

معه البحوث الصناعية

INDUSTRIAL RESEARCH INSTITUTE
INSTITUT DE RECHERCHE INDUSTRIELLE

Annual Report 2013



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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 client's best interests. Furthermore, IRI regards as the client's property any information,

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



## We aim at a better and successful future

Dr. Bassam Frenn

Fifteen years ago, we didn't give a lot of attention to the low potential of the Industrial Research Institute. We were assigned with this mission, and drew a plan for the future of this Institute. We were hoping that it would become an institution that spreads knowledge and care, and provides all kind of direct or indirect help to industrial institutions, through a well-defined plan that progresses steadily, benefits new scientific gains, and only aims at finding ways to achieve the ambitions and expectations that shall make this institution a distinguished cultural space, on both international and local levels.

We were deeply aware that the progress of the IRI will provoke the jealousy of other parties, who noticed that the IRI isn't tackling major issues over the past half century, well before the current management team took over the Institute. However, success comes with a price; it has provoked the jealousy of other institutes and disturbed ineligible people; people that are used to feed their caprices by distorting facts and ignoring the truth. These people are not even capable of distinguishing right from wrong.

Last year, a campaign was organized to distort the reputation of the Industrial Research Institute, in an attempt to undermine its administration, misinterpret its consecutive successes, take over this successful institution and stop its continuous progress. The aim of this campaign was to divide the profits that the IRI is making and conceal its success, so it won't harm the personal benefits of individuals who only care about achieving personal interests and disregard the public interests.

For every new success of the IRI, there's a competitor trying to distort it. The Industrial Research Institute became one of the biggest and most successful institutions in Lebanon, with international cultural dimensions of which we are proud. While performing our managerial tasks, we assigned the Institute with prominent responsibilities, and helped it make new accomplishments. The IRI offered and is still offering valuable services to the Lebanese industry in particular, and to the national economy in general.

Among the achievements of the IRI, we cite 700 economic feasibility studies and providing advices and expertise to Lebanese economic institutions. With the help of LIBNOR, the IRI was able to set the Lebanese mandatory specifications, and made sure that they are applied. This is to protect the industrial production from any kind of dumping and quality competition, and to protect the local consumer.

In their quest for providing assistance to the industrial institutions and industry in general, the IRI along with the Euro-Lebanese Center for Industrial Modernization, the Lebanese Cleaner Production Center and the Center for Innovative Technology join their efforts to offer the industry technical, scientific and financial help, reduce the production costs, maintain a clean environment and encourage every creative and innovative work. By producing electrical energy from renewable sources, the IRI helps industrial institutions to lower their costs and diminish the burden of the energy and consumption of equipment bill

The services of the Industrial Research Institute include commercial sectors, whereas it carries - by virtue of the laws and regulations- tests on imported products subject to the Lebanese man-

datory specifications, such as grains, flour, bread, olive oil and other, leaving what is only productive to the Food Industry.

Every year, we publish a report about the activities performed by the IRI. It is to be noted that the activities and achievements of the IRI increase every year, despite some security obstacles that have a negative impact on the overall economic growth, thus on the activity of the Institute

However, our determination and that of the staff working at the Institute - almost 170 employees, workers and collaborators - are always enhanced. This staff is deploying its efforts and is constantly working on facing negative impact of stagnation factors and their repercussion on the activity of the Institute, so that the latter would always witness sustained growth rates.

Considering the Institute's important activities, achievements and good reputation on the international level, there's no place for invalid accusations - The IRI is still a pioneer in the scientific path it has adopted.

We don't dwell on our past.

And we never settle for our present.

We always aim at a better and successful future.

It's not our business that others look back, and dwell on their mistakes.

We will always be an example for those who like to succeed.



Activities of Minister Vrej Sabounjian The Minister of Industry Vrej Sabounjian gave the Industrial Research Institute a special attention. He was able to witness on the progress of the IRI with its personal efforts, and notice the interest of its staff in promoting the accomplishments of Institute, under the management of the Director General of the Industrial Research Institute Dr. Bassam Frenn. He realized that the constant development of the Institute, achieved in a short period, wouldn't have been realized without the good intentions of the managerial team and its determination. Sabounjian also predicted that the IRI would be the cornerstone of the national economy in general and the industry in particular.

With his engineering skills, Minister Sabounjian was able to determine that as long as the administrative team is competent and the elements assigned with supervising the activities conducted within the IRI are fully dedicated, common interest will prevail. Consequently, the Lebanese economic institutions will be able to benefit from what the IRI has to offer to the Lebanese industry in a special and similar way to the industrial activity. By that, we will witness an exchange of expertise and tasks.

Sabounjian took part of several IRI activities.

We will present some of the activities that he has participated in during 2013.

#### The first session of the new IRIs Board of Directors

## Sabounjian: "The IRI, headed by Dr. Frenn, proved its credibility" What made the IRI become accredited by developed countries on the international level.

In 23 March 2013, the Minister of Industry Vrej Sabounjian headed the first meeting of the Industrial Research Institute Board of Directors, in the presence of the Director General of the IRI Bassam Frenn, and with the participation of the President of the Lebanese Industrialists Association, Eng. Nehmat Frem, and the following Board of Directors members: the President of the Chamber of Commerce, Industry and Agriculture Mohammad Choucair, the President of Beirut Bar Association Nouhad Jabr, the President of the Order of Engineers in Beirut Elie Bsaibes, Robert Dabbas, Head of the Lebanese Franchise Association for concession licenses Charles Arbid, the Lebanese Industrialists Association Board Member Sarkis Boudakian and the University Professor in Laboratory Sciences Sami Nasr.

Sabounjian welcomed the new members while recognizing the contributions made by old ones within the Board of Directors.

He said: "I'm sure that every one of you is aware of the importance of the role assigned to him, and what he is expected to offer to the overall national economic sector. Despite the increase of the IRI responsibilities including those related to research, consultancy, laboratory work or tests, we are sure that the Institute's team, under the management of its Director General, is capable of performing to the fullest all the tasks assigned to it. However, having you as part of the IRI Board of Directors adds a value to the activity of the Institute because you are the elite of the Order of Engineers and Architects, the Bar Association, the Chamber of Commerce, Industry and Agriculture, the Lebanese Industrialists Association the Businessmen and the Academic sector. We must deal with the Institute with a high level of responsibility. enclosure, care and professionalism. In other words, we must maintain and protect the work that identifies the IRI starting from maintaining people's interest". He added, "Dr. Frenn proved his success by managing the IRI with all the employees working with remarkable dynamism and flexibility. We offer help to every person wishing for the success and development of the IRI, and at the same time we are keen on protecting our local and international markets from any product that doesn't comply with the required specifications and standards".

He considered that the importance of the IRI lies in its credibility and success, proven in the conformity certificates recognized all around the world that it received. He also stressed on the close cooperation between the Ministry of Industry, the IRI, the Lebanese Standards Institution, the Chamber of Commerce, Industry and Agriculture, the Lebanese Industrialists Association, the Franchise Association and every party concerned in the journey of success and development of the IRI.





#### After visiting different parts of the Industrial Research Institute

The Economic figures awarded Frenn an honorary shield.

Minister Sabounjian recognized the good governance of Dr. Frenn
by saying: "He made the IRI one of the most important
industrial control references"

The Minister of Industry Vrej Sabounjian encouraged the enhancement of cooperation and partnership between the Industrial Research Institute and the Lebanese Association of the Chamber of Commerce, Industry and Agriculture, aimed at enabling economic growth, applying quality components, and complying with the specifications set to protect citizens, based on excellent scientific and technology work.

Sabounjian gave a speech during a tour organized by the Director General of the Industrial Research Institute Dr. Bassam Frenn on March 07, 2013, with the participation of the President of the Federation of Chambers Mohammad Choucair, the President of Chambers and the members of their Boards of Directors, the President of the Lebanese Franchise Association Charles Arbid, the former minister Elias Hanna and other industrialists. This tour enabled them to get acquainted with the IRI research and laboratory activities.

Choucair awarded Frenn an honorary shield from the Association of Chambers in return of "all the efforts

he deployed in order to develop the Industrial Research Institute and promote his role in the economic life".

Sabounjian thanked IRI employees for performing their duties and providing services to the industry and industrialists, without caring about any strike or sit-in. They are setting an example for other public administration with their responsible behavior, without forgetting that we must give all workers in the public sector their rights.

Sabounjian also pointed out that the progress and policy of expansion that IRI achieves on regular basis make it a leading institution and an organization based on new techniques, and on laboratories and studies control, and this is "what made the results published by the IRI trustworthy in many countries, which facilitated the exchange process between them".

He also stressed that Frenn is adopting a good management system. This resulted in developing, enabling and equipping the IRI with modern scientific laboratory, and the ability to grasp all the innovative







human potentials, thus, making the Industrial Research Institute one of the most important industrial control references".

#### The importance of consultancy centers

Sabounjian stressed on the importance of creating technical consultancy centers in the IRI, through the Euro-Lebanese Center of Industrial Modernizations (ELCIM), the Lebanese Cleaner Production Center (LCPC) and the Center for Innovative Technology (CIT), in order to support the industry and industrial institutions services, modernize their activities and help it become well known in the international markets".

Choucair recognized the Industrial Research Institute efforts, "as it was able to provide industrial facilities with studies and research that help educating the institutions and raising awareness about the most important scientific trends and phenomenons".

He also said, "The Chambers of Commerce and the economic authorities must help the IRI by providing

it with the necessary resources and prevent politicians from interfering in its work and management system". He added that, "Politics might harm our work and some politicians are trying to take over successful institutions, so that they can benefit from their returns, and stand in the way of their progress." Frenn talked about the importance of economic activities that support the IRI, as well as the effort of the Minister of Industry "who believed in and witnessed the success of the Institute." He also said that, "15 years ago, when I held the management office, the IRI was able and is still able to overcome major obstacles and accusations that didn't affect in any way its success. The IRI relied on the skills of Lebanese emigrants, and distinguished laboratories abroad. Gradually, the IRI became accredited by international institutions, and received quality and conformity certificates that are internationally recognized. It is worth mentioning that the IRI is the first of its kind in Lebanon and neighboring countries since 2004."

He announced the expansion of the IRI Board of Directors to benefit from new expertise.

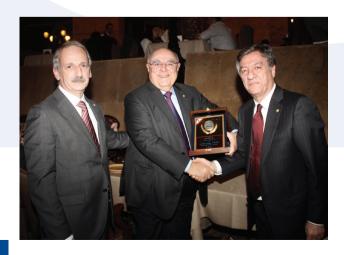
Sabounjian: "Globalized systems and communities require the modernization of institutions to keep up with the fast-growing technology." The IRI achievements are a clear evidence of your distinguished and successful work.

The Industrial Research Institute honored a number of its employees in a general meeting organized under the patronage of the Minister of Industry, Vrej Sabounjian. The meeting was held in the presence of members of the IRI Board of Directors: the President of the Federation of Chambers Mohammad Choucair, the Head of the Lebanese Franchise Association for concession licenses Charles Arbid, Robert Dabbas, Sami Naser, Chairman of the Lebanese Standards Institution (LIBNOR) Habib Ghaziri, and IRI employees.

The Director General of the IRI Dr. Bassam Frenn, wished that the year 2014 carries prosperity for Lebanon as well as the Lebanese people, and said, "The Industrial Research Institute has once again succeeded, thanks to your dedication and commitment, in facing every occurring challenge, thus, overcoming the difficult phase endured by Lebanon throughout 2013. You were a distinguishing mark in the Insti-

tute; you deployed your capacities in the Business sector in Lebanon, bearing in your eyes the growth of the Lebanese economy and consumer protection. The institute now includes a number of academiciens, experts, engineers, researchers, economists and executives, working as one homogenous team. Thereby, we were able to establish the cornerstones of an institution ready to perform complex and important tasks ahead. We cannot play this role without having perseverance, without giving, gaining experience and sharing it, without reinforcing scientific qualifications, and participating and organizing scientific workshops."

He added, "While applying last year's program, we encountered many difficulties that doubled our responsibility. Yet, we are always ready to perform these tasks to the fullest. I cannot but mention the partnership established with Lebanese and international research centres and with word laboratories,





that paved the way towards promoting the presence of the Institute on the local, Arabic and international stages. Many of these achievements have been accomplished thanks to the support of Minister Sabounjian, the owner of this vision, known for his dynamism. We would like to thank him for accompanying us during the last three years, and assure him that we will keep on adopting this approach that is based on our belief in Lebanon and its future."

#### Speech of Minister Sabounjian

Minister Vrej Sabounjian began his speech by saying, "Seeing that we are meeting during Christmas period, and getting ready to welcome a new year, I would like to wish you and your family peace, happiness, health and success. This year, we were able to overcome difficult economic and non economic problems, thanks to the tolerance, solidarity and unity of the Lebanese people. On this occasion, I would also like to acknowledge your efforts, and those of the Director General, that further promoted the Institute's high position, allowing it to become a large Institute that relies on the expertise and qualities of its employees in different fields. The diverse work of the IRI includes laboratory research and tests, from which is benefiting a wide range of businessmen, industrialists, and traders. However, the most important goal of IRI is to guarantee the interest of citizens, through modernizing industry and developing it with studies and consultancy. The IRI is entrusted

#### Activities of Minister Vrej Sabounjian

with people's health and security by ensuring the suitability of the products with the established standards and specifications. Therefore, it has to assume a major responsibility."

He added, "We live in the economic globalization and open communication system and our societies have also become globalized. These changes are forcing us to modernize the institutions in Lebanon, so as to accompany its fast-growing technology. This is what we did in the Lebanese Standards Institution (LIBNOR) and the Industrial Research Institute, where we formed a new Board of Directors according to a developmental vision and an alternative logic that match today's requirements and prepare for challenges ahead."

He also said, "We set a new system in the IRI by adding new members to the Board of Directors to benefit from different expertise. This is how we work to build and modernize our institutions. We are looking forward to opening a new representative office for the IRI, in the headquarter of the Chamber of Commerce, Industry and Agriculture in Beirut and Mount Lebanon, allowing it to be in close proximity to economic bodies and to introduce visiting foreign delegations and missions to its work and services. We are also looking forward to establishing a second headquarter for the IRI. These signs have proven the distinctive and successful work of IRI employees." He ended by saying, "There are several tasks ahead of us next year, so be ready to work hard."

## An engineer for every concrete mixer To preserve quality and public health

The Minister of Industry Vrej Sabounjian, declared in a press conference that was attended by the President of the Order of Engineers in Beirut Elie Bsaibes, and the President of the Lebanese Association for the Producers of Ready Mix Concrete, Fred Zoughaib, who issued the 121/1 decree that stipulates: "Hiring at least one engineer for every concrete mixer while using ready mix concrete, equipping these mixers with laboratories and contracting with certified laboratories to preserve public health, prevent accidents that can lead to the disruption of buildings and structures, and improving the quality of the production of concrete and its specifications."

During the press conference, Sabounjian stressed that: "The production of ready mix concrete is the cornerstone of the private and public construction sector, and infrastructure facilities. It has become the only and biggest source for large and small construction projects, providing fast services for the construction process." He added that, "The production of ready mix concrete is of importance, that's why it calls for the presence of an engineer that monitors the conformity of quality with the book of conditions." He mentioned that, "Monitoring should be done on the quality of raw materials and its sources must be checked, without omitting to control the production process in terms of setting standards, methods, and means of production, and examine the product related to each project."

He also said that, "This is how we accomplish advanced steps towards the development of quality competition, and the compliance with more than 800 specifications set by LIBNOR in the construction sector."

On the other hand, the President of the Order of Engineers Elie Bsaibes, stressed on "the importance of this new decision, in organizing the production of ready mix concrete, which accounts for around 80% of constructions projects." He considered that "...relying on an engineer in the concrete mixers is a guarantee to product safety, and lies in the framework of maintaining public health, and avoiding unwanted disasters. It is to be noted that this is a primary decision to be followed by future measures, like the adoption of national mandatory specifications, which set the specifications of used materials like pebbles and sand."

The President of the Lebanese Association for Producers of Ready Mix Concrete Fred Zoughaib, said, "It is important to hire an engineer for every mixer to monitor the production quality and the preparation and delivery process, and find solutions when quality standards aren't respected according to LIBNOR specifications."





# 2

Activities of
The Director General

With an enthusiam that cannot be constrained by any difficulties or obstacles, the Director General of the IRI Dr. Bassam Frenn, is persuing his progressive career to achieve the ambitions and plans he Drew for the Institute, stepping away from the reality of this country, its political, security restrictions, and pressures hindering its development.

Industrial Research Institute, the obsession of an ongoing work.

An activity in every field.

Developped equipments.

Courage in taking initiatives, and looking towards promising prospects equivalent to the global progress levels.

IRI provides services to develop the Lebanese industry and protect it from any fraud or dumping competition...

It protects the consumer from buying a product that does not match the standard specifications guaranteeing his safety and the value of his consumption...

A non-stopping activity on both local and international levels.

An active presence.

The Director General neither wants a lacklustre performance nor failed missions in the IRI.

These new accomplishments add to a distinguished record that started 16 years ago.

## IRI obtains an award for Public Sector Distinction in 2013

In collaboration with the Central Bank of Lebanon and Bank Audi, the First Protocol Agency organized its third Social Economic Award 2013 (SEA) Ceremony, in Casino du Liban, in the presence of Ministers and media and economic figures.

The ceremony, presented by Geogres Kordahi, started with a video report about the 2012 awards. This was followed by a word of Strategy and Public Relations Director at First Protocol, Violette Ghazal Balaa who considered that the third edition of this awards ceremony highlights the presence of great potential on one hand, and many problems on the other. The General Manager of the company, Maroun Balaa, stressed on the difficulty of choosing a remunerative institution. Dr. Bassam Frenn, who represented the IRI, received an award for the category of Public Sector Distinction from Deputy Yassin Jaber.





## Frenn presides over the negotiations committee with the European Union To prepare for the examination of the Convention on Conformity Assessment and Exchange of Industrial Goods

On mid January, the Director General of the IRI Bassam Frenn, presided a meeting for the National Committee to prepare for the negotiations with the European Union, in order to examine the Convention on Conformity Assessment and Exchange of Industrial Goods (ACAAS), in the light of the 203/2012 decree issued by the Prime Minister Najib Mikati, mandating the reformation of the committee, to control all the tasks it has been entrusted with.



During the meeting, representatives of several Ministries were present, amoung which the Ministry of Industry, Emigrants and Foreign Affairs, Economy and Trade. Also participating in the meeting were representatives of the Directorate General of Customs, LIBNOR, the IRI, the Order of Engineers, the Federation of the Chambers of Commerce, Industry and Agriculture, and the Association of Lebanese Industrialists.

The participants took note of the fourth report submitted by the committee, emphasizing that, "...the negotiations focus on sectors such as the electronic appliances, equipments, mechanical appliances, and construction materials." The committee determines the Lebanese legislations related to its approach, along with some new guidelines. It also determines the technical assistance to be provided for administrations and bodies related to priority sectors."



#### **Approach of National Legislations**

Frenn highlighted that signing a convention on conformity assessment and mutual acceptance of industrial goods with the EU, requires working on an approach to national legislations related to Quality Infrastructure with European legislations. Quality infrastructure in Lebanon is mainly related to several

axes, such as: accreditation, standardization, conformity assessment, metrology and market control. Frenn also conveyed the greetings of the Minister of Industry Vrej Sabounjian to the committee members. He wished them success and incited them to work on a regular basis in order to help the Lebanese industry open new markets ahead of it.

## The Association of Importers and Distributers of Supplies for Agricultural Production (ASPLANTE) in Lebanon visits the IRI and two honorary shields for Frenn and Akl

The IRI organized a tour for the President of the Association of Importers and Distributers of Supplies for Agricultural Production in Lebanon (ASPLANTE) Michel Akl, and the organization members across its laboratories and research and studies centers, in the presence of FAO representative, Ali Moumen, as well as experts and agricultural and scien-







tific researchers, in order to get them acquainted with the Institute activities, research, studies, laboratory results, in preparation for establishing a consistent relationship of cooperation between the IRI and the aforementioned Association, based on reinforcing partnership and coordination to activate agricultural economic growth.

After the tour, Akl said that, "The IRI includes a large number of competent employees, allowing it to achieve excellence in its laboratories now adopted by a number of global institutions in this field. The Institute has also received several certificates in quality and workmanship that match international standards, thus becoming the first of its kind in Lebanon and Pacific Countries since 2004, and a control reference in the economic field."

In his welcome speech, the Director General of the Institute Dr. Bassam Frenn said, "The IRI provides services and puts its capacities at the disposal of research and scientific needs, and feasibility studies, in order to support institutions and the Lebanese economy. The IRI cooperates with other institutions that are successful worldwide, especially European ones, and this has allowed it to become an ambassador to Africa, and other countries. This is why the IRI deserves the international accreditation rights granted to it for the verification of mandatory specifications." Frenn awarded Akl the IRI shield, in honor of his efforts.



#### IRI Director General is awarдед "Energy Ambassador of the year 2013"

#### **September 26 – 27, 2013**

Beirut Energy Forum is the largest event in Lebanon related to energy efficiency, renewable energy, and green buildings. The event offers a dynamic opportunity to be involved with what will be the most talked about energy event in the region. Beirut Energy Forum provides a platform for professionals, policymakers, practitioners, donors, academics, and private companies to meet and discuss the latest updates on the Lebanese, Arab, and Euro-Mediterranean initiatives in the renewable energy and energy efficiency sectors.

Beirut Energy Forum 2013 was held at Le Royal Plaza Hotel under the patronage of the Lebanese Minister of Energy and Water H.E. Mr. Gebran Bassil., and as usual, IRI participated for the fourth time for 2 consecutive days.

The opening ceremony included a tribute for the organizations and persons who contributed in the domain of provision and development of energy. Dr. Bassam Frenn the Director General of IRI was awarded as the "Energy Ambassador of the year" for "Lebanese NGO / Public institution /not -for profit institution" category.







## IRI hosts a seminar on Agricultural Cooperatives Frenn appreciates the role of Cooperatives and their importance in reviving the economy Hajj Hassan: We provided aid worth a third of the agriculture sector profits

#### May 9, 2013

Under the patronage and in presence of the Minister of Agriculture Dr. Hussein Hajj Hassan, and with the participation of the Director General of the IRI, the IRI hosted the economic dialogue program, prepared and presented by the journalist Ghada Ballout Zeytoun on the "Al Mar'a al Arabiya" television station, in a special seminar entitled: "Agricultural Cooperatives Foster the World, and Transform Cooperative to Development Forces", in collaboration with the National Union of Cooperatives in Lebanon, the Cooperative Credit Union, and a number of mayors, also in the presence of agricultural and women cooperatives, teachers, and university students.

#### Frenn

At the beginning of the seminar, Ballout gave a presentation about the importance of activating the role of cooperatives. Then Dr. Frenn highlighted some stages in the history of the cooperative work, referring to conferences held in the World Summit for Social Development organized by UN organizations, to create a supportive environment for the development of cooperatives. These conferences focused on the fact that cooperative movement is one of the most necessary, distinguished and influencing actors in national and international affairs.

He added that, "In Lebanon, we need a balanced development that includes rural, mountainous and agricultural areas. The cooperative work contributes in the revival of this role; it also has other dimensions affecting the organization of a solidarity and collaborative life in rural communities, thus paving the way towards human, social, educational, cultural, and moral growth. In Lebanon, agricultural co-

operatives need to be developed and supported through the modernization of laws and enactment of new legislation that keep pace with the role assigned to them. The role of the Ministry of Agriculture is



now effective at this level because of the efforts, concern and keenness of the Minister of Agriculture Dr. Hussein Hajj Hassan who is personally taking care of this matter. For cooperatives work to continue it is necessary to impose a good management system based on a clear vision and strategy that will allow these cooperatives to provide relevant services, play the role assigned to them, and expand in diverse development fields. This cannot be done without developing wider relationships and adopting modern methods of production and marketing by cooperating with research and scientific laboratories and institutions. It is noteworthy that the IRI collaborates with



#### Activities of the Director General

more than one cooperative and puts its distinctive capacities on both national and global levels, as well as those of engineers, technicians and experts in the service of cooperatives and farmers. The collaboration of the IRI with the Ministry of Agriculture is of a high level of progress and responsibility.

#### Hajj Hassan

Minister Hajj Hassan started by saying, "During our meeting, we will focus on the role and importance of agricultural cooperatives and how to turn them into development forces that aim at providing various services to farmers, especially that roughly 200,000 Lebanese families live off the agricultural sector, whether totally or partially. However, those who work in the vegetable, animal, or small-scale manufacturing sector, have small enterprises, that's why they are obliged to promote their product on an individual basis; this reduces revenues for farmers and constantly weakens their work, thus, the importance of cooperatives that buy products from farmers and find suitable markets to sell them at fa-



vorable prices." He gave tins of oil as an example, whereas selling them individually reduces their value and

monetary returns. Moreover, by signing a contract on an annual and permanent basis with specific markets and major shops, cooperatives will be able to sell all the available quantities at a reasonable price.

He also said that last year, the Ministry of Agriculture provided farmers 2 million dollars worth of aid, 6 million dollars worth of medicines and fertilizers, 2 millions dollars worth of trees, and 3 million dollars worth of veterinary medicines and vaccines. It also fixed 15 million dollars worth of roads and ponds, offered various forms of support worth 3 million dollars, and specialized technical equipments worth 2 million dollars. The Ministry set up 8 million dollars



feeds project, offered support for wheat and barley worth 5 millions dollars, and a 3 million dollars support through IDAL, which is equivalent to 3% of the annual profits of the agricultural sector. Cooperatives also help in registering agricultural trademarks if the production was too big, which creates a marketing mechanism and guarantees the quality of products. They also offer the possibility of lending and funding, which creates new job opportunities, seeing that they have several tax exemptions. The General Directorate of Cooperatives was keen on taking different regulatory, legislative, and developmental decisions to help human beings. It also organized seminars on cooperative education, and offered significant aids in order to encourage and support farmers."

An open dialogue was held with the audience, at the end of which Minister Hajj Hassan offered quality measurement equipments to a number of food factories, with an average of 86 shares for agricultural cooperatives in Lebanon, including Bekaa, North and South areas.

## Doctorate Honoris Causa in Economic Development to Frenn From the Islamic Civilization Open University

#### January 22, 2013

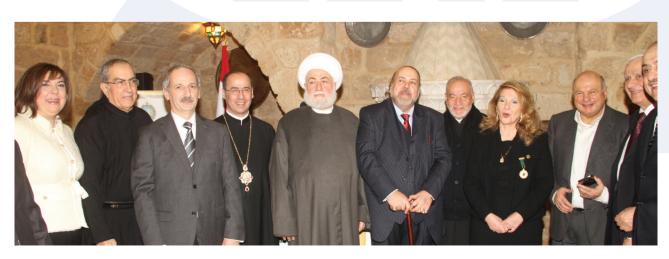
In recognition of his contributions to the IRI, and his ongoing efforts to develop the Lebanese industry, the Islamic Civilization Open University honored the Director General of the Industrial Research Institute Bassam Frenn, and awarded him the degree of "Professor" which is equivalent to an honorary doctorate in Economic Development, in a ceremony during which former Minister Leila Solh Hamadeh, and former deputy Hasan Yaacoub were also honored. The ceremony, held in Assaha village – Airport Road, was attended by the former Vice President of the Parliament Elie Ferzli, Deputies Mohammad Raad and Ghazi Zaiter, former Minister Elie Skaff, the Mufti of Sidon Sheikh Mohammad Asiran, the Director of the National News Agency Laure Sleiman, the President of the International Organization for Interfaith Speech and Civilizations in the World (IOISCW) and the Islamic Civilization Open University Professor Moukhales Ahmad Jeddah, the Bishop of Sidon Elie Haddad, the Judge Sheikh Mursel Nasr, Sheikh Yehya Rafii, as well as deans, professors, and political, cultural and media figures.

Dr. Frenn thanked the University for "...honoring me for my efforts to consolidate the economic fields that the University believes are seriously important, and is aware of the serious work I still carry at the Industrial Research Institute." He added, "This *Honoris Causa* is an honor for me and a certificate from a University that looks towards the future with educational and religious prospects. I am relieved that the journey of this University supports the nations-building process."

The University also presented a gold medal for former Minister Leila Solh, on behalf of the IOISCW, and another medal for former Deputy Yaacoub.







## Dr. Bassam Frenn for Annahar Newspaper "Not enough control on products and goods intended for local consumption, The Institue is an 'anonymous soldier' reporting violations to relevant departments"

Regular and organized control on local consumption is of importance, in order to reduce costs, especially health, financial, environmental and economic costs. However, despite the efforts that the IRI deployed and the path it has gone through, local consumption still needs a "controller" starting with the citizen himself and ending with the media, in order to maintain public safety. The Director General of the IRI tackles this issue in the following interview:

### What role does the IRI play in the control process that the consumer needs?

The IRI doesn't play a direct role in the market, but it can, according to its mandate, Dr.aw attention to the rights of the consumer, noting that the relevant bodies control over local markets must be done on a daily and regular basis. The Lebanese Standards and Specifications Foundation had been chosen to be the fulcrum with foreign countries, like the European Food Safety Authority. It is supposed to issue regular prior warnings as a precautionary measure. Yet, there are other references, like the Ministries of Economy and Agriculture that need to move faster and be more flexible to enable the control process.

## What is the truth about the agreements signed with Europe and the possibility of them becoming an impediment to trade?

Unlike what some might think, these agreements are clear, notably those related to public health and related services. They give countries the full authority to impose restrictions on imports, which are not an obstacle rather than a protection for citizens. This is our right against some attempts to distort mandatory specifications in order to disrupt trade. So, this is a wrong interpretation of international trade.

### Are you satisfied with the control imposed on markets?

We are perfectly convinced that the control on markets is not enough; we need to deter this "cancer" from entering the body instead of treating it after being spread. The IRI applies public safety specifications starting from the country's borders by preventing goods from entering the market, by virtue of several decrees, last of which was issued two weeks ago. Other decrees will follow.

#### Can you give us some examples?

The IRI works as an anonymous soldier; it notifies, within its authorities, official departments about importing goods that are prohibited from entering the market, like some cosmetics and diapers. But what can be done to stop the flow of smuggled goods? It is impossible to control it everywhere around the world; smuggling is also common in Europe.

### What about the danger imposed by some of these goods?

We cannot charge every person who is bringing products from foreign countries and selling it in the market. Those are not real traders. Therefore, control on the country's borders must be enhanced. This brings us back to the necessity of setting more mandatory specifications related to public health and safety.

#### Isn't it found in the authority of the IRI?

Through the IRI or other bodies and laboratories, Lebanon is supposed to accelerate the completion of COLIBAC structure that was prepared in 1998, and was followed 3 years later by its relevant law. Lebanon was the fifth country in the world to establish this Council.

#### What role does the Council play in particular?

It plays an essential role; the Council puts an end to laboratory hatching and specializations infringement, and provides new revenues for the country through selling credits. So, instead of relying on international laboratories as a reference in return for millions of dollars to get the accreditation of European countries, the IRI resorts to COLIBAC.

#### Is the Institute capable of enlarging its authorities?

The IRI can assume more responsibilities; it has enough flexibility and administrative and financial independence. So, it can help the government in performing its responsibilities, only if the latter issues mandatory specifications as soon as possible.

### How do you evaluate the current consumption market?

There are some fine goods entering the market; we guarantee a good quality of construction materials, like iron, cement, ceramic, detergents, electrical appliances, non-lasting light bulbs, and chilDr.en's electrical games. It is to be noted that 10 years ago, the citizen used to suffer from the electrified washing machines or refrigerators that don't function appropriately... today, this situation has changed, largely because of the IRI's efforts. Considering that 90% of our consumption is based on imported products, we must tighten our control measures. We have put Lebanon on the path of control, preventing products that have non-matching specifications and are sold at very low prices from entering the market. This is a knockdown for the national production because it affects several sectors and related opportunities. Moreover, we succeeded in reducing the hospitalization bill paid by the citizen or the government, and achieved financial, health, environmental, and economic savings. In fact, we are now examining car batteries and tires and its economic and health impact.

### However, we sometimes notice an absence of control...

In an open country like Lebanon, the current control



is just not enough. Local media plays an important role in raising awareness, particularly towards goods that enter the market in a very good condition, but are later exposed to bad storage, transportation, or presentation, before reaching the consumer. The most prominent example is gas cylinders which we call "time bombs", given that we are still waiting for the replacement of two million cylinders, after the replacement of the first two million ones. The problem is not that these cylinders are old, but it's about the plastic tubes connected to them that must be changed on a regular basis (every year or two).

### The citizen awaits for an awareness from official entities as well as media.

First of all, we have to notify the citizen not to buy plastic bottles of water exposed to the sun, because they stimulate carcinogens. In addition, he shouldn't leave his bottle of water in the car for 3 days in a temperature up to 30 degrees then refrigerate it and drink from it. This is also applicable to children's milk bottles.

#### Does the IRI have a lot to accomplish yet?

We have made several accomplishments, but there's still some work to do. Lebanon is currently at stake, so the political authority and government must interfere by giving greater flexibility to control systems (i.e. using suitable equipments for work and hiring a competent staff in both Economy and Public Health Ministries while enhancing their wages). Only then profits will be higher.

#### El Nashra Article on Bassam Frenn

## He believed in the inevitability of success of the Industrial Research Institute

## He relied on his personal initiative in securing the necessary funding and specialized human resources to make the IRI one of the most important public facilities in Lebanon

#### El Nashra website - March 11, 2013

El Nashra website published an article about Dr. Bassam Frenn activity in the IRI, introducing Frenn as follows:

Bassam Frenn was born in Beirut. He obtained a degree in Business Management from St Joseph University, pursued his graduate studies abroad and earned a specialized Masters Degree in Economic Development from Montpelier, France, as well as a specialized studies seminar in development computer applications.

He was head the Department of Economy within the Faculty of Agricultural and Food Sciences, at the Holy Spirit University of Kaslik between 1990 and 1995. He was also a university professor and lecturer at several universities.

The Industrial Research Institute and Bassam Frenn are two inseparable names that are highly rated. Bassam Frenn's past is a story of an ongoing success shown by his work that was later transformed into an act of faith in this country and its accomplishments. He believed in the inevitability of success of the Industrial Research Institute, the first of its kind in the Arab world, relying on his personal initiative in securing the necessary funding and specialized human resources to make the IRI one of the most important public facilities that provides peace of mind regarding all traded goods in the Lebanese, Arab, and international markets.

Bassam Frenn held his office at the IRI while it was still in an unenviable state; it was destroyed by the war and militias, all its equipments had been stolen, whereas the remainders of the laboratories were in a hopeless situation. There were around 10 employees who received a quarter or half of their salaries.

This tragic situation didn't discourage the new General Manager, but rather made him more determined to relaunch the IRI, and help it gain back its leading role, as a scientific, research and institutional beacon looking towards the future with stability and success. His academic background, as a professor and university lecturer, and expertise in the industrial sector as a manager of factories in Lebanon and Saudi Arabia and in the institutional field as a former Director in the Council for Development and Reconstruction, enabled him to develop a comprehensive vision to pave the way for accomplishing his goal.

Nadim Salem, who was the Minister of Industry at the time put his entire confidence in Dr. Frenn, and was not at all disappointed. After conducting several studies and planning, Frenn soon established a promising strategy for IRI, while gaining the green light from the Minister of Industry, who presides the Institute's Board of Directors.

The strategy set by Frenn in 1998, was based on restoring control to the powers of the IRI through modernizing its laboratories and providing it with the latest equipments, as well as preparing the Institutes to conduct studies and applied research projects to reinforce the industrial modernization process. However, he felt that it is impossible to achieve this in the absence of three key factors: securing the amount of money needed, securing specialized human qualifications and establishing a decent building that can grasp all future expansion plans.

#### A will is the key to success

In talking about the level of success that the IRI reached, Frenn says that will was the key to success, in addition to the help it received from countries that

believe in the role of such centres in reviving the country through production sectors. Frenn is proud of the IRI, in which services like training, technical studies and applied research, outreached the local market to Arab countries. The IRI was able to reach a global level thanks to several international organizations studies, like UNIDO, and studies about quality structuring and laboratories management. The Industrial Research Institute also helped various institutions outside Lebanon, and is currently considered as the image of Lebanon in terms of applied research. It has become a member of the research centers network in the Arab and European countries and in various specialized international organizations. The presence of the IRI on the world map dignifies Lebanon, noting that IRI laboratories are the only ones in the history of Lebanon to ever become internationally accredited. Today, the IRI has 6 laboratories and around 500 screening methods accredited by the German Accreditation Body.

Bassam Frenn held his office as the Director General of the IRI in 1998, and the Institute has since then achieved developmental and expansive leaps of quality, enabling it to join the most important international research networks.

Before that, he assumed a leading position in the Council for Development and Reconstruction between 1996 and 1998, as the Director of the Industrial Petroleum and Environmental Sectors. He was keen on setting programs, studies and strategic plans to develop these sectors at different levels.

Dr. Frenn also contributed in setting a road map to reinforce the industrial sector by drafting laws for the COLIBAC, and others on favoring national products and protecting Lebanese products from dumping and unfair competition.

The role and tasks assigned to Bassam Frenn have several dimensions that go beyong the management of the Institute; it covers trade files and negotiations that Lebanon holds with the European Union. And so, the Council of Ministers formed a national committee and chose Frenn as its president. After that, Frenn started to prepare for the negotiations on signing the Agreement on Conformity Assessment and Acceptance of Industrial Products. The aforementioned

committee is in charge of setting a common map with European countries that paves the way for Lebanese products to reach European markets, and eliminates European technical reservations on importing agricultural products and other. The committee also set



production sectors that have export preference, i.e. food, electrical and mechanical industries, construction materials, textiles, cardboards, papers, packaging and wrapping.

In addition to being president of ACAAS, Bassam Frenn was elected at the end of 2009, for the fourth consecutive time as a president of the coordination committee of the AIDMO Arab Industrial Research Institutes that carries out Arab industrial studies, strategies and research, aiming at developing production sectors in Lebanon.

Moreover, Frenn is a member in other institutions, among which the Lebanese Standards and Specifications Foundation, the Lebanese Association for Scientific, Technical and Economic Education, the World Federation of Engineering Organizations and French-speaking scientists in UNESCO, Paris, and the Executive Committee of the International Organization of the South Sciences and Technologie, in Vienna – Austria.

Frenn believes in Lebanon, the country of civilization, culture and peace. His great faith and attachment to his homeland made him refuse many opportunities abroad. He was dedicated to the Industrial Research Institute that he considers as his second family. He is supported by a team that has enough competence, experience, enthousiam towards performing a creative and productive work. All these factors as well as credibility in work, are necessary to achieve success.

Bassam Frenn believes in his work that is serving Lebanon and its citizens, he believes in transparency, credibility and hard work, that's why he achieved amazing success at the IRI and many plaudits.

#### EUROLAB General Assembly Meetings

#### **April 8-10, 2013**

The Director General of the Industrial Research Institute, Dr. Bassam Frenn, and the Laboratories Division Head, Dr. Joseph Matta, represented Lebanon, the first non-European country to join the Assembly, at the EUROLAB (European Federation of National Associateions of Measurement, Testing and Analytical Laboratories) General Assembly and annual meetings in Woerden, Netherlands.

The Eurolab meeting revolved around the meetings of the Technical Committee, the board meeting followed by the General Assembly.

The topics discussed during the General Assembly meetings, include:

- Organization of Eurolab
- Technical committees and working groups
- Information from the associations related to Eurolab.







#### Vienna Energy Forum 2013

May 28-30, 2013

The Director General of the Industrial Research Institute, Dr.. Bassam Frenn, and the Director of LCPC, Dr. Ali Yaacoub, attended the Vienna Energy Forum, entitled «One Year after Rio+20 - The Energy Future We Want» which was held at the Hofburg Imperial Palace in Vienna.

The Vienna Energy Forum has over time established itself as a biennial high level event in the field of energy. Its purpose is to provide participants from both developing and industrialized countries with an op-





portunity to learn about energy for development issues, discuss and share information on best practice examples, participate in international co-operation initiatives and engage in business partnerships.



## Multi-Country Workshop on Accreditation and Conformity Assessment for Mediterranean Neighboring Countries in Rome

June 26-28, 2013

The Director General of the Industrial Research Institute, Dr. Bassam Frenn, attended the Multi-Country Workshop on Accreditation and Conformity Assessment for Mediterranean Neighbouring Countries held in Rome, Italy. This workshop was organized by the European Commission's DG Enlargement within the framework of the TAJEX Instrument

The major topics covered during the 3-day workshop were:

· Accreditation at the service of economy and



society

- Accreditation and conformity assessment in the EU - the practical issues
- Conformity assessment and notified bodies

## Lebanon participates in the General Assembly of the IIW International Institute of Welding

#### Essen (Germany) - September 15, 2013

The Director General of the Industrial Research Institute Dr. Bassam Frenn and the Head of the Lebanese Welding Center Eng. Tarek El Hakim participated in the 66<sup>th</sup> annual meeting of the welding institute held in Essen – Germany on September 15, 2013.

During this meeting, a series of decisions taken during the General Assembly were voted on.

Eng. Tarek El Hakim also attended special meetings of the scientific and technical committees, from September 13 till September 16, 2013, during which were tackled the latest welding technologies, and the latest developments in international welding specifications and destructive tests.





## Frenn in Prague to enhance competitiveness in the Lebanese private sector

#### September 30 - October 4, 2013

The Czech Office for Standards, Metrology and Testing organized a course on entities designated for pressure vessels, attended by the Director General of the Industrial Research Institute Dr. Bassam Frenn in Prague, Czech Republic, from September 30 until October 4, 2013.

The session was organized as part of a "study visit" within the framework of the project entitled: "Enhancing Competitiveness and Quality in the Lebanese Private Sector", as well as quality, capacities and infrastructure management in Lebanon. The session included visits to the technical and experimen-

tal institute in the construction field in Prague, the Czech Accreditation Institute "TÜV SÜD", and the Electrotechnical Testing Institute.



## Seventh Session of the Mediterranean Economic Week in Marseille

#### October 6-9, 2013

During the seventh session of the Mediterranean Economic Week, Lebanon was represented by the Director General of the Industrial Research Institute Dr. Bassam Frenn. The session was held in Marseille, from 6 until 9 October 2013.

The Mediterranean Economic Week carried the slogan of: "Culture as a Development Factor in the Mediterranean Region", and was held within the framework of activities organized in the European Capital of Culture, Marseille – Provence in 2013. The concept of Culture was celebrated during two plenary meetings and different workshops.

The objectives of the seventh session were to secure a space for meeting, exchanging and discussing ideas about economic development in the Mediterranean region, support partnerships between actors in the development process, and encourage integration between projects. Entrepreneurs, researchers, economists, students, experts and actors in the social economy field from around 30 countries, participated in the seminars, workshops and conferences held over four days.



# Energy efficiency in the Middle East - Brussels

#### **December 10, 2013**

The Director General of the Industrial Research Institute Dr. Bassam Frenn participated in the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) Conference, on energy efficiency in the Middle East. This conference, held on December 10, 2013, in the Belgian Capital of Brussels, was organized by the European Investment Bank, in collaboration with the Mediterranean Energy Observatory and the Union for the Mediterranean.



The major topics covered during the conference were:

- Working towards applying industrial energy efficiency.
- The role of public authorities in disseminating energy efficiency.





# 3

IRI Services e3 Activities

The economic downturn in the country has led to a decline in the activity of some key laboratories at IRI. However, it has not affected the overall activity of IRI laboratories, which are now functioning at nearfull capacity. This helps further expansion and upgrade of equipment and activities.

In the light of the negative impact of the economic situation on the Laboratories activity, there are some private laboratories, or public sector laboratories working on acquiring a share of no more than 10 percent of the IRI laboratories activity.

Internal operations at IRI laboratories decreased from 311,185 in 2012, to 305,822 in 2013, a decline of 5,363 operations or 1.7 percent.

Following the progress seen in the country over the past five years (2008-2013), the number of operations conducted in year reached 21,412 operations, with an annual average rate of 12.8 percent. This rate is lower than the one recorded in 2012.

Contrary to this slight decline in the average rate (inversely proportional to the volme of work), the number of daily operations exceeded 1,000 during normal working days, up from 600 operations in 2009, 800 in 2010, 970 in 2011, conducted by various IRI laboratories.

# Up to 1000 tests and analyses each day Labs functioning at near-full capacity

# Tests and Analyses

In general, electrical engineering laboratories still rank first in terms of the volume of operations, while paint, petroleum and petroleum products laboratories are seeing the highest growth, with an overall limited impact. The number of civil engineering operations declined; however, they still rank number 2 in the total number of operations. In terms of continuous growth since 2008, all laboratories attained good growth rates, though uneven.

The on site activity of laboratories is detailed as follows:

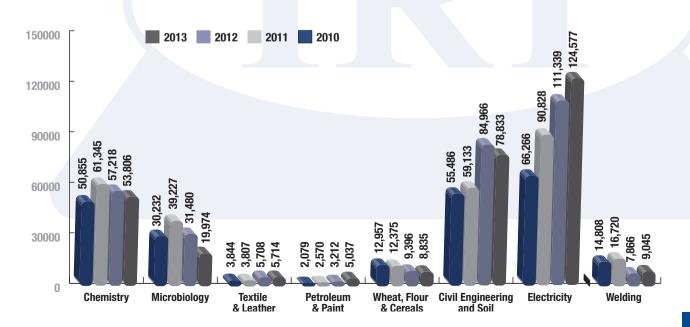
#### **Chemical and Physical Chemistry Laboratories**

Testing and analysis operations in Chemical and Physical Chemistry laboratories have fallen around 6 percent, with an operations number of 53,806, down from 57,218 operations in 2012, a decline of 3,412 operations.

These operations represent 17.6 percent of the total number of operations.

#### Number of tests for each Lab

Laboratories	2010	2011	2012	2013
Wet & Physical Chemistry	50855	61345	57218	53806
Microbiology	30232	39227	31480	19974
Textile and Leather	3844	3807	5708	5714
Paint and Petroleum	2079	2570	3212	5037
Civil Engineering and Soil	55486	59133	84966	78833
Electrical	66266	90829	111339	124577
Bread ( CLBW)	12957	12375	9396	8837
Welding	14808	16729	7866	9045
Total	236527	286006	311185	305823



#### IRI Services e3 Activities

It is to be noted that the aforementioned laboratories achieved an average growth rate of 20.5 percent annually between 2008 and 2013, one of the highest growth rates seen amoung all IRI laboratories.

#### **Microbiology Laboratories**

The number of testing and analysis operations in Microbiology laboratories declined from 31,480 to 19,974, a decline of 11,506 operations (36.6 percent) from the previous year. Yet the volume of operations remained higher than the one registered in 2009. Microbiology tests account for 6.5 percent of the overall operations, and have grown at an average of 10.2 percent annually over the past six years.

#### **Textile, Leather and Rubber Laboratories**

Testing and analysis operations in these laboratories witnessed a small increase of 0.1 percent compared to 2011, amounting to 5,714 operations, with an increase of only 7 operations. They represent 1.9 percent of total operations.

The annual average increase in operations was 12.1 percent since 2008.

#### **Petroleum and Petroleum Products Laboratories**

Testing and analysis operations in these laboratories witnessed an increase during 2013 compared to the previous year. The number of testing and analysis operations amounted to 5,037 operations - an increase of 1,825 operations equivalent to 56.8 percent.

They still represent 1.6 percent of the total number of testing and analysis operations of IRI laboratories. The average growth rate of these laboratories was 27.9 percent since 2008.

#### **Civil Engineering Laboratories**

Civil Engineering Laboratories are considered one of the most active laboratories at the IRI. Their work is directly affected by the construction sector activity in Lebanon. Consequently, their last year activity witnessed a decline of roughly 6,133 operations - equivalent to 7.2 percent.

These operations represent 25.8 percent of the total number operations of IRI laboratories.

In 2013, 78,833 testing and analysis operations were conducted in these laboratories that achieved an average annual growth rate of 14 percent since 2008.

#### **Electrical Engineering Laboratories**

Electrical Engineering Laboratories continue to achieve a steady growth each year. These laboratories alone account for more than 40 percent of the total number of tests and analyses operations conducted at IRI. In 2013, the number of operations was 124,577, an increase of 13,328 testing operations since last year.

These operations grew by 11.9 percent compared to last year, achieving an average annual growth rate of 16.2 percent since 2008.

# **Central Laboratory for Bread and Wheat** (CLBW)

The number of tests and analyses operations conducted at the CLBW attained its lowest level since 2008, with 8,837 operations, i.e. a decline of 559 operations which is equivalent to 5.9 percent.

In 2013, CLBW operations accounted for 3 percent of the total number of operations of IRI laboratories.

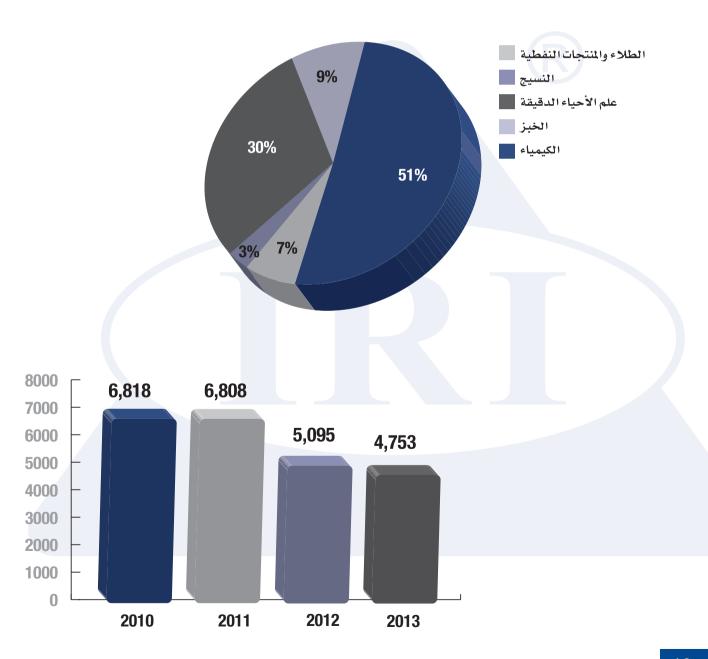
#### **Welding Laboratories**

The number of operations conducted at the Welding laboratories amounted to 9,045 operations, a 1,179 increase compared to 2012; i.e. 15 percent.

In 2013, Welding operations accounted for 3 percent of the total number of operations of IRI laboratories.

## Work Authority Reports

Laboratories	2010	2011	2012	2013
Wet & Physical Chemistry	3546	3237	2654	2454
Microbiology	2492	2788	1673	1411
Textile and Leather	535	490	454	414
Paint and Petroleum	172	175	199	335
Bread ( CLBW)	73	118	115	139
Total	6.818	6.808	5.095	4.753



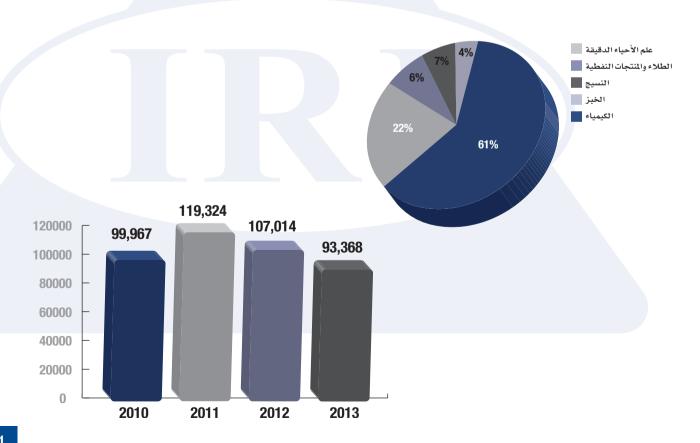
#### IRI Services & Activities

#### Number of tests

Laboratories	Regular	Customs	Total
Wet & Physical Chemistry	50056	3750	53806
Microbiology	19324	650	19974
Textile and Leather	8827	10	8837
Paint and Petroleum	3188 1849		5037
Bread ( CLBW)	2130	3584	5714
Total	83.525	9.843	93.368

## Comparison by year

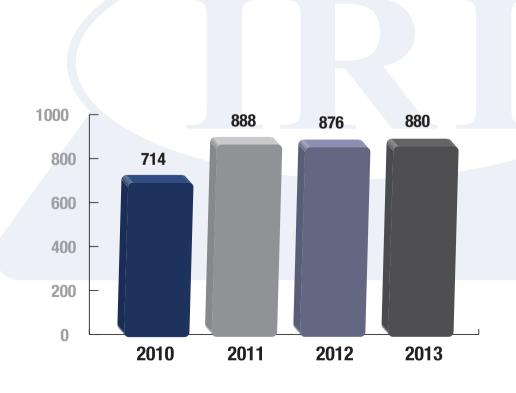
Laboratories	2010	2011	2012	2013
Wet & Physical Chemistry	50,855	61,345	57,218	53,806
Microbiology	30,232	39,227	31,480	19,974
Textile and Leather	3,844	3,807	5,708	8,837
Paint and Petroleum	2,079	2,570	3,212	5,037
Bread ( CLBW)	12,957	12,375	9,396	5,714
Total	99.967	119.324	107.014	93.368



# **EXPORTS**

#### to Arab countries, Europe and United States

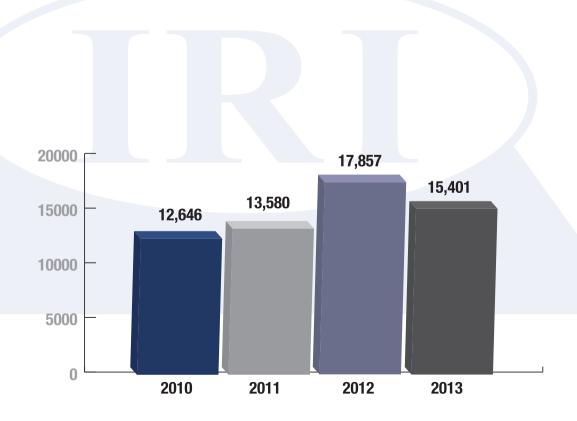
Product	No. of Reports
Beer including sealing	20
Alcoholic beverages	15
Non alcoholic beverages	100
Water	5
Honey	5
Nuts and nuts products	10
Chocolate, candies and sweets	100
Breakfast cereals	25
Tahineh, Halawa and Olive oil	90
Liquid dresssings, Rose waters, etc.	10
Cosmetics	400
Napkins, Toilet paper and Facial tissues	85
Detergents	15
Total	880



# **IMPORTS**

Reports and attestation for imports (Customs declaration)

Product		No. of reports
Cosmetics	Forbidden componetns 430	9975
	Provisinally allowed 65	
Food /	Preservatives 67	
Food products	Emulsifier, thickener, stabilizers 252	
	Antioxidents 180	
	Artificial Sweeteners 25	
	Colors 90	
Detergents	Full Analysis: Powderd detergents,	
	liquid dishwashing, olive oil soap	
Glass	Analysis and Inspection	2445
Baby Diapers	Full Analysis	
Paint / Petroleum	Full Analysis	2981
products		



# External Inspection

Despite economic stagnation and security instability in the country, the IRI maintained the same level of the external inspection operations conducted by its laboratories. The number of operations has fallen by 5.9 percent, to 33,583 (down from 35,696 operations in 2012). In 2013, 410 liquid gas tanks inspection and control operations were held, an increase of roughly 6 operations since 2012, i.e. 1.5 percent. On the other hand, 53 Petroleum storage tank inspection and control operations were held this year (down from 160

operations last year) i.e. a decline of 107 operations. The number of steam boilers inspection operations declined to 120 - 10 operations less than last year.

The number of inspection operations of various types of pressure vessels remained unchanged, and stood at 35,000.

Relevant laboratories at IRI inspected 23,000 domestic gas cylinders, including 8,000 cylinders made in Lebanon, and 15,000 imported cylinders.

#### **External Inspection**

Activity	2010	2011	2012	2013
LPG storage Tanks Inspection	400	395	406	410
Fuel Tanks Inspection & Calibration	126	199	160	53
Boiler Inspection	140	145	130	120
Other Pressure Vessels	29,900*	35,000*	35,000*	33,000*
Total	30,566	35,739	35,696	33,583

LPG Cylinders - Locally Manufactured	65,000	25,000	24,000	8,000
LPG Cylinders - Imported	30,000	0	0	15,000

<sup>\*</sup> The accessories resulting from customs files are included

# Metrology and Calibration Laboratory

The number of tests and analyses held at various metrology laboratories is witnessing an increase on a year basis. In 2013, the number of devices submitted for testing grew by 7.9 percent and the number of conducted tests increased by 10.08 percent as compared to 2012.

These laboratories received 1,399 measurement devices, i.e. 111 more devices than those received in 2012. In 2013, 14,267 tests were conducted on these devices (an increase of 1,307 tests since last year) - a rate of 9.44 tests on each device compared to 9.26

tests in 2012. On the whole, that is equivalent to an increase of 0.18 tests per device.

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

#### **Temperature**

Temperature calibration laboratories received 328 devices that carried 4,310 tests (i.e. 10 tests per device) which is the same number of tests conducted in 2011 and 2012. The number of devices submitted for testing grew at an average annual rate of 26.7 percent

#### IRI Services e3 Activities

since 2008, versus 27.8 percent for the number of tests. Both activities achieved an equal increase of 31.4 percent compared to 2012.

#### **Pressure**

The number of pressure devices submitted for testing declined to 59. These devices carried 472 tests (i.e. 8 tests per device), which is the same number of tests conducted in 2011 and 2012. The number of devices and tests saw a 36.6 percent decrease, while the number of devices grew at an average annual rate of 1.4 percent since 2008.

#### **Force**

Force calibration laboratories received 6 power measurement devices which carried out 4 tests; i.e. 8 tests per device. The number of devices and tests saw a 68.4 percent decline compared to 2012.

#### Mass

The number of mass units reached 820. These units conducted 7,885 tests (i.e. 9.6 tests per unit), compared to 9.5 tests in 2012. The number of mass units increased by 11.3 percent in one year abd the number of tests grew by 12.5 percent during the same year.

The registered average annual growth rate of units was 23.7 percent since 2008, and the overall number of tests witnessed a 25.7 percent rise.

#### **Dimensions**

The number of dimension units in 2013 was 63 - down from 83 in 2012. The number of tests conducted on these units also declined from 664 to 544 - an 18.1 percent decrease since 2012. The average annual growth rate of units stood at 26.5 percent and that of tests saw a 10.1 percent rise since 2008.

#### **Electrical Devices**

Tests conducted on electrical devices maintained the same level during 2013. The number of devices stood at 117, while the number of tests was 936, compared to 115 devices and 920 tests last year – equivalent to a total of 1.7 percent rise in the number of devices and tests

#### **Other Tests**

The number of other tests and devices witnessed a 62.5 percent decrease. The number of devices was 9 and the number of tests reached 72.

Technical Subjects	2010		2011		20	12	2013	
	ltem	Test	ltem	Test	ltem	Test	ltem	Test
Temperature	196	1960	241	2410	328	3280	431	4310
Pressure	77	616	103	824	93	744	59	472
Force	3	24	15	120	19	152	6	48
Mass	463	4360	618	5844	737	7008	820	7885
Length	36	288	58	464	83	664	68	544
Electricity	79	632	131	1048	115	920	117	936
Other (torque meter, sound level, lux meter,)	40	324	28	224	24	192	9	72
Total	894	8204	1194	10934	1399	12960	1510	14267

#### Custom Files

# The Industrial Research Institute processed 40,962 custom files in 2013

The number of custom files that the IRI receives for verification witnessed an increase on a year basis, over a period of 7 years – from 18,532 files in 2007, to 40,962 in 2013. The average annual growth stood at a 14.13 percent rate, i.e. 1340 files per day.

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

During 2013, 3,011 more files were processed compared to 2012 - a 7.93 percent increase.

The examination of these files showed that 1,094 files (2.67 percent of the total number of files) don't comply with the mandatory specifications. As a result, 1,064 files were rectified, and 27 other were rejected.

# Custom files are divided according industrial sectors as follows:

#### 1- Files not subject to investigation:

These are the files that the IRI receives but are not subject to verification, because they don't comply with mandatory specifications. The number of these files rose from 4,594 in 2007, to 10,599 in 2013, at an average annual growth rate of 14.95 percent, compared to 7.75 percent in 2012.

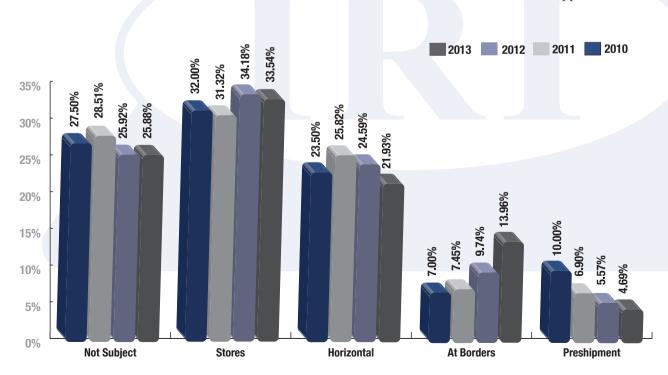
These files are processed in the IRI. However, they are marked as "Not Subject to Examination" upon receipt. Thus, they do not entail any fees.

#### 2- Pre-shipment Verification

The number of files pertaining to goods subject to pre-shipment verification in the country of origin before entering Lebanon has fallen to 1,922 (i.e. 192 files less than in 2012), which is equivalent to a 9 percent decline. These files now represent 4.75 percent of the total number of files.

#### 3- Horizontal Specifications

Horizontal specifications account for about 21.9 percent of the total number of files; they are examined and returned to the applicants on the



## IRI Services & Activities

same day. Their number rose from 4,300 in 2007 to 8,983 in 2013, at an average annual rate of 13.06 percent. However, their number has fallen by 3.74 percent compared to 2012.

#### 4- Verification of goods to be stored

These files are examined after storing the imported goods in relevant containers. The number of these files amounted to 13,738, accounting for 33.5 percent of the total number of files. The number of these increased since 2007 at an average annual rate of 21.92. The IRI studied 1,481 more of these files in 2013 - a 12.1 percent increase in comparison with last year.

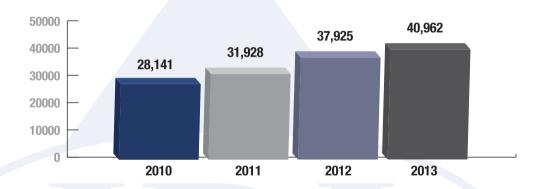
#### 5- Verification at border crossings

The number of files examined at border crossings account for 13.96 percent - a total of 5,720 files. In 2013, 2,230 more files (63.9 percent) were examined in comparison with 2012.

# Distribution of files according to their type and to crossing gates

The IRI distribute custom files to be examined and investigated according to the types of goods as follows:

Files pertaining to electrical appliances and goods



Customs Files by Type

Туре	Electri- cal	Soil	Chemi- cal	Me- chanical	Com- mon Files	Rebars	Chemi- cal	Medical	Energy	Pres- sure	Total
Total	14093	4403	8525	872	2848	1730	2448	5609	206	228	40962
Without Pre-Ship	12517	4057	8525	872	2848	1730	2448	5609	206	228	39040
Not Subject	4637	106	1676	209	834	269	1914	771	39	144	10599
Subject	7880	3951	6849	663	2014	1461	534	4838	167	84	28441
Non Conform	580 4.12%	347 7.88%	39 0.46%	0× 0	in E, C&S	39 2.25%	7 0.28%	25 0.44%	49 23.78%	8 3.50%	1094 2.67%
Corrective Action	572	347	31	-	in E, C&S	32	7	23	49	3	1064
Rejected	8	0	8	-	in E, C&S	7	0	2	0	5	30

<sup>•</sup> The goods were found not subject to the requirements of the mandatory technical Lebanese standards

that represented the broadest segment, accounted for 34.4 percent of the total number of files, standing at 14.093. Together with files pertaining to chemical products and devices that reached 8,525 (20.8 percent), they represent more than half of the total number of files. The number of files about medical devices stood at 5,609, i.e. 13.7 percent of the total number of files. Those pertaining to civil engineering amounted to 4,403, i.e. 7 percent. Followed by joint files which reached 2,848 - 7 percent of the total number of files.

The number of files pertaining to paint was 373 (6 percent), that of files pertaining to textile was 1,730

(4.2 percent). Mechanical files numbered 487 and files on pressure devices stood at 228, whereas that the number of files related to energy reached 206.

The number of files related to the Port of Beirut was 25,066 (i.e. 61.2 percent), followed by files about Rafic Hariri International Airport which was 12,933 (31.6 percent). The number of files concerning Al Masna' border crossing was 2,428 (down from 3,025 files in 2011), due to very bad security conditions in Syria.

#### Customs Files by Entry Point

Туре	Electri- cal	Soil	Chemi- cal	Me- chani- cal	Com- mon Files	Rebars	Chemi- cal	Medical	Energy	Pres- sure	Total
MASNAA	114	47	271	118	35	189	193	8	0	17	992
PORT	7671	3960	5909	682	2117	1339	2082	954	191	161	25066
AIRPORT	4715	45	2337	70	693	192	171	4647	15	48	12933
TRIPOLI	17	5	8	2	3	10	2	0	0	I	48
TYR	0	0	0	0	0	0	0	0	0	0	0
SAIDA	0	0	0	0	0	0	0	0	0	I	I
PRE SHIP	1576	346	0	0	0	0	0	0	0	0	1992
Total	14093	4403	8525	872	2848	1730	2448	5609	206	228	40962
AVERAGE / DAY	53.41	16.67	32.29	3.3	10.78	6.55	9.27	21.25	0.78	0.86	155.16

# Certification

The industrial Research Institute (IRI) continued its efforts to support and improve Lebanese industry. The IRI granted 24 industrial enterprises the ISO 9001 certification; granted two establishments the ISO 14000 certification for environmental systems;

granted two establishmenta the ISO 22000 certification in food safety management systems; and granted two other establishments the ISO EN 13485 certification for the quality system of medical devices and one establishment the ISO 18001 certification.

ISO 9001 Certified								
ACLINIC since 2010	Bel Labtronic since 2004	Betomix, since 2009						
Centre Hospitalier El Youssef since 2005	Château KSARA since 2003	Château Kefraya since2006						
CLINSERV International since 2009	Château KSARA since 2003	Holcim Béton since 2008						
Harfouche Trading & Industrial - Pastel Paints since 2004	Integrated Digital Systems since 2004	LECICO since 2008						
Lebanese International Technologies since 1999	Medical Distributing & Manufacturing (MDM) since 2003	MIRODEC since 2011						
MONDI since 2010	Nakhlé Zgheib & Co. since 2008	Nasri Karam & Sons since 2003						
Produits & Solutions Informatiques – PSI since 2002	TUV Hellas since 2008	ACET since 2012						
SADAPACK since 2012	SOIME since 2012	Al-Balsam since 2013						
ISO 14000 Certified								
Holcim Liban since 2004	Société Libanaise des Ciments Bla	ncs (SLCB) since 2009						
ISO 22000 Certified								
Château KSARA since 2009	Château KSARA since 2009 DAHER INTERNATIONAL FOOD since 2011							
ISO 13485 Certified								
Medical Distributing & Manufacturing (MDM) since 2010 Steritech since 2010								
OHSAS 18001 Certified								
Mondi since 2013								

#### **Product Certification**

37 products earned certifications of people qualty

from IRI in 2013. The products are produced by 9 different industrial enterprises.

9 Companies with IRI certified products (37 products certified)			
Poppins Corn flakes, choco flakes, honey flakes, frosted flakes -Cereal bars -Honey roundies -choco bits, choco pops, choco bumps - Daily bran	Cimenterie Nationale -P 52.5 BTNA RMS -P 42.5 BTNA RMS -P 42.5 -CS 42.5 ChB -PAL 42.5	Holcim -P 42.5 BTNA RMS -PAL 42.5 -C-S 42.5 ChB -PAZ 42.5 -P 42.5	
LECICO -Sanitary ware	Lematic -Refrigerators, Freezers and Bottle Coolers	Haykal Plast -HDPE pipes	
Ciment de Sibline -PAZ 42.5 -PAL 42.5 -PRMS 42.5	Sannine -Bottled mineral water 0.5l, 1.5l,2l	Almaza -Almaza Beer alcoholic -Almaza non alcoholic -Laziza non alcoholic -Almaza Pure Malt	

#### **Certificates to individuals**

The IRI grants certificates to individuals that entitle them to audit the quality of systems and products, in association with MOODY Certification, France. The certifications granted can be broken down as follows:

- 92 Internal Auditors
- 95 Quality Management Auditors
- 3 Environment Management Auditors
- 3 Food Safety Management Auditors

- 15 "FREA" Internal Quality Auditors ISO 9001:2008
- 11 "FREA" FOOD SAFETY MANAGEMENT SYSTEMS INTERNAL AUDITORS COURSE ISO 22000
- 10 ISO 22716 Quality Auditors
- 12 ISO 500001 Quality Auditors

#### **Certificates of Lebanese Welding Center**

Under Law Number 423 of 2002, which designed the Industrial Research Institute "as the Association Body and the only organization authorized to issue certificates of conformity related to all types of welding in Lebanon", the Institute granted 30 welding certificates through the Lebanese Welding Center (CLS), and a certificate of inspection in destructive tests.

Lebanese Welding Center	2010	2011	2012	2013
Welders certified by IRI	91	55	30	43
Inspectors in Non-Destructive testing	I	I	I	I

# New Lab Equipment

#### Electrical Laboratory

#### Automatic test system for miniature circuit breakers SMC-12 (SMC)

The circuit breaker test room is constructed to test different types of circuit-breakers intended for the protection against overcurrents of wiring. Installations of buildings and similar applications according to IEC 60898-1. The SMC-12 system is designed to meet the needs established by the International Standards for the routine and quality control tests of Miniature Circuits-Breakers (MCB) with regards to their Thermal and Magnetic (Instantaneous) response. Due to the very good characteristics of the power supply output to ensure that the results are complying to the International Standards in terms of-



current accuracy ( $\pm 1\%$ ), frequency ( $50HZ \pm 0,1Hz$ ) and distortion of the output wave form (<1%).

#### MultitesterMI 2094 (METREL)

The MI 2094 is a powerful portable instrument used for safety requirements test with a wide range of electrical appliances and equipment: dielectric test, continuity, voltage drop, insulation resistance, leakage current, discharge time and functional testing.



#### Light meter C.A 811 (CHAUVIN ARNOUX)

C.A 811 pocket device is a lighiting measurement instrument, equipped with a silicon photodiode. It has a digital display with light indicator and easy to manipulate in one hand.



#### **Test probes (FRIBORG)**

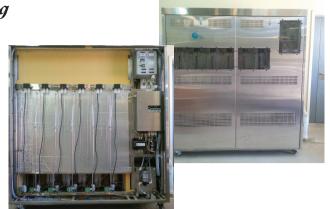
The Test Probes are designed to perform the accessible live part tests specified in many standards to determine compliance with safetyrequirements.



## Soil, Civil e<sup>3</sup> Mechanical Engineering Laboratory

#### **Distilled water machine**

The C-630 utilizes a multiple effect technology that produce up to 2270 liters per day of high



### Metrology Laboratory

**Fluke Precision Infrared Calibrator 4181** is intended for the calibration of infrared thermometers covering a temperature range between 35°C and +500°C.





**Mettler Toledo Mass Comparator XP26003L** with a resolution of up to 26 million points and the Level Matic mechanism, gives a peak accuracy at shortest process times to fulfill the highest demands in mass determination up to 26 kg.

The **Sartorius susceptometer YSZ02C** measures the susceptibility and magnetisation of weights of accuracy classes E1, E2, F1 and F2 with an accuracy of approximately 0.1 Am



#### IMPROVEMENT FOLLOW-UP MATRIX

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

<b>D</b> .	.,			Status	
Directorate	# Activity	Discription	Fulfilled	In Process	
	I		New Test: Tartaric acid	2/ 2013	
	2		New Test: Acetic acid		
	3		New test: Furfural in alcoholic beverages (spectrophotometer)	3/ 2013	
	4		New test: Higher alcohol in alcoholic beverages (spectrophotometer)		
	5	Chemical	New Test: Manitol assay	7/ 2013	
	6	Laboratories	New test: Fluoride in salt, (EUsalt/AS 010-2005)	8/2013	
	7		New test: Permanganate reduction time in alcohol (IS 6613:2002)	10/2013	
	8	New test: Glycerol in wine (AOAC 920.129)	11/2013		
	9		New Test: Carbosulfan assay	12/ 2013	
	10	Central Laboratory for Bread and Wheat	ISTA Accreditation for seed testing/ issuing of ISTA orange certificates		х
ARTD	11		Implementation of the QS (UV lights, calibration of equipments, environmental monitoring) in the outer room (molecular biology)	4/ 2013	
	12		Validation of the Tempo machine (matrix, uncertainty).	11/2013	
	13		Validation of mini Vidas.		
	14	Microbiology	Preparation of lyophilized reference strains.		х
	15	Laboratories	Preparation of a working area in the molecular biology.		x
	16		Review of the QMS	2013	
	17	Internal Audit	10/ 2013		
	18		Acquisition of new edition of standards		×
	19		25KN UTM Applied new testing machine designed for: heavy Textile, rubber, aluminum etc		х







International Accreditation

# IRI seeks to broaden the scope of International Accreditation

In the framework of the international accreditation according to the International Standard ISO 17025 granted to the Institute since 2004, assessors from the German Accreditation Body (DAkkS) carried out a surveillance visit at the Institute in July 2012.

As of the end of 2013, the accreditation scope covers around 400 testing methods in the microbiological, chemical and physico-chemical, wheat and grain, electrical fields, as well as civil engineering.

#### **Accreditation Projects**

The Institute seeks on the short and long terms to expand the current scope of accreditation and obtain an international accreditation according to DIN EN ISO/IEC 17025:2005 in other fields as detailed in the following table:

Acitvity / Field	Item / Test	Standard
Electrical	<ul> <li>Incandescent lamps</li> <li>Self-ballasted lamps</li> <li>Safety of home appliances</li> <li>Safety of power transformers</li> <li>Circuit breakers</li> </ul>	<ul> <li>IEC 60432-1 Ed. 2.2 :2012 Clause 2.6 / NL 96-1: 1999 Clause 2.6</li> <li>IEC 60968 Ed. 2.0: 2012 Clause 12 / NL IEC 60968: 2007 Clause 11</li> <li>IEC 60335-1: 2010 Ed.5.0 Clauses 16.2, 16.3 &amp; 27.5 / NL EN 60335-1: 2009 Clause 16 &amp; 27.5</li> <li>IEC 61558-1 Ed. 2.1 : 2009 Clause 24.4 / NL 216-1:2000 Clause 24.4</li> <li>IEC 60898-1 Ed. 1.2 : 2003 Clause 9.15 / NL 47 :1999 Clause 9.15</li> </ul>
Civil Engineering	- Cement: Determination of set- ting times and soundness	EN 196-3 :2005 + A1 Clause 6.2
Microbiology	<ul> <li>Tempo test for quantification of viable aerobic mesophilic of E. coli &amp; of yeasts and molds</li> <li>Vidas SPT, detection of Salmonella spp.</li> <li>Preparation of samples taken at the primary production stage.</li> <li>Water quality: MPN</li> </ul>	- IT-me/LMB/08: 5/2013 - ISO 6887-6: 3/2013 - ISO 9308-2: 6/2012
Metrology	- Mass	- OIML R 111, Euramet CG 18 & EA-4/02

#### Other management system under preparation:

Standard	Item / Test	Acitvity / Field
ISO 17020	<ul><li>Gas cylinders</li><li>Oil and Fuel tanks</li><li>Products export</li><li>Steam Boilers</li></ul>	Inspection and Auditing
ISO 17065	- All products	Product Certification
ISO 17024	- Welding and non-destructive testing	Personnel Certification

#### Flexible Accreditation

It is important to note that the DAkkS confirms that IRI laboratories are competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out accredited test methods in a flexible manner. Flexible accreditation is the highest level of the accreditation. It gives IRI the possibility to use standard test methods or test methods equivalent to them, which are not included in the certificate without prior information to and approval by DAkkS.

#### Interaction with scientific institutes

IRI laboratories interact with various scientific institutes around the world in an inter-laboratory or proficiency testing activities as follows:

- Bread laboratory proficiency testing with Bipea Cofrac/France in Flour
- Chemical proficiency testing with FAPAS Central Science Laboratory (CSL) / UK and Swedac / Sweden - Food products
- Microbiology proficiency testing with Eurofins / Norway in water and food.



#### Deutsche Akkreditierungsstelle GmbH

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

#### Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

INDUSTRIAL RESEARCH INSTITUTE (IRI) IRI Building, Lebanese university campus Hadath (Baabda)/Lebanon

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

microbiological analysis of food and animal feeding stuff, water for human consumption, waste water, cosmetics, wet wipes and baby diapers; chemical and physical-chemical analyses of food and animal feeding stuff, water for

human consumption, waste water;

human consumption, waste water; chemical, physical-chemical, rheological and preparative-gravimetric analysis of grain and flour; sampling of cereals, grains, pulses, feed, milled products and by products in bulk and sac; Environmental and electrical testing for the degree of Protection against water (IP Code), against accessibility to hazardous and live parts and solids foreign objects, resistance to heat and external forces, vibration test and power input and current of technical

products.

Performance and vibration tests of lead acid starter batteries.

The accreditation certificate is valid until 02.11.2014. It comprises the cover sheet, the reverse side of the

Registration number of the certificate: D-PL-14463-01-00

Berlin, 03.02.2012

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# 5

Internal e<sup>3</sup>
External Activities

# First Nutrition Conference of the Lebanese University

From January 31st to February 2nd, 2013, the Lebanese University, under the patronage of its president, Prof. Adnan El Sayed Hussein, organized the First Nutrition Conference of the Lebanese University. This conference was entitled, "Mediterranean Diet: From Scientific Evidence to Health Protection." The conference presented an overview of the characteristics of what is commonly referred to as Mediterranean diet, and what sets it apart from other types of diets. It presented scientific evidence linking the Mediterranean diet with health benefits, such as the prevention of chronic diseases, protection from obesity, and new research as to possible areas of health benefits. As a sponsor of the event, IRI was represented by Mr. Halim El-Bayeh and Prof. Dr Joseph Matta, who gave an enlightening presentation on the current situation regarding food safety in Lebanon.



# The Head of the IRI's Electrical Laboratory participates in a training session at Meltis – Jordan

Jordan, May 26 - 30, 2013

The Head of the Electrical Laboratory at the Industrial Research Institute, Engineer Bilal Hussein participated in a training session at the Middle East Laboratory Testing and Technical Services in Jordan from May 26 till May 30, 2013, under the supervision of Bureau Veritas. The session tackled the concept of exchanging expertise in the field of laboratory tests for general safety. A visit to laboratory sections specialized in screening and surveillance was organized and thorough tests that included public safety





in household electrical appliances, start-up batteries and the system of examining electrical outlets and switchgears were conducted. The participants in the session took note of the activities, and gave lectures about Jordanian specifications adopted in the tests, comparing them with the European specifications. It was agreed at the end of the session that technical cooperation must be maintained, particularly in applying comparative tests between laboratories as well as in the field of consulting and conducting laboratory tests.

# Arabic code for good practices in conformity assessment workshop

Cairo, Egypt - 9-10 June, 2013

In the frame of the establishment of a guide relevant to good governance and professional practices in the conformity assessment field, a workshop was organized by UNIDO (United Nations Industrial Development Organization in the collaboration of AIDMO (Arab Industrial Development & Mining Organization) in Egypt.

Participants were from Palestine, Libya, Egypt and Lebanon; Miss Hanine Abdel Rahman, Quality Management Unit Head, represented IRI.

Over two days, the trainers gave theoretical as well



#### External Activities

as practical examples of codes of good practices; the main aspects covered the corporate responsibilities, the standards development and technical regulation, the conformity assessment activities (Inspection, personnel, system and product certification, testing and calibration), consulting, training and accreditation.

This workshop was the first of a series of 3: the second one relevant to North Africa region will be held in Rabat and the third one for Gulf countries in Dubai.

By the end of the year, a guide for the good practices will be issued taking into the consideration the feedback from participants of the three workshops.



# ISTA Seed Symposium 2013



#### Antalya, Turkey - 12-18 June, 2013

Since August-2012, the Central laboratory for grain, flour and bread research have been an active member of the "International Seed Testing Association (ISTA)". During this period the laboratory didn't cease to develop its scientific capabilities in the field of seed testing by:

- Acquiring the latest test procedures and international rules.
- Participating successfully in the Proficiency Testing program set by ISTA for accredited and "to be" accredited laboratories.
- Attending international seminars and workshop to be on the cutting edge of seed testing technologies.

One of the "Mile stones" in these international activities is ISTA's "Seed Symposium" held once every three years. The 30<sup>th</sup> ISTA congress was held in Antalya, Turkey from the 12<sup>th</sup> to the 18<sup>th</sup> of June 2013.

Eng. Amine Jbeily, head of the central laboratory and member at ISTA participated in this event which included technical workshops for the training of seed analysts, a scientific symposium discussing the latest results in applied seed science, a detailed insight into the work of all 18 ISTA committees, including their achievements and future plans and two discussion sessions with focus on topics related to future developments in the area of seed quality determination.

The ISTA seed symposium covered a wide range of seed related topics, including:

- Genetic conservation
- Seed pathology
- Habitat regeneration
- Seed germination and dormancy
- Seed quality and plant breeding
- Application of molecular markers
- Seed quality evaluation
- Seed physiology and stress responses

These topics were organized in 5 oral sessions:

#### Session 1: Role of quality evaluation in seed production.

Multiplication of new cultivars; maintenance of genetic purity; environmental and maternal effects on quality; production and processing; conventional and organic seed production; epidemiology and modeling; seed treatments.

#### Session 2: Seed storage for commercial use and genetic conservation.

Seed collection and handling effects on germination and longevity; seed moisture content and water activity; storage conditions in relation to quality; orthodox and recalcitrant seeds, identification of quality traits in non-crop species.

#### Session 3: Physiological, biochemical and molecular markers of seed quality.

Stress and desiccation tolerance, genomics, proteomics, development and maturation, regulation and induction of dormancy, germination; Seed longevity; disease resistance.

#### Session 4: Advanced methods in seed quality evaluation.

Automatic and computer based methods; image analysis; DNA-based methods; variety identification; purity analysis; seed pathology; germination.

#### Session 5: Evaluation and improvement of physiological quality.

Evaluation of germination and vigour; seed quality in relation to field establishment, transplant production, land reclamation/regeneration; response to stress (e.g. pathogens, drought, salinity, soil contaminants).

Finally this congress is a major worldwide event that offers participants a full and highly interesting program.



# Quality infrastructure for food safety

#### Stockholm, Sweden - November 18 - December 13, 2013

This is the 13<sup>th</sup> year of this training program organized by SIDA (Swedish International Development Cooperation Agency) in cooperation with SWEDAC (Swedish Board for Accreditation and Conformity assessment); it aims to help countries in the implementation of food safety infrastructure by providing the skills based on the SPS WTO (Sanitary and PhytoSanitary measures, World Trade Organization) agreements and best practices



and know how to participants from different sectors that are active in this field.

Participants were from Palestine, Morocco, Yemen, Egypt and Lebanon; Miss Hanine Abdel Rahman, Quality Management Unit Head, represented IRI.

The training took course over four weeks in Stockholm and Uppsala – Swe-

den; there were theoretical parts, group exercises and field visits; the program's total duration period is between 12 to 14 months during which each participating organization is committed to work on a change project relevant to food safety aspects based on each country's needs.

A project was presented by IRI in the frame of the improvement of the product certification process.

The main aspects discussed during this training covered the WTO-TBT (Technical Barrier to Trade) and SPS agreements, European legislation, International standardization organizations work (Codex alimentarius commission, OIE (International Office of Epizootics) and IPPC (International Plant Protection Convention)), food labeling, HACCP (Hazard Analysis and Critical Control Points) training, accreditation and laboratory testing.

As per the recommendations, a unique food safety law should be adopted in each country, nominating an independent authority to perform internal food controls and market surveillance based on the recommendations and guidance provided by the international organizations and risk assessments performed by the relevant committees if applicable and available. In case several authorities are involved in the con-



trols, the harmonization of their activities is crucial; this can be ensured through a committee including group of knowledgeable people who are responsible of interpreting the scientific parts of the technical regulations. The main purpose of the food safety system is to trust the producers; this is possible by implementing controls needed.

Finally, the training organizers hoped that the aspects discussed and the knowledge spread help in making evolutions in the participating countries to be able to start the thousand miles journey in the frame of establishing a solid food safety system that could be trusted worldwide and that ensures the safeguarding of lives and encourage the development of the countries in question.



A booklet was issued on the Lebanese Industrial Research Institute The Coordination Committee of the Industrial Research Institutions and Centers in Arab Countries Forms a working group that will propose projects in renewable energy and food industries Kfoury Represents the IRI in the 13th Meeting of the Committee

Cairo, June 23 - 24, 2013

Under the invitation of the Arab Organization for Industrial Development and Mining and hosted by the Academy of Scientific Research and Technology in the Arab Republic of Egypt, the thirteenth meeting of the Coordinating Committee for the Industrial Research Institutions and Centers in Arab Countries was held on June 23 and 24, 2013, with the participation of representatives of Jordan, Saudi Arabia, Sudan, Kuwait, Lebanon and Egypt, and the representative of the UN Economic and Social Commission for Western Asia (ESCWA), the Arab Union for the Development of Industrial Exports and the Arab Organization for Industrial Development and Mining.

In the meeting, Lebanon was represented by the Administrative and Financial Director at the Industrial Research Institute, Salim Kfoury.

At the end of the meeting, the following recommendations were made:

- Forming a working group to prepare proposals for research projects required in the areas of: water, renewable energies and food industries.
- Enhancing the bilateral cooperation between member institutions.
- Marketing and developing industrial research outputs.
- Encouraging the organization to create an international Arab company to support scientific research, development and innovation.

At the end of the meeting, a booklet was issued. It included a report on the achievements of the Industrial Research Institute in Lebanon and the services offered by the Institute on both Lebanese and Arab levels.



# The IRI Cooperation with the International Atomic Energy Agency (IAEA)

Berlin, July 8 - 12, 2013

Within the framework of the cooperation of the Industrial Research Institute with the International Atomic Energy Agency (IAEA), the Head of the Welding Center, Engineer Tarek El-Hakim participated in the scientific visit as part of the Technical Cooperation Project RAS1016, entitled: "Introducing Digital Industrial Radiography & other Advanced Non-Destructive Techniques". The visit was held from July 8 till July 12, 2013, in

Berlin – Germany at the BAM German Institute specialized in advanced



techniques of digital photography. Several laboratories were visited, including: Radiological Labs & Digital Equipment, CT Labs, X-Ray Topography Labs, UT Labs (phased array & air coupled UT), Division for NDT of Civil Structures, Radiation Protection & RT Laboratory Design, Thermography Laboratories.

Experts from Iraq, Jordan and Qatar also participated in the event.

At the end, the participants visited the German Society of NDT where they took note of the organization's work which fosters all the activities related to non-destructive tests in Germany.

# Cooperation between the IRI and Bureau Veritas in Saudi Arabia

#### Jeddah, September 29 - October 3, 2013

The Head of the Power Unit at the Industrial Research Institute, Ahmad Hassan visited the Veritas Labs in Jeddah, Saudi Arabia. The visit stretched over five days, from September 29 till October 3, 2013. Hassan

visited a number of laboratories, including the household appliances and audio-visual devices laboratory as well as the batteries, circuit breakers and lighting devices laboratory, and discussed ideas about the implementation of methods to run public safety tests with Saudi supervisors.

Ahmad Hassan also participated in conducting several tests and analyzed their results. He also tested samples which were already examined at the IRI laboratories. Both results were matched later to make sure they were accurate.

At the end of the visit, an agreement was made on the cooperation and coordination between the IRI laboratories and the Veritas laboratories.







6

European-Lebanese Centre for Industrial Modernization - ELCIM

#### HORECA 2013 Exhibition

#### **April 9, 2013**

IRI represented by its ELCIM and CIT centres took part in the HORECA 2013 Exhibition, through managing the "INDUSTRY LOUNGE", a concept combining the Industry consulting and managing specialists. The Association of Lebanese Industrialists (ALI), as well as the Syndicate of Lebanese Food Industry(SLFI) were the partners in the lounge.

The teams met the Agro Food sector representatives , proposing to clients the range of consultancy services and specialized trainings offered. It was also an occasion to propose the services of the Centre for Innovation and Technology (CIT) through which industrial companies can connect with the academic sector in their quest for research and innovation support. A special attention was given to the EU/IRI co funded Innovation Project where researchers and young entrepreneurs are given the possibility to develop their innovative ideas with a grant of up to 10 000 Euros.



#### The European Cluster Excellence Management Program

#### **February 13, 2013**

The Foundation Clusters and Competitiveness in collaboration with ELCIM (Euro-Lebanese Center for Industrial Modernization) hosted at the Industrial Research Institute

"The European Cluster Excellence Management Programme" The introductory workshop, a European Union funded initiative, was presented by Mr. Emiliano Duch, a prominent expert in the field, and was held at the meeting room of the Industrial Research Institute in Hadath on Thursday the 31st of January 2013. The workshop was attended by a significant number of private and public institutions and policy decision makers representatives.

The purpose of the Workshop was to introduce the Cluster Excellence Management trainthe trainer programme to policy decision makers and potential participants. The training programme is supported through the European Union's EUROMED Action. The programme is de-



signed by the European Cluster Excellence Initiative (ECEI) and it is based on a standardised set of training materials: Six weeks in-class curriculum with an 8-month field project. The curriculum aims to develop expertise in 10 key areas ranging from Cluster Economics, Industry Analysis & Segmentation and Value Chain analysis to Cluster Policy Evaluation. Learning from each in-class training week is reinforced by the field project which runs for the 8 months duration of the Programme. The workshop provided a comprehensive introduction to the programme, its requirements and conditions for participation.

At the end of the day, a Memorandum of Understanding was signed between the Industrial Research Institute and the Foundation Cluster and Competitiveness, whereby IRI through its ELCIM Centre will be the official counterpart of the Foundation in Lebanon

#### ICT cluster event

#### **April 2, 2013**

IRI / ELCIM with the support of the EU Technical Assistance and Information Exchange Instrument (TAIEX) organized at Hilton Habtoor Hotel an ICT workshop on the 2nd and the 3rd of April 2013. The Workshop intended to empower the capacity of the Lebanon SoftShore Cluster to manage the ICT Cluster, to support the cluster activities and contribute to the development of a national policy in ICT promotion and development.



Mr.Sofienne Lourimi, Deputy Head of the Unit International Partnership/ Head of International Strategy for Competitiveness Clusters in France, presented the workshop and established a road map for the coming three years, addressing the role of the cluster as a service provider to the ICT sector. The workshop was unanimously considered by the participants as a promising step towards building a solid platform for promoting IT services and products on both local and international levels.

#### Cluster Excellence Management Programme

#### **April 16, 2013**

The Workshop was presented by Mr.Emiliano Duch, Mr.Reza Zadeh and Ms.Gloria ferrer where the participants attended from Morroco, Tunisia and Lebanon. The purpose of the Workshop is to introduce the Cluster Excellence Management train-the trainer programme to policy decision makers and potential participants. The

training programme is supported through the European Union's EUROMED Action.

The programme is designed by the European Cluster Excellence Initiative (ECEI) and it is based on a standardised set of training materials: Six weeks in-class curriculum with an 8-month field project. The curriculum aims to develop expertise in 10 key areas ranging from Cluster Economics, Industry Analysis & Segmentation and Value Chain analysis to Cluster Policy Evaluation. Learning from each in-class training week is reinforced by the field project which runs for the 8 months duration Elcim organized An In house training



for Vresso, that was held on July 31st, August 1st & August 2nd -2013 at their premises in Jal el Dib, with Mr Youssef EL habbal.

The main topics of this Workshop were about Food Safety Guidelines required in the design and installation of food service kitchen, precaution that helps reducing the risk against foodborne illness, causes of food poisoning and food contamination, the strict laws and regulations which control the standard of food, How to handle a cleaning maintenance record, traceability program and storage Hazard Assessment, The basic kitchen safety tips to avoid accidents.

21 employees from VRESSO participated in this workshop.

#### Lebanon SoftShore Cluster Seminar

#### **November 27, 2013**

Supported by the Industrial Research Institute (IRI) and the Euro-Lebanese Center for Industrial Modernisation (ELCIM), the Lebanon SoftShore Cluster has organised a seminar on Knowledge Management at the Ecole Supérieure des Affaires (ESA) in Beirut. Main speaker, Mrs Pascale Hatem, expert in Knowledge Management and its application in corporate settings, introduced the topic to IT companies and organisations who attended the event and participated in a brainstorming session. Mrs Hatem tackled the differences between data, information and knowledge and the management of all such entities in corporate environments stating that making information available in not enough; getting people to use it is the most critical.

The Lebanon SoftShore (LSS) Cluster is being relaunched by IRI through ELCIM with the objective to promote the Lebanese Software Industry on a global level, creating new opportunities for Lebanese Software companies beyond Lebanese borders. With this perspective in mind, the LSS has jump-started a program of seminars and workshops aimed at exposing Lebanese software companies to key trends in management and IT.







# 7

Lebanese Center for Cleaner Production - LCPC The Lebanese Cleaner Production Centre (LCPC) was established in 2002 at the Ministry of Environment (MoE) by the United Nations Industrial Development Organization (UNIDO),

LCPC moved in February 2004 to the Industrial Research Institute (IRI) in Hadath - Baabda.

LCPC is part of UNIDO-UNEP Global Network which comprises National Cleaner Production Centers (NCPC) in 45 countries.

LCPC work is to improve the environmental performance of products, processes and services by focusing on the causes of environmental problems rather, while encouraging economic development and industrial growth through saving costs and facilitating the access of local products to international markets.

LCPC seeks to assist the national industries, especially SME's, in the adoption of sustainable production modes through the application of Cleaner Production and the transfer of Environmentally Sound Technologies.

LCPC is supporting industrial establishments in enhancing their productivity and facilitating their access to new and more demanding markets, while at the same time improving their environmental and social performance.

### LCPC Elected Representative of Arab Region in the Global UNIDO/UNEP RECP Network

The achievements of the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Programme (UNEP) in building national capacities in developing and transition countries for delivering information, training, assessment and advisory services for the implementation of RECP concepts, methods, policies, practices and technologies, in particular through their joint support for the establishment of National Cleaner Production Centres and Programmes (NCPCs/NCPPs);Resolved to establish a global network for the Resource Efficient and Cleaner Production (RECPnet).

The RECPnet operates as a global networking initiative that brings together organizations that are professionally involved in and committed to the promotion and implementation of Resource Efficient and Cleaner Production (RECP) in developing and transition countries;

The Membership of RECPnet comprises officially recognized organizations or initiatives which deliver, as one of their core activities, information, training, advocacy, assessment, advisory and/or any other services to businesses, governments, public and private sector institutions and associations, academia and civil society in developing and/or transition countries on RECP concepts, methods, policies, practices and/or technologies ("RECP Service Providers");

The global network was recognized as key to sup-

porting the shift in business behaviour and policy creation. The business case for RECP becomes stronger with the increase in the use of resources which leads to the need for improving the skills and know-how of the business and the public sector.

There is a need to develop appropriate and effective communication practices using adequate language for common methods and step-up the communication of achievements made within and without RECPnet.

There is also still a strong need for supporting the development of enabling policy conditions. RECPnet needs to work together with respective public entities, working industry and environment government institutions as well as other relevant bodies. NCPCs can support the public and private sector to work towards green economy and industry both through partnering and joint initiatives.

The RECP programme offers various opportunities for further promoting and delivering resource efficiency and cleaner production, representing therefore a real solution as the link between green industry and economic needs.

The LCPC acted for 2 years in the Executive Committee of the Global RECP Network, as west Asia Representative and currently an active Member within the Arab Region.

The 3rd Global RECP Networking was held in



Montreux, Switzerland on September 2013. It brought together RECPnet members with the objective to exchange and share experience to facilitate

ALCAU

CESAY BARAHONA
All YAACCOUB
Nichtwith RAPHULD
Vladimer DORES
Anthony CHIU

the application and up-scaling of RECP practices. It convened current network members as well as other organizations that deliver RECP or related services with representatives from the donor community as well as other key stakeholders.

Since the 2011 RECP Networking Conference, there has been much progress on the sustainable development agenda, but many challenges remain. At the global level, consensus has emerged on the need to decouple economic development from pro rata increases in the use of natural resources and environmental impacts, as reflected in commitments towards Green Economy, Green Growth, Green Industry, Resource Efficiency and Eco-Innovation at various forums, including the Rio+20 Conference. RECPnet and its members are playing a key role in its realization, provided RECP methods, techniques and policies can be widely and rapidly deployed.

The 3rd RECP Networking Conference focused on the overall challenges to develop trial and promote approaches to scale-up and mainstream the application of RECP methods, techniques and policy instruments. Some commendable progress is made through policy change and fiscal reform and regional, sector and topical RECP initiatives, was presented and reviewed during the RECP networking conference, to arrive at directions for future work.

The Executive Committee and Secretariat reported

on activities and achievements, with a particular focus on knowledge management. Thereafter time was allocated for regional consultations, and an update

of the human capacity development initiative with 9 network members. The day concluded with the executive committee's annual meeting and the approval of the work plan and reelection of officers, in the members' only segment of the Assembly.

Dr. Ali Yaacoub, director of the Lebanese Cleaner Production Centre was elected to represent the Arab region in the global UNIDO/UNEP RECP Network between

the five elected regional representatives of the Arab States, Asia and Pacific, Latin America, Africa, and Europe; the LCPC won a landslide victory after the withdrawal of the representative of the Republic of Egypt in his favour.

In his immediate speech upon the election, Dr. Yaacoub announced that he will not allow and will prevent the acceptance of "Israel's" request term, to join the province of the Arab countries, and insisted that during his two years the instability and lack of



security in the Arab countries will not be a excuse for reducing international contributions in the implementation of environmental and industrial projects.

#### LCPC is officially a Member in The UNWTO



LCPC has showed once again, its strong involvement in international initiatives and as a National and regional environmental institution, by being able to join the United Nations World Tourism Organization, which is a United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism.

UNWTO encourages the implementation of the Global Code of Ethics for Tourism, to maximize tourism's socio-economic contribution while minimizing its possible negative impacts, and is committed to promoting tourism as an instrument in achieving the United Nations Millennium Development Goals (MDGs), geared towards reducing poverty and fostering sustainable development.

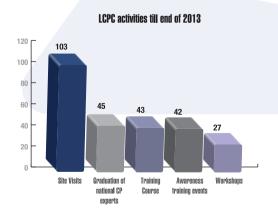
#### Activities

The year 2013 was rewarding, the LCPC achieved the 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 followings 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 UN-IDO CP methodology.

LCPC has collaborated with 33 Company in Lebanon distributed among several industrial sub- sectors. These sectors are:

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

3,890,462\$

3500000

2500000

1500000

1500000

258,772\$ 270,142\$ 274,264\$

52,273\$ 78,387\$

Dairy Agro-Food Cardboard Platic Textile Olive Oil Others Total

Number of participants in LCPC activities till end of 2013

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

## Site Visits-Arayby for Industrial and Trading Company S.A.L, Taanayel, Bekaa

#### October 2013

Arayby for Industrial and Trading Company in Lebanon has successfully implemented different CP options in collaboration with the Centre during 2013. A CP factsheet was executed on Arayby including the CP options generated and savings achieved. The company is nominated for CP certification.





#### Awareness Raising

As part of the awareness campaign raised by the LCPC to spread the word about the CP concept and its application in Lebanon, the educational sector constitutes an essential and important sector to spread the word among all students, and for the purpose of disseminating the CP Book: "Half if Enough: An Introduction to Cleaner Production" in the Universities for introducing CP Curricula, The book shows, that a lot can be done to make industrial production more efficient and less pollutant at the same time by using materials better and reducing waste by conserving energy and reducing emissions of carbon dioxide and other greenhouse gases by reducing water consumption and by minimizing waste water generation in an economically favourable way. The book explains the principles of the approach, gives examples, what can be done and how the measures pay back, and how the strategy behind can be used as backbone for active management systems oriented towards a more sustainable economy.

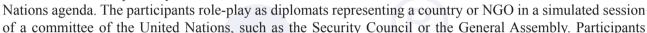
Let us implement the Half required, and then say enough. Do you think we will say enough?

#### Student Visit- Green Field College visited LCPC at IRI

#### March 2013

The LCPC welcomed the GFC's students and their English instructor Maha Abou Chaar, where they sat with Dr. Ali Yaacoub at his office and had Questions and Answer session about the UN system.

The students were participants at the Model United Nations, an academic simulation of the United Nations that aims to educate participants about current events, topics in international relations, diplomacy and the United



research a country, take on roles as diplomats, investigate international issues, debate, deliberate, consult, and then develop solutions to world problems. In general, the participants that the executive panel considers to be most contributing are given awards, such as Best Position Paper award, Best diplomacy, and 'Best delegate award'.

The students got two countries to represent, one of them was Lebanon, and in order to get more information from an effective and trustworthy Superior in the



UN, they were advised to council Dr. Yaacoub, who in return gave them sufficient information that enabled them to win three position paper awards, the winners were: Sara Jawaher, Farah Farhat and Mariam Nseif.

#### Danish delegation at LCPC

#### April 2013

In collaboration with the Royal Danish Embassy of Beirut, a delegation of 11 Danish leaders visited the Lebanese Cleaner Production Centre (LCPC) at IRI. The leaders represented the following companies:

COWI A/S, Scandlines Danmark A/S, Realkredittradet, Karsten Jensen, Entercard Danmark, Aorhus Universitet, Lan & Spar bank A/S, Grathwol A/S, Nordea, Glindorf & Partnere A/S, and Forsvarets Sundhedstjeneste.



They were introduced to the Cleaner Production concept and methodology. Furthermore LCPC Director, Dr. Ali Yaacoub, familiarized the Danish leaders with LCPC and IRI activities and presented their regional work on sustainable consumption and production in the energy sectors.

Their visit also included a guided visit to IRI and short meeting with the Director General of IRI, Dr. Bassam Frenn.



#### Austrian Ambassador visit

#### October 2013

H.E. Ursula Fahringer the Austrian ambassador in Beirut visited the LCPC and met with Dr. Ali Yaacoub at his office to discuss common interests and the ways of strengthening the industrial and trade exchanges between the two countries.

Dr. Yaacoub asked if they could benefit from the expertise and equipments from the Austrian environmental and industrial projects, especially that the cooperation between the Lebanese Centre for Cleaner Production and Austria is historical and will continue, particularly after Lebanon's presidency of the Arab region in the global



network of natural resources and cleaner production at the United Nations Industrial Development Organization and the United Nations Environmental Program because Austria is one of the most important countries of supporters and contributors to the program.

In addition Dr. Yaacoub insisted on creating new creative programs and preserving the environment and the development of industry with Austria and finding solutions to environmental problems accumulated in the light of the exodus of Syrian refugees in camps and complexes in several Lebanese regions.

On the other hand the Austrian Ambassador welcomed Dr. Yaacoub's suggestions and will discuss them with the President of the Austrian Republic and make sure it will be included in the meeting between him and the President of the Lebanese Republic during the latter's visit. Furthermore, a follow-up with relevant officials to lay the foundations for cooperation will be scheduled. The Ambassador was amazed by the centre's achieve-

ments and felt proud that her country contributed, even if little in the past, in the centre's success because it's a raw model not only in Lebanon but also in the region.

The Ambassador was introduced to IRI Directors and LCPC staff and finished her visit by visiting the IRI laboratories.



#### 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 36 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

## Iraqi delegation in coordination with Islamic University of Lebanon-Master students visit to LCPC and IRI

#### April 2013

The Iraqi's Students from the Islamic University visited the IRI and LCPC premises. They were introduced to cleaner production concept and methodology. Their visit also included a guided visit to the laboratories available at IRI.

At the end of the visit, attendance certificates were distributed to the participants.



## ESCAP-ESCWA Inter-Regional Exchange/Study visit on good practices of implementation of green growth policy tools for low carbon development-Thailand

April 2013

In June 2012 the United Nations Conference on sustainable Development (UNCSD, or Rio+20) was convened with the aim to secure renewed political commitment to sustainable development, as well as to discuss

the themes of the institutional framework for sustainable development, and the green economy in the context of sustainable development and property eradication. The event marked twenty years after the organization of the Earth Summit in Rio de Janeiro in 1992 and ten years after the World Summit on Sustainable Development in Johannesburg in 2002. The conference resulted in a political outcome document entitled "The Future We Want", which is expected to shape the sustainable development agenda in the years to come.





A key outcome of Rio+20 was the renewed political commitment to sustainable development, and the recognition that the three pillars of sustainable development-economic, social and environmental must be integrated at all levels in a balanced way, in order to achieve an economically, socially and environmentally sustainable future for present and future generations.

The Lebanese Cleaner Production Centre was part of this inter-regional exchange study represented by its director Dr. Ali Yaacoub.



### Workshop on best available techniques for the Mediterranean (BAT 4 MED)

#### **July 2013**

The Lebanese Cleaner Production Centre (LCPC) in cooperation with the Centre for Environment and Development for the Arab Region and the Europe organized a workshop on the BAT4MED project, "Boosting Best Available Techniques in the Mediterranean Partner Countries", that aims to analyze the potential impact of the introduction of the Integrated Pollution Prevention and Control (IPPC) concept in the Mediterranean Partner Countries and, more specifically, if this can contribute to minimize the negative impacts associated with polluting industries from key industrial sectors.

BAT4MED arises to respond to the need of the Mediterranean Partner Countries to design new prevention based environmental control systems that will not affect their necessary economic de-





velopment. The project is addressed to public authorities and the wider industrial context.

#### Inaugural Meeting of the Arab Regional Chapter for RECPnet, Rabat, Morocco

#### December 2013

The second meeting held in Rabat on the 18th was organized by Dr. Ali Yaacoub director of the Lebanese Cleaner Production Centre and RECP Regional Executive in Arab Region. The meeting focused on formally introducing and discussing the regional chapter of RECP net as a basis for expanding and strengthening the net-

work. Moreover, the KMS platform conceptualized with inputs from Arab region members of RECPnet (Algeria, Egypt, Jordan, Lebanon, Morocco and Tunisia) were presented and reviewed.

The visit to Morocco ended by two site visits in Casablanca, the first visit was to Lafarge Bouskoura a cement plant site and the second visit was to Al-Jisr Green Chip an e-waste dismantling workshop.





#### LCPC Participation in Other Events

	Events	Date	Location
1	Discussion on "the Doha COP18 Outcomes"	29 January 2013	Beirut, Lebanon
2	Belgian Week	25 Feb3 Mar. 2013	Beirut, Lebanon
3	High-Level conference: Paris Forum	4 April 2013	Paris, France
4	Launching Ceremony "Wadi Hujayr Protected Natural"	11 April 2013	Kantara, Lebanon
5	Training Workshop on energy management system implementation	22-23 April 2013	Pretoria, South Africa
6	Launching Ceremony of The quality program, QUALEB-Phase III	25 April 2013	Grand Serail, Beirut
7	Workshop on sustainable energy for Lebanon-BAU	25 April 2013	Beirut, Lebanon
8	Media Seminar within the program of "the economic dialogue"	9 May 2013	Beirut, Lebanon
9	Arab and Mediterranean Regional conference on Environmental Resources Monitoring and Management	15-16 May2013	Beirut, Lebanon
10	Opening ceremony of the 19th periodic technical conference and the 39th session of the general conference of the Union of Arab Engineers	29-31 May 2013	Beirut, Lebanon
11	Lebanese Industry Day Ceremony-Convention Centre	17 June 2013	Beirut, Lebanon
12	Open Workshop on "European Innovation Partnership Agricultural Productivity and Sustainability" during the AgriFuture Conference	17-19 June 2013	
13	Beirut Energy Forum	26-27 Sept. 2013	Beirut, Lebanon
14	Austrian ambassador visit to the LCPC	2 October 2013	Hadath, Lebanon
15	Baltic Sea Conference	3 October 2013	Copenhagen
16	Lecture-AUB.	24 October 2013	Beirut, Lebanon
17	6th Annual Conference of the Arab Forum for Environment and Development (AFED)-American University of Sharjah.	28 October 2013	Sharjah, UAE
18	3rd Green Industry Conference-Guangzhou,	7-9 November 2013	China
19	2nd World Emerging Industries Summit-Wuhan city	21 - 23 Nov. 2013	China
20	2013 SME Assembly: Annual conference to exchange good practice in promoting small and medium-sized enterprises-Vilnius, Lithuania.	25-26 Nov. 2013	Vilnius, Lithuania
21	AUB IFI 100 Social Innovation from Finland	9 December 2013	Beirut, Lebanon
22	Blue Gold of Lebanon- 5 year water plan. Launching ceremony	10 December 2013	Beirut, Lebanon
23	National workshop on "Challenges in Marketing the Lebanese Agricultural Products"	12 December 2013	Beirut, Lebanon
24	Inaugural Meeting of the Arab Regional Chapter- RECPnet	16 December 2013	Rabat, Morocco



8

IRI's Relations
with Ministries and
Public Institutions

## The Institute's role in supporting the national economy in general

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 by the German Accreditation Body (Deutsches Akkreditierungssystem Prüfwesen (DAkkS)), 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 he 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 explosions.

#### **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 12 accredited laboratories covering different sectors, in addition to a control and inspection unit, the meteorological calibration unit and the Lebanese Welding Centre.

#### B - General directorate of Cereals and Sugar beets

The Industrial Research Institute manages and operates the work of the central laboratory for grains, flour and bread research on behalf of the Ministry of Economy and Trade. The laboratory is equipped in accordance with highly specialized international cereal laboratories.

The laboratory meets all the needs of this directorate by controlling the quality of the imported and the locally produced wheat and wheat products (briefly, monitoring the ingredients that make up the Lebanese bread loaf).

#### **Ministry of Public Health**

IRI laboratories are used by the Ministry of Public Health in conducting special tests on bottled water, as a fundamental step in the process of obtaining a license for the water bottling companies, in addition to other tests conducted by the instituted which include, for example, baby formula, cosmetics, medicine and other items as needed.

#### **Ministry of National Defense**

The cooperation with the Lebanese army, including

its various interests and divisions, has been firmly established since IRI's inception. IRI meets the requests of the committee tasked with the receipt of the analyzed materials and the central reserve committee for foodstuff analyses, the stewardship for uniforms and equipment, in addition to the requests of the corps of engineers, the logistical corps and the military police and other corps as needed.

IRI also holds training courses on welding works, solar energy and other scientific topics which IRI proudly provides to this institution.

#### **Ministry of Interior and Municipalities**

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

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

tation in national issues when requested, issues that fall under the scope of both the ministry's work and IRI's fields of expertise.

#### **Ministry of Environment**

IRI continually cooperates with the requests of the Ministry of Environment, whether by analyzing samples to assess their negative environmental impact, or whether by providing the Ministry of Environment with its services in the field of the inspection and auditing of factories, before suggesting the optimal approach in the production process in order to mitigate the latter's negative environmental impact.

IRI also hosts the Lebanese Cleaner Production Centre (LCPC), which was established as a result of the cooperation among the Ministry of Industry, the Ministry of Environment, UNIDO and Austria.

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

#### **Customs**

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

#### **Lebanese Standards Institution (LIBNOR)**

IRI worked diligently to establish the Lebanese Standards Institution (LIBNOR), which is tasked with issuing the Lebanese standards. In the beginning, this institution was established in the campus of IRI, which incubated its operations until it was reactivated in 1998. Since then, IRI published approximately one thousand national standards for the

institution, as per annual contracts that were in force from 1998 until 2004. IRI is currently represented in the institution's Board of Directors, while IRI is permanently represented in the technical committees tasked with issuing and updating the national standards.

#### The Lebanese Council for Accreditation (Colibac)

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

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

A national institution for the issuance of national standards, which in Lebanon is the Lebanese Standards Institution (LIBNOR), a body that is ever striving to improve its role

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

A national council for accreditation, whose tasks include accrediting laboratories, monitoring commissions, conformity assessment for products and processes in the country. This national institution was not yet established in Lebanon, and IRI sought hard to establish it in order to complete the quality infrastructure at the level of national institutions, until the decree of its establishment was issued in 2004, while the decree to establish its Board of Directors was issued in 2006. IRI is represented in the Board of Directors of the Lebanese Council for Accreditation (Colibac).

This council is still in the process of drafting its bylaws, 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.





## 9

IRI's Relations
with the Private Sector

#### IRI's Relations with the Private Sector

#### **Industrialists**

IRI allots great importance to industrialists and industry in Lebanon. Five years ago, IRI concluded an agreement with the Association of Lebanese Industrialists whereby it granted industrialists a fifty percent 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 im-

plementation 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 12 laboratories spanning many complementary disciplines, in addition to the meteorology laboratory, the Lebanese Welding Centre, the Euro-Lebanese Centre for Industrial Modernisation, the Lebanese Cleaner Production Centre, and the Centre for Innovation & Technology.

#### Consumers

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

#### IRI's Relations with the Private Sector

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.





## 10

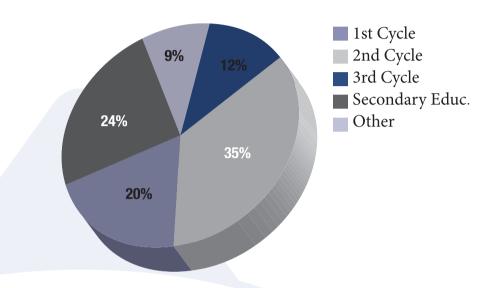
Development of Human Resources

#### Development of Human Resources

The number of IRI staff members amounted to 145 at the end of 2012; 70% are males, while 30% are females. The average age is around 34 years.

They can be categorized according to the level of

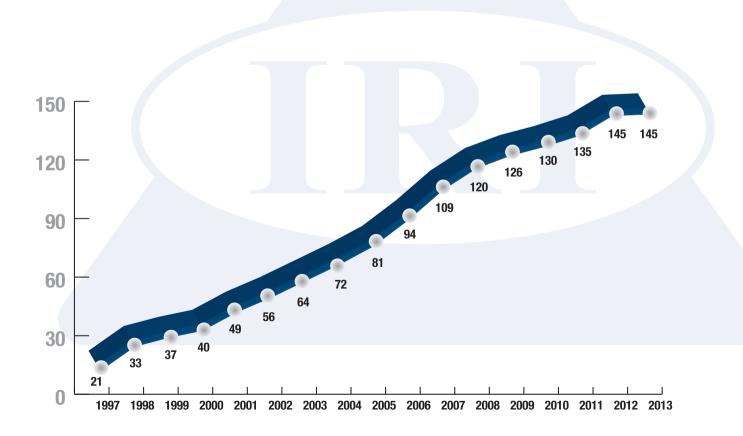
their education: 17 hold a 3rd Cycle, 51 hold a 2nd Cycle, 30 hold a 1st Cycle, 35 are in their secondary and technical studies, and 12 are in other categories.



Elementary Level	No.	%
3 <sup>rd</sup> Cycle	17	12%
2 <sup>nd</sup> Cycle	51	35%
Ist Cycle	30	20%
Education Secondary & Elementary	35	24%
Other	12	9%

Average Age	Gender	
34 years	70% male	30% female







On-going Employee Training

## Local training, seminars & workshops

Participant	Organizer	Object/Title of the training	Date	Location
Hovig Kouyoumdjian Amine Jbeily Joseph Matta	Ministry of Agriculture	7th session of the FAO/WHO Coordinating Committee for the Near East (CCNEA7)	21-22/01/2013 21-23/01/2013 21-25/01/2013	Hilton Habtoor
Joseph Matta	NDU - Faculty of Natural & Applied Sciences	Cartagena Protocol on Biosafety & Biosafety Clearing House	12-13/02/2013	NDU campus - Zouk Mosbeh
Naji Abi Zeid	Ministry of Industry	Lebanese Food Industry Day	4/11/2013	Biel - Beirut
Siham Youssef	LIBNOR / ALI	ISO 26000 and Social Responsibility and Business Leadership	4/12/2013	The Association of Lebanese Industrialits, Beirut
Imad Hage Chehade	LCEC	BRSS event	4/23/2013	Hilton Metropolitan Hotel - Sin El Fil
Mohammad Hajjar	LCEC	National Roadmap for Building Energy Efficiency Indicators	4/24/2013	Crowne Plaza Hotel, Hamra, Beirut
Mohammad Hajjar	LCEC	The National Knowledge Exchange workshop on Wind Projects Planning	5/9/2013	Crowne Plaza Hotel, Hamra, Beirut
Sélim Kfoury	Ministry of Economy & Trade / Presidency of Council of Ministers	SMEs Development Going Forward	5/14/2013	Grand Serail
Imad Kahil	LIBNOR	WTO and Good Regulatory Practices and Managing and Participating in International Standardization	30-31/05/2013	Crowne Plaza Hotel, Hamra, Beirut
Wissam Abi Abboud	QUALEB	Market Surveillance Risk Management	3-6/06/2013	Ministry of Economy and Trade
Elie Melky Raymonde Khazzaka Edgsrd Shaaya Joseph El Helou Sami Harb Robert Haddad Achraf Arabi	QUALEB	Metrology training on Non-Atomic Weighing Instruments (NAWI)	10-12/06/2013	Monroe Hotel, Beirut
Camelia kanaan Hiba Yaacoub Mirna Chehab Fadi Melhem	QUALEB	ISO 17025 training	17-20/06/2013 17-20/06/2013 17-18/06/2013 19-20/06/2013	Monroe Hotel, Beirut

Participant	Organizer	Object/Title of the training	Date	Location
Achraf Arabi Said Yazbeck Joseph Helo Sahar Estephan Elias Bechara Mohammad Zeaiter	QUALEB	ISO 17025: Internal audit training	27-29/08/2013	Markazia Hotel, Beirut
Hovig Kouyoumdjian	Ministry of Agriculture	ادارة الدستور الغذائي على المستوى الوطني	8/28/2013	Ministry of Agriculture, Beirut
Siham Youssef	Beirut Energy Forum 4th edition	LCEC	26-27/09/2013	Hotel Le Royal - Dbayeh
Siham Youssef	المرأة / LIBNOR العربية	تعزيز المسؤولية الاجتماعية و»الدور التنموي «للبلديات	10/25/2013	جمعية الرسالة الاجتماعية - عاليه
Khaled El Ghoul	WEBCO	Commissioning of 2x500TR of Absorption chillers	10/28/2013	AUB
Hovig Kouyoumdjian Halim El Bayeh Robert Haddad	QUALEB	PT training course on «the awareness of iSOIEC 17043 and the operation of ISO/IEC 17043»	29-31/10/2013	Markazia Hotel, Beirut
Mahmoud Amhaz Ahmad Habli	ELCIM	Work Improvement in Small Enterprises (WISE)	29-31/10/2013	Rotana Gefinor Hotel - Beirut
Naji Abi Zeid	LCPS / Ministry of Environment	الاعتبارات البيئية لتطوير قطاع البترول في لبنان	11/26/2013	Ministry of Environ- ment - Beirut
Ziad Moukarzel	ELCIM	Knowledge Management	11/27/2013	ESA - Clemenceau
Eliane sawma Awad Jihad Hage Chehade	Institut des Finances	أدوات الحاسبة العمومية وتقنياتها	9-12/10/2013	Institut des Finances - Corniche el Nahr

### **Local meetings & inaugurations**

Participant	Organizer	Object/Title of the training	Date	Location
Thomas Sabbagh	Institut des Finances	Launching ceremony of the certified training courses in public procurement	10/21/2013	Institut des Finances - Corniche el Nahr
Mohammad Hajjar	CCIB	SHAAMS launch workshop	11/12/2013	Rotana Gefinor Hotel - Beirut
Joseph Matta	UNDP	Climate Change Coordination Unit (CCCU) meeting	12/9/2013	Ministry of Environment

#### IRI SEMINARS/CONFERENCES

Participant	Organizer	Object/Title of the training	Date	Location
Sahar Estephan Mohamad Zeiter Maya Majdalani Elias Bechara Hanine Abdel Rahman	FREA	Internal audit for ISO 22716	7-8/03/2013	
Robert Haddad Hanine Abdel Rahman Elias Maalouf Joseph Helou Edgard Shaaya	IRI	Expert mission on technical assistance for laboratory accreditation as per ISO 17025	13- 17/05/2013	
Mohammad Hajjar	FREA	ISO 50001	16- 17/04/2013	
Hanine Abdel Rahman Siham Youssef Thomas Sabbagh	LCPC	National Workshop on the best techniques for the Mediterranean (BAT4MED)	7/8/2013	

### MISSIONS (Trainers, Experts & Speakers)

Participant	Organizer	Object/Title of the training	Date	Location
Joseph Matta	EUROLAB	EUROLAB General Assembly and Annual Meetings	8-9/04/2013	Woerden, Netherlands
Sélim Kfoury	AIDMO	الاجتماع (13) للجنة التنسيق لمؤسسات ومراكز البحوث الصناعية	23- 24/06/2013	Cairo, Egypt
Amine Jbeily	ISTA	ISTA Congress & General Assembly 2013	12- 18/06/2013	Antalya, Turkey
Tarek Hakim	German Welding Society	66th IIW Annual assembly	12- 17/09/2013	Essen, Germany
Joseph Matta	EUROLAB	EUROLAB National Members meeting	7-8/10/2013	Austrria, Vienna

#### International

Participant	Organizer	Object/Title of the training	Date	Location
Tarek Hakim	IAEA	Scientific Visit	8-12/07/2013	Berlin, Germany
Elias Maalouf	PTB	Middle East Regional Workshop	9-11/04/2013	Cairo, Egypt
Maroun Saikaly	Bizreconsulting	Electrical & Electronics Engineering Conference 2013	4-8/02/2013	Long Beach, USA
Naji Abi Zeid Rola Sleiman	FOSTEr in MED Project	FOSTEr Kick off	25-26/02/2013	Italy
Bilal Houssein	Bureau Veritas (Lebanon) / MELTTS (Jordan)	Theoretical & practical training in the LVD requirements and its application	25-30/05/2013	Amman, Jordan
Hanine Abdel Rah- man Wissam Abi Abboud	AIDMO	ورش عمل تدريبية للكود العربي للممارسات الجيدة في مجال التقييس	9-10/06/2013	Cairo, Egypt
Antoine Fayçal	AB Certification	Evaluation des dossiers de marquage CE	21-22/06/2013	Paris, France
Ahmad Hassan	Bivac	IEC 60065 & IEC 60335-1 training	29/09-03-10/2013	Jeddah, KSA
Hanine Abdel Rah- man	Swedac	Quality Infrastructure for Food Safety	17/11-13/12/2013	Sweden
Hanna Francis Manale Tabanji Ahmad Habli	International Labour Organization	Work Improvement in Small Enterprises	30/11-5/12/2013	Amman, Jordan

#### **LIBNOR**

Participant	TC No.	Standard Title	Date
Mohammad Zaiter	22	NL ISO 4926	6/11/2013
		NL ISO 4925	09/072013
Mohammad Zaiter	28	NL EN 589:2008	6/12/2013
			7/4/2013
			7/16/2013
			8/14/2013
Mark Tahchy	155	NL EN 13244-1	6/18/2013
		NL EN 13244-2	7/9/2013
		NL EN 13244-5	7/23/2013
Danielle Gemayel	106	ISO 11609:2010	6/19/2013
Sahar Estephan	47	NL 783: 2013	27/06/2013 &
		NL 789: 2013 & NL 788: 2013	15/07/2013
			7/15/2013
Mark Tahchy	59	CEN/TR 13548:2004; EN 120002:2008; EN 12003:2008;	6/26/2013
		EN 12809-1:2008>EN 12808-5:2008; EN 1308:2007; EN	
		1323:2007; EN 1324:2007; EN 1346:2007; EN 1348:2007; EN	
		13888:2009; EN 14891:2012	
Dany Tahchy	31	NL ISO 4000-1; 4000-2	6/13/2013
			7/3/2013
Danielle Gemayel	106	ISO 16408:2004	7/10/2013
Dany Tahchy	165	NL EN 1123-2; NL EN 1124-2; NL EN 1124-3	6/20/2013
			7/11/2013
Robert Haddad	176	ISO 18420	6/27/2013
Sahar Estephan	47	NL 784:2013, NL 787:2013	22/08/2013 &
Raymonde Khazzaka	47	NL 784:2013, NL 787:2013	16/09/2013
			10/9/2013
Antoine Fayçal	59	ISO 12006-2/3	8/29/2013
Mark Tahchy	181	EN 71-1:2011	20/08/2013 &
			17/09/2013
Mark Tahchy	155	NL EN 1401-1:03-2009	9/12/2013
Mark Tahchy	155	NL EN 1452-1:2001 & NL EN 1452-2	12/09/2013 &
			24/10/2013 &
			07/11/2013
Dany Tahchy	3001	ISO 15001:2012	10/7/2013
Dany Tahchy	3001	ISO 14646-1:1999	07/10/2013 &
			28/10/2013
Andre Kahaleh	181	EN 71-5:2013, EN 71-7:2002, EN 71-8:2011, EN 71-2:2011	10/22/2013
Mark Tahchy	155	NL EN 1401-2:2001 & NL EN 1452-3-4-5:2001	12/11/2013
			24/10/2013 &
			07/11/2013
Halim El Bayeh	181	EN 71-9:2005, EN 71-10:2005, EN 71-11:2005, EN 71-9:2013	12/17/2013

## Internal training & audit

Participant	Object/Title of the training	Date
Achraf Nasser Eddine	Compact fluorescent lamp test according to IT/ELC/37	1/28/2013
Marc Cherfane	Training in the Petroleum and Paint laboratories	1/03/2013 -
		03/06/2013
Ahmad Hassan	Uncertainty estimation	5/16/2013
Ahmad Hassan Bilal Houssein Achraf Nasser Eddine	Circuit Breakers testing	17-20/06/2013
Said Yazbek Fadi Melhem	Performing the protection against water & dust	26-27/03/2013
Ahmad Wehbe	Performing the resistance to heat of the plug R sockets	11/5/2013
Elias Maalouf Joseph El Helou Edgard Shaaya	Installation & training on susceptometer	18-20/12/2013





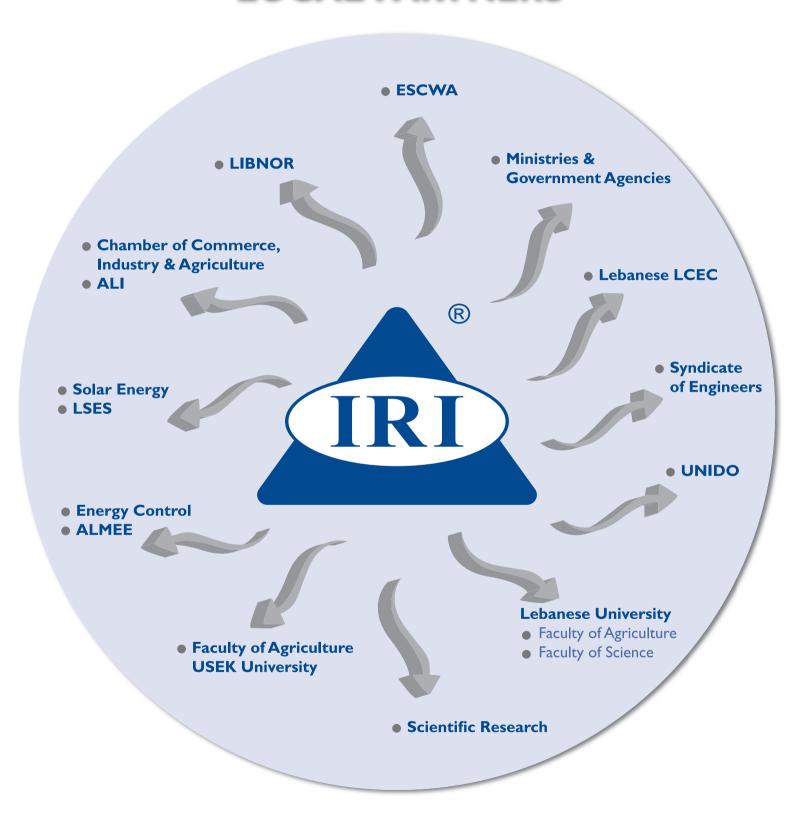
# 12

International es Local Partnerships

## **INTERNATIONAL PARTNERS**



## **LOCAL PARTNERS**





# 13

Decrees, Laws and Decisions

### Decrees

6.11	Official N	Official Newspaper		Decree	
Subject	Date	lsse	Date	Issue	
National binding specifications related to the food industry.	28/01/2013	6	7/2/2013	9805	
National binding specifications related to the electrotechnical industry.	21/2/2013	8	4/2/2013	9847	
National binding specifications related to the construction industry.	21/2/2013	8	4/2/2013	9846	
Appointment of the board of directors of The Lebanese Standards Institution (LIBNOR).	14/2/2013	7	11/2/2013	9859	
National binding specifications related to the medical equipment and instruments industry.	11/4/2013	15	22/03/2013	10155	
Conclusion of a Memorandum of Understanding between the Ministry of Industry of the Republic of Lebanon and the Ministry of Commerce, Industry and Tourism in the Republic of Cyprus.	11/4/2013	15	22/03/2013	10186	

#### Decisions

Cubina	Official N	ewspaper	Decree	
Subject	Date	Isse	Date	Issue
Related to the regulation of imports and usage of various medical items.	12/02/2013	165/1		
Formation of the Industrial Research Institute's Board of Directors.	11/3/2013	38/1		
Related to the regulation of imports and usage of various medical items.	16/4/2013	455/1		
Necessary conditions for packaging, packages, and packaging materials for fresh agricultural products.	14/5/2013	474/1		
To all public administrations and institutions, municipalities, union of municipalities and works boards on compliance with the national standards and specifications.	5/10/2013	28/2013	44	10/10/2013

#### Circulars

	Official Newspaper		
Subject	Date	Isse	
To all public administrations and institutions, on supporting the implementation of quality system in the public sector.	2013/02/01	4/2013	
To all public administrations and institutions, municipalities, union of municipalities and works boards on compliance with the national standards and specifications.	2013/11/05	28/2013	



## 14

Communication and Media



## «إسبلنت» جالت في معهد البحوث الصناعية الفرن: استحق منح شهادات الاعتماد في شؤون التحقق

بيقدّم معهد البحوث الصناعية، الخدمات ويضع إمكاناته في تصرف الحاجات العلمية والبحثية ودراسات الجدوى الاقتصادية، في سبيل دعم المؤسسات والاقتصاد اللبناني من خلالما، ويتعاون المعمد مع المؤسسات الشبيمة الناجحة عالميا وخصوصاً الاوروبية منها، فبات سفيراً لما في بلدان افريقيا وغيرها،

استحق مقوق من خدلاته؛ (يبتغاون المفعدة م المؤسسات السيهمة الناجعة عاليها وخصوصا الروزونية ميغاه نيات سفيرا لعا فاستحق مقوق من شمادات الاعتماد الدولية في شرقون التنقية مولة أرئيس جمعية مستوردي مستلومات الانتاج الزراعي وتجارها «اسبلنت» هذا الكلام للمدير العام المعامدة في أنام القرن الذي تدخير أن الأبحاث والدراسات، في حضور معبلة مشاوردي مستلومات ميشال عقل وأعضاء الجمعية، في أنحاء مفترات ومراكز الأبحاث والدراسات، في حضور معثل منظمة «القار» على مومن وعدد من الخبراء والباحثين العلميين والزراعيين، وذلك الإطلاع على أنشطة المعمد وما يقوم بد من أبحاث ودراسات ونتالج مخيرية، تمهيداً لأرساء علاقة ثابتة من التعاون بين العمدة والجمعية

تقوم على الشركة والتنسيق بغية تفعيل النمو الاقتصادي الزراعي. وأشاد عقل بالمعمد «الذي بلغ مرحلة من الغنى في مماراته البشرية، والتفوّق في مختبراته التي بات يعتمدها عدد كبير من المؤسسات العالمية في هذا الحقل، كذلك نال شهادات عدة في الجودة والاتقان تتطابق مع المعايير الدولية، حتى أصبح الاول من نوعه في لبنان ودول المحيط منذ عام 2004



#### النظم والمجتمعات المعولمة تتطلّب تحديث المؤسسات



كرّم معهد البحوث الصناعية عدداً من كوادره وموظفيه في لقاء عام برعاية وزير الصناعة فريج صابونجيان وحضور أعضاء مجلس الادارة رئيس اتحاد الغرف محمد شقير، رئيس الجمعية اللبنانية لتراخيص الامتياز شارل عربيد، روبير دباس، سامي نصر، رئيس مجلس ادارة مؤسسة المقاييس والمواصفات حبيب غزيري، والموظفين. وقال المدير العام للمعهد بسام الفرن: نجح معهد البحوث الصناعية مرة جديدة بفضل التزام موظفيه وتفانيهم بمواجهة التحديات وتجاوز المرحلة الصعبة التي شهدها لبنان طوال العام 2013. وكنتم العلامة الفارقة وأثبتم عن جُدارة مقدرات كبيرة وظفتمُوها لخدمة قطَّاع الأعمال في لبنان، واضعين نصب أعينكم أولأ مصلحة الاقتصاد اللبناني ونموه وحماية المستهااي

#### صابونجيان

وقال صابونجيان نودٌع هذا العام وقد تجاوزنا فيه مراحل صعبة، سياسية واقتصادية وأمنية، بفضل وعي اللبنانيين وتضامنهم ووحدتهم. ولفت الى أن المعهد أصبح مؤسسة كبيرة ويتنوّع نشاطه ليشمل الأبحاث والفحوص المخبرية. فتستفيد من هذه الخدمات مروحة واسعة من رجال الأعمال والصناعيين والتجار. ولكن هدفكم الأول هو ضمان مصلحة المواطنين. وأضاف صابونجيان: من أجل تحديث الصناعة وتطويرها عبر الدراسات والاستشارات، أنتم مؤتمنون على صحة الناس وسلامتهم من خلال التأكد من ملاءمة المنتجات مع المعايير والمواصفات الموضوعة. وهذا دور كبير عليكم أن تقوموا به بضمير حيّ وحس بالمسؤولية. وأضاف بدوركم الرقابي، تشكلون الحاجز والرآدع أمام الإغراقُ والُغش والتلاعب والتزوير. نعيش اليوم في نظام العولمة الاقتصادية والإتصالات المفتوحة، ولكُنّ مُجتمعاتنا بْاتُتْ أَيْضاً مُعولمَة. وهذه التغيّراتُ تُتطلب منا تحديث مؤسساتنا في لبنان لنواكب التكنولوجيا المتسارعة. هذا ما قمنا به في مؤسسة المقاّييس والمواصفات وفي معهد البحوث الصناعية حيث شكلّنا مجلس إدارة جديداً للمعهد وفق رؤية تطويرية ومنطق تغييري صالح لمتطلبات اليوم الحاضر، ومهيّأ لتحديات المستقبل. هكذا نعمَلُ لَبناء الدولة العصرية. نتطلع قريباً إلى افتتاح مكتب تمثيلي للمعهد في غرفة التجارة والصناعة والزراعة في بيروت.

#### IRI facility planned in Hadath

More than 300,000 tests performed last vear



#### f 🔽 in 🖂

The Industrial Research Institute (IRI) has concluded feasibility studies to establish a new facility in the Lebanese University's Hadath campus. Bassam Frenn, Director General of the IRI, said construction has been delayed because of the instable political situation. "The new building will meet the big demand on the institute's services," he

The facility will stretch over 7,000 square meters and create about 100 jobs. The cost of investment in the building, excluding the equipment, will reach \$10 million, funded by the IRI.

Internal operations at the IRI labs increased from 286,000 in 2011 to 311,000 during 2012, according to the institute's annual report. Frenn said the IRI was working at full capacity despite difficult economic conditions.

Frenn said that rising demand for the IRI's services "is due to the increase in issued Lebanese standards. In addition, traders are diversifying the types and kinds of goods imported."

Last year the IRI had established the innovation and technology center, which aims to encourage creative people implement their ideas for industrial projects. In collaboration with the European Union, the center could grant \$13,000 for every project. "The center has funded about 14 projects so far, and six new projects will be funded in coming months."

Reported by Rania Ghanem





لساه مياقية بزير اقدر

الرئيسية اقتماد الفرن ترأس لجنة المفاوضات مع الاتحاد الأوروبي: لمقاربة تشريعات البنية التحتية لل

#### الفرن ترأس لجنة المفاوضات مع الاتحاد الاوروبي؛ لمقاربة تشريعات البنية التحتية للجودة مع التشريعات الاوروبية

الثلاثاء 15 كانون الثاني 2013 الساعة 14:52

وطنية - عقدت اللجنة الوطنية للتحضير لبد،
المفاوضات مع الاتحاد الأوروبي حوا أنفاقية
تقييم المطابقة والقيوات المتبدات للسلع الصناعية
المحتوات المتابعة المقدير العام لمعقود
المحتوات المتابعة الدكتور بيسام الفرن، بعدماً أصد
رئيس مجلس الفرراء تجيير مهلك قرار رقم
المحتوات المواكلة اليها، وشارك في
الاجتماع ممثلوت عن وزارات: الصناعة، الخارجية
العامة، مؤسسة المقاليس والمواصفات، معهد
البحوث الصناعة، نقابة المهندسين في بيروت،
اتحاد عرف التجارة واصناعة والرراعة وجمعية



وجرى عرض سريع للتقرير الرابع الذي رفعته اللجنة وخلاصته ان بدء المفاوضات ستتركز على قطاعات الاجهزة الكهربائية والمعدات والاجهزة الميكانيكية ومواد البناء، وستتولى اللجنة تحديد التشريعات اللبنلية ذات الصلة لمقاربتها مع التوجيهات المقاربة الجديدة، وتحديد المساعدات الغنية التي تحتاجها الادارات والجهات المعنية بالقطاعات ذات الاولوية.

وركر الغرن على أن "التوصل الى ايرام لتفاقية تقييم المطابقة والغيوف المتبادل للسلع الصناعية مع الاتحاد الأوروبي يوجب العمل على مقاربة التشريعات الوطنية المرتبطة بالنيبة التحتية للجودة في لبنان (Quality Infrastructure) مع التشريعات الأوروبية. كما أن البنية التحتية للجودة في لبنان مرتبطة بشكل اساس بالمجاور التالية: الاعتماد، التقييس، تقييم المطابقة، المترولوجيا، مماقية الاسماف".

وتقل تحيات وزير المتناعة فريج صابوتجيات التي اعضاء اللجنة وتمتيلته لهم ب"التجاح والعمل المتواصل لمساعدة المتناعة الليتلنية على فتح اسواق جديدة امامها".





#### الغرن في التقرير السنوي لمعهد البحوث الصناعية 2012: ارتفعت عمليات مختبراته من 286 الغاً إلى 311 ألغـا

المركزية- أصدر معهد البحوث الصناعية تقريره السنوي 2012 چول نشاطه ومشاريعه، وفيه كلمة لمديره العام الدكتور بسامـِالفرن مما جاء فيها: "لئن يتعثرت نشاطات مراكز البحوث العربية، انسحابا على المناخ

غير المستقر في بلدانها، وخصوصا القريبة من لبنان، مثل سوريا، فإن المعهد لم يغتْ عن نشاطات سجلتها دول ذات استقرار عسكري وسياسي مثل المغرب، واستقباف نشاطات المشاطة العربية للتنمية المناعية والتعدين. لكن النشاط الخارجي الأمثل للمعهد، تمثل في مسلوكتنا من ضمن فاعليات مؤتمرات وورش عمل وندوات نظمت في اوروبا، آسيا وغيرها. ونظرا الى كون لبنان صار اول بلد غير اوروبي ينضم الى الجمعية العامة لجمعيات المختبرات الوطنية للقياس والفحوس والتحاليل المخبرية، ساهمنا في لقاءات عقدت في تيدينغتون في بريطانيا. وكان لنا حضور في ورشة عمل حول تشريعات جديدة في السوق المحلي وعززنا المتمانا في موضوع الطاقة المتجددة والاقتصاد الاخضر، سواء على العمي حيث ساهمنا في الموضوع الطاقة المتجددة والاقتصاد الاخضر او على الصعيد المحلي بإنشاء برنامج رائد لتوليد الطاقة الكهربائية من الطاقة الشمسية. كذلك اشتركنا في صوغ مقررات لقاء الشبكات التجارية العالمي لبرنامج التعاقد من الباطن والشراكات، وفي مؤتمر التعاون عبر الحدود في حوض البحر الابيض المتوسط، وغيرها ...

وامتلاً نشاطنا برغبة عارمة وعزم صلب لجعل المعهد ينخرط اكثر فأكثر في بلورة الإبداع على الصعيد المحلي، فكان ان أضاف الى هيكليته المتنامية سنة عن سنة، مركز الابتكار والتكنولوجيا، وهو مركز يُعنى بالطاقات الشابة، لا سيما بمشاريع صناعية تقدم في الجامعات، فيشجع مقدميها ومبتكريها على ان يضعوها قيد الاستخدام، فيتبناها ويقدم منحة مالية سنفها الاعلى عشرة آلاف يورو للمشروع الواحد... وذلك من ضمن مشروعه "قسيمة الانتكار".

كذلك تفادينا ان ينعكس الوضع الاقتصادي المتردي على صعيد الداخل اللبناني، تراجعاً في نشاط مختبرات اساسية في معهد البحوث الصناعية. فتداركنا ان يؤثر في النشاط الاجمالي للمختبرات، وهي قاربت التشبع في العمل بكامل طاقاتها وقدراتها، ما يدفع الى مزيد من التوسع في تجهيزاتها، وتنمية النشاط المستمر فيها. وللتأكيد، ارتفعت العمليات الداخلية في مختبرات المعهد، من 266 الفا في 2011 الى 311 ألف عملية في 2012، بازدياد 25 الف عملية نسبتها 8.8 في المئة. ودرس المعهد نحو 38 ألف ملف جمركي ودفق فيها، من ضمن مهمات الولاسات العام 2005، وتقضي بأن يتأكد من مطابقة المنتجات المستوردة، للمواصفات القياسية اللبنانية الإلزامية".



#### صابونجيان رأس الاجتماع الاول لمجلس معهد البحوث الصناعية



رأس وزير الصناعة فريح صابونجيان امس الاجتماع الاول لمجلس ادارة معهد البحوث الصناعية الذي شكله يتاريخ (2020). 1 ألى مخصور منير علم المعهد بسام القرن، ومشاركة ننائب الرئيس رئيس جمعية الصناعين نعمة افرام، والاعضاء: رئيس غرفة التجارة والصناعة والزراعة في بيروت وجبل لبنان محمد شكير، نقيب المحامين في بيروت نهد جبر، نقيب المهندين إيلي بحسيص، رجل الاعمل روبير دباس، رئيس الجمعية اللبنائية لتراخيص الامتياز شارل عربيد، عضو مجلس ادارة جمعية الصناعين سركيس بوداكيان، والاستاذ الجامعي في علوم المختبرات سامي نصر.

ورحب صابونجيان بالاعضاء الجند مثنيا على «دور الاعضاء القدامي في مجلس الادارة».

وقال :»انني متأكد أن الجميع يعي أهية الدور الذي يلعبه والمنتظر منه على الصعيد الاقتصدي الوطني العام وأذ تتعاظم السبووليات السقاق على المعيد المستفارية أو مختبرية وقحصية، نعلم عام البقين أن الكوادر في المعيد المسهود إلى المعيد على اداء المعيد على اداء المعيد على احسن وجه ولكن اختباركم كاعضاء مجلس ادارة سيعطي قيمة مصنفة لتشاط المعيد بما تشاور من المنافقة في نقابة المهديدين ونقابة السحامين وغرفة التجارة والصناعة والزراعة وجمعية الصناعيين ورجال الاعمال والقطاع الاكاديمي. ومطلوب منا أن نتعاطى مع المعيد على درجة عالية من المسؤولية والاحتصام والعناية والخناية والاختراف. أي المحافظة وحماية مجال التحرف الذي يشتم به المعيد انطاقاً من المحافظة على مصدلح الناس. لقد البت المكثور القرن نجاحة وهو يدير هند المؤسسة مع جميع الموظفين العاملين بفاعلية ونينامية ومرونة كبيرة, يننا ممدودة الي جميع الناس يريفون نجاح المعيد وتطويره ونحن في الوقت نفسة حريصون على حماية أسواقنا الناخلية والخارجية من أي سلعة لا تتشتم بالمواصفات والمعايير.





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