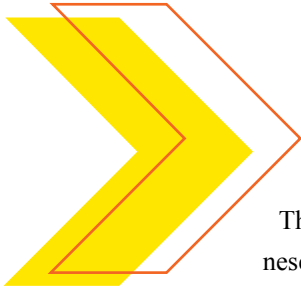






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IRI: ITS PURPOSE & FUNCTION

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 interest. 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.

FOREWORD BY THE DIRECTOR GENERAL



The Industrial Research Institute: Full of Vigor and Activity

2012 was no ordinary year, both internationally and regionally. Despite its eventfulness, we attempted, through a balanced plan, to maintain the activities of the Industrial Research Institute (IRI) at the peak levels achieved previously. We managed to surpass those levels in some respects, in addition to maintaining them in others.

While the activities of Arab research centers have suffered setbacks, as a result of the instability and unrest in Arab countries, particularly those close to Lebanon such as Syria, IRI was present at events organized in politically stable countries such as Morocco – which hosted the events of the Arab Industrial Development and Mining Organization (AIDMO).

The most prominent IRI activities include our involvement in events, conferences, workshops, and seminars in Europe, where we represented Lebanon in general and IRI in particular, actively contributing to and participating in them. We were an intrinsic part in the organization, discussion, and drafting of decisions at the level of major European capitals such as London, Paris, Brussels, Prague, and countries such as Italy, Asia, and others, as well as in Euro-Mediterranean organizations.

In light of Lebanon becoming the first non-European country to join the European Federation of National As-

sociations of Measurement, Testing and Analytical Laboratories (EUROLAB), we took part in meetings held by the federation in Teddington, UK. We were also represented in a workshop on new legislation in the internal markets (worldwide).

We strengthened our focus in the domain of renewable energy and the green economy, both at the global level – where we took part in the international exhibition and conference dedicated to renewable energy and green economy (SOLAREXPO) – and the local level, by establishing a pioneering program to generate electricity from solar energy.

We also participated in preparing the decisions of the Subcontracting and Partnership Exchange (SPX) Global Networking meeting and the Mediterranean Program Mid-Term Conference among other events.

Additionally, we worked to fulfill our strong desire to boost IRI's involvement in creativity and innovation locally. This culminated with the addition of the Centre for Innovation and Technology (CIT) to IRI's many growing edifices.

CIT's emphasis is on innovators and their efforts, particularly concerning industrial projects developed at

universities. CIT encourages innovators and designers to put such endeavors to practice by providing financial grants of up to 10,000 Euros per project, as part of its Innovation Voucher Program.

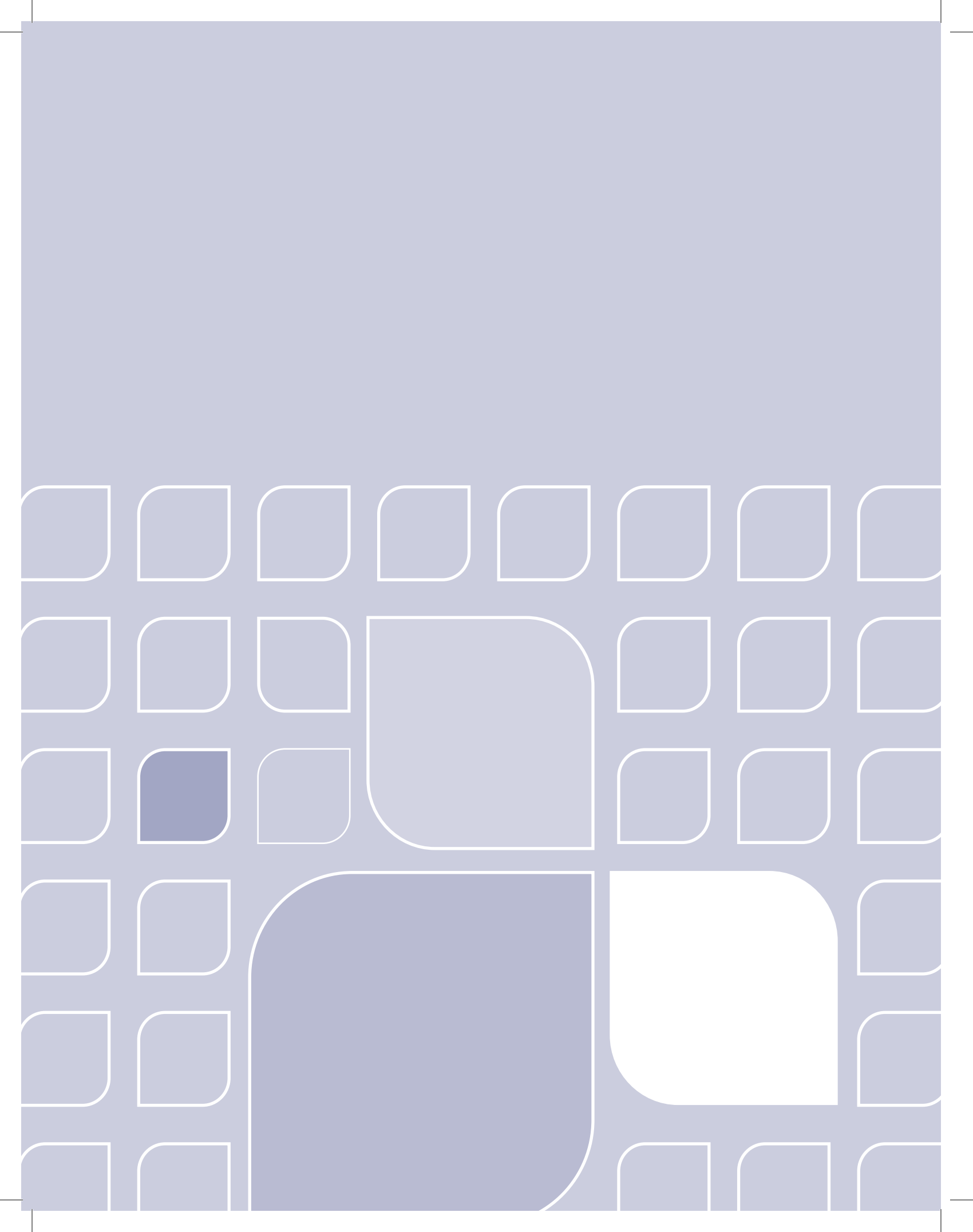
We also avoided having the economic downturn in Lebanon reflect in a decline in IRI activity, especially its key laboratories. We took measures to avert any impact on the overall activity of the laboratories, which are near saturation and are working at near full capacity. This has prompted further expansion in their equipment and development of their continuous activity.

To be sure, internal operations at IRI laboratories rose from 286 thousand in 2011 to 311 thousand in 2012, growing by 25 thousand operations or an 8.8 % increase. In addition, the number of customs files studied and verified at IRI reached nearly 38 thousand, a task it has been entrusted with since 2005, requiring IRI to ensure that imported goods comply with the mandatory Lebanese standards.

We have opted to present these activities and others in detail in our annual report. In the end, we regret that regional activities have declined, with Iran being the exception, and aim to compensate for this in the future when security conditions improve.



➤ **BASSAM FRENN** ◀



1

OFFICIAL ACTIVITIES

THE INDUSTRIAL RESEARCH INSTITUTE HAS ACHIEVED SUCCESS, EARNED ACCLAIM AND ACCOLADES

The Minister of Industry, Vrej Sabounjian, at IRI's Annual Dinner: "IRI's success is proof of the challenge you faced with determination"



The Minister of Industry giving his speech, to his right are Dr. Bassam Frenn and Minister Elias Hanna (seated)

Minister of Industry Vrej Sabounjian continues to extend his support to the activities of the Industrial Research Institute (IRI) and its cadres, who have managed to elevate IRI in 15 years from almost nil to a level of activity that made it worthy of acclaims and accolades from many international organizations.

Sabounjian, also the Chairman of IRI's Board of Directors, offered his backing on more than one occasion to the efforts led by the IRI Director General Dr. Bassam Frenn and the staff of IRI, and commended them for their work and their cooperative attitude.

The minister visited IRI and supported several activities organized under his auspices by the Institute in 2012 – a year which began with his sponsorship of an event held by the IRI Director General, on the occasion of the new year. The event was attended by former Minister Elias Hanna and IRI staff.

At the event, Sabounjian delivered an address, and said, "I congratulate all the staff at the IRI, led by Director General Dr. Bassam Frenn, for all their efforts in their

work. I believe that the institution that ensures sustainability and financial stability and provide new jobs in difficult economic conditions deserves and its staff deep appreciation and praise."

He added, "Industry in Lebanon requires you to make additional efforts to keep pace with modernization and progress. The institute's success is evident: it started from scratch 15 years ago, with almost non-existent potentials and with less than ten employees; now, you are 140 employees. This is evidence of the challenge you accepted to face with full determination, out of your belief in this institution and its leading role in embracing the national industry. The Institute has received important prizes last year, and I am confident that you are able to win other prizes, if you continue to work with the same dedication, sincerity and perseverance."

Sabounjian continued, "Some criticize the work of the government. We respect all opinions. Lebanon is a democratic country and has a free economy and encourages individual initiative to the maximum extent. But everyone

has to admit that this government has been able to ensure stability in Lebanon and for all the Lebanese, despite the economic crisis and turmoil in the region and the world. I consider stability to be the most important achievement of the government, which is working seriously and responsibly.”

“I congratulate you on the new building and I am ready to provide full support and assistance as long as I am chairman of the Board of Directors of the IRI.”

Frenn: The evolution of the Institute has required further expansion

The IRI director general spoke about what has been achieved during the past 14 years, and how this contributed to developing the Institute and equipping with cutting-edge laboratories. He also spoke about links between the IRI and several international institutions and laboratories, and the fact that the Institute has provided jobs for more than 100 engineers, experts, technicians and administrators.

Dr. Frenn recalled “the difficulties encountered in the previous phase, because of certain circumstances and a lack of funding.” “But determination and cooperation helped the institutions succeed, and made it productive rather than a burden on the state.”

Dr. Frenn explained the role that “the IRI played at the level of cooperation with the Standards Institution (LIBNOR), issuing more than 1,000 standards within four years.”

He said, “We expected earlier that we would not need to expand before 2015. But we developed rapidly, and our laboratories expanded. We also incubated the Euro-Lebanese Centre for Industrial Modernization (ELCIM), the Lebanese Center for Cleaner Production (LCPC), and the Quality Club, and assimilated new specialized cadres. [All this] has expedited the need for a new building for the IRI, which we will officially open soon under the auspices of His Excellency the Minister of Industry Vrej Sabounjian.



“We receive nothing but support and backing from the minister for our present projects and future plans, which are all based on serving industry and commerce, and protecting Lebanese consumers from local or imported products that are substandard.”

Dr. Frenn then concluded, “The IRI has achieved remarkable successes and won many international accolades, the latest of which was the excellence award from the Arab Administrative Development Organization (ARADO). We promise that that we will not suffice ourselves with these accomplishments, and will continue to seek more successes in 2012 with the continued support of Minister Sabounjian.”

SABOUNJIAN ATTENDS FINAL SESSION OF THE INTERNATIONAL CONFERENCE ON MATERIALS SCIENCE



Minister Sabounjian and Dr. Bassam Frenn among the participants in the conference

Foreseeing the importance of linking scientific and academic research with the needs of the labor market the Ministry of Industry develops ties between students and industrial institutions

Minister of Industry Vrej Sabounjian attended the closing session of the Eighth International Conference on Materials Science at the IRI, with the attendance of former Minister Elias Hanna, the Conference chairman and Dean of the Faculty of Agriculture at the Lebanese University Dr. Tayssir Hamieh, representing the President of the University Adnan Sayyed Hussein, Director General of the IRI Dr. Bassam Frenn, Chairman of the Board of Directors of LIBNOR Habib Ghaziri, Director General of LIBNOR Lina Dergham, and head of the LCPC Dr. Ali Yacoub, in addition to diplomats and Lebanese, Arab and foreign researchers.

The minister said, “I congratulate the Conference chairman Dean Tayssir Hamieh and the participants for the excellent organization of the conference. I hope that you have come to constructive conclusions, and benefited from the experiences of the foreign scientists and professors present, so that the Lebanese University can gather the best of the experiences of prestigious universities, research institutes, and laboratories in Arab, European and American countries.

“It is important to hold such conferences, in order for us to be in direct contact with cutting-edge industrial develop-

ments. This kind of interaction requires support from the state, the biggest incubator, for activities that contribute to building a knowledge-based economy, and foster integration of both theoretical and practical domains.”

The minister then added, “I am pleased that the conference is concluding at the IRI, a genuine partner for you in the world of studies, research, modernization, and innovation. This Institute is the technical arm of industry, and has evolved in the past ten years in a very rapid manner, forging strategic ties with research institutions and laboratories worldwide to serve the Lebanese industry.”

He continued, “Material science or engineering, the topic of your eighth conference, is considered one of the most important sciences in advanced industrialized countries. It is a constantly evolving science where research abounds to obtain new materials with special characteristics.

“The Ministry of Industry has foreseen the importance of linking scientific and academic research to the needs of the labor market, which is why the ministry sought to develop ties between university students and industrial institutions, and pushed for a more active role for Lebanese universities which are a source rich in high-caliber capabilities.”



Dr. Bassam Frenn (second from right) and Minister Sabounjian



Minister Sabounjian handing Dr. Bassam Frenn the conference shield

The minister then stressed that this progress achieved contributes to “giving more dynamism to small and medium enterprises, which are a majority in the economic sector in Lebanon.” He also urged “researchers and research centers to exchange information and expertise, support cooperation among technical centers specialized in industrial and technological development, and to not spare anything to achieve this goal.”

The minister said that competition should not be “an impediment to the exchange of industrial research aimed at the development of industrial production,” as the exchange of knowledge and expertise enriches all stakeholders involved.

Frenn: a quantum leap

Following are excerpts from Dr. Bassam Frenn’s remarks: “IRI, as a result of the quantum leap it has achieved, is considered a vital center for developing ideas, innovation and creative projects.” The director general then announced the imminent launch of the “Innovation Center at IRI, to be funded jointly with the European Union,” and “the fruit of renewed confidence in the Institute, its abilities and the skills of its staff.”

Dr. Frenn added, “In the world of research and studies, we must not let political problems or security incidents, nor even the economic crisis, affect our activities or hinder or delay the march of progress that we are pursuing... we are

in a fierce race in a globalized era where all borders and barriers have fallen.”

Conference chairman

Dr. Hamiyeh, conference chairman, said that the level of lectures in the present session was higher than in previous ones, which is indicative of the caliber of the participants and the benefit achieved from previous experiences, as he said. Dr. Hamiyeh called on the government to allocate one percent of the public budget for scientific research, which would be linked to the needs of industry. This would help develop the production cycle, and help Lebanon keep pace with the level of development it aspires to, Dr. Hamiyeh said.

Other speakers included: Director of the Center for Mechanical Engineering Research at Washington State University Professor Hussein Zbib, and director of the Center for Renewable Energy Research at the University of Tlemcen, Algeria, Dr. Boumédiène Benyoucef.

Awards

The awards handed out by the conference carried the names of: Hassan Kamel al-Sabah, Hafez Kobeissi, Rammal Rammal, as well as the Industrial Innovation Prize and the award for Best Poster for Scientific Research. The lectures focused on topics such as: materials, nano-materials, new materials, food technology, bioengineering, environmental engineering, renewable energy, and mechanical and electronic materials.

Dr. Frenn Promotes the Industrial Research Institute in International Conferences, Seminars, and Workshops

The Director General of the Industrial Research Institute, Dr. Bassam Frenn, is always keen on boosting IRI's footprint in international forums, particularly in Europe.

Dr. Frenn continuously supports efforts to foster participation by IRI in those forums, and contributes to the discussions, studies, and reports focusing on scientific subjects, pushing for their dissemination in other powerhouses, especially in the Mediterranean region.

Over the past year, Dr. Frenn attended several conferences and workshops along with officials and specialist engineers from IRI. During these events, IRI took part in coordination committees under Dr. Frenn's supervision.

In brief, the events are listed as follows:

- » EUROLAB General Assembly and Annual Meetings of the National Associations of Measurement, Testing and Analytical Laboratories. The event was held from 18 to 20 April, 2012 – Prague

- » Workshop on New Legislation in the Internal Market April 23, 2012 – Brussels
- » The third session of SOLAREXPO, the international exhibition and conference dedicated to renewable energy and green economy, held from 9 to 11 May, 2012 – Verona, Italy
- » Meeting of the Coordinating Committee of the industrial research institutes and centers in Arab countries held from 4 to 5 June, 2012 – Rabat, Morocco
- » Mid-Term Conference of the ENPI CBCMED held from 17 to 18 July 2012, –Rome
- » EUROLAB - National Associations of Measurement, Testing and Analytical Laboratories - National Members' Meeting 2012. Held from 8 to 10 October, 2012 – Teddington, United Kingdom
- » Subcontracting and Partnership Exchange (SPX) Global Networking meeting held on November 5, 2012 – Paris, France.

IRI participated proactively in these international events, detailed as follows:



EUROLAB General Assembly and Annual Meetings of the National Associations of Measurement, Testing and Analytical Laboratories

The National Associations of Measurement, Testing and Analytical Laboratories, under the aegis of the Czech Office for Standards, Metrology and Testing, organized the 2012 EUROLAB General assembly and Annual Meetings in Prague. Representing IRI were Dr. Bassam Frenn, Director General of IRI, and Prof. Joseph Matta, IRI's Laboratories Division Head. They attended the three-day event which began with the Technical Committee for Quality Assurance in testing and calibration (TCQA)

meetings on April 18, followed by the General Assembly on the 19th. The third day was dedicated to the EUROLAB seminar on "Product Safety - Market Surveillance and Accreditation," which concluded the event.

Topics covered during the seminar "Product Safety - Market Surveillance and Accreditation" included:

- » Laboratory services and market surveillance
- » General product safety directive
- » A future European market surveillance system
- » Developments in product testing
- » Risk assessment in food safety

Multi-Country Workshop on New Legislation in the Internal Market

The Technical Assistance Information Exchange (TAIEX) Instrument of the Institution Building unit of the European Commission, in cooperation with Directorate General of Enterprise and Industry, organized a Multi-Country Workshop under the title “New Legislation in the Internal Market” in Brussels, Belgium on April 23, 2012.

Dr. Bassam Frenn, Director General of IRI, represented Lebanon as the person responsible for drafting legislation for industrial products. The agenda of this workshop focused on the following topics:

- » Progress in the preparations and negotiations of the agreement on conformity assessment (ACAA)
- » RAPEX and MED-RAS
- » Implementation of the Decision 768/2008/EC regarding the alignment of NA Directives and the developments on accreditation and market surveillance
- » The reform of standardization in Europe: the Communication from the Commission on a strategic vision for European standards
- » Directive 2009/137/EC on Measuring Instruments
- » Directive 2009/125/EC on Eco design requirements for energy-related products



Dr. Bassam Frenn and Dr. Ali Yaacoub at the SOLAREXPO conference

Dr. Frenn and Dr. Yaacoub Part of the UNIDO ITPO International Business Delegation at the 13th edition of SOLAREXPO

Dr. Bassam Frenn, Director General of IRI, and Dr. Ali Yaacoub, Director of the Lebanese Cleaner Production Centre (LCPC) at IRI, visited the 13th edition of SOLAREXPO, the international exhibition and conference dedicated to renewable energy and green economy, held in Verona, Italy from 9 to 11 May, 2012.

SOLAREXPO is a must-attend event for anyone operating in the PV systems, solar thermal, wind energy, biogas and biomass sectors.

Frenn and Yaacoub were part of the UNIDO Investment and Technology Promotion Office's (ITPO) International Business Delegation to SOLAREXPO, where they held business-to-business (B2B) meetings with Italian entrepreneurs to find support for IRI's business needs.



Dr. Bassam Frenn & Mr. Sélim Kfoury



12th Meeting of the Coordinating Committee for Industrial Research Institutes and Centers in Arab Countries

As part of the activities of the Arab Industrial Development and Mining Organization (AIDMO), Dr. Frenn, along with the Administrative and Financial Director of IRI Salim Kfoury, participated in the 12th meeting of the Coordinating Committee for Industrial Research Institutes and Centers in Arab Countries, held in Rabat on 4 and 5 June 2012, at the invitation of AIDMO.

The meeting was attended by representatives of the following organizations:

- » Industrial Research Institute/Lebanese Republic
- » Ministry of Energy and Industry/Qatar
- » General Authority for Industrial Research and Development/the Republic of Iraq
- » Academy of Scientific Research and Technology/ Arab Republic of Egypt
- » National Center for Scientific and Technical Research/Kingdom of Morocco

- » Arab Organization for Industrial Development and Mining/Rabat

The agenda of the meeting included the following topics:

- » The implemented or planned activities and programs of the organization in the field of technological development
- » The activities and programs of members of the Committee in the field of innovation and technological development, both implemented or under implementation
- » Bilateral and multilateral cooperation among the members of the Committee in light of Arab developments
- » Projects planned by institutions and industrial research centers in the coming years in the field of research, development, and innovation with a view to enhance cooperation and coordination
- » Opportunities for training in the field of research and development at industrial institutions and centers and conditions for eligibility.



Mid-Term Conference of the ENPI CBCMED Mediterranean Basin Program: Challenges to Cross-Border Cooperation

Current and future challenges of cross-border cooperation in the Mediterranean were an important part of the discussions in which Dr. Bassam Frenn, Director General of IRI, participated, during the Mid-Term Conference of the Mediterranean Program, to learn about the results achieved by the Program and be informed about future perspectives of cooperation in the Euro-Mediterranean Region.

Current and future challenges of cross-border cooperation in the Mediterranean were the main focus of the program's conference, which took place in Rome on 17-18 July 2012.

Besides examining the results achieved so far by the Program, the Conference intended to constitute a platform for reflection and exchanges on future opportunities of cooperation in the Euro-Mediterranean region.

In the framework of the drafting of the new EU Regulations related to the Neighborhood Policy, the Conference aimed at analyzing to what extent this Policy, especially its cross-border component, has changed Euro-Mediterranean relations. The Conference is also designed to collect the expectations from the main concerned stakeholders in view of the coming 2014-2020 EU programming period.

More than 450 people from the ENPI Med community gathered in Rome on 17th and 18th July 2012 at the occasion of the Program Mid-Term Conference. Representatives of European institutions, governments, local authorities, the business sector and the civil society of both EU Member States and Partner Countries analyzed the results achieved by the Program and reaffirmed its importance as a tool to enhance cooperation in the Mediterranean region. The Conference was also followed live on the Program website by over 700 viewers.

Lebanon, the first non-European country to join EUROLAB

EUROLAB National Members' Meeting 2012

The Director General of the IRI, 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 associations of measurement, Testing and analytical Laboratories) General Assembly and meetings in Teddington, United Kingdom from 8 to 10 October, 2012.

The EUROLAB meeting revolved around the meetings of the Technical Committee, followed by the General Assembly, and concluded with a EUROLAB study session.

The topics discussed during the General Assembly meetings include:

- » Organization of EUROLAB
- » Technical Secretariat in EUROLAB

- » Technical committees and working groups
- » Information from associations related to EUROLAB.

The seminar focused on key points including:

- » Impact of EUROLAB definition certification requirements,
- » Certification as a service of general interest, actions, laws, pricing, and notification process,
- » Laboratory experience
- » The value of laboratory associations,
- » Providing quality calibration laboratories, testing and treatment.

During the meeting it was voted unanimously to hold the EUROLAB General Assembly in Lebanon at IRI in early April 2013.



Dr. Bassam Frenn between the president and president-elect of Eurolab

General Assembly in Lebanon

Dr. Frenn's efforts were not limited to attending the meeting. The IRI Director General assigned great importance to "EUROLAB's move to convene its general assembly and executive board next year (2013) in Lebanon," which signifies that the highest European authority at the level of laboratory tests and research has recognized IRI's commitment to fulfilling its functions according to the same standards and specifications that European laboratories officially recognize.

Dr. Frenn thanked the European members of EUROLAB for their confidence in the IRI, "the only member of EUROLAB from outside Europe," and for deciding "to convene the general assembly and executive board for the first time outside Europe," in Lebanon.

During his participation, along with the Head of the Laboratories Division, Dr. Joseph Matta, in the current session of EUROLAB which convened over two days in the British capital London, Dr. Frenn said, "Only three years have passed since the IRI has acceded to EUROLAB, during which we have been able to develop our work, upgrade our equipment, and meet European standards required to join the Federation – strict standards related to professionalism in work, calibration, examination, and inspection. I would also like to acknowledge the efforts of IRI cadres, engineers, researchers, and technicians who are improving their skills by participating in ongoing training sessions, whether in Lebanon or abroad."

Dr. Frenn said that the IRI would begin immediate preparations to host the event scheduled for April 2013, so that they can be up to the level of the high-caliber meeting.

SPX Global Networking Meeting

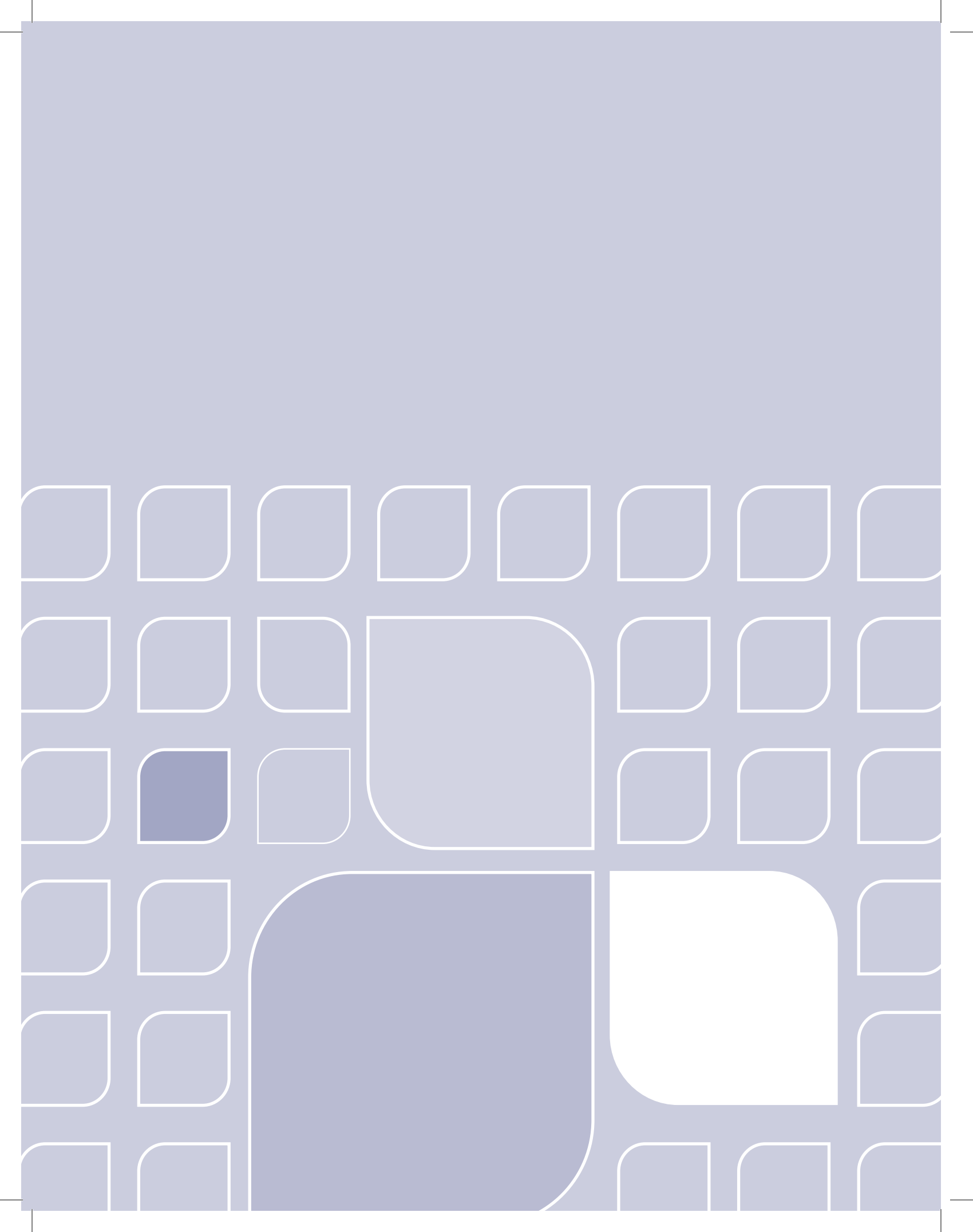
Given the importance of allowing the representatives of the Subcontracting and Partnership Exchange (SPX) to expand their relations in the Program's international network, and their engagement with participants in MIDEST, the Director General of IRI, Dr. Bassam Frenn, and the SPX Director, Mr. Antoine Faycal, attended the SPX Global Networking meeting held on November 5, 2012, in Paris, France.

The meeting was part of the regular networking events organized by UNIDO for its Global Network of Subcontracting and Partnership Exchange Offices. It was organized as a side event to one of the largest global industrial subcontracting exhibitions, MIDEST 2012. MIDEST attracts a wide range of global visitors including the world's leading multinationals in automotive, transportation, telecommunication, construction, electronics, energy and others and is open to leading subcontracting sectors such as the processing of metals, plastics, rubber, composite materials and wood, electronics and electrical appliances, micro-technology, surface treatments, finishes, industrial fastenings, and industry services.

The international SPX meeting brought together a number of worldwide SPX Centers. It provided UNIDO's SPX Network the opportunity to get an update on the implementation status of the Program as well as strategic approaches for existing and perspective new SPX members. It is specifically meant to allow SPX country representatives to further their contacts within the global SPX network as well as to broaden their contact base with the MIDEST enterprise participants through B2B partnership activities.

The objective of the meeting is to convene the country members of the international SPX network and give UNIDO the opportunity to present the status of the Global SPX Program implementation as well as provide information about the strategic approach for future program implementation.







IRI SERVICES AND ACTIVITIES

LABORATORY ACTIVITY

- Up to 1,000 tests and analyses each day
- Labs functioning at near full-capacity

The stagnant situation at COLIBAC and the rate at which Lebanese ministers are accrediting random laboratories and issuing decisions requiring their testing processes, in addition to economic downturn in the country have all led to a decline in activity in some key laboratories at IRI. However, it has not affected the overall activity of IRI laboratories, which are now functioning at near full-capacity. This alone will help sustain further expansion and upgrade of equipment and activities.

Internal operations in IRI laboratories have increased from 286,006 in 2011, to 311,185 operations in 2012 – a rise of 25,179 operations or an 8.8 percent increase.

Factoring in the growth trend seen in the past five years (2008-2012), annual increase stands at 28,780 operations, with an annual average rate of 16.8 percent. This rate is lower than the one recorded in the past 3 five-year periods, by one percentage point.

Contrary to this slight decline in the average rate (inversely proportional to the volume of work), the rate of daily operations exceeded 1,000 during normal work-

ing days, increasing from 600 operations in 2009, 800 in 2010, and 970 in 2011, respectively, across the board in IRI laboratories.

TESTS and ANALYSES

Overall, electrical engineering laboratories rank first in terms of the volume of operations, while civil engineering laboratories are seeing the biggest growth, relative to their activity in 2011. Operations in Textile, Leather and Rubber laboratories grew by 50 percent relative to 2011. Their overall impact remains limited, however, as their operations represent only 1.8 percent of total operations. Testing and analysis in these laboratories had fallen a year ago.

The on site activity of laboratories is detailed as follows:

Chemical and Physical Chemistry

Testing and analysis operations in Chemical and Physical Chemistry laboratories represent about 18.4 percent of the total operations, which numbered 57,218, marking a decline of 4127 operations compared to 2011, or 6.7%.

But operations in these laboratories achieved an average growth rate of 28.2 percent annually between 2008 and

Number of tests for each lab

Laboratories	2009	2010	2011	2012
Wet & Physical Chemistry	27,205	50,855	61,345	57,218
Microbiology	14,339	30,232	39,227	31,480
Textile & Leather	3,999	3,844	3,807	5,708
Paint & Petroleum	1,933	2,079	2,570	3,212
Civil Engineering & Soil	50,814	55,486	59,133	84,966
Electrical	65,061	66,266	90,829	111,339
Bread (CLBW)	11,241	12,957	12,375	9,396
Welding	14,335	14,808	16,720	7,866
Total	188,927	236,527	286,006	311,185

2012, one of the most remarkable growth rates seen across all laboratories.

Microbiology

Testing and analysis operations in Microbiology laboratories declined from 39,227 to 31,480, shedding 7,747 operations from the previous year, a decrease of 19.7%. Yet the volume of operations remained higher than in 2010.

Microbiology tests represent 10 percent of total operations, and have grown at an average of 26.5 percent annually over the past five years.

Textile, Leather and Rubber

Testing and analysis operations in these laboratories improved compared to 2011, rising in number to 5,708 – or 1,901 more than the previous year marking a 50 percent increase. The annual average increase in operations was 15 percent since 2008.

Petroleum and Petroleum Products

Testing and analysis operations in these laboratories represent 1 percent of the total operations of IRI laboratories. Their number reached 3,212 tests and analyses, an increase of 642 processes compared to 2011, or a percentage increase of 25 percent.

Their average annual growth was 21.6% since 2008.

Soil Mechanics and Civil Engineering

Considered one of the most active at the IRI, this labora-

tory saw a growth in its operations of about 44 percent relative to 2011. Its operations constitute upward of 27 percent of overall operations of IRI laboratories.

In 2012, 84,966 tests and analyses were conducted, growing at an average annual rate of 20 percent since 2008.

Electrical Engineering

Also among the most active labs at IRI, the electrical engineering laboratory alone accounts for more than a third of total tests and analyses at IRI. In 2012, its operations represented around 36 percent of total operations, or 111,339 tests.

Operations in this lab grew by about 22.6 percent compared to a year earlier, achieving an average annual growth rate of 17.3 percent since 2008.

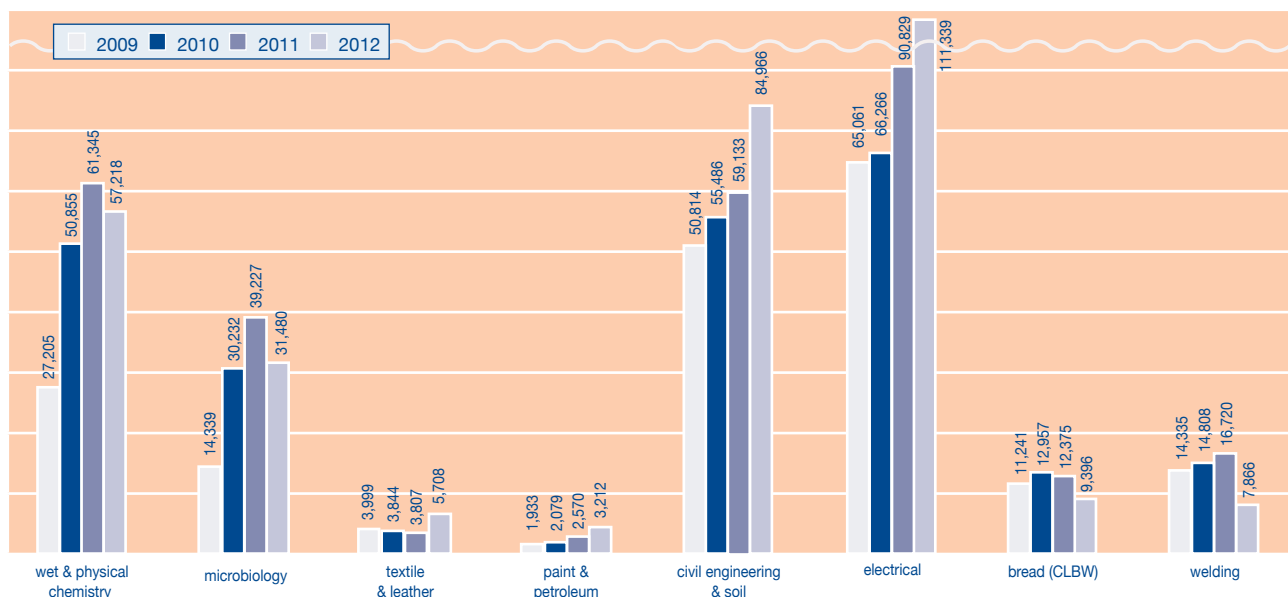
Central Laboratory for Bread and Wheat (CLBW)

Tests and analyses declined in the CLBW to their lowest level since 2008, reaching 9,396 operations, which is 2,979 less operations or a 24.1 percent decrease. CLBW operations consisted 3% of total IRI lab operations.

Welding Laboratories

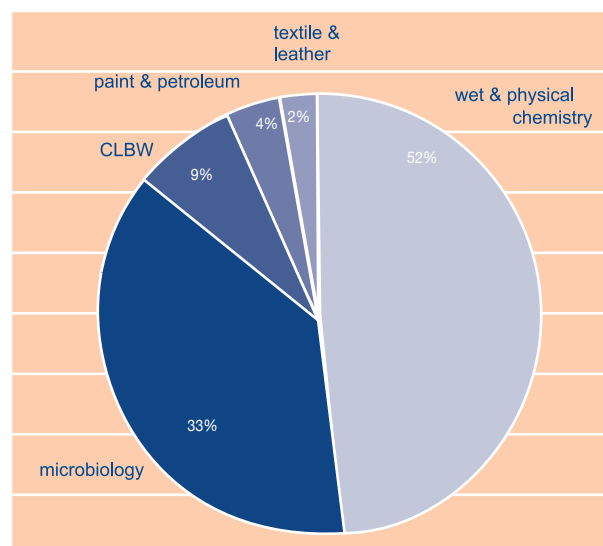
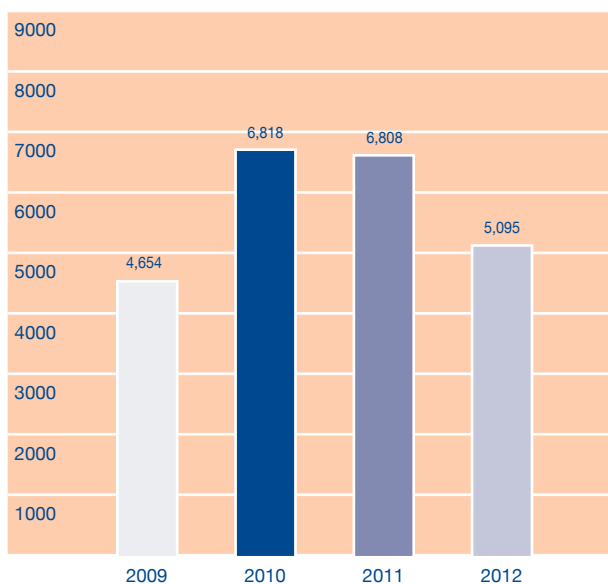
In turn, operations in these labs fell from 16,720 tests and analyses by more than half, down to 7,866 operations, a decline of 8,854 operations or 53 percent.

Welding-related operations represented 2.5 percent of total IRI lab operations.



Work Authority Reports

Laboratories	2009	2010	2011	2012
Wet & Physical Chemistry	2,337	3,546	3,237	2,654
Microbiology	1,409	2,492	2,788	1,673
Textile & Leather	464	535	490	454
Paint & Petroleum	329	172	175	199
Bread (CLBW)	115	73	118	115
Total	4,654	6,818	6,808	5,095

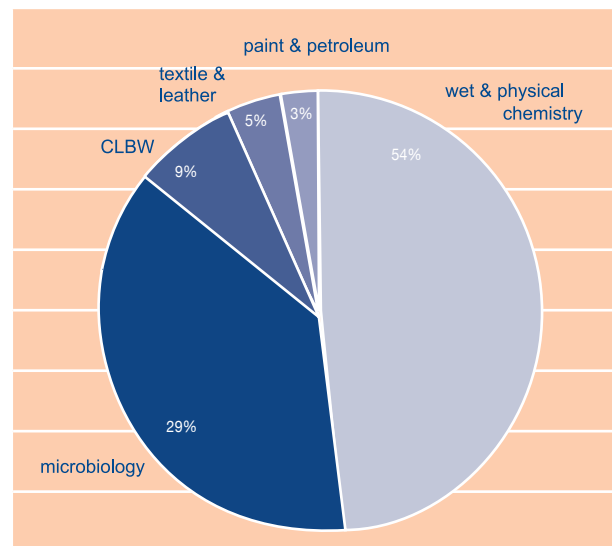
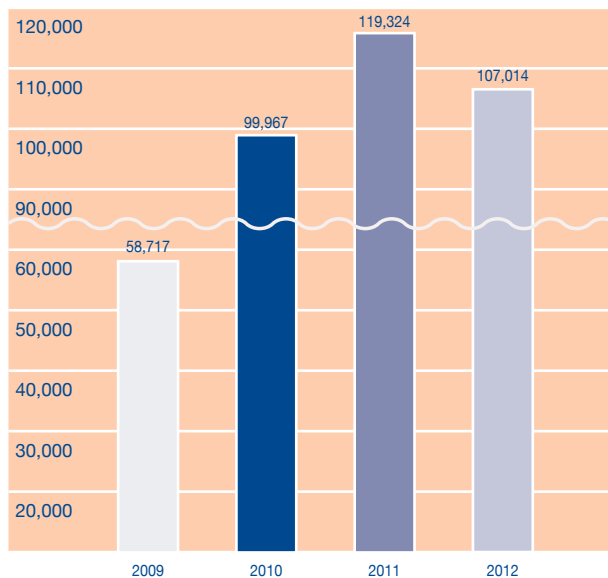


Number of tests

Laboratories	Regular	Customs	Total
Wet & Physical Chemistry	53,242	3,976	57,218
Microbiology	30,524	956	31,480
Textile & Leather	2,836	2,872	5,708
Paint & Petroleum	1,452	1,760	3,212
Bread (CLBW)	9,386	10	9,396
Total	97,440	9,574	107,014

Comparison by year

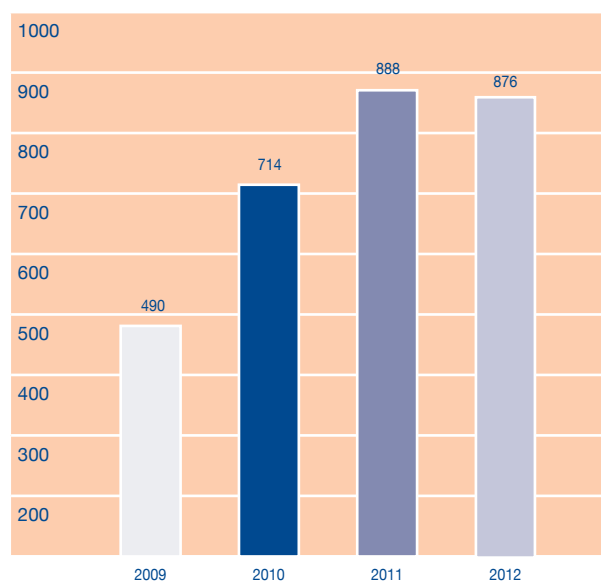
Laboratories	2009	2010	2011	2012
Wet & Physical Chemistry	27,205	50,855	61,345	57,218
Microbiology	14,339	30,232	39,227	31,480
Textile & Leather	3,999	3,844	3,807	5,708
Paint & Petroleum	1,933	2,079	2,570	3,212
Bread (CLBW)	11,241	12,957	12,375	9,396
Total	58,717	99,967	119,324	107,014



EXPORTS

to Arab countries, Europe and the United States

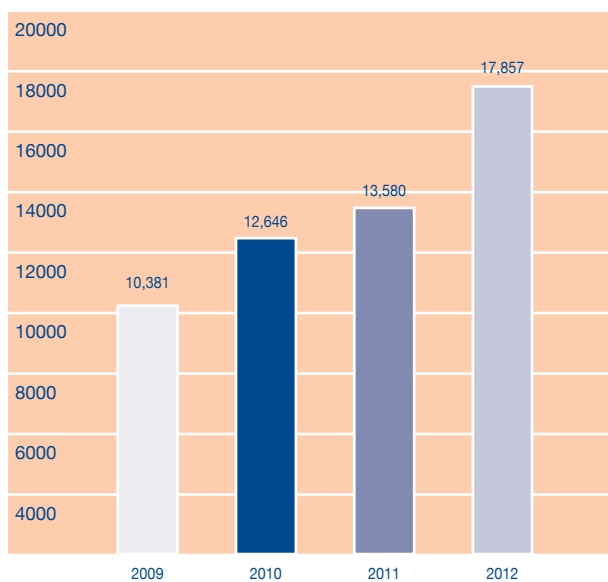
Product	No. of reports
Beer including sealing	20
Non alcoholic beverages	98
Water	6
Honey	5
Nuts and nuts products	10
Chocolate, candies and sweets	104
Breakfast cereals	24
Tahineh, Halawa and olive oil	92
Liquid dressings, rose waters, etc.	10
Cosmetics	410
Napkins, Toilet paper and facial tissues	82
Detergents	15
Total	876



IMPORTS

Reports and attestation for imports (Customs declaration)

Product		No. of reports
Cosmetics	Forbidden components 430 Provisionally allowed 65	6,050
Food/Food products	Preservatives 67 Emulsifier, thickener, stabilizers 252 Antioxidants 180 Artificial Sweeteners 25 Colors 90	6,050
Detergents	Full Analysis: Powdered detergent, liquid dish washing, olive oil soap	1,380
Baby Diapers	Full Analysis	790
Hydraulic oils	Full analysis	985
Glass	Analysis and Inspection	448
Dairy products	Full analysis	450
Paint/Paint products	Full analysis	294
Soya and Corn oil	Full analysis	110
Miscellaneous	-	1,300



EXTERNAL INSPECTION

Despite economic stagnation and instability in the country, the IRI has managed to maintain the same level of its lab operations for off site inspection and control. These operations declined at a minor rate that did not exceed 0.1 percent, totaling 35,696 operations compared to 35,739 operations in 2011, with an average annual growth rate of 5.5 percent since 2008.

These operations include 406 liquid gas tank inspection and control operations, which was about 11 more operations than 2011 or a 2.8 percent increase. Petroleum storage tank inspection and control operations declined by 39 to 160 total operations, while inspection of steam boilers declined by 15 to 130 operations.



Inspection operations of various types of pressure vessels remained unchanged, and stood at 35,000. The relevant laboratories at IRI also inspected 24,000 domestic, locally-manufactured gas bottles.

External Inspection

Activity	2009	2010	2011	2012
LPG Storage Tanks Inspection	405	400	395	406
Fuel Tanks Inspection & calibration	144	126	199	160
Boiler Inspection	170	140	145	130
Other Pressure Vessels	34,872*	29,900*	35,000*	35,000*
Total	35,591	30,566	35,739	35,696
LPG Cylinders - Locally Manufactured	----	65,000	25,000	24,000
LPG Cylinders - Imported	20,000	30,000	0	0

*The accessories resulting from customs files are included

METROLOGY LABORATORY

Various metrology labs saw a growth of 10.8 percent in the number of devices submitted for testing, and 18.5 percent in the number of tests relative to 2011.

These labs received 1,399 measurement devices, which underwent 12,960 tests, at a rate of 9.26 tests for each device compared to 9.15 in 2011, marking an increase of 1.2 tests per device.

The activity of metrology laboratories is detailed as follows:

Temperature

Temperature calibration laboratories received 328 devices, which underwent 3,280 tests, at a rate of 10 tests for each device. This is the same figure as 2011. The number of devices submitted for testing grew at an average annual rate of 25.6 percent since 2008, compared to 26.9 percent for the number of tests.

Both activities saw an increase of 36.1% compared to 2011.



Pressure

The number of pressure devices submitted for testing declined to 93, which underwent 744 tests at a rate of 8 tests per device, the same number for 2011. The decrease in the number of devices and tests was 9.7 percent. The number of devices grew at an average annual rate of 14 percent since 2008, compared to 2.3 percent for tests.

Force

Force calibration laboratories received 18 devices for measurement, which underwent 152 tests, at a rate of 8 tests per device. Devices submitted and tests grew at a rate of 26.7 percent compared to 2011. Devices submitted grew at an annual average rate of 6 percent since 2008, and tests by 2.5 percent.

Mass

The number of mass units submitted was 737, which underwent 7,008 tests at a rate of 9.5 tests per unit, com-

pared to 9.46 tests per unit in 2011. Mass units increased at a rate of 19.3 percent in one year, and tests by 19.9 percent. The average annual growth rate of units submitted was 27 percent since 2008, and 29.3 percent for tests.

Dimensions

The number of units submitted rose from 58 to 83, and tests from 464 to 664, at a rate of 8 tests per device, marking an increase of 43 percent compared to 2011. The average annual growth rate was 40.9 percent for units submitted and 18.5 percent for tests since 2008.

Electrical

Tests on electrical devices decreased in 2012 to 115 devices and 920 tests, at a rate of 2.12 percent. The average rate for tests remained unchanged at 8 per device.

Others

Tests and devices submitted in other categories decreased by 14.3 percent, numbering 24 devices and 192 tests.

Metrology & Calibration

Technical Subjects	2009		2010		2011		2012	
	Item	Test	Item	Test	Item	Test	Item	Test
Temperature	164	1,560	196	19,60	241	2,410	328	3,280
Pressure	65	536	77	616	103	824	93	744
Force	7	56	3	24	15	120	19	152
Mass	491	4,492	463	4,360	618	5,844	737	7,008
Length	38	304	36	288	58	464	83	664
Electricity	49	392	79	632	131	1,048	115	920
Other (torque meter, sound level ,lux meter,...)	18	144	40	324	28	224	24	192
Total	832	7,484	894	8,204	1,194	10,934	1,399	12,960

CERTIFICATION

The Industrial Research Institute (IRI) continued its efforts to support and improve Lebanese industry. The IRI granted 23 industrial enterprises the ISO 9001 certification; granted two establishments the ISO 14000 certification for envi-

ronmental systems; granted two establishments 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.

Quality System Certification

ISO 9001 - Quality Management System 23 Certified Companies		
Aclinic, since 2010	Bel Labtronic, since 2004	Betomix, since 2009
Centre Hospitalier El Youssef since 2005	Château KSARA since 2003	Château Kefraya since 2006
CLINSERV International since 2009	Holcim (Liban) SAL since 2003	Holcim Béton since 2008
Harfouche Trading & Industrial - Pastel Paints since 2004	Integrated Digital Systems since 2004	LECICO since 2008
Lebanese International Technologies since 1999	Medical Distributing & Manufacturing (MDM) since 2003	MIRODEC since 2011
MONDI since 2010	Nakhlé Zgheib & Co. since 2008	Nasri Karam & Sons since 2003
Produits & Solutions Informatiques – PSI since 2002	TUV Hellas since 2008	ACET since 2012
SADA PACK since 2012	SOIME since 2012	
ISO 14000 - Environmental Management System 2 Certified Companies		
Holcim Liban since 2004	Société Libanaise des ciments blancs (SLCB) since 2009	
ISO 13485 - Medical Devices: Quality Management System 2 Certified Companies		
Steritech since 2010	Medical Distributing & Manufacturing (MDM) since 2010	
ISO 22000 - Food Safety Management System 1 Certified Company		
Château KSARA since 2009	DAHER INTERNATIONAL FOOD since 2011	

Product Certification

25 products earned certificates of product quality from IRI in 2012. The products are produced by 9 different industrial enterprises.

Product Certification 9 Certified Companies		
Poppins Con 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 -PAS 42.5 -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 Coolers	Bottle Haykal Plast -HDPE pipes
Ciment de Siblinge -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

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

Certification of Personnel	
Internal Auditors	92
IRCA Auditors for auditing quality systems	95
IEMA Auditors for auditing environmental systems	3
IRCA Auditors for auditing alimentary systems	3
FREA Internal Quality Auditors ISO 9001:2008	15
FREA Food Safety Management Systems Internal Auditing Course ISO 22000	11

Under Law Number 423 of 2002, which designated the Industrial Research Institute “as the Accreditation 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	2009	2010	2011	2012
Welders certified by IRI	82	91	55	30
Inspectors in non-destructive testing	1	1	1	1

CUSTOMS FILES

The Industrial Research Institute
Processes 37,951 Customs Files

The number of files received by the IRI for verification doubled in a period of five years – from 18,532 in 2007 to 37,951, growing at an average annual rate of 15.4 percent. The number of files processed per day on average was 130.

The IRI studies and verifies customs files, as part of the tasks the Institute was entrusted with since 2005, whereby the IRI verifies the conformity of imported goods with mandatory Lebanese specifications.

The number of customs files increased by 6,023 relative to 2011, or by 18.9 percent. As a result of the verification process, 1,610 files were found to be noncompliant with the mandatory specifications. These files constituted 4.24 percent of the total number of files being verified, and 1,549 were rectified as a result, while 61 files were rejected.

The customs files processed are broken down as follows:

1 -Files not subject to verification

These are files received by the IRI, but are not subject to the verification process because they do not fall within the scope of mandatory specifications. The number of such files rose from 4,594 in 2007 to 9,836 in 2012, at an average annual growth rate of 16.4 percent, compared to an increase of 8% relative to 2011. This is while noting that these files are processed in the Institute, and on the same day they are received, they are given a ‘Not Subject To Specifications’ stamp, without any fees being charged.

2 - Pre-shipment Verification

The number of files pertaining to goods subject to pre-shipment verification in the country of origin decreased by 87 to 2,114 relative to 2011, at a rate of 3.95 percent. These files represented 5.6% of the total number of files.

3 - Horizontal Standards

Representing around 25 percent of total files, these are studied and returned to the applicants on the same day. Their number has grown at an average annual rate of 15.4% rising from 4,300 files in 2007 to 8,812 files in 2012. The number of these files increased by 6.9 percent compared to 2011.

4 - Verification of stored goods

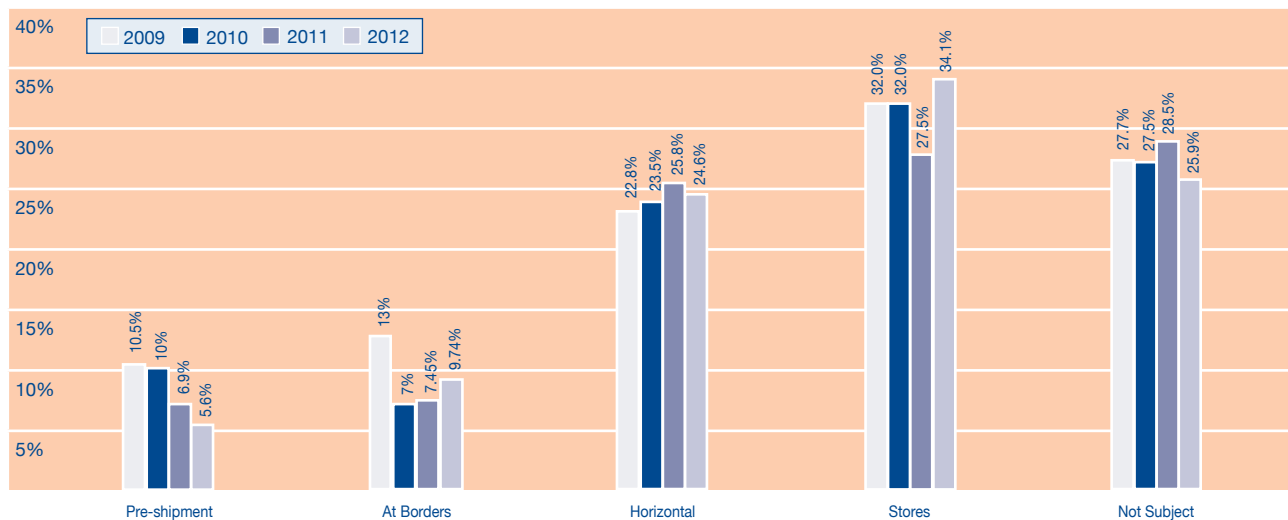
These are files verified after imported goods are stored in their containers. The number of these files amounted to 12,257, representing 34.2 percent of the total number of files. The number of files increased since 2007 at an average annual rate of 19.34 percent. Relative to the previous year, the number of files increased by about 2,257, or 22.57%.

5 - Verification at border crossings

The number of files verified at border crossings represented 9.74 percent of total files, and stood at 3,490 files, up by 1,114 or 32 percent compared to 2011.

The distribution of files by type and crossings

Customs files verified by the IRI can be broken down according to the following types of goods:



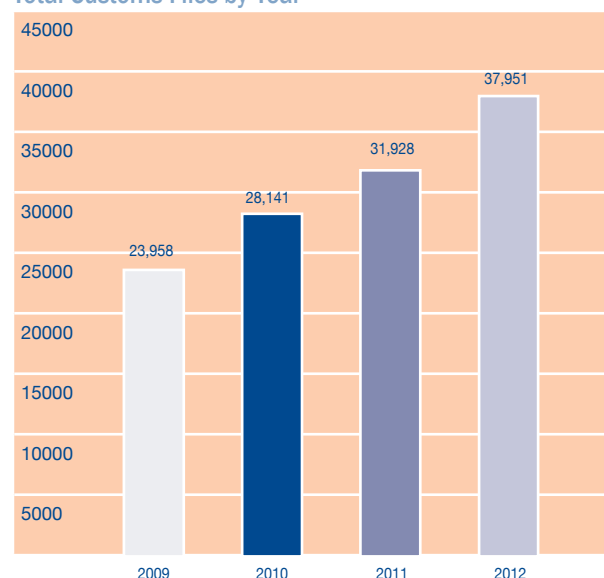
Electric appliance files represented the broadest segment, with 35.9% of the total, and stood at 13,615 files. Together with chemical products and devices, they represent more than two-thirds of total files, with the latter category accounting for 12,721 files or 33.5% of the total figure. Files for medical devices amounted to 4,081, representing 10.75%, followed by civil engineering equipment, with 3,796 files representing 10 percent. Joint files numbered 2,432, representing 6.4 percent.

Mechanical files numbered 487, Rebar files numbered 373, energy 241 and pressure devices 205 files.

The Port of Beirut accounted for 21,220 files or 56 percent of the total number of files, followed by Rafic Hariri International Airport, which accounted for 11,545 files or 30.4 percent. Al-Masna' border crossing came next, accounting for 3,025 files or 8%.

Files undergoing pre-shipment verification numbered 2,114.

Total Customs Files by Year



Customs Files by Type

Type	Electrical	Soil	Chemical	Mechanical	Common Files	Rebars	Medical	Energy	Pressure	Total
TOTAL	13,615	3,796	12,721	487	2,432	373	4,081	241	205	37,951
Without Pre-ship	11,881	3,416	12,721	487	2,432	373	4,081	241	205	35,837
Not Subject*	4,220	95	3,857	114	728	53	625	31	113	9,836
Subject	9,395	3,701	8,864	373	1,704	320	3,456	210	92	28,115
Non Conform	968 10.3%	430 11.61%	54 0.61%	1 0.27%	in E ,C&S	---	19 0.55%	132 62.85%	6 6.52%	1,610 5.73%
Corrective Action**	933	430	31	---	in E ,C&S	---	19	132	4	1,549
Rejected	35	0	23	1	in E ,C&S	---	0	0	2	61

* The goods were found not subject to the requirements of the mandatory technical Lebanese standards

** Guidance provided by IRI to rectify non-conformity when possible

Customs Files by Entry Point

	Electrical	Soil	Chemical	Mechanical	Common Files	Rebars	Medical	Energy	Pressure	Total
MASNAA	266	99	2,262	232	88	52	12	5	9	3,025
PORT	7,114	3,258	7,682	200	1,688	304	605	231	138	21,220
AIRPORT	4,494	57	2,760	55	656	2	3,463	4	54	11,545
TRIPOLI	7	0	17	0	0	12	1	1	4	42
TYR	0	0	0	0	0	0	0	0	0	0
SAIDA	0	2	0	0	0	3	0	0	0	5
PRE SHIP	1,734	380	0	0	0	0	0	0	0	2,114
TOTAL	13,615	3,796	12,721	487	2,432	373	4,081	241	205	37,951
AVERAGE/DAY	46.95	13.09	43.87	1.69	8.38	1.28	14.07	0.83	0.70	130.86

NEW EQUIPMENT

TEXTILE LAB



Moisture Extractor for Textiles

Laboratory Centrifuge. Removes excess water from dyed or washed samples before hot air or line drying. 2000g/4.4lbs. capacity at 2850RPM. Stainless steel heavy duty construction.

MICROBIOLOGY LAB



Tempo Automated Quality Indicator & Accessories

Automated solution for direct quality indicator enumeration such as total viable count, Lactic acid bacteria, Total Coliforms, E.coli, yeasts and molds, Staphylococcus aureus in food products



Vidas Heat & Go and Mini Vidas Blue

Automated detection of Salmonella, Listeria, E.coli O157... that uses the ELFA assay principle, combining the ELISA test method with a final blue fluorescent reading.

CHEMICAL & PHYSICAL LAB



Digital ABBE Refractometer

Used to determine the Refractive Index and Brix.

ELECTRICAL LAB



Digital Power & Harmonic Clamp Multimeter

It is designed for measuring electrical specification such as: Voltage, Current, Power, frequency... The main applications for the clamps in this series are maintenance, testing, monitoring, diagnostics and connection.

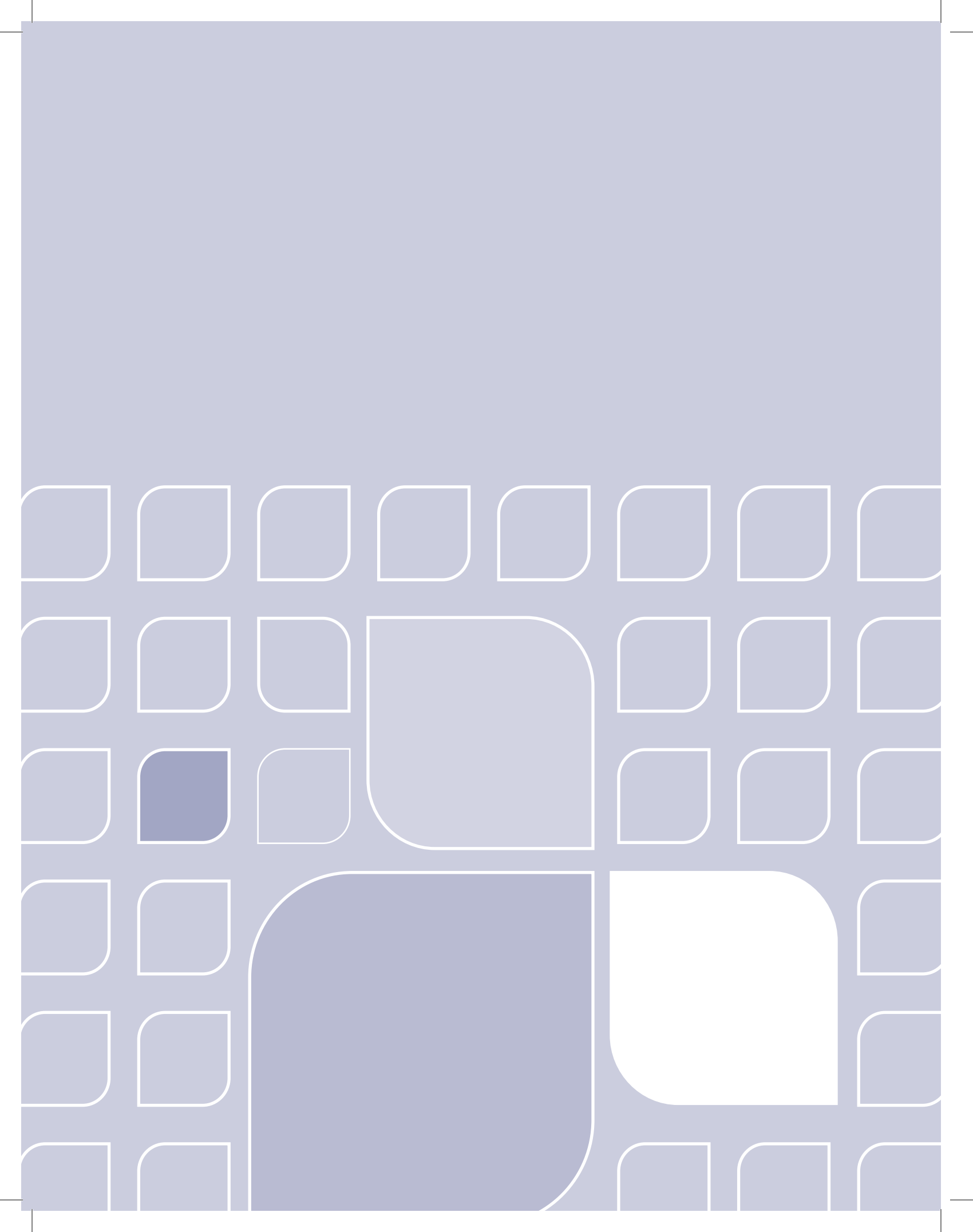
Multitester

It is a powerful portable instrument for complete certification testing of a broad range of electrical appliances and equipment: dielectric test, continuity, voltage drop, insulation resistance, leakage current, discharge time and functional testing.



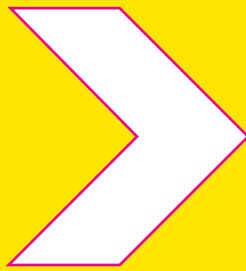
Glow Wire Test Apparatus

It is intended for testing the flammability and ignitability of components and materials. It includes electronic feedback heating current stabilizer regulator, A meter, thermometer, motor drive, timer and remote controller.





**OFFICIAL VISITS, CONFERENCES, AND
SEMINARS INSIDE & OUTSIDE LEBANON**



Kfoury Overviews IRI's Mechanism for Verification of Customs Files at the Shipping Brokers Association Conference

On November 11, 2012, the Shipping Brokers Association in Lebanon held its fourth annual conference, titled “Facilities and Confronting Current and Future Challenges,” under the auspices of Prime Minister Najib Mikati. The event was attended by Minister of Economy and Trade Nicolas Nahas, Finance Minister Mohammad Safadi, Public Works and Transport Minister Ghazi Aridi, and Minister of Industry Vrej Sabounjian, in addition to official and private bodies and local, Arab and international union representatives.

IRI was represented by its Administrative Director Mr. Salim Kfoury, who gave an address in which he spoke about important developments that have prompted the Lebanese government to entrust the Institute with enforcing mandatory standards on imported goods, in addition to “other departments and ministries such as the Ministry of Health, Ministry of Economy and Ministry of Agriculture according to the type of goods, to enforce other standards.”

Mr. Kfoury gave a brief overview of the measures taken by the IRI in enforcing mandatory Lebanese standards that fall under its jurisdiction as follows:

“IRI, immediately following the issuance of the mandatory standards, has put in place a mechanism to enforce them that was discussed in-depth with the trade unions concerned, and in coordination with the Federation of Chambers of Commerce, Industry and Agriculture, based

on reconciling consumer protection, public safety, and respect for scientific principles on one hand, and facilitating trade on the other.

“We have taken into account the need to protect the consumer, industrialists, the dealers and the environment at the same time.”

The mechanism in question included the following internationally approved measures:

1. For vertical standards:

- Pre-shipment conformity assessment mechanism in the country of origin. This is an optional mechanism, for which IRI has used the services of renowned international companies, present in various regions, in order to verify conformity in line with Lebanese standards.

In this mechanism, conformity of goods is verified at the country of origin, prior to being shipped to Lebanon. This allows the concerned parties to avoid the risk of non-conformity upon arrival of these goods, and to obtain certificates of conformity even before the goods arrive in Lebanon, without paying any additional fees upon their arrival.

Screening and Verification upon the Arrival of Goods to Border Crossings:

IRI has worked hard, in association with the Directorate General of Customs, to open the way for importers to adopt one of two options:



Conformity Assessment at Importers' Warehouses:

Anyone of the concerned parties may take their goods immediately to their warehouses, without waiting for the completion of the conformity assessment process, which is a purely technical process (studying, screening, examination, etc.). They may adopt this option, provided that they pledge not to dispose of the goods and put them in the local market before the completion of the conformity assessment process and the issuance of the necessary reports.

Conformity Assessment at Border Crossing Premises:

In the event the concerned parties choose the option of conformity assessment at the border crossing premises, IRI pledges to complete the conformity assessment within a period not exceeding five working days from the date of receipt of the samples at the IRI premises. The period in question has been in place and observed since the start of conformity assessment processes.

IRI has implemented risk management in its work since its inception, and has introduced an advanced mechanism to the process, known as Type Approval, used in handling customs files. For instance, items that have been already examined are not examined again for a period of at least one year, according to the type of the goods.

2. For Horizontal Standards

Conformity assessment is conducted by technically examining files without the need for testing and screening in most cases.”

After that, Mr. Kfoury gave an overview of the figures from 2011, and IRI's achievements in verification of customs files. He concluded that “the figures prove the mechanism implemented by the IRI, including all its options, has allowed willing importers to take their goods immediately to their warehouses by choosing one of the options available. This has reduced the number of customs files that were processed at the border crossing premises.” Kfoury added that this number is “not important enough to create a problem at the border crossings.”

Kfoury went on to say, “There remains the mechanism for mutual recognition of certificates of conformity, which is the basis for the countries that have agreements with Lebanon over mutual recognition of certificates of conformity. With these countries, the conformity assessment is conducted in them by concerned and accredited national bodies according to the mechanism specified in each agreement.”

In conclusion, Kfoury said, “IRI was one of the first entities to develop special online information systems, placing information pertaining to customs files on the web to allow every importer to track progress in their respective files, after being given a private reference number for each file when registering with IRI.”

He also reaffirmed IRI's willingness to “communicate with various concerned parties to resolve any issue in order to facilitate trade, all in line with best scientific and technical practices.”



IRI & the Institute of Standards & Industrial Research of Iran Sign an Execution Program for Joint Agreement

On May 2, 2012, as part of a package of agreements and memoranda of understanding (MOUs) between Lebanon and Iran in various economic, social and service-related fields, the Industrial Research Institute (IRI) signed an execution program for the MOU signed with the Institute of Standards & Industrial Research of Iran (ISIRI) on March 3, 2009, on the mutual recognition of certificates of conformity. The IRI was represented by its Director General, Dr. Bassam Frenn.

At its seventh session held at the Phoenicia Hotel in Beirut, chaired by Lebanese Minister of Economy and Trade, Nicolas Nahas, and Iranian Minister of Roads and Urban Development, Ali Nikzad, the Lebanese-Iranian Economic Committee welcomed the signing of the MOU execution program, which took place in the presence of Acting Director-General of Economy Fouad Fleifel, Iranian Ambassador Ghazanfar Ruknabadi, and members of the two countries' Joint Follow-up Committee.



Prime Minister Mikati watches the signing by Dr. Bassam Frenn (seated, right) and the Iranian Minister, Ali Nikzad.



IRI a National Coordinator at the First Coordination Meeting of Technical Cooperation Project at the International Atomic Energy Agency, Vienna, Austria



Eng. Tarek El-Hakim (first left) among the participants of the meeting.

Engineer Tarek El-Hakim, Head of the Welding Center at the Industrial Research Institute, participated in the First Meeting of the Technical Cooperation Project RAS1016 as National Coordinator – under the title “Introducing Digital Industrial Radiography and other advanced Non Destructive Testing (NDT) Techniques.”

The meeting was held at the International Atomic Energy Agency (IAEA) in Vienna, Austria, from 11 to 13 April, 2012.

During the meeting, an action plan for the two-year project was adopted, including holding activities such as: training courses, field trips, and advisory visits by experts at the IAEA to the states that form part of the

ARASIA Project (Cooperative Agreement for Arab States in Asia for Research, Development and Training Related to Nuclear Science and Technology)

The meeting concluded with several decisions and measures, for implementation by the countries participating in the project, particularly Lebanon – one of the first countries that adopted advanced NDT technologies such as the Phased Array Technique.

Eng. El-Hakim briefed the director general of IRI, Dr. Bassam Frenn, on the topics discussed at the meeting and its decisions. Frenn then issued instructions for the implementation of the meeting’s decision, for the benefit of the IRI internationally.

IRI is a unique regional “Member Laboratory”
in the International Seed Testing Association (ISTA)-A
forward step towards Accreditation in seed testing.



IRI is a unique regional “Member Laboratory” in the International Seed Testing Association (ISTA)-A forward step towards Accreditation in seed testing.

Founded in 1924, with the aim to develop and publish standard procedures in the field of seed testing, ISTA is inextricably linked with the history of seed testing. Currently its membership consists of 201 member laboratories, 52 personal members and 42 associate members, from 79 countries around the world (December 2010). 120 of the ISTA Member Laboratories are accredited by ISTA and entitled to issue ISTA International Seed Analysis Certificates.

Following the ISTA Constitution:

-The primary purpose of the Association is to develop, adopt and publish standard procedures for sampling and testing seeds, and to promote uniform application of these procedures for evaluation of seeds moving in international trade.

-The secondary purposes of the Association are to actively promote research in all areas of seed science and technology, including sampling, testing, storing, processing and distributing seeds, to encourage variety (cultivar)

certification, to participate in conferences and training courses aimed at furthering these objectives, and to establish and maintain liaison with other organizations having common or related interests in seed.

ISTA’s membership “administration” is very stringent with their acceptance criteria; however, in August 2012 The Central Laboratory for grains Flour and Bread research at The Industrial Research Institute was accepted after 4 months of scrutiny and deliberation as a “Member Laboratory” of ISTA. Moreover IRI is already participating in the Proficiency testing program and is aiming to become ISTA-accredited by 2014.

The aim of ISTA Accreditation is to assert that a seed testing laboratory is technically competent to carry out seed testing procedures in accordance with the ‘ISTA International Rules for Seed testing’. Accredited laboratories should run a quality assurance system fulfilling the requirements of the ISTA Accreditation Standard.

The laboratories accredited by ISTA are authorized to issue ISTA Seed Lot and Sample Certificates that are recognized and required for international seed trading (ISTA Orange Certificate).

Expansion to a “decision making” activity internationally at the International Association of Cereal Science and Technology - ICC



From left, General Secretary of ICC, Prof. Roland Poms, Projects Manager, Raynor Svacinka, and Eng. Amine Jbeily.

The Industrial Research Institute Represents LEBANON as a Voting “Member Country” of the “International Association of Cereal Science and Technology - ICC” since 1966 which is the worldwide reference for all cereals and grains related issues, not to mention that Lebanon is the only member country in the MENA and GCC region.

During the past decade IRI has intensified its financial and technical support for ICC and is actively representing Lebanon in General assemblies in the person of the Director General Dr. Bassam Frenn (National Delegate of Lebanon) assisted by the Head of the Central Laboratory for Grains, Flour & Bread Research Eng. Amine Jbeily (Deputy National Delegate).

The Involvement of IRI in the activities of “ICC” can be summarized by the following primary duties:

- » Yearly elections of Presidents and technical committees and voting on all legal, technical and financial decisions,
- » Member of the international technical committee in charge of reviewing and updating published ICC methods as well as establishing new ones.

- » Member of the international technical committee in charge of Defining “Whole Grains products” and setting scientifically validated procedures to test the authenticity of such products, enabling consumer protection agencies to control and regulate “Health claims”.

This dedication and technical involvement culminated in the selection of Eng. Amine Jbeily to serve as the new ICC Technical Co-Director. He was officially elected by the Technical Committee (confirmed by the General Assembly) at the Committee Meetings during the 14th International Cereals and Bread Congress in Beijing, China (August 2012).

He already started his work and is actively contributing to the ICC standardization activities by supporting the ICC Technical Director and the ICC Headquarters in Vienna, thus extending the Lebanese role to a further decisive voice in the Global cereal community.



Member in the Task Force Group

Dr. Joseph Matta was elected a member in the Task Force Group for the accreditation of Proficiency Test Providers (PTP) and Reference Materials Producers (RMP) established by the European cooperation for the Accreditation Laboratory Committee (EA - LC).

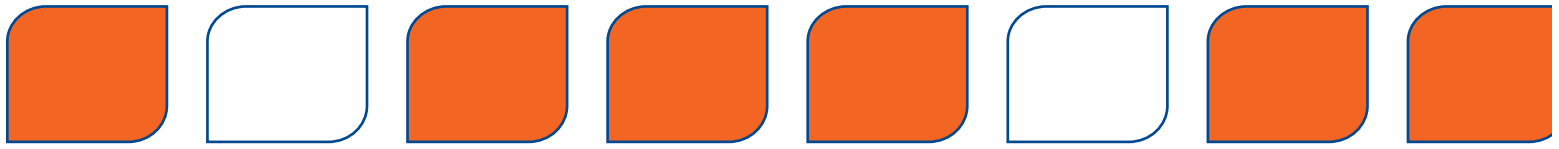


Rapid prototyping Workshop

On June 6th and 7th, 2012 Eng. Khaled Ghoul attended a workshop on Rapid prototyping in Doha-Qatar, conducted by the UN ESCWA in collaboration with Texas A&M University-Qatar.

The workshop provided useful and interesting information about the Rapid prototyping production, and bridged concepts and ideas related to marketable product. It is noteworthy that Arab Universities were among the few universities encompassing faculties of industrial engineering.

Such workshop is all the more important that it provides an overview of electronic prototyping and fabrication technology, as well as design, testing, and validation of mass production of PCB (Printed Circuit Board). In addition, it highlighted the EBM (Electron Beam Melting) and the improvement of cad/cam software, along with its application to mass production in medical sciences manufacturing system, and converting raw materials to other electrical and mechanical parts.



Seventh International PCB Workshop

Chemical Mixtures in a complex world

Arcachon, France (27-30 May 2012)
Agora University Bordeaux Talence,
France (31 May 2012)

The Workshop focused on the very latest information on the chemistry and biology of the environmental pollutants known as Polychlorinated Biphenyls (PCBs). Hence, guidelines for risk assessment and risk management for PCBs and related compounds as mixtures found in human environment were provided.

It also offered an opportunity for researchers of varied backgrounds to integrate their knowledge and experience, and to apply these to questions of the detection, metabolism, toxicity and risk assessment for this class of industrial chemicals and environmental pollutants.

The Workshop has presented and discussed, in particular, the results of French, American and Japanese research groups studies carried out during the last years related to:

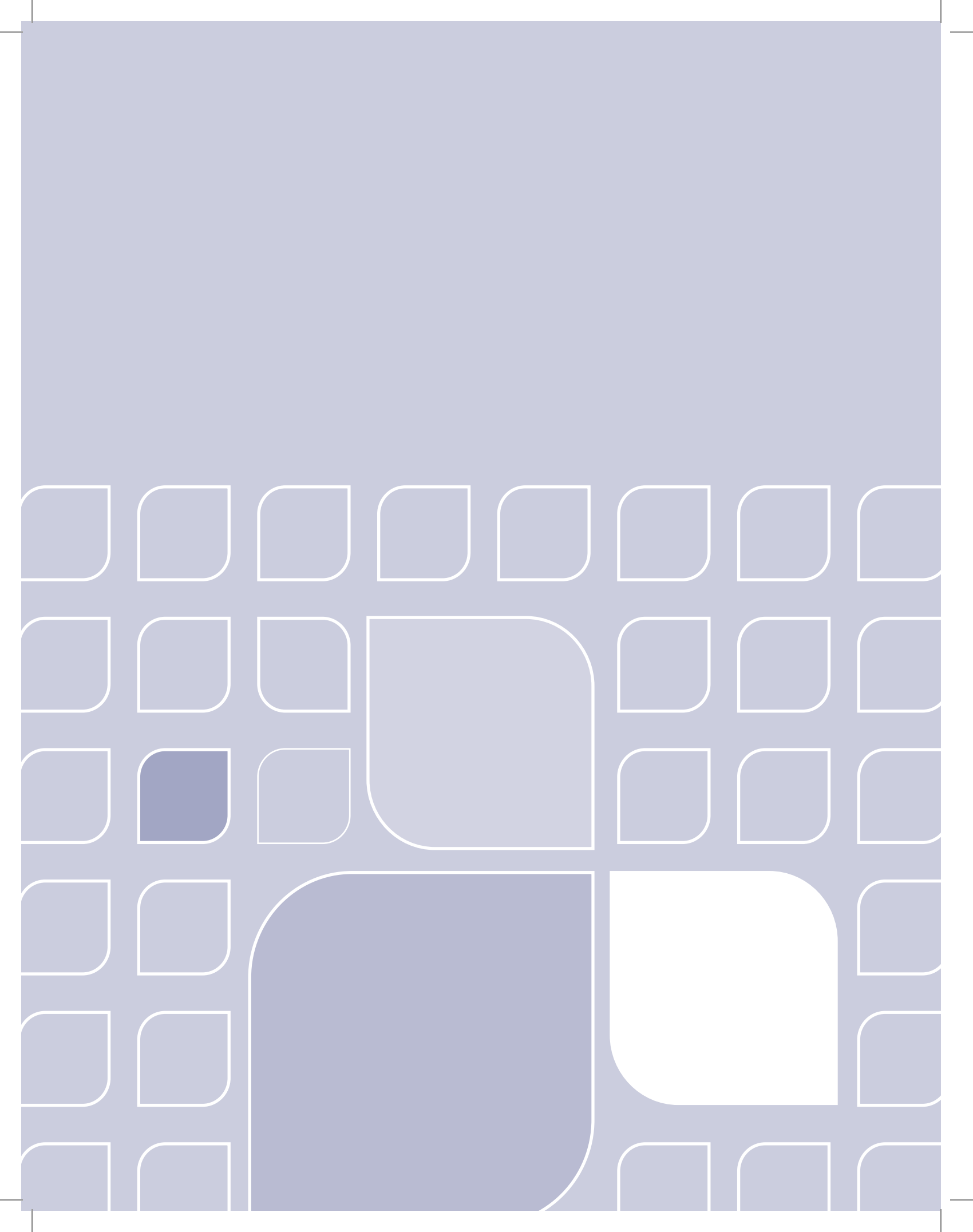
- » Identification and quantification of current sources of PCBs, levels in atmosphere, soil and water, and food exposure



- » Mechanism of action and metabolite interactions
- » Health effects and biological critical limits for general and specific populations
- » Human exposure and human monitoring and bio-monitoring programs

In addition, the Workshop has discussed the presence of stockpiles of PCBs in African and southern countries in terms of environmental and public health consequences and solutions for elimination and remediation.

The workshop concluded on approaches for risk assessment and recommendations.





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.

During the surveillance visit, the accreditation status was confirmed and three new testing methods were covered in the electrical testing field as well as a new activity: civil engineering where five testing methods were accredited as listed below:

As of the end of 2012, the accreditation scope covers 325 testing methods in the microbiological, chemical and physico-chemical, wheat and grain, electrical fields, as well as civil engineering.



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

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

is competent under the terms of 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 physico-chemical analyses of food and animal feeding stuff, water for human consumption, waste water;
chemical, physico-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 solid foreign objects;
the resistance to heat and to external forces, vibration test and power input and current of technical products;
performance and vibration tests of lead acid starter batteries;
determination of characteristics for illuminating sources;
physico-mechanical testing of cement and ceramic tiles

The accreditation certificate is valid until 12.11.2014. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 36 pages.

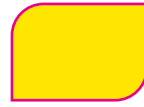
Registration number of the certificate: D-PL-14463-01-00

Berlin, 13.03.2013

See cover sheet

Valbuena
Andrea Valbuena
Head of Division

IEC 60969 : 2001 (NL IEC 60969 2007)	Self-Ballasted lamps for general lighting services - Performance requirements Clause 5: Starting and run-up time Clause 6: Lamp wattage Clause 7: Luminous flux
EN 196-1: 2005	Methods of testing cement Part 1: Determination of strength
BS EN ISO 10545-3 : 1997 (NL 104:1999)	Ceramic tiles Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density Clause 5.1.1: Boiling method
BS EN ISO 10545-4: 2012 (NL 105:1999)	Ceramic tiles Part 4: Determination of modulus of rupture and breaking strength
BS EN ISO 10545-6: 2012 (NL 107:1999)	Ceramic tiles Part 6: Determination of resistance to deep abrasion for unglazed tiles
BS EN ISO 10545-8: 1996 (NL 124:1999)	Ceramic tiles Part 8: Determination of linear thermal expansion



Accreditation Projects

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

Activity / Field	Item / Test	Standard
Electrical tests	- Tungsten filament lamps - Safety of home appliances - Safety of power transformers - Circuit breakers	ISO 17025
Civil Engineering test	- Cement	ISO 17025
Metrology	- Mass & scales	ISO 17025

Other management system under preparation:

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

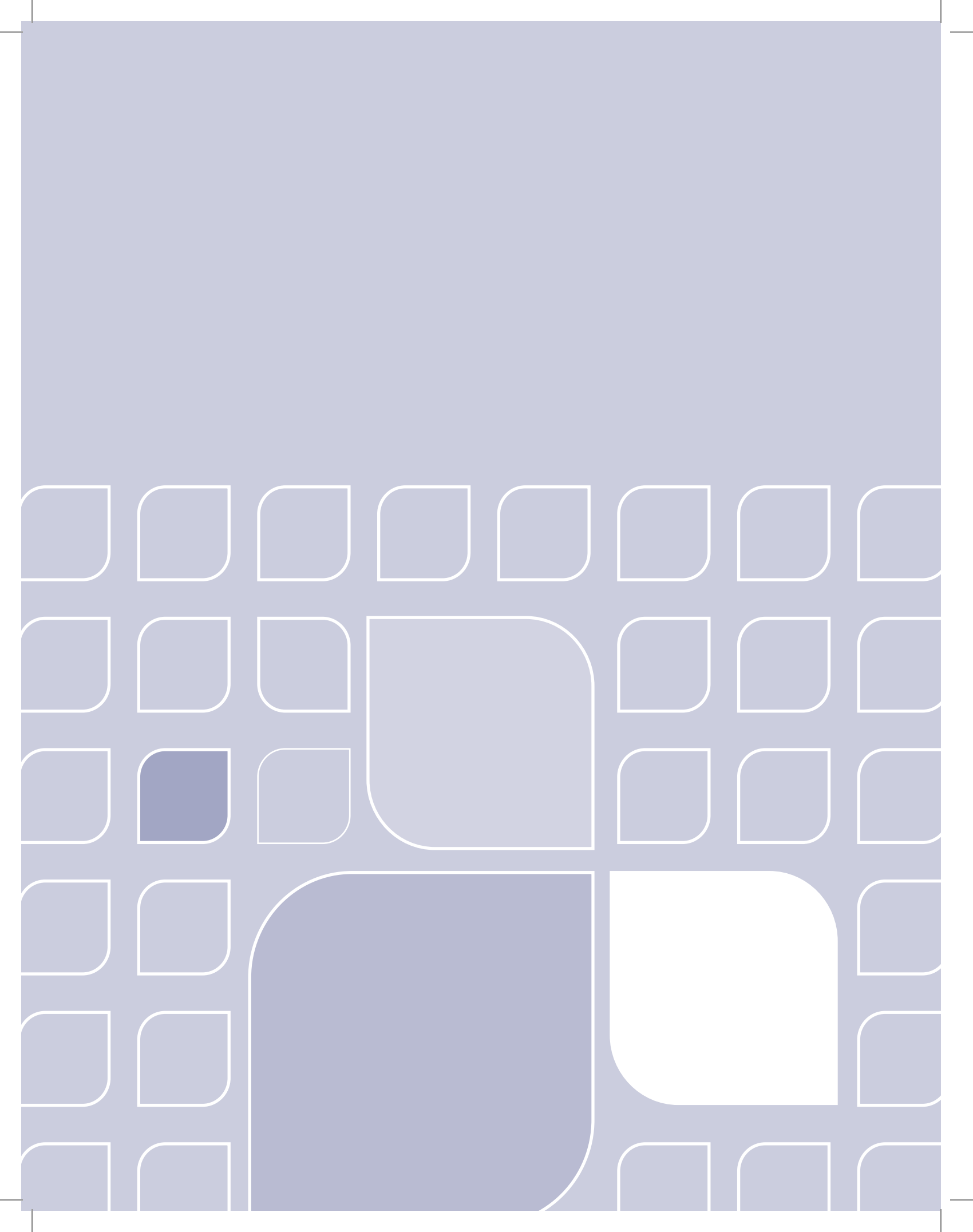
Flexible Accreditation

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 on 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.





FAIRS



Project Lebanon 2012:

IRI Booth at the 17th International Construction Trade Exhibition for Lebanon and the Middle East

Like in each year, the Industrial Research Institute participated in the 17th International Construction Trade Exhibition for Lebanon and the Middle East, held during the Project Lebanon Exhibition at BIEL in Beirut from 5 to 8 June, 2012.

This exhibition offers local and international producers and manufacturers the chance to take advantage of the show's success and reputation to reach a wider professional audience and increase their brand penetration at the industrial level.

A large number of engineers and experts were present at the IRI booth to assist all interested visitors and inform them about IRI's activities in different industries at the national level.



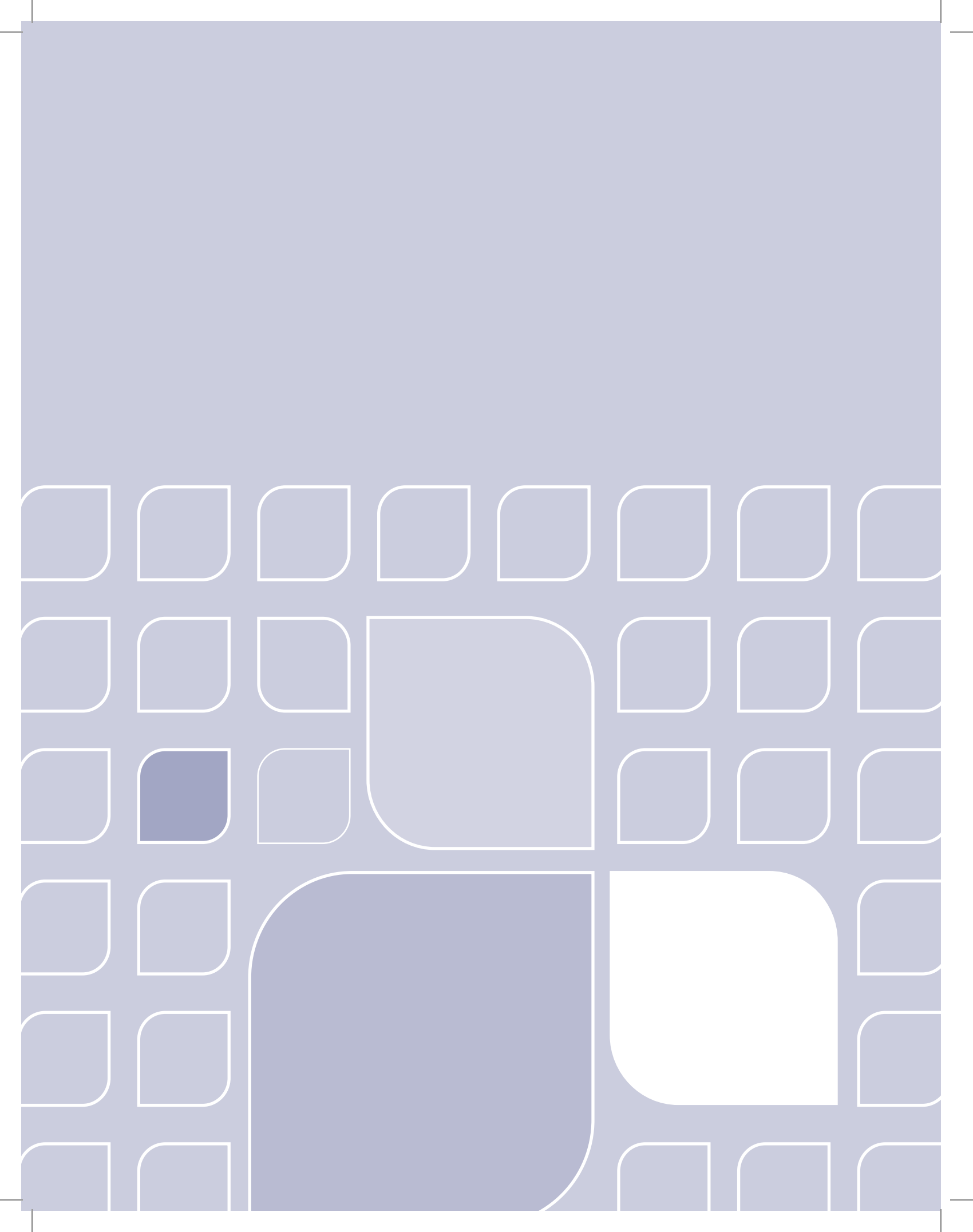
IRI Booth at Project Lebanon 2012

IRI attends the 3rd Beirut Energy Forum



IRI Booth at the Beirut Energy Forum

IRI participated in the 3rd Beirut Energy Forum, the largest event in Lebanon related to energy efficiency, renewable energy, and green building. IRI was a key sponsor for two days in a row on September 13 & 14, 2012 at the Hilton Habtoor Hotel. The Forum was held under the patronage of the Lebanese Minister of Energy and Water H.E. Mr. Gebran Bassil, and was supported by the League of Arab States, the United Nations Development Programme (UNDP), the European Union, and the Order of Engineers and Architects in Beirut, in partnership with “Le Salon des Energies Renouvelables de Paris”, with the Lebanese Center for Energy Conservation (LCEC) being the strategic partner.





ENVIRONMENTAL PILOT PROJECTS



IRI Leads With Solar Power Generation



The Industrial Research Institute has taken the initiative to implement one of the goals of its development policy, by executing a project for generating part of its energy needs through a 56-kW solar power generator, installed on the roof of the IRI building in Hadath. The first kilowatt was produced by the generator on July 5, 2012. The project was officially launched on December 11, 2012 under the distinguished patronage of H.E. the Minister of Industry and H.E. the Minister of Energy.

One of the key features of this generator is that it does not require storing power using batteries. Instead, power is consumed directly, in full, by the IRI building, while any other energy demands are supplied by EDL or through thermal power generators.

By analyzing the amount of power generated from solar energy, it emerged that the solar power generator can supply up to 30 percent of IRI's energy needs.

Between July 5 and December 31 (2012), 39.1 megawatt-hours of solar energy were produced. Peak energy levels were recorded on July 6, when 351 kilowatt-

hours were produced. In August, 9.24 megawatt-hours of solar energy were produced.

As regards reducing the environmental impact of the IRI building, the amount of carbon dioxide emissions that has been reduced since the solar power generator was commissioned and until 31/12/2012 was 20.71 tons, bearing in mind that during August alone, CO₂ emissions offset amounted to 4.9 tons.

An IRI team records the basic data of the generator through a cutting-edge monitoring program. This allows the IRI to issue reports and put them in the service of the economic cycle in Lebanon, as a model that can be taken advantage of at all levels.

To date, the IRI generator remains the largest of its kind in Lebanon, in terms of civilian applications. The IRI administration plans to continuously upgrade the generator by installing additional solar panels on the remainder of the building's roof, which was designed for the purpose (in the direction of the south at an angle of 10°) after the necessary permits and technical solutions are acquired. Any surplus production will be fed to the national grid.

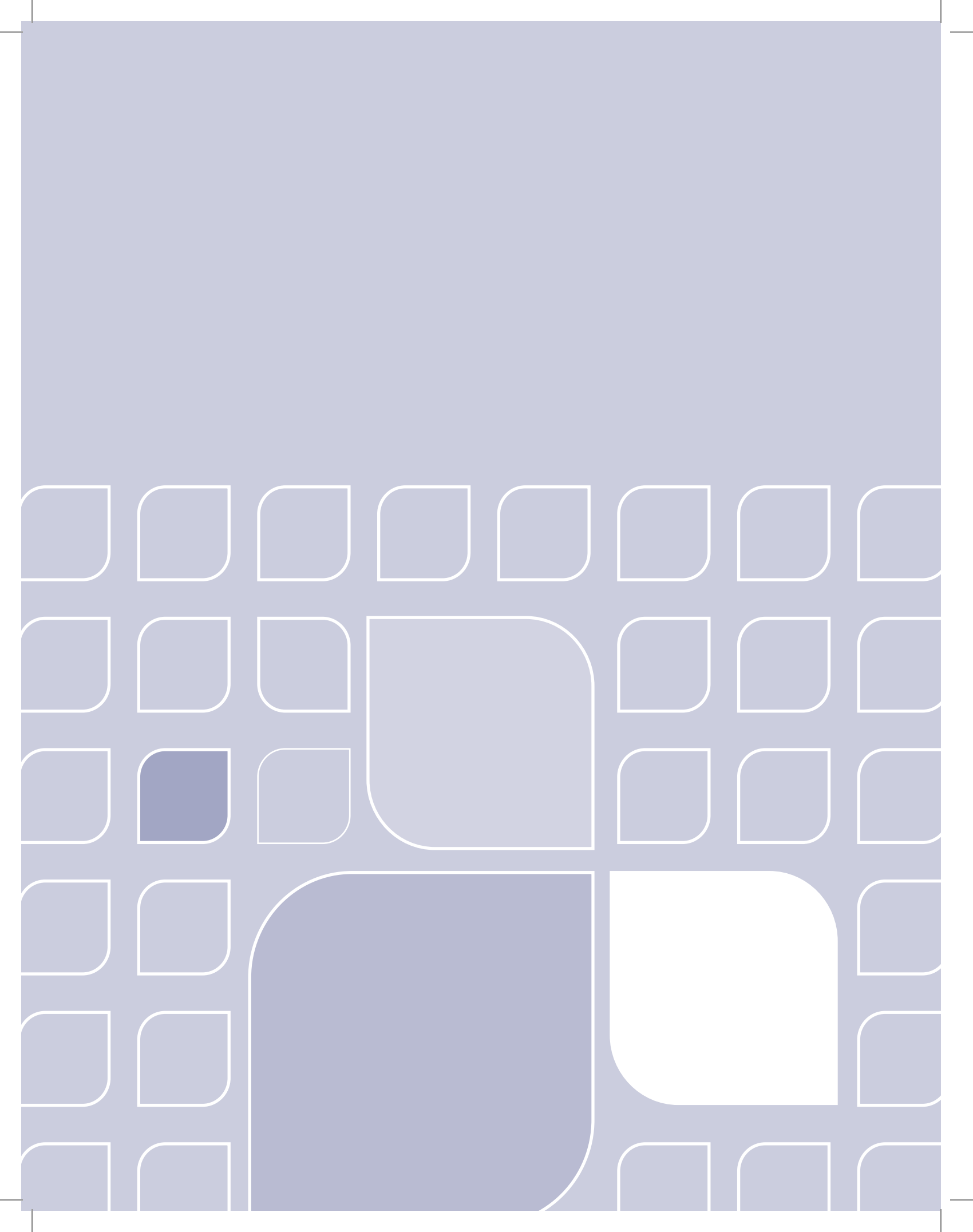
IRI helping educate and raise awareness among Lebanon's youths

In the context of cooperation with scientific and technical associations in Lebanon, the IRI, in cooperation with the Lebanese Solar Energy Society (LSES), launched a mobile laboratory that will tour schools and universities in Lebanon to educate students on renewable energy technologies. This laboratory was launched on 11 December 2012 under the patronage of Their Excellency the industry and energy ministers in the Lebanese government. The mobile laboratory is a truck equipped with most known renewable energies, including:

- » Solar water heater
- » Solar power generator
- » Wind turbine/generator
- » Biomass thermal heater
- » Audio-visual equipment for demonstrations
- » Scientific books and magazines with energy themes.

The truck will visit schools and academic institutions. A specialized team will give demonstrations on the equipment and conduct some tests in a simplified manner to allow students to understand the basics of renewable energy, and the importance of their use in order to improve the performance of the national economic cycle, and work towards improving environmental performance in the production and use of energy.







LEBANESE CENTRE FOR CLEANER PRODUCTION



LEBANESE CLEANER PRODUCTION CENTER



The LCPC acted for 2 years in the Executive Committee of the Global RECP Network, as West Asia Representative and currently an active Member in the Arab Region for 3 years.

In this perspective and in line with UNIDO's holistic and Cleaner Production strategy, the RECP program aims at increasing the positive economic, environmental and social impact of the existing and potential new UNIDO Cleaner Production Centers (NCPCs) on their industries in the Arab region by establishing an efficient regional cooperation, knowledge management and promotion mechanism for Cleaner Production (CP) and Environmental Sound Technology (EST) transfer.

A Knowledge Management (KM) methodology and interactive platform has been provided and Communities of Practice will be established, in order to enable stakeholders in the participating countries to leverage their knowledge and increase the dissemination of their experiences and best practices throughout the network.

By means of their National Centers for Cleaner Production, countries from the Arab Region integrate this first Regional Knowledge Management System of the RECP

Global Network, with the aim to share their resources and experiences.

In this regard and within the context of Developing the KMS Network, Dr. Ali Yaacoub "the director of the LCPC" shared an event with UNIDO-UNEP about Global Knowledge Management System(KMS) with Arab members and other regions in November 2012 in Vienna at UNIDO HQ.

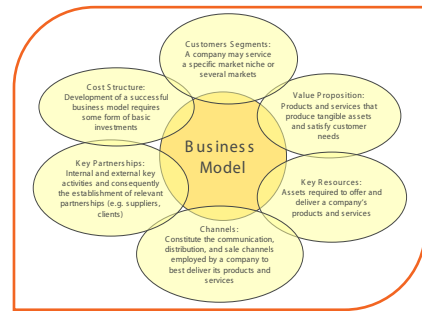
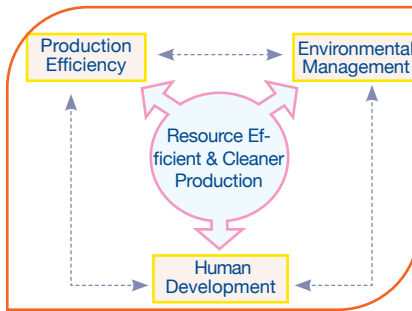
The link for KMS is:
<http://www.arabnet.stocker-development.com>

Resource Efficiency and Cleaner Production

Cleaner production is considered an integrated approach because of the inclusion of all relevant environmental aspects and impacts and is not confined to one environmental impact category.

RECP builds upon cleaner production by accelerating the application of preventive environmental strategies to processes, products and services to increase efficiency and reduce risks to humans and the environment.

RECP addresses the three dimensions of sustainability individually and synergistically:



Production efficiency

Optimisation of the productive use of natural resources

Environmental management

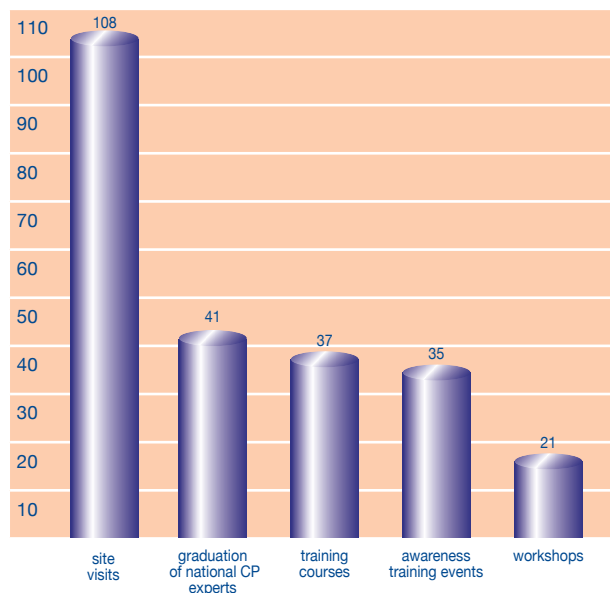
Minimisation of impacts on environment and nature through reduction of waste and emissions

Human development

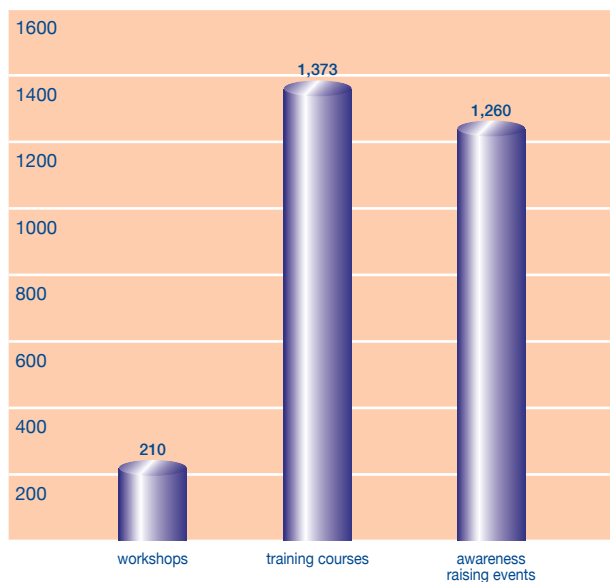
Minimisation of risks to people and communities and support for their development.

The year 2012 was rewarding, LCPC achieved the targets set in its business plan, the cumulative activities achieved and the total numbers of participants are shown in the 2 following graphs:

LCPC activities till end of 2012



Number of participants in LCPC activities till end of 2012



LCPC is Officially accepted a Member in the Green Industry Platform

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 Global Green Industry Platform, which has been Launched at the United Nations Conference on Sustainable Development (Rio+20) and has been dedicated for donors a great budget.

The Green Industry Platform provides a Frame work for its members to work together with governmental, private sector, civil society and other Stakeholders in advancing green industrial policies and practices within for key areas: Resource Efficiency, Water Optimization, Industrial Energy Efficiency and Chemical Management.

IN-PLANT DEMONSTRATIONS



LCPC has collaborated with 32 Company in Lebanon distributed among several industrial sub- sectors. These sectors are:

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

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

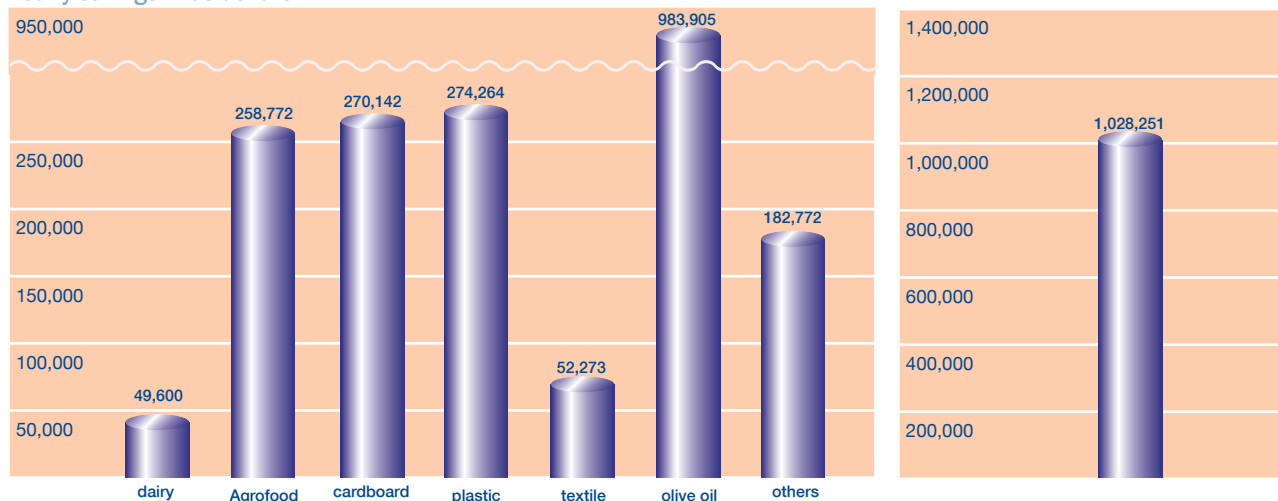
Site visit - Tanmia Agricultural Development Company s.a.l. – Rayak Bekaa, 2012

Tanmia Agricultural Development Company: Vertically integrated poultry.

During several site visits to its facilities, LCPC applied a cleaner production system for Tanmia which employs more than 250 permanent employees and produces more than 150 varieties of fresh, frozen, further processed and canned products, Its products include more than SKU'S ranging from of which it supplies the Lebanese market on a daily basis.

By implementing five cleaner production options, Tanmia was able to save \$863,904 through a \$633,000 investment.

Yearly savings in us dollars



AWARENESS RAISING

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



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



French Delegation at CNRS – Nancy, visited LCPC at IRI - April 2012

LCPC and Industrial Research Institute (IRI) greeted the research director of French delegation at CNRS - Nancy, and the Prof. Frederic Villieras accompanied by Prof. Taysir Hamieh, who is the Dean of the faculty of Agriculture at the Lebanese University. The delegation visited IRI laboratories and offices.



UNIDO Head of Arab Program Visit to LCPC

Dr. Azza Morssy, head of the Arab program at UNIDO headquarters in Vienna visited LCPC to discuss common

interests and different multilateral projects for Lebanon. In this regard visits to national decision makers in the industrial sector has been arranged and participation in national events has been executed.



Multi Sessions to Islamic University Masters Students Visit to LCPC & IRI laboratories - April 2012

The LCPC Director, Dr. Ali Yaacoub held training sessions on CP concepts and methodology to the IUL students mastering in Industrial Technology.

Their visit also included a guided visit to the laboratories available at IRI to introduce the students to the sampling techniques and metrology.

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. LCPC succeeded in conducting 36 training courses targeting participants mainly students from the academic sector, managers, technical experts from the industrial sector, employees from the public sector, and non profit organizations.

Workshop on Environmental Development – University of Kerbala – College of Applied Medical Sciences – Iraq, April 2012

The Lebanese Cleaner Production Center organized a workshop on Environmental development at the Faculty of Applied Medical Sciences in the University of Kerbala – Iraq, where the LCPC team presented several lectures on Sustainable Development, Clean Production, Green Economy and Sustainable Consumption and Production.

An agreement was signed between the Lebanese Center for Cleaner Production represented by Dr. Ali Yaacoub and the Faculty of Applied Medical Sciences represented by Dr. Mohsen Abdul Jabbar Al – Mousawi. During the Workshop Dr. Ali Yaacoub was honored for his contribution in the field of environmental development.

Forum Francophone preparatory à Rio+20, Lyon - France, February 2012

As part of the preparation of the UN Conference on Sustainable Development (Rio +20, June 2012), the OIF has organized an International Forum on 8 and 9 February 2012 in Lyon.

It took place under the presidency of Abdou Diouf, Secretary General of the Francophonie, the presence of Denis Sassou Nguesso, President of the Republic of Congo; Mahamadou Issoufou, President of Niger Brice Lalonde, Former Minister, the Executive Coordinator United Nations Conference on the UN sustainable Development, Jean-Pierre Raffarin, former Prime Minister, Personal Representative of the President of the French Republic to the Permanent Council of the Francophonie, Gérard Collob, Mayor of Lyon, and other government officials, regional and local French.



Launching Ceremony of the Project on “Strengthening National Capacity in the ESCWA Region on Developing Green Production Sectors”, April 2012, Beirut, Lebanon

The Economic and Social Commission for Western Asia and the Pacific (ESCAP) is organizing, in collaboration with the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Program (UNEP) a Training and skills development workshop on topics related to green production sectors.

The purpose of this conference is to enhance the productivity and competitiveness of the production sectors and to build capacities and harnessing technology and innovation.



Green Business Opportunities, Year 2, Lebanon Opportunities – Green Business Initiative, June 2012

The Green Business Initiative is a project undertaken by the Lebanon Opportunities, and the InfoPro Center for Economic Information, an NGO, in alliance with green companies and trade representative organizations.

To inform and enable the business community on ways to become environmentally friendly in an economically feasible manner and to provide companies and institutions with practical tools and independent support that would have a positive contribution to their profits when engaging in an environmentally sustainable conduct.

Bahrain First Green Tech – Expo 2012, March 2012, Manama Kingdom of Bahrain

Bahrain Green-Tech EXPO is a new trade show dedicated to the green consumer products and services. This is the only business-to-business trade show focused specifically on ECO-friendly consumer products. As Consumers demands for ECO-friendly products and services is growing rapidly, there is a growing need from big retailers to add more ECO Friendly product and services to their already growing line of products and services. As the green technology and sustainable marketplace continues to expand, retailers & Consumers are desperate and eager to find the hottest new products on the market.

Bahrain international green tech-expo demonstrates the latest technologies developed by international organizations.

Reach / GHS implementation in practice, November 2012, Cairo

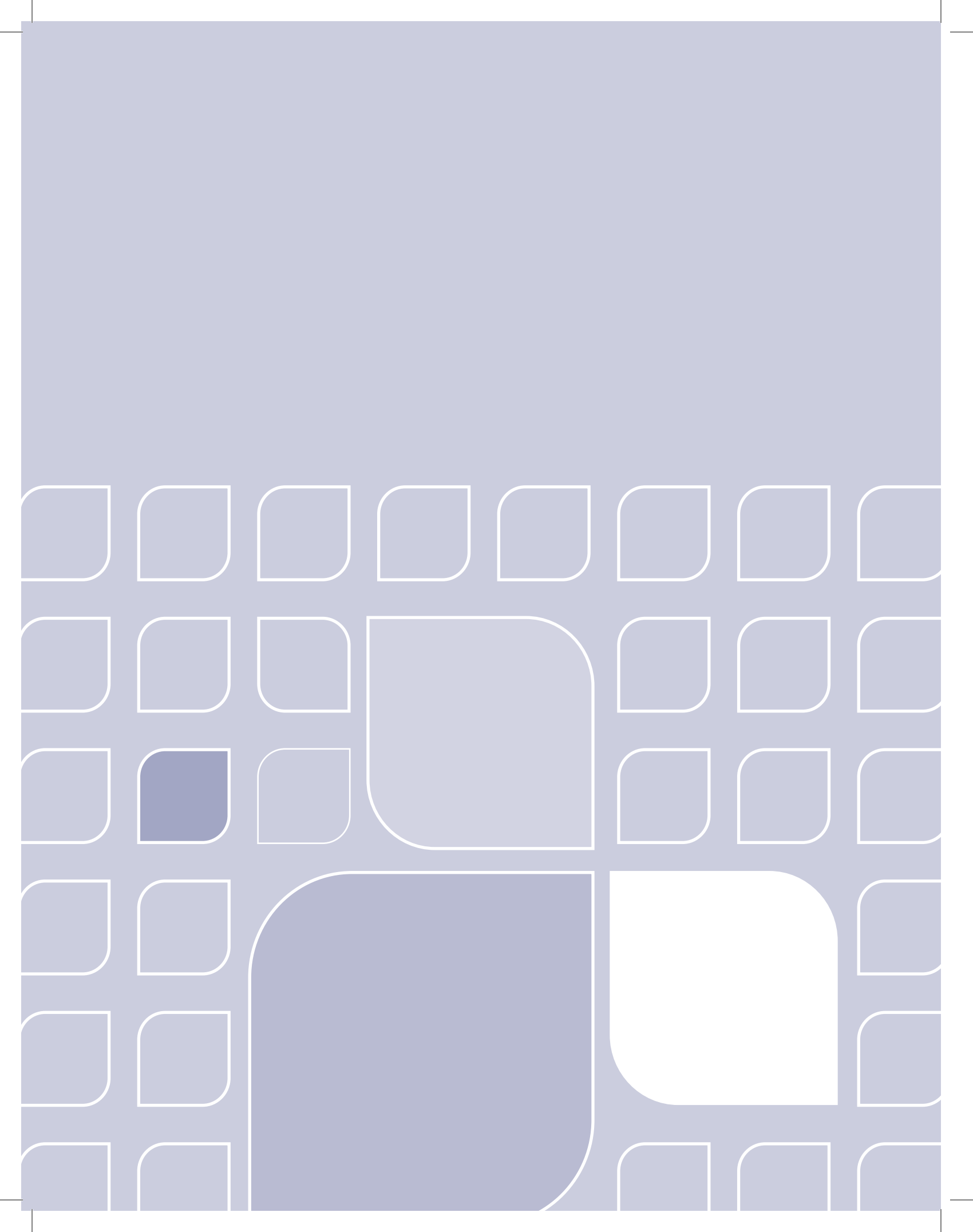


LCPC PARTICIPATION IN OTHERS EVENTS

Event	Date	Location
Signing Ceremony of the HPMP project and kick-off Thematic Workshop on Alternatives to HCFCs	18 – 19 January 2012	Beirut, Lebanon
Tackling Climate Change: Making Green Growth a Reality	23 February 2012	Beirut, Lebanon
Arab Ceremony & Exhibition 3rd Edition	7 March 2012	UNESCO Palace, Beirut
Session at full capacity for food materials sector with a case study of the olive oil production sector	10 March 2012	Beirut, Lebanon
Ceremony Lebanese residents award certificates of excellence	27 March 2012	Beirut, Lebanon
National Strategy for Water Sector	26 April 2012	Beirut, Lebanon
Seminar on the full production cycle of the food sector with a case study of the olive oil production sector	10 May 2012	Beirut, Lebanon
Adaptation to a Changing Climate in the Arab Countries	15 May 2012	Beirut, Lebanon
The Road to Democracy: the Arab Region, Latin America and Eastern Europe	18 May 2012	Beirut, Lebanon
Rethinking Water in the City: Sustainable Water Management in an Urbanizing World	23 May 2012	Beirut, Lebanon
Fifty Years of Commitment to Excellence	6 – 7 June 2012	Beirut, Lebanon
French cluster cd2e with Global Cleantech Cluser Association (GCCA)	13 June 2012	Lille Grand Palais - EURALILLE
The launch of the national report to the United NATIONS Conference on Sustainable Development in preparation for the United Nations Conference on the "Rio+20"	5 June 2012	Beirut, Lebanon
Launch of Innovation Voucher Project	12 June 2012	Beirut, Lebanon
Sustaining the NEEREA Green Financing Mechanism ad the cknowl- edgement of the First Beneficiaries	15 June 2012	Beirut, Lebanon



Event	Date	Location
Closing ceremony planting campaign fray	7 July 2012	Beirut, Lebanon
National Symposium on desertification	8 July 2012	Iraq
Change and the Human Aspect of Quality	12 September 2012	Beirut, Lebanon
EURO-ARAB Economic Forum	12 – 13 September 2012	Beirut, Lebanon
Beirut Energy Forum	13 – 14 September 2012	Beirut, Lebanon
FOOD PACKAGING Conference	6 November 2012	Beirut, Lebanon
The 2nd PRME MENA Regional Forum	7 – 8 November 2012	Beirut, Lebanon
The innovation accelerator in green technologies	12 November 2012	Beirut, Lebanon
The 6th Edition of the Mediterranean Week of Economic Leaders	19- 2 November 2012	Barcelona
World Standards Day	2 November 2012	Beirut, Lebanon
ARAB ENVIRONMENT 2012 / Ecological Footprint & Sustainability Options in Arab Countries / Annual Conference of the Arab Forum for Environment and Development (AFED)	29 – 30 November 2012	Beirut, Lebanon
Workshop on Renewable Energy to a Clean Environment	8 December 2012	Beirut, Lebanon
Inauguration of PV system & Ecotruck	11 December 2012	Beirut, Lebanon
Community Empowerment and Livelihoods Enhancement OHSAS Implementation in SME's	11 December 2012	Zahlé, Lebanon
Seminar on the role of Islamic banks in transforming the energies of young people to the forces of developmental	13 December 2012	Beirut, Lebanon
National Strategy for the Wastewater Sector	13 December 2012	Beirut, Lebanon





**EURO-LEBANESE CENTRE
FOR INDUSTRIAL MODERNIZATION**

EURO-LEBANESE CENTRE FOR INDUSTRIAL MODERNIZATION

Major activities

The food advisory unit:

- » Signature of an MOU with the American University of Beirut.
- » An extensive promotional activity was implemented for that purpose:

A one day forum on food safety was organized at the HORECA exhibition in conjunction with the Federation of chambers and the syndicate of restaurants: the conference addressed issues for both food industry and food service. Main topics were related to implementation of HACCP based GMP, food labeling and packaging for the food industry, good practices in the food service, Pest management in the food service, Role of the different ministries in the application, of food safety rules and panel discussion on the MOA regulation 1/950

Furthermore: Prepared specs and monitored implementation of two technical missions to food industries/service through the SME support center at the federation of chambers. Prepare proposals for private sector on food services.

Quality management services:

Provide additional support to the previously ELCIM consulted companies by:

- » Doing a quick scan on their existing Quality Management System
- » Giving them an additional advice to maintain their system and keep it sustainable.

Technical assistance to SMEs

- » Provide brief business assessment to SME's (free of charge)
- » Prepare action plan based on the business assessment (according to SME request).

Facilitate access of SMEs to financing resources:

- » A continuous follow-up with Kafalat and local banks
- » Conducting two feasibility studies for ELCIM and the SME support centre
- » Participating in financial seminars, workshops.



Training of SMEs:

Provide public and in-house training session to over professional attendants from various companies in the fields of:

- » Merchandizing
- » Conflict resolution
- » Negotiation techniques
- » Good presentation skills
- » Attended by over 50 persons.

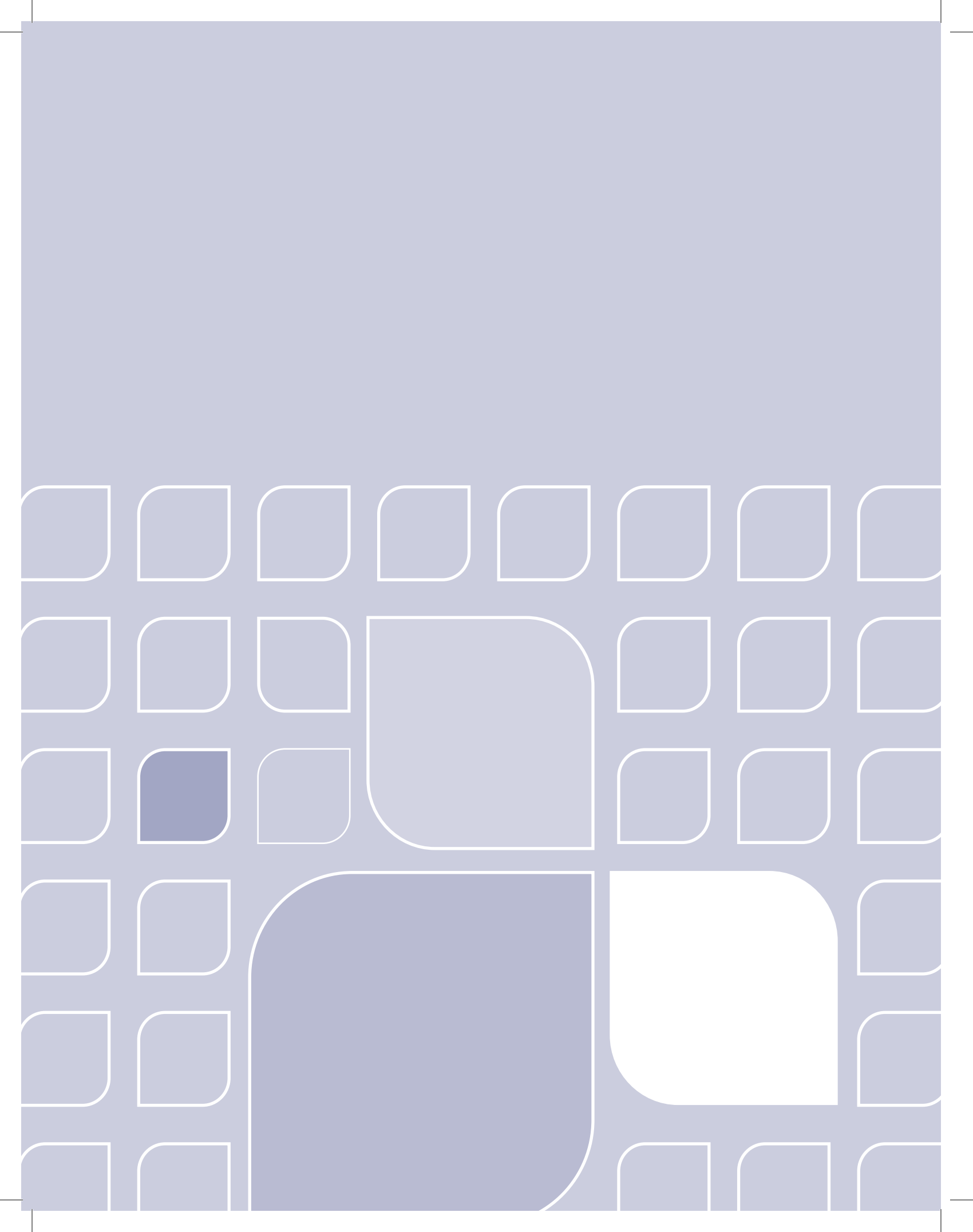
Organization of a seminar in collaboration with the OLAYAN Business School and the Makhzoumi foundation of a closed seminar on Corporate governance.

SME Support center at the federation of chambers

- » Provide continuous presence at the federation of chambers
- » Provide technical assistance and advice to SMES.

Lebanon Softshore ICT Cluster

- » Re-activation of the cluster
- » Preparation of a survey on needs assessment.





CENTRE FOR INNOVATION & TECHNOLOGY



With a View to Reduce Research Cost for Small and Medium-Sized Enterprises The Center for Innovation and Technology Launches its “Innovation Voucher Project”



From the left: Dr. Bassam Frenn, Angela Eichhorst, Minister Sabounjian and Mr. Naji Abi Zeid



From day one, the Center for Innovation and Technology (CIT) plotted a course of activity that fulfills its aspirations, particularly in the direction of universities in Lebanon. The aim: to motivate students and encourage them to achieve their aspirations and develop their creative capabilities.

To this end, the CIT launched the “Innovation Voucher Project” on June 12, 2012 at the Industrial Research Institute (IRI) premises, in an event attended by Minister of Industry H.E. Mr. Vrej Sabounjian, head of the European Delegation in Lebanon, H.E. Ambassador Angelina Eichhorst, Director General of the IRI Bassam Frenn, and Mrs. Salam Yamout, Project Director – Project Administration Office (PAO) at the Presidency of the Council of Ministers.

Innovation Voucher

The “Innovation Voucher Project” is co-funded by the European Union (EU) and the IRI. It aims at support-

ing socio-economic development and economic growth in Lebanon, and reinforcing the competitiveness of the Lebanese private sector.

More specifically, the project seeks to promote technological innovation in products and services of the manufacturing industry. The “Innovation Voucher Project” will grant up to €10,000 to at least 20 Lebanese SMEs to apply research and innovation into their products and services.

This voucher system is mainly designed to encourage SMEs that lack the resources or experience to work with research and innovation centers, and to engage researchers to help small industries face competitiveness challenges. It also aims at encouraging SMEs to create new products, processes, services or even enhanced business models. The system will help alleviate the financial cost of research and development for SMEs, through a simple application procedure.



The CIT, which is based at IRI, received a grant of €200,000 from the EU for the implementation of this initiative. The EU will act as a coordination body between the research institutions and the demands of local industry.

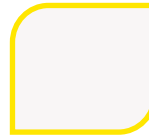
Participants' Addresses

Mr. Najj Abi Zeid, CIT Director, spoke in the opening ceremony, highlighting the importance of innovation, which he linked to our very existence. He encouraged researchers to come forward and benefit from the Voucher Program, promising them the center's full support and follow up.

The Minister of Industry, H.E. Mr. Vrej Sabounjian, stated that the European expertise implemented in our enterprises by the Lebanese should provide us with special capabilities and a competitive edge for our products in the European markets. "We will seek together, through this Center for Innovation and Technology, to enhance the exchange of knowledge. We will also try to transfer European technology through the establishment of integrated industries in Lebanon, which rely on added value – something that is readily available to Lebanese thinking and creativity."

Frenn and Eichhorst

Dr. Bassam Frenn declared that scientific research is the main driver for the production of knowledge. This is why



The CIT Director Mr. Najj Abi Zeid

a comprehensive strategic plan was put in place in order to support economic, social and environmental development. He also noted that the bigger project to be implemented should include a legal and regulatory framework which protects innovative ideas in Lebanon.

H.E. Ambassador Eichhorst, Head of the Delegation of the EU, said, "Innovation is not only a crucial investment for the future of the EU. It is also crucial for Lebanon. We strongly believe that Lebanon possesses extraordinary potential for innovation and can build on its rich cultural diversity. We want to help the Lebanese private sector acquire a 'competitive edge' and conquer new markets."

Mrs. Salam Yamout, PAO Project Director, added that the government of Lebanon is working on several projects to improve innovation and access to capital markets.

Issuing the first Innovation Voucher and more follow...

1



The CIT issued its first Innovation Voucher to the applicant Mr. Jihad Nasrallah on Wednesday, October 10, 2012. Mr. Nasrallah worked on a Smart Storage Electric Hot Water Tank that is intended to replace the usual electrical hot water tank.

The awarded project succeeded in passing the evaluation rounds and was found by the CIT technical committee to possess an encouraging inventiveness level while providing a novel way for significant energy saving, with the ability to serve at least double the number of people with hot water for limited temperature peaks. The issued Innovation Voucher will be used to develop a prototype such that it will become closer to the commercialization phase where the industry can benefit from it.

2



The second Innovation Voucher issued by CIT was awarded to the applicant Mr. Fadi Lama in November 2012. Mr. Lama has worked on a new laser head for fiberglass and polymeric pipe profile measurement.

The CIT technical committee has found that the project provides an encouraging inventiveness level and a novel way for inspecting fiberglass pipelines on installation. After passing the evaluation rounds, the project was awarded the full voucher in order to develop a prototype such that it will become closer to the commercialization phase where fiberglass pipe factories, pipeline installation contractors and consultants overseeing installation of fiberglass pipelines can benefit from it.

3



Mr. Ali Kassem has been awarded € 10,000 to continue developing a temperature logger to enable automatic determination of Resin gel time that is currently determined visually by operator, and then manually inputted into the software.

This development will have a great advantage to the industry, as Resin thermal characteristics are critical for quality control of resins and for production of composite parts. The awarded initiative succeeded the several evaluation rounds and was found by the CIT technical committee to possess an encouraging inventiveness level.



4

5



The CIT issued 2 more innovation vouchers on Thursday December 20th, 2012 to the applicants Mr. Ali Ammouri and Mr. Charbel Maroun. Each applicant received a voucher of 10,000 EURO in order to further develop their projects such that they will become closer to the commercialization phase where the industry can benefit from them.

Mr. Amouri's project addresses a smart servicing unit for Ozone-friendly HVAC and refrigeration industries, while Mr. Maroun has worked on developing an innovative coffee machine.

Both Projects have passed successive rounds of evaluations, and were found to have an encouraging level of inventiveness by the technical committees.



Commercialization Tour

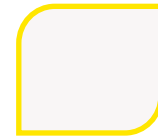
The CIT at the Industrial Research Institute hosted the Commercialization Tour on November 7, 2012. This tour is organized by the United Nations Economic and Social Commission for Western Asia (ESCWA) Technology Centre (ETC) in cooperation with Talal Abu-Ghazaleh Organization (TAG-Org), El Hassan Business Park (EHBP), and the Licensing Executives Society- Arab Countries (LES-AC).

The Commercialization Tour aimed at encouraging innovation and widening opportunities for matching innovators with investors, where a number of investors coming from Lebanon and the region, such as Jordan, Saudi Arabia, and Palestine, were able to meet with entrepreneurs who presented their projects and further developments needed in them, namely in terms of investment required and commercialization opportunities.

The match making showed promising results, where a number of investors were interested in further pursuing some of the projects introduced.



CIT Team Visits USEK, LAU, and NDU Universities



Reaching out to students and faculty at Lebanese universities, a team from the Center for Innovation and Technology visited the University de Saint Esprit – Kaslik (USEK), and presented an overview of the Innovation Voucher Project to students and faculty there, its eligibility criteria, and the voucher application process.

The team responded to queries from members of the faculty, and students interested in research and development, and explained the issues and questions raised. Questions and answers focused essentially on the time frame allocated to the voucher, and the eligibility criteria (students can submit applications on a personal basis), as well as on the research fields covered by the project.

The team was headed by Dr. Ziad Eid, who toured the innovation and technology center at USEK, where he had the opportunity to examine the latest achievements of the



university in relation to green technologies, and to devise ways of mutual cooperation.

The CIT team also visited the Lebanese-American University (LAU), briefing students and faculty members about the Innovation Voucher project in turn – including eligibility criteria and the application process. After that, the attendees participated in an open discussion, allowing faculty members interested in research and development to inquire about the topics raised, and receive clarifications from the CIT team.

Likewise, the CIT team gave a presentation to interested faculty members about the project at Notre Dame University (NDU), the eligibility criteria, and the application process. A Q&A session followed the presentation, focusing on the voucher project.

CIT at the Industrialists' Meeting with the Minister

17 September, 2012



The Association of Lebanese Industrialists (ALI) coordinated an industrialists' meeting with the Minister of Industry H.E. Mr. Vrej Sabounjian at Le Royal Hotel. The meeting commenced with the CIT/ELCIM Director, Mr. Naji Abi Zeid, highlighting the progress of the Innovation Voucher Project and other activities of the CIT. He also spoke of ELCIM's various services, ranging from technical assistance to training for SMEs. Finally he shed the light on ELCIM's upcoming cooperation with the Makhzoumy Foundation and the American University of Beirut on the topic of Corporate Governance.

A brief introduction on the Lebanese Mediation Center was also done followed by the launch of a campaign to promote Lebanese industry. Under the slogan "Your

Industry Your Identity: Buy Lebanese [products]," the campaign intends to bolster the image of Lebanese products both at home and abroad. Mr. Nehmat Frem, head of the Lebanese Industrialists Association and a key figure behind the campaign, said the project would feature television and billboard adverts.

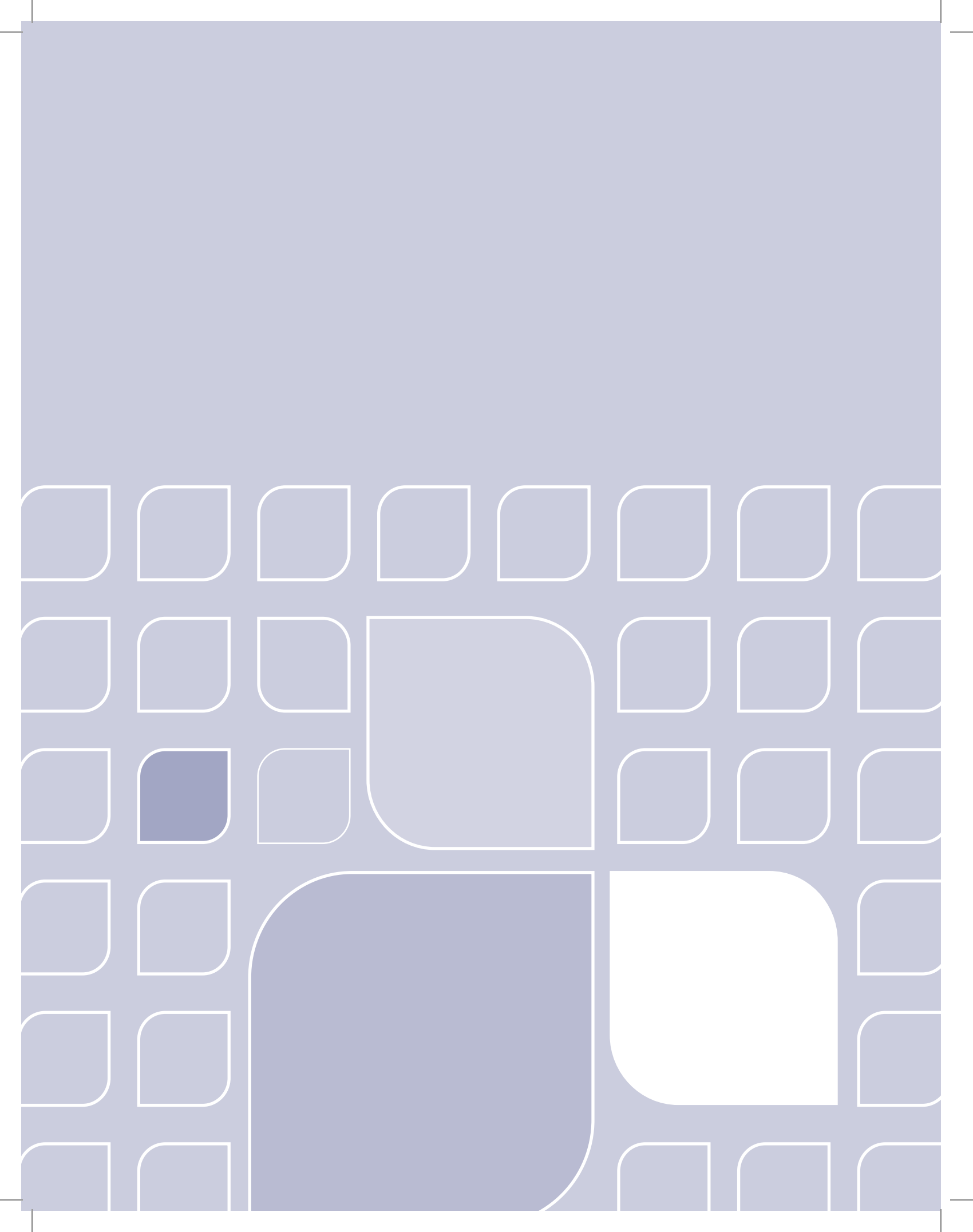
H.E. Mr. Sabounjian called on Lebanese industrialists to explore new markets to offset the impact of an anticipated economic recession, reassuring his believe in the abilities and capacities of the Lebanese economy. After which, an open discussion was held between the Minister and the industrialists were they raised their concerns and spoke of issues that need to be solved.

CIT Booth at the LibanPack Exhibition



The CIT and ELCIM participated in the LibanPack Exhibition held in conjunction with the Conference on Food Packaging on November 6, 2012, at Adnan Kassar Edifice. The conference hosted a number of distinguished speakers that delivered real-world solutions and engaged in discussions on key topics regarding food packaging innovation trends and the effects of packaging on food safety.

During the exhibition, participants visited the booth, where ELCIM/CIT team members were able to advise them on how to benefit from the services of the centers, including the Innovation Voucher Project at CIT.



10

IRI RELATIONS WITH MINISTRIES & PUBLIC INSTITUTIONS



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.

Last year, IRI actively participated in the drafting and discussion of the bill on technical regulations and perti-

nent procedures for conformity assessment, in all stages of the process, with the subcommittee of the joint parliamentary committees, until the bill was approved by this committee at the end of September, 2011.

IRI participated in the drafting of the bill regulating drinking water processing, treatment and packaging, with the Committee on Public Health, Labor and Social Affairs.

The bill aims to limit the unregulated and exploding number of drinking water distribution companies in Lebanon, as a result of the growing need of the citizens for water that is otherwise unavailable through public drinking water grids. The bill seeks to subject most unlicensed bottling companies to the laws and regulations in force, in order to ensure the safety of water, that it is uncontaminated, and that it complies with the required specifications to preserve public health.

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

- » Following up the process of replacing domestic gas bottles, especially the control of the production and exportation of gas bottles before they are used in local markets.
- » Providing the necessary expertise and technical analysis related to fuels allowed in private cars.
- » Offering opinion and technical analysis related to bills concerning public safety in the use of fuel tanks, with a view to prevent 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 licences, 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 licence 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 consultation in national issues when requested, issues that fall under the scope of both the ministry's work and IRI's fields of expertise.

Ministry of Environment

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

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

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



Customs

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

Lebanese Standards Institution (LIBNOR)

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

The Lebanese Council for Accreditation (Colibac)

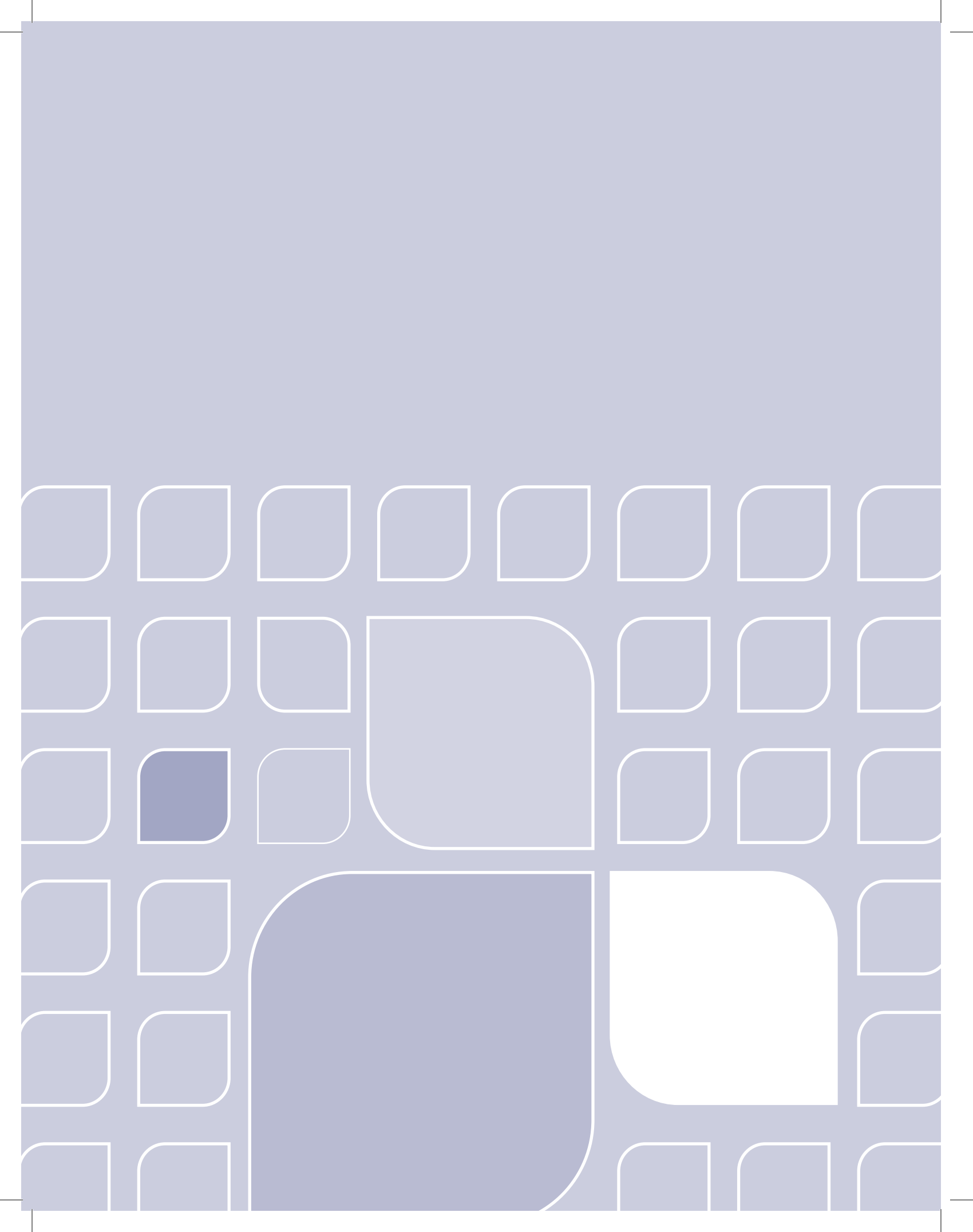
Some time ago, IRI realized that the infrastructure of a world-class quality process must include the following items:

- » Bodies for conformity assessment that implement these specifications. This role is primarily assumed by IRI in Lebanon, not only in the application of

national standards, but also in the application of international standards in export operations as IRI is internationally accredited according to Certificate No. 17025

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





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. Four 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 speci-

fications can flow into the European and global markets, owing to the certificate of conformity issued by IRI.

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

C – Product Certification

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

Merchants

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

Hence, the relation between the importers and merchants on one hand, and IRI on the other hand is constantly



evolving. Efforts are underway, on a continuous basis, to facilitate trade exchange on one hand, and to verify the conformity of imported goods following a scientific method on the other hand.

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

Farmers

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

IRI provides analysis for farmers for the following products:

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

Researchers and scientists

Many researchers and scientists head to IRI to conduct tests and analyses necessary for their scientific research. Most of the time, their requests become applied research projects, as they are aware of IRI's capabilities in this area. This is not to mention the fact that IRI houses 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

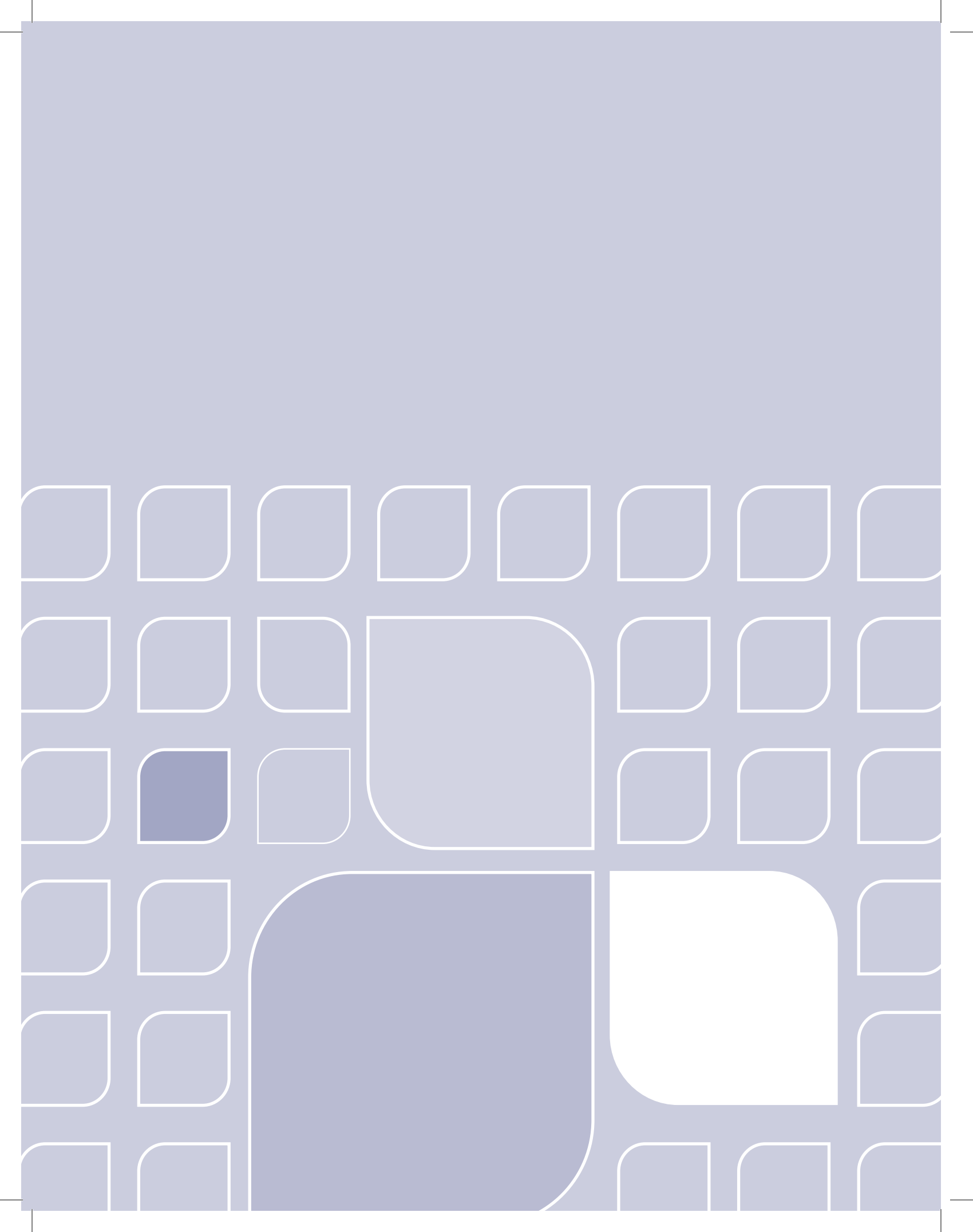
The relationship between consumers and IRI is either direct or indirect, through the civil organizations and associations concerned with consumer protection, the environment and other fields.

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.





DEVELOPMENT OF HUMAN RESOURCES

DEVELOPMENT OF HUMAN RESOURCES

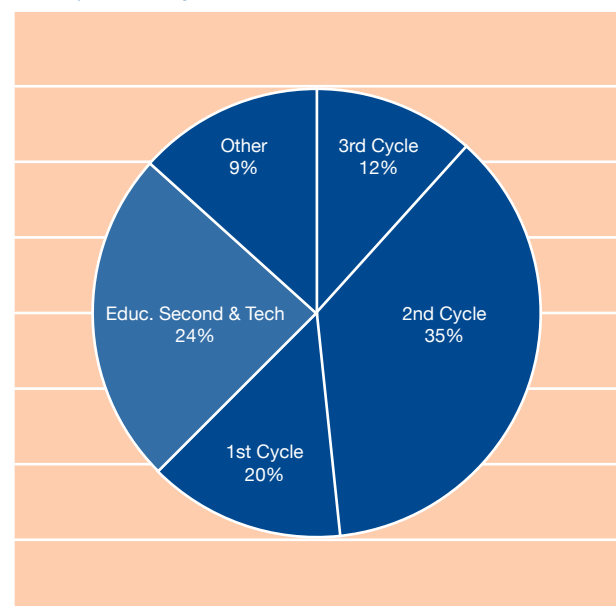
The number of IRI staff members amounted to 145 at the end of 2012; 70% are males, while 30% are females. The average age is around 34 years.

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.

Education Level	No.	%
3rd Cycle	17 pers.	12%
2nd Cycle	51 pers	35%
1st Cycle	30 pers	20%
Educ. Second & Tech.	35 pers	24%
Other	12 pers	9%

Average Age	Gender	
34 years	70% Male	30% Female

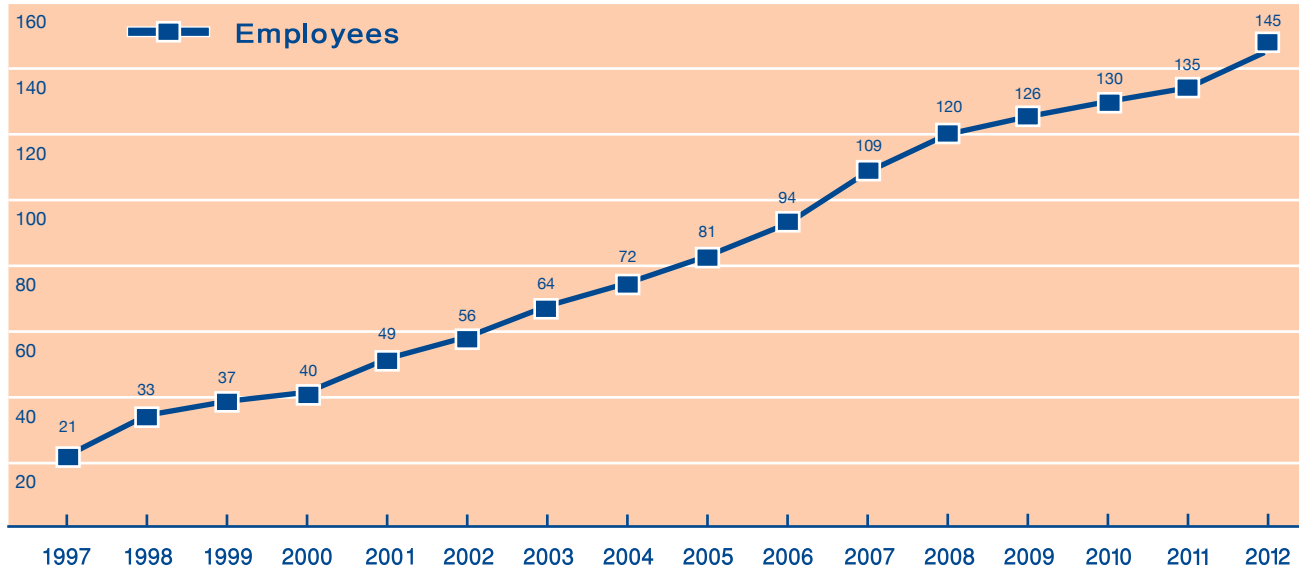
2012 /145 People

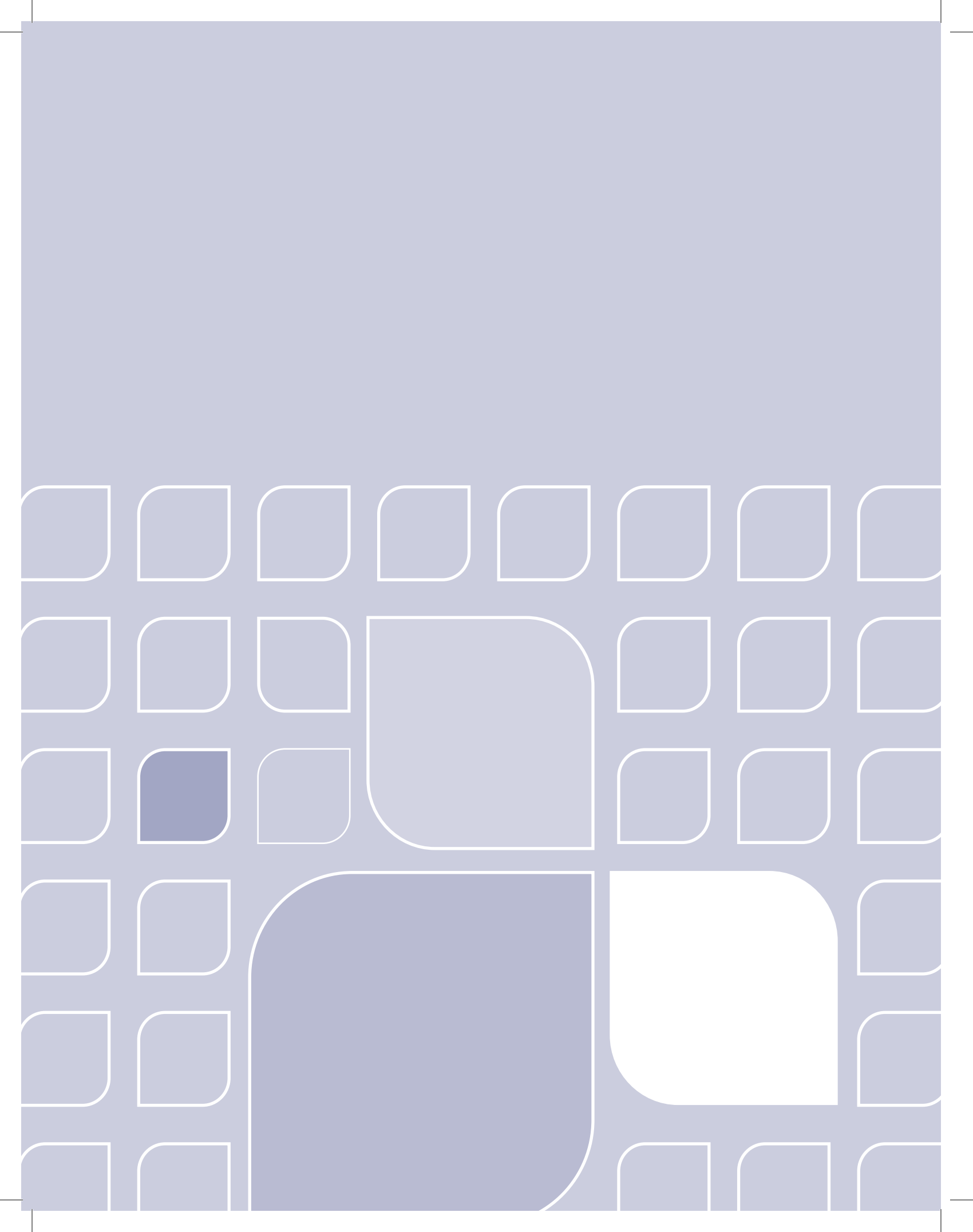




IRI employees

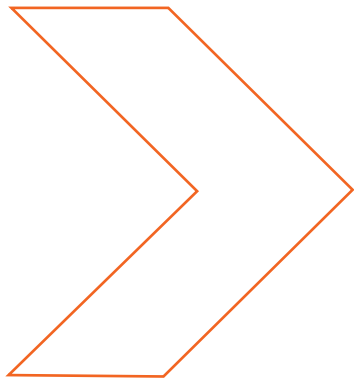
Job Creation 1997-2012







ON-GOING EMPLOYEE TRAINING



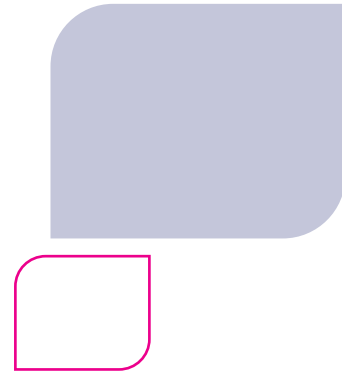
MISSIONS, TRAINING, WORKSHOPS AND SEMINARS

Missions (Trainers, Experts & Speakers)

	2009		2010		2011		2012	
	days	participations	days	participations	days	participations	days	participations
International missions & training,	170	96	220	113	230	147	136	103
Seminars & workshops	59	17	66	26	14	7	39	14

IRI Seminars/Conferences

Participant	Organizer	Object/Title of the training	Date
Sélim Kfoury Imad Hage Chehade Joseph Matta	The Belgian Business Council in Lebanon (BBCL)	The innovation accelerator in green technologies	11/12/2012



Internal Training & Audit

Participant	Object	Date
Elias Dib Mark Tahchy	Training on new equipment	01/10-12/2012
Joelle Saikaly	Internal audit, observer - Adm: Purchasing	2/29/2012
Elie Melky	Internal audit, observer - ADM - personnel	3/20/2012
Hanna Francis	Internal audit, observer - civil Engineering lab	3/27/2012
Nancy Maalouf	Internal audit, observer - wet chemistry lab	3/28/2012
Mahmoud Amhaz	External audit, observer - Integrated Digital Systems IDS	4/27/2012
Hiba Yaacoub	Internal audit, observer - Adm: Secretary - Reception	4/30/2012
Joelle Saikaly	Internal audit, observer - Metrology	5/14/2012
Halim El Bayeh	Internal audit, observer - Electrical lab	6/18/2012
Maya Majdalani	External audit, observer - Bel Labtronic	6/26/2012
Elie Melky	Internal audit, observer - Microbiology laboratory	7/24/2012
Elias Maalouf	Implementation of standard ISO 7864: Sterile hypodermic needle for single use	7/13/2012
Elias Maalouf	Implementation of standards: NL ISO 7886-3; NL ISO7886-1 & NL ISO 7886-2	7/14/2012
Hiba Yaacoub	Internal audit, observer - Bread lab	8/31/2012
Bilal Hussein	External audit, observer - Mondi Lebanon	9/3/2012
Nancy Maalouf	Internal audit - physical chemistry lab	10/24/2012
Elias Maalouf	Implementation of standard "NL ISO 4000-2: 2004" (part 2); "NL ISO 4000-1: 2004" (part 1)	11/14/2012
Elias Maalouf	Implementation of standard "NL EN 12790:2004"	11/21/2012
Ahmad Hassan	Test of circuit breaker	11/28/2012
Halim El Bayeh	Internal audit, observer - ISD unit	11/28/2012
Khaled El Ghouli Ahmad Habli Khodor Fawaz Jean Dib	Qualification test of welders	12/6/2012

Local Training, Seminars & Workshops

Participant	Organizer	Object/Title of the training	Date	Location
Mohammad Hajjar	ECODIT / MOE / UNDP	3rd edition of the State and Trends of the Lebanese Environment Report 2010	1/4/2012	Electricité du Liban - Gemmazeh
Halim El Bayeh Mohammad Hajjar Bilal Houssein	Ministry of Environment	Signing ceremony of the HPMP project and kick-off the thematic workshop on alternatives to HCFCs	01/18-19/2012	Holiday Inn - Dunes
Bassam Kabalan	Institut des Finances	Le Liban: Un pôle méditerranéen innovant en services	01/25-27/2012	Institut des Finances - Beirut
Nadia Khoury	JICA / Embassy of Japan	Japanese Industries in the Eyes of Arabs	02/1-4/2012	Safir Heliopolitan Hotel - Beirut
Mohammad Hajjar Talal Zaki	ESCWA	ورشة عمل حول «توسيع نطاق استخدام الطاقات المتجددة في المناطق الريفية للبلدان الاعضاء في الاسكوا»	02/1-2/2012	ESCWA, Beirut
Hanna Francis Hassan Raad	PSI	PSI Promotions "OKI products and utilities"	02/02/2012	Deir El Kalaa Country Club - Beit Mery
Imad Hage Chehade	CEDRO	دراسة الطاقة الحيوية في لبنان (Bioenergy)	03/05/2012	Habtoor - Sin El Fil
Nancy Maalouf Carole Maroun Marc Churfane	Hanns Seidel Foundation / Ministry of Industry	Clean Production	03/13-14/2012	Sun Hills Suites Hotel - Adma
Thomas Sabbagh	معهد باسل فليحان الاقتصادي والمالي	الشراء الحكومي المستدام	03/15-16/2012	معهد باسل فليحان الاقتصادي والمالي، بيروت
Nancy Maalouf	The Federation of Chambers of Commerce, Industry & Agriculture / IRI / ELCIM	International Food safety Seminar	03/21/2012	Biel - Beirut
Camelia Kanaan	Syndicate of Lebanese Food Industries	The National Food Industry Day	03/22/2012	Biel - Beirut
Bassam Kabalan	معهد باسل فليحان الاقتصادي والمالي	مخطط التطوير المؤسسي لمعهد باسل فليحان الاقتصادي والمالي: آفاق ٢٠١٥	3/29/2012	معهد باسل فليحان الاقتصادي والمالي، بيروت
Rola Sleiman	CNRS	Research Commercialization and Technology Transfer: National Model for Lebanon	03/29/2012	National Council for Scientific Research
Robert Haddad	3A Solutions Group	Excellence Forum II	03/30/2012	Saint Joseph University, Faculty of Sciences
Antoine Fayçal Mohammad Hajjar	GEF / LCEC	Integrating Solar Water Heating Systems Installations in New Construction Sites	04/03/2012	Holiday Inn - Dunes
Maya Majdalani	ESCWA	Strengthening National Capacities in the ESCWA Region on Developing Green Production Sectors	04/25/2012	softball
Ziad Moukarzel	FFA / ESA	Pour une gestion durable de notre territoire	04/26/2012	ESA - Clemenceau

Participant	Organizer	Object/Title of the training	Date	Location
Siham Youssef	اتحاد المهندسين العرب / اتحاد المهندسين اللبنانيين	الملتقى الثاني للمهندسات العربيات بعنوان "المهندسة العربية في موقع القرار"	05/11-12/2012	بيت المهندس- نقابة المهندسين - بيروت
Antoine Fayçal	Arab Hospitals Federation	Health Insight 2	05/16/2012	Hotel Hilton - Sin El Fil
Mohammad Hajjar	PWMSP	National Seminar on Improved Intra- and Inter-Regional Transfer of Knowledge	05/21/2012	Lebanese American University- Byblos Campus
Siham Youssef	LIBNOR	Social Responsibility - ISO 26000	08/08/2012	Bank Audi - Bab Idriss
Mohammad Hajjar	LCEC	Wind Power Development Study	08/14/2012	World Bank Office - Beirut
Sélim Kfoury	L'Institut des Finances	Les Finances Publiques et la Modernisation de l'Etat	09/19/2012	Edifice Adnan Kassar
Naji Abi Zeid	The Federation of Chambers of Commerce, Industry & Agriculture	RASIT-FCCIAL	09/25/2012	Gefinor Rotana - Hamra
Maya El Khatib	Hanns Seidel Foundation / Ministry of Industry	Food liquid waste management	09/26-27/2012	Safir Heliopolitan Hotel - Beirut
Ahmad Hassan Ahmad Habli	LCEC	Developing a building sector NAMA for Lebanon	10/16/2012	Crown Plaza Hotel - Hamra
Jihad Hage Chehade	معهد باسل فليحان الاقتصادي والمالي	البعد البيئي في الشراء الحكومي	10/16-17/2012	معهد باسل فليحان الاقتصادي والمالي، بيروت
Mahmoud Amhaz	USAID	Symposium on regulatory impact analysis in Lebanon	10/18/2012	Hilton Beirut Habtoor Grand Hotel - Sin El Fil
Ziad Moukarzel	Italian Trade Commission - Italian Embassy	Contractitaliano	10/23/2012	Four Seasons Hotel - Beirut
Naji Abi Zeid Hovig Kouyoumdjian Joseph Matta	LIBNOR	World Standards Day	11/23/2012	Holiday Inn - Dunes
Bassam Kabalan	الهيئة اللبنانية للبيئة والامناء	اليوم التشاوري مع مؤسسة «دياكونيا»	11/23/2012	Golden Tulip Hotel - Hamra
Naji Abi Zeid Joseph Matta	AFED	Arab Environment 2012. Ecological footprint: Survival Options in Arab countries	11/29-30/2012	Phoenicia intercontinental Hotel, Beirut
Robert Haddad	USEK	USEK's European Institutional Accreditation forum	12/3/2012	USEK
Nancy Maalouf	Air France	Interactive Business Workshop	12/5/2012	ESA, Clemenceau
Amine Jbeily Elias Bechara	وزارة الزراعة	الايام علمية في محطة تل عمارة - البقاع للعام ٢٠١٢-٢٠١٣	12/5&12/2012 12/15/2012	محطة تل عمارة - البقاع
Robert Haddad	LIBNOR	Libnor / ISO National Seminar on Energy Management and ISO 50001	12/10-12/2012	Radisson Blue Hotel - Beirut

Local Meetings & Inaugurations

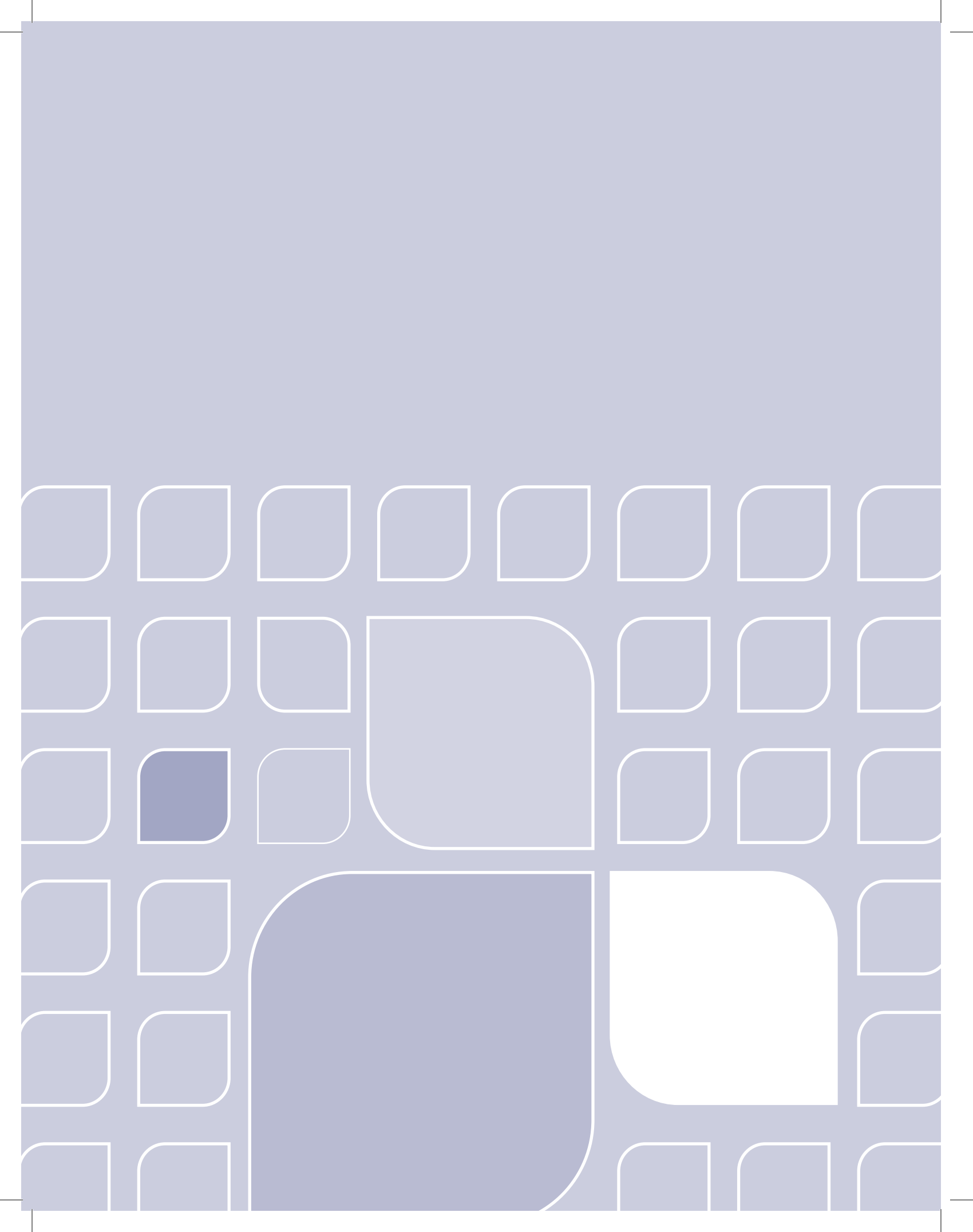
Participant	Organizer	Object/Title of the training	Date	Location
Maroun Saikaly	Ministry of Industry	The 1st Lebanese Industrial Forum opening ceremony	05/2/2012	Khan el Franj - Saida
Imad Hage Chehade	Lebanese University - Faculty of Arts	"Swiss Positions": 33 takes on sustainable approaches to building	05/9/2012	Lebanese University, Faculty of Arts - Hadath
Amine Jbeily	وزارة الزراعة / جامعة الدول العربية	حفل افتتاح اجتماعات الدورة الحادية والثلاثين للجمعية العمومية للمركز العربي لدراسات المناطق الجافة والاراضي القاحلة - أكساد	06/3/2012	Habtoor Grand Hotel - Sin El Fil
Joseph Matta	وزارة الزراعة	زيارة محطة الفنار	06/5/2012	محطة الفنار - بيروت
Bassam Kabalan	CNRS	Golden Jubilee Ceremony	06/6/2012	Grand Serail - Beirut
Mohammad Hajjar	نقابة المهندسين في بيروت	ملتقى البلديات ٢٠١٢	06/8-9/2012	قصر الاونيسكو - بيروت
Amine Jbeily	غرفة التجارة والصناعة والزراعة في صيدا والجنوب	افتتاح مركز تطوير المنتجات الغذائية ومختبراته	07/26/2012	مقر الغرفة - صيدا
Imad Hage Chehade	LCEC	UNDP Annual Energy Meeting & Iftar	08/6/2012	Gefinor Rotana Hotel - Beirut
Amine Jbeily	FAO	التعاونيات الزراعية تغذي العالم	10/15/2012	UNESCO - Beirut
Hanna Francis Tony Chammai Mahmoud Amhaz	Tevega / TouchIT	TouchIT Live Demo	11/14/2012	Bernard Fattal Auditorium - Sin El Fil

Missions (Trainers, Experts & Speakers)

Name	Organizer	Object/Title of the training	Date	Location
Joseph Matta	Technical and Test Institute for Construction Prague(TZUS)	EUROLAB meeting	04/18-20/2012	Prague - Czech Republic
Elias Dib	AUST	Jury in the 8th Annual Project Exposition	5/30/2012	AUST - Ashrafieh
Imad Hage Chehade	IFP Group	EcOrient Conference	6/7/2012	Biel - Beirut
Naji Abi Zeid	CCIB	كي يبقى لنا اقتصاد	6/4/2012	Phoenicia Hotel - Beirut
Nancy Maalouf	AirFrance	Blue Biz Corporate Loyalty Program	6/27/2012	ESA - Clemenceau
Amine Jbeily	ICC	ICC General Assembly	08/6-10/2012	Beijing, China
Imad Hage Chehade Nancy Maalouf Siham Youssef Carole Maroun Tarek Hakim Mohammad Hajjar Talal Zaki	LCEC	Beirut Energy Forum - 3rd edition	09/13-14/2012	Hilton Habtoor Grand Hotel -Sin El Fil
Sélim Kfoury Antoine Fayçal	نقابة وسطاء النقل الجوي والبري والبحري في لبنان	المؤتمر السنوي الرابع لنقابة وسطاء النقل الجوي والبري والبحري في لبنان	10/11/2012	Hilton Habtoor Grand Hotel -Sin El Fil
Nadia khoury	LibanPack	Food Packaging Conference	11/6/2012	Adnan Kassar Edifice
Imad Hage Chehade	Product Of The Year	Product of the year awards - 2013 edition, jury meeting	11/27/2012	Four Seasons Hotel - Beirut

International Training, Seminars & Workshops

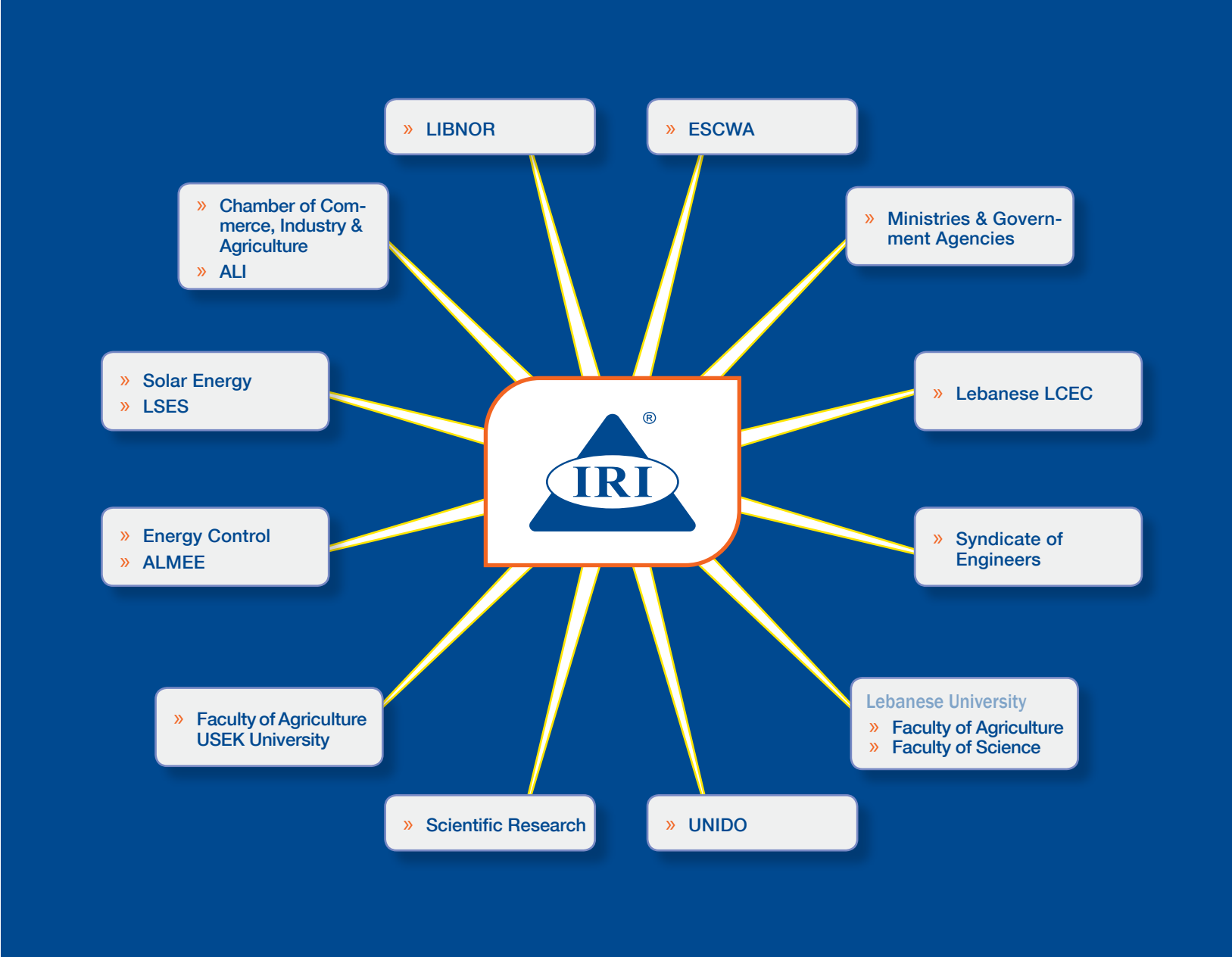
Participant	Organizer	Object/Title of the training	Date	Location
Andre Kahaleh	TAIEX	Workshop on challenges and opportunities for the textiles and clothing sector in the Euro-Mediterranean region	03/12-13/2012	Milan, Italy
Tarek Hakim	CNRS	Introducing Digital Industrial Radiography and Other Advanced Non-Destructive Testing Techniques	04/11-13/2012	Vienna, Austria
Joseph Matta	Anses / SRP / Université de Bordeaux 1	7th International PCB Workshop	05/27-31/2012	Arcachon, France
Eliane Sawma Awad	World Bank	The "How-to" of Innovation, Technology Acquisition and Entrepreneurship	05/21-23/2012	Prague, Czech Republic
Sélim Kfoury	AIDMO	الاجتماع الثاني عشر للجنة التنسيق لمؤسسات ومراكز البحوث الصناعية في الدول العربية	06/4-5/2012	Rabat, Morocco
Tarek Hakim Khoder Fawaz	IAEA	Regional training Course in Digital Industrial Radiography Technique for personnel already certified in radiography level II	06/4-8/2012	Kajang, Malaysia
Khaled El Ghoul	ESCWA	Rapid Prototyping Workshop	06/6-7/2012	Amman, Jordan
Mohammad Hajjar	RCREEE / Arab Solar certification Program (ARSOL)	Consensus Meeting for ArSol Project	08/29-30/2012	Cairo, Egypt
Antoine Fayçal	UNIDO	Meeting pour la mise en place de réseaux mondiaux du programme de Bourse de Sous-Traitance et de Partenariat (BSTP)	11/5-7/2012	Paris, France
Robert Haddad	TAIEX	Workshop on GPS risk assessment / product stewardship & Reach/GHS implementation in practice	11/12-13/2012	Cairo, Egypt
Mohammad Hajjar	RCREEE	ArSol Network meeting	12/17-18/2012	Cairo, Egypt





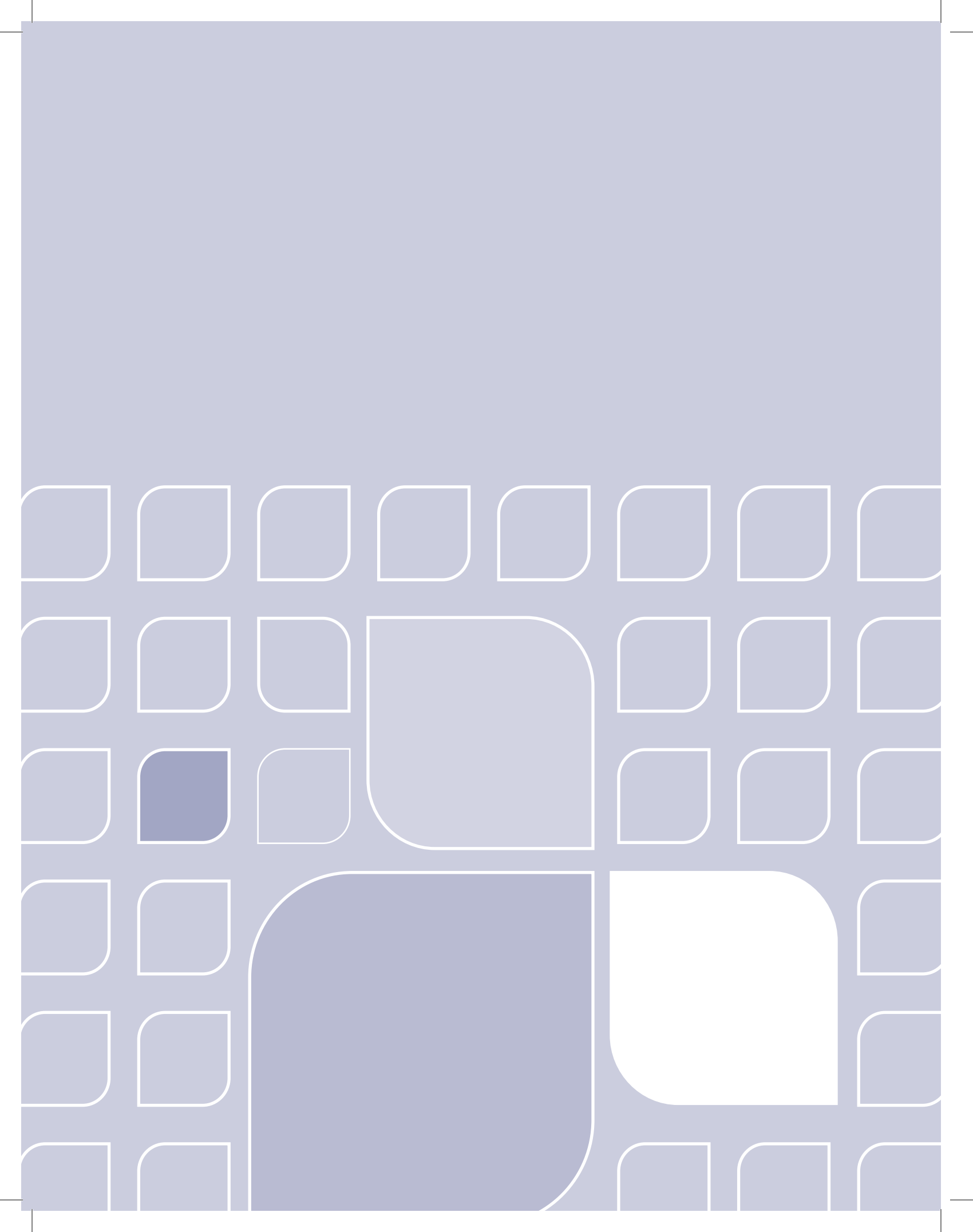
INTERNATIONAL & LOCAL PARTNERSHIPS

LOCAL PARTNERS



INTERNATIONAL PARTNERS





15

DECREES, LAWS, AND DECISIONS

DECREES

2012

Decree		Official Newspaper		Subject
No.	date	issue	date	
8768	27/8/2012	38	6/9/2012	The conclusion of a Memorandum of Understanding between the Ministry of Industry of the Republic of Lebanon and the Ministry of Economy of the Republic of Armenia
8910	18/9/2012	41	27/9/2012	The conclusion of a protocol of cooperation in the fields of specifications and standards between the Government of the Republic of Lebanon and the Government of the Republic of Armenia
9189	29/10/2012	47	8/11/2012	Signature of a draft agreement "to support reforms - Environmental Management" with the European Union, represented by the European Commission
9572	19/12/2012	54	27/12/2012	Amendment of Decree No. 597 dated 1/8/2007 (National Institute of Vines and Wine)
7523	15/2/2012	8	23/2/2012	The conclusion of the Memorandum of Cooperation between the Government of the Republic of Lebanon and the Government of the Republic of the Sudan

LAWS

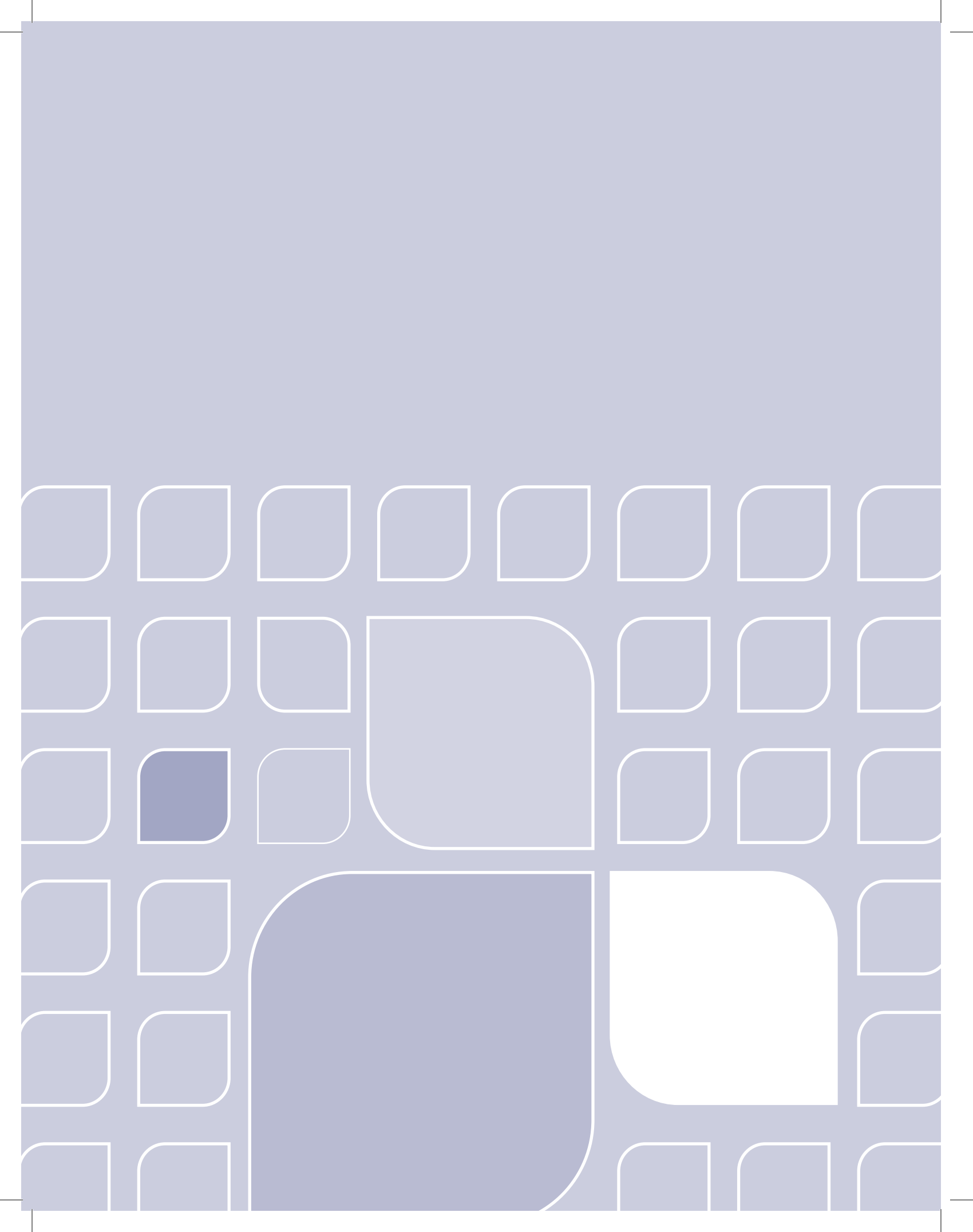
2012

Decree		Official Newspaper		Subject
No.	date	issue	date	
224	22/10/2012	45	25/10/2012	Technical regulations and relevant conformity assessment procedures

DECISIONS

2012

Decision		Official Newspaper		Subject
No.	date	issue	date	
14/1	24/1/2012			General conditions for licenses for industrial enterprises
178/5	23/3/2012	39	13/9/2012	Amendment of some articles related to LIBNOR employees
24	12/7/2012			Ministry of Industry's overview of the fourth report of the national commission preparing for negotiations over the Agreements on Conformity Assessment and Acceptance of Industrial Products (ACAAs)
1/547	16/6/2012			Amendment of Article IX of Decision No. 469/1 Dated 28/5/2012 (regulating the extraction, transfer and examination of imported sample)
641/1	17/7/2012	32	26/7/2012	The establishment of the National Committee for the packaging and cooling of fruits, vegetables, flowers, and seeds
118/1	6/8/2012	34	9/8/2012	The establishment of the National Council for Measurement
990/1	15/10/2012	45	25/10/2012	Specifications related to the trade of palm oil
19	16/10/2012			Ministry of Industry's overview of the final report of the committee tasked with the reassessment of the decisions of the Council of Ministers relating to national binding specifications required to comply with the European standards
١٤١/1	15/11/2012	48	15/11/2012	Subjecting honey for laboratory tests
28/2012	16/11/2012	49	22/11/2012	To all public administrations and institutions, and municipalities, on compliance with the strategic environmental assessment of policies, plans, projects, and programs in the public sector and the fundamentals of environmental impact assessment
1739/1	21/11/2012			Related to the organization of files on enterprises importing perfumes that do not have therapeutic characteristics, non-medical shampoos, sunblock, nail polish, deodorants, shaving cream, dyes and others.
١٤١/218/1	20/12/2012	2	10/1/2013	Accreditation of testing and analysis certificates issued by several laboratories
١٤١/219/1	20/12/2012	2	10/1/2013	Accreditation of testing and analysis certificates issued by several laboratories
203/2012	30/12/2012			The re-formation of the National Committee created under Decision No. 104/2005 Dated 30/12/2005 to follow up preparations for negotiations over the Agreements on Conformity Assessment and Acceptance of Industrial Products (ACAAs)
165/1	12/2/2013			Related to the regulation of imports and usage of various medical items
38/1	11/3/2013			Formation of the Industrial Research Institute's Board of Directors



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COMMUNICATION & MEDIA

IRI Media Interviews

Heya Television (Heya TV - Arab Woman Channel)

Program: Al Mar'a fil Ektisad

- » The role of IRI laboratories in scientific research
- » World Food Day
- » Safety of Lebanese food

MTV

Program: El Hal Enna

Characteristics and analysis of bottled water

NewTV

Program: Lil Nasher

Characteristics and analysis of olive oil

Télé Liban

Program: Mashakel wa Hououl (Hosted by Noula Hanna)

Quality of drinking water

Al-Nour Radio

Program: Hamzat Wasel

- » Food safety
- » Cosmetics
- » Paraben additives
- » IRI and the verification procedures of the Lebanese compulsory specifications
- » Launching of the Innovation Voucher Project

La Voix du Liban Radio

Program: Nawal Lichaa Abboud

Food safety



