



Annual Report 2015



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 is governed by private law, and its bylaws and internal and financial regulations.

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.



Eighteen years of sound and refined productivity

*Director General
of the Industrial Research Institute*

Dr. Bassam Frenn

Year after year, we remain the light in the bleak surroundings and the hope in a restricted scientific environment. We register growing economic indicators and create non-traditional economic ties.

Over the past year, the Industrial Research Institute sought to go beyond the narrow difficulties and cope with the obstacles, persevering to ensure continuous and persistent effort to reach world-class institutions.

Since eighteen years and before, we are always committed to our strategy in providing assistance to the Lebanese private sector to safeguard its path in order to remain distinguished, motivated, creative and successfully retaining its excellence. Thus, we are continuously developing the Institute's approach in order to keep up with modernity and scientific progress both theoretical and applied. Our internal activities do not diminish the positive interactive participation in the global forums as contributors and beneficiaries.

Crowning the relentless efforts in the field of sustainable development, the IRI started issuing the green buildings and installations certificate on the basis of the rules and regulations set by the HQE Assembly.

The Institute has also become a reference with international active roles, commissioned by the International Association for Cereal Science and Technology, approving new testing machines in any country in the world and certifying or updating tests on grains and their products as well as standardization activities. Conducting assessments, granting approval

on the quality of machines and quality in carrying out the purpose of the design...

In the IRI we continued the activities of cooperation with specialized faculties in operating universities in Lebanon. We cooperated with the Faculty of Engineering at the Lebanese University ten years ago, due to a common and firm conviction of its importance and usefulness. This allowed us to carry out activities at various levels and conduct several projects, including the invention or update of the measuring or screening devices we use with pride.

Among our activity, a memorandum of cooperation with the Lebanese Ministry of Environment, including areas related to studies of the environmental reviews, studies of the environmental impact of the factories and the laboratory tests, calibration, guaranteeing quality and the application of concepts in industrial enterprises.

The IRI also helped national industrialists to gradually adopt preventive measures which are inevitable for the typical industrial activity, which increased their earnings and profitability by reducing production costs, rationalizing the use of raw materials, electricity and fuel, reducing the negative environmental impact, adopting and applying modern manufacturing technology, which resulted in increasing the amount of sales in industrial enterprises that apply cleaner production concepts.

Our determination to pursue this strategic path leads to reinforcing the industrial sector and developing it.

In addition, we allowed the national media to observe the transparency of our business and the mechanism of our laboratory operations; this is how we ensured the permanent cooperation and established a close relationship between the IRI and the economic media, starting from the media's role and its responsibility in ensuring the objectivity of the event and its accuracy, which helps shape public opinion.

We point out that the operating income in 2014 amounted to ten billion LBP, and fixed assets exceeded \$20 billion, while the state's contribution was almost nonexistent.

On the other hand, we helped national institutions and bodies involved in the local productive field, to which we gave advice and assistance where necessary.

The internal activity attributes are reflected in the annual statistics of laboratories, external monitoring, and the scrutiny of the customs files which the IRI is responsible to detect and study the extent of their compliance with national specifications. The total number of these activities increased about 450 thousand transactions annually at an average 1550 operations per day, making the rate of activity at the Institute between 110 and 125 percent of the productivity of the human apparatus, proving the economic feasibility of the approach we have followed since the IRI activity started.

Engineers at the IRI helped developing machines and other designs contributing in the national industry and facilitating laboratory testing.

In addition to that, we should mention the structural development and the statistics and activities performed at ELCIM, CIT, and LCPC... which is detailed in the annual report of our activities at the IRI during 2015.





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IRI General Activities

The Industrial Research Institute performs a wide range of activities with the diversity of its performance and seeks to open its doors to the institutions involved in the revival of the national economy and its growth. To this end, the IRI is not limited to its internal activity, inviting those institutions to become a part in it, so as to consider its activities and benefit from its experience and the experience of its employees, thus exchanging with them the results of research, tests and experiments.

The Lebanese Minister of Industry, Dr. Hussein Hajj Hassan sponsors these activities, evaluating their results and outcomes and praising the attention given by the Industrial Research Institute to these activities.

The administration and staff of the Institute organizes these activities, invites participants, takes care of the coordination with relevant parties, opens its halls, oversees these activities and ensure their success. In 2015, it hosted the Lebanese Industry Day, a day during which the national industrial sector shows its capacities as well as the obtrusive gaps and the global trade relations, in addition to the most important needs of the Lebanese industry to grow and compete in the local and external markets.

The IRI promoted these activities with its good relations with the Ministry of Environment, organizing meetings with the Minister of Environment, and the economic journalists, by hosting its representative union.

The IRI maintained its relationship with the Faculty of Engineering at the Lebanese University, by training graduates on the rules of welding and non-destructive testing in the Lebanese Welding Center of the Institute.

The Institute addresses sustainable energy and the diversity of its sources, hosting year after year, a conference to discuss electrical energy production from renewable sources, in order to fill the gap in the traditional production on the one hand, and preserve the environment on the other hand.

The Institute graduates students from the Faculty of Engineering at the Lebanese University who underwent a training course in welding and non-destructive testing
Frenn: Our cooperation with the Lebanese University resulted in new projects and innovations

Minister Hajj Hassan: there's no development nor deepening of knowledge without education

The Industrial Research Institute organized on January 14, 2015 a graduation ceremony for 36 students from the Faculty of Engineering at the Lebanese University who underwent a training course in the field of welding and non-destructive testing in the Lebanese Welding Center of the Institute. The ceremony was hosted by the Minister of Industry, Dr. Hussein Hajj Hassan, in the presence of the Director General of the IRI, Dr. Bassam Frenn, the representative of the President of the Lebanese University, the Dean of the PhD Higher Institute, Dr. Fawaz Omar, the Dean of the Faculty of Engineering at the Lebanese University, Dr. Rafic Younes, as well as professors of the Faculty, directors of the Institute and heads of departments and laboratories.

Dr. Frenn

Dr. Bassam Frenn inaugurated the ceremony by saying: "The cooperation between the Institute and the University is not only temporary; it is a result of a common and firm conviction of its importance and usefulness. We have devoted this trend ten years

ago with a cooperation agreement with the Faculty of Engineering, so that each building benefits from the energy of the other one, as the Faculty gains experience, knowledge, research, expertise and the exchange of information".

He added: "Our cooperation with the Lebanese University allowed us to carry out activities at various levels, which resulted in several projects, including the innovation or renovation of the measurement or screening devices we use with pride. These experiences helped students participating in these projects gain experiences and high skills accumulated in a leading institution in the field of technology, namely the Industrial Research Institute".

He pointed out that: "Last year, Lebanon was invaded by a strange wave related to food safety. Allow me to assure you that the Industrial Research Institute, under the auspices of the Minister of Industry, met the requirements of this stage, putting the research and scientific laboratories in the service of technology to assist the Lebanese society. This is our duty. I would like to relate the words of the Minister Hajj Hassan who said that the compliance with the specifications





and food safety is not optional, it is a national, professional and ethical duty. The industry in Lebanon needs care and permanent, continuous and updated development, as is the case of production sectors in the rest of the world. The IRI keeps pace with Lebanese Industrialists, by securing the best services for them, based on the natural complementarity between them and the Institute. The quality system in Lebanon is completed by the approval of the parliament of the Food Safety Law, the launch of the Lebanese Accreditation Council, keeping up with LIBNOR, strengthening the Industrial Research Institute and supporting it financially and morally.”

The representative of the President of the University and Brigadier General Younes both gave a speech. They highlighted the constructive cooperation between the Lebanese University, the Faculty of Engineering and the IRI, in order to develop the relationship between the industrial sector and LIBNOR. They also praised the Lebanese Welding Center, which is one of the most prominent institutes in the Middle East and admired the opportunity given to the students of the Lebanese University to follow the training courses.

Minister Hajj Hassan

Minister Hajj Hassan wished that the New Year carries well-being, success, security and development for all the Lebanese people.

He said: “I am honored to participate in this celebration; I would like to highlight the cooperation between the Industrial Research Institute, the Lebanese

University in all its faculties, and other institutions, as well as the Ministry of Industry and LIBNOR, in order to take advantage of the potentials and mutual experiences, and strengthen the institutional work.

He stressed on the “importance of developing scientific research and other sciences. On this occasion, it is necessary to praise the high level of education in Lebanon, which we have been able to preserve. I would also like to express my pride in the IRI and the Lebanese University, which is at the forefront of other Lebanese universities in terms of the educational level, noting that two students from the Faculty of Engineering ranked first and third in the achievements of the IRI Program (LIRA). I would like to say that, despite some failures in the public and private sectors in Lebanon, the educational and scientific level maintained its position. I think that we are in a good place, and we hope that it constantly develops so as to be reflected in the quality of education, the quality of the industry and the quality of Lebanese products. I would like to congratulate the Industrial Research Institute on its commitment to the continuity of the work of the Lebanese Welding Center which is unique in the region, despite the fact that the Institute allocates an important budget to it, for its scientific and educational importance, and for the fact that it finds solutions for researchers, industries, trainees and students. We are convinced of the importance of science and education in Lebanon, being closely and essentially linked to development. No development and deepening of knowledge in the society can be achieved without education.”

A workshop on energy and renewable energies in the Industrial Research Institute
Minister of Industry: “Energy is a global political issue.”
Frenn calls for the exploitation of the diverse sources of the renewable energy

The Industrial Research Institute organized on January 27, 2015, a conference on “Energy and Renewable Energies - Opportunities in Lebanon” in cooperation with the Order of Engineers and Architects of Beirut and the Lebanese Solar Energy Society. The conference was sponsored by the Minister of Industry, Dr. Hussein Hajj Hassan, in which participated: diplomats, directors-general, heads of economic organizations, industrial associations, sectorial unions, personalities, scholars, and Lebanese and foreign experts.

Frenn calls for energy conservation

At first, the Director General of the Industrial Research Institute, Dr. Bassam Frenn, defined the features of the future phase of Lebanon in the energy field, by saying: “Before raising the issue of the importance of energy and renewable energies and its crucial role in today's societal, technological and industrial fields, I would like to appeal the Lebanese people to resort to self-control currently based on the rationalization of the use of energy, so as to improve its efficiency in the domestic, industrial, commercial and tourism consumption. We are called to rely on an approach to diversify energy sources, within the context of the alternative energy experience witnessed by Lebanon in recent years. It is to be noted that there are some techniques which are rarely exploited in Lebanon, such as the thermal energy from the ground, Geothermie, or the misdirected energy use during manufacturing processes.

We have deliberately decided at the Institute through the Lebanese Cleaner Production Center to organize training courses and publish studies in this regard, bearing in mind that the use of alternative energy reduces the health bill on the citizen and minimizes

polluting emissions”.

He added: “The demand for traditional energy resources is increasing with the growing population number and the technological, industrial, agricultural and consumption requirements in general. Since prices are subject to fluctuations, according to global political agendas not related to supply and demand, it is necessary to avoid these variations and their repercussions by implementing the alternative energy use policy, with the importance of the development of plans to maintain the reserves starting now, in order to ensure the continuity of our oil wealth and its sustainability for subsequent generations.”

Minister Hajj Hassan: the subject of energy is purely political

Minister Hajj Hassan congratulated the Industrial Research Institute, the Order of Engineers and Architects of Beirut and the Lebanese Solar Energy Society, for organizing this important conference, by saying: “There is no doubt that the energy subject is a global political issue and the proof is the collapse of oil prices, contrary to all the rules of offer, demand and the needs of the market. Energy is a part of politics in the world and in Lebanon as well. Therefore, the issue is not purely scientific, and has not only economic, environmental and scientific aspects, but political basis, which is used as a weapon in the cold war, particularly at the present time. We cannot deny the positive consequences of the decrease of oil prices on the decline in the cost of industrial production and the lower deficit of EDL. The main problem in Lebanon remains basically that we do not have a national energy policy that combines the vision, goals and means. The conference today is one of the scientific, economic and environmental means



that we should put in the context of legislation, laws, decrees and decisions leading to drawing integrated policies, just like the developed countries that put future plans. That is to say that we should transform the recommendations issued by any conference, seminar or workshop to applicable decisions. We don't lack scientists, experts and competent people, but the problem is in the absence of integrated government policies that combine public and private sectors.

Here I cannot but ask: did anyone put a certain plan and watched its implementation until the last stages? The volume of imports of oil and its derivatives reach up to a quarter of our imports annually. We have been suffering from an electricity crisis for more than 15 years, which constitutes the biggest drain on state finances. So far, we did not resort to the use of alternative energies, nor to the alternative energy networks as part of the used energy, and we did not start using gas in our plants which is the least expensive and polluted. We are not here to define the responsibilities, but it is necessary to study the impact of energy on the economy, industry, agriculture and job opportunities. Energy is the cause of the lack of industrial competitiveness in foreign markets, while the majority of Arab, European, Asian and American countries support their productive sectors with direct and in-

direct support means. In this case, do we give up on our industries from now on? Of course not, because that leads to the loss of thousands of jobs, the decline of economic growth, and living in a state of misery and hunger. The world economy is not free, as some might say. It is in the hand of major powers. We have to set the goals that we want from the use of alternative energy which is focused on reducing environmental impacts, and most importantly securing job opportunities."

Swiss Ambassador

The Swiss Ambassador Francois Barras gave a speech about the development of renewable energies which is a priority in the policy of his country's government. For a long time, water resources have been an important resource for alternative energy in Switzerland which is known to be rich in water, as other sources play a growing role. We are ready to share our experiences with Lebanon in this field, in cooperation with the Industrial Research Institute with which we already successfully cooperated and the Council of Lebanese-Swiss businessmen. He said that his country was a pioneer in organizing a trip for a plane around the world that runs from Abu Dhabi and relies completely on solar power. He

also explained that the cantons and major cities in Switzerland are including in their constitutions provisions binding on the rationalization of energy consumption, according to the plans over twenty years to come. Zurich, for example, has set a plan for reducing the individual use from 10 thousand kilowatts to two thousand kilowatts annually.

UNIDO Representative

The regional representative of the United Nations Industrial Development Organization (UNIDO) Cristiano Pasini said that: “We need to develop the industrial sector in Lebanon.” He pointed out that the high price of properties and energy costs are two factors which do not encourage the engagement in investment in the productive sector. But he stressed on the fact that the new thriving communities has grown thanks to their reliance on the industrial revolution. The manufacturing contributed to the development of the lives of hundreds of millions of people around the world during the past two centuries and the economies of Southeast Asian countries are the biggest proof. The industry in Lebanon constitute about 10 percent of the size of the national GDP. He was optimistic about the future of the Lebanese industrial sector and its ability to contribute to securing jobs and enhance growth. He congratulated the Industrial Research Institute for organizing this conference, stressing on the necessity of cooperation between UNIDO and the Institute as well as the cooperation with all public and private sectors for industrial and social development in Lebanon.

President of the Order of Engineers and Architects of Beirut, Khaled Chehab

The President of the Order of Engineers and Architects of Beirut, Khaled Chehab said: “The theme of the conference is a vital subject and should become compulsory and not voluntary because of the steady growth of the renewable energy sector in different countries in the world, which began decades ago in Europe, America, China and India. Statistics show the fast increase in investments in the production of

renewable energy in the world. From here we see that the integration process between the Order, the IRI and the Lebanese Solar Energy Society generates very positive reactions in trying to set basic applications for renewable energies and pressure official bodies to speed up the process of issuing special decrees to support renewable energy projects for the benefit of all Lebanese people.

President of the Association of Lebanese Industrialists, Fady Gemayel

The President of the Association of Lebanese Industrialists, Fady Gemayel called for launching a comprehensive national strategy for the energy sector over specified periods, within an effective partnership between the public and private sectors and the civil society, based on the “rationalization of the cost of energy use and reducing it, using alternative energy, supporting intensive energy and taking advantage of future energies”. He stressed on the fact that industrialists are working on the rationalization of energy use and the proposal of possible solutions from within the advances taking place in the field of renewable energy, based on our conviction that renewable alternative energy has positive repercussions on the environment, but at the same time, we have to understand the situation of the industry which is burdened by the high costs of energy, the deterioration of infrastructure, employment and dumping, down to the increase of the cost of exports.”

The Industrial Research Institute hosts and organizes the National Day of the Lebanese Industry. The ceremony was held under the patronage of the Prime Minister Tammam Salam represented by the Minister of Industry Dr. Hussein Hajj Hassan

Frenn: “The vision of the IRI is integrated with the wise policy of the Minister of Industry and it is complementing our strategy to maintain the path of the initiating private sector which is distinctive and qualified for success, excellence and creativity”



The Ministry of Industry celebrated the “National Day of the Lebanese Industry” on June 2, 2015 which was sponsored by the Prime Minister Tammam Salam, represented by the Minister of Industry Dr. Hussein Hajj Hassan.

The ceremony was organized by the Administration of the Industrial Research Institute, in the supervision of the Director General of the Institute, Dr. Bassam Frenn, and was attended by ministers, MPs, former MPs, representatives of the former prime ministers, as well as representatives of military and security chiefs, officials from the Banque du Liban, customs and port of Beirut, chairmen of public institutions, directors general, heads of economic organizations, chambers of commerce, industry and agriculture, industrial associations

and sectorial orders, in addition to deans of faculties in Lebanese universities and Lebanese businessmen and industrialists.

Industrial Production Statistics

After opening with the national anthem, a short documentary about “Production in Lebanon” dealt with the importance of the Lebanese industry and its role in reinforcing the economy, securing jobs, increasing exports and reducing the trade deficit.

The Head of the Industrial Information Division in the Ministry of Industry, Dr. Rabih Badran presented statistics and economic indicators for the industrial sector from 2012 to 2014. He also tackled the Ministry’s projects at the level of industrial information, particularly the project of the evaluation of databases

of licensed factories, and the draft of the permanent statistical system for the industrial sector which aims to issue indicators periodically to reflect the reality of the sector.

Industrial Map

The Engineer in the Licensing Division at the Ministry of Industry, Charbel Salloum presented the industrial map that shows “a survey about the reality of the current industrial zones.” He said: “The first phase of this map was done, showing the industrial areas and their distribution as well as the geographical distribution of factories on the Lebanese territory. It gives an idea about the distribution of industrial areas, according to the districts or provinces, and the extent of their intersection or compatibility with the propagation of factories, and areas of concentration. It refers to the concentration of factories in Mount Lebanon first, then the North Governorate.”

Dr. Bassam Frenn

The Director General of the IRI, Dr. Bassam Frenn said: “We are gathered today, after several local, regional and international important political developments has taken place. Important, unexpected and sudden economic factors lead us to deal cautiously with the events and create non-traditional economic ties. This is what made government officials tackle urgently the severity of the situation. The Minister of Industry also resorted to protectionist measures which have been slightly adopted in the past, but he explained their dimensions and put them in the context of the right of Lebanon to defend its economic interests, in order to reduce the trade deficit and raise export levels. This wise policy complements the general vision of the Industrial Research Institute, and we consider it an extension of our strategy aiming to maintain the path of the initiating Lebanese private sector which is distinguished and qualified for success, excellence and creativity. We persevere in our continuous work with the support of the Minister of Industry, in order to keep up with the private sector through helping it in research and studies, secur-

ing funding for updates, increasing productivity and competitiveness abilities, so long as the exporters comply with mandatory standards, and establishing industrial projects in the regions and rural areas. We strive in the Industrial Research Institute to establish a business base and secure a favorable environment for investment by helping industrialists and entrepreneurs to find promising investment opportunities, increase productivity and have a competitiveness that provides the required added-value. We have succeeded in encouraging the work of the government, in terms of consolidating the achievements of the private sector and reducing its losses, through maintaining its positive image and reinforcing its credibility. We are proud of what we are doing in terms of securing communication between the Lebanese creativity, the needs of the citizen and the requirements of other peoples.”

Engineer Habib Ghaziri

The President of the Board of Directors of the Standards Institution Engineer Habib Ghaziri said:

“The Lebanese Standards Institution directly contributes through the issuance of national standards for services, goods and products intended for domestic consumption in a way that seeks to guarantee the protection of public health, public safety, the environment and the consumer.

The quality policy in “LIBNOR” is based on the principles of excellence and adherence to the following:

- Developing the basic tasks of measurement and improving them;
- Serving the public and private sector in matters relating to standard specifications;
- Contributing to strengthening consumer confidence in the quality of Lebanese products and services.

The Institution also contributes to serving the national economy, facilitating the trade exchange and not putting technical barriers to trade in addition to reducing the health and environmental bill of the Lebanese state through protecting the public health

and safety as well as the environment. The specification is essential to the quality of the infrastructure in Lebanon and to accreditation, market control, analysis and certification.

The application of Lebanese standards and ensuring effective surveillance by the concerned official departments helps avoiding many health and environmental problems and incidents of public safety and the likelihood of fraud. Ongoing cooperation is done between the Lebanese Standards Institution and the Industrialists Association through the active participation in setting Lebanese and international standards, the specifications badge for a number of Lebanese products, the information center which gives a large number of Arab and foreign countries specifications, and the training center in the Institution which was recently founded by LIBNOR.”

The President of the Industrialists Association Dr. Fadi Gemayel

The President of the Industrialists Association Dr. Fadi Gemayel praised the industrial sector, which proved that it is highly talented, despite the difficult circumstances. It was an incentive for other sectors. The decline of our exports between 2013 and 2014 by 6.9 percent, about \$200 million (and this is not a small number), is largely due to the loss of our exports to Syria. But in any case, the Lebanese industry capabilities and strength is one thing, and the duties of the government and its role is something else, and this requires the government to assume its responsibilities in terms of handling the additional costs incurred by us which allows us to increase our exports. It is also essential in this context, to finish dealing with the repercussions of closing the “Maa’bar” crossing, through the government support of transportation cost difference, to maintain traditional and essential markets, especially that the Gulf constitutes 33 percent of our exports, and Iraq more than 10 percent. The Industrialists Association is working on increasing cooperation and interaction with the Ministry of Industry to implement urgent priorities, including: addressing the dumping import and the

additional costs related to export and energy, as well as providing the necessary financing for exports, providing funding for small and medium enterprises, adopting the law on the integration of factories, developing industrial zones and activating vocational education. The national industry is the backbone of the national economy and a key pillar to social stability; everyone has to support it and strengthen it.

Pasini UNIDO Representative

The representative of the United Nations Industrial Development Organization (UNIDO), Pasini said: “Our participation as an international organization in this ceremony is a milestone for the promotion of the industrialization in Lebanon and the structural shift towards an industry-based economy, especially since the main objective of UNIDO is to support the sustainable and comprehensive development through strengthening the industrial sector. In Lebanon, the UNIDO provided varied assistance to achieve development goals. We also praise the efforts of the Ministry of Industry and the IRI to develop a framework for social cohesion and integrated vision of the industrial sector in Lebanon, and at the same time, encourage the formalization within the framework of a comprehensive and sustainable industrial policy. The vision requires relying on concrete measures and including the development of the industrial and modern commercial infrastructure. It is possible to include the concerned parties to activate this vision, starting from the government, the private and public sectors, international partners and academic and civil society parties. In this regard, it was pointed out that the UNIDO is fully ready to support the Ministry and other partners in this critical endeavor.”

Minister of Industry Dr. Hajj Hassan

The representative of the Prime Minister, Minister Hajj Hassan gave a speech in which he greeted workers, industrialists, the army and the martyrs, and expressed his pride and that of all the Lebanese people in the national industry excellence, glory and steadfastness in spite of all the difficulties experienced.



Among the number of problems faced by the Lebanese Industry is the high cost of production resulting from the high price of land, the cost of electricity, fuel oil, gas, labor, social security, bureaucracy, overlapping of competencies, the loss of solutions despite the long claims in many cases, and the cost of raw materials and industrial machinery most of which are imported. Other problems include economic policies and trade agreements that we signed, but from which derived a shortage in exports and increase in imports, in addition to unfair competition in the local, regional and international markets, between our industry and the industry of most of our trading partners. Our balance of trade with Iraq is stable, although sometimes this country puts obstacles. This unfair competition results from three key issues:

1. The result of the subsidized cost at most of our trading partners
2. The result of the large scale production
3. The result of artificial administrative and technical barriers

He gave an example about the inability of the Lebanese pharmaceutical factories to register their products in many Arab countries, while the Arab pharmaceutical companies register their products easily in Lebanon. There is also a problem with the possibility of exporting our products like dairy products to Europe despite the fact that Lebanon is not the source of an animal nor vegetable epidemic.

The last problem is the political, security and economic situation prevailing in the region.

Then he cited a number of positive points, by saying: "In Lebanon we still have strengths which are

distinct human energies and the level of higher education. There is funding available in Lebanon by private banks, and there are motivational stimulus in the Ministry of Finance and la Banque du Liban for this purpose. But this requires industrialists and businessmen to do some business investment, although we are licensing new factories, but with no ambition. Among the strong points is the distinguished location of Lebanon. The geographical, political and harmonic site of Lebanon will remain distinctive and so will its Arab, Islamic, regional and international relations, and despite what is going on in the region, we are keen to reinforcing better relations. One day, the region will know stability, and solutions will be developed, and we will maintain Lebanon's role in the region. There is also a Lebanese Diaspora at home and abroad which is for the benefit of the economy and industry.

He added: "The results are not very encouraging. The state revenues are declining. Despite the free trade agreement between Lebanon and the European Union, our exports to the European continent fell while our imports increased. The reason is the certificate of origin. We want them to apply on us what they apply on themselves. The second point is that the deficit in the trade balance reached \$17 billion compared to the size of the economy of \$50 billion. Talking about solutions, he said: "We have to accomplish financial and tax incentives upon which we agreed with the Minister of Finance. We held more than one meeting for this purpose. Including:

1. The issuance of the resolution on exemption by 50 percent, from income tax on profits from in-

dustrial exports.

2. The amendment of Article 17 of the value-added tax, which exempts raw materials and industrial equipment from the mentioned tax.
3. Adopting the law of merging between factories.
4. Supporting interests on operating capital for industrial exports.
5. Supporting industrial research and exempting it from taxes.
6. Raising the level of official, popular and media interest in the national industry.
7. Promoting internal and popular formal domestic consumption in the national industry.
8. Developing industrial areas and we have begun to do so vigorously.
9. Activating the work of the Ministry at the level of the Directorate-General, the Industrial Research Institute, LIBNOR and COLIBAC.
10. Negotiating with our business partners to develop and modify existing agreements.
11. Taking protectionist measures where all states should support their industries in a way or another.

He also said: “We are not in a trade war with anyone and we’re not targeting anyone in the politics from the industrial site; we want better trade relations with our partners because we export to these countries and import from them; we want to avoid dumping. We have a big problem of unemployment, as there is only 5,000 or 6,000 jobs available per year. Our protectionist procedures are not political; we are seeking to stop the dumping and not the imports.”

Director General of the Ministry of Industry Dany Gedeon

After that, the Director General of the Ministry of Industry Dany Gedeon offered a complementary vision of the industrial sector (Lebanon the Industry 2025), based on the basic tracks that the Ministry of Industry considers suitable for the development of the Lebanese industrial sector and increasing its contribution to the achievement of sustainable development. The vision focused on several points, including specializing in industrial production, food safety and institutional harmony.

The vision included “encouraging the specialized scientific research, supporting sectors that want to achieve a technological progress, supporting innovation capabilities, activating communication with expatriates, marketing Lebanese products, opening the door to encourage Lebanese exports, working as much as possible on the twinning of joint production enterprises or creating partnership institutions between residents and expatriates, encouraging green industries to preserve the environment by encouraging the recycling industry, using renewable and alternative energies and consolidating the partnership between the public and private sectors, societal guidance and cultural attractions towards the national industry.”

The Cleaner Production Seminar in the Industrial Research Institute

Minister Hajj Hassan: “The waste crisis is still going on since the nineties because of the political insistence on exclusive concessions for the sake of expediency and quotas”

Minister Machnoug: “We launched bids and the results will come out after a few days, we offer them with full transparency and announce the name of any contractor who won in six known service areas”

Dr. Frenn: “The citizens should deal with the waste from the preventive and environmental perspectives to reduce the negative effects and prevent air, water and soil pollution”

The Industrial Research Institute organized on August 11, 2015, a seminar sponsored by and in the presence of the ministers of Industry, Dr. Hussein Hajj Hassan and Environment, Mr. Mohammad Machnoug around the Med Test II project for the implementation of resource efficiency and cleaner production in the food and industrial institutions, which is implemented by the Lebanese Cleaner Production Centre in cooperation with the United Nations Industrial Development Organization “UNIDO”, and funded by the European Union. The General Manager of the Industrial Research Institute, Dr. Bassam Frenn, and the Director General of the Ministry of Industry, Mr. Dany Gedeon, Regional Representative of the “UNIDO” Cristiano Pasini, Vice-President of the Association of Industrialists, Georges Nasraoui, President of the Lebanese Cleaner Production Centre Dr. Ali Yaacoub and representatives of the EU Delegation in Lebanon, the UNIDO, the Ministries of Industry and the Environment, the IRI, LIBNOR, industrialists and experts.

Dr. Frenn

At the beginning, Dr. Frenn insisted in his speech

on the improved performance of the productive sectors with which the Institute had worked to ensure resource efficiency and cleaner production.

He said: “A number of our industrialists was able to gradually cope with preventive measures necessary to the standard industrial activity, which led to increasing their earnings and profitability by reducing production costs, rationalizing the use of raw materials, electricity and fuel, reducing the negative environmental impact, adopting and applying the modern manufacturing technology, and increasing the proportion of purchases in the industrial enterprises that apply cleaner production concepts. Our determination to pursue this strategic path leads to fortifying, developing and updating the industrial sector. The waste is not a problem to which there is no solution. The rule on which industrialists are based to preserve natural resources through improving manufacturing efficiency, can be applied in every home, by trying to reduce the proportion of waste and sort them starting from the source down to the processing center, whether by recycling, landfilling or incineration. The waste, before they leave any house, should be clean and packed properly. Citizens from now on should deal with waste from preventive and environmental



perspectives to reduce the negative effects and to prevent air, water and soil pollution. The media's pivotal role in this difficult phase is to demand the establishment of rationalization programs in this regard, and not only filming the crisis. Lebanese people are witnessing with their eyes these bitter scenes so they do not need to see them on air. On this occasion, we announce that, with the support of the Minister of Industry, we put potentials, cadres and laboratories of the Industrial Research Institute at the disposal of the Ministry of Environment to help find scientific and technical solutions.”

The Minister of Environment Mobammad Machnuk

The Minister Machnuk approved what Dr. Frenn already said by stating that: “For the first time we hear talks addressing the subject of cleanliness in Lebanon with this calmness showed by the Director General of the Industrial Research Institute Dr. Bassam Frenn, noting the importance of the role of the citizen, the family, municipalities and factories, and their responsibility towards the environment in the face of the reality of waste. We cannot talk about cleaner production at a time when we feel that we are facing the worst that we have seen already; dangers will grow if this neglect continues. In the current situation, the responsibilities of citizens, the state and the institutions working in the public sector are vanishing. We heard a lot of talks in the demonstra-

tions, debates and calls to quit my job. The Minister of Environment is working within his responsibilities, and when he finds a reason that actually pushes him to resign he will not hesitate to do that. Maybe if we achieve something on the subject of waste at the level that we want, we put will put our resignations in front of everyone. We shall not abandon our responsibility as individuals. We have heard advice from everyone and no one stopped at any consideration as we move from a system that existed in the management of solid waste in Lebanon for 18 years to another system within a national plan to deal with this waste. (...) We are seeking from the beginning to the sorting process from the source and then we can actually accomplish recycling operations down to the burning of combustible materials in the aggregate plants and other thermal dissociation like other countries in the world.”

He added: “All of our water resources are at risk and all the rivers, shores and mountains in all Lebanese regions are polluted. Is this considered as an abandonment of the beautiful Lebanon we know? We need \$870 million just to clean up along the Litani River with Lake Qaraoun. We are talking about a crisis happening in Beirut and Mount Lebanon in the hygiene field, but there are other crises in front of us. This is the danger.”

He concluded: “The challenges faced by the Lebanese industry in global markets put us in front of a big challenge to enhance the competitiveness of

small and medium institutions which constitute the largest percentage in Lebanon. The adoption of the world industry of the principle of sustainable consumption and production requires work to achieve sustainable development in the Lebanese industrial sector, depending on the consumption of natural materials and leads to the production of emissions and pollutants to the surrounding environment.”

Minister Hajj Hassan

Minister Hajj Hassan praised the efforts of the Industrial Research Institute in terms of organizing, hosting and sponsoring activities related to the development of industry and environmental and sustainable development.

He explained that the subject of our seminar occupies the world in which the pace of growth and the industry is accelerating, leading to a lot of pressure and depletion of the resources of the planet, and consequently leaving a lot of residues and pollutants produced especially by industrialized nations. As industrialists we have to accelerate our pace towards cleaner production for the benefit of industrialists, the environment and the citizen, which causes a reduction in production costs and implications for industry of environmental impacts. He called on all officials and citizens to assume their responsibilities and not commit environmental crimes in exchange for a political failure.

He also talked about the problem of waste in Lebanon that began since the first concessions in the nineties of the last century with the accompanying exclusivity and political insistence on this exclusiveness without making room for conducting tenders for the sake of quotas and benefits. (...) HE Minister Machnouk is working on finding a solution for deporting waste to the outside and this solution will find its way to implementation soon.

Pasini

Pasini said: “Supporting the industrial sector in Lebanon is a cornerstone for economic development and the development of industry pillar must take into account the environmental standards through reinforcing cleaner production away from the dangers of pollution and waste from manufacturing, which leads to reducing production costs and environmental impact, and increasing competitiveness for manufacturers.”

Yaacoub

Dr. Yaacoub gave a speech in which he said that: “The objective of the Lebanese Cleaner Production Centre is to serve industrialists because it believes in the role of the productive sector and its importance in capacity-building and that will remain a national need for a solid bridge between the industrial and environmental sector and public and private sector.”



The Industrial Research Institute honors the Association of Economic Journalists

Frenn: Our Operating revenues reached 10 billion LBP and assets 20 billion LBP

Minister Hajj Hassan: We want a permanent and continuous relationship with Economic Journalists

The Director General of the Industrial Research Institute Dr. Bassam Frenn honored on November 24, 2015, the President of the Association of Economic Journalists Adnan Hajj and members of the Association under the auspices of the Minister of Industry, Dr. Hussein Hajj Hassan and in his presence.

Were present the Director General of the Ministry of Industry, Dany Gedeon and the General Director of LIBNOR Lana Dergham, senior managers and staff at the Institute.

At the beginning of the meeting, Minister Hajj Hassan and Dr. Frenn praised the honorary initiative and the historical role of the Institute in Lebanon and the Arab world as a scientific and research platform and laboratories to serve the industry and development, provide technical and engineering advice and studies or economic growth. He also called the Lebanese government to take the initiative and support the Institute, which role was not limited to Lebanon but covered several countries in the region, the Arab world and Africa.

Dr. Frenn

Dr. Frenn welcomed the Minister Hajj Hassan and attendees, praising the permanent cooperation and the established and close relationship between the Institute and the Association of Economic Journalists at the level of coverage of the Institute's activities and the prominent role at the level of the Lebanese economic cycle, from the media's role and its responsibility in providing objective news and accurate public opinion.

He also presented the development of the Institute during the past 18 years at all levels, pointing that: "the operating income in 2014 amounted to ten billion LBP, and fixed assets exceeded 20 billion LBP, while the state's contribution is almost non-existent." He added: "One of the most prominent achievements of the Institute is its ability to self-financing and securing the financial balance between revenues and expenditures, so as to ensure at the same time, the scientific and academic efficiency and organic relationship with the Ministry of Industry, LIBNOR, and both the industrial and business communities. The IRI is reviewing 45 thousand customs file with the service of following-up the files on the Internet, as well as studies, services, and consulting conducted for the industrial development. The Institute became a member of European and global prestigious research institutions in the field of scientific research, which is the only non-European institution with voting rights in the Common European Laboratories Union."

Minister Hajj Hassan:

Minister Hajj Hassan welcomed the President of the Association attendees by saying: "Our main objective is a constant communication, not just when there's a need to cover the news or a certain activity. Presumably the Government's concern should be reinforcing the industry to enlarge its economic size. He also proposed shocking figures of the economy that need to be reviewed, planned; visions, studies and strategies must be established to get out of the crises resulting from them, namely:



- First: The trade deficit last year reached \$17 billion, almost one-third the size of the GDP \$50 billion;
- Second: We produce 40 percent of our needs for electric energy at a very high cost;
- Third: The total budget of the Ministry of Industry is almost 6 billion LBP;
- Fourth: The rate of unemployment is between 30 and 35 percent.

He added: “These figures have a negative impact on economic growth, and this is due to the absence of development policies and the refusal of some influential officials to make decisions to support the productive sectors and because of bilateral trade agreements which are unfair to Lebanon, whether the partnership agreement with the EU or the Arab Facilitating Agreement. While Lebanon is committed to them and is opening its markets to foreign goods without impunity, other countries are putting technical barriers and hampering the flow of goods to Lebanon, what makes the trade balance unstable with most countries in the world.

He asked, as a result of this, how we can secure job opportunities and ensure a stable trade balance at a time during which we cannot consider trade to be free anywhere in the world. The biggest proof is the debate and ongoing negotiations between the United

States, China, European countries and Japan to improve trade between them. All countries in the world resort to the support and protection, why don't we resort to such measures to protect the productive sectors? We started applying these measures and we will continue them in addition to a series of measures to counter the economic crisis.

A tour in the Institute's laboratories

Journalists visited the Institute laboratories and looked over their type of activities, and listened to detailed explanations about the work progress. The administration of the Institute awarded the President of the Association Adnan Hajj an honorary shield.



2

Activities of the Director General

For 18 years he hasn't ceased to plan, execute and amend where necessary. He offers help to whomsoever is in need and is not influenced by whomsoever attempts to obstruct him. He goes beyond the borders of his homeland to spread his message: "The Industrial Research Institute should be a leading scientific institution not only in Lebanon, but also in the Middle East".

While taking care of the Institute, of its departments and equipment, and the dedicated human resources, he paves the way for cooperation with other economic, environmental and scientific institutions in a way that promotes the national economy through their expertise and services.

One of the priorities of the Director General Dr. Bassam Frenn is his cooperation with specialized universities faculties, especially with the Faculty of Engineering of the Lebanese University, so that the Faculty's graduates can find some help in the labor market.

Engineering Students, Renewable Energy, Lebanese Industry, Lebanese Cleaner Production Center and Economic Media Presence of close ties as asserted by the Director General Dr. Bassam Frenn

Last year, Dr. Frenn stressed that “cooperation between the Institute and the university is not urgent; it is rather the result of a common conviction about its importance. It was initiated upon ten years ago upon an agreement with the Faculty of Engineering in order to exchange experience, science, research and information.

This cooperation included innovative activities and projects and updating the measurement and testing devices, helping therefore the students to gain expertise and skills to be later invested in a leading company in the field of technology, i.e. the Industrial Research Institute”.

Dr. Frenn emphasizes the issue of renewable energy on a yearly basis by organizing special seminars, assigning engineers to conduct relevant studies, and initiating a leading project to produce electricity from solar energy, where the Institute keeps track of the project’s productivity and the project’s outcome at the level of the Institute’s energy consumption.

In 2015, Frenn underlined during a symposium on energy the need for the government and institutions in Lebanon to adopt “an approach based on using various energy sources while Lebanon is lately experiencing the alternative energy option”. It is worth mentioning that many techniques are poorly exploited in Lebanon, such as geothermal energy or the use of wasted energy during manufacturing processes (energy recuperation).

The Institute, in cooperation with the Lebanese Cleaner Production Center, organized training workshops and conducted relevant research, taking into consideration that the use of alternative energy reduces the negative health consequences and minimizes the polluting emissions.

Lebanese Industry

The Institute’s Director General underlined the need to carefully deal with the “important political developments on the local, regional and international levels, especially after the unsurprising economic indicators took place in the region”.

He added that on the occasion of the Lebanese Industry Day, the Institute’s strategy aims to “maintain the initiatives of the Lebanese private sector distinguished with excellence, success and innovation. Accordingly, we show perseverance throughout our work in order to keep pace with the private sector. This is done through conducting research and studies, as well as providing the necessary funding to modernize the sector and increase its productivity and competitiveness, provided that the exporters abide by the mandatory standards, in addition to conducting industrial projects in rural areas. We also strive in the Institute to provide an appropriate environment for investment through helping industrialists and businessmen to find promising investment opportunities, to increase productivity and competitiveness so as to achieve the desired added value”.

He also highlighted the “improved performance of the productive sections with which we worked in order to ensure resource efficiency and a cleaner production”. He added: “Many industrialists with whom we cooperated were able to progressively adapt with the preventive measures that are necessary for the typical industrial activity. The result was an increase in their earnings and profitability through reducing the production costs, reducing the use of raw materials, electricity and fuel, decreasing the negative environmental impact, adopting and implementing modern industrial technologies, higher purchasing rate in the industrial institutions which implement

the concepts of a cleaner production. Our determination to implement this strategy has led to the increasing development and modernization of the industrial sector”.

Media

While talking about economic journalists, Dr. Frenn underlines “the permanent cooperation and the close relationship between the Institute and the economic journalists while covering and shedding light on the Institute’s activities and its prominent role at the level of the Lebanese economy, based on the role of media in providing objective and accurate news to the public opinion”.

He also presented to journalists an overview of the Institute’s developments on all levels during the past 18 years, underlining that the operating revenues amounted to ten billion LBP in 2014, while the fixed assets exceeded 20 billion LBP, and the governmental contributions are almost nonexistent.

Dr. Frenn added: “One of the Institute’s achievements is its self-funding ability and financial balance between revenues and expenditures, providing at the same time scientific and academic proficiency, as well as a strong relationship with the Ministry of Industry, the Lebanese Institution for Standards and Specifications, and the industry and business communities. The Institute currently deals with 45000 customs file with the service of online file tracking, and carries out studies, services and consultations for industrial development. The Institute has become a member in prestigious European and international research institutions in the field of scientific research, and it is the only non-European institution that has a voting right in the common European Union laboratories”.



IIRI

The Belgian Minister in charge of Foreign Trade Cecile Jodogne praised the Industrial Research Institute:

It is as efficient as the European institutions and has the same expertise and equipment

Frenn: Belgian institutions equipped the Institute with advanced tools and facilities

Upon the invitation of the Director General of the Industrial Research Institute Dr. Bassam Frenn, the Belgian Minister in charge of Foreign Trade Cecile Jodogne visited the Center on October 9, 2015 and toured its different departments, laboratories and research centers. She was briefed about the workflow and listened to accurate scientific and technical explanations about the work procedures according to European and international standards.



The Belgian delegation that accompanied the Minister took part in the tour, in addition to members of the Belgian embassy, the Director General of LIBNOR Eng. Lina Dergham, the Institute's officials and members of the Belgian Lebanese Work Council.

Minister Jodogne and Dr. Frenn discussed the close relationship and long-term cooperation between the Industrial Research Institute and the prestigious European and Belgian institutions in the field of research and laboratories. They also discussed the Lebanese-European negotiations about the Agreement on Conformity Assessment and Acceptance of Industrial Products, since Dr. Frenn is the head of the negotiations committee from the Lebanese side.

Dr. Frenn welcomed the Belgian Minister and the accompanying delegation in the Industrial Research Institute, and thanked the Belgian government for what it is offering to Lebanon on all levels, reflecting therefore the deep relationship between the Bel-

gian and Lebanese population. He added: "There are many similarities between Lebanon and Belgium in terms of variety, culture and economy. And despite Belgium's small geographical space, it represents the center of Europe. And this is what we are looking forward to in Lebanon that our country turns into the center of the Arab world. We are called to further consolidate the reciprocal relationships between the two countries. Since Belgium is the first European country in terms of exporting food processing products and the second European country in terms of exporting pharmaceutical products, we count a lot on its support to build a prosperous future for both countries, in addition to the efforts and dynamism of the Belgian diplomatic corps members in Lebanon who are not sparing any effort in this regard".

Minister Jodogne

After the tour, Minister Jodogne praised the Institute's activities on all levels, stressing that it can

be compared to the European institutions in terms of expertise and equipment. She also praised the effectiveness and productivity of the Institute, being a member of EUROLAB whose headquarter is in Brussels. EUROLAB is considered the highest authority in terms of laboratory tests and scientific research, while Lebanon, through its Industrial Research Institute, is considered the only non-European country that is represented in this union.



Certificate of Pride

Dr. Frenn addressed Minister Jodogne saying: “We value your certificate of pride for the Institute which provides high-quality services for the Lebanese industry and contributes to the economic growth thanks to a network of relations with local, regional and international partners. I consider your visit to the Institute as a symbol of continuity of the interactive relation with Belgium, and the culmination of a close cooperation between the Institute and Belgium

which dates back to 1990 as part of the protocol in force between the two countries. As a result, Belgian institutions equipped the Institute with advanced analytical tools and facilities, in addition to consulting and technical services for the European-Lebanese Center for Industrial Modernization (ELCIM) which is currently working under the supervision of the Institute”.

The Industrial Research Institute carries out environmental audits at the level of factories and laboratory tests

On November 17, 2015, the Minister of Environment Mr. Mohammad Machnouk and the Director General of the Industrial Research Center Dr. Bassam Frenn signed a memorandum of cooperation on behalf of the Ministry and the Institute. The memorandum covered fields related to environmental audits, studies to assess the environmental impact of factories and laboratory tests, calibration, quality assurance and the implementation of environmental concepts in industrial institutions.



Activation of Censorship to abide by the aluminum standards and norms

Establishing a committee to study the possibility of updating the ISO decree in order to enforce the decree related to the implementation of the Lebanese mandatory ISO standards related to some aluminum types, and this for both the public and the citizen's safety

The Minister of Industry Dr. Hussein Hajj Hassan held a meeting with Director General of Industry Dany Gedeon, Director General of the Industrial Research Center Dr. Bassam Frenn, Head of the Technical Unit Dr. Sayed Abou Diab, Head of Protection and Support Unit Hiba Chehadeh, representative of the Industrial Research Institute Eng. Elias Deeb, and representative of LIBNOR Ms. Carine Moukarzel.

The meeting was also attended by representatives

of two aluminum factories in Lebanon, the General Manager of Sidem factory Mr. Kamal Yammine and the General Manager of Aluxal factory Mr. Canaan Khoury. They stressed that they represent in this meeting the remaining five aluminum factories.

The meeting was held to discuss the best ways to support the Industrial Research Institute so that to enforce the decree related to the implementation of the Lebanese mandatory ISO standards related to some aluminum types, and this for both the public and the citizen's safety.

The attendees underlined that the applicable standards are sufficient to achieve the desired objective and there is no need for amendments or adopting new standards. They also discussed the obstacles that

the Industrial Research Institute is facing at the border crossings, preventing it from emptying the entire imported goods and making it easy to take the necessary samples for testing.

It was decided that the Minister of Industry will issue a resolution to monitor the aluminum specifications,

whether imported or locally manufactured.

It was also decided to establish a joint committee from the Ministry of Industry, LIBNOR, the Industrial Research Institute and the owners of aluminum factories in order to discuss the possibility of updating the aluminum ISO standards.

A cooperation agreement between the Industrial Research Institute and the French Institution Cerway to issue certificates for green buildings based on the Lebanese and French systems

As part of his efforts in the field of sustainable development – one of the Institute’s main missions, the Director General of the Industrial Research Center Dr. Bassam Frenn signed a cooperation agreement with the French institution “Cerway” specialized in issuing certificates for green buildings and establishments based on the Haute Qualité Environnementale (HQE) standard. The Bank of Lebanon acknowledges HQE as an international system that enables people to benefit from soft loans and subventions in order to achieve their projects.

The agreement aims to jointly issue certificates for green buildings based on two systems: the French HQE system and the CEDRE Lebanese system developed by the Industrial Research Institute in coordination with specialized French institutions (the word CEDRE stems from Construction Ecologique et Durabilité Règlementaire Environmental, i.e. Ecological Construction and Regulatory Environmental Sustainability). Both systems enable institutions to get the HQE or CEDRE certificate or both at the



same time if the concerned institution meets all the required conditions.

Frenn congratulates the staff working on the new achievement The Industrial Research Institute is an international reference in terms of assessing and endorsing inventions and devices related to grain production

The Industrial Research Institute issued the following statement:

The Industrial Research Institute has become a reference with international powers, commissioned by the International Association for Cereal Science and Technology (ICC) based in the Austrian capital Vienna. The Institute carries out early detection for all the newly invented machines all over the world which are used to test cereals and cereal products. The new powers assigned to the Institute enables it to assess and endorse the quality and functioning of these devices related to all the stages of cereal and flour production, and this according to a scientific study internationally published by the Industrial Research Institute.

“This official assignment took place after the ICC entrusted these duties to the head of the central laboratory for the cereal, flour and bread research unit in the Industrial Research Institute Eng. Amine Jbeili. The latter, while representing the Institute, was elected in 2012 an Assistant Technical Manager in the ICC. The election took place during the 14th meeting of the ICC’s general assembly which was held in Beijing, China, and Jbeili was selected from among other candidates from around the world.

The Director General of the Industrial Research Center Dr. Basam Frenn congratulated the Institute’s staff on this new achievement

which was added to the achievements record. He considered that entrusting the Institute with such a critical task is but a proof of a significant international trust in the Institute’s efficiency and high technical potentials. It is also a proof of the excellence of the Institute’s staff. This assignment increases the credibility of the Institute and its commitment to the highest standards in the tests conducted in laboratories equipped with the latest technologies”.

He added: “The new tasks entrusted to the Institute enables the central laboratory for cereal, flour and bread to access the latest technologies, examine them and assess their efficiency, in addition to participation in the making of technical decisions in the ICC which is considered the top reference in the world in terms of cereal examination, the world’s main nutrient”.



The Director General of the Industrial Research Institute participated in European activities in Rome, Milan, Brussels, Paris, Berlin and Istanbul which promotes the role of the Institute on the local and foreign levels

The Director General of the Industrial Research Institute, Dr. Bassam Frenn, reflects the prominent role of the Institute in several world meetings, lectures, colloquiums and conferences, especially at the European level, between Rome, Milan, Brussels, Paris, Berlin and Istanbul ... he participated in several research on divers subjects and gave numerous proposals ... he helped the IRI acquire an advanced scientific dimension whereas global scientific research institu-

tions and centers started entrusting it with tasks like granting accreditation or training certificates in the Middle East and Africa.

The Director General participated in 2015 in the following conferences ... while officials at the Institute attended several conferences and participated in other seminars and workshops, which enhances the role of the Industrial Research Institute on the foreign level.

Economy Today conference Rome, Italy

March 16-18, 2015

The Director General of the Industrial Research Institute, Dr. Bassam Frenn attended the Economy Today conference, held on March 16-18, 2015 in Rome-Italy.

The major topics covered during the conference were:

- Financial Market
- Globalization and international economics
- Management in the public sector
- Social aspects of economics
- Politics and economic policy
- Entrepreneurship and innovation issues
- Urban and regional economics



B2B meetings: Agro-food sector - Expo Milan 2015 - Italy

May 6-7, 2015

The Chamber of Commerce Industry and Agriculture of Beirut and Mount-Lebanon (CCIA-BML) organized in collaboration with the EuroMediterranean Development Center for Micro, Small and Medium Enterprises (EMDC), leader of this operation, the “EUROMED Invest Roadshow”, which was held on the 6th-7th of May 2015 in the framework of Expo Milan 2015.



In this regard, the Director General of the Industrial Research Institute, Dr. Bassam Frenn participated in the Matchmaking Event, dedicated to Small and Medium Enterprises (SMEs), that offers business contacts to industry, science and food

professionals who are looking for potential partners in Italy and EU countries, to ensure sustainable business development and growth in the Agro-Food Manufacturing sector.

The 22nd meeting of the Pan-Euro-Med Working Group in Brussels

June 10-11, 2015

The Director General of the Industrial Research Institute, Dr. Bassam Frenn participated in the 22nd meeting of the Pan-Euro-Med Working Group (“PEM Working Group”) in Brussels on 10 and 11 June 2015.

The major topics covered during the meeting were:

- Adoption of the report of the 21st meeting of the PEM Working Group held on 22 and 23 October 2014
- The regional Convention on Pan-Euro-

Mediterranean preferential rules of origin (PEM Convention)

- Revision of the PEM Convention-Appendix I-Articles of the Convention
- Revision of the PEM Convention-List rules
- List rules and other aspects of rules of origin applicable to textiles and textile products
- Procedure to amend Appendix II to the Convention and to adopt Joint Committee recommendations.

Frenn, Board Member of the Franco-Lebanese Chamber of Commerce (CCFL) - Paris

June 24, 2015

The Director General of the Industrial Research Institute, Dr. Bassam Frenn was elected member of the Board of Directors of the Franco-Lebanese Chamber of Commerce and participated in its General Assembly held on June 24, 2015 in Paris.

This Assembly was held in its extraordinary and ordinary clauses mentioned on the agenda of this invitation.

Extraordinary clauses:

1. Adoption of the agenda
2. Amendment of the Article 12.1 of the Statute:
 - Increasing the maximum number of members of the Board of Directors from 20 to 24 members;
 - Changing the end of the mandate of the Board of Directors

Ordinary clauses:

1. Adoption of the agenda
2. Approval of the minutes of the previous ordinary general assembly
3. 2014 activity report
4. 2014 treasurer report
5. Approval of the accounts for the year ending on December 31, 2014 and income appropriation
6. Discharge of the members of the Board of Directors
7. Reappointment of members of the Board of Directors
8. 2015 activity program
9. Other issues

Research Evaluation and Assessing Research Quality – Berlin

September 21-22, 2015

The European Academy for Taxes, Economics & Law organized a practical seminar entitled “Research Evaluation & Assessing Research Quality”, held on the 21st-22nd of September 2015 in Berlin.

In this regard, the Director General of the Industrial Research Institute, Dr. Bassam Frenn attended this practical seminar, over a period of two days, which was aiming the Transfer of expert knowledge as well as the European exchange of experiences between the attendees. The essential content of the Practical Seminar:

1. The Nordic Model of Compre-

- hensive University-Level Research Assessment
2. Benchmarking: How to Compare Research Outputs
3. Research Indicators: Intellectual and Data Management Challenges



4. Workshop: Control and Measurement of Research Results –Using Key [performance Indicators
5. Case Study: Assessing the Impact of the Scientific Policy Support Process
6. Interactive Session: Addressing Research Integrity
7. Recent Developments in Impact Assessment of Research, Technology and Innovation (RTI) Policies
8. Case Study: How to Work to Alter Societal Impact
9. Research Evaluation: The Perspective of a Health Research Funding Agency



EUROLAB National Members' Meeting, TCQA meeting and TURKLAB-EUROLAB seminar – Istanbul

October 6-10, 2015

The Director General of the Industrial Research Institute, Dr. Bassam Frenn, and the Laboratories Division Head, Dr. Joseph Matta attended the EUROLAB (European Federation of National Associations of Measurements, Testing and Analytical Laboratories) National Members' Meeting, TCQA meeting and TURKLAB-EUROLAB seminar in Istanbul, Turkey, from 6th to 10th October 2015.



The following topics were discussed:

- New TCQA Management System
- Cook-Books and Technical Reports : discussions on the Technical Report on NMR; proposal to draft a technical report on Continuous improvement within QM systems
- Position papers: proposal to draft a position paper on Harmonization of assessors
- TCQA WG's and TFG's: A Working group on calibration/metrology has been set up

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.





3



IRI Services and Activities

The IRI Services and Activities

The Industrial Research Institute, once again, proved that it is a scientific edifice which knows how to distance itself not only from the surrounding paths, affected by wars and economic crisis which have obstructed development and growth, but also from the internal political convulsions and the decline in economic activity, to confirm the extent of its commitment to the ethics of business career and the practical success, assisting all sectors of the national economy with scientific data on both the internal and external markets.

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 provide funds and achieve scientific support having fast results - in the campaign about the control and examination of agricultural, industrial and health products. In addition, it also responded to requests from the Lebanese 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 1353 processes per day, forming the largest work cell among Lebanese institutions.

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

- 345852 tests and analyses related to conformity were conducted by the IRI laboratories during 2015, with an increase of 15304 processes compared to 2014, i.e. 4.6 percent. The annual growth reached 7.9 percent since 2010, and the average of tests conducted daily arrived to 1200 tests.
- External detections amounted to 44268.
- The standardization and calibration tests registered an increase of 748 tests, reaching 15076 tests, i.e. an increase of 5.31 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 44291 customs files, with an increase of 3038 files compared to 2014, i.e. 7.4 percent and 153 files daily.

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 in 2015, then engineering and soil laboratories as well as engineering laboratories. The activity of the microbiological laboratories reached 40000 tests approximatively, followed by petroleum laboratories, bread and wheat laboratories and textile laboratories.

Tests were conducted on 52301 samples from the different incoming types.

The welding laboratory conducted 4015 tests on about 52 samples.

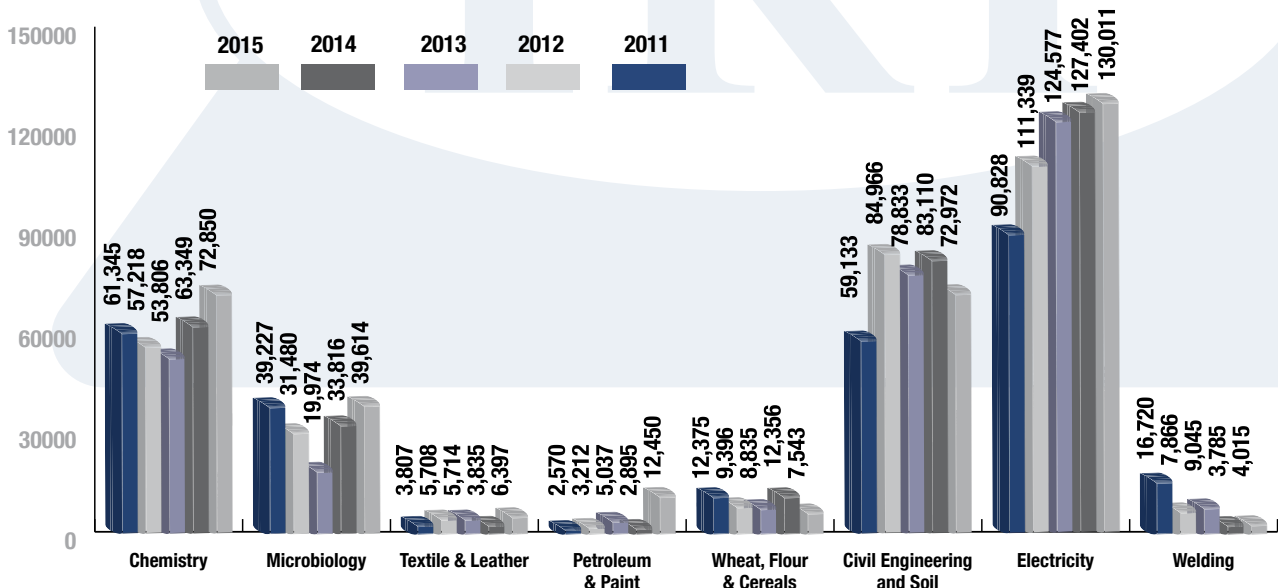
The laboratories activity according to the statistical tables is detailed as follows:

Chemical and Physico-chemical Laboratories

The number of tests in chemistry and physico-chemical laboratories reached 72850, with an increase of 9501 and a growth rate of 15 percent. It's a remarkable status acquired by these laboratories seeing that they accounted for about 21 percent of the total rate registered by laboratories. Their annual growth rate

Number of tests for each Lab

Laboratories	2011	2012	2013	2014	2015
Wet & Physical Chemistry	61345	57218	53806	63349	72850
Microbiology	39227	31480	19974	33816	39614
Textile and Leather	3807	5708	5714	3835	6397
Paint and Petroleum	2570	3212	5037	2895	12450
Civil Engineering and Soil	59133	84966	78833	83110	72972
Electrical	90829	111339	124577	127420	130011
Bread (CLBW)	12375	9396	8837	12356	7543
Welding	16729	7866	9045	3785	4015
Total	286,006	311,185	305,823	326,763	341,837



is 7.5 percent since 2010.

Microbiological Analyses

The number of microbiological tests reached 39614 tests in 2015, with an increase of 5798 tests in 2014, i.e. 17.1 percent, which is a remarkable increase resulting from receiving samples from the public sector in order to ensure the safety of water, food and other.

These tests represent 11.5 percent of the total number of tests, which increased at an annual growth rate of 5.6 percent between 2010 and 2015.

Textile, Leather and Rubber Laboratories

Tests and analyses processes increased in these laboratories 2015 in a sign of the recuperation of the local textile industry and clothing some of its full production capacity, due to a decrease in the import from Syria and the transfer of skilled workers to Syria. The number of tests and examinations reached 6397, approximately double the number registered in 2014. They now represent 1.8 percent of the total number of tests, compared to 1.9 percent in 2013. The rate of increase is 66.8 percent.

Petroleum and Derivatives Laboratories

The number of tests in the paint, and petroleum and derivatives laboratories witnessed an increase from 2895 in 2014, to 12450 tests in 2015, i.e. 330 percent. The annual growth rate of this type of tests reached 43% since 2010.

These tests represent 3.6 percent of the total number of tests.

Civil Engineering Laboratories

The civil engineering and soil laboratories reflect the activity of construction in Lebanon, and the demand for building materials and different equipment. It consequently reflects a decline due to the deadlock that has gripped the sector in recent years, especially in 2015.

These laboratories witnessed a decline of 10138 tests to 72972 tests, which is still a large proportion of the total activity of the laboratories of the Industrial Research Institute, i.e. more than 21 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 37.6 percent of the total number of tests and analyses conducted at the IRI. These laboratories conducted 130011 tests compared to 127402 tests in 2014, an increase of 2609, i.e. 2 percent.

Their annual growth rate reached 14.4 percent since 2010.

Central Laboratory for Bread and Wheat (CLBW)

The number of tests and analyses conducted at the CLBW witnessed a decrease to 7543 tests, i.e. 39 percent.

Welding Laboratories

The number of tests conducted at the welding laboratories rose to 4015 from 3785 in 2014, i.e. 1.1 percent of the total number of tests conducted at all IRI laboratories.

Metrology and Calibration Laboratory

After the stability witnessed in 2013 and 2014, the different calibration laboratories (Metrology) started achieving a steady growth in tests they conduct. In 2015, they registered an increase of 748 tests, i.e. 5.3 percent, conducting 15076 tests compared to 14328 tests in 2014.

These laboratories received 1614 measurement devices, an increase of 74 devices compared to 2014. These devices conducted 15076 tests.

These tests were conducted in 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 426 devices that carried 4260 tests, an increase of 180 tests (i.e. 4.4 percent). The average rate is 10 tests per device, which is the same rate witnessed in 2010.

Pressure

The number of pressure devices for testing reached 69. These devices carried 544 tests (i.e. 8 tests per device).

Force

Force calibration laboratories received 3 force measurement devices which carried out 24 tests; i.e. 8 tests per device.

Mass

The number of mass units reached 964, on which 9024 tests were conducted (i.e. 9.4 tests per unit). The number of mass units increased by 5.8 percent in one year and the number of tests grew by 6.4 percent.

Dimensions

The number of dimension units declined to 52 while the number of tests also declined to 416 – a 13 percent decrease.

Electrical Devices

The number of tests conducted on electrical devices declined in 2015; the number of devices stood at 54 compared to 92 last year, while the number of tests was 432, compared to 736 last year – i.e. a total of 41 percent decrease in the number of devices and tests.

Other Tests

The number of other devices rose from 8 to 47, on which 376 tests were conducted.

Technical Subjects	2011		2012		2013		2014		2015	
	Item	Test	Item	Test	Item	Test	Item	Test	Item	Test
Temperature	241	2410	328	3280	431	4310	408	4080	426	4260
Pressure	103	824	93	744	59	472	59	472	68	544
Force	15	120	19	152	6	48	2	16	3	24
Mass	618	5844	737	7008	820	7885	911	8480	964	9024
Length	58	464	83	664	68	544	60	480	52	416
Electricity	131	1048	115	920	117	936	92	736	54	432
Other (torque meter, sound level, lux meter,...)	28	224	24	192	9	72	8	64	47	376
Total	1194	10934	1399	12960	1510	14267	1540	14328	1614	15076

External Monitoring

The IRI laboratories carried out 35348 external supervision procedures in 2015 compared to 35683 procedures in 2014, i.e. with a decline of 335 procedures or 0.9%.

These procedures include: the supervision of the natural gas tanks through 170 procedures,

the supervision and calibration of the fuel tanks through 70 procedures, the supervision of boilers through 108 procedures, in addition to the supervision of can pressure through 35000 procedures and the supervision of imported gas bottles through 8000 procedures.

External Inspection

Activity	2011	2012	2013	2014	2015
LPG storage Tanks Inspection	395	406	410	420	170
Fuel Tanks Inspection & Calibration	199	160	53	51	70
Boiler Inspection	145	130	120	132	108
Other Pressure Vessels	35,000*	35,000*	33,000*	35,000*	35,000*
Total	35,739	35,696	33,583	35,683	35,348
LPG Cylinders - Locally Manufactured	25.000	24.000	8.000	8.000	0
LPG Cylinders - Imported	0	0	15.000	29,500	8920

* The accessories resulting from customs files are included

Custom Files

44291 customs files checked by the Industrial Research Institute in 2015

Year after year, the number of incoming files to the IRI for scrutiny rose to 44291 files in 2015 up from 18532 files 9 years ago, with an annual average growth rate of 11.5 percent, and an average of 153 files per day compared to 142 files in 2014.

The Industrial Research Institute continue to accomplish tasks in customs' files studying and scrutiny, among the tasks entrusted to it since 2005, so that it is sure that the imported products are matching in conformity the mandatory Lebanese standard specifications.

Customs files witnessed an increase of 3038 files, i.e. 7.4 percent compared to 2014. 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 higher growth.

As a result of the examination, 1506 files did not to comply with the mandatory specifications, constituting 70 percent of the total custom files

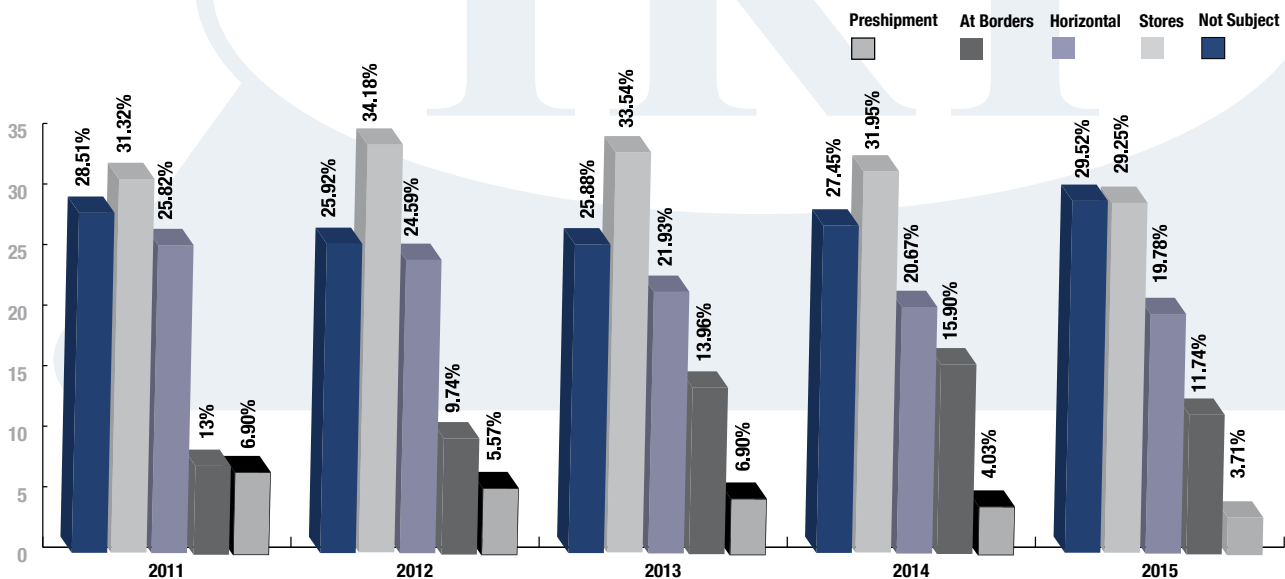
which are being checked and 3.4 percent of the overall files. 1478 files were rectified and 28 files were rejected.

The Industrial Research Institute checks around 56 percent of the files in transit centers or under the horizontal specifications and they are all examined and given back to the concerned parties within one day, whereas 44 percent of the goods being checked are deposited in warehouses before being sold.

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 are not subject to the checking process, because they are not subject to mandatory specifications. The number of these files rose from 4594 in 2007 to 13071 in 2015, with an average rate of 13.96 percent compared to 15.5 percent in 2014. 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 1646, forming around 3.7 percent compared to 4 percent in 2014 down from 9 percent in 2012 and 4.7 percent of the total number of files in 2013.

3- Horizontal specifications

They constitute 19.8 of the total number of files and 28 percent of the total number files subject to checking. They are examined and returned to their owners on the same day. Their number increased from 4300 in 2007 to 8762 in 2014 with an average growth rate of 9.3 percent annually.

4- Checking goods to be stored

These files are checked after storing goods in relevant containers. Their number reached 12953 files down from 13176 in 2014, accounting for 29.3 percent of the total number of files and 41.5 percent of the files subject to checking and scrutiny.

5- Examination at border crossings

The number of files checked at border crossings account for 25.2 percent, i.e. 7859 files. 4958 files are checked at the Beirut International Airport, 2754 files at the port of Beirut, 104 files at the Masnaa Border Crossing and 43 files at the port of Tripoli.

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 accounted for the largest part reached 28.4 percent of the total number of files, i.e. 12566 files. Together with files pertaining to chemical products and devices, they represent more than half of the total number of files, whereas the number of chemical files reached 8120 i.e. 18.3 percent. The number of files about medical devices stood at 5845 with a 13.2 percent rate, followed by files pertaining to clay and soil which amounted to 4045 with a 9.1 percent rate. The number of common files reached 3467, with a 7.8 percent rate.

The number of files pertaining to paint was 2469, representing a 5.6 percent rate, while the number of files pertaining to textile was 2716, i.e. 6.2 percent. Vehicles files reached 1604, mechanical files numbered 1205 and files related to energy stood at 204, whereas the number of files on pressure devices reached 348.

The port of Beirut accounted for 70 percent, i.e. 30570 files, followed by Beirut International Airport with 30 percent, the equivalent of 12927 files. The Masnaa Border Crossing took 494 files, i.e. 1.1 percent.

Customs Files by Type

	Pre Shipment	Chemical	Electrical	Medical	Lifts	Mechanical	Energy	Paint	Pressure	Soil	Textile	Tyres	Common Files	Total
Total	1492	8102	12566	5845	228	1205	204	2469	348	4045	2716	1604	3467	44291
Subject	1492	6075	7771	5243	163	537	159	647	223	3946	2118	0	2379	30753
Not Subject	0	2026	4488	548	65	660	44	1822	125	86	598	1604	1005	13071
Not Subject %	0.00	25	35.71	9.37	28.50	54.78	21.56	73.79	35.91	2.12	22.01	100.00	29.98	29.52
Non Conform	0	30	897	57	0	1	70	7	21	377	465	0	In C, E & S	1506
Non Conform %	0.00	0.49	11.54	1.08	0.00	0.18	44.6	1.08	9.41	9.55	2.17	0.00	In C, E & S	5.14
Corrective Action	0	26	890	50	0	1	70	7	19	377	38	0	In C, E & S	1478
Rejected	0	4	7	7	0	0	0	0	2	0	8	0	In C, E & S	28

Customs Files by Entry Point

	Pre Shipment	Chemical	Electrical	Medical	Lifts	Mechanical	Energy	Paint	Pressure	Soil	Textile	Tyres	Common Files	Total
MASNAA	0	88	49	4	0	33	3	50	11	12	212	1	31	494
PORT	1482	5485	7924	1261	193	1095	189	2245	285	4000	2221	1488	2692	30570
SAIDA	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TRIPOLI	0	119	7	5	0	2	1	4	12	2	49	65	33	299
AIRPORT	0	2410	4585	4575	35	75	11	170	40	31	234	50	711	12927
Total	1492	8102	12566	5845	228	1205	204	2469	348	4045	2716	1604	3467	44291
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 supports them. It has granted 25 industrial enterprises the ISO 9001 certification; four 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 institute the ISO 18001 certification, all within the framework of developing a number of specifications for occupational health and safety management systems.

ISO 9001 Certified		
Yendis Hair since 2014	Château KSARA since 2003	LECICO since 2008
Centre Hospitalier El Youssef - since 2005	Holcim (Liban) SAL since 2003	MIRODEC since 2011
CLINSERV International since 2009	Integrated Digital Systems since 2004	Nasri Karam & Sons since 2003
Harfouche Trading & Industrial - Pastel Paints since 2004	MDM Plastics since 2003	ACET since 2012
MONDI since 2010	Nakhlé Zgheib & Co. since 2008	Al-Balsam since 2013
Produits & Solutions Informatiques – PSI since 2002	SOIME since 2012	Multichem since 2015
SADAPACK since 2012	Betomix since 2009	Holderchim Building Chemicals since 2014
Building Chemicals Company - since 2014	Château Kefraya since 2006	
Elie Melhem Clinic since 2014	Holcim Béton since 2008	

ISO 14001 Certified	
Holcim Liban since 2004	Building Chemicals Company since 2014
Holderchem Building Chemicals since 2014	Multichem since 2015

ISO 22000 Certified	
Château KSARA since 2009	DAHER 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

45 products received a quality certification from the Industrial Research Institute during 2014, distributed to 11 production institutions.

10 Companies with IRI certified products (35 products certified)			
Poppins - Corn flakes, choco flakes, honey flakes, frosted flakes - Cereal bars (10 bars) - Honey roundies - Choco bits, choco pops, choco bumps - Daily bran - Fruity Bytes (4 flavors) - Honey pops	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 -P 52.5	Sannine -Bottled mineral water 0.5l, 1.5l,2l
Almaza -Almaza Beer alcoholic -Laziza non alcoholic	Sarkis Co. -HDPE pipes	Techniplast -HDPE pipes	

People Competences Certificates

The Industrial Research Institute awarded certificates to individuals entitling them to audit the quality of systems and products, in cooperation with the French Moody's Foundation.

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
- 16 "FREA" Internal Quality Auditors ISO 9001:2015
- 11 "FREA" FOOD SAFETY MANAGEMENT SYSTEMS INTERNAL AUDITORS COURS ISO 22000.

Certificates of the Lebanese Welding Center

Under Law No. 423/2002, which stipulates that: "the Industrial Research Institute is responsible for giving accreditations and is authorized to issue certificates of conformity in the field of welding in all its forms", the Institute awarded 144 certificates for welding through the Lebanese Welding Center, as well as one inspection certificate in non-destructive testing.

Lebanese Welding Center	2011	2012	2013	2014	2015
Welders certified by IRI	55	30	43	118	144
Inspectors in Non-Destructive testing	1	1	1	1	1

Metrology Lab new equipments

Ultra-low temperature bath

The Hart Scientific 7380 is an ultra-low temperature bath useful in temperature calibration and other applications requiring stable temperature. It operates over a wide temperature range from -80 °C to 100 °C



Standard load cells

Matest load cells are suitable for the calibration of compression testing machines from 1 kN till 5000 kN. These traceable load cells are connected to a digital amplifier C138N



Electrical Lab new equipments

Mechanical shock test apparatus - T2-44 (TESTING)

The T2-44 mechanical shock test apparatus is intended for establishing the resistance of circuit-breakers to mechanical shocks.

It is constructed in compliance with IEC 60898 figure 7. This apparatus consists of two main units: mechanical unit and control unit.



Needle flame test apparatus - 02-07-A (ATTREZZATURE TECNICHE SPECIALI)

This equipment allows to execute a flame test with needle that simulates the effect of small flame, that may occur inside the products, in order to judge the fire risk.

It is applied to the electro-technical products, to their sub-assemblies and components, and to solid electrical insulating materials and other combustible materials.



New Equipment Totally Designed and Realized at IRI

Temperature data acquisition

Designed by Eng. Achraf NASSER EDDINE

According to the development policy of the Industrial Research Institute, Eng. Achraf NASSER EDDINE, unit head on the electrical laboratory has executed a new project that consist to design a portable temperature data acquisition used for recording temperature over a defined period of time during any test that need to control the environmental conditions.

The goal of this project is monitoring the temperature during the test inside any types of cabinet such as ovens, refrigerators..... The portable device is controlled during the test through LabView software and connected via USB to any computer. The temperature data are registered automatically on Microsoft excel sheet that appears automatically at the end of the registration period.

The hardware represents a compact solution for adding thermocouple type k. it features thermocouple-to-digital converter. The temperature range of this device is between -100°C and 600°C with sensitivity of about $41\mu\text{V}/^{\circ}\text{C}$. It has a built-in 14-bit ADC converter. All these features make this board ideal for thermostatic, process-control and monitoring applications. All hardware and software proudly engineered and made totally at the electrical laboratory of the Industrial Research Institute.



Primary Battery Testing System (PBTS)

Designed by Eng. Fady Y. MELHEM

Eng. Fady Y. MELLHEM (Unit Head on Electrical Laboratory - Technology & Development Directorate) has developed new equipment in the field of Storage System. This equipment titled by “Primary Battery Testing System” (PBTS), aims to test primary batteries (AA, AAA, C, D, 9V, button...) with numerous discharge techniques and methods according to International Electrotechnical Commission standard (IEC 60086-2).

The objective of this applied research is to design and realize a battery diagnostic system in order to normalize the primary batteries with respect of their test methods and their typical performance. The implemented equipment is controlled by the computer through developed software. It comprises a bank of several channels, each provides the discharge independently of the other channels. This testing system achieved within the Industrial Research Institute, has improved the test method in the laboratory where the tests have become faster, easier and more precise.





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; an assessor from the ANSI-ASQ National Accreditation Body (ANAB) carried out an assessment visit at the Institute in July 2015.

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
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 and 27.5/ NL EN 60335-1:2009 Clause 16.2, 16.3 and 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
Metrology	- Balances	- Euramet CG-18; EA-4/02

As of the end of 2015, the accreditation scope covers more than 350 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	- Circuit breakers	- IEC 60898 Clauses 9.10 and 9.13.1
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
 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 ANAB
 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

ANAB Approval

Valid to: 11/03/2016
 Version No. 001 Issued: 10/16/2015



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

Seminars and workshops

The Industrial Research Institute organized throughout 2015 a number of seminars and training workshops and sent delegations abroad as well to take part in similar events. These delegations included

126 employees and workers from the Institute, with a total of 210 training days, 110 participants in national seminars and 16 participants in events held abroad.

Open day for industry

In cooperation with the Association of Lebanese Industrialists, the Industrial Research Institute organized on the 15th of September, 2015, an open day for the paper and packaging industries to acquaint them with laboratories, facilities, research and innovation projects, and other services offered by the Institute.



Scientific Conference at Notre Dame University

The Faculty of Mechanical Engineering at NDU and the American Society for Mechanical Engineers organized a scientific conference under the title: “Regional Student Professional Development Conference” on April 24 and 25, 2015, in the Conference Hall of the University in Zouk Mosbeh.

During the first day, Engineer Tarek al-Hakim, Head of the Lebanese Welding Center, gave a lecture under the title: “An introduction about non-destructive tests” within the framework of the continuous cooperation and communication between the IRI and universities, where professors and students were introduced to some of the functions and activities of the Industrial Research Institute carried out by the Lebanese Welding Center in the field of non-destructive tests, knowing that the Center benefits from its membership in the International Institute of Welding and the International Committee for Non-destructive Testing.



This day also included a scientific contest in which students from several universities participated. Tarek al-Hakim was a member of the jury which consisted of professors from several universities. The contest aimed to test the ability of students of creating a miniature robot with specific dimensions that can load sand and then pass several obstacles to reach the finishing line, loaded with the same amount of sand that it carried in the beginning. The contest was won by student from the Rafik Hariri University.

Training courses on welding in Bekaa factories with the support of the UNIDO

Within the context of the cooperation between the Industrial Research Institute and the United Nations Industrial Development Organization (UNIDO), the Lebanese Welding Center organized, from February 10 till June 1, 2015, courses in the field of welding and non-destructive tests for engineers, heads of laboratories and welding workers belonging to 6 Lebanese industrial institutions, in the supervision of the Head of the Lebanese Welding Center, Engineer Tarek al-Hakim and UNIDO project coordinator Ms. Nada Barakat Daou. These courses are part of the project of supporting host communities in Lebanon, affected by the flow of Syrian refugees. These courses were sponsored by the Ministry of Industry and funded by the Government of Japan.

Five engineers as well as directors of industrial plants in the Bekaa region participated in the courses on non-destructive tests, which allowed them to become familiar with the general principles of non-



destructive tests and the way of conducting these tests on metal welded structures. The training also allowed them to apply what they learned from the testing methods on models of welding that included flaws.

The participating welding workers also underwent intensive theoretical and practical trainings, and took, at the end of the courses, a welding exam to gain an efficiency certificate according to the requirements of the International Standard.

Two Transition Training Courses for ISO 9001:2015

IRI in collaboration with FREA Formation France has organized two training courses at IRI premises.

1- Transition Training course for ISO 9001:2015 on 21 of December 2015

The objective of this course was to give the companies with ISO 9001 certificate an overview about the new standard version including new terminology and concepts, review of the requirements and the new structure; this was achieved through presentations and exercises.

2- IRCA Auditor Transition Training course for ISO 9001:2015 on 21 and 22 of December 2015



This course was addressed to the external ISO 9001 auditors in a way to show them in addition to the new requirements and structure of the new standard version, on site auditing and audit findings exercises.

Kfoury describes the implementation stage as fruitful
Minister Hajj Hassan during his visit to Baghdad called for the circulation of the agreement regarding the conformity certificates between both countries

During his official visit to Iraq (ending on November 3, 2015), the Minister of Industry Dr. Hussein El-Hajj Hassan, along with the Iraqi Minister of Planning Dr. Salman Ali El-Joumayli, discussed the deactivation of the agreement regarding the mutual recognition of the conformity certificates between both countries. While tackling the issue of standardization and quality control, revealing the presence of an agreement regarding the mutual recognition of the conformity certificates between both countries which had been in effect since 2002, it was pointed out that the agreement was deactivated by the Iraqi part in 2009.

He added: "It is true that Iraq adopts this procedure with all the countries from which it imports goods, but in fact, we demand to consider Lebanon as an exemption and renew the agreement after the amendments which the Iraqi part deems appropriate. He also talked about two specific companies which "do not have any laboratories in Lebanon, but they do the laboratory tests in the labs of the Industrial Research Institute. These two companies just endorse the certificate endorsed by the Industrial Research Institute, wherein the experts take a sample to make it meet with the required specifications". Note that the Industrial Research Institute is considered part of the international and European network, increasing therefore its reliability and effectiveness. The Institute, which has received many groups to be trained therein, conveyed its readiness to invest its potentials, expertise and resources so that to enhance cooperation and develop laboratory and research work in Iraq.

The Institute's Administrative Director

Salim Kfoury, the Administrative and Financial

Director of the Industrial Research Institute, stated that the deactivated agreement was established for mutual activity between the two countries, but the intervention of a third party did not help as much as it made things more difficult for the Institute's team work which became forced to do more interventions. He mentioned that the Lebanese specification was adopted in the tests when the Iraqi specification was not available, underlining the successful experience through the implementation of the bilateral agreement.

He stressed that the Industrial Research Institute has 14 laboratories carrying out 400 tests according to internationally recognized methods, whose tests cover the various industrial fields, and whose certificates are accepted in 120 countries. Kfoury conveyed his desire to reactivate the agreement after amending its provisions so as to meet both Iraqi and Lebanese interests.

Technical Meeting

Both ministers agreed that an invitation from the Lebanese part should be sent to officials in the Iraqi quality control sector to visit the standardization organization and the Industrial research Institute in Lebanon.

The technical discussions continued in the presence of LIBNOR's General Director, Eng. Lana Dergham, along with Kfoury, Head of the Union of Food Industry, Mounir El-Bassat, and the concerned Iraqi parties. The Iraqi minister attended part of the meeting and listened to further explanations, before submitting the agreement to the Iraqi Council of Ministers.

The Lebanese Minister of Industry held meetings

with Iraqi officials with the participation of: chargé d'affaires in the Lebanese embassy Dr. Fady El-Gemayel, LIBNOR's General Director Eng. Lana Dergham, Administrative Director of the Industrial Research Institute Salim Kfoury, Vice-President of the Association of Lebanese Industrialists Georges Nasraoui, Head of the Industrialists Assembly of

South Suburb of Beirut Oussama Halbawi, Head of the Union of Food Industry Mounir El-Bassat, member of the board of directors Chawki Daccache, President of the Lebanese-Iraqi Businessmen Council Abdel Wadoud El-Nsouli, Head of the Union of the Bekaa Farmers Ibrahim Tarchichi, besides a number of industrialists and the Minister's advisors.

Renewable energy sources and their use in the Arab world A project submitted by the Industrial Research Institute and adopted by the Coordinating Committee and the Arab Industrial Research Centers

The Industrial Research Institute was represented by its Administrative Director Mr. Salim Kfoury in the 15th meeting of the coordinating committee for the industrial research institutions and centers in the Arab world, held in Kuwait in the Kuwaiti Institute for Scientific Research (KISR) on May 26 and 27, 2015. The agenda included one main clause, i.e. a program to conduct a study entitled "The Evaluation of the Renewable Energy Sources and their Use in the Arab World". The meeting concluded with the endorsement of the program and the issuance of the relevant worksheet.

Below are the minutes of meeting

Project's name: The Evaluation of the Renewable Energy Sources and their Use in the Arab World
Project's applicant: Industrial Research Institute

1. Project's importance and rationale

- The importance of energy as the fundamental component of socio-economic development in the Arab countries and the increasing need to it in line with the population growth and the resulting increase in energy demands to meet those needs.
- Most of the Arab countries depend on fossil energy sources of oil and natural gas with an average of 672 billion barrel and 53.7 billion

cubic meters in 2008. This source may deplete in the coming three decade, urging therefore these countries to look for alternative sources to ensure clean energy necessary for development.

- Arab countries should pay special attention to renewable energies in the fields of wind, solar radiation, geothermal heat, biofuels and hydroelectric energy.

2. Project's Team:

Forming an Arab team of prominent researchers specialized in the field of renewable energies to carry out applied research and studies needed for highly qualified technicians so that to cover different technical works, including maintenance and monitoring of ground stations in the Arab countries concerned with the development of renewable energy sources.

3. Project's Objectives:

- Coordination and cooperation among the Arab countries to develop their legislation and implement their policies in the field of renewable energy.
- Coordination and cooperation among the different research centers in the Arab countries working in the field of renewable energy.

- Establishment of high quality ground stations to monitor solar wind and winds.
- Development of database and maps for renewable energy sources in the Arab countries for researchers and investors in the field of renewable energy.

4. Project's Outcome

- Proposing a practical framework for Arab work and coordinating the efforts in the field of renewable energy.
- Finding a referential framework for Arab legislation in the field of renewable energy.
- Establishing an accurate database about renewable energy sources like solar radiation and winds.
- Determining the appropriate technologies for the use of renewable energy in the Arab countries.

5. Project's Methodology:

First stage: (six months) Forming and preparing the project's team

During this stage, all concerned parties in the Arab countries will be contacted through the Arab Industrial Development and Mining Organization. Countries taking part in the project will be required to nominate members for the project's team. The team should be:

- A scientific team whose mission is research, analysis and implementation of whatever is at the level of scientific researchers.
- A technical team to carry out maintenance work and monitor the work of ground stations with high efficiency

Second stage: (six months) Analyzing the maps and data to identify the areas with the highest levels of solar radiation and winds

- Accessing maps and highly accurate data for the levels of solar radiation and winds from the satellite.
- Analyzing the maps and data to identify the areas with the highest levels of solar radiation and winds separately

This stage is distinguished by high precision. As mentioned earlier, the area of the Arab world is very large and it is expected that locations with high levels of solar radiation and winds are too many; therefore, selection should be carefully made and according to accurate standards. This stage might include field trips conducted by the project's scientific team for site inspection before selecting the concerned location.

Third stage: (nine months) Studying the availability of infrastructure for areas specified for ground stations, such as streets, electricity lines and nearby populated areas

Fourth Stage: (one year) Facilities

- Purchasing the necessary measurement devices for the stations monitoring solar radiation and winds
- Installing stations and collecting data

Fifth stage: (after installing the first station till the end of the project) Maintenance of the stations.

Sixth stage: (one year) Database

- Establishing a central database to collect all the data from ground stations and save them.
- Designing an online website for the project including all the project's details and data analysis accessed by everyone.

Seventh stage: (two months) Data analysis

- Data auditing according to the quality standards as recommended by the World Meteorological Organization and some mathematical samples. Measurements containing more mistakes than the permitted rate will be cancelled.
- Establishing a Typical Meteorological Year (TMY) for each site. The satellite data will be used for more than 10 years and the station's data for one year in order to have two TMYs: one P50 and the other P90.

Eighth stage: (one month) Drafting reports

- Annual reports will be submitted to explain what has been achieved in the previous stage.
- After the end of the project, the final report will be issued.

Kfoury visits the Accreditation Bodies in Serbia and Romania

Mr. Salim Kfoury, being the representative of the Industrial Research Institute in Colibac (the Lebanese Accreditation Body), took part in an official visit to the accreditation bodies in Serbia and Romania, as part of an official delegation which comprised the Director-General of the Ministry of Industry Mr. Dany Gedeon and the Director of the Quality

Unit in the Ministry of Economy and Trade Dr. Ali Berro. The purpose of this visit, which took place from August 30, 2015 till September 4, 2015, was to check the workflow within these bodies and study the models of the accreditation bodies so that to facilitate the ongoing preparations for the Lebanese Accreditation Body system.

Dr. Imad Hage Chéhadé, Technology and Development Director of the IRI visits Tunisia to participate in training regional trainers on energy efficiency management system ISO 50001

The project to strengthen the institutional infrastructure for standardization and regulation to support business and industry in the Middle East and North Africa (MENA STAR) target originally 11 countries: Algeria, Egypt, Iraq, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia and Yemen. It covers a range of activities aimed at strengthening the institutional infrastructure developing and using standards, and strengthens the capacity of business and industry to implement key standards in the field of sustainable development. The project is funded by the Swedish International Development Cooperation (Sida) and implemented by ISO.

This project has two objectives:

- To strengthen the ability of some institutions to support the industry, such as national standards bodies (NSB), regulators and trade promotion organizations (TPOs) to stimulate the participation of countries in international trade, while improving international competitiveness and export performance through quality improvement.
- Contribute to the establishment of a framework for businesses by encouraging the private sector and other stakeholders to build on International Standards to demonstrate their commitment to sustainable development.



In this framework, Dr. Imad Hage Chéhadé, Director of Technology and Development of IRI, participated in the training of regional trainers on ISO 50001-Energy Management System and on efficiency. The 5-day training was held from 16 to 20 November 2015 in Tunis. The Lebanese delegation behaved in addition to Dr Hage Chéhadé three other experts, from Libnor, LCEC and a management system Expert. Trainers are two experimented experts from ISO.

This training showed Lebanon's position in this area compared with international practice and especially compared to the other three participating countries: Tunisia, Algeria's and Morocco. Seminars and workshops will be held in Lebanon in order to complete the action taken and to benefit Lebanese companies in this field.

Dr. Imad Hage Chéhadé, Technology and Development Director of the IRI visits Italy to implement national standards and establish testing facilities of photovoltaic panels and cells

M E D - D E S I R E (M E D i t e r r a n e a n D E v e l o p m e n t o f S u p p o r t s c h e m e s f o r s o l a r I n i t i a t i v e s a n d R e n e w a b l e E n e r g i e s), i s a p r o j e c t u n d e r t h e p r o g r a m E N P I C B C 2 0 0 7 - 2 0 1 3 , (E u r o p e a n N e i g h b o r h o o d a n d p a r t n e r s h i p I n s t r u m e n t f o r t r a n s b o u n d a r y C o o p e r a t i o n i n t h e M e d i t e r r a n e a n), w h i c h a i m s t o a s s i s t t h e d e v e l o p m e n t o f r e n e w a b l e e n e r g y a n d e n e r g y e f f i c i e n c y i n t h e M e d i t e r r a n e a n a r e a . T h e L e b a n e s e C e n t e r f o r E n e r g y C o n s e r v a t i o n , L C E C , i s p a r t



o f t h i s p r o j e c t a n d w o r k i n c l o s e c o o p e r a t i o n w i t h L e b a n e s e s t a k e h o l d e r s i n t e r e s t e d o n s o l a r e n e r g y . I n t h i s f r a m e w o r k , D r I m a d H a g e C h é h a d é , T e c h n o l o g y a n d D e v e l o p m e n t D i r e c t o r o f I R I , p a r t i c i p a t e w i t h a L e b a n e s e d e l e g a t i o n o n a s t u d y v i s i t i n I t a l y w i t h t h e o b j e c t i v e o f i m p l e m e n t a t i o n o f n a t i o n a l s t a n d a r d s a n d t e s t i n g f a c i l i t i e s o f p h o t o v o l t a i c p a n e l s a n d c e l l s . T h r e e t e s t i n g l a b o r a t o r i e s o f E N E A (I t a l i a n N a t i o n a l A g e n c y f o r n e w t e c h n o l o g i e s , E n e r g y a n d S u s t a i n a b l e E c o n o m i c D e v e l o p m e n t) w e r e v i s i t e d . A l a r g e r a n g e o f t e s t i n g w a s s h o w e d f r o m t h e s i m p l e p a n e l t o t h e C S P a n d o t h e r s o l a r t e c h n o l o g i e s .

T h i s v i s i t g i v e s a v e r y g o o d i d e a a b o u t t h e f e a s i b i l i t y o f i n s t a l l a t i o n o f t e s t i n g f a c i l i t i e s i n L e b a n o n . S i n c e L i b n o r w o r k a c t i v e l y o n t h e a d o p t i o n o f i n t e r n a t i o n a l s t a n d a r d s a s L e b a n e s e S t a n d a r d , a n d I R I h a v e t h e c a p a c i t y t o d o n e c e s s a r y t e s t i n g a n d c o m p l e t e i t s e q u i p m e n t .

F i n a l l y , i t ' s f a i r t o p o i n t t h e f u l l c o o p e r a t i o n o f E N E A s t u f f d u r i n g t h i s v i s i t .



Lebanon heads an electronic workgroup between 2016 and 2020 and sets a strategic food action plan for the Near East

The Industrial Research Institute Division Head Laboratories, Professor Joseph MATTA attended the eighth session of the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) Coordinating Committee for Near East at the FAO Headquarters, Rome, Italy from the 1st till the 5th of June, 2015.

The committee agreed to establish an electronic working group led by Lebanon to prepare a Regional Strategic Plan for the Near East Region for 2016-2020. The member countries of the region are: Egypt, Iran, Iraq, Libya, Saudi Arabia, Sudan and Yemen.

The plan identifies strategic objectives of the region:

- Enhance the participation of Countries from the Region in Codex Alimentarius Activities
- Strengthen regional communication, experience sharing and coordination among coordinating committee for the Near East members in Codex activities
- Promote use of Codex standards and the



development and/or review of Codex standards and related texts taking into account regional situations and needs

- Build capacity of countries in relation to the risk assessment
- Strengthen capacities of the National Codex Committee

The IRI participates in Innovate 2015 to help advanced SMEs engage in industrial businesses

Professor Joseph MATTA also attended the UK Innovate 2015, invited by UK Lebanon Tech Hub, in London from 8 to 11 November, 2015.

Innovate 2015 connects high growth UK SMEs to global export and partnership opportunities; showcase innovative products and lines for international buyers; and bring together the best innovative UK businesses for international investors.

It helps innovative, high growth SMEs unlock the wide range of UK government support available for expansion and/or internationalization.

It helps businesses engage at a sector-specific industry cluster/hub level, a regional level and within the global marketplace.



The Innovate 2015 program will also help investors target their investment strategy towards high growth SMEs poised to deliver the solutions driving world demand.

Lebanon proposes a Plan of Action for the Arab Metrology Program and the Industrial Research Institute is a member of the Program's Executive Committee

The Industrial Research Institute was represented by the Head of the Metrology Laboratory Eng. Elias Maalouf during the 2nd meeting of the general assembly of the Arab Metrology Program (ARAMET) and the 7th meeting of the Advisory Committee for Metrology held on January 26 and 27, 2015 in the headquarter of the Arab Industrial Development and Mining Organization in Rabat.

The meetings were attended by representatives of the concerned ministries and national institute of metrology in Lebanon, Tunisia, Saudi Arabia, Sudan,

Egypt, Morocco and Yemen.

The participants discussed the action plan of ARAMET proposed by the National Council for Measurement in Lebanon. They also elected the president and members of ARAMET Executive Committee, where Eng. Elias Maalouf was elected the representative of Lebanon, member of the Executive Committee and a delegate with full powers in the relevant workgroups which are concerned with training, development and information exchange.

Scientific and industrial metrology

In the 2nd meeting of ARAMET's general assembly which was held in the Moroccan capital, Rabat, the head of the metrology laboratory in the Industrial Research Institute Eng. Elias Maalouf, representing the Republic of Lebanon, was elected member of the executive committee, entrusted with full powers at the level of the program's workgroups concerned with training, development and information exchange.

It is worth mentioning that the main tasks of the Institute's metrology laboratory can be divided as follows:

- 1- Scientific metrology, concerned with building a quality system, development of new measurement ways, ensuring the front measurement and their reference so that to be circulated among the users within the society.
- 2- Industrial metrology, concerned with the implementation of the measurement science in manu-

facturing and other processes used within the society to ensure the suitability of the measurement devices with the purpose of usage and to ensure its quality.

The Institute's metrology laboratory is considered a reference adopted by the American Accreditation Board (ACLASS) in terms of abiding by international standards.

The Institute's metrology laboratory offers calibration services in the following fields:

- Mass
- Force
- Pressure
- Volume
- Length
- Temperature
- Electricity

Training Workshop in Cairo on the Measurement of Electrical Quantities to improve the Economic and Commercial Quality in the Arab Countries

As part of the training program organized by the German Cooperation Program and the National Institute of Metrology to improve the quality related to the development of economy and commercial potentials in Arab countries, the Industrial Research Institute, represented by the Head of the Metrology Department Mr. Joseph Helou, took part in a workshop entitled “Measuring Electrical Quantities, which was held between April 12 and 16, 2015 in the National Institute of Measurement and Calibration in Egypt.

National institutes of metrology in the Arab countries were invited to take part in this workshop which was attended by representatives from Jordan, Palestine, Lebanon and Egypt.

The workshop included two parts: specialized lectures to study and explain the terms related to the usage of devices to measure constant quantities, and the organization of a field visit to the electrical organization in the national institute wherein the applied training in metrology took place.

The Institute participating in an “Advanced training for metrology about temperature”

Our institute represented by Mr. Edgar Shaaya, Unit head in the metrology laboratory, participated in the Royal scientific training & development on “Advanced Metrology Training on Temperature” which was held from October 18th to 22nd ,2015 in Amman Jordan.

This training was realized by the Royal Scientific Society / Jordan National Metrology Institute (JNMI) within the PTB project “Quality Infrastructure in support to sustainable economic development and trade

capacities”

This training discussed all up to date techniques on temperature calibration which benefited the laboratory in this domain.



Workshop within the scope of the Arab Free Trade Agreement focusing on the regional food-safety system

The Head of Validation Department, Engineer Maya Majdalani participated in the regional workshop on the Greater Arab Free Trade Agreement in Cairo from September 15 till September 17 organized by the UNIDO and the Arab League. This workshop was in the framework of the regional cooperation project funded by the Government of Sweden, focusing on a regional food-safety system. It was attended by representatives from 17 countries members of the Greater Arab Free Trade Agreement, the technical team of the Arab Industrial Development and Mining Organization AIDMO and the Arab Organization for Agricultural Development AOAD as well as representatives of regional institutions of the private sector.

The workshop began with an opening session, followed by the main presentation of the Greater Arab Free Trade Agreement and the explanation of the objectives and agenda of the workshop. Participants were divided into two working groups by country.



Lectures were also given about trade facilitation, non-tariff measures, quality infrastructure, ARAC and the role of the financing project of the Government of Sweden in supporting regional integration.

Discussions and work sessions were held between participating countries.

The workshop was concluded with the distribution of certificates to the participants.

Head of the Central Laboratory of Grains, Flour and Bread Researches lecturing at the third Latin American Cereal Conference

For over a century now, standards and standard methods have become the key reference for consumers, food processors, national food control agencies and the international food trade. The growth in our knowledge of food sciences and analytical techniques has facilitated accurate reporting of food composition, and safety values in terms of microbiology, mycotoxins, pesticides and other chemical residues, toxic metals, additives and packaging materials.

Since the election in 2012 of the Head of the central



laboratory of grains, flour and bread researches Eng. Amine Jbeily as Co-Technical Director of the International Association of Cereal Science and Technology-ICC, much work has been accomplished on Standard development and validation between IRI and ICC, and in this context and to exchange experience with the international scientific community, Eng. Jbeily was invited to the Third Latin-American Cereal Conference (LACC3) in

Curitiba-Brazil in March 2015 as Guest speaker. His presentation shed some light on the multiplicity of International standardization bodies, their present and future activities, their involvement in food and cereal sciences, and their harmonization projects; with special focus on the importance of the involvement of cereal scientist worldwide in the international standardization and harmonization efforts.

Training workshop for experts in the Basel Convention Regional Coordinating Center for Africa on the analysis of persistent organic pollutants in environmental samples

A workshop for training experts in the Regional Centre for Training and Technology Transfer to Arab States of the Basel Convention from Arabic-speaking countries was held between October 26 and November 6, 2015, in the Basel Convention Coordinating Centre for Africa, at the University of Ibadan in Nigeria. The workshop tackled POPs analysis in environmental samples.

The aim and objectives of the workshop is to assist the Partner Center (BCRC Egypt) in Training of Experts with Hands-on Experience in POPs Analysis and enhancing the knowledge of, and strengthening the capacity of the participants in POPs analysis and management.

The training included general laboratory hands-on experience with emphasis on POPs and identification



and assessment of POPs contaminated sites (where to sample, what to sample, when to commence sample collection, Frequency/Duration of sampling, Quantity of each sample, Number of samples...), Environmental Analysis, Environmental properties of PCBs, and GC and GC-MS Training Document In addition, the training gave an introduction to UNIDO POPs contaminated site toolkit and train-the-trainer capacity building on POPs and other chemicals.





6



Applied Research and Studies

The Institute performed

50 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 environ-

ment for human beings and preserve the nature.

The IRI completed 50 studies and analyzes in twenty five factories, among which four studies in environmental auditing and 21 in environmental analyzes and technical field studies. Studies were distributed, according to factories, as follows:

Environmental Auditing Study

1. Prime Stone
2. Saba Plast
3. Beesline
4. King Beton

Comprehensive Environmental Analyzes and Technical Field Studies

- Solicar
- Bank Audi
- SICOMO
- Nakhle Zgheib and Co
- Bissat
- REVA
- Tramsteel
- Puriplast
- HARB ind.
- Chateau Ksara
- Alakso
- Unipak
- Cimenterie Nationale
- الشركة اللبنانية لزيت الزيتون
- "مشروع" جوار ادما
- Saad Group
- Senteur D'Orient
- Liban Cables
- Freiha
- Holcim







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

The Euro-Lebanese Center For Industrial Modernisation - ELCIM

During year 2015, and in the framework of ELCIM'S quest to better serve the industrial sector in Lebanon, ELCIM provided In-House as well as public trainings and offered onsite visits to companies in need, to better evaluate and highlight potential deficiencies and formulate training sessions that can be tailored to even the most specific and particulate need.

ELCIM delivered a training program during year 2015 for manufacturer SMEs in different topics mainly in Management, Human Resource, Management, Research and Development and others.

The main training activities can be summarized as follows:

- **Intellectual Property Protection in collaboration with TAIEX-March 16&17**
 - **Leaders and Leadership (In-House)-March 23, 25&26**
 - **Research and new Product Development for the Agro food sector in collaboration with TAIEX September 29&30**
 - **Team Spirit (In-House) November 17, 18 & 19**
 - **Building Integrated Photovoltaic (BIPV) in collaboration with FOSTER In MED-From November 5 till December 12.**
- **Effective Written Communication (In-House)-February19&20**



IIRI

ELCIM” “CIT” and “FOSTER in MED” represent the Industrial Research Institute in Renewable Energy Conferences

The Industrial Research Institute has had many activities in the field of Renewable Energy during 2015, especially in the field of solar energy. In this perspective, various workshops and trainings related to this topic were organized both on the local and

international levels. Promoting the use of Building Integrated Photovoltaic cells in the construction field namely through FOSTER in MED project construction.

Intellectual Property Protection Workshop (ELCIM) March 16, 2015

The Centre for Innovation and Technology at the Industrial Research Institute organized in cooperation with the EU TAIEX Instrument a Workshop on Intellectual Property rights at the Radisson Blu Martinez Hotel Ain el Mraysseh. – Beirut. The workshop aimed to gain knowledge of Intellectual Property Protection with respect to industrial inventions, patents, trademarks, geographical indications of source, and copyrights.



ELCIM , CIT and FOSTer in MED project present at HORECA 2015 May 7, 2015

The Industrial Research Institute, through ELCIM and the CIT participated in HORECA's exhibition held in Beirut from the April 20 to 23, and considered one of the largest annual exhibitions taking place in Beirut, gathering the main hospitality experts of the country and the region. During this event, ELCIM managed short presentations at its stand where participants were given the opportunity to interact with professionals in this sector.

Additionally , EU project FOSTer in MED Info Point administrator Dr. Elias Kinab was offered the chance during the 3 days event to do a presentation about FOSTer in MED's project in particular and the use of innovative solar technologies in general. The audience, mainly hotel managers/owners, were particularly interested to learn more about the cost and feasibility of the new technology that the project is promoting known as the Building Integrated Photovoltaic or BIPV, mainly when installed on large buildings such as hotels and resorts.

“Our presence as FOSTer in MED at HORECA is key to disseminate information to large investors



in hotels and tourist complexes”, said Dr. Kinab, who added that such investors were more interested about the Context Analysis that FOSTer in MED put in place, covering the main countries involved in the project, namely Lebanon, Tunisia, Italy, Egypt, Jordan and Spain.

Dr. Kinab also pointed out that “BIPV that FOSTer in MED is promoting is of particular interest to hotels and resorts owners who are keen on keeping the aesthetic value of their building.”

HORECA's 22nd edition was held under the patronage of his Excellency the minister of Tourism Mr. Michel Pharaon

FOSTER in MED EU project at the Engineering Expo

April 22-24, 2015

Info Point Administrator states “We were there to spread the word among engineers and fresh graduate professionals about the solutions that PV can offer to the country”

Through its Lebanese partner, the Industrial Research Institute, the EU funded project FOSTER in MED participated in the Engineering Expo of Beirut at the Lebanese University Campus on April 22,23, and 24, in order to share information with students, engineers and experts about the use of innovative solar technology solutions.

It was an opportunity for FOSTER in MED’s info point administrator, Dr. Elias Kinab, to exchange information with local engineers about the barriers and advantages of solar energy in the actual local context, sharing with them the results of the studies that were achieved by FOSTER in MED’s experts.

“Engineers, undergraduate and fresh graduates were all particularly interested to learn more about the pilot project we’re on, involving the first-time use in the country of Building Integrated Photovoltaic on a building.”, said Dr. Elias Kinab, who is the Info



Point Administrator of the project. Dr. Kinab also pointed out that fresh graduate professionals mostly interested in learning more about the possibilities of such technology and its feasibility.

The Engineering Expo event was organized by the Faculty of Engineering at the Lebanese University of Lebanon in collaboration with the Islamic Engineering Grouping. The event was created to provide an opportunity for engineers, companies and undergraduate students to learn more about local engineering organizations and companies and the available services on the market. It was largely attended by professionals, fresh graduates and undergraduates.

EU funded project FOSTER in MED participates in the Mediterranean Gas and Oil exhibition to discuss energy mix solutions

April 16-18, 2015

The Industrial Research Institute of Beirut, partner of EU project FOSTER in MED, participated in the Mediterranean Gas and Oil conference that took place at Crown Plaza Hotel from April 16 to 18, in order to better promote the solutions that solar energy can offer, promoting the “energy mix” culture. “We were not there to say that we are an alternative

to the traditional Gas and Oil that have been used for decades for energy production, but to discuss ways to work hand in hand to offer solutions for energy needs in the country and region”, said Dr. Elias Kinab, the Info Point administrator of FOSTER in MED project. Lebanon is known for its wide dependency on the traditional sources of energy, mainly gas and oil,

but renewable energy is a long-term support to the conventional means of productions. “The main point that we defended was that Lebanon can reduce his needs of exported gas and oil by producing its own energy. In addition to that, renewable energy is clean and can contribute in the reduction of the amount of pollution in the country.”

The first Medgo International Conference aims to create an interdisciplinary platform to stakeholders in order to share and disseminate their experience and ideas related to gas and oil and was held under the patronage of Mrs. NazikRafic Hariri.



Promoting the use of solar technologies in Lebanon: FOSTER in MED info point participates at Project Lebanon 2015 June 2, 2015

From the 2nd to the 5th of June 2015 the Industrial Research Institute (IRI), partner of EU ENPI CBC MED funded project FOSTER in MED, participated to Project Lebanon 2015 and took part on the 3rd of June at the EcOrient conference that was held within the exhibition, in Biel, Beirut (Lebanon).

Project Lebanon 2015, the 20th edition of the International Construction Trade Exhibition for Lebanon & the Middle East is the premier event of its kind in the region bringing together industry leaders from around the world. The event opens unique face-to-face networking opportunities with a high quality audience and enables participants to establish new contacts, renew existing partnerships, and explore new business opportunities.

EcOrient conference is the 4th International Conference for Environmental Technologies, Sustainability & Clean Energy, which will bring together local, regional and international experts in fields such as: renewable energy, waste management, clean energy, sustainable transportation, water pollution and sustainable agriculture.

The participation of FOSTER in MED info point allowed the dissemination of useful information on the



solar technologies among citizens. Moreover, the info point widespread the information on local private sector (especially SMEs) related to innovative technologies and technical solutions regarding the solar energy sector.

As states Dr. Elias Kinab (IRI) in charge of info point in Lebanon, one of the main barriers to the diffusion of solar energy technologies is the lack of information among citizens and SMEs. “Lebanese citizens have many questions regarding renewable energy: is it worth it? Is it feasible? What impact will it have on the environment? Is it cost-efficient compared to the "usual" sources of energy?”

Research and New product Development for the Agro-food Sector September 29, 2015 (ELCIM)

The Industrial Research Institute (IRI) through the Euro-Lebanese Center for Industrial Modernisation (ELCIM) in cooperation with The European Union's Technical Assistance and Information Exchange instrument (TAIEX) organized a workshop on Research and New product Development for the Agro-food Sector on September 29 & 30, 2015 in Beirut.

Mr. Naji Abi Zeid, director of ELCIM, welcomed the participants and thanked the EU partners for sharing their knowledge and experience with their Lebanese counterparts. Mr. Abi Zeid stressed on the importance of promoting linkages between the worlds of Academia and Industry in the fields of applied research.

The aim of this workshop was to promote applied research and new product development for the food industry sector that can enhance innovation among Lebanese producers hence an improvement in their competitiveness. This can also allow Lebanese food exporters to comply with international standards and



requirements, which will open up the international markets and boost exportation of Lebanese food brands.

This event was an opportunity for several local universities to showcase their resources and present their achievements in the field of food research.

The workshop witnessed strong participation from representatives of the food industry sector, public sector institutions as well as universities and students.

Schools informing its students about FOSTER in MED project in the Industrial Research Institute

The schools (AGBU, Notre Dame de perpetual seours, German school, Lycée Saint Elie, Madame Aoun Official school, Furn El Chebbak official school and Central College) visited the Industrial Research Institute building in Beirut, to explore the implementation of the first solar Building Integrated Photovoltaic (BIPV) facility in Lebanon. The visit included awareness about different renewable energy technologies, stressing on solutions that solar energy offers in today's world.

The Technical and Scientific Committee members of

EU funded project FOSTER in MED. Drs. Talal Salem and Elias Kinab introduced students to the project itself but also organized a comprehensive guided visit. Students had the chance to perform labs experiments and to see on-sight the preparation to the BIPV facility that will be built on the Industrial Research Building inside the Lebanese University Campus in Hadat.

The initiative is part of EU funded project FOSTER in MED whose aim is to promote the use of solar technologies (PV) and their architectonic integra-



tion (BIPV) in six Mediterranean countries. Among its objectives: the implementation of pilot projects in each country; awareness campaigns targeting

schools students, citizens and local administrators; setting training paths for designers, installers (SMEs) and university students.

Raise the awareness about the economic and environmental benefits of solar energy: FOSTER in MED meeting in Tunis

From the 14th to the 16th of April 2015 in Tunis has been held the 3rd management meeting of EU ENPI CBC MED project funded FOSTER in MED, in order to plan the activities of the last year of the project. The event started with the welcome of Mr. Mounir Mouakhar President of the Chamber of Commerce and Industry of Tunis who highlighted the importance of promoting the use of solar energy in the area: “Tunisia benefits of a rate of 3 000 a year of sunlight time. In fact the photovoltaic energy exists in Tunisia from the beginning of 1980s: the first photovoltaic platform in Tunisia was implanted in Hammam Biadha, near Siliana with a capacity of 40 000 kWh / year,

which proceeded to the photovoltaic electrification of the isolated border posts. But despite this situation, the development of solar energy in the area is still limited by technical, institutional, financial and market barriers” he states.

“Thanks to FOSTER in MED project, it allows us to raise the awareness about the economic and environ-



mental benefits of solar energy by promoting its activities and results among citizens and with SME”.

Information about solar energy opportunity can be found in Tunis at the headquarter of the Chamber of Commerce and Industry, which host one of the six info point of FOSTer in MED project.

The main activities to be implemented during the third and last year of the project are: the awareness raising campaigns dedicated to students, citizens and administrators; the realization of the training paths dedicated to designers, SMEs and University students; and the realization of pilot projects, to be implemented in public buildings of Tunis, Cagliari, Beirut, Aqaba and Alexandria, as example of good

practices of photovoltaic integration in buildings.

Next event, to be held in Cagliari the 9th and the 10th of June, is dedicated to the local administrators of the six countries in order to draft policy papers aimed to overcome the normative barriers that hinder the diffusion of PV technologies in Mediterranean.

FOSTer in MED is financed for an amount of 4,05 million Euro by European union through the ENPI CBC Mediterranean Sea Basin Programme (total amount of 4,5 million Euro). It aim to promote the adoption of innovative solar photovoltaic technologies with a strategic approach in six countries of Mediterranean area: Italy, Spain, Egypt, Lebanon, Jordan, Tunisia.

Share policies to FOSTer renewable energies June 10, 2015

On Wednesday the 10th of June 2015 in Cagliari, Italy, the project organized a round table in order to “Share policies to FOSTer renewable energies and solar technologies in the Mediterranean area”. The event intended to identify normative and administrative barriers that prevent the diffusion of solar technologies.

FOSTer in MED aims to promote the adoption of building integrated solar photovoltaic technologies in six Mediterranean countries: Italy, Spain, Lebanon, Egypt, Tunisia and Jordan. The event was organized by project partner Region of Sardinia, Industry Department. Mrs. Maria Grazia Piras, Councillor for Industry of the Region of Sardinia opened the conference remarking that: “the promotion of eco-efficiency and reduction of primary energy consumption in buildings and public facilities is a key element of regional energy policy, fully implemented in the POR-FESR 2014-2020 that we submitted to the Eu-

ropean Commission”.

Mrs. Anna Catte, Director of the Joint Managing Authority of the ENPI CBC MED project, recalled the words of EU Commissioner Johannes Hahn (responsible for the European Neighborhood Policy & Enlargement Negotiations), who said during the NextMed Conference (Brussels, 28th of May 2015) that the ENPI CBC MED "is a source of inspiration for the European Union's relations with neighboring countries, thanks to its ability to stimulate projects projects that can provide common solutions to the Mediterranean region's needs.

" She also highlighted the challenges of the new Programme for the period 2014-2020, namely: support to SME development with attention to Euro-Mediterranean economic clusters and start-ups; support to innovation and technological transfer processes; fight against poverty and social inclusion; environmental challenges. The resources allocated to the

Programme by the EU are € 209 million. Prof. Antonello Sanna, Director of the Department of Civil and Environmental Engineering, and Architecture of the University of Cagliari, noticed that FOSTER in MED turns on the spotlight on a "strategic theme for community life, as sustainable energy on which the Mediterranean community can meet to promote a new model of development.

It stressed the importance of a work program based also on the diffusion of knowledge". During the event, Eng. Tajal Salem presented the project, on behalf of Lebanese project partner Industrial Research Institute (IRI), stressing out that FOSTER in MED aims to "cover the entire area of the Mediterranean, with a awareness campaigns that involved students and citizens". Noteworthy, FOSTER in MED has gone far beyond its goals, reaching 3500 students. Among the other results to achieve, there is the upcoming training of 120 installers on the latest generation of solar panels, an activity that will begin in September.

The second part of the morning was dedicated to the round table with the representatives of local administrators of the six countries involved in project: Dr. Stefano Piras, Director of the Energy Service of the Region of Sardinia (Italy); Dr. Abdelkarim Ghezal, Director of Renewable Energy in the National Agency for Energy Conservation Efficiency and Dr. Abderraouf Ben Said, Head of the Department of renewable energy in the Tunisian Agency for Professional Training (Tunisia); Mr Pierre Khoury, Director of the Lebanese Center for Energy Conservation (LCEC) and Mr Edgar Hajje, board member of Byblos municipality (Lebanon); Eng. Ziad Jibril Sabra, Advisor to the Minister of Energy and Mineral Resources and Eng. Walid Shahin, Director of the National Energy Research Center (Jordan); Eng. Ehab Ismail, from the New and Renewable Energy Authority (Egypt); Mrs. Mireia Cañellas, Responsible of Sustainable Development of the General Directory of Environmental Policies of the Department of Territory and Sustainability of the Generalitat the Catalunya and Mr Pablo Valderrama, Cluster Manager of Solartys

Spanish Association for the Internationalization and Innovation of Solar Entities (Spain).

The representative of local administrations and the experts involved in the debate raised the need to implement and improve financial incentives and loans related to renewable energy and to find common solutions to foster the photovoltaic technologies in the Mediterranean area. Public Policy recommendations have been shared with partner countries through six policy papers aimed to be discussed at political level in each country. Recommendations have been directed to overcome social, economical and regulation barriers to support a widespread diffusion of innovative solar technologies.

The key role of public institutions was highlighted with regards to communication in order to improve information and awareness amongst the citizens surrounding environmental issues, renewable energy and energy efficiency. Public institutions should also work towards supporting the transfer of competencies and strengthening the cooperation in order increase technical knowledge on innovative solar technologies.

During the afternoon session the Midterm conference was organized by the Promotional Services Centre for enterprises, Special Agency of the Cagliari Chamber of Commerce (CSPI), with the aim to take stock of the state of the project implementation. FOSTER in MED is a project financed for an amount of 4,05 million Euro by European union through the ENPI CBC Mediterranean Sea Basin Programme (total amount of 4,5 million Euro). Project partnership is composed by: Beneficiary University of Cagliari (UNICA); Association of the Mediterranean Chambers of Commerce and Special Agency Industry (ASCAME); Promotional Services Centre for enterprises of the Cagliari Chamber of Commerce (CSPI); Confederation of Egyptian European Business Associations (CEEBA); Industrial Research Institute (IRI); Royal Scientific Society (RSS); Chamber of Commerce and Industry of Tunis (CCI Tunis); Autonomous Region of Sardinia (RAS).

FOSTER in MED at Cairo Capitalization Conference October 26, 2015

FOSTER in MED conference in Cairo: the Lebanese team from the Industrial Research Institute shares opportunities and success stories of Solar Building Integrated PhotoVoltaic.

- Mr. Naji Abi Zeid (manager of EU Funded FOSTER in MED project in Lebanon), Dr. Talal Salem and Dr. Elias Kinab (Technical and Scientific Committee members) attended the FOSTER in MED capitalization event held at the Marriott Hotel and was organized by the Confederation of Egyptian European Business Associations (CEEBA) and the Association of the Mediterranean Chambers of Commerce and Industry (ASCAME). The main objective of the event was to capitalize FOSTER in MED's results by creating a network between initiatives and enterprises of solar energy sector. Opening speeches were conducted by Dr. Alaa Ezz, Secretary General of CEEBA; Dr. Nicola Nieddu, FOSTER in MED project manager; Dr. Mohamed El Sobky, Chairman of New and Renewable Energy Authority of Egypt (NREA); and H.E. James Moran, EU Ambassador to Egypt.

“This capitalization event is for sharing experiences within the photovoltaic field and FOSTER in MED is working on creating a replicable project to eventually extend its way across the country,” Dr. Ezz stated. EU Ambassador in Egypt, H.E. Moran expressed that renewable energy is growing faster than fossil and nuclear power, stressing on the fact that “solar is most certainly the Egyptian dream”.

During the conference, representatives of FOSTER in MED have presented the results they obtained so, in particular the Guidelines on building integration of photovoltaic in the Mediterranean, drafted by the Technical Scientific Committee of the project. The



pilots, currently in their implementation phase, have been presented as the core of the project and concrete demonstration of building photovoltaic integration in 5 cities of Mediterranean: Alexandria (Egypt), Beirut (Lebanon), Cagliari (Italy), Tunis (Tunisia) and Aqaba (Jordan). The second part of the conference focused on the presentation of success stories by Mediterranean companies operating in the solar industry in Italy, Tunisia and Jordan, and the presentation of the good experiences of another project of ENPI CBC MED solar cluster, Shaams.

During the afternoon section has been held the "Business to Business conference" aimed at creating networks between companies of the solar sector. The meetings, bringing together 15 companies from the northern and southern shores of the Mediterranean, gave a chance for companies to be acquainted and share experience on opportunities and challenges on a one-on-one basis. “This event is a good opportunity for Egyptians to learn from European experience and expertise as well as encouraging foreigners to invest,” said Mohamed Abd El-Hai, General Manager, Renewable Business Development Onera Systems.





8

*Activities of the
Lebanese Cleaner
Production Center - LCPC*

The year 2015 was rewarding, the LCPC achieved targets set in its business plan.

Since its establishment, LCPC has been undertaking three core activities:

- In Plant Demonstration
- Awareness Raising
- Training and Capacity Building

The cumulative activities achieved and the total numbers of participants are shown in the 2 following graphs:

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 39 Company in Lebanon distributed among several industrial sub- sectors. These sectors are:

1. Dairy sector
2. Agro- food canning sector
3. Paper and cardboard sector
4. Aluminium production sector
5. Ceramic production sector
6. Plastic production and recycling sector
7. Textile sector
8. Olive oil sector
9. Jewellery sector

The CP options implemented in SME's that participated in the LCPC programmes have led to a total yearly savings of 4,008,462 US Dollars.

Site Visits in Lebanon and Green Cities for Eco-Efficiency in Rotterdam

Many companies nationally and internationally have successfully implemented different CP options in collaboration with the center during 2015.



Green Cities for Eco-Efficiency - Rotterdam, Neth-

erlands provided a collection of concrete local solutions and policies cities in many countries are applying for integrating green concepts into their planning



and managing processes.



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 is 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?

Awareness Seminar for the Med Test II Project in Lebanon to implement Resource Efficiency and Cleaner Production in SME's

Under the Patronage and Presence of H.E. the Minister of Industry & H.E. The Minister of Environment Dr. Hussein El Hajj Hassan & Mr. Mohammad Machnouk, The Industrial Research Institute (IRI) / The Lebanese Cleaner Production Center (LCPC) organized an Awareness Seminar for the Med Test II Project in Lebanon to implement Resource Efficiency and Cleaner Production in SME's implemented in partnership with The United Nations Industrial Development Organization (UNIDO) & funded by The European Union on 11th of August 2015 at IRI.



LCPC is a main Participant in the International Green Economy and Technology Forum Bahrain, 2015

The Director of the Lebanese Cleaner Production Center Dr. Ali Yaacoub was invited to represent the Arab Region in the Global UNIDO/UNEP RECP Network in The International Green Economy and Technology Forum 20-21 January 2015 organized by UNIDO in collaboration with the Supreme Council for Environment, under the Patronage of his Royal Highness Shaikh Abdulla Bin Hamad Al Khalifa Personal Representative of His Majesty, the king president of the Supreme Council for Environment.



Regional workshop: Innovative technologies for waste management in the Arab Region – paving the way for the transition to a green economy CASABLANCA, Morocco 29-30 September 2015

The study was intended to assist the regional workshop in sharing knowledge on waste management options and facilitating exchange of experiences for the application and adaptation of innovative technologies. Dr. Ali explained the Role of the National Cleaner Production Centers and the Resource Efficient and Cleaner Production Global Network in the Arab Region for paving the way for Green Economy. The objective of this workshop was to prepare a concise, high-quality background paper on innovative technologies in the waste sector in Morocco and the Arab region. The document identified enablers, barriers, gaps and questions on opportunities for tech-

nological innovation.

The Background Study and workshop painted a clearer picture of best available and appropriate technologies for

waste management in the Arab region with a special focus on Morocco, drawing on best practice examples.



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 46 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:

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

Dr. Yaacoub, Dr. Matta, and Dr. Haidar in Vienna to discuss MED TEST II – SWITCH-Med Project (Jordan, Lebanon, Palestine), 13 – 16 APRIL 2015

The workshop introduced TEST approach and tools, practical exercises and recent cases implemented within the UNIDO MED TEST I.

The workshop consisted of lectures, exercises and interactive discussions with the participants. It also delivered by team of experts.

The overall objective of the workshop is to provide training on the UNIDO Transfer of Environmentally Sound Technology (TEST) integrated methodology to the newly contracted service providers for the MED TEST II subcompo-



nent implementation in three of the countries of this project, namely, Jordan, Lebanon and Palestine.

IRI

1st Dubai International Forum on Sustainable Lifestyles 2015

Under the patronage of H.E. Dr. Rashid Ahmed Bin Fahad, the Minister of Environment and Water of UAE, Dr. Ali Yaacoub attended 1st Dubai International Forum on Sustainable Lifestyles 2015 25-26 February 2015 - Dubai, United Arab Emirates which organized by: **Zayed International Foundation for the Environment and United Nations Environment Programme (UNEP).**

It motivated Institutional Changes in order to Facilitate Sustainable Lifestyles (SLE) and to support Research and Innovation.

It also discussed how to take action at city level to make a difference in Resource efficient cities by providing a practical case on lifestyles and sustainable food consumption.

Dr. Ali Yaacoub attended the UfM Ministerial meeting in Athens

Dr. Ali Yaacoub, the Director of the Lebanese Cleaner Production Center (LCPC), participated and attended several workshops during his presence in Athens in May 2015; in addition to his participation in UfM Ministerial meeting on Blue Economy on 28 May 2015 at the Ministry of Foreign Affairs, he attended Union for the Mediterranean Stakeholder Conference: Towards a Roadmap for Blue Investment and Jobs in the Mediterranean on 27th May 2015 at Ho-

tel Divani Caravel Athens, and the official Closing of European Maritime Day, 28-29 May 2015: "Ports and Coasts gateways to maritime growth".

The meetings aimed to develop blue growth and jobs in the Mediterranean by fostering integration of knowledge and by promoting joint actions for research and innovation including coordination, planning and programming of relevant research and innovation policies and instruments.

Euro-Mediterranean Conference on Digital integration, energy and resource efficiency: opportunities in textile and clothing value chains across the Euro-Mediterranean Area- Kraków, Poland on 27-28 April 2015

Dr. Ali Yaacoub, the Director of the Lebanese Cleaner Production Center (LCPC), attended the conference in Poland which organized in co-operation

between European Union- DG Internal Market, Industry, Entrepreneurship and SMEs and Malopolska Krakow Region.

World Resources Forum 2015 October, 11-14 2015 | Davos, Switzerland

UNIDO, UNEP and RECPnet members invited LCPC to celebrate 20 years achievements in deliver-

ing Resource Efficient and Cleaner Production to industry, Davos Congress Centre on 14 October 2015.

SwitchMed Connect 29-30 October at CCCB, Barcelona 2015

The first annual gathering of 300 influential stakeholders, practitioners and change makers enabling eco and social innovative solutions in the Mediterranean.

This event focused on the green entrepreneurship and Industry Agents and exchanged with leading indus-

try service providers on how to successfully market and sell sustainable production services to industry. They also discussed the impact investing practices in the region and take part in making of the Green Impact by implementing the Regional SCP Action Plan at the national and local level.

ELCM 2015

30 August – 2 September 2015

Dr. Ali Attended a conference about Resource Efficiency and Cleaner Production towards Sustainable Consumption and Production in the Arab region, for the 7th International Conference on Life Cycle Management, 30th August – 2nd September 2015, Bordeaux, France.

The participants mainly presented LCM for building in addition to fostering the implementation of LCA in food and beverage sector.



Global Research Alliance on Agricultural GREENHOUSE GASES in Italy from 22-27th of June, 2015

LCPC as focal point for GRA, Dr. Ali Yaacoub the Director of the Lebanese Cleaner Production Center (LCPC), participated in the Field Trip to visit Fodder and Dairy Research Center at Lodi, Italy; as well as Livestock Research Group meeting was held at Lodi Congress Centre in addition to a workshop on Soil Carbon in Grasslands-Greenhouse Gases. The purpose of this workshop focused and energized the

LRG work on grass lands and soil carbon, in particular by linking with initiatives from the Soil C/N Group of the GRA.

Moreover, Dr. Yaacoub moved to Milano to attend WFO General Assembly which aims to see their rights as food producers and role as economic actors, globally recognized.

LCPC Participation in Other Events

	Event	Date	Location
1	Economic Development Inclusive and Local Empowerment- EDILE	28-30 January 2015	Gefinor Rotana Hotel, Beirut
2	Engineers Syndicate in Beirut and Lebanese Standards Institution- LIBNOR "Partnership and Cooperation"	28 January 2015	Engineers Syndicate, Beirut
3	Fourth Round of the Lebanese Excellence Award	11 March 2015	Adnan Kassar Edifice, Beirut
4	Opening an Expo- Engineer - Islamic Gathering Engineers	22 April 2015	Faculty of Engineering –LU, Baabda
5	Workshop on Energy Efficiency indicators and trends –ALMEE	24 April 2015	Hotel Monroe, Beirut
6	Dissemination Conference, Final Event Med – Algae Project	9 May 2015	AUB, Beirut
7	Lebanon Student Starpack	11 June 2015	UNESCO Palace, Beirut
8	Lebanese Center for Energy Conservation-LCEC	25 June 2015	Gefinor Rotana Hotel, Beirut
9	Enhancing SMEs Productive Capacities for livelihoods and Employment Generation in the Bekaa Region	28 July 2015	Le Royal, Dbayeh
10	Recovery and Rehabilitation in Beqaa and Hermel-Akkar uplands	29 July 2015	Movenpick Hotel, Beirut
11	Beirut Energy Forum	9-11 September 2015	Le Royal, Dbayeh
12	Growth and Success ... no matter what	2-3 November 2015	Phoenicia Intercontinental Hotel, Beirut
13	Arab Environment – 8 Sustainable Consumption for better resource management - AFED	16-17 November 2015	Phoenicia Intercontinental Hotel, Beirut
14	Green Entrepreneurs and Civil Society Organizations: change agents towards sustainable lifestyles	17 November 2015	Phoenicia Intercontinental Hotel, Beirut
15	National Quality Day & the Closing of QUALEB – Phase III	18 November 2015	Bristol Hotel, Beirut



9

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

The Center for Innovation and Technology (CIT)

November 2015 – During the month of November, three training paths for installers took place at the Industrial Research Institute of Beirut. The event was organised by the Industrial Research Institute (IRI) and the Centre for Innovation and Technology (CIT) within the framework of the ENPI CBC Project FOSTER in MED.

The first two training paths were presented by Lebanese TSC members Drs. Elias Kinab and Talal Salem. The third training path was presented by foreign speaker Mr. Gilles Pescarmona and gathered installers and students as well.

The main topics that were tackled during the first two days of the event included the issues of renewable energy sources and energy efficiency in buildings, operation of solar cells and their performance, types and materials of photovoltaic cells, the manufacturing of photovoltaic modules and their components, the main characteristics of photovoltaic modules, the architectural integration of photovoltaic modules, PV integration by building element, the PV integration by building age (historical/recent) as well as the relevance of different actors in the integration process.

Equally interesting topics included the issues of national legislation and incentives for BIPV plant, the

best practices review.

On the second day of the event, installers could visit the solar installation of the Industrial Research Institute.

On the third day of the event, Mr. Gilles Pescarmona talked about assessing energy performance of BIPV, sizing technical characteristics and performance of a BIPV plant, the technical elements of the installation of the photovoltaic system: technical elements, the types and materials of photovoltaic cells, the cost-benefit analysis and economic evaluation of the photovoltaic system and the maintenance procedures of the of the photovoltaic systems.

The event was attended by 40 professionals, many of them representing their companies.

“The training paths are a key platform for exchanging know-how and information about the latest PV technologies and their use in the local context of the country”, said Mr. NajiAbiZeid, the coordinator of the project FOSTER in MED in Lebanon.

FOSTER in MED project is funded under the ENPI CBC Med Programme, the total budget of the project is 4,5 million Euro and it is financed for an amount of 4,05 million Euro by the European Union through the European Neighbourhood and Partnership Instrument.



The Matchmaking Event (CIT)

April 27, 2015

Within its mission of bridging the gap between the research community, young entrepreneurs and the industrial and economic sectors, the Centre for Innovation and Technology organized a Matchmaking event that brought together investors and innovators in the Lebanese community. This event came as continuity to the EU/IRI co-funded Innovation Voucher Project managed by the CIT which rewarded innovative and industrially applicable projects

The matchmaking event was co-organized jointly by the Centre for Innovation and Technology (CIT) and the ESCWA Technology Centre (ETC) on Monday the 27th of April 2015 at Phoenicia Intercontinental Hotel in Beirut-Lebanon.

10 innovators from different sectors of activity took part in this event such as, electrical/civil/telecommunication engineering, agro-food, cosmetics, environment and others ... The investors group had also different backgrounds and were represent-

ing Lebanese, Arabic organizations and institutions namely Kafalat, Berytech fund, Berytech Digital Park, Saudimed investment, Talal Abu Ghazalah, Saned Partners, Indevco Group, IFP, Middle East Venture Partners and the National Council for Scientific Research.

Fruitful discussions were held between the investors' group and each innovator at the end of each pitch showing the investors' enthusiasm and interest in the projects.

The matchmaking event hopes to build on strong links between investment organizations and innovators in order to guide investment towards technology and science based enterprises and to support the creation of employment opportunities for skilled entrepreneurs trying to "earn" based on what they "learn". The CIT has created the opportunity! Now we hope that the projects will be able to push their way to success with our constant support and follow up!



IRI



10

*IRI Cooperation with
the Public Sector*

Relation 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:

- 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.
- Providing the necessary expertise and technical analysis related to fuels allowed in private cars.
- Offering opinion and technical analysis related to bills concerning public safety in the use of fuel tanks, with a view to prevent explosion.
- Expressing an opinion about the draft food safety law.
- 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 li-

cense 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, includ-

ing for example chemical analyses to identify contraband 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 envi-

ronment 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:

1. 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 .
2. A national institution for the issuance of national standards, which in Lebanon is the Lebanese

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

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

ther 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



Exhibitions

The Industrial Research Institute actively participates and engages in specialized exhibitions and conferences that keep pace with industrial development

The Industrial Research Institute takes part in various scientific events and takes part in exhibitions relating to its rich activities. It spares no occasion to confirm its presence in national and international exhibitions,

shedding light on its different activities and offering assistance to other exhibitors.

Throughout 2015, the IRI participated in a number of such exhibitions.

HORECA Lebanon 2015

Under the patronage of His Excellency Minister of Tourism, Mr. Michel Pharaon, the Industrial Research Institute and the Euro-Lebanese Center for Industrial Modernization (ELCIM) participated in HORECA 2015 exhibition, one of the largest annual exhibitions, gathering the main hospitality and food-service experts of the country and the region, held in BIEL- Beirut from the 20th till the 23rd of April, 2015.

The IRI-ELCIM lounge was animated by a series of small presentations on various topics offered by prominent experts in the field.

Celebrating its 10th anniversary, the National Olive Oil Competition featured a series of tasting and discovery sessions with more than 50 olive oil produc-



ers from all over the country. As every year, the Industrial Research Institute partnered with HORECA and took in charge the performance of olive oil tests.

First Engineering Expo 2015

The students' board in the Faculty of Engineering at the Lebanese University - Branch III, in collaboration with the Islamic Society of Engineers, organized the first engineering exhibition at the University Campus on April 22-23-24, 2015. The event was sponsored by the Minister of Industry, Dr. Hussein Hajj Hassan and the President of the University Dr. Adnan Sayyed Hussein.



The exhibition included a large number of institutions and industrial and engineering companies, as well as a large number of professionals and thousands of students in various disciplines from several universities and faculties.

The exhibition aimed at:

- Enhancing communication and interaction between companies and engineers and introducing them to ways of production and the adopted techniques.
- Enhancing the communication between companies and students in general and graduate students in particular, and the possibility of creating job opportunities for them, in addition to fulfilling companies needs for engineers, professionals, and related disciplines, and creating training opportunities for students with these institutions.
- Securing a meeting between companies, leading to the possibility of integration with each other in regards to satisfying their productivity and services needs in various fields.
- Inciting Lebanese institutions to raise the level of professional and marketing performance and focus on potential and existing expertise to raise the confidence in local products.

Mediterranean Gas & Oil (MedGO) International Conference

The Industrial Research Institute (IRI) has participated in the first Mediterranean Gas & Oil (MedGO) International Conference and exhibition, organized by Rafik Hariri University, in collaboration with Pennsylvania State University, Texas A&M University and American University of Beirut, on 16 & 17 of April 2015 at Crowne Plaza Hotel in Hamra, Beirut.

The conference has focused on the discovery of Gas and Oil reserves in the Mediterranean Basin and the issues related to turning the potential reserves into viable industries, capable of making a positive contribution to the development and prosperity of the international, regional and national economies.

The scope of MedGO has gone beyond the technical and engineering dimensions to include the environmental, institutional, economic, commercial and educational aspects.



Energy Lebanon 2015

The Industrial Research Institute (IRI) took part in the 5th International Trade Exhibition “Energy Lebanon 2015”, organized by The International Fairs & Promotions (IFP), which was held from the 2nd to the 5th of June at Biel. This event was dedicated solely to energy and covered all aspects of the sector, including power, electricity, lighting, HVAC and oil & gas. Energy Lebanon 2015 took place concurrently with EcOrient 2015 Conference, the 4th International Conference for Environmental Technologies, Sustainability and Clean Energy and Project Lebanon 2015, the 20th International Construction Trade Exhibition for



Lebanon and the Middle East, one of the largest and long standing trade shows in the region.

Made in Bekaa

The Chamber of Commerce, Industry and Agriculture of Zahle and the Bekaa organized an exhibition about private products in the Bekaa province, under the title “Made in the Bekaa” on September 4-5-6, 2015, at the Joseph Tohme Skaff Park.

The aim of this exhibition is introducing citizens and consumers to the quality of the various Bekaa products and their matching to international standards, and launching and marketing these products locally, regionally and internationally, by inviting Arab and foreign ambassadors and trading attachés as well as senior traders and distributors from all Lebanese provinces.



BEIRUT ENERGY FORUM 2015

The Industrial Research Institute (IRI) took part in the 6th edition of the International Beirut Energy Forum 2015 (i-BEF), which was held under the Patronage of the Minister of Energy and Water H.E. Mr. Arthur Nazarian from 9 to 11 September 2015 at Le Royal Hotel, Dbayeh, Beirut, Lebanon.

Organized by MCE Group in partnership with the Lebanese Center for Energy Conservation (LCEC), supported by the Ministry of Energy and water (MEW), the League of Arab States (LAS), the European Union (EU) and the United Nation Development Program (UNDP), in collaboration with Le Salon des Energies Renouvelables in Lyon, i-BEF was dedicated to sustainable energy issues and projects, attracting key energy people from Lebanon, the Arab World, and the international community



and sharing insights, challenges, and solutions to the MENA's energy sector, with special focus on potential regional projects.

The Industrial Research Institute (IRI) was present in the exhibition area allowing direct interaction among decision makers, commercial companies and professionals.

IRI

Techno Build 2015

The Industrial Research Institute (IRI) participated in the “Techno Build Exhibition 2015”, a professional exhibition for building materials and construction technology that took place from 24th till 27th November 2015, at the Awali Exhibition & Leisure Center (La Salle), Rmeileh, Lebanon.

The Industrial Research Institute (IRI) was present in the exhibition area allowing direct interaction among decision makers, commercial companies and professionals.







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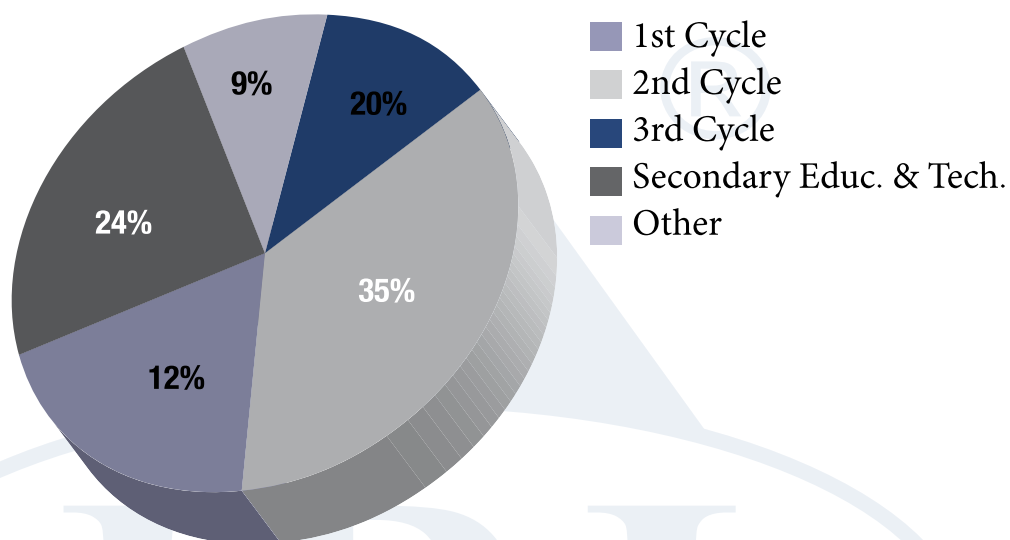
*Development of
Human Resources*

Development of Human Resources

The number of IRI staff members amounted to 153 at the end of 2015; 70% are males, while 30% are females. The average age is around 34 years.

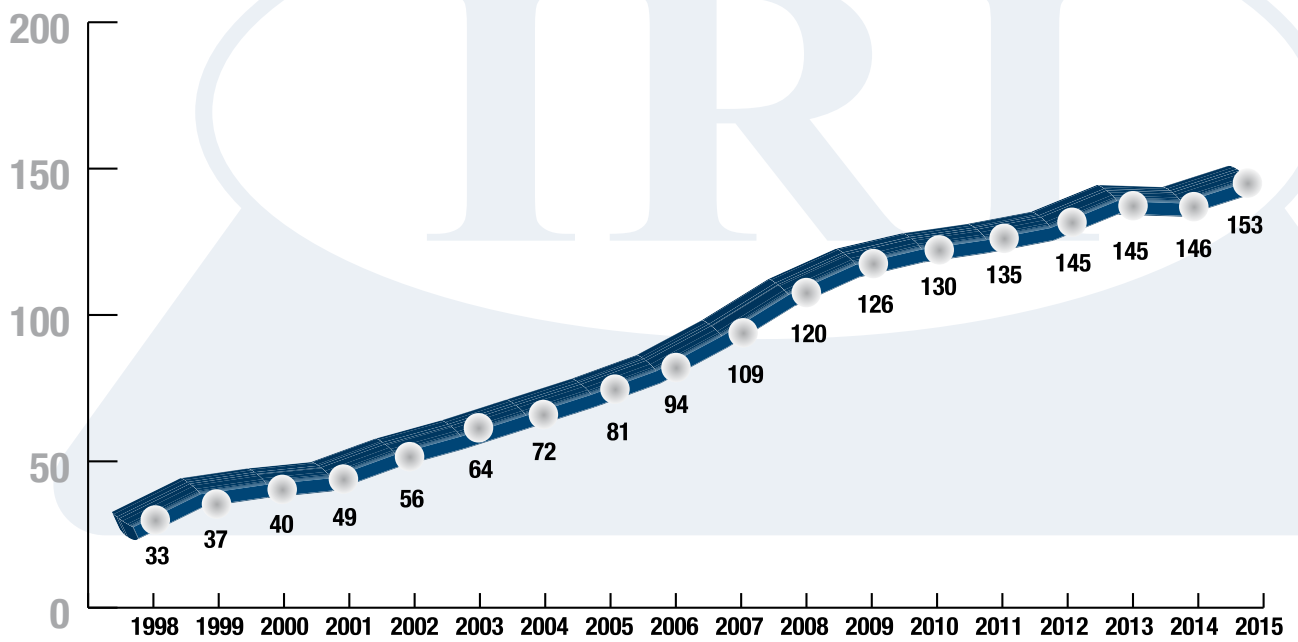
They can be categorized according to the level of their education:

- 19 hold a 3rd Cycle
- 54 hold a 2nd Cycle
- 30 hold a 1st Cycle
- 36 are in their secondary and technical studies
- 14 are in other categories.



Elementary Level	No.	%
3 rd Cycle	19	12
2 nd Cycle	54	35
1 st Cycle	30	20
Secondary Educ. & Tech.	36	24
Other	14	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
Ali Yaacoub	UNIDO & Supreme Council for Environment	The International Green Economy and Technology Forum	19-21/01/2015	Manama, Kingdom of Bahrain
Elias Maalouf	المنظمة العربية للتنمية الصناعيين والتعدين الرباط	الاجتماع السابع عشر للجنة الاستشارية للمترولوجيا	26-27/01/2015	Golden Tulip - Morocco
Ali Yaacoub	Zayed International Foundation for the Environment & United Nations Environment Programme (UNEP)	1st Dubai International Forum on Sustainable Lifestyles 2015	25-26/02/2015	Dubai, UAE
Mohammad Haidar	Global Research Alliance on Agriculture Greenhouse Gases (GRA)	National Strategies and Policies on Agriculture and Climate Change in the Mediterranean region	05-06/03/2015	Gammarth -Tunisia
Ali Yaacoub	USAID, Erasmus	Green Cities for Eco- Efficiency	16/03-03/04/2015	Rotterdam University, Netherlands
Amin Jbeily	ICC	ICC 60th anniversary Luncheon on the occasion of the 3rd Latin American Cereal Conference (LACC3)	31/03/2015	Curitiba-Brazil
Joseph Helou	NIS & PTB	Measurement of Electrical Quantities	12-16/04/2015	Cairo
Ali Yaacoub Joseph Matta Mohammad Haidar	UNIDO & SWITCHMED	MED TEST II – SWITCH-Med Project Regional Training	13-16/04/2015	Vienna, Austria
Ali Yaacoub	European Commission - TAIEX-Metapolska(Kraków Region)	Euro Mediterranean Conference on Digital integration, energy and resource efficiency: opportunities in textile and clothing value chains across the Euro-Mediterranean Area	26-29/04/2015	Kraków, Poland
Hussein Yaacoub	UfM & European Union	UfM Climate Change Expert Group second meeting	4-7/05/2015	Skhirat, Morocco
Selim Kfoury	AIDMO	الاجتماع الخامس عشر للجنة التنسيق لمؤسسات ومراكز البحوث الصناعية في الدول العربية	05-06/05/2015	Kuwait
Antoine Faycal	AIDMO	المؤتمر العربي الدولي السابع لتكنولوجيا المعلومات	19-21/05/2015	Rabat-Morocco
Ali Yaacoub	UfM and European Commission	European Maritime Day; UfM Stakeholder Conference; UfM-ad-hoc SOM Ministry of Foreign Affairs; Ministerial on Blue Economy	28-29/05/2015	Piraeus, Greece
Joseph Matta	FAO & WHO	FAO/WHO Coordinating committee for Near East	1-5/06/2015	Rome-Italy
Ali Yaacoub	GRA	GRA-GREENHOUSE GASES (Field Trip-Lodi; Pic-livestock Research Group Meeting; Cogress Center-Lodi ;WFO General Assembly)	22-27/06/2015	Italy
Selim Kfoury	QUALEB	Study Visit of Delegation of Lebanese Accreditation Body COLIBAC	31/08-04/09/2015	Belgrade-Bucharest
Maya Majdalani	The League of Arabic States, UNIDO & SIDA	PAFTA Regional Workshop 2015	15-17/09/2015	Cairo-Egypt

Participant	Organizer	Object/Title of the training	Date	Location
Imad Hage Chehade	LCEC & TAIEX	Study Visit on Quality test standards and procedures for Solar Systems	28/09-02/10/2015	Rome-Italy
Edgar Shaaya	Germany's National Metrology Institute (PTB) & The Royal Scientific Society (RSS)	Middle East Regional Metrology Training on Temperature Measurement	18-22/10/2015	Amman-Jordan
Mohammad Haidar	The Regional Partners of the SwitchMed Programme	The SwitchMed Connect	29-30/10/2015	Barcelona - Spain
Raymonde Khazzaka	BCRC-Egypt & BCRC-Africa	Training for Experts from Arab Speaking Countries on the Analysis of Persistent Organic Pollutants (POPs) in Environmental Samples	26/10-06/11/2015	Ibadan - Nigeria
Joseph Matta	Innovate 2015, Innovate UK & UKTI	London Tech Week to UKLTH -Innovate 2015	08-11/11/2015	London

Local training, seminars & workshops

Participant	Organizer	Object/Title of the training	Date	Location
Mohamad Haidar	Agricultural committees of the world trade chamber	من أجل قانون حديث لمعالجة مشكلة الغذاء وإنشاء الهيئة اللبنانية لجودة الغذاء وسلامته في لبنان	21/01/2015	Chamber of Commerce - Beirut
Mohamad Haidar	ANIMA Project	Economic development through inclusive local empowerment	28-30/01/2015	Gefinor Hotel - Hamra
Mohamad Hajjar	UNDP	UNDP energy and environment program meeting	29/01/2015	Monroe Hotel - Beirut
Ahmad Hassan	PowerTech	explication on varta battering fabrication and technology	07/02/2015	Hilton Metropolitan Hotel - Beirut
Selim Kfoury	غرفة الصناعة والتجارة والزراعة	مناقشة السياسة المالية والتعاون مع القطاع الخاص	18/02/2015	مقر غرفة بيروت
Siham Youssef	USEK and Lebanese Treasures Land	My Land - A promising future, a national campaign to support the natural reproduction of slugs and snail	20/02/2015	Holy Spirit University - Kaslik
Joseph Helou Ahmad Hassan	ELCIM - TAIEX	Management of the cold chain in food industry and retail	24-25/02/2015	Radisson Blu Martinez Hotel
Hovig Kouyoumdjian Amine Jbeily	غرفة الصناعة والتجارة والزراعة	المنتدى العربي لسلامة الغذاء والجودة	25-26/02/2015	مقر الاتحاد العام لغرف التجارة والصناعة والزراعة للبلاد العربية
Wadad Daher Joelle Saikaly	وزارة الاقتصاد والتجارة	تقنيات تحديد مدة صلاحية المنتجات الغذائية	02-03/03/2015	وزارة الاقتصاد والتجارة
Bilal Hussein	نقابة المهندسين في بيروت	Implementation of Electrical Safety Standards on Household Appliances	04-05/03/2015	مبنى نقابة المهندسين في بيروت
Thomas Sabbagh	Fornatech and UNDP-Lebanon	Advanced Management Accounting	09-12/03/2015	Sodeco Square
Jihad Hage Chehade	CIT - TAIEX	Intellectual Property Protection	16-17/03/2015	Radisson Blu Martinez Hotel
Selim Kfoury	معهد باسل فليحان المالي والاقتصادي	حفل اطلاق ورش العمل المخصصة للمؤسسات الصغيرة والمتوسطة حول الشراء العام	18/03/2015	مقر المعهد العالي للاعمال
Mohammad Haidar Mohammad Hajjar	SHAAMS	SHAAMS Regional Meeting for Social Actors	18/03/2015	Monroe Hotel - Beirut

Participant	Organizer	Object/Title of the training	Date	Location
Mohammad Haidar-LCPC	وزارة البيئة	ورشة عمل تحديث خطة العمل الوطنية لحماية البحر المتوسط من التلوث من مصادر ارضية	24/03/2015	Holiday-Inn Hotel - Verdun
Siham Youssef	The ministry of Industry	Understanding Hazards from Farm-to-Fork "Food Safety in Poultry Processing"	30/03/2015	Holy Spirit University - Kaslik
Joseph Matta	اللجنة العلمية في نقابة اصحاب الصناعات الغذائية	اجتماع قطاع البهارات في نقابة اصحاب الصناعات الغذائية	02/04/2015	مقر نقابة اصحاب الصناعات الغذائية
Sandra Sarkis	LAAS	21st LAAS International Science Conference "Horizon 2020: Advances in Sciences and Technology"	15-17/04/2015	Universite Saint Joseph
Joseph Matta	Syndicate of Lebanese Food Industries	The National Food Industry Day	22/04/2015	Conference Center - BIEL (HORECA)
Mohammad Hajjar	BEPS and USEK	The International Conference on Governance: Arab Governance Energy Forum-Lebanon 2015	23/04/2015	Holy Spirit University - Kaslik
Imad Hage Chehade	ALMEE	Workshop on Energy Efficiency indicators and trends in Lebanon	24/04/2015	Monroe Hotel - Beirut
Tarek Hakim	ALMEE & NDU	Regional Student Professional Development Conference (SPDC) "Road to 100"	24/04/2015	Notre Dame University-Louaize
Joseph Matta	وزارة الزراعة	قانون الحجر الصحي البيطري بالتعاون مع الاتحاد الاوروبي	29/04/2015	مبنى الجراد - مقابل السراي الحكومي
Elias Bechara Ali Yaccoub	AUB & ALMEE	MEDALGAE project	09/05/2015	American University of Beirut
Bilal Hussein	The ministry of Industry	المعدات الكهربائية والالكترونية: نحو ادارة سليمة ونظيفة	19/05/2015	The ministry of Industry
Imad Hage Chehade Ali Yaccoub	جامعة الدول العربية و المركز اللبناني لحفظ الطاقة	اليوم العربي لكفاءة الطاقة	21/05/2015	Movenpick Hotel - Beirut
Ali Yaacoub	Foreign Affairs and Emigrants	Lebanese Diaspora Energy	21-23/05/2015	Habtoor Hotel - Beirut
Joseph Matta Hovig Kouyoumdjian	WHO	Training workshops of surveillance unit at MOPH on water and sanitation surveillance	26-27/05/2015	Holiday-Inn Hotel - Verdun
Joseph Matta Joelle Adam Mohammad Haidar	Bioteck & Bioteckno	The International Standards & Regulations for food safety	28/05/2015	Le Royal Hotel - Dbayeh
Sandra Sarkis	نقابة المهندسين في بيروت - فرع المهندسين الزراعيين	الزراعة في لبنان واقع، تحديات و افاق	03/06/2015	Le Royal Hotel - Dbayeh
Khaled Ghoul	غرفة الصناعة والتجارة والزراعة طرابلس و لبنان الشمالي	عرض و شروحات عن دور ومهام المنطقة الاقتصادية الخاصة بطرابلس	09/06/2015	قاعة مؤتمرات غرفة الصناعة والتجارة والزراعة طرابلس و لبنان الشمالي
Imad Hage Chehade Mohamad Haidar	UNIDO	Inclusive and Sustainable Industrial Development in the Post-2015 Development Agenda :Views from Lebanon and Jordan	10/06/2015	UN-House Beirut, Lebanon
Ziad Moukarzel	وزارة المالية و معهد باسل فليحان المالي و الاقتصادي و نقابة خبراء المحاسبة المجازين في لبنان	تطبيق معايير المحاسبة الدولية للقطاع العام	10-12/06/2015	مقر معهد باسل فليحان المالي و الاقتصادي - كورنيش النهر
Joseph Matta	Careers Consulting Services	Lebanon HR Summit -2nd Edition-	12/06/2015	Le Royal Hotel - Dbayeh
Sami Harb	MoEW & ESCWA & IPTC	Safety and Environmental Challenges in the Distribution of Petroleum Products in Lebanon	15/06/2015	UN House ESCWA Building

Participant	Organizer	Object/Title of the training	Date	Location
Antoine Faycal	غرفة التجارة الدولية - لبنان	الاجتماع الثاني الموسع لمناقشة موضوع المعابر البرية والبحرية	17/06/2015	مقر غرفة التجارة الدولية - لبنان
Imad Hage Chehade	نقابة المهندسين في بيروت	مجابل الباطون ونظام تأمين الجودة	23/06/2015	نقابة المهندسين في بيروت
Siham Youssef	USEK - GCHERA	The 8th World Conference of GCHERA	24-26/06/2015	Holy Spirit University - Kaslik
Halim El Bayeh Sandra Sarkis	وزارة الاقتصاد والتجارة و TAIEX	تطبيق أنظمة الرقابة المستدامة على سلامة الغذاء في المؤسسات الصغيرة والمتوسطة الحجم	13-14/07/2015	Radisson Blu Martinez Hotel - Ain Mreisseh
Mohamad Haidar	وزارة البيئة	SCP Action Plan in The Industrial Sector	16/07/2015	القاعة الخضراء في مبنى وزارة البيئة
Sandra Sarkis Mohamad Haidar	Ministry of Agriculture & FAO	Recovery and Rehabilitation of Dairy Sector in Bekaa Valley and Hermel-Akkar Uplands (Phase II)	29/07/2015	Movenpick Hotel - Beirut
Joseph Matta Ali Yaccoub	وزارة البيئة	مراجعة وتحديث خطة التنفيذ الوطنية لاتفاقية ستوكهولم بشأن الملوثات العضوية الثابتة في لبنان	29/07/2015	القاعة الخضراء في مبنى وزارة البيئة
Raymonde Khazzaka	اللجنة الوطنية للدستور الغذائي بالتعاون مع منظمة الاغذية والزراعة وغرفة التجارة والصناعة والزراعة في زحلة والبقاع	الدستور الغذائي - لبنان	05/09/2015	مقر غرفة التجارة والصناعة والزراعة في زحلة والبقاع
Ashraf Nasser Ed-dine	The Energy & Automation Division at Ets. FA.Kettaneh SA	IEC 61439-1 standard seminar	15/09/2015	Radisson Blu Hotel - Beirut
Mohammad Hajjar	Berytech	SHAAMS Technology and Capacity Building Training	16-17/09/2015	Berytech Digital Park
Sahar Estephan	IRI & ELCIM	Research & New Product Development for the Agro-Food Sector	29-30/09/2015	Radisson Blu Martinez Hotel - Ain El Mreysseh
Mahmoud Amhaz	معهد باسل فليحان المالي والاقتصادي بالتعاون مع المعهد العربي للتخطيط بالكويت	البرنامج التدريبي حول مهارات بناء وتحليل المسوحات الميدانية و مهارات تحليل مؤشرات و سياسات سوق العمل	28/09-02/10/2015	مقر معهد باسل فليحان المالي والاقتصادي - كورنيش النهر
Eliane Sawma Awad			26-30/10/2015	
Naji Abi Zeid	The Minister of Social Affairs & The Office of the United Nation Resident Coordinator	National Consultation on the Resilience Agenda	09/10/2015	Movenpick Hotel - Beirut
Robert Haddad	كلية الزراعة في الجامعة اللبنانية	علم المقاييس والجودة في التعليم في العلوم الزراعية	13/10/2015	كلية الهندسة - مجمع الحدث
Taher Wehbe	QUALEB-Quality Programme at the Ministry of Economy & Trade	QUALEB Workshop-Excellence In Consultancy and Training	15/10/2015	Four Points Hotel by Sheraton - Beirut
Antoine Faycal	CNRS, BDL & ES-CWA	National Stakeholders Workshop	15/10/2015	Gefinor Hotel - Hamra
Maroun Saykali	The Lebanese Cuban Businessmen Council (LCBC)	The Cuban Lebanese Economic Forum (CLEF 2015)	16/10/2015	Bristol Hotel - Beirut
Joseph Matta	Ministry of Agriculture & FAO	Social Protection and Agriculture - Breaking the Cycle of Rural Poverty	16/10/2015	Ecole Nationale d'Administration - ENA - Baabda
Joseph Matta	وزارة الزراعة والمعهد الزراعي المتوسطي مونبيليه	حفل اطلاق مشروع اينبارد	19/10/2015	Golden Tulip Galleria Hotel - Beirut

Participant	Organizer	Object/Title of the training	Date	Location
Ashraf Nasser Ed-dine	LeGrand	LeGrand Datacom Forum Event	21/10/2015	Movenpick Hotel - Beirut
Maroun Saykali	غرفة التجارة والصناعة والزراعة في بيروت وجبل لبنان	حفلة اطلاق مكتب تنمية العلاقات الاقتصادية اللبنانية-الخليجية	28/10/2015	مقر غرفة التجارة والصناعة والزراعة في بيروت وجبل لبنان
Siham Youssef	The World Federation of Engineering Organizations, the Federation of Lebanese Engineers & the Federation of Arab Engineers	Engineering Education For Sustainable Development	29-30/10/2015	Lancaster Plaza Hotel - Beirut
Sandra Sarkis Lama Abou Rjeili	The Codex Regional Coordinator for the Near East , FAO & WHO	Regional Training Workshop in support of RNE countries to enhance their knowledge of Codex for improved functioning at National and Regional Levels	29-30/10/2015	
Imad Hage Chehade	The Ministry of Economy and Trade, EU-Funded Quality Programme	Distribution of Certificates to Lebanese Excellence Award New Assessors	30/10/2015	Bristol Hotel - Beirut
Imad Hage Chehade	غرفة التجارة والصناعة والزراعة في بيروت وجبل لبنان	Emmanuel لقاء مع سعادة السفير الفرنسي السيد Bonne بمناسبة توليه مهامه الدبلوماسية في لبنان	30/10/2015	مقر غرفة التجارة والصناعة والزراعة في بيروت وجبل لبنان
Elie Melki	اللجنة الوطنية للدستور الغذائي بالتعاون مع منظمة الاغذية والزراعة و اتحاد غرف التجارة والصناعة والزراعة في لبنان	الدستور الغذائي - لبنان	02/11/2015	مقر غرفة التجارة والصناعة والزراعة في بيروت وجبل لبنان
Rabih Issa	معهد باسل فليحان المالي والاقتصادي ومعهد العربي للتخطيط بالكويت	سياسات تعزيز القدرة التنافسية	02-06/11/2015	مقر معهد باسل فليحان المالي والاقتصادي - كورنيش النهر
Hiba Yaacoub	وزارة الاقتصاد والتجارة و TAIEX	ورشة عمل حول المعلومات الغذائية للمستهلك	09-10/11/2015	Radisson Blu Martinez Hotel-Beirut
Imad Hage Chehade Robert Haddad Mohamad El Hajjar Bilal Hussein Ahmad Hassan Fady Melhem	LCEC and ENEA	The Quality Supply Chain for Solar Photovoltaic	10-11/11/2015	Gefinor Hotel - Hamra
Siham Youssef	The Lebanese Ministry of Agriculture , OIE & The faculty of Agriculture and food sciences of USEK	13th Conference of the OIE Regional Commission for the Middle East	11/11/2015	The Holy Spirit University - Kaslik
Mohammad Hajjar	LCEC & the Italian Ministry of Environment, Land and sea	Solar Ordinances	19/11/2015	Crowne Plaza Hotel - Beirut
Andre Kahale	وزارة الزراعة	تربية الحيوان - الصناعات الغذائية	26/11/2015	محطة الفنار
Amine Jbeily	وزارة الزراعة	الري ، المناخ ، التربة، الاسمدة	28/11/2015	محطة الفنار
Selim Kfoury Antoine Faycal	Central Inspection - OMSAR workshop & the Ministry of Industry	SOPMIP workshop	03/12/2015	Radisson Blu Martinez Hotel - Beirut

Participant	Organizer	Object/Title of the training	Date	Location
Joseph Matta	اللجنة الوطنية للدستور الغذائي في لبنان ومنظمة الاغذية والزراعة للأمم المتحدة	مشروع دعم الهيكلية الوطنية للدستور الغذائي	29/12/2015	Tamar-Lancaster Hotel - Beirut

IRI SEMINARS/CONFERENCES

Participant	Organizer	Object/Title of the training	Date
Mohamad Haidar Ali Yaacoub	LCPC, UNIDO & SWITCHMED	Meeting of Core Team, NFP	27/01/2015
Mohammad Hajjar Bilal Hussein Ahmad Hassan Ashraf Nasserredine Fady Melhem Mohamad Haidar	IRI, OEA and LSES	Energy & Renewable Energy-Opportunities in Lebanon	27-28/01/2015
Ahmad Wehbe	Electrical Lab - IRI	Performing the tripping characteristic test	16/02/2015
Ali Yaacoub Hussein Yaacoub Khawla Ismail Nour Kanj Ali Hasan Yaacoub	IRI	Agreement Signature with the Faculty of Agriculture-LU represented by the Dean Dr. Samir Medawar	12/03/2015
Ali Yaacoub Mohammad Haidar	IRI	Kick Off Meeting of Med Test II	12/03/2015
Elie Dawalibi	Electrical Lab - IRI	Compact Fluorescent lamp performance testing	24-27/03/2015
Mohammad Hafi	Electrical Lab - IRI	Performing the provision for earthing test	24/04/2015
Achraf Arabi	GCS Lab-IRI	Performing the test of compression of cement as per EN 196-1	19/05- 11/06/2015
Fady Melhem	Electrical Lab - IRI	Performing the vibration resistance test	10-11/06/2015
Ali Yaacoub Mohammad Haidar	LCPC, UNIDO, SWITCHMED	Med Test II Stakeholders' Meeting	11/06/2015
Ali Yaacoub Mohammad Haidar	LCPC, UNIDO, SWITCHMED	Med Test II Experts' Meeting	16/06/2015
Mahmoud Al Shamiyeh	GCS Lab-IRI	Document and record control of the GCS lab	06-09/07/2015
Boutros Salameh	GCS Lab-IRI	Document and record control of the GCS lab	06-09/07/2015
Bassam Chihane	GCS Lab-IRI	Document and record control of the GCS lab	06-09/07/2015
Ahmad Hassan Fady Melhem	MED DESIRE	Training of Trainers of solar photovoltaic system installers	24-28/08/2015
Ahmad Hassan	Electrical Lab - IRI	(Tripping Characteristic (circuit breaker	07/09/2015
Bilal Hussein	Electrical Lab - IRI	CFL and Glow wire test facilities	02/11/2015
Amin Jbeily Mahmoud Amhaz Maya Majdalani	FREA-IRI	Transition Course ISO 9001:2015	21-22/12/2015
Achraf Nasser Eddine	Electrical Lab - IRI	Performing the Lead acid batteries tests	31/08/2015

Participant	TC No.	Standard Title	Date
Mohamad Zeaiter	28 (5)	Petroleum Products & Lubricants 794:2014 NL 501:2011	NL 21/10/2014 05/11/2014 01/12/2014 05/01/2015 24/03/2015
Mohamad Zeaiter	28 (6)	Petroleum Products & Lubricants NL 254	NL 753 16/06/2015 09/07/2015 17/08/2015 08/09/2015 29/10/2015 18/11/2015
Mohamad Zeaiter	28 (7)	Petroleum Products & Lubricants 6743:1-3-4-5-6-7-8-9-10-11-12-13-99-14-15 ISO 12922 ISO 19378	ISO ISO 8068 25/11/2015
Mohamad Zeaiter	47 (1)	ISO 5272 Toluene for industrial use specification	18/12/2014 22/01/2015
Mohamad Zeaiter	47 (2)	ISO 5280 Xylene for industrial use specification	18/12/2014 22/01/2015
Mohamad Zeaiter	47 (3)	ISO 21389 oil of turpentine chinese ISO 11020 oil of turpentine	12/02/2015
Mohamad Zeaiter	47 (4)	Petroleum NL 796:2015 ASTM D235	21/04/2015
Mohamad Zeaiter	59	EN 15322:2013 EN 13808:2013 EN 14023:2010 EN 12591:2009 EN 1317- 5:2007+A2 EN 1423:2012 EN 12899-1-2-3:2007	08/04/2015 20/09/2015
Mohamad El-Hajjar	NLTC 180	Solar water heater collector NL-EN 12975 changing to ISO 9806	17/02/2015 03/03/2015
Mohamad El-Hajjar	NLTC 180 (1)	NL-EN-12977	14/04/2015 12/05/2015 01/06/2015
Mohamad El-Hajjar	NLTC 180 (2)	NL-EN-12975 Part1:2006 NL-EN-12976 Part1-Part2:2006 ISO 9488 ISO 9459 Part2-Part5	23/06/2015
Antoine Faycal Dany Tahchy	NTC 3001 (1)	Biological evaluation of Medical devices	25/02/2015
Dany Tahchy	NTC 3001 (2)	ISO 10083:2006 Oxygen concentration supply system for use with medical gaz pipeline systems	08/05/2013 22/05/2013 03/09/2013 07/10/2013 28/10/2013 22/04/2015
Mark Tahchy	138	Plastic pipes fitting and valve for the transport of fluid EN 1329- 1	26/02/2015
Mark Tahchy	138 (1)	Plastic pipes EN 1555-1/2/3/4/5/7	01/06/2015 14/07/2015 31/08/2015
Mark Tahchy	138 (2)	Plastic pipes ISO 15874-1/2/3/5 ISO 15877-1/2/3/5/7	31/08/2015 18/09/2015 09/10/2015
Mark Tahchy	138 (3)	NL ISO 21003-1/2/3/5/7 ISO22391-1/2/3/5/7 CEN/ TRY852:2015 DNL EN15012/15014/15014 DNL ISO11299-1/3 DNL EN 13476-1/2/3/4	16/10/2015 04/11/2015 02/12/2015

Participant	TC No.	Standard Title	Date
Danielle Gemayel	NL 756 TC 34 SC 11	Olive oil	07/04/2015
Joelle Saikaly	TC 217	Cosmetics ISO 11930 - 21149-21150-18416-22717-22718-16212-18415	10/03/2015 23/04/2015 18/05/2015
Wadad Daher	NLTC 34 SC 1031	Honey NL209	23/12/2014 08/04/2015 20/04/2015
Dany Tahchy	NLTC 3012 (1)	Safety rules for the construction and installation of lifts EN 81-40 EN 81-41 EN 81-79 EN 81-81	14/09/2015
Dany Tahchy	NLTC 3012 (2)	Safety rules for the construction and installation of lifts EN 81-31 CEN/TS 81-76 EN 81-22	24/11/2015

Local Meetings, Inaugurations & Exhibitions

Participant	Organizer	Object/Title of the training	Date	Location
Imad Hage Chehade, Tarek Hakim Mohamad Zeaiter, Marc Cherfan Elias kinab, Joelle Adam, Khoder Fawaz	Rafik Hariri University	Mediterranean Gas & Oil International Conference	16-17/04/2015	Crowne Plaza Hotel - Hamra
Naji Abi Zeid, Ramzi Bhamdouni Elias Kinab, Fady Fayad, Tony Chammai Richard Skaff, Talal Hijazi, Talal Salem, Elie Melki, Maya El Khatib	Hospitality Services	HORECA LEBANON 2015	20-23/04/2015	BIEL - Lebanon
Tarek Hakim, Mohamad Hajjar Siham Youssef, Joelle Adam, Ahmad Hassan Edgard Chaaya, Elias Bechara, Jean Dib, Achraf Arabi, Tony Chammai, Mohamad Zeaiter, Fady Melhem, Alaa Ahmad	مجلس طلاب الفرع في كلية الهندسة في الجامعة اللبنانية (الفرع الثالث)	Engineering Expo 2015	22-24/04/2015	مجمع الحدث الجامعي (كلية الهندسة)
Imad Hage Chehade, Tarek Hakim Siham Youssef, Joelle Adam, Elias kinab, Elias Dib, Elias Maalouf, Elie Melki, Camelia Kanaan, Marc Cherfan, Marc Tahchy Naji Abi Zeid, Richard Skaff, Elias Bechara, Tony chammai, Fady Melhem, Ali Yaacoub Bassam Kabalan, Mohamad Haidar	ifp expo	Energy Lebanon 2015	2-5/06/2015	BIEL - Lebanon
Mohamad Zeaiter, Taher Wehbe Raymonde Khazzaka, Richard Skaff Elias kinab	غرفة التجارة والصناعة والزراعة في زحلة والبقاع	صنع في البقاع	4-6/09/2015	بارك جوزف طعمة سكاف - البقاع
Joelle Adam, Siham Youssef, Imad Hage Chehade, Naji Abi Zeid, Richard Skaff, Ahmad Hassan, Elias kinab, Talal Salem Achraf Nasser eddine, Mohamad Hajjar Fady Melhem	MCE & LCEC	Beirut Energy Forum 2015	9-11/09/2015	Le Royal Hotel - Dbayeh
Siham Youssef, Tarek Hakim Fady Melhem, Elias Dib, Mohammad Hajjar Edgard Chaaya, Joseph Helou, Khoder Fawaz, Antoine Faycal, Ahmad Hassan	Awali Exhibition & Leisure Center	Techno Build 2015	24-27/11/2015	Awali Exhibi- tion & Leisure Center (La Salle) - Rmeileh



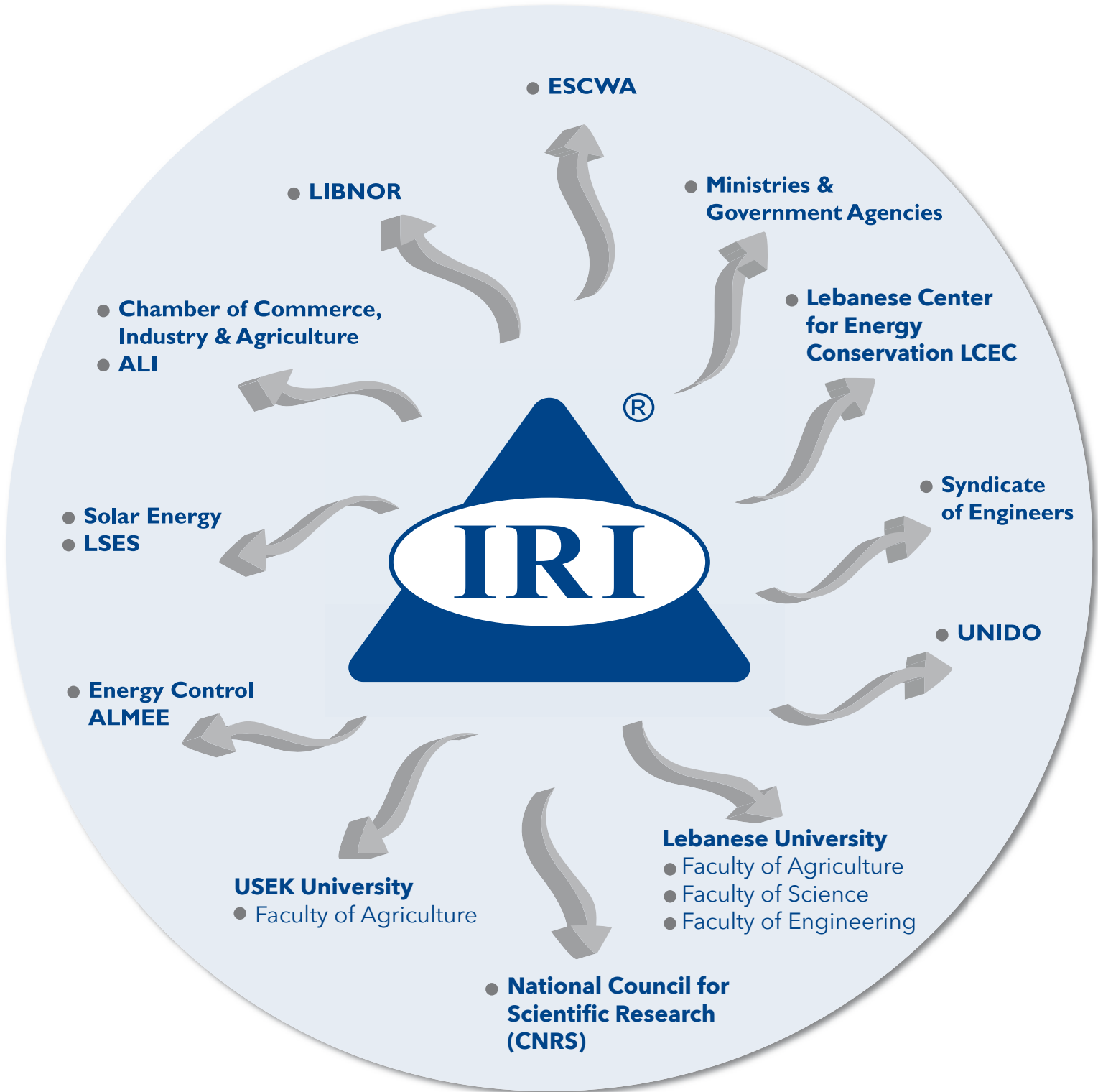
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*International &
Local Partnerships*

INTERNATIONAL PARTNERS



LOCAL PARTNERS





15

Decrees, Laws and Decisions

Laws

Subject	Official Gazette		Law	
	Date	Number	Date	Number
Anticipated law No 35: Food Safety Law	26/11/2015	48	24/11/2015	35

Decrees

Subject	Official Gazette		Decree	
	Date	Number	Date	Number
Determine, name and use the legal units of measurement	07/05/2015	19	29/04/2015	1952

Memorandum

Subject	Official Gazette		Memorandum	
	Date	Number	Date	Number
Issuing certificates of conformity in the field of welding regarding the metal construction of liquid and liquefied petroleum products			02/07/2015	3/2
Mandatory approval and technical supervision in construction and monitoring the implementation of the Ministry of Energy and Water-General Directorate of Oil and Gas on the metal intended for the storage and transport of liquid and liquefied petroleum products, construction and oil facilities			13/07/2015	4/2
Damaging goods in violation of the laws and regulations or imposing re-exportation	10/10/2015	42	8/10/2015	Appendix of the memorandum 3885-2001

Resolutions

Subject	Official Gazette		Decree	
	Date	Number	Date	Number
The conditions to be observed in food factories			05/01/2015	1/1
The imposition of a pre-license on the import of rods, angles and special shapes of aluminum	16/04/2015	16	27/03/2015	1/33
Amendment of the resolution No. 469/1 of 28-05-2012 about “organizing the method of taking, transferring and examining the sample of imports”	14/05/2015	20	06/05/2015	1/376
The mechanism of reviewing initial environmental inspection reports	25/06/2015	26	12/06/2015	1/260
Related to the amendment of the resolution No. 33/1	02/07/2015	27	23/06/2015	1/88
Replacing the metal gas bottles (Butane/Propane) in the local market	24/09/2015	39	15/09/2015	175
Establishing a specialized committee to follow up the situation of the cement plant of the National Cement Company SAL	24/09/2015	39	17/09/2015	1/120
Determine the percentage of propane gas in liquefied petroleum gas substance (a combination of propane and butane)			29/10/2015	200
Determining the maximum deadline for submitting applications for the environmental compliance certificate by the industrial enterprises which are subject to the provisions of the decree 8471/2012	26/11/2015	48	17/11/2015	1/539
Determining the maximum deadline for submitting applications for the environmental compliance certificate by the classified (non-industrial) enterprises that are subject to the provisions of the decree 8471/2012	26/11/2015	48	17/11/2015	1/540
The mechanism of the application of extruded and painted aluminum breakers for civil engineering specifications	24/12/2015	52	10/12/2015	1/152
The requested classification conditions from consulting offices, which prepares strategic environmental assessment studies, environmental impact assessment, initial environmental examination and environmental audit	31/12/2015	53	21/12/2015	1/588
The mechanism of reviewing reports about determining the scope of the strategic environmental assessment and strategic environmental assessment studies	31/12/2015	53	21/12/2015	1/589
The mechanism of issuing licenses related to industrial enterprises	31/12/2015	53	21/12/2015	1/590



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Communication and Media

معهد البحوث الصناعية كرم جمعية "الاقتصاديين الإعلاميين"



(إيلي وهبة)

الفرع السنوي وبدأ الجمعية للبحر

كرم المدير العام لمعهد البحوث الصناعية بسام الفرّون، رئيس جمعية الاقتصاديين الإعلاميين عفتن الحاج والأعضاء، برنامجية وزير الصناعة صنون الحاج حسن وحضوره، ومشاركة المدير العام للوزارة داني جديون، والمعتبرة للعلامة لمؤسسة المشايخس والمؤسسات اللبنانية لانا درلمر، وشخصيات، ولشكك الحاج بدور "المعهد التجاري" ومرجعيتها في لبنان والعالم العربي، كلمة علمية وبحثية تعرض مشكلات الخدمة للصناعة والتنمية، مع قيامه بتوفير المشورة الفنية والهندسية والاستشارات للنمو الاقتصادي، وبدوره، شأن القرن "التعاون الدائم بين المعهد والأسرة الإعلامية الاقتصادية" على صعيد تغطية النشاطات المعرفية، ومولكية دورة المتخصصين والمبارز في الدورة الاقتصادية اللبنانية، وعرض تطور المعهد في خلال الايام 18 للمناسبة على مختلف الصعد.

احتاج إلى المراجعة والتخطيط ووضع السرى وقدرات واستراتيجيات لتتخرج من الامتياز التي تتألف منها، وهي: وصول عجز الميزان التجاري العام الخاص إلى 17 مليار دولار أي ثلث عجز الناتج المحلي الإجمالي والارتفاع 50 ملياراً، إنتاج لبنان 40% من حاجته للطاقة الكهربائية فقط وبكلفة عالية جداً، وصول حجم موزانة وزارة الصناعة إلى 8 مليارات ليرة تقريباً، ارتفاع حجم اربعة ارقام صاعدة للاقتصاد

البطاقة إلى ما بين 30 و35%، وانحصر انصا تؤثر سلباً على النمو الاقتصادي بسبب قرب السبلات الضخمة وفرض بعض المسؤولين المؤثرين في قرارات دعم القطاعات الإنتاجية، ونتيجة الاتفاقات الثنائية التجارية المصنفة في حق لبنان كوحل الإعلاميون في مشكلات المعهد واستمعوا إلى شرح تفصيلية عن سير العمل فيها.



معهد البحوث الصناعية: دليل للسلامة والنوعية

أكد معهد البحوث الصناعية أنه المؤسسة العلمية الرائدة في لبنان والشرق الأوسط، القادرة على أن تلعب إمكاناتها العلمية ومخاطبات مختبراتها وقدرتها جهازها البشري في خدمة القطاع الصناعي خصوصاً والقطاع العام صوملاً مؤهلاً أصولاً ومحفظة، عاماً علمياً سريع الإنتاج في حملة المرافقة ومعالجة المنتجات الزراعية والصناعية وغيرها.

يتمتع معهد البحوث الصناعية كونه كونه لا يزال في طليعة الأوساط العلمية في الشرق الأوسط، حيث إنشأته عام 1980، وتحت إشراف وزير البحوث العلمية والمخاطبات، تم تجهيزه بمرافق متطورة، وتحت إشراف وزير البحوث العلمية والمخاطبات، تم تجهيزه بمرافق متطورة، وتحت إشراف وزير البحوث العلمية والمخاطبات، تم تجهيزه بمرافق متطورة.

الخطوة في تحسين الإنتاج اللبناني
تمت الموافقة على مشروع قانون إنشاء المعهد العلمي والمخاطبات، وتمت الموافقة على مشروع قانون إنشاء المعهد العلمي والمخاطبات، وتمت الموافقة على مشروع قانون إنشاء المعهد العلمي والمخاطبات.

عدد الموظفين - مختبر	العام
2014	2013
4348	3320
3816	19974
800	1114
2896	5057
61110	58200
127420	124577
17804	9800
3786	6045
324744	305423

معهد البحوث الصناعية: شهادة الألبية الخضراء



وقع مدير عام معهد البحوث الصناعية د. بسام الفرّون والمديرة التنفيذية لشركة CERWAY كورين بلوك والخبير اتفاقية تعاون مشترك بين المعهد ومؤسسة CERWAY الفرنسية المتخصصة بإصدار شهادة الأبنية والمنشآت الخضراء على أساس القواعد الموضوعية من جمعية HQE أي الجودة البيئية العالمية للأبنية.

أكد الفرّون أنه من الضروري التذكير بأن نظام HQE هو نظام معترف به على مستوى مصرف لبنان كإطار دولي يتيح للراغبين الاستفادة من قروض ميسرة ومساعدات لتحقيق مشاريعهم الصناعية والبيئية والتنمية، مشيراً إلى أنّ هذا الاتفاق هو إصدار مشترك لشهادة الأبنية الخضراء على أساس نظامين متكاملين هما نظام HQE الفرنسي ونظام CEDRE اللبناني الذي طوره المعهد قبل سنوات عدة بالتنسيق مع مؤسسات فرنسية متخصصة.

أما والخبير فأشارت إلى أنّ هذه الاتفاقية تعتبر بمثابة شهادة اعتراف بجهود معهد البحوث الصناعية المتواصلة في مجال التنمية المستدامة.

الحديد
Dioxin (TCDD)
البروفيسور جوزف هنري مدير المختبرات في معهد البحوث الصناعية

Dioxin pollution and solid wastes Intervention in the News



Role of IRI in the safety protection
Al Hall Ena program

معهد البحوث الصناعية: مرجع ذو صلاحيات دولية

وأصبح معهد البحوث الصناعية مرجعاً ذا صلاحيات دولية، يتكاتف من المنظمة الدولية للعلوم وتكنولوجيا الحبوب (ICC) ومقرها العاصمة النمساوية فيينا، ويتولى التكثف على كل الآلات المبتكرة حديثاً في دول العالم كافة - والتي تعنى بالإختبارات على الحبوب ومنتجاتها، وتخاذله الصلاحيات الجديدة إجراء التقييم، ومنح الصارفة على نوعية الأجهزة وجودها في تلبية الغرض من تصميمها، والمتعلق بكامل مراحل إنتاج الحبوب والذيق، وذلك بموجب دراسة علمية تصدر وتنتشر على الشفاق الدولي، باسم معهد البحوث الصناعية.

المتولوجيا العلمية والصناعية

وفي الإضجاع الثاني للجمعية العمومية البرنامج العلمي للمولوجيا العلمية والصناعية (ARAMET) التي انعقدت في العاصمة العفرية الرباط، انتخب رئيس مختبر المتولوجيا في معهد البحوث الصناعية المهندس الهاس معروف، ممثلاً للجمهورية اللبنانية، عضواً في اللجنة التنفيذية، ومتنقداً كامل الصلاحيات في مجموعات العمل المرتبطة بالبرنامج، والتي تعنى بالتدريب، والتطوير، وتبادل المعلومات. تصدر الإشارة إلى أن مختبر المتولوجيا في معهد البحوث الصناعية، يتولى مهام أساسية، مؤرعة على الشكل التالي:

المتولوجيا العلمية، والتي تعنى ببناء نظام الجودة، وتطوير طرق جديدة للقياس، والتأكد من القياسات الأمامية ومرجعيتها، لأنها تستخدمها في المجتمع المتولوجيا الصناعية، والتي تعنى بتطبيق علم القياس في التصنيع، وفي عمليات أخرى تستخدم في المجتمع لضمان سلامة أجهزة القياس مع أقران استخدامها، ومعايرتها، والتأكد من جودة قياسها. ويعتبر مختبر المتولوجيا في معهد البحوث الصناعية، مختبراً مرجعياً لاقتصاده من قول هيئة الاعتماد الأمريكية (ACLASS) بالنسبة لمختبر التكتة، والتخفيف سبباً للتتبع إلى المعايير المعترف بها دولياً في المجالات الأخرى.

وأصبح معهد البحوث الصناعية مرجعاً ذا صلاحيات دولية، يتكاتف من المنظمة الدولية للعلوم وتكنولوجيا الحبوب (ICC) ومقرها العاصمة النمساوية فيينا، ويتولى التكثف على كل الآلات المبتكرة حديثاً في دول العالم كافة - والتي تعنى بالإختبارات على الحبوب ومنتجاتها، وتخاذله الصلاحيات الجديدة إجراء التقييم، ومنح الصارفة على نوعية الأجهزة وجودها في تلبية الغرض من تصميمها، والمتعلق بكامل مراحل إنتاج الحبوب والذيق، وذلك بموجب دراسة علمية تصدر وتنتشر على الشفاق الدولي، باسم معهد البحوث الصناعية. وجاء هذا التكليف الرسي بعدما أسندت المنظمة الدولية إلى رئيس المختبر المركزي لمخبر الحبوب والذيق والخزن في معهد البحوث الصناعية المهندس أمين الجبيلي هذه المهام وكان الجبيلي، ممثلاً للمعهد، قد انتخب عام 2012 سديراً تقنياً مساعداً في المنظمة الدولية، وتم الانتعاب خلال انعقاد الجمعية العمومية للمنظمة خلال دورتها الـ 14 التي انعقدت في بكين (الصين) واختير جبيلي من بين مرشحين عدة من مختلف دول العالم.

الفرن

وعناً المدير العام للمعهد الدكتور بشام القرن الكواس العاملة في معهد البحوث الصناعية على هذا الإيجاز الجديد الذي يضاف إلى سبيل الإنجازات المحققة واعتبر أن تكليف المعهد بهذا الدور الأساسي هو دليل ثقة دولية كبيرة بمستوى المعهد، وبفكراته التقنية والفنية العالية، وهو برهان أيضاً على تفوق العناصر العاملة في معهد البحوث الصناعية، ويهدد هذا التكليف من صدقية المعهد والتزمه أعلى المعايير في الخصوص التي يجرها من خلال أحدث المختبرات المتجه بها. وأضاف تكهز المهام الجديدة للمختبر المركزي للحبوب

جولة وزيرة التجارة البلجيكية في معهد البحوث الصناعية

القرن، نتطلع كما بلجيكا مركز أوروبا الى لبنان
مركز استقطاب في المنطقة



المدير الدكتور بشام القرن والوزيرة جودون

لّت وزيرة التجارة البلجيكية سيسيل جودون دعوة المدير العام لمعهد البحوث الصناعية الدكتور بشام القرن بعد ظهر اليوم إلى القيام بجولة في الأقسام المعمد ومختبراته ومركز الأبحاث والدراسات والتخطيط فيه، حيث اطلمت على سير الأنشطة واستمعت إلى شرح تفصيلية وعلمية وفنية دقيقة من طرق العمل بحسب المعايير العالمية والأوروبية على وجه التحديد. وشارك في الجولة أيضاً الوفد البلجيكي المرافق للوزيرة وأركان السفارة البلجيكية في لبنان والمدير العام لمؤسسة المفاريس والمواصفات (إينور) المهندس لنا درغام وكبار المسؤولين في المعهد، وأعضاء المجلس البلجيكي للأعمال في لبنان.

اجتماع تشاخي

سبق المحادثات المشتركة لاجتماع تشاخي بين الوزيرة جودون والدكتور القرن عرضاً خلاله تاريخ العلاقات الوثيقة والوطيدة والتعاون الطويل بين معهد البحوث الصناعية والمؤسسات الأوروبية والبلجيكية للعريقة في مجالات الأبحاث والمختبرات، وتناولوا تطوّر المفاوضات اللبنانية - الأوروبية بشأن اتفاقية تقسيم المطابقة والقبول المتبادل للمسطح الصناعية، انطلاقاً من رئاسة الدكتور القرن للجنة المفاوضات عن الجانب اللبناني.

القرن

ورثب الدكتور القرن بالوزيرة والوفد المرافق لها في لبنان وفي معهد البحوث الصناعية، وخلال الإجاء تحيات وزير الصناعة الدكتور حسين الحاج حسن، وأعرب عن شكره الحكومة البلجيكية على ما تقدمه لبنان على مختلف

الأصدقاء، مما يعكس عمق الروابط بين الشمين اللبناني والبلجيكي، وأضاف: "إن العديد من أوجه الشبه يمتثل بين لبنان وبلجيكا على الصعيد التنوع والثقافة والاقتصاد وعلى الرغم من صغر مساحة بلجيكا الجغرافية، فإنها أصبحت مركز أوروبا، وهذا ما نطمح نحن في لبنان إلى أن يصبح عليه بلدنا مركز استقطاب في المنطقة ووسط عالمنا العربي، ونحن مدعوون إلى توطيد العلاقات التبادلية أكثر بين بلدينا، إذ أن بلجيكا تعد البلد الأوروبي الأول على صعيد تصدير المنتجات الدوائية، ونحن نمول كثيراً على دعم لبنان يستقل مزدهر أكثر بين بلدينا، وذلك أيضاً بفضل جهود ودينامية أعضاء المسك النيوليوماسي البلجيكي الموجود في لبنان الذي لا يأتو جمعاً على هذا الصعيد".

الوزيرة جودون

وبعد الجولة، أشتت الوزيرة جودون على نشاط المعهد في مختلف المجالات، مؤكدة أنه يوازي للمؤسسات الأوروبية وبشاهيها أيضاً من حيث الثبرات والتجهيزات، وأشادت بفاعلية وإنتاجية معهد السموت الصناعية من

خلال عضويته في اتحاد المختبرات الأوروبية EUROLAB الذي يتخذ من بروكسيل مقراً له ويعتبر الاتحاد أعلى مرجعية أوروبية على صعيد الخصوص الخيرية والأبحاث العلمية. ويعد لبنان، عبر معهد البحوث الصناعية، البلد الوحيد غير العربي وغير الأوروبي، ممثلاً في هذا الاتحاد.

شهادة اعتراف

فرد الدكتور القرن بكلمة: "نتمنّى بشهادتك التي أبديتها تجاه المعهد الذي يؤمن خدمات عالية المستوى ورفيعة الجودة للصناعة اللبنانية، كما يساهم في النمو الاقتصادي للبنان بعدما كتبت شبكة علاقاته مع العديد من الشركاء المحليين والإقليميين والعالميين، واعتبر زيارتك للمعهد رمزاً لاستمرارية علاقة تفاعلية مع بلجيكا، وتتويجاً لتعاون وثيق بين المعهد وبلجيكا يعود للعام 1990 في إطار البروتوكول المعمول به بين بلدينا، وأدى إلى تزويد المؤسسات البلجيكية المعهد بتجهيزات ومعدات تحليلية متطورة فضلاً عن المساهمات الاستشارية والفنية للمركز الأوروبي - اللبناني للتحدث الصناعي (EUCIM) الذي يقبل حالياً تحت إشراف المعهد ورعايته".



Drinking Water pollution
Mashakal wa Houlou program

