the international organization's policy to achieve metrology attribution in measurement results.
- The concept of metrology attribution for international units and the methods for achieving it in the Arab region.
- The role of industrial and scientific metrology in achieving the competitiveness of industrial facilities.

Quality infrastructure for food safety

As part of the training program that was organized by SIDA (Swedish International Development Cooperation Agency) in cooperation with SWEDAC (Swedish Board for Accreditation and Conformity assessment), for the 13th year, about the quality infrastructure for food safety, a follow up workshop was organized in Morocco; the first phase was conducted in Sweden during November –December 2013.

The aim of the workshop was to present the evolution made on the change projects to which the participants have committed; there were 21 participants from 5 countries: Palestine, Morocco, Yemen, Egypt and Lebanon;

Miss Hanine Abdel Rahman, Quality Management Unit Head, represented IRI.

She has presented the project adopted by IRI; the program director emphasized that such projects can



be very helpful to any organization in order to ensure control over all potential risks that might jeopardize their objectives.

During the last phase of the program, the program director visited Lebanon in order to assess the final

progress and the proper implementation of the change projects. This took place on December 2014; certificates of successful completion of the projects were distributed.

A Visit to calibration institutions in the Czech Republic

As part of representing the Institute in the National Council for Measurement, which is currently working on issuing decrees for the implementation of the law No. 158 of 17/08/2011 about: “the measurement system in Lebanon,” Dr. Imad Hajj Chehade, the Development and Technology Director and representative of the Institute at the National Council made a field visit

on July 2014 to the Czech Republic, joining a delegation of members of the council.

This visit aimed at looking into the organizational structure of the measurement process in a given European country and the organization of calibration. These issues were discussed with concerned institutions.

The visit was organized by the Czech Office for Standards, Metrology and Testing (ÚNMZ) and the Quality Programme – Ministry of Economy and TRADE (QUALEB).

It is to be noted that the ÚNMZ and the IRI signed a joint cooperation agreement in 2010.

The visit also included several meetings with the staff of the Czech Office for Standards, Metrology and Testing (ÚNMZ) to look into the organization of calibration and the legal texts that determine the measurement system in the Czech Republic. Other



meetings were held with national measurement institutes in the country.

The delegation also made a field visit to a laboratory calibration of electricity meters and gas meters in Skuteč, which operates within the legal calibration process. It also visited a laboratory calibration of equipment and instruments for distances measuring in Liberec, which operates within the industrial calibration process.

In this visit, the delegation was also able to check out the overall organization of the calibration system in a country that adopts European and international standards, and how to apply them. In addition, the delegation held meetings with officials from concerned institutions with which Lebanon can cooperate in several fields; it is to be noted that this will benefit relevant institutions in Lebanon and thus improve the qualitative performance of the Lebanese economy.

Kfory represented the Industrial Research Institute at the 14th meeting of the Arab Industrial Research Institutes-Jordan

The Industrial Research Institute, represented by its administrative and financial director, Mr. Salim Kfory, accepted the invitation of the Arab Organization for Industrial Development and Mining (AIDMO), to the fourteenth meeting of the coordinating committee for the Arab Industrial Research Institutes, which was held at the ESCWA Technology Centre, in the Jordanian capital Amman. During the meeting, the following recommendations were agreed upon:

First: in the field of water

Examining surface and groundwater pollution with residues of pharmaceutical compounds, through the expansion of the geographical area to include other countries, and add other compounds, as well as the development of a concept note to prepare for the next step.

Second: in the field of energy

It was agreed to evaluate renewable energy sources in the Arab world, by redirecting research objectives and outputs to include only documented source of renewable energy in the region, and adopt

applications of nanotechnology in the development of coating materials in the solar panels to avoid dust accumulation.

Third: in the food industry

It was agreed to develop new cereal products appropriate for patients with Celiac disease and study the impact of industrialization on the Arab vitamins subsidized bread steps, as well as examining the road map in the field of industrial food research about the mechanism of implementing projects in collaboration with the University of Jordan and the Arab Organization for Industrial Development and Mining.

Fourth: Other recommendations

It included the approval of the proposal of Kuwait about the development of technical and scientific cooperation between the Arab Industrial Research Institutes in addition to asking the Arab Organization for Industrial Development and Mining to present a report - before the next meeting - about all stages of the development of the project of the Arab Center for Technological Development in the field of industry.

A training course on the visual inspection of nondestructive testing

The Head of the Specialized Training Department in the Industrial Research Institute, Taher Wehbe participated in a training course as a managing expert, upon the request of the Arab Atomic Energy Agency (AAEA), as part of the program about the qualification and licensing of individuals in the field of nondestructive testing in the headquarters of the AAEA and the Sudanese Petroleum Technical Center Laboratories in the Republic of the Sudan from November 23 till November 27, 2014.

Taher Wehbe tackled the general principles of



nondestructive testing, different types of welding and their scientific and practical applications.

The following themes were discussed during the training course:

- The role of the Arab Atomic Energy Agency through the Arab cooperation program for qualification and certification.
- The advantage of visual inspection and its

adoption as an initial examination for the limits of acceptance or rejection.

- The welding methods, sciences, principles, characteristics, advantages, disadvantages and applications.
- The role of nondestructive testing, its relevant sciences and applications in order to help promoting Arab industries.

IRI to participate in a seminar organized by the republic of China

Eng. Mark Tahchy was selected by IRI to participate in a seminar organized by the republic of China on construction of infrastructures for Arab countries that was held at the Academy for International Business Officials (AIBO) in Beijing from November 14th till December 5th, 2014.

The participating countries were: Morocco, Oman, Palestine, Sudan, Jordan, Tunis, Iraq, Comoros, and

Lebanon.

This seminar includes two parts, the specialized lectures and the visits outside Beijing in order to achieve a deeper understanding about infrastructure development which is a top priority for China government, which has long recognized that a modern economy runs on reliable roads and rails, electricity, and telecommunications.







6



Applied Research and Studies

The Institute performed 52 environmental and technological study and analyzes

The Industrial Research Institute keeps pace with the current status of industries and factories, especially the ones that received ISO environmental certification from the Institute, and ensures their continuous compliance with the scientific and technological standards required to maintain a healthy environment

for human beings and preserve the nature.

The IRI completed 52 studies and analyzes in fifty factories, among which three studies in environmental auditing, 29 environmental analyzes and 22 technical field studies. Studies were distributed, according to factories, as follows:

Environmental Auditing Study

1. Société Libanaise des Ciments Blancs - SLCB
2. Holcim S.A.L - HOLCIM
3. The Lebanese Ceramic Industries Company - LECICO

- Lebanese German Tanks Company

- La lainiere Nationale

- Sukomi

- Sakr Generators

- Saoudi Fal

- HATCO

- Baabda Governmental Hospital

- LBCI

- Spinneys

- Energy Creative Solution

Comprehensive Environmental Analyzes

- Kfoury Metals (three batches)

- Hotel Le Royal

- Pharmaline

- Liban Cables

- Pharmacie la Prévention

- Amatory

- Moussa Co. Mtein

- Unipak Tissue Mill

- Crepaway

- Sicomo

- Gemayel Frères

- Cimenterie Nationale

- Henkel

- Liban Jus

- Okfond

- Sohat

- Zahrani Power Supply

Technical Field Studies

-Ghandour

- El Kazzi

- Lifebread

- Lavender Factory

- Huashis Chocolate

- Richa Elevator Group

- El Yaman

- Zarzour and Sassine Fruit Care

- Master Chips

- Interbrand

- Nafoura Bakery

- Mimosa

- Lefa Liban
- Kaa el Rim
- Jana Industry
- Ijaco
- Dutch Bakery (Good manufacturing practice)
- Tannourine
- ZM Vegetable Oil
- Future Pipe Industry
- Société Moderne Libanaise pour le Commerce
- Fraiha for Oil Storage

A New Publication from IRI's Engineer

Eng. Fady Y. MELLHEM (Electrical Laboratory - Technology & Development Directorate) prepared a research paper in the fields of renewable energy and electricity titled by “Dimensioning a Residential PV System for a Cost Minimization when Operating under Abnormal Situations - Case Study for Lebanon”. This paper has been published by the Institute of Electrical and Electronics Engineers (IEEE) after it was presented and discussed in the 2nd International Conference on Renewable Energies for Developing Countries (REDEC - 2014) on 26-27 November at Order of Engineers and Architects (OEA - Beirut).

This project presented a detailed dimensioning study of a Lebanese residential photovoltaic system. In this study, technical dimensioning and economic analysis are simultaneously performed in order to find the costless system according to solar profile, load requirements, storage existing capacity, net metering policy and grid availability. It was demonstrated that although the solar resources in Lebanon are important, the highest profit of installing residential PVs is not yet reached, causes analysis is presented.





*Activities of the
European-Lebanese Center
for Industrial Modernisation -
ELCIM*

The Euro-Lebanese Center For Industrial Modernisation - ELCIM aims to improve the performance of the industrial sector and its competitiveness:

***600 assessment missions,
350 technical assistance and
training courses to 700 companies***

The project ELCIM originally initiated and funded by the European commission in 2001 as a center for the improvement of performance and competitiveness of the Lebanese Industrial sector, is currently and since 2005 a permanent center located at the Industrial research Institute (IRI).

ELCIM is currently composed of a number of long term consultants plus a number of fixed ELCIM/IRI staff whose main role is the management and development of ELCIM in order to assure that ELCIM remains an added value for the development of the Lebanese industry. ELCIM also relies on its pool of experts (local and International) in the various technical fields, and who constitute the core resources for the implementation of technical assistance with the industrial SMEs.

The main activities of ELCIM can be summarized as follows:

1. Direct technical assistance to companies in terms of onsite business assessment and implementation of focused activities for the company improvement. The fields of assistance address several important industrial sectors and vary from management support, to production opti-

mization, marketing and market access, access to loans and upgrading of the financial management status. Since 2005 ELCIM has implemented over 600 business assessment missions and supported over 350 companies in technical assistance

2. Specific support to the agro-food sector within the “Agro-food Advisory Unit” through ELCIM’s partnership with some universities in the field of process and product development.
3. Capacity building for the industrial sector through the implementation of external and in-house training to companies covering a wide array of topics such as : Six sigma and lean manufacturing, guerrilla marketing, supply chain management, leadership skills and HR basics, Android applications (IT) , Food safety for industries, conflict resolution, presentation skills, and others.

Since 2005 ELCIM has organized training for over 700 companies and about 1500 participants.

- Participation in commercial exhibitions such as HORECA in order to provide hands on support to relevant exhibitors.

Activites of the European-Lebanese Center for Industrial Modernisation - ELCIM



Launched by the Industrial Research Institute in 2006

to boost the capacity of local companies,

“Lebanon SoftShore” Cluster

*For leading companies in the field of information technology
in Lebanon*

The Industrial Research Institute (IRI) through the Euro Lebanese Center for Industrial Modernization (ELCIM) launched the Lebanon SoftShore Cluster in 2006 thanks to a grant from the European Union. After garnering interest from Lebanese companies, the Cluster was able to develop activities to promote the industry. At the end of 2014, the LSS counted 10 members from leading IT companies in Lebanon.

The LSS activities are the result of the feedback and objectives mentioned by our members. In keeping with its approach, which let the members select the direction the LSS will take, the LSS 2015 Action Plan will include several areas of intervention including: Local capacity building, Company Presentations, Connecting with research firms, Leveraging the Lebanese Diaspora, Human Resources sourcing, Enhancing the Cluster structure and Other activities.

Through workshops organized locally, LSS provided its members as well as the larger public with expertise and knowledge brought by high level experts. Around 5 workshops were provided. Company pres-

entations were performed through seminars that were free for the attendees and given exclusively by our members to promote their expertise and company. In geography of interest for our members, LSS will connect in 2015 with the Lebanese Diaspora to help/assist our members in their business development. Through a centralized pool of CVs and connection with Universities, LSS will also assist its members in identifying potential talents for their companies. Following its granting of the Cluster Bronze Label, LSS will work towards enhancing the cluster structure so that it can achieve a higher structural level.

The list of workshops in 2014 were as follows:

- Big Data, Introduction and Industry Cases, February 7, 2014 (ESA)
- Android / Mobile Web Development, March 6 & 7, 2014 (ESA)
- Artificial Intelligence, Introduction and Industry Cases, March 28, 2014 (USEK)
- Business Model, April 13, 2014 (ESA)
- Business Excellence, November 19, 2014, (ESA)





8

*Activities of the
Lebanese Cleaner
Production Center - LCPC*

***The «Lebanese Cleaner Production Center»,
a part of a national network of the United Nations
including national cleaner production centers in 69 countries,
including Arab countries***

- The Industrial Research Institute (IRI) became part of the LCPC in Hadath – Baabda in February 2004.
- LCPC is part of UNIDO-UNEP Global Network which comprises National Cleaner Production Centers (NCPC) in 69 countries.
- LCPC work is to improve the environmental performance of products, processes and services by focusing on the causes of environmental problems rather, while encouraging economic development and industrial growth through saving costs and facilitating the access of local products to international markets.
- LCPC seeks to assist the national industries, especially SME's, in the adoption of sustainable production modes through the application of Cleaner Production and the transfer of Environmentally Sound Technologies.
- LCPC is supporting industrial establishments in enhancing their productivity and facilitating their access to new and more demanding markets, while at the same time improving their environmental and social performance.

***LCPC Representing The Arab Region
in The Global Unido / UNEP RECP Network***

Dr Ali Yaacoub, Director of the Lebanese Cleaner Production Center was elected to represent the Arab Region in the Global UNIDO/UNEP RECP Network between the five elected regional representatives of the Arab States, Asia, Pacific, Latin America, Africa and Europe.

The LCPC won a land-





slide victory after the withdrawal of the representative of the Republic of Egypt in his favor.



Membership of RECPnet – Arab Region

Dr. Yaacoub is currently acting in the Executive Committee of the Global UNIDO/UNEP RECP Network

Activities

The year 2014 was rewarding, the LCPC achieved targets set in its business plan. Since its establishment, LCPC has been undertaking three core activities:

1. In Plant Demonstration
2. Awareness Raising
3. Training and Capacity Building
4. The Centre's participation in national and regional events

1. In Plant Demonstrations

Through In-plant demonstration projects, the LCPC explain in a practical way the concept of cleaner industrial production and its applications to industrial sector.

At the end of demonstration projects, the results are disseminated to all interested parties so that they can build on the successes of the demonstrations.

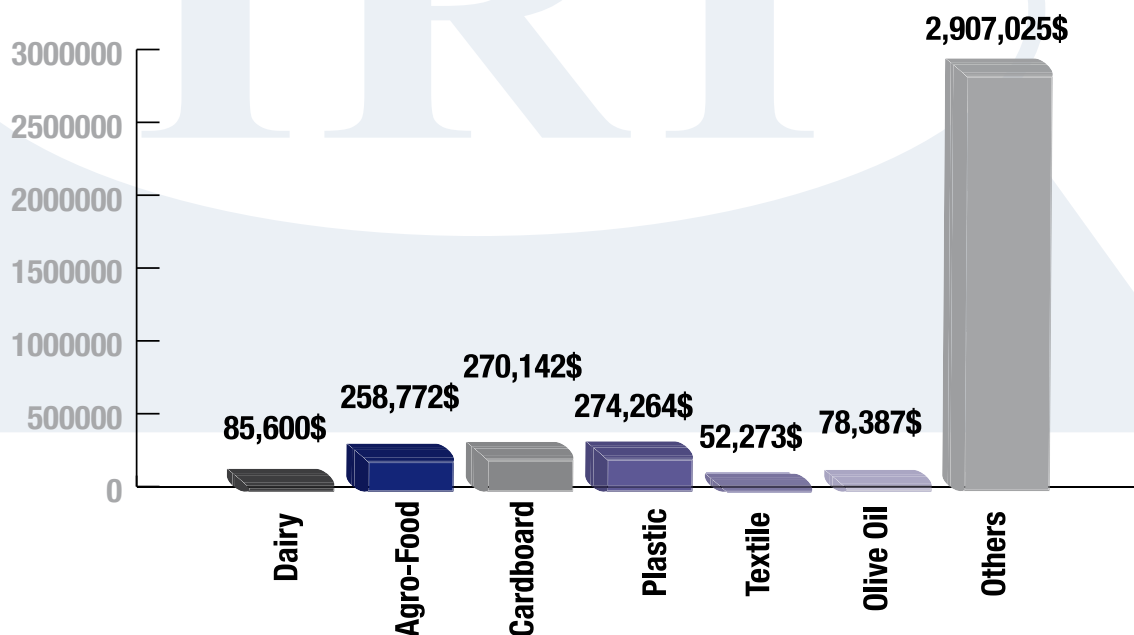
The selection of the sectors was based on evaluation criteria set by LCPC Advisory Committee.

Through the demonstration projects, the LCPC has been training volunteers to become national CP experts, adept in conducting CP assessments in different industries. These trainees will eventually become the LCPC's national network of CP assessors capable of conducting full-scale CP in-plant assessments according the UNIDO CP methodology.

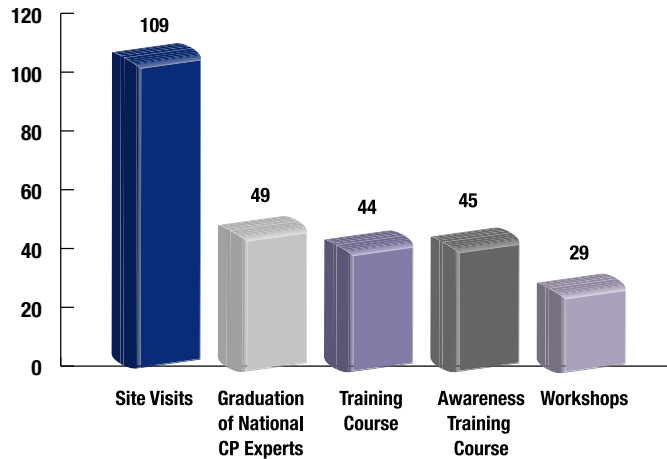
LCPC has collaborated with 37 Company in Lebanon distributed among several industrial sub- sectors. These sectors are:

- Dairy sector
- Agro- food canning sector
- Paper and cardboard sector
- Aluminium production sector
- Ceramic production sector
- Plastic production and recycling sector
- Textile sector
- Olive oil sector

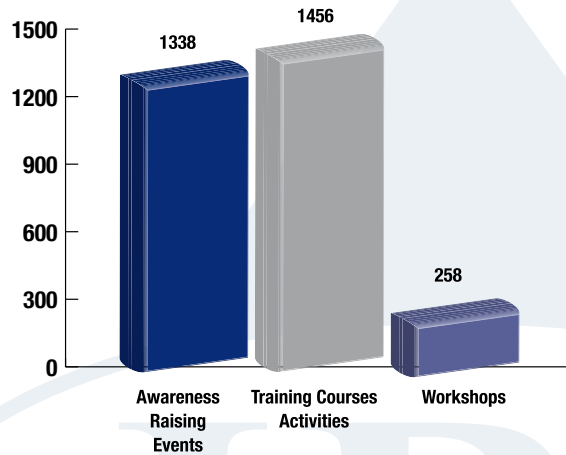
The CP options implemented in SME's that participated in the LCPC programmes have led to a total yearly savings of approx. Four Million US Dollars.



Activities of the Lebanese Cleaner Production Center till the end of 2014



Number of participants in the Activities of the Center till the end of 2014



1- Site Visits-Khoury Dairy Company and RotoFlexoPress Company

Khoury Dairy Co. and RotoFlexoPress for Packaging Co. in Lebanon have successfully implemented different CP options in collaboration with the center during 2014. A CP factsheet was executed on both Khoury Dairy and RotoFlexoPress including the CP options generated and savings





achieved. Each of these companies received a CP certification.



2. Awareness Raising

As part of the awareness campaign raised by the LCPC to spread the word about the CP concept and its application in Lebanon, the educational sector constitutes an essential and important sector to spread the word among all students, and for the purpose of disseminating the CP Book: "Half if Enough: An Introduction to Cleaner Production" in the Universities for introducing CP Curricula,

Let us implement the Half required, and then say enough.

Do you think we will say enough?

**2.1-Workshop for the Green Industry:
Transforming the industry of the future- Manama, Bahrain on the 11th of June till the 18th of June 2014**



This workshop was organized by the UNIDO's Investment and Technology Promotion Office in collaboration with the University of Bahrain that aimed to expand UNIDO's training activities that are offered to young and middle level professionals, working in the



areas of green industry.

Dr Ali Yaacoub, director of the Lebanese Cleaner Production Center gave a short introduction about the Lebanese Cleaner Production Center, followed by a lecture about Cleaner Production and how to implement CP options in industries as well as in the daily life.

The workshop's objectives were to help participants reflect on the technical requirements of green industrial development as well as on the strategies, policies, laws and regulations necessary for its successful implementation; find ways to successfully commercialize green industry related products and services; outline institutional platforms for the promotion and dissemination of resource efficient, cleaner production methods and economically viable, socially equitable and environmentally sustainable technologies and finally to create and implement strategies for a green industry that is in line with environmental goals and targets.

At the end of the workshop, the University of Bahrain's president distributed certificates to the participants in the workshop.

طلاب "الصناعة الخضراء" بضيافة "جيبك"



وعبر سنوات عملها من تحقيق العديد من الإنجازات والفوز بالشهادات والأوسمة والجوائز، كما تتنوّف الشركة بعضويتها النشطة في العديد من المنظمات والمؤسسات العالمية سواء الإنسانية منها أو تلك التي لها صلة بصناعة البتر وكيمويات والأسمدة.

قام وفد من طلبة مقرر اليونيدو الذي تستضيفه جامعة البحرين بزيارة تفقدية لشركة الخليج لصناعة البتر وكيمويات حيث كان في استقبالهم لدى وصولهم لدى مجمع الشركة الصناعي في سترة كل من ياسر عبدالرحيم مدير عمليات المصانع وزهير توفيق مدير العلاقات العامة، بالإضافة إلى عدد من كبار المسؤولين بالشركة. وفي مستهل الزيارة رحب عضوا الإدارة التنفيذية بالوفد الزائر، ونقلوا للضيوف تحيات رئيس الشركة عبدالرحمن جواهري، معربين عن سعادة الإدارة بهذه الزيارة التي ستسهم في التعريف بجمود الشركة في مجال الالتزام بالصناعة النظيفة. ثم استمع الضيوف بعد ذلك إلى شرح تفصيلي حول سير العمل في شركة الخليج للبتر وكيمويات والإجراءات التي تتبعها الشركة في كل مراحل عمليات التصنيع والتصدير، والإنجازات التي حققتها طوال تاريخها الممتد منذ افتتاحها في العام 1985 وحتى يومنا الحاضر، حيث تمكنت الشركة من إيجاد مكانة متميزة لنفسها في مجال صناعة البتر وكيمويات والأسمدة بالمنطقة، إضافة إلى ما تتمتع به من سمعة طيبة في أوساط الصناعة العالمية، مع التأكيد في هذا الصدد بأن البتر وكيمويات ونتيجة للالتزامها الصارم بمعايير الصناعة النظيفة وتميزها بجودة منتجاتها قد استطاعت





In addition, the LCPC contributed in the organization of the following workshops

2.2 Workshop on “Best practices in supporting green production sectors in the Arab Region” on the 16th and 17th of June 2014- Gouna, Egypt.

2.3 UNIDO’s first Inclusive and Sustainable Industrial Development (ISID) forum on the 23rd of June 2014- Vienna, Austria.

2.4 The 17th European Roundtable on Sustainable Consumption and Production supported by UNIDO and SwitchMed under the title “The Europe we want”, on the 14th until the 16th of October 2014 - Portoroz, Slovenia



3. Training and Capacity Building

This activity has been targeting industrial, environmental and financial stakeholders; namely decision-makers in industrial establishments, consultants, national experts, in addition to academic and research institutions.

The purpose is to build up skills not only in cleaner production but also in allied fields.

The LCPC has succeeded in conducting 44 training courses which targeted participants mainly students from the academic sector, managers and technical experts from the industrial sector and employees

from the public sector and non profit organizations. Training course and capacity building events were held on subjects related to industrial and environmental issues namely the following:

1. Performance of energy audits in the industrial sector.
2. Implementation of environmental management systems based on CP.
3. Advantages of CP in industry.
4. CP assessments and their implementation.
5. CP methodology and CP options

3-1. Regional Seminar - The Opening of the Regional Field Visit in the Field of Cleaner Production

The IRI through the LCPC organized a field visit to the industrial enterprises in Lebanon and in which managers of national cleaner production centers in the Arab countries participated. During the opening of the visit in the Industrialists Association in collaboration with the Economic and Social Commission for Western Asia (ESCWA), Dr. Ali Yaacoub, Director of the Centre and representative of the Arab countries in the global network of cleaner production at the United Nations said that: “We were able through hard and successful work for more than 12 years to build a bridge between the industrial and environmental sectors on the one hand and between the private and public sectors on the other hand. We noted in the annual report of the LCPC for 2013 that we have achieved a saving of more than \$4 million a year for forty industrial enterprises in several impor-

tant sectors in addition to reinforcing environmental awareness and making the preventive environmental policy a daily and systematic work in institutions”. Yaacoub gave his speech at the opening of the regional conference organized by ESCWA in the field of cleaner production with the participation of eight Arab countries.

Fadi Gemayel, the President of the Association of Lebanese Industrialists, confirmed the role of the Lebanese Cleaner Production Centre at the Industrial Research Institute in the protection of the national industry noting that it has and still helping the national industry.

Ms. Reem Najdaoui also praised the ESCWA, saying that “without all national partners of the Association of Lebanese Industrialists and the LCPC, we wouldn't have succeeded in our work on the one





hand and we wouldn't have prepared for this regional meeting". It is noteworthy that the closure of the industrial visit to national cleaner production centers took place in

the Industrial Research Institute under the patronage of His Excellency the Minister of Industry, Dr. Hussein Hajj Hassan.

3.2 The United Nations Environment Programme's division of technology industry and economics (UNEP/DTIE) review workshop on the 10th of February 2014- Paris, France.



3.3 The "draft agenda for the stakeholder consultation in preparation for a Union for the Mediterranean ministerial meeting on the environment and climate change" meeting on the 10th and 11th of March 2014- Amman, Jordan.



3.4 The regional expert workshop for the Eco-Innovation Manual Validation April 2014- Amman, Jordan



3.5 The 8th ARSCP meeting with a key theme: “Mobilizing Partnerships and Scaling up SCP in Africa” on May 2014- Windhoek Namibia, Africa.



4. LCPC Participation in Other Events

	Event	Date	Location
1	The Nexus Approach: The Road to Water, Energy and Food Security in the Arab World?	22 January 2014	Beirut, Lebanon
2	Scoping Consultation Workshop for the Strategic Environmental Assessment for the Renewable Energy Sector in Lebanon	4 102 yarunaJ 92	Beirut, Lebanon
3	Seminar with the Lebanese University	6 February 2014	Beirut, Lebanon
4	dna ecnerefnoc sisirc gnirud ytilibaniatsuS cimonoCE pohskrow	19-20 February 2014	Beirut, Lebanon
5	Economic Lebanon Seminar	8 March 2014	Beirut, Lebanon
6	Strengthening Food Safety & Increasing Competitiveness of Lebanese Olive Oil Workshop	27 March 2014	Beirut, Lebanon
7	HORECA Food event	1-4 April 2014	Beirut, Lebanon
8	Training Workshop on Commercialization Concept	6 May 2014	Beirut, Lebanon
9	Ceremony for the launching of the badge of Lebanese Conformity for the Food Sector	29 May 2013	Beirut, Lebanon
10	Beirut Energy Forum	17-19 September 2014	Beirut, Lebanon
11	Workshop on Sustainable Consumer Protection Strategies	29 September 2014	Beirut, Lebanon
12	Encourage & Support Lebanese SMEs to benefit from growth markets	9-10 October 2014	Beirut, Lebanon
13	Austrian National Day Event	21 October 2014	Beirut, Lebanon
14	Strategic Environmental Assessment for the Renewable Energy sector in Lebanon Workshop	24 October 2014	Beirut, Lebanon
15	International Conference on Water – Lebanese University	28 October 2014	Hadath, Lebanon
16	Supporting manufacturing capacities of SMEs and Cooperatives & Exhibition of agro-industrial products from participants of CELEP	29 October 2014	Beirut, Lebanon
17	UNIDO Launching Ceremony & Debate for the Project on the Development of Clusters Cultural & Creative Industries	12 November 2014	Beirut, Lebanon
18	The 1st Conference of LANDCARE MED Project	20 November 2014	South Lebanon





9

*Activities of the
Center for Innovation
and Technology - CIT*

*The Center for Innovation and Technology (CIT)
Provided financial grants to 21 researchers and inventors
And is preparing for the establishment of a scientific platform
for exchanges between industrial companies
and academic institutions*

The Centre for Innovation and Technology (CIT) is a dynamic division of the Industrial Research Institute (IRI), established in 2009 to secure sustained support and innovation to the manufacturing industry. Its main activities rely on IRI's strong relations with the industry and academia in order to:

Develop linkages between research projects and the needs of the Lebanese industrial community and vice versa.

Facilitate funding of researchers through local and international donors.

Utilize IRI's position as a semi-public organization in order to influence policies within the national innovation strategy in collaboration with Industry associations as well as the Ministry of Industry.

The CIT activities can be summarized as follows:

- Promotion of industrial applied research through the implementation of the "Innovation Voucher" project in conjunction with the European Union and aiming at supporting local private researchers and universities or in their industry applicable research; where over 21 researchers and inventors received financial grants to assist them to finalize their projects. The projects mainly addressed electro-mechanical and computer software production fields while still covering other sectors such as electronics, Agro-food and nutrition.
- Capacity building through the organization

of workshops and training directed towards the fields of innovation, applied IT, food safety and Intellectual property. The training is directed to all levels of professionals and aims at developing innovative skills among participants.

- Preparing to establish a Scientific Platform that will work as a dedicated space for exchanges between Industrial enterprises and academic institutions. This initiative was started by a co-organized CIT –TAIEX workshop focusing on transforming Scientific Knowledge into social and economic benefits.

Participate in the regional joint EU med project "Foster in Med" aimed at the fostering of solar energy through the promotion and adoption of photovoltaic (PV) and Building Integrated PV technologies (BIPV) in the Mediterranean countries: Egypt, Italy, Jordan, Lebanon, Spain, & Tunisia. "Foster Med" is one example of the ongoing collaboration between IRI, EU and regional counterparts, in the field of energy management and innovation, under the ENP project.



*The “innovation voucher” project
for industrial research application accomplishes the first phase
And paves the way for a new phase
to support students or institutions creative ideas*

The “innovation voucher” program launched by the Innovation and Technology Centre of the Industrial Research Institute, ended its two-year mission which started in June 2012.

The Director of the Centre Naji Abi Zeid expressed his willingness to start a new phase to support creative ideas of college graduates or small and medium enterprises, through finding investors for their innovations who can guarantee the continuity of the project.

He announced accepting 21 programs from within the said program, which are mostly agriculture projects, or projects related to mechanics, electricity, chemistry and information and communication technology.

The “innovation voucher” project was funded with the support of the European Union and the Industrial Research Institute, by granting a voucher of up to 10

thousand euros for the application of research and innovation in targeted products or services.

The EU granted 200 000 euros distributed over 20 vouchers, while the Industrial Research Institute offered the operational value equivalent to 180 000 euros, with an overall amount of 380 000 euros allocated to the program.

Through the “innovation voucher” program, the Industrial Research Institute is still developing its services and reinforcing its role to attract research process in Lebanon through the Euro-Lebanese Centre for Industrial Modernisation (ELCIM), the Lebanese Cleaner Production Centre (LCPC), and the Centre for Innovation and Technology (CIT).





10

*IRI Cooperation with
the Public Sector*

Cooperation with the Public Sector

The Institute today represents the Lebanese State in the negotiations and conclusion of agreements of mutual recognition of conformity assessment, certificates and markings in what relates to trade between Lebanon and other countries. The Institute was tasked with the issuing of certificates of conformity in the importation of industrial goods, pursuant to the Lebanese decrees of mandatory specifications, and also in exportation operations in accordance with the specifications of the destination countries.

It should be mentioned here that since 2004, IRI has been the only internationally accredited body in Lebanon, as per the international accreditation certificate DIN EN ISO/ IEC 17025. Consequently, the Institute is the only window available for the flow of Lebanese goods, which need laboratory tests and certificates of conformity, to the European and international markets.

Parliament

IRI regularly accepts the invitations of parliamentary committees in the Lebanese parliament, and attends meetings held by them. IRI offers its technical and scientific expertise related to the Institute's scope of work to these committees during the drafting and discussion of bills>

IRI actively participated in the drafting and discussion of the bill on technical regulations and pertinent procedures for conformity assessment, in all stages of the process, with the subcommittee of the joint parliamentary committees, until the bill was approved by this committee at the end of September, 2011. IRI participated in the drafting of the bill regulating drinking water processing, treatment and packaging, with the Committee on Public Health, Labor and Social Affairs.

The bill aims to limit the unregulated and exploding number of drinking water distribution companies in Lebanon, as a result of the growing need of the citizens for water that is otherwise unavailable through

public drinking water grids. The bill seeks to subject most unlicensed bottling companies to the laws and regulations in force, in order to ensure the safety of water, that it is uncontaminated, and that it complies with the required specifications to preserve public health.

IRI also participated in the activities of the Public Works and Energy Committee in several areas, including:

1. Following up the process of replacing domestic gas bottles, especially the control of the production and exportation of gas bottles before they are used in local markets.
2. Providing the necessary expertise and technical analysis related to fuels allowed in private cars.
3. Offering opinion and technical analysis related to bills concerning public safety in the use of fuel tanks, with a view to prevent explosion.
4. Expressing an opinion about the draft food safety law.
5. Expressing an opinion about the draft law on electronic transactions and data of a personal nature

Ministry of Industry

IRI is considered to be the quintessential technical arm of the Lebanese Ministry of Industry, especially as IRI is a subsidiary body of the ministry, and that its Board of Directors is headed by his Excellency the Minister of Industry. IRI is continuously conducting the necessary industrial inspections and studies, as well as feasibility studies aimed at developing existing industries or establishing new ones. This is in addition to conducting studies on the added value of national industrial products and the need for certificates of origin for export clearance. Also, the Institute worked in parallel with the ministry in granting industrial licenses, pursuant to decree No. 8018 dated 20/6/2002, which assigned the required role for IRI in this regard, and is still working in parallel with the ministry whenever it is required to do so.

Ministry of Agriculture

The Ministry of Agriculture requests IRI to analyze samples from agricultural products or material on a frequent basis. These are usually sent to IRI by the ministry for testing, whether upon importing them, exporting them or their usage. IRI is also tasked with the analysis of fertilizers and pesticide residues in vegetables, fruits and other crops.

Ministry of Economy and Trade

Since its inception, IRI has been cooperating with the Ministry of Economy and Trade, especially the Consumer Protection Directorate and the General Directorate of Cereals and Sugar beets.

A - Consumer Protection Directorate This directorate is tasked with taking samples from local markets on a regular and ongoing basis, and handing them over to IRI for laboratory testing and issuance of the necessary reports, across various sectors. IRI comprises 14 accredited laboratories covering different sectors, in addition to a control and inspection unit, the meteorological calibration unit and the Lebanese Welding Centre.

B - General directorate of Cereals and Sugar beets The Industrial Research Institute manages and operates the work of the central laboratory for grains, flour and bread research on behalf of the Ministry of Economy and Trade. The laboratory is equipped in accordance with highly specialized international cereal laboratories. The laboratory meets all the needs of this directorate by controlling the quality of the imported and the locally produced wheat and wheat products (briefly, monitoring the ingredients that make up the Lebanese bread loaf).

Ministry of Public Health

IRI laboratories are used by the Ministry of Public Health in conducting special tests on bottled water, as a fundamental step in the process of obtaining a license for the water bottling companies, in addition to

other tests conducted by the instituted which include, for example, baby formula, cosmetics, medicine and other items as needed.

The ongoing regulatory campaign launched by the Ministry of Public Health during 2014, required a continuous coordination with the Ministry which was and still sending a large number of samples daily so that the IRI conduct necessary tests and provide technical advice.

In its laboratories, the Institute conducted analysis and tests for thousands of samples brought by the Ministry of Health monitors, and results were given within the required time period, sometimes immediately. The Institute was not surprised by the unprecedented quantity and quality of samples brought by the Ministry of Health monitors.

Ministry of National Defense

The cooperation with the Lebanese army, including its various interests and divisions, has been firmly established since IRI's inception. IRI meets the requests of the committee tasked with the receipt of the analyzed materials and the central reserve committee for foodstuff analyses, the stewardship for uniforms and equipment, in addition to the requests of the corps of engineers, the logistical corps and the military police and other corps as needed. IRI also holds training courses on welding works, solar energy and other scientific topics which IRI proudly provides to this institution.

Ministry of Interior and Municipalities

The Textile, Leather and Rubber Laboratory at IRI is continuously cooperating with the security in analyzing the uniforms of the Internal Security Forces, as well as shoes and equipment, in accordance with their requirements and in order to certify the conformity of these specimens with the specifications established by them, prior to purchasing uniforms and gear.

IRI meets the various requests by the Internal Security Forces in different unmentioned sectors, including for example chemical analyses to identify contra-

band and other security-related analyses.

Ministry of Justice

The judicial authorities continuously refer legal issues to IRI for technical advice, as IRI is the reference point for these authorities in what pertains to scientific issues.

Ministry of Energy and Water

IRI works with the Ministry of Energy and Water in different areas, most importantly overseeing the manufacturing of gas bottles and certifying that they conform to the mandatory Lebanese standards. IRI also inspects gasoline tanks in petrol stations, whether for licensing purposes or for maintenance when requested.

In addition, IRI inspects the nominal load of fuel tankers, in addition to other inspections that are conducted at the behest of the ministry.

IRI also conducts studies and offers technical consultation in national issues when requested, issues that fall under the scope of both the ministry's work and IRI's fields of expertise.

Ministry of Environment

IRI continually cooperates with the requests of the Ministry of Environment, whether by analyzing samples to assess their negative environmental impact, or whether by providing the Ministry of Environment with its services in the field of the inspection and auditing of factories, before suggesting the optimal approach in the production process in order to mitigate the latter's negative environmental impact. IRI also hosts the Lebanese Cleaner Production Centre (LCPC), which was established as a result of the cooperation among the Ministry of Industry, the Ministry of Environment, UNIDO and Austria.

This centre's main objectives include ensuring compliance with environmental standards during the different stages of production, something that is beneficial in terms of reducing costs by keeping waste in check on the one hand, and improving the environment by recycling wherever possible during the

production process on the other hand.

Customs

Collaboration with the Lebanese customs is mainly done in the fields of enforcing and verification of conformity with the mandatory specifications required for goods imported to Lebanon, and which are subject to customs restrictions. This is done according to a specific and known mechanism. The Customs authorities, according to the customary procedure, can send samples to IRI for analysis and for identification of their components, prior to clearing them for entry into the local markets.

Lebanese Standards Institution (LIBNOR)

IRI worked diligently to establish the Lebanese Standards Institution (LIBNOR), which is tasked with issuing the Lebanese standards. In the beginning, this institution was established in the campus of IRI, which incubated its operations until it was reactivated in 1998. Since then, IRI published approximately one thousand national standards for the institution, as per annual contracts that were in force from 1998 until 2004. IRI is currently represented in the institution's Board of Directors, while IRI is permanently represented in the technical committees tasked with issuing and updating the national standards.

The Lebanese Council for Accreditation (Colibac)

Some time ago, IRI realized that the infrastructure of a world-class quality process must include the following items:

Bodies for conformity assessment that implement these specifications. This role is primarily assumed by IRI in Lebanon, not only in the application of national standards, but also in the application of international standards in export operations as IRI is internationally accredited according to Certificate No. 17025 .

A national institution for the issuance of national standards, which in Lebanon is the Lebanese Stan-

dards Institution (LIBNOR), a body that is ever striving to improve its role.

Oversight of the local market. This function is tasked to the Consumer Protection Directorate at the Ministry of Economy and Commerce.

A national council for accreditation, whose tasks include accrediting laboratories, monitoring commissions, conformity assessment for products and processes in the country. This national institution was not yet established in Lebanon, and IRI sought hard to establish it in order to complete the quality infrastructure at the level of national institutions, until

the decree of its establishment was issued in 2004, while the decree to establish its Board of Directors was issued in 2006. IRI is represented in the Board of Directors of the Lebanese Council for Accreditation (Colibac).

This council is still in the process of drafting its by-laws, which are nearing completion. Work is also underway to speed up the passing of the necessary legislations that will enable the council to start its operations and serve the purpose it was created for.





11

*IRI Relations with the
Private Sector*

IRI's relations with the private sector

Industrialists

IRI allots great importance to industrialists and industry in Lebanon. Eight years ago, IRI concluded an agreement with the Association of Lebanese Industrialists whereby it granted industrialists a fifty per cent discount on the costs of all laboratory analyses, in accordance with the list adopted by IRI more than ten years ago. The services provided by IRI to the industrialists are as follows:

A – Analysis requests with the aim of improving

The quality of production or finding solutions to production problems Any industrialist can head to IRI to request an analysis of a product produced in his factory with the aim of improving its quality, or as a result of a particular problem he is facing during production. At that point, cooperation and follow-up begin with the industrialist.

In most instances, his request becomes a process of applied research with which these analyses either end up in improving the quality of the product or determining the underlying cause of the production problem and subsequently, working on solving this problem.

B – Pre-export Analysis

There are many products that cannot be exported to foreign markets without first being analyzed. As IRI is internationally accredited pursuant to certificate No. 17025, its accreditation is recognized by more than 120 countries, rendering it virtually the sole window through which Lebanese goods that comply with technical specifications can flow into the European and global markets, owing to the certificate of conformity issued by IRI.

Therefore, industrialists head to IRI to conduct the analyses required by the destination countries, in order to obtain certificates of conformity for their products which would give them access to international markets.

C – Product Certification

This is an optional program that any factory that meets the conditions can request, for implementation in its facilities according to a contract with IRI and a specific mechanism at the latter; this would enable the factory to obtain IRI's conformity mark for its products, in an ongoing and continuous manner. IRI would oversee production through periodical analyses and inspections, before granting the factory certificates of conformity whether for export purposes or for ensuring the conformity of its products to national standards. This takes place in a routine manner, and also on demand, and its cost is factored in into that of the program.

Merchants

There are goods that are subject to mandatory national standards. For this reason, importing such goods is subject to customs restrictions that stipulate their conformity to the mandatory national standards. This is verified by IRI prior to allowing these goods into domestic consumer markets.

Hence, the relation between the importers and merchants on one hand, and IRI on the other hand is constantly evolving. Efforts are underway, on a continuous basis, to facilitate trade exchange on one hand, and to verify the conformity of imported goods following a scientific method on the other hand.

Many merchants voluntarily head to IRI to request tests and analyses of their merchandise and products, in order to determine their conformity with international standards in the case of export, or national standards in case of import, prior to shipping it from the country of origin.

Farmers

IRI's laboratories continuously cooperate with farmers. In truth, many farms voluntarily head to IRI and request their products to be analyzed.

IRI provides analysis for farmers for the following products:

- Olive oil
- Honey
- Vegetables and fruits (pesticide residue)
- Irrigation water
- Meat and fish
- Other agro-food products.

Researchers and scientists

Many researchers and scientists head to IRI to conduct tests and analyses necessary for their scientific research. Most of the time, their requests become applied research projects, as they are aware of IRI's capabilities in this area. This is not to mention the fact that IRI houses 14 laboratories spanning many complementary disciplines, in addition to the meteorology laboratory, the Lebanese Welding Centre, the Euro-Lebanese Centre for Industrial Modernization, the Lebanese Cleaner Production Centre, and the Centre for Innovation & Technology.

Consumers

The relationship between consumers and IRI is either direct or indirect, through the civil organizations

and associations concerned with consumer protection, the environment and other fields.

Direct relationship

Any citizen can go in person to IRI in order to test any product, substance or other items, which is what is often done by citizens to ascertain the safety of what they consume, be it drink, food, supplies, household electric appliances, building materials, petroleum products and other daily items.

Indirect relationship

Consumer protection associations and other civil organizations often head to IRI and request analyses and tests of an environmental or health safety nature. Cooperation with these organizations is done on a continuous basis by IRI, which meets all the former's requests in return for special fees that take into account their conditions in most cases. If these requests were not complimentary, then they would be symbolic, in a bid by IRI to support and encourage these groups to work for the public good.

IRI



12

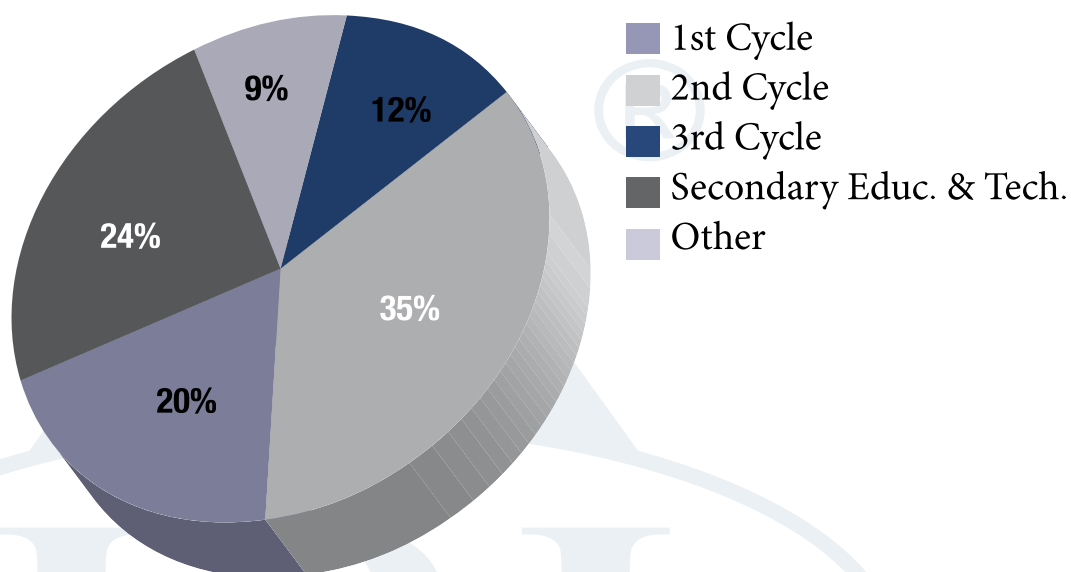
*Development of
Human Resources*

Development of Human Resources

The number of IRI staff members amounted to 146 at the end of 2014; 70% are males, while 30% are females. The average age is around 34 years.

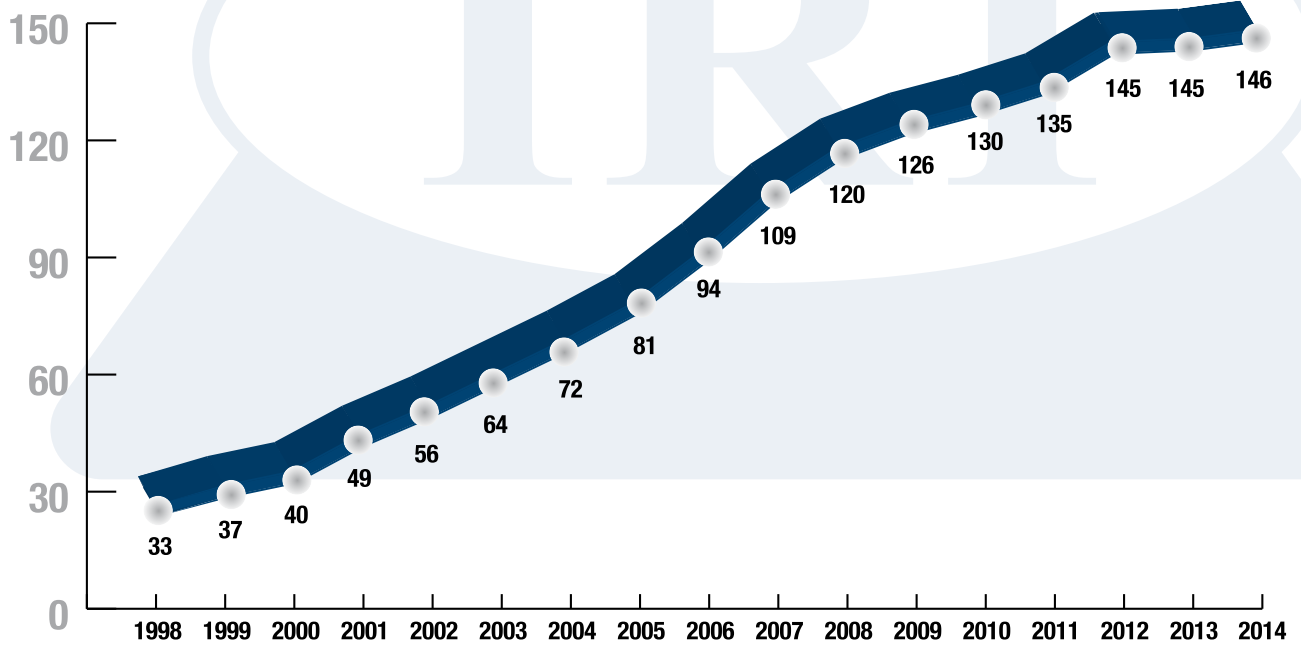
They can be categorized according to the level of their education:

- 17 hold a 3rd Cycle
- 51 hold a 2nd Cycle
- 30 hold a 1st Cycle
- 35 are in their secondary and technical studies
- 13 are in other categories.



Elementary Level	No.	%
3 rd Cycle	17	12
2 nd Cycle	51	35
1 st Cycle	30	20
Secondary Educ. & Tech.	35	24
Other	13	9

Average Age	Gender	
34 years	70% male	30% female





13

On-going Employee Training

International training, seminars & workshops

Participant	Organizer	Object/Title of the training	Date	Location
Naji Abi Zeid Rola Sleiman	FOSTEr in MED	FOSTEr in MED 2nd Management Meeting	27-28/02/2014	Italy
Elias Maalouf	TAIEX & PTB	Multi-Country workshop on Metrology-TAIEX	06-09/05/2014	Germany
Selim Kfoury	AIDMO	الاجتماع الرابع عشر للجنة التنسيق لمؤسسات و مراكز البحوث الصناعية العربية	02-04/06/2014	Jordan
Hanine Abdel Rahman	SIDA-SWEDAC	Quality infrastructure for food safety follow up workshop	02-06/06/2014	Rabat-Morocco
Imad Hage Chehadeh	The Czech Office for Standards, Metrology and Testing	metrology technical group study tour	15-18/07/2014	Czech Republic
Elias Maalouf	Arab Industrial Development & Mining Organization	الجوانب التكنولوجية الحديثة للمetrologia	15-16/09/2014	Sudan
Antoine Faycal Imad Hage Chehadeh	CERWAY	The New International Operator for HQE Certification	05-06/11/2014	Paris
Mark Tahchy	The Economic and commercial counselor office	Seminar on construction of infrastructure for arab	14/11/2014-05/12/2014	China
Mohamad Hajjar	LCEC	دورة تدريبية حول جودة السخانات الشمسية	15-19/12/2014	Tunisia
Taher Wehbe	AAEA	دورة تدريبية في مجال المحومات و الاختبارات اللاتلافية	23-27/11/2014	Sudan

Local training, seminars & workshops

Participant	Organizer	Object/Title of the training	Date	Location
Hanine Abdel Rahman	SWEDAC	Quality infrastructure for food safety and Quality Infrastructure development in support of world trade	15/01/2014	Hilton Metropolitan Hotel
Achraf Nasser Eddine Edgar Shaaya Marc Cherfan Wadad Daher	Ministry of economy and trade	ISO 17025 Training	20-23/01/2014	Markazia Hotel
Mohammad Hajjar	UNDP	Scoping Consultation workshop for the Strategic Environment Assessment for the Renewable Energy sector in Lebanon	29/01/2014	Green Conference Room-Ministry of Environment
Hassan Raad	Lebanon Softshore	Big Data	07/02/2014	ESA Business School
Bassam Kaban	Institut des finances	دورة تدريب المدرب - مستوى متقدم	24-28/02/2014	Institut des finances
Ramzi Bhamdouni Nancy Maalouf	Benchmark	Advanced Media & PR Skills	5/03/2014 - 4	Holiday-Inn Dunes Verdun Hotel
Sandra Sarkis	Hospitality Services	Horeca 2014 Forum	04/03/2014	Biel Conference center
Mohamad Zaiter	Lebanese University Faculty of Sciences	Role of Geology in petroleum exploration and production	07/03/2014	Lebanese University Campus Rafic Hariri
Fady Melhem Achraf Nasser Eddine	ELEMKO / OEA	Earthing - Lighting Protection Systems	12/03/2014	Order of Engineers & Architects - Beirut

Participant	Organizer	Object/Title of the training	Date	Location
Ahmad Hassan Achraf Arabi Youssef Hayek Halim El Bayeh Lama Bou Rjeily	Qualeb	Training of market surveillance inspectors on toy safety	20-21- 22/03/2014	Markazia Hotel
Sandra Sarkis Danielle Gemayel Sahar Estephane	Republic of Lebanon Ministry of Industry	UNIDO Workshop	27/03/2014	Radisson BLU Martinez Hotel
Hanna Francis Tony Chammai	Lebanon Softshore	Lebanon Softshore Artificial Intelligence Seminar	28/03/2014	University Saint Esprit of Kaslik
Gilbert Fadel Imad Kahil Jihad Hage Chehade Sahar Estephane Robert Haddad Sandra Sarkis	Qualeb	Training of market surveillance inspectors on toy safety	31/03- 2/04/2014	Markazia Hotel
Ramzi Bhamdouni Hassan Raad Hanna Francis	Lebanon Softshore Cluster	Android/ Mobile Web Development	03-04/04/2014	ESA Business School
Andre Abou Zeid Sami Harb Ahmad Hable Edgar Shaaya Haytham Chawa	Qualeb	Metrology Training on Metering Systems	07-09/04/2014	Markazia Hotel
Bassam Kabalan	Ministry of Economy	تقييم الاحتياجات الوطنية في اطار اتفاقية تيسير التجارة	07-11/04/2014	المجلس الاقتصادي والاجتماعي - وسط بيروت
Eliane Sawma	IRI, BENCHMARK & ELCIM	Guerilla & Marketing Warfare Workshop	14-15/04/2014	Holiday-Inn Dunes Verdun Hotel
Tony Chammai	Tech Programs	Tech Series Mix & Match	16/04/2014	Hilton Metropolitan Hotel
Ziad Moukarzel	CIT & The Lebanon Softshore Cluster	Getting the edge-how to develop an innovative business model	30/04/2014	ESA Business School
Ramzi Bhamdouni Thomas Sabbagh	CIT	Commercialization Concepts	06/05/2014	ESA Business School
Mahmoud Amhaz Rola Sleiman Ramzi Bhamdouni	National Instruments	Graphical System Design	17/05/2014	Hilton Metropolitan Hotel
Fady Melhem Siham youssef	IFP and CCI Paris Ile de france	the 3rd international conference for environment technologies	04/06/2014	Biel - Beirut
Robert Haddad	ELCIM	Essential lean manufacturing and six sigma tools	18-19/06/2014	Holiday-Inn Dunes Verdun Hotel
Mohamad Zaiter	LCPS	ادارة قطاع النفط و الغاز	19-20/06/2014	Gefinor Rotana Hotel- Hamra
Mohamad Haidar Khawla Ismail Thomas Sabbagh	USAID	Marketing communication and social Media	15-16- 17/07/2014	Padova Hotel
Joelle Adam	Ministry of Industry	Salt Consumption	06/08/2014	Ministry of industry
Mohammad Hajjar	TUV HELLAS Lebanon Office & TUV Cyprus	Solar Keymark Certificate	06/08/2014	Sheraton Hotel-Verdun
Bassam Kabalan	WIPO	Effective intellectual property asset management by small and medium-sized enterprises (SMEs) in Lebanon	25-27/08/2014	المجلس الاجتماعي و الاقتصادي

Participant	Organizer	Object/Title of the training	Date	Location
Elie Melky Hovig Kouyoumdjian	Horizon 2020	Operation and maintenance of wastewater treatment plants	08-11/09/2014	Gefinor Rotana Hotel-Hamra
Bassam Kabalan	الاتحاد العام لغرف التجارة و الصناعة و الزراعة للبلاد العربية	المسؤولية المجتمعية للغرف و المصارف و الشركات العربية	16/09/2014	مقر الاتحاد - مبنى عدنان القصار للاقتصاد العربي - بيروت
Ziad Moukarzel	Institut des finances Basil Fuleihan	Petroleum Resources in the East Mediterranean	17/09/2014	General Noujaim Hall
Mohamad Hajjar Siham youssef Ahmad Hassan Nancy Maalouf Mohamad Zaiter	MCE Group and LCEC	Beirut Energy Forum 2014	17-19/09/2014	Le Royal Hotel- Beirut
Edgard Shaaya Joseph Helou	Qualeb	اهمية و علم القياس	18/09/2014	المجلس الاجتماعي و الاقتصادي
Maroun Saykali	Economic Forum of Iklim el Kharroub	الملتقى الاقتصادي الاول في اقليم الخروب	19/09/2014	Golden Tulip Hotel-Jiyeh Marina
Ali Yaakoub Dany Tahchy	وزارة الإقتصاد والتجارة	ورشة عمل حول استراتيجيات حماية المستهلك المستدامة	29-30/09/2014	Radisson BLU Martinez Hotel
Rola Sleiman	Ministry of Industry	Encourage and support Lebanese SMEs to benefit from growth markets	08--10/10/2014	Crown Plaza Hotel Hamra-Beirut
Tony Chammai	IRI, BENCHMARK & ELCIM	Guerilla & Marketing Warfare Workshop	14-15/10/2014	Holiday-Inn Dunes Verdun Hotel
Nancy Maalouf Mohamad Haidar Siham youssef	IRI / CIT	Strategies Related to Major Natural Risks and Human Disasters	16/10/2014	Radisson BLU Martinez Hotel
Imad Hajj Chehadeh Tarek Hakim Mohamad Hajjar Camelia Kanaan Ahmad Hassan	نقابة المهندسين	بناء القدرات الفنية والمناقبية للمهن المساعدة في القطاع الهندسي	22/10/2014	مركز نقابة المهندسين
Mahmoud Amhaz	ادارة الجمارك اللبنانية و وكالة الجمارك و الحصر الايطالية	الجمارك : تحديث متواصل لخدمة افضل	05/11/2014	Phoenicia Hotel - Beirut
Ziad Moukarzel	Institut des Finances	Public Procurement	10/11/2014	Bassel Fleihan Institute
Mohamad Haidar	TAEIX	Workshop on Disaster Risk Reduction in the industrial Sector	12-13/11/2014	Grand Serail
Sami Harb	IPTEC	تلوث الهواء في لبنان من جراء قطاع النقل البري الواقع والحلول	13/11/2014	بيت الأمم المتحدة - بيروت
Bassam Kabalan	Lebanese american university	Franchising Bricks	13/11/2014	LAU Beirut - Business Building
Mohamad Hajjar	LCEC	Evaluation and update of the lebanese national energy efficiency action plan	18/11/2014	Gefinor Rotana-Hamra
Mohamad Haidar	ENPI CBCMED	Scientific and Capitalization Aspect	21/11/2014	Conference Room at central administration of Lebanese university
Myriam Maatouk	ELCIM	Understanding Gmp and HACCP in the food industry	25/11/2014	Holiday-Inn Dunes Verdun Hotel
Fady Melhem	IEEE Lebanon Section, ALMEE, OEA & ESCWA	The 2nd international conference on renewable energy for developing countries	26-27/11/2014	Order of Engineers & Architects - Beirut
Hiba Yaakoub	وزارة الإقتصاد والتجارة	ورشة عمل حول المنتجات الغذائية التقليدية	1-2/12/2014	مجمع الجامعة اللبنانية - الحدث
Amin Jbeily	Ministry of agriculture	اطلاق استراتيجية وزارة الزراعة للأعوام 2015-2019	15/12/2014	Grand Serail
Hanine Abdel Rahman	SWEDAC - SIDA	Final phase for quality infrastructure for food safety	15/12/2014	Hilton Metropolitan Hotel

IRI SEMINARS/CONFERENCES

Participant	Organizer	Object/Title of the training	Date
Maya Majdalani Hanine Abdel Rahman Robert Haddad Hassan Raad Bassam Kabalan Sami Harb	Ministry of economy - Qualeb	Training: ISO 17020 - 17021 and 17065	16/01/2014
Robert Hadad Hanine Abdel Rahman Maya Majdalani Sami Harb Achraf Nasser Eddine Achraf Arabi	Ministry of economy and trade	Consultancy and Workshop	13/02/2014
Ahmad Wehbe		Performing the safety Test	12-13/02/2014
Robert Haddad Hanine Abdel Rahman Maya Majdalani Sami Harb Achraf Arabi Achraf Nasser Eddine	Qualeb	Expert Mission	13/02/2014
Achraf Nasser Eddine		Performing the vibration test for audio video	28/02/2014
Marc Cherfane Fadi Melhem Lama Abou Rjeily Edgard Shaaya Jihad Hajj Shehadeh	IRI / FREA	Audit Interne ISO 9001-2008	19-20/02/2014
Elie Melky		Training in Petroleum Lab on penetration of bituminous materials	03/03/2014
Bilal Houssein		Performing the test of Tripping Characteristics of circuit breakers & Glow wire	11-12/03/2014
Ahmad Hassan		Glow wire test for CFL and circuit breakers	31/03/2014
Bassam Kabalan	Ministere des Finances	تدريب المدرب	19-24/03/2014
Ali Hemedi		Initiation of Safety requirements test using the multi-tester	02-08/05/2014
Fadi Melhem		Performing the battery tests	28/11/2014
Mahmoud Amhaz	CIT	Transforming scientific knowledge into social and eco- nomic benefits	2-3/12/2014
Hanine Abdel Rahman Robert Haddad Elias Maalouf Edgard Shaaya Joseph Helou Alaa	TAIEX	Expert Mission on assessment for Mass laboratory ac- creditation according ISO/IEC 17025:2005	08-10/12/2014

LIBNOR

Participant	TC No.	Standard Title	Date
Marc Tahchy	(1) 138	NL EN 1329-2; NL EN 12201-4; NL EN 1852-1; NL EN 1852-2; NL EN CEN/TS 1451-2	07/11/2013 27/11/2013 05/02/2014
Marc Tahchy	(2) 138	NL EN 1796; NL EN 1519-2; NL EN 14364	15/01/2014 05/02/2014
Marc Tahchy	(3) 138	NL CEN/TS 15451 & 154; CEN/TS 1452-7; CEN/TS 12201-7; EN 15012; EN 15014; EN 15015; CEN/TS 14541; CEN/TR 12108; CEN/TR 15438	05/03/2014 26/03/2014 16/04/2014 21/05/2014 11/06/2014 01/10/2014
Marc Tahchy	(4) 138	EN 1555-1	11/06/2014 02/07/2014
Raymonde Khazzaka	34-SC3	NL 697	12/06/2014 26/06/2014 03/07/2014 18/09/2014 14/10/2014 20/11/2014
Dany Tahchy	(1) 165	EN 12255-1:2002; EN 12255-3:2000; EN 12255-4:2004	05/09/2013 11/09/2013 16/09/2013 09/10/2013 28/10/2013 30/10/2013
Dany Tahchy	(2) 165	EN 12255-5	20/11/2013 14/07/2014
Dany Tahchy	(3) 165	NL 12255-6; NL 12255-7	04/12/2013 12/12/2013 14/07/2014
Dany Tahchy	(1) 2165	NL 12255-8; NL 12255-9	09/01/2014 29/01/2014 14/07/2014
Dany Tahchy	(2) 2165	EN 12255-9; EN 12255-10	17/02/2014 19/02/2014
Dany Tahchy	(3) 2165	EN 12255-11; EN 12255-12	12/03/2014 09/04/2014
Dany Tahchy	(4) 2165	EN 12255-13; EN 12255-14	28/05/2014 18/06/2014
Dany Tahchy	(5) 2165	EN 12255-15; EN 12255-16	09/07/2014 14/07/2014

Participant	TC No.	Standard Title	Date
Dany Tahchy	(6) 2165	CENTR 12566-2	17/09/2014
Dany Tahchy	(1) 3001	NL ISO 14155:2011; NL ISO 14160:2011	20/05/2014
Dany Tahchy	(2) 3001	ISO 14602:2010; ISO 14630:2012; EN 1041:2008+A1:2013; ISO 15225:2010	04/06/2014
Dany Tahchy	(3) 3001	NL ISO 14937:2008; NL ISO 15197:2011; NL ISO 19001:2011	01/07/2014
Dany Tahchy	(4) 3001	NL ISO 7439	16/09/2014
Dany Tahchy	(5) 3001	ISO 455-2; ISO 455-4	13/10/2014
Dany Tahchy	(6) 3001	EN 1865-1; EN 1865-2; EN 1865-3; EN 1865-4; EN 1865-5	17/11/2014
Lama Abou Rjeily	217	NL 14,15,16,17,18,19:1998; ISO TR 24475:2010; ISO TR 22716:2007	03/07/2014 28/08/2014 04/09/2014 25/09/2014 06/11/2014 09/12/2014
Mohammad Zaiter	28	NL 791:2013	14/08/2013 26/08/2013 01/10/2013 10/06/2014
Antoine Faycal	59	NL EN 13162; NL EN 13163; NL EN 13164; NL EN 13165; NL EN 13166; NL EN 13167; NL EN 13168; NL EN 13169; NL EN 13170; NL EN 13171	25/06/2014
Elie Melky	138	Plastic pipes fitting and valves for the transport of fluids	29/10/2014 15/12/2014

MISSIONS (Trainers, Experts & Speakers)

Participant	Organizer	Object/Title of the training	Date	Location
Amine Jbeily Lama Bou Rjeily Joelle Saikaly Sahar Estephane Sandra Sarkis Hanine Abdel Rahman	Ministry of agriculture	ندوة أصدقاء على الدستور الغذائي - لبنان CODEX	05/02/2014	Golden Tulip Hotel - Jnah
Siham Youssef	General Union of chambers of commerce industry & agriculture for arab countries and Libanpack	Green Economy Forum	13/03/2014	Adnan Kassar Edifice - Bir Hassan



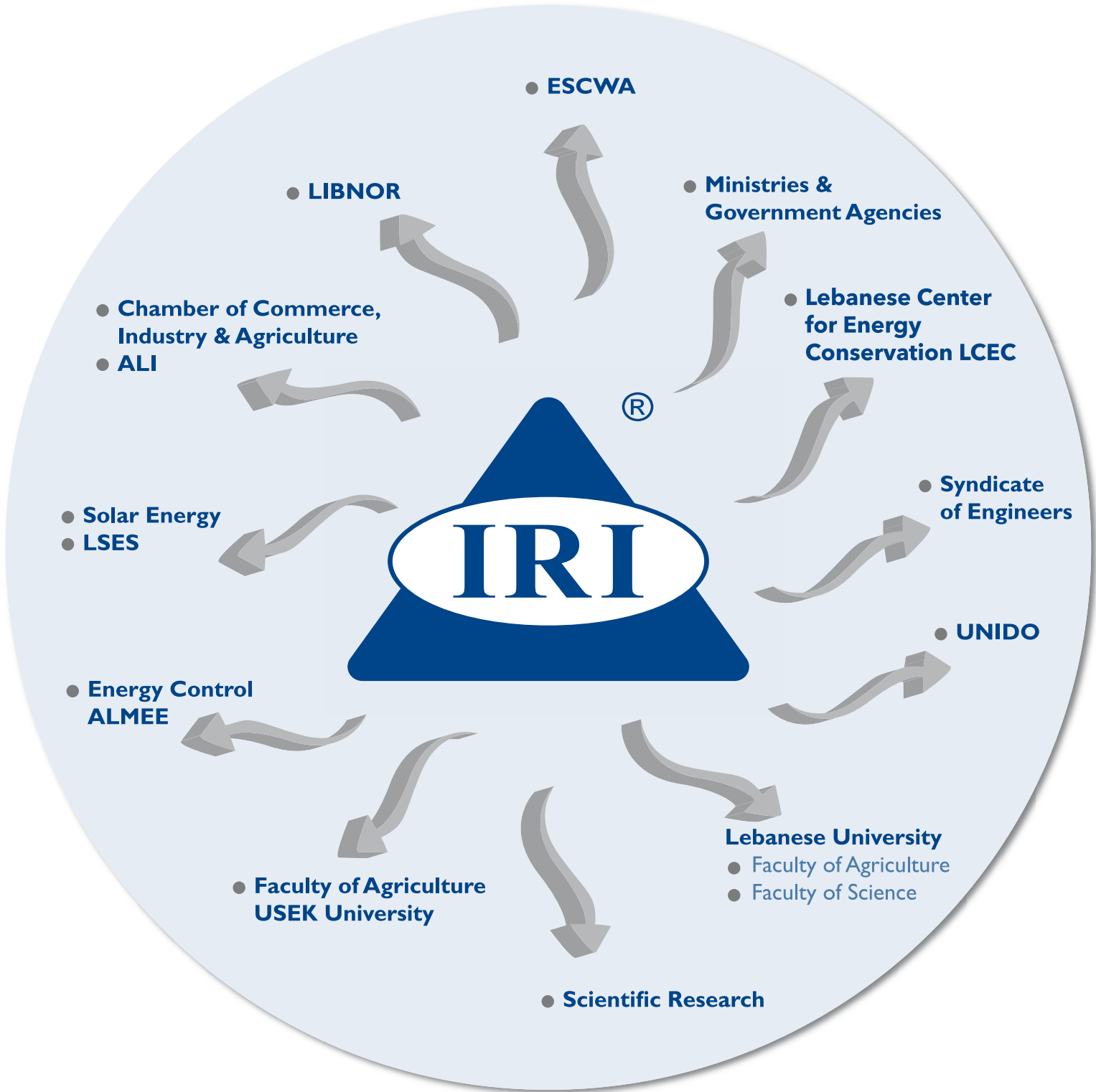
14

*International &
Local Partnerships*

INTERNATIONAL PARTNERS



LOCAL PARTNERS





15

Decrees, Laws and Decisions

Eleven Decrees Give a Legally Binding Status for 77 Standard Specifications The Industrial Research Institute Checked their Conformity with Standards and Measurements

Added to the tasks of the Industrial Research Institute, are checking, examination and testing activities of 77 specifications of goods, equipment and buildings that were given the legal mandatory status under eleven decrees issued by the Lebanese Council of Ministers on May 2nd 2014, and published in the Official Journal No. 30, on July 17, 2014. The second article of these decrees stipulates that «the examinations, tests and analyzes conducted by the Industrial Research Institute should be adopted ... to verify the compliance of the concerned products (in every decree) with the specifications of each.

These decrees hold numbers from 115 to 125. They were issued on July 3, 2014, and concern the following goods and equipment:

Decree number 115: cables and connectors - including 6 specifications,

Decree number 116: car tires – including 2 specifications,

Decree number 117: some glass containers and

absorbent cotton - including 2 specifications,
Decree number 118: children objects - including 3 specifications,

Decree number 119: oil products, gas, and gas bottles and their supplies - including 18 specifications,

Decree number 120: pipes, connections of sanitary ware, sinks, gravel and stones - includes 17 specifications,

Decree number 121: packaging sector and the distribution of goods - including 4 specifications,

Decree number 122: tools and medical supplies sector - including 13 specifications,

Decree number 123: elevators - including 4 specifications,

Decree number 124: ceramic tiles - one specification,

Decree number 115: roads - including 7 specifications.

Resolutions

Subject	Official Newspaper		Decree	
	Date	Issue	Date	Issue
Warning to all dairy factories	1/149	20/03/2014	13	27/03/2014
Asking the Ministry of Economy and Trade to approve the participation of the Industrial Research Institute in the Arab Program for Scientific and Industrial Metrology ARAMET (for settlement)	45	02/05/2014		
Cancelling the resolution No. 38/I of 11/03/2013 on the formation of the Board of Directors of the Industrial Research Institute and forming a new Board of Directors	1/161	09/05/2014	22	22/05/2014

Decrees

Subject	Official Newspaper		Decree	
	Date	Issue	Date	Issue
Forming the government	11217	15/02/2014	8	20/02/2014
Amending the Decree No. 1032 of 30/7/1999 (binding to the specifications of steel reinforced concrete)	11404	08/05/2014	21	15/05/2014
Giving a legally binding status for national standard specifications related to electric cables and connectors	115	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to tires	116	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to some glass containers and absorbent cotton	117	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to children objects	118	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to some petroleum products, gases, gas bottles and supplies	119	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to pipes sanitary ware connections, sinks, gravels and construction stones	120	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to packaging and distribution of goods	121	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to medical supplies and tools	122	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to elevators	123	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to ceramic tiles	124	03/07/2014	30	17/07/2014
Giving a legally binding status for national standard specifications related to roads	125	03/07/2014	30	17/07/2014



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Communication and Media

احتفال المركز اللبناني للإنتاج الاندفع

الحاج حسن: معادلة الإنتاج المستدام لخفض التلوث والسيطرة على الاسعار



الدورسون | بسام العري | أمير حسين الحاج حسن

تمتلك من المنافسة وزيادة التصدير. كما ان هدفنا هو الانتاج النظيف. ولا سيما في ظل عدم توفر موارد طبيعية بكرة في لبنان. وان توافرت كالتلوث والغاز المكثف احوار. يتواجد البعض ممن لا يريدون استغرابه لتكاثرات وأسباب سياسية. وهذا الصعود البيئي. تواجه مشاكل على مستوى الصناعات بسبب عدم وجود مناطق صناعية منظمة ومصنفة كما يجب. فانتشرت المؤسسات الصناعية في كل البارات والقرى اللبنانية. وهذا الأمر يتطلب المعالجة.

يعقوب

والقري د. علي يعقوب كلمة أكد فيها على أهمية العمل الشدوي لتوصيل الى اصلاح ضريبي حقيقي واستثمار في الموارد البشرية للولوج الى تنمية مستدامة حقيقية وجسر عبور بين الصناعة والبيئة. حيث ان المركز اللبناني للإنتاج الاندفع من خلال عمله للمشارك والتناجح - أسس لأرضية صلبة للارتفاع بالقطاع الصناعي الى مستوى يساهم في شكل مباشر بتعزيز الاقتصاد اللبناني والمحافظة على البيئة بشكل افضل. كما اشار يعقوب على دور المركز الاقليمي من خلال ترأسه وانتخابه لتمثيل الدول العربية في الشبكة العالمية لمنظمة الامم المتحدة للتنمية الصناعية وبرنامجه

أقام معهد البحوث الصناعية والمركز اللبناني للإنتاج الاندفع برعاية وزير الصناعة حسين الحاج حسن وفي حضوره. احتفالاً توزيع الشهادات على الخبراء والمؤسسات الصناعية التي تابعت برنامج الانتاج الاندفع الذي ينظمه المركز بالتعاون مع منظمة الامم المتحدة للتنمية الصناعية (اليونيدو) وسفارة النمسا. وشركاء سفيرة النمسا ايريسولا فاهرينغر. والسيدة ندى صبرا معلقة كريستيانو باسيتي. المدير العام للمعهد بسام العري. المدير العام لوزارة البيئة بروج هاتيجيان. المدير العام لمؤسسة المواصفات والمقاييس اللبنانية لينا درسام. مدير المركز اللبناني للإنتاج الاندفع د. علي يعقوب. ممثلو المؤسسات الانتاجية التي شاركت في الدورة. ضاهيون وخبراء.

الحاج حسن

وألقى الحاج حسن كلمة قال فيها: الانتاج والصناعة هما مقاس تطور الدول والبلدان المتقدمة هي البلدان الصناعية التي يسجل نموها صادراتها فالحصا بالنسبة الى النواتج. وفي لبنان. نريد تنبى معادلة الانتاج المستدام لتجنب استنزاف الموارد الطبيعية لغرض تنمية التلوث والسيطرة على الاسعار. وفي إمكان معهد البحوث الصناعية والمركز اللبناني للإنتاج الاندفع. من خلال الأبحاث. والتعاون مع اليونيدو و UNDP. ودعم من الدول الصديقة. تطوير هذه المعادلة ومساعدة الصناعيين على تطبيقها. هدفنا الانتاج ولكن بتكلفة منخفضة

ختم دورة تدريب لمعهد البحوث الصناعية صابونجيان: لرفع الإنفاق على البحث العلمي



معهد البحوث يلتمز استراتيجيتها واضحة بفتح ابوابه ومختبراته في الاتصالات.

لفت وزير الصناعة في حكومة تصريف الاعمال فريخ صابونجيان الى ان معهد البحوث الصناعية بإدارته المسؤولة، يواصل دوره المؤتمن عليه في رعاية صحة المستهلك عبر الفحوص المخبرية التي يجريها في مختبرات مجهزة بأفضل المعدات. كذلك يسهر على توفير الخدمات للصناعيين والقطاعات الاقتصادية.

ورأى أن الدول المتقدمة تخصص موازنات ضخمة لتمويل ودعم المؤسسات والجامعات والمعاهد والمختبرات والأشخاص الذين يوظفون كل طاقاتهم والكثيرة من أجل الأبداع والابتكار والتطوير. معتبراً ان الحاجة ماسة الى حتمية رفع نسبة الإنفاق الحكومي على دعم البحث العلمي وخصوصاً الشق التطبيقي، والتوصية بإشراك المؤسسات والشركات المنتجة في تمويل هذه المراكز البحثية، ما دامت ستكون من بين الجماعات المستفيدة من نتائج البحث.

تحدث صابونجيان خلال حفل ختم معهد البحوث بالتعاون مع كلية الهندسة في الجامعة اللبنانية، الدورة التدريبية التي نظمتها المعهد لـ 30 طالباً في التخصص الميكانيك في الكلية

البحوث أمنياً، وتحسينه قضايا من أي تدخلات فيه. وسبق الحفل، جولت صابونجيان والسيد حسين والفن في أرجاء المعهد، تفقدوا خلالها مختلف المراكز والمختبرات التي تحدر فيها الطلاب، ومنها المركز اللبني للتعليم ومختبر الكهرباء، إذ يجري فحص الأدوات الكهربائية ومدى مطابقتها للمواصفات العالمية ومختبرات التربة والهندسة المدنية والميكانيكية حيث يجري فحص التربة والبلاط والحديد، فضلا عن مختبر الميكروبيولوجية الخاص بتكرير المياه والتخلص من الكلس.

تعزيز تكنولوجيا الطاقة الشمسية بالتعاون مع معهد البحوث الصناعية

إبتدع 14 متلاً من ست دول في إسبانيا إيطاليا مصر لبنان الأردن تونس في برتولة لبدء العمل على مشروع تجريبي لتدعيم التكنولوجيا الشمسية الجديدة في الممار العامة في بلدان البحر الأبيض المتوسط ومنها لبنان وذلك ضمن مشروع FOSTER in MED التابع للإتحاد الأوروبي.

ويغطي هذا المشروع بتمويل يصل الى 4.5 ملايين يورو بمساعدة مالية من الإتحاد الأوروبي وذلك في إطار سياسة الجوار وبرنامجه التعاون مع بلدان حوض البحر الأبيض المتوسط بهدف تعزيز استخدام تقنيات الطاقة الشمسية المشتركة مع معهد البحوث الصناعية اللبنانية.

خلال الإختراع الذي استمر يومين الفتح لبنان ثلاثة مبان عامة ليتم اختيار واحد منها وفقاً للمعايير التي وضعتها الفريق الفني والعلمي للمشروع.

وأعلن الدكتور خلال سالم الذي مثل معهد البحوث الصناعية في الإختراع أن المعلومات تعود عدم استخدام الطاقة الشمسية بهذه التقنية المتقدمة في لبنان ولكن هدفنا ليس في أن نكون الأوائل بل العتال وهدف المشروع الى تعزيز التعاون ونقل المهارات



والتقنيات المتطورة وبحرق الحواجز التطورية والاصطناعية التي تحول دون انتشار استخدام الطاقة الشمسية في لبنان والمنطقة. وقال المستشار البروفسور لخبون الطاقة واستاذ مشارك في الجامعة الأميركية في بيروت والجامعة اللبنانية الدكتور ياسين كجمان - ناقشنا مع زملائنا في اللجنة التقنية والعلمية الواسع النطاق في ما يتعلق باستخدام الطاقة الشمسية وعرضنا خلال اجتماع برتولة المعوقات التي يواظبها من ضمنها كالتس المصنعة لهذه التقنيات في لبنان وفترة التوعية على فولدنا. وأكد الخبراء أن موارد الطاقة الشمسية المتوفرة في لبنان قادرة على تقديم الطول الرائدة لمشكلات عديدة يعاني منها المجتمع اللبناني من أبرزها مشكلة النويدات الكهرومائية. وستتضمن اللجنة التقنية والعلمية لاحقاً في بيروت لأختبار الممار العامة التي سينفذ عليها المشروع التجريبي في البلاد المشاركة ومنها لبنان.



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