



**United Nations Development Group, International Trust Fund  
PROGRAMME NARRATIVE PROGRESS REPORT -2011**

**Rehabilitation of the Iraqi Specialized Institute for  
Engineering Industries in Baghdad Governorate**

**Project Number: (FB/IRQ/09/004 & A04)**

## A. PROJECT SUMMARY

<p><b><i>Submitted by:</i></b>          Chakib Jenane, Project Manager, UNIDO          Email: <a href="mailto:c.jenane@unido.org">c.jenane@unido.org</a>          Tel (office): +43 1 26026 3876</p> <p>Sorin Niculae, Project Manager, UNIDO          Email: <a href="mailto:S.Niculae@unido.org">S.Niculae@unido.org</a>          Tel (office): +43 1 26026 3870</p>	<p><b><i>Country and Thematic Area</i></b>          Iraq          Economic Reform and Diversification</p>
<p><b><i>Programme No:</i></b> E4-19  <b><i>MDTF Office Atlas No:</i></b> 712 28  <b><i>Programme Title:</i></b>          Rehabilitation of the Specialized Institute for Engineering Industries</p>	<p><b><i>Participating Organization(s):</i></b>          UNIDO</p>
<p><b><i>Implementing Partners:</i></b></p> <ul style="list-style-type: none"> <li>• UNIDO</li> <li>• Government of Italy</li> <li>• Ministry of Industry and Minerals</li> <li>• Specialized Institute for Engineering Industries</li> </ul>	<p><b><i>Programme Budget (from the Fund):</i></b></p> <ul style="list-style-type: none"> <li>• \$4,237,722 UNDG ITF</li> <li>• \$600,000 Govt. Contribution (in kind)</li> </ul>
<p><b><i>Programme Duration (in months):</i></b>          36 months          Start date: 1 July 2009          End date: 30 June 2012</p>	<p><b><i>Project Location/Region/Province:</i></b>          Baghdad</p>

## **I. PURPOSE**

The present project intends to assist Iraq in its endeavors for the reconstruction of its economic infrastructure. It will particularly provide support for the rehabilitation of the Specialized Institute for Engineering Industries (SIEI), which due to the war and subsequent sanctions has suffered extensive damage, including the total or partial destruction of its laboratories and production workshops. The successive conflicts have also hindered its technical capacities and access to new information on modern technologies, international standards and quality assurance systems.

Under this project, assistance will be provided to rebuild the capacity of the SIEI to assist the Iraqi industries with the application of national standards and adaptation of international standards to their needs, to carry out proper quality assurance activities and testing of industrial products and to seek international recognition of its competence through accreditation.

The project will include significant emphasis on technology transfer related to operational techniques, procedures and policies issues.

### **Development Objectives/Project outcome:**

- Enhanced capacity of the SIEI/Ministry of Industry to respond to the needs of the manufacturing industry, service sector and consumers and facilitate industrial development in Iraq.
- Industry has access to improved services that would enable precision manufacture and quality improvement of their products

### **Immediate Objectives**

- A comprehensive framework developed for the SIEI to support the development of the industries in Iraq through the provision of technical and information support, quality assurance and conformity assessment services (testing, inspection, certification, etc.).
- The managerial and technical staff of the SIEI has acquired the knowledge and skills to meet the needs of the manufacturing industry, service sector and consumers.
- The SIEI testing and calibration laboratories, production workshop and information facilities (library) are rehabilitated to adequately respond to the demands of the manufacturing industry, service sector and consumers.

### **Activities/Outputs**

The project main interventions are:

- Training a substantial number of SIEI managerial and technical staff on standardization, quality assurance, and conformity assessment (testing, inspection and certification) subjects;
- Acquiring appropriate instrumentation, equipment and reference materials for its testing/calibration laboratories and production workshop; and

- Initiating testing and other product quality assurance activities for the local manufacturing industry, service sector and consumers.

Section “Results” provides the detailed activities under implementation and output achieved.

#### **Sector Team Outcome:**

- Outcome 1: Improved policies, strategies and related institutional developments that is sensitive to the MDG’s, social inclusiveness, gender equality and pro-poor economic growth.

#### **National Development Strategy:**

- Pillar One: Strengthening the Foundations of Economic Growth.
- Pillar Two: Revitalize the private sector particularly through the creation of an enabling environment.

#### **International Compact for Iraq:**

- Economic Reform Goal (4.3): Create an enabling environment for investment, public and private, domestic and foreign, as a driver for sustainable and diversified economic growth and job creation; create the conditions for maximizing the benefits from foreign aid and investment and integration into the global economies. More specifically, the project will contribute to the Goal (4.3.4) - Regional and International Economic Integration

## **II. RESOURCES**

#### **Financial Resources:**

- UNDG ITF: US\$ 4,237,722
- Govt. Contribution: US\$ 600,000 (in kind), mostly used to finance the SIEI building’s rehabilitation.

#### **Human Resources:**

- National Staff:
  - 1 National Project Coordinator
  - 2 administrative support staff (logistics and driver)
- International Staff:
  - 1 full-time programme coordinator
  - Short-term consultants (1 mechanical engineer + 1 laboratory equipment specialist + 1 expert in metrology and quality + 1 expert in non-destructive testing)
  - BSO from UNIDO’s HQ’s

## **III. IMPLEMENTATION AND MONITORING ARRANGEMENTS**

#### **Implementation**

UNIDO has overall responsibility for implementation of the project and the appropriate use of the funds allocated. Four entities are involved in the project’s implementation: (1) UNIDO headquarters, (2) the UNIDO Iraq Office based in Jordan, (3) Ministry of Industry and Minerals (4) the Specialized

Institute for Engineering Industries. Close cooperation with the Iraqi Central Organization for Standardization and Quality Control (COSQC) is also pursued for the project activities. A system of close collaboration has been built between these entities which make use of a Project Management Unit (PMU) and the Project Steering Committee (PSC).

The PMU is responsible for the day-to-day implementation and coordination activities. It is based within the SIEI premises in Baghdad and is supported from the UNIDO/Iraq office in Amman/Jordan. The organizational and operational structure of the PMU has been designed to ensure that the project management team has the autonomy and the capacity to effectively conduct its day-to-day operations and/or to make any amendments necessary to the project's action/activity plans so as to ensure that consistent progress is made during the project implementation phase. It is constituted by (i) a programme coordinator; (ii) a National Project Coordinator (NPC); and (iii) basic administrative support. When necessity arises, the PMU is assisted for specific activities by expertise from UNIDO and/or national and international consultants.

Taking into consideration previous experience of projects implementation in Iraq, and given the nature and technical complexity of this project involving activities dealing with different national counterparts and the need to expand cooperation with all concerned, a Project Steering Committee (PSC) was established. The PSC is comprised of representatives from UNIDO, Ministry of Industry, SIEI, COSQC and representatives from the private sector (industry). The main functions and responsibilities of the PSC are to: (i) advise the project on strategic directions/decisions and support activities to be provided; (ii) ensure the effective cooperation between all key stakeholders; and (iii) advise the effectiveness of the ongoing activities, including any adjustments that need to be made to the annual work plan. The establishment of the PSC has enhanced trust, inter-organizational coordination and cooperation through the use of stakeholders' workshops and PSC meetings. This framework supports the involvement of all relevant stakeholders and helps to ensure national ownership and sustainability of the project.

## **Monitoring**

The project is subject to monitoring, review and reporting in line with UNIDO policies and procedures. Monitoring of project activities will include data collection and analysis, gathering of baseline information, and the preparation of 'programme of work' and budget expenditures assessments. Special attention is given to the participation of the beneficiaries in the monitoring and evaluation process. In particular:

- An Inception Report was prepared and submitted for review and approval by the PSC. The Inception Report represents the initial effort made by the PMU to set out an integrated and detailed methodological approach to structure the implementation of project activities. The PSC assisted in the identification of potential challenges to the implementation of the work plan to find mechanisms that will provide the necessary feedback to managers on the relevancy and appropriateness of project interventions.
- The PMU prepares regular quarterly progress reports on project activities, detailing progress achieved in terms of the scheduled programme of work, the problems and constraints emerging over the period, and recommendations for correcting them.
- Meetings of the PSC are held once every six months. PSC meetings involve the participation of the line Ministry, SIEI and UNIDO representatives and other relevant stakeholders. A report, showing the progress of the project work plan, challenges and/or success factors in implementation, decisions that remain outstanding, etc. for that six-month period is prepared by the PMU,

presented and discussed by the PSC.

- Depending on the country's security situation, as part of the standard monitoring activities of the organization, UNIDO technical staff and project consultants make field visits to the project sites and prepare technical reports detailing the project's progress, achievements/findings, and lessons learned.
- During the last two months of the project, the PMU working in collaboration with its GoI counterparts shall prepare and submit to the PSC members and to the donor an end of project report for review and approval. The terminal report will assess, in a concise manner, the extent to which the project's scheduled activities have been carried out, the outputs produced, and the progress made towards achieving the immediate, medium and the expected longer term development objectives of the project. It will also make recommendations for any future follow-up actions that may help to support the sustainability of the project.
- The project will be also subject to an independent evaluation, to be conducted within two months of the end of project activities.

## **Procurement**

Procurement of goods and services is done according to UNIDO's administrative rules and regulations. Both local and international procurement sources are considered taking into account specification, quality and price. The following categories of goods and services were procured:

- Equipment:
  - Production workshop equipment (machine tools, welding equipment, etc.)
  - Laboratory furniture
  - Laboratory testing equipment (metrology, chemical, non-destructive testing, mechanical testing, materials testing, etc.)
  - vehicle
- Services: sub-contracts were issued for specialized trainings, including management and technical subjects. See details in results section.
  - Success in management and effective organization
  - Strategy and strategic marketing
  - Organizing the structure of SIEI and staff posting training - executive management
  - Leadership & management skills for administration unit heads
  - Leadership & management skills for administration staff
  - Awareness training in quality management principles, ISO 9000, 18000, 14000 – quality management departments.
  - ISO 17025, accreditation and equipment calibration training – laboratories
  - ISO 14001 EMS internal auditor training
  - Welding technology: Pipe fitting and pipe welding and tungsten inert Gas (TIG) welding process training
  - Calibration and metrology training
  - Non destructive testing (NDT) training
  - Library management
  - Electrical Inspection and Testing FOR Cables and Circuit Breakers
  - XRD X-Ray Diffraction Operation - Analysis – Characterization
  - Training on general IT knowledge

The following additional trainings are under preparation and will be conducted in 2012:

- Machine tools (CNC)
- Non destructive testing (NDT) training Level 3
- Steel Structures and High Pressure Pipes Design and Welding
- ISO 9001 - Lead Auditors Training
- ISO 14001 - Lead Auditors Training

## IV. RESULTS

<b>Project Title:</b>	Rehabilitation of the Specialized Institute for Engineering Industries							
<b>NDS/ICI priority/ goal(s):</b>	<p><u>NDS Goals</u>  Pillar One: Strengthening the foundations of economic growth  Pillar Two: Revitalize the private sector particularly through the creation of an enabling environment  Pillar Three: Improving the quality of life  <u>ICI Economic Reform Goal</u>  To create an enabling environment for investment, public and private, domestic and foreign, as a driver for sustainable and diversified economic growth and job creation; create the conditions for maximizing the benefits from foreign aid and investment and integration into the global economies.</p>							
<b>UNCT Outcome</b>	Enabling Environment created for Sustaining Economic Reform and Development							
<b>Sector Outcome</b>	Economic Reform and Diversification Sector Outcome 1: Improved policies, strategies and related institutional developments that are sensitive to the MDG's, social inclusiveness, gender equality and pro-poor economic growth.							
<b>Outcome 1</b>	Enhanced capacity of the SIEI/Ministry of Industry to respond to the needs of the manufacturing industry, service sector and consumers and facilitate industrial development in Iraq.				<b>NDS / ICI Priorities:</b>			
					Strengthening the foundations of economic growth; Revitalize the private sector particularly through the creation of an enabling environment.			
<b>Outputs</b>	<b>UN Agency Specific Output</b>	<b>UN Agency</b>	<b>Partner</b>	<b>Indicator(s)</b>	<b>Source of Data</b>	<b>Baseline Data</b>	<b>Indicator target</b>	<b>Achievements (Results)</b>
<u>Output 1.1:</u> 1. A comprehensive framework developed for the SIEI to support the development of the industries in Iraq through the provision of technical and information support, quality assurance and conformity assessment services (testing, inspection, certification, etc.).	1.1.1 A clear policy and legal framework is defined for the role of the SIEI as a leading institute for technical support, quality assurance, and conformity assessment services in Iraq.	UNIDO	MoI SIEI	SIEI policy and legal framework agreed upon by all stakeholders.	<ul style="list-style-type: none"> <li>Policy and legal regulatory framework texts.</li> </ul>	<ul style="list-style-type: none"> <li>Existing legal/policy framework.</li> </ul>	SIEI policy and legal framework agreed upon by all stakeholders.	<ul style="list-style-type: none"> <li>Assessment conducted, recommendations made and final report submitted to the SIEI management for consideration/ implementation.</li> <li>Organization of SIEI restructured based on UNIDO expert recommendations.</li> <li>Department farm duties indentified based on the Organization restructuring.</li> <li>Business plan developed for the year 2010 to 2014.</li> </ul>



Outputs	UN Agency Specific Output	UN Agency	Partner	Indicator(s)	Source of Data	Baseline Data	Indicator target	Achievements (Results)
Output 1.1:	1.1.2 SIEI managerial and technical staff comprehends the international developments in standardization, quality assurance, and conformity assessment services.	UNIDO	MoI SIEI COSQC	<ul style="list-style-type: none"> <li>Number of SIEI technical and managerial staff trained on standardization, quality assurance and conformity assessment matters.</li> </ul>	<ul style="list-style-type: none"> <li>Training reports</li> <li>Progress reports</li> <li>M&amp;E</li> </ul>	Data on current level of understanding /awareness on standardization and quality assurance services among managerial and tech. staff (no. of courses conducted, staff attitude towards quality & standards, etc.)	<ul style="list-style-type: none"> <li>10 engineers</li> <li>5 managerial staff</li> </ul>	<ul style="list-style-type: none"> <li>Awareness Training on ISO 14000, ISO 18000 and ISO 9000 conducted in Amman, Jordan from 10-15 of April 2010. <b>Training Participation Certification awarded.</b> Number of Trainees: 9 (5-M, 4-F) (Eng. =6 , Manager = 2, technician = 1)</li> <li>Training on ISO/IEC 17025 (Laboratory accreditation) conducted in Beirut, Lebanon from 15-18 of October 2010. <b>Training Participation Certification awarded.</b> Number of Trainees: 8 (1-M, 7-F) (Eng. =6 , Managers = 2)</li> <li>Training on Equipment calibration, Method Validation and Establishment of Quality Control conducted in Beirut, Lebanon from 15-18 of October 2010. Number of Trainees: 8 (1-M, 7-F) (Eng. =6 , Managers = 2)</li> <li>Training on ISO 14001 (Environmental Management system internal Auditing training) conducted in Amman/Jordan, from 27 Feb to 2 March, 2011. <b>Internal Auditors Certification awarded.</b> Number of Trainees: 8 (2-M, 6-F) (Eng.=5, Managers=2 , technician = 1)</li> <li>Development and implementation of SIEI Environmental Management System as per the ISO 14001:2004 standard requirements</li> <li>Documentation of the system and Implementation initiated and included: Environmental policy and Objectives, Environmental Aspects and impacts, Legal</li> </ul>

								<p>&amp; other requirements, Control of documents, Operational control, Waste management, Emergency preparedness and response, ----, Monitoring and measurement, Internal audit, Management review, Non-conformities and Corrective and preventive actions, Control of records, Training, awareness and competence, Operational control work instructions .</p> <ul style="list-style-type: none"> <li>• Completing Awareness training material and conducted awareness sessions for all staff</li> <li>• Conducting a cycle of internal audit completed</li> <li>• Conducting a management review meeting completed</li> <li>• Applying for certification to be made in June 2012.</li> </ul> <p><b>Summary:</b></p> <p>-Number of Trainees: <b>25 (8-M, 17-F)</b></p> <p>-Beneficiary Department: Labs and QM</p> <p><b>8</b> Staff members became certified internal Auditors in ISO 14001. No certification was granted previously</p>
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<u>Output 1.1:</u>	1.1.3 The role and services of the SIEI promoted among the Iraqi industries.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Nr. of promotional materials developed</li> </ul>	<ul style="list-style-type: none"> <li>Brochures and other promotional materials</li> </ul>	<ul style="list-style-type: none"> <li>Existing promotional materials</li> </ul>	<ul style="list-style-type: none"> <li>Existing promotional materials</li> </ul>	<ul style="list-style-type: none"> <li>Developed and Issued the SIEI technical brochure describing its services. English and Arabic versions developed.</li> </ul> <p><b>500 copies</b> distrusted to SIEI-main costumers such as the ministry of Industry, Electricity, Health and the private sector.</p> <ul style="list-style-type: none"> <li>Developed and Issued the Laboratory services specific promotional technical brochures. English and Arabic versions developed.</li> </ul> <p><b>1250 copies</b> distrusted to SIEI-main costumers such as the ministry of Industry, Electricity, Health, Baghdad municipality, ministry of Education as well as the private sector.</p>
Outputs	UN Agency Specific Output	UN Agency	Partner	Indicator(s)	Source of Data	Baseline Data	Indicator target	Achievements (Results)
<u>Output 1.2:</u> The managerial and technical staff of the SIEI has acquired the knowledge and skills necessary to meet the needs of the manufacturing industry, service sector and consumers.	<u>1.2.1</u> A comprehensive training programme for enhancing the knowledge and skills of the SIEI managerial and technical staff is defined.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Training programme defined</li> </ul>	<ul style="list-style-type: none"> <li>Progress reports</li> <li>SIEI records</li> <li>M&amp;E</li> </ul>	<ul style="list-style-type: none"> <li>Existing training framework</li> </ul>	<ul style="list-style-type: none"> <li>Training programme on: <ul style="list-style-type: none"> <li>- Quality</li> <li>- Production</li> </ul> </li> </ul>	<p>SIEI human resources skills gap analyzed and overall training program identified for both management and technical subjects.</p> <p>Industry survey carried out to identify to identify the needs of Iraqi Enterprises in Iraq, for training and consultancy services for ISO 9001:2008, ISO 14001:2004 and OHS 18001:2007.</p>

Output 1.2:	1.2.1 A number of the SIEI Quality Department engineers acquire the knowledge and skills in the fields of standardization, quality management, and conformity assessment services (testing and material analysis, inspection, certification, etc.).	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Number of SIEI staff trained</li> <li>Level of expertise achieved</li> </ul>	<ul style="list-style-type: none"> <li>Training reports</li> <li>Progress reports</li> <li>SIEI records</li> <li>M&amp;E</li> </ul>	-	<ul style="list-style-type: none"> <li>12 engineers from SIEI Quality Department</li> </ul>	<ul style="list-style-type: none"> <li>Training on CONFAR III , took place in Amman, Jordan from 15- 26 Nov - 2009 <b>Training Participation Certification awarded.</b> Number of Trainees: 2 (2-F) (Eng. =2)</li> <li><b>Based on Expert recommendation as well as SIEI request during PSC meeting, Trainings on NDT have been arranged to fulfill current market demand.</b></li> <li>Training on NDT/level 2 on MT and PT methods, took place in Rabat, Morocco from 16 May to 2nd of June and 10-27 October, 2011. <b>(5+5) Certification awarded for NDT/ level 2 in PT and MT.(all in both methods)</b> Number of Trainees: 5 (5-M) (Eng. =5)</li> <li>Training on NDT on the/RT and UT, methods , took place in Rabat, Morocco from 4 – 22 July and 12– 31 December, 2011. <b>(3+3) Certification awarded for NDT/ level 2 in UT and RT</b> Number of Trainees: 6 (6-M) (Eng. =6)</li> <li>Training on Metrology training, took place in Amman, Jordan from 26 June to 7 July, 2011. <b>Training Participation Certification awarded.</b> Number of Trainees: 8 (3-M, 5-F) (Eng. =7 , Managers=1) 6 SIEI staff members and 2 from COSQC</li> </ul>
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								<p><b>3</b> Staff members in NDT/Level 2 in RT. Currently the total number of the certified staff is 7 instead of 4 previously.</p> <p><b>3</b> Staff members in NDT/Level 2 in UT. Currently the total number of the certified staff is 7 instead of 4 previously.</p>
Outputs	UN Agency Specific Output	UN Agency	Partner	Indicator(s)	Source of Data	Baseline Data	Indicator target	Achievements (Results)
Output 1.2:	1.2.2 A number of the SIEI Production Department engineers acquire the knowledge and skills in the fields of heat treatment, modern welding technologies, general industrial maintenance, and production workshop management, etc.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Number of SIEI staff trained</li> <li>Level of expertise achieved</li> </ul>	<ul style="list-style-type: none"> <li>Training reports</li> <li>Progress reports</li> <li>SIEI records</li> <li>M&amp;E</li> </ul>	-	<ul style="list-style-type: none"> <li>8 engineers from SIEI Production Department</li> </ul>	<ul style="list-style-type: none"> <li>Overall training program for the SIEI Production Department defined, including potential training institutes.</li> <li>Training programme on advanced welding technology and Pipe fitting completed in Amman/Jordan in June 2010. <b>2 6G Certification awarded</b> (Technician = 8)</li> <li>Training programme on TIG welding completed in Beirut-Lebanon in October 2010. <b>2 Welder as per 287-1 :2004 Certificates awarded.</b> Number of Trainees: 2 (2-M) (Technician = 2)</li> </ul> <p><b>Summary:</b> -Number of Trainees: 10(10-M) - Beneficiary Department: Production Workshop (Eng. = 4 , Technician = 11)</p> <p><b>2</b> Technicians become 6G certified in Pipe Welding. . No certification was granted previously</p> <p><b>2</b> Technicians become Approved TIG Welder as per 287-1:2004. No certification was granted previously</p>

Outputs	UN Agency Specific Output	UN Agency	Partner	Indicator(s)	Source of Data	Baseline Data	Indicator target	Achievements (Results)
<u>Output 1.2:</u>	1.2.3 A number of the SIEI Management Department engineers acquire the knowledge and skills in the fields of project management; preparing business plans and feasibility studies; network administration, etc.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Number of SIEI staff trained</li> <li>Level of expertise achieved</li> </ul>	<ul style="list-style-type: none"> <li>Training reports</li> <li>Progress reports</li> <li>SIEI records</li> <li>M&amp;E</li> </ul>	-	<ul style="list-style-type: none"> <li>8 engineers from SIEI Management Department</li> </ul>	<ul style="list-style-type: none"> <li>1st training program on “Management for success” organized in Vienna/Austria in 6 to 10 Jan, 2010 with the participation of 6 SIEI Executive Managers. Number of Trainees: 6 (5-M, 1-F) (Managers=6)</li> <li>2nd Training on (Strategy and Strategic Marketing) took place in Vienna/Austria in April 2010 with the participation of 5 SIEI Executive Managers. Number of Trainees: 5 (3-M, 2-F) (Managers=5)</li> <li>3rd Training on Organizing the Structure of SIEI and Staff posting completed in Vienna/Austria in December 2010 with the participation of 4 SIEI Executive Managers Number of Trainees: 5 (3-M, 2-F) (Managers=4, Eng=1)</li> <li>Training on Leadership Management for 3 DGs of the: <ul style="list-style-type: none"> <li>DG from ministry of transportation</li> <li>DG from ministry of rail ways</li> <li>DG from ministry of education</li> <li>Two Executive Manager of SIEI</li> </ul> Completed in November 2010, Vienna/AUS. Number of Trainees: 5 (5-M) (Managers=5)</li> <li>Training on business planning and negotiations skills for Heads of the administrative departments completed in September 2010, Beirut – Lebanon. Number of Trainees: 8 (5-M, 3-F) (Managers=5, Eng.=3)</li> <li>Training Leadership &amp; Management Skills</li> </ul>

								<p>for the Heads Deputies of the administrative departments completed in September 2010, Beirut – Lebanon.  Number of Trainees: 8 (1-M, 7-F)  (Managers=1, Admin. staff.=7)</p> <p>• Second Training Leadership &amp; Management Skills for the Administrative staff members took place completed in 23-27 May 2011, Beirut – Lebanon.  Number of Trainees: 8 (4-M, 4-F)  (Managers=5, Admin. staff.=3)</p> <p>• Third Training Leadership &amp; Management Skills for the Administrative staff members took place completed in 4-8 June 2011, Beirut – Lebanon.  Number of Trainees: 7 (5-M, 2-F)  (Eng.=5, Admin. staff.=2)</p> <p><b>Summary:</b>  -Number of Trainees: 52 (31-M, 21-F)  - Beneficiary Department: Labs, QM, Projects, Executive Managers  (Eng.= 9 Managers =31, Admin. staff = 12)</p>
<b>Outcome 2</b>	<ul style="list-style-type: none"> <li>Industry has access to improved services that would enable precision manufacture and quality improvement of their products.</li> </ul>				<b>• NDS / ICI Priorities:</b> Strengthening the foundations of economic growth; • Revitalize the private sector particularly through the creation of an enabling environment.			
<b>Outputs</b>	<b>UN Agency Specific Output</b>	<b>UN Agency</b>	<b>Partner</b>	<b>Indicator(s)</b>	<b>Source of Data</b>	<b>Baseline Data</b>	<b>Indicator target</b>	<b>Achievements (Results)</b>
<u>Output 2.1:</u> The SIEI laboratories, production workshop and library are rehabilitated to adequately respond to the demands of the manufacturing industry, service sector and consumers.	2.1.1 Gap analysis of SIEI capabilities and services conducted, including a detailed assessment of the equipment and training needs, and laboratory/production workshop/library set-up.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Clear definition of equipment specifications</li> <li>Clear definition of training programmes for laboratory/production workshop staff</li> </ul>	<ul style="list-style-type: none"> <li>Technical specifications report</li> <li>Training reports</li> </ul>	<ul style="list-style-type: none"> <li>Inventory of existing equipment, tools, instruments, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Technical specifications and training programmes defined from requirements</li> </ul>	<ul style="list-style-type: none"> <li>Assessment of the SIEI existing laboratories/ production workshop carried out.</li> <li>Technical specifications for identified equipment needs completed.</li> <li>Final recommendation for the technical specification of the laboratories physical design has been finalized.</li> </ul>



Output 2.1	2.1.2 The SIEI has the required equipment and facilities to provide testing and calibration services to the manufacturing industry, service sector and consumers, and to ensure consumer and domestic market protection against sub-standard goods.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>• Equipment procured, delivered and installed</li> <li>• Increased number of products and materials tested</li> <li>• Number of testing and calibration laboratories made operational that are offering services to the industry</li> <li>• Increased number of companies using the services of rehabilitated laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• Technical Specifications</li> <li>• Purchase orders</li> <li>• Tender Documents</li> </ul>	<ul style="list-style-type: none"> <li>• Inventory of existing equipment, tools, instruments, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Laboratories equipped and operational</li> </ul>	<ul style="list-style-type: none"> <li>• Tenders were launched for the purchase of laboratory testing equipments, offers were received and evaluated. Final selection of items to be purchased has been made based on SIEI needs in January 2011 (according to the allocated budget). Testing areas covered: chemicals testing, materials testing, mechanical testing, non-destructive testing, calibration and metrology. 26 testing Equipments were selected, items delivered and installed</li> <li>• IT equipment delivered.</li> <li>• Lab Furniture delivered and installed</li> <li>• Tender was launched for the construction work adjacent to the laboratories building to accommodate Metrology and Research &amp; development laboratories. Offers were received and evaluated. A contractor was assigned to perform the construction work. Work commenced in September, 2011 and expected to be completed in March 2012. <b>This activity was not foreseen in the project document, but was added based on the PSC decision.</b></li> </ul> <p><b>Results/Summary:</b></p> <p><b>Quantity and Quality of Testing, calibration and material analysis have increased.</b></p> <p><b>Build area to accommodate additional laboratories and testing equipments improved.</b></p> <p><b>Laboratories furniture and fittings improved to reach the modern international standers in quality and safety measures.</b></p>
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Outputs	UN Agency Specific Output	UN Agency	Partner	Indicator(s)	Source of Data	Baseline Data	Indicator target	Achievements (Results)
<u>Output 2.1</u>	2.1.3 Testing services of SIEI laboratories are internationally accredited.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>• Reduced product rejections</li> <li>• Increased cross border trading</li> <li>• Laboratory services internationally accredited</li> </ul>	<ul style="list-style-type: none"> <li>• Accreditation certificates and laboratory audit reports</li> </ul>	-	<ul style="list-style-type: none"> <li>• 1-2 laboratories accredited</li> </ul>	<ul style="list-style-type: none"> <li>• Revising the organizational structure completed</li> <li>• Revising, modifying, translating goals, objectives, and policies (in QM) completed</li> <li>• Revising and amending the existing procedures completed.</li> <li>• Analysing the data of the equipment completed</li> <li>• Calibration and uncertainty calculation of all equipment completed</li> <li>• Selecting Proficiency Testing providers completed</li> <li>• Training on Uncertainty and calculating completed</li> <li>• Calibration of the equipment for Hardness &amp; Spectrometer completed</li> <li>• Application of the standard test methods selected</li> <li>• Participation and conduction of Proficiency Testing (PT) and review the results completed</li> <li>• Review the communication process completed</li> <li>• Training for internal auditors conducted</li> <li>• Implementation of procedures completed</li> <li>• Performing of internal audit and finalizing corrective actions completed.</li> <li>• Conducting final Management Review completed.</li> <li>• Tender will be launched in March 2012 for accreditation of the Material and Mechanical (Hardness) Testing laboratories of SIEI against the requirements of ISO/IEC 17025, offers will evaluated and final selection will be made in May 2012</li> <li>• Applying for accreditation will be made in June 2012.</li> </ul>

<u>Output 2.1</u>	2.1.4 The SIEI production workshop is rehabilitated and equipped with proper mechanical tools and machines, comprising maintenance activities.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>• Production workshop facilities and equipment are functional</li> <li>• Increased number of engineering undergraduates trained</li> <li>• Maintenance activities commence</li> </ul>	<ul style="list-style-type: none"> <li>• Production and maintenance reports</li> </ul>	-	<ul style="list-style-type: none"> <li>• Production workshop for facilities and equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Workshop equipments purchased, delivered and installed.</li> </ul> <p>Equipments delivered:</p> <ul style="list-style-type: none"> <li>• CNC Turning Centre</li> <li>• CNC 4-axis Vertical Machining Centre</li> <li>• Stick/TIG Welding Power Source</li> <li>• CNC Plasma Cutting Machine</li> <li>• Cylindrical Grinding Machine</li> </ul>
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Outputs	UN Agency Specific Output	UN Agency	Partner	Indicator(s)	Source of Data	Baseline Data	Indicator target	Achievements (Results)
	2.1.5 The library of the SIEI is rehabilitated and provided with up-to-date facilities, engineering and technical periodicals and books, test reports, etc. to serve the information needs of the local industries.	UNIDO	MoI SIEI	<ul style="list-style-type: none"> <li>Library facilities and infrastructure are functional</li> <li>Availability of librarians/library staff</li> <li>Availability of appropriate and relevant books and other materials</li> <li>Increased interest in the library services/number of customers using the library services</li> </ul>	<ul style="list-style-type: none"> <li>Library lending reports</li> <li>Library inventory</li> <li>Staff reports</li> </ul>	<ul style="list-style-type: none"> <li>Current library inventory</li> </ul>	<ul style="list-style-type: none"> <li>Library facilities</li> </ul>	<ul style="list-style-type: none"> <li>Upgrading needs of the SIEI library identified.</li> <li>Proposal for upgrading the library presented to- and approved by the SIEI management.</li> <li>Required equipment specified</li> <li>Training programme for national staff took place in Canada in February 2011.</li> <li>Books, publications, delivered</li> <li>Furniture delivered</li> <li>IT equipment delivered</li> </ul>

## **V. FUTURE WORK PLAN**

The main activities to be carried out during 2011 are the following:

- Procurement and installation of laboratories testing equipments, as well as conducting hands-on equipment related trainings (chemical, NDT, mechanical, metrology, materials testing);
- Supervise the Installation the purchased production workshop equipment, and conducting the Technical training on equipment operation and maintenance;
- Conducting technical training programmes on, non-destructive testing level 3, Steel Structures and High Pressure Pipes Design and Welding, IT general knowledge etc.
- Organize a workshop on the development of SIEI internal environmental management system and provide continuous guidance until achieving certification.
- Supervise the Implementation of the environmental management system and provide continuous guidance until achieving certification.
- Organize a follow-up workshop on laboratory accreditation matters, including training on uncertainty of measurement and training of internal auditors and provide continuous guidance until applying for accreditation.
- Supervise the Implementation of the Lab accreditation provide continuous guidance until achieving certification.
- Conduct training on the development of environmental management systems based on the requirements of the ISO14001 standard (lead auditor training).
- Conduct training on the development of quality management systems based on the requirements of the ISO 9001 standard (lead auditor training).

See Annex B for further details.

## **VI. LIST OF ABBREVIATIONS**

- |         |  |
|---------|--|
| • CTA   | Chief Technical Advisor                            |
| • IR    | Inception Report                                   |
| • ISO   | International Standards Organization               |
| • MoI   | Ministry of Industry                               |
| • NPC   | National Project Coordinator                       |
| • UNIDO | United Nations Industrial Development Organization |
| • SIEI  | Specialized Institute for Industrial Engineering   |
| • PSC   | Project Steering Committee                         |
| • SoE   | State Owned Enterprise                             |
| • PMU   | Project Management Unit                            |

## Annex A – Testing and Production Workshop Equipments

<b>N O</b>	<b>PO-no.</b>	<b>Supplier</b>	<b>Description</b>	<b>Status</b>	<b>Remarks</b>
1	15002802	CROMWELL	CNC Turning Centre / HASS ST-20T + tooling and Spare parts	Arrived since end of November 2011 to Umm Qaser and waiting for exemption letter to be cleared and delivered to SIEI	
2	15002802	CROMWELL	CNC 4-axis Vertical Machining Centre (VMC)/HASS MINIMILL + tooling and Spare parts	Arrived since end of November 2011 to Umm Qaser and waiting for exemption letter to be cleared and delivered to SIEI	
3	15002802	CROMWELL	Stick/TIG Welding Power Source/LINC V270-SX + Stick/TIG Welding Power Source Accessory Sets/ ZZZKEN1318 + Welding Booth Modules/CEO-SMBSY + Welding Fume Extraction System/ FLEXFLUMESYST + Welding Rod Keeper/KEEN-K450	Arrived since end of November 2011 to Umm Qaser and waiting for exemption letter to be cleared and delivered to SIEI	
4	15002956	DEVOTRA	CNC Plasma Cutting Machine	Arrived since end of November 2011 to Umm Qaser and waiting for exemption letter to be cleared and delivered to SIEI	
5	15002978	EAGLE - Scientific	Cylindrical Grinding Machine/Jones&Shipman Model 1000U	Arrived since end of November 2011 to Umm Qaser and waiting for exemption letter to be cleared and delivered to SIEI.	
6	15002898	CROMWELL	<b>Chemical lab equipments (1):</b> 1- Viscometer for liquids 2- Density meter 3- Platinum crucible (6 Pieces) 4- Gloss meter	Arrived since end of October 2011 to Baghdad airport and waiting for exemption letter to be cleared and delivered to SIEI	
7	15002804	GULF Scientific	<b>Chemical lab equipments (2):</b> Atomic Absorption Spectrophotometer	Arrived since end of October 2011 to Baghdad airport and waiting for exemption letter to be cleared and delivered to SIEI	
8	15002889	DEVOTRA	<b>Metrology Lab equipments (2)</b> 1- Force transducers	Evaluation finalized and order made	Expected delivery date end of end of February 2012

9	15002804	EAGLE - Scientific	<b>Metrology Lab equipments (1)</b>  1- Gauge block comparator 2- Gauge block set, Grade K, ISO 650 3- Gauge block set, Grade O, ISO 650 4- Granite surface plate + stand 6- Set of weights class E2, 1 mg-20 g 7- Set of Weight Class F1, 1 mg-20Kg 8- Set of Weights, Class F2, 1mg - 20 kg 9- Set of Weights, Class M1, 1mg -20kg 10 -Thermo-Hygrograph 11- Standard barometer	Arrived to Baghdad airport in January 2012. waiting for exemption letter to be cleared and delivered to SIEI	
10	15002900	INTERTECH-Scientific	<b>Mechanical Lab equipments</b>  1- Impact testing machine 2- Portable Hardness tester for metals 3- Thermo Couple thermometer 4- Deep cooling bath	Partially arrived to Baghdad airport in first week of January 2012, second shipment to arrive in April 2012.	Impact testing machine still under manufacturing in Germany, expected to be delivered in April 2012.
11	15003234	-----	<b>Material Lab equipments</b>  1- Optical microscope	Retendering process is on going	First supplier, which he was assigned to deliver the equipment, has refused to deliver after assignment , retendering process is on going
12	15002895	INTERTECH-Scientific & SILIVERWING	<b>NDT lab equipments:</b>  1- Ultrasonic Flaw Detector 2- Plating Thickness Gauge 3- Automated X-ray Film Processor 4- Magnetic Plating Thickness Gauge 5- Magnetic Particle Inspection Kit	Arrived to Baghdad airport in January 2012. waiting for exemption letter to be cleared and delivered to SIEI	

## Annex B – Future Working Plan

Project title: Rehabilitation of the Specialized Institute for Engineering Industries												
Delivery Forecast:				2012 Total: \$			Q1:		Q2:			
							2012					
				Budget	start date	end date	Jan	Feb	Mar	Apr	May	Jun
<b>Outcome #1</b>	Enhanced capacity of the SIEI/Ministry of Industry to respond to the needs of the manufacturing industry, service sector and consumers and facilitate industrial development in Iraq.			#REF!								
	<b>Output #1.1</b>	A comprehensive framework developed for the SIEI to support the development of the industries in Iraq through the provision of technical and information support, quality assurance and conformity assessment services (testing, inspection, certification, etc.).		0								
		<b>Activity #1.1.1</b>	Evaluate, review and update the policies and procedures that address the operation of the SIEI and its related activities and services				COMPLETED					
		<b>Activity #1.1.2</b>	Review and update the legal and regulatory framework covering the institutional setting and the mandate of SIEI, to fit the international best practice.				COMPLETED					
		<b>Activity #1.1.3</b>	Conduct a sensitization/awareness programme for representatives of SIEI/Mol, the public and private sector, and structures cooperating with SIEI (COSQC, etc.) on the role of standardization and conformity assessment.		May +June 2012							
		<b>Activity #1.1.4</b>	Conduct a specific training programme for the SIEI/Mol, representatives of Central Organization for Standardization and Quality Control (COSQC), and the private sector, on the development of national and international standards		Feb+May, 2012							
		<b>Activity #1.1.5</b>	Evaluate the internal and external communication policies of SIEI and develop recommendations to generate better understanding of the institute's objectives throughout the Iraqi industries.				COMPLETED					
		<b>Activity #1.1.6</b>	Develop publicity material (promotional brochures, web pages, etc.) aimed at increasing SIEI services visibility among industries and consumers.		April, 2012	June, 2012						
		<b>Activity #1.1.7</b>	Monitor the framework developed and take corrective measures.				ON-GOING					



<b>Project title:</b> Rehabilitation of the Specialized Institute for Engineering Industries															
			<b>Delivery Forecast:</b>	2012 Total: \$			Q1:			Q2:					
							2012								
				Budget	start date	end date	Jan	Feb	Mar	Apr	May	Jun			
	<b>Output #1.2</b>	The managerial and technical staff of the SIEI has the knowledge and skills necessary to meet the needs of the manufacturing industry, service sector and consumers.		0											
		<b>Activity #1.2.1</b>	Confirm the SIEI human resources skill gaps in the light of the project purpose, and plan the overall training program for the identified gaps				<b>COMPLETED</b>								
		<b>Activity #1.2.2</b>	Organize the training program for the SIEI Quality Department: - Development and implementation of QMS and EMS (ISO 9001 and ISO14001) and auditing procedures; - Water treatment and pollution control; - Materials testing and analysis - Modern measurement techniques; - Testing of electrical components and motors; - Calibration of measuring instruments/equipment; and - Inspection and certification of selected products/services.		Feb+May, 2012										
		<b>Activity #1.2.3</b>	Organize the training program for the SIEI Production Department: - Heat treatment; - Advanced welding technology; - General industrial maintenance; and - Production workshop management.		May, 2012	June, 2012									
		<b>Activity #1.2.4</b>	Organize the training program for the SIEI Economy Department: - Project management; - Preparing business plans; - Preparing feasibility studies; and - Network administration.				<b>COMPLETED</b>								
		<b>Activity #1.2.5</b>	Monitor the training program and take corrective measures.				<b>ON-GOING</b>								

<b>Project title:</b> Rehabilitation of the Specialized Institute for Engineering Industries															
<b>Delivery Forecast:</b>				2012 Total: \$			Q1:			Q2:					
							2012								
				Budget	start date	end date	Jan	Feb	Mar	Apr	May	Jun			
<b>Outcome #2</b>	<b>Industry has access to improved services that would enable precision manufacture and quality improvement of their products</b>			#REF!											
	<b>Output #2.1</b>	The SIEI laboratories, production workshop and library are rehabilitated to adequately respond to the demands of the manufacturing industry, service sector and consumers.		0											
		<b>Activity #2.1.1</b>	Assess the SIEI existing laboratories/production workshop and identify equipment and training needs.				<b>COMPLETED</b>								
		<b>Activity #2.1.2</b>	Design technical specifications for identified equipment gaps (together with reference materials/spare parts).				<b>COMPLETED</b>								
		<b>Activity #2.1.3</b>	Order, purchase and install the equipment and train the users for operation and maintenance in the: - Laboratory for materials and metallurgical products testing; - Laboratory for electrical products testing; - Laboratory for engines testing; - Laboratory for plastics and rubber testing; - Production and maintenance workshop/Metrology laboratory - Network – IT		Jan, 2012	May, 2012									
		<b>Activity #2.1.4</b>	Plan and organize study/fellowship training overseas for key laboratory staff.				<b>COMPLETED</b>								
		<b>Activity #2.1.5</b>	Assist in preparing for and obtaining international accreditation for the laboratories.		Jan, 2012	June, 2012									
		<b>Activity #2.1.6</b>	Assess the SIEI library needs in terms of office equipment & software, periodic/books and management.				<b>COMPLETED</b>								
		<b>Activity #2.1.7</b>	Assemble a library of current national and international periodicals and test reports to provide background information for the SIEI and their partners or consumers.				<b>COMPLETED</b>								
		<b>Activity #2.1.8</b>	Continuously supervise and advise on the use of supplied equipment/laboratories.				<b>ON-GOING</b>								
		<b>Activity #2.1.9</b>	Monitor the operation of SIEI and adjust if necessary.				<b>ON-GOING</b>								

## Annex C – Photo Gallery



### **ISO 14001 Internal Auditors Training**

- Feb 2011.
- Amman – Jordan
- 8 trainees
- Certification awarded





### **Electrical Inspection and Testing FOR Cables and Circuit Breakers-**

- March 2011.  
- Baghdad - Iraq



### **Metrology Training**

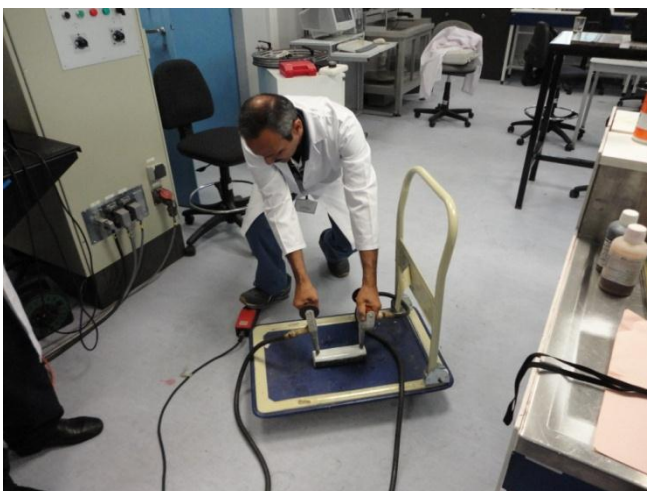
- July 2011  
- Amman - Jordan





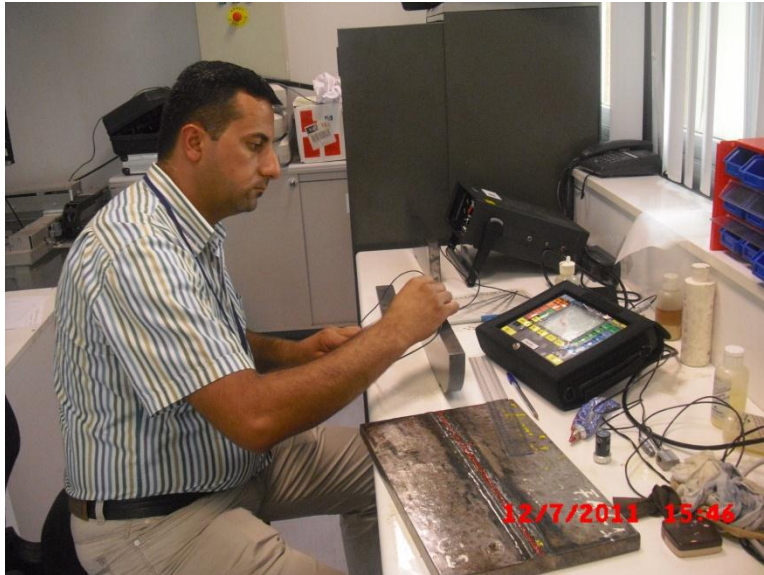
## **Metrology Training**

- July 2011
- Amman - Jordan



## **NDT Training**

- May 2011.
- Rabat - Morocco



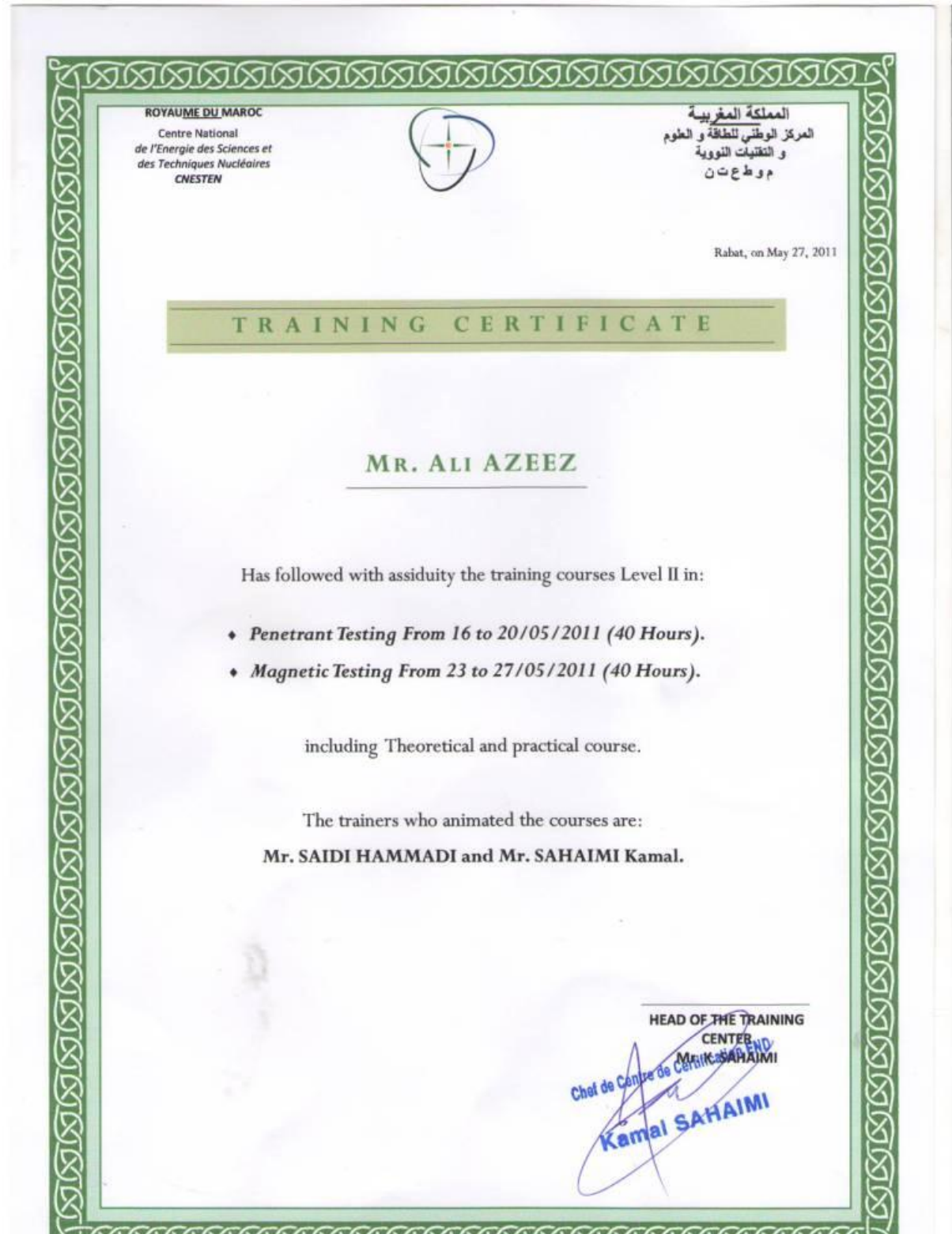
### NDT Training

- July 2011.  
- Rabat - Morocco



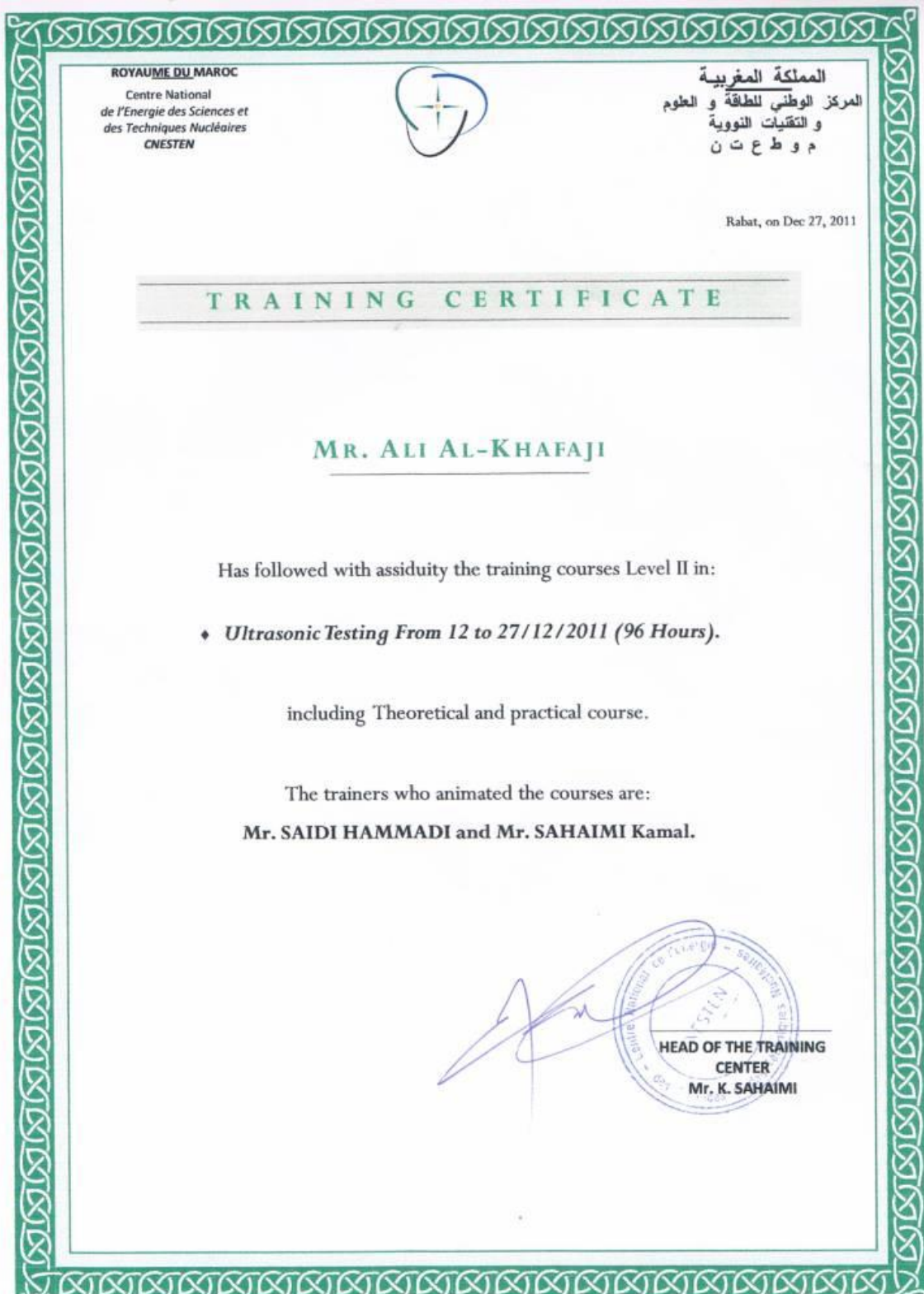
## Annex D – Certifications

Certification of NDT Level 2 – PT and MT Method  
, Mr. Ali Azeez





Certification of NDT Level 2 – UT Method  
, Mr. Ali Al-Khafaji







CERTIFICATE

## MAYAIS MOHAMMED MAJEED

successfully completed the LRQA

### ISO 14001 Appreciation and Interpretation Training Course

(based on ISO 14001:2004)

(Approved IRCA ISO 14000 Series Foundation Auditor Training Course)

on 27 February 2011

**Certificate Number: 11/0448**

**Date Issued: 7 March 2011**



Course number A17526  
is certified by the  
International Register of  
Certified Auditors  
(IRCA)

*K. Hidayat*  
LRQA Training

Leadership & Management Skills Training – Certificates

