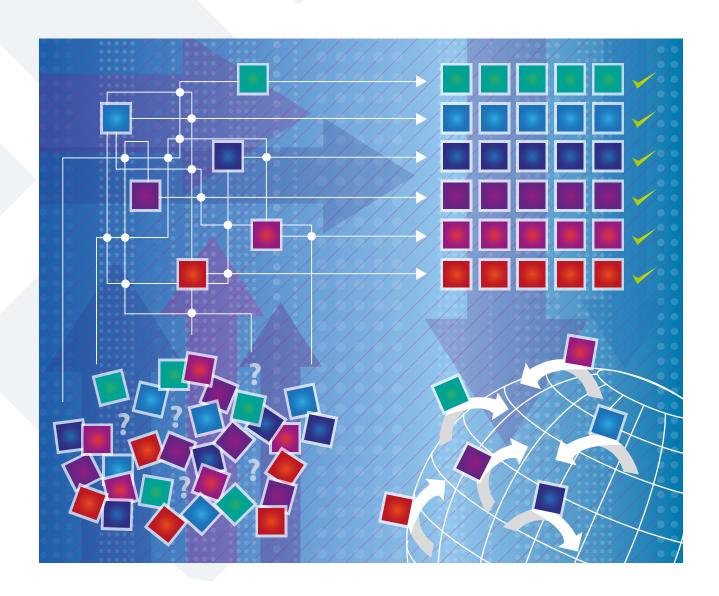
### Managing Quality in Jordan

A directory of services for SMEs







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## MANAGING QUALITY IN JORDAN

A DIRECTORY FOR SMEs

Geneva, Switzerland/Amman, Jordan, 2015

2015

International Trade Centre (ITC), Physikalisch-Technische Bundesanstalt (PTB), Jordan Standards and Metrology Organization

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Companion guide and supplement to the forthcoming ITC-PTB guide, Export Quality Management: A guide for small and medium-sized enterprises (2011), country adaptation for Jordan.

This publication provides an overview of the country's national quality infrastructure that includes food safety and animal and plant health; it also provides contacts of quality-related service providers in Jordan.

Descriptors: Jordan, Standards, Technical Regulations, Conformity Assessment, Inspection, Testing, Certification, Metrology, Calibration, Accreditation, Food Safety, Animal Health, Plant Health, SPS, TBT, Quality Control, Quality Management.

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Developed by JSMO in cooperation with a team of experts (mentioned in the acknowledgement), PTB and ITC.

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#### **Foreword**

Success of today's business lies in being competitive along the whole supply and value chains. This success demands innovation, use of modern technology, applying good management practices, price competitiveness, and most importantly fulfilment of quality characteristics as well as meeting regulatory and market requirements set in standards.

In order for Jordan to become globally competitive in an open trading system, the existence of an appropriate quality infrastructure is essential to support Jordanian exports. The Jordan Standards and Metrology Organization (JSMO) together with other national organizations are responsible for providing Jordanian stakeholders with services relevant to the quality infrastructure. Such organizations are also responsible for developing and implementing technical regulatory frameworks and conformity assessment systems. As a result, such organizations play a vital role in supporting the industry and businesses which help sustain Jordan's economic growth and prosperity. JSMO in addition to the other government agencies are responsible for ensuring that appropriate quality policies are not only formulated but also implemented effectively.

The development of the quality infrastructure components, namely: standardization, metrology, conformity assessment and accreditation will support new technological advances developed and used by economic players and especially the industrial sector. In addition, the development of the information, training, and consulting services help in knowledge transfer.

The market surveillance activities ensure that only safe and compliant products are placed on the market. Such measures reduce the number of accidents which affect consumers using unsafe products. Moreover, markets surveillance enhances confidence in products available in the market, especially Jordanian made products.

The Conformity mark demonstrates to local market surveillance authorities and to market surveillance authorities in importing markets, the compliance of the products to national and international safety requirements.

Accreditation has a positive effect on promoting national exports and on facilitating cross border trade. Exporting products to international markets require conformity of products to the requirements of technical regulations and standards of the importing countries. This kind of conformity is demonstrated through product test reports and conformity certificates issued respectively by local competent laboratories and certification bodies. At the same time the laboratories and the certification bodies are assessed by the Jordanian accreditation body in accordance with international requirements. Such process will reduce the cost of re-inspection and re-testing of exported products before entering the importing countries. Moreover, the reinforcement of the national metrology system protects the rights, safety and health of the citizens, supports innovation and industry, and ensures rights of all parties involved in trade.

Dr. Haydar Al-Zaben

Director General

Jordan Standards and Metrology Organization

#### Foreword by ITC and PTB

Today's competitive global trade environment demands that small and medium enterprises (SMEs) invest in productivity and quality. Having goods and services that can compete in international markets requires attention to standards and meeting the technical requirements behind these standards. For many SMEs, however, this can be a challenge – especially in view of the growing number of these standards, both public and private.

Governments impose a range of legitimate technical requirements to protect the health and safety of their citizens as well as to safeguard plant and animal life and the environment. Industry associations, multinationals and retailers also develop a range of "voluntary" private standards to meet the increasingly discerning demands of consumers. ITC surveys of businesses in over 30 countries, including Jordan, have shown that exporters and importers face many challenges related to non-tariff measures. As documented in the recently published book "Making regional integration work — Company perspectives on NTMs in Arab States", quality-related technical regulations, sanitary and phytosanitary measures and related conformity assessment procedures are among the most significant challenges, especially for smaller businesses.

To ensure that enterprises can remain competitive and participate in value chains, they need up-to-date information about the applicable technical requirements in their target markets. These SMEs must adapt their products and processes to satisfy market requirements and demonstrate compliance with these regulations. They must check whether recognized conformity assessment services are available in their country, or whether they must turn to recognized but more costly foreign certification bodies. Gathering such information is costly and burdensome for small businesses, but necessary if they are to internationalize into regional and global markets.

Given this context, the International Trade Centre (ITC) and Physikalisch-Technische Bundesanstalt (PTB – the National Metrology Institute of Germany) are joining forces with partners in developing countries to help SMEs gain wider access to relevant quality management information. ITC and PTB are working with national partners to develop a series of customized national versions to accompany the ITC/PTB guide, Export Quality Management: A Guide for Small and Medium-sized Exporters.

National versions are tailored to the needs of each economy. They explain the quality infrastructure and Sanitary and Phytosanitary (SPS) system in the economy, outline local services related to standards, metrology, accreditation and conformity assessment; and point to further information sources on standards, technical regulations and SPS measures in target markets. The national publications also serve as directories, with contacts for quality-related institutions. These targeted documents are published in English and, wherever possible, in the national language of the economy. They are accompanied by a series of training programs for SMEs to raise awareness and knowledge of how to improve market access through compliance with standards, technical regulations and SPS measures.

We are confident that this guide will be a useful resource and practical tool for SMEs in Jordan in their efforts to improve competitiveness and increase their participation in international trade.

Arancha Gonzalez Executive Director International Trade Centre Joachim Ullrich President

Physikalisch-Technische Bundesanstalt

#### Acknowledgements

This publication has been developed by a team of key experts in various areas related to quality in Jordan and follows a structure developed by the International Trade Centre (ITC) and the German National Metrology Institute (German: Physikalisch-Technische Bundesanstalt - PTB). The ITC-PTB publication is an Export Quality Management guide for Small and Medium-Sized Exporters.

This guide was initially published in 2001 where it has been customized and distributed in fifteen countries; the guide provides relevant information to SMEs wishing to expand their businesses through trade.

ITC updated and published a new edition of the guide in cooperation with PTB, where the methodology to customize and distribute local versions has been upgraded. The guide was developed by a team of Jordanian key experts and with the support of Umiah Fakhouri (PTB Consultant). The team of experts provided the content, advice and peer review.

Special thanks to the team members from Jordan Standards and Metrology Organization (JSMO), Jordan Food and Drug Administration (JFDA), and the Ministry of Agriculture.

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#### Acronyms

Unless otherwise specified, all references to dollars (\$) are to United States dollars. The term 'product' ('products') is used to mean both goods and services wherever appropriate and particularly in the chapters on product certification, quality management and ISO 9000.

**ACAA** Agreement on Conformity Assessment and Acceptance of Industrial Products

**AIDMO** Arab Organization of Industrial Development and Mining

AQC **Absolute Quality Certification** 

**ARQAA** Arab Quality Assurance Association

**ASTM** American Society for Testing and Materials

**ASYCUDA** Automated System for Customs Data

BS **British Standards** 

CEN European Committee for Standardization

**CENELEC** European Committee for Electro-technical Standardization

**DAKKS** German Accreditation Body

DIN Deutsches Institut für Normung (Standards Association of German Industry)

DNV Det Norske Veritas

EΑ European Co-operation for Accreditation

**EBRD** European Bank for Reconstruction and Development

**EMLMF** Euro Mediterranean Legal Metrology Forum

ΕN European Standards

EU **European Union** 

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

GLOBALG.A.P Global Good Agricultural Process **GMP Good Manufacturing Practices** 

**HACCP** Hazard Analysis and Critical Control Points System

**HCAC** Health Care Accreditation Commission

IAF International Accreditation Forum **ICS** International Classification System

IEC International Electro-technical Commission

**ILAC** International Laboratory Accreditation Cooperation

ISO International Organization for Standardization

**ISONET** Information Network of ISO Members

ITC International Trade Centre **JAS** Jordan Accreditation System

JD Jordanian Dinar

**JEDCO** Jordan Enterprise Development Corporation

**JFDA** Jordan Food and Drug Administration

JIC Jordan Investment Commission JICA Japan International Cooperation Agency

JNMI Jordan National Metrology Institute

JQM Jordan Quality Mark

JSMO Jordan Standards and Metrology Organization

JSQ Jordan Society for Quality

LRQA Lloyd's Register Quality Assurance
MEQA Middle East Quality Association

NAFES National Fund for Enterprise Support

NSB National Standards Body

OIML International Organization of Legal Metrology

PT Proficiency Testing

PTB Physikalisch-Technische Bundesanstalt (Germany's national metrology institute)

RJAF Royal Jordanian Air Force
RSS Royal Scientific Society

SGS Société Générale de Surveillance
SI International System of Units

SPS Sanitary and phytosanitary (food safety, plant health, animal health)

TBT Technical Barriers to Trade
TQM Total Quality Management

USAID United States Agency for International Development

WTO World Trade Organization

#### **Chapter I**

## Introduction to Export Quality Management in Jordan

The national quality infrastructure in Jordan is overseen by the Jordan Standards and Metrology Organization (JSMO) in cooperation with other public and private organizations in the fields of standardization, metrology (industrial and legal), accreditation and conformity assessment services (inspection, testing, and product and system certification) necessary to provide acceptable evidence that products and services meet defined requirements, issued by regulatory authorities in Jordan (ministries and other government agencies), either as technical regulations or sanitary and phytosanitary measures and enforced by market surveillance authorities, or requested by the market in terms of standards.

Legal metrology activities performed in Jordan are for the purpose of protection of the consumers' rights as well as their health and safety, while calibration services provided by private and public laboratories are to ensure that measuring equipment are giving reliable results. Third party private and public certification bodies certify products or systems to give confidence to the customers and market surveillance authorities that the relevant requirements are consistently met. The certification and inspection bodies as well as testing and calibration laboratories can be accredited by the Jordanian accreditation body and/or by accreditation bodies from other countries to demonstrate their competence, respecting in this regard the cross frontier policy of ILAC/IAF.



Team members of the national working group

#### Chapter II

# National Technical Quality Infrastructure including Sanitary and Phytosanitary (SPS) Institutions in Jordan

#### **Quality Policies**

Currently, there is no quality policy describing the roles of and responsibilities of all organizations working in the fields of quality infrastructure. However, the components of the national quality infrastructure in Jordan function by virtue of the Law on Standards and Metrology no. 22/2000 and its Amendment which include the responsibilities for standardization, technical regulations, metrology, conformity assessment, market surveillance and accreditation. While the Jordan Standards and Metrology Organization (JSMO) is the National Standards Body, all government authorities in addition to JSMO have the mandate to issue technical regulations. Sanitary and phytosanitary measures are issued as technical regulations by JSMO and as Instructions by the Jordan Food and Drug Administration (JFDA) and the Ministry of Agriculture. The metrology system is supervised by JSMO which is responsible for legal metrology as well, while the Jordan National Metrology Institute (JNMI) is hosted at the Royal Scientific Society (RSS). Industrial metrology is performed by calibration laboratories in RSS, the Royal Jordanian Air Force (RJAF) and around three private calibration labs.

Market surveillance is executed by government authorities on the borders (with the customs) and in the market to enforce legislation e.g. technical regulations. Government authorities have their own testing labs for market surveillance purposes and subcontracts accredited labs for testing services not available in the government labs. Conformity assessment includes system certification, product certification, personal certification and inspection which are provided by six private certification bodies in Jordan. On the other hand, JSMO grants the Jordanian Quality Mark and certificates of conformity for products intended for export. Around 70 private testing labs work in the areas of electrical, mechanical, construction, chemical, food, environment and water testing, in addition to more than 600 medical labs. The Accreditation Unit hosted in JSMO is responsible for the accreditation system in Jordan.

#### **Standardization**

JSMO is the National Standards Body (NSB) in Jordan responsible for issuing national standards "Jordanian Standards". JSMO prepares, amends and adopts standards in addition to technical regulations in specific sectors e.g. food and feed, agriculture products, electrical and electronic equipment, telecommunication, construction material, packaging, chemicals, management systems, environment, etc.

Currently JSMO operates under the Law of Standards and Metrology n° 22/2000 and its amendment. The law fully complies with the requirements of two of the WTO agreements: Technical Barriers to Trade (TBT), and Sanitary and Phytosanitary Measures (SPS).

The Standardization Department in JSMO implements procedures for preparing, reviewing, amending and adopting Jordanian Standards, based on international practices namely ISO Guide 21 and taking into consideration all requirements of the WTO agreements, i.e. the Code of Good Practice for the Preparation, Adoption and Application of Standards of the TBT and requirements of SPS.

60 permanent Technical Committees e.g. TC1 insulation materials, TC2 for construction products, TC3 for fertilizers, TC4 for lubricating oils, etc. and numerous ad hoc committees established by JSMO to prepare national standards ensures the involvement of all relevant stakeholders, e.g. industries, traders,

service providers, professionals and academia, research institutes and laboratories, NGOs, consumer organizations, government agencies, etc.

Technical regulations (mandatory) in Jordan can refer to or incorporate the content of national standards.

JSMO is a participating member of the Arab Organization of Industrial Development and Mining (AIDMO), a member body of the International Organization for Standardization (ISO), an associate member of International Electro-technical Committee (IEC), a contact point of Jordan's membership in Codex Alimentarius, a member of the Information Network of ISO Members (ISONET), an affiliated member in CEN and CENELEC. Consequently, Jordan is participating in 12 TCs in ISO, 4 TCs in IEC, 10 TCs in CEN and 2 TCs in CENELEC, thus allowing interested stakeholders to have an input in international and regional standards and to transfer the knowhow on technical issues of these standards to them, in order to support Jordan's exports as a result of harmonization of national standards with international and regional standards. The total number of Jordanian standards issued until end of the year 2014 is 2989 of which 50% are aligned with international standards. These standards are distributed by International Classification System (ICS) sectors (Table 1), taking into consideration that a standard can be classified under more than one ICS sector.

Table 1. International Classification System (ICS) in Jordan

ICS	No. of Standards
Generalities. Terminology. Standardization. Documentation	93
Services. Company organization, management and quality. Administration. Transport. Sociology.	33
Mathematics. Natural sciences	21
Health care technology	108
Environment. Health protection. Safety	211
Metrology and measurement. Physical phenomena	95
Testing	110
Mechanical systems and components for general use	10
Fluid systems and components for general use	181
Manufacturing engineering	57
Energy and heat transfer engineering	63
Electrical engineering	398
Electronics	25
Telecommunications. Audio and video engineering	109
Information technology. Office machines	14
Image technology	11
Precision mechanics. Jewelry	3
Road vehicle engineering	91
Railway engineering	6
Shipbuilding and marine structures	3
Materials handling equipment	6
Packaging and distribution of goods	100
Textile and leather technology	107
Clothing industry	19
Agriculture	152
Food technology	478
Chemical technology	157
Petroleum and related technologies	49
Metallurgy	49
Glass and ceramics industries	22
Rubber and plastics industries	60
Paper technology	55
Paint and colour industries	70
Construction materials and building	257

Civil engineering	17
Domestic and commercial equipment. Entertainment. Sports	262
Wood technology	31

JSMO publish Jordan Standards and sell them according to a pricing system issued by Instructions No. 1/2001 and its Amendments. Prices are according to categories of standards based on number of pages. Moreover, JSMO sell ISO, IEC, EN, DIN, BS and ASTM based on sales agreements.

#### **Conformity Assessment**

#### **Certification services**

The Certification Department at JSMO is the only public certification body that provides product certification. On the other hand, currently five private certification bodies provide certification services including management system certification, product certification and personal certification.

Table 2. Certification services in Jordan

Public/	Certification	Certification Type		
Private	Body	Management System	Product	Personal
Public	JSMO	NA	✓	NA
	Lloyds Register	✓	NA	✓
	SGS	✓	✓	✓
Private	TÜV AUSTRIA HELLAS	<b>√</b>	<b>√</b>	<b>√</b>
	DNV	✓	✓	NA
	AQC Jordan	✓	✓	✓

#### Certification services provided by JSMO

#### The Jordan Quality Mark (JQM)

JSMO grants the Jordan Quality Mark (JQM) which is a voluntary mark according to JQM Instructions 4/2007. The JQM is granted based on product compliance with technical specifications and system compliance with ISO 9001:2000, ISO 22000:2005 for food organizations, or Jordanian Standard 1407:2006 for vegetables and fruits. The Quality Mark certificate is valid for 3 years. It covers all products except for pharmaceuticals and veterinary products.

#### GLOBALG.A.P

JSMO grants GLOBALG.A.P certificates for the scope of "Integrated Farm Assurance (IFA)"/sub-scope "fruits and vegetables" according to GLOBALG.A.P Instructions 1/2008. The certificate is valid for one year and is renewed annually.

Requirements to obtain GLOBALG.A.P certificates:

- The farm should fulfil the requirements of the GLOBALG.A.P standard.
- The farm should pass the on-site assessment which is performed by approved inspector/auditor against the GLOBALG.A.P standard.
- The farm is committed to provide all required and up-to-date information and facilitate the audit process.

#### **Product Certificate of Conformity**

JSMO issues "Conformity Certificates" for Jordanian and non-Jordanian products according to Instructions No. (4) of the Year 2002 and Instructions No. (2) for the Year 2005 respectively. The certificate assures that a certain product conforms to a certain standard.

Requirements to obtain a conformity certificate:

- Conformity of the product to relevant standards.
- Commitment to provide all required information.

#### Private certification companies in Jordan

#### Lloyds Register

Lloyd's Register Quality Assurance (LRQA) Jordan is one of the key branches of LRQA. It provides certification services in Jordan since 1995, where the 1st ISO 9001 certificate was issued by LRQA at that time. LRQA Jordan provides management system certification including but not limited to ISO 9001, 14001, 22000, 27001, 50001 and OHSAS 18001 in addition to the relevant training services in the mentioned areas. LRQA also provides personal certification for management system auditors.

#### SGS

SGS provides management system certification services to Jordanian companies, e.g. ISO 9001, ISO 14001, OHSAS 18001, ISO 22001, FSSM22001, ISO 27001, HACCP, etc. SGS also offers training services which are related to quality, performance, health and safety and accredited training for auditor development.

SGS offers verification services to ensure that products and processes follow the national and international standards. In addition, SGS provides personal certification to auditors on management systems e.g. ISO 9001, ISO 14001, ISO 22000, OHSAS 18001, ISO 27001 and ISO 50001.

#### TÜV AUSTRIA HELLAS

TÜV AUSTRIA HELLAS has been operating in Jordan since 2005 and provides management system certification according to ISO 9001, ISO 14001, EMAS Regulation, HACCP, ISO 22000, FSSC 22000, BRC, IFS, IFS Logistics, IFS Broker, OHSAS 18001, ISO 13485, SA 8000, EN 16001, ISO 50001, AGRO 2.1- 2.2, AGRO 3.1- 3.2- 3.3- 3.4, GLOBAL G.A.P., ISO 27001, BS 25999, and ISO 20000, in addition to certification of quality assurance systems according to EC 95/16 directive.

TÜV AUSTRIA HELLAS also provides certification of products according to CE Marking, and certification of welding procedures as well as personal certification of welders.

#### DNV

DNV offers certification services in Jordan. Their services includes: management system certification e.g. ISO 9001, ISO 14001, OHSAS 18000, HACCP, ISO 22000, ISO 27000, ISO 50001, etc., product assurance to ensure access to global markets and more sustainable products, and verification to ensure compliance to rules and regulations. DNV conducts training courses on quality, safety, environment and corporate responsibility issues. DNV is accredited by JAS-ANZ, Australia.

#### AQC Jordan

AQC Jordan is part of the international company Absolute Quality Certification (AQC), which offers management system certification services on ISO 9001, ISO 14001, OHSAS 18001, ISO 22000, ISO 27001, GMP, ISO 22716 (GMP for cosmetics), ISO 13485 (management system for medical device manufacturers) and HACCP, in addition to GLOBAL G.A.P. and product certification related to CE Marking. Furthermore, AQC provides personal certification to auditors for management systems e.g. ISO 9001, ISO 14001, HACCP and ISO 22000.

#### **Inspection services**

#### **Public Market Surveillance Authorities**

Market surveillance activities are performed by several government authorities including ministries and government agencies. For instance, JSMO is responsible for inspection of industrial products, the Jordan Telecommunication Commission inspects telecommunication products, the Jordan Food and Drug Administration (JFDA) inspects food and pharmaceuticals, the Ministry of Agriculture is responsible for inspection of live animals and plants, the Ministry of Environment performs environmental inspection on industrial facilities, etc.

#### **Private Inspection Bodies**

#### SGS

SGS offers inspection to ensure that both legal obligations and standards are met, which help reduce risk, control quality and quantity, and meet relevant regulatory requirements. SGS offers pre-shipment inspection of exported goods and also inspection upon arrival of goods to their destination.

#### TÜV AUSTRIA HELLAS

TÜV AUSTRIA HELLAS inspection services include verification of greenhouse gases (CO2) emissions reports according to the Emission Trading Scheme, lift inspections- CE type approval, safety construction elements of CE type, technical inspections, inspection of industrial building installations and metallic construction, inspection of buildings with non- destructive testing)/ non-destructive evaluation methods, inspection of quality assurance in civil engineers, projects, building and road constructions, inspection of hoist cranes and bridge cranes, inspection of pressure vessels, air chambers, steam boilers, gas apparatus, inspection of transportation and vehicles that carry dangerous loads according to ADR (International Carriage of Dangerous Goods by Road) and ATP regulations.

#### Bureau Veritas

Bureau Veritas provides inspection services such as verification of product conformity to national regulation and national or international standards.

#### **Testing**

In Jordan there are governmental and private testing labs providing testing services in different fields: food, construction, mechanical, physical, chemical, agricultural, metallurgical, water, environmental, microbiology testing, etc.

#### **Government laboratories**

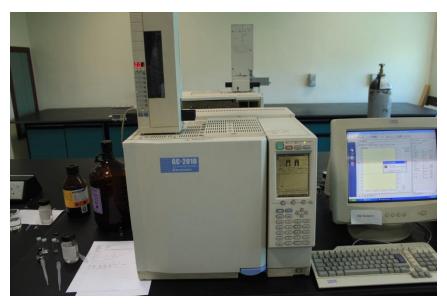
There are 19 governmental non-medical labs as shown in the table below, owned by 9 government bodies namely the Ministry of Public Works and Housing, Ministry of Health, Ministry of Agriculture, Ministry of Water and Irrigation, Ministry of Energy, Amman Greater Municipality, JSMO, JFDA and Civil Defense Department that perform testing for surveillance purposes as well as research in relevant sectors including water, environment, construction, food, pharmaceuticals, chemicals, cosmetics, agricultural products, metallurgy and radiation. The 7 accredited public laboratories are highlighted below.

Table 3. Governmental non-medical laboratories in Jordan

No.	Name of Public Laboratory	Testing Scope
1.	Animal Wealth Laboratories at the Ministry of Agriculture	Bacteriological Tests, Chemistry Tests Virology Tests, Parasitological Tests, Feed Analysis Tests, Drug Analysis Tests and Food Microbiological Tests
2.	Plant Wealth Laboratory at the Ministry of Agriculture	Chemical Tests (Pesticide Residues), and Microbiological Tests (Bacteria Detection and Identification, Nematode Isolation, Insect and Mites Detection and Identification, and Fungi Isolation and Diagnosis)
3.	National Center for Research and Extension Laboratories of the Ministry of Agriculture.	Chemical tests ( Pesticide Residues and Heavy Metals)
4.	Laboratories of Environment Protection at the Ministry of Health	Chemical and Microbiological Testing of Drinking Water and Microbiological Testing of Waste Water
5.	Laboratories of Water Authority at the Ministry of Water and Irrigation	Chemical and Microbiological Testing of Drinking Water
6.	Laboratories of Jordan Valley Authority at the Ministry of Water and Irrigation	Chemical and Microbiological Testing of Irrigation Water, Soil, Plant and Fertilizers
7.	Research and Information Laboratories at the Jordan Authority of Atomic Energy of the Ministry of Energy	Analysis of Radioactivity in Food, and Personnel Monitoring for Ionizing Radiation (TLD)
8.	Radiation Detection Laboratories at the Energy Authority of the Ministry of Energy	Analysis of Radioactivity in Food
9.	Laboratories of the Ministry of Public Works and Housing	Physical and Mechanical Testing of Soil, Gravels, Concrete, Asphalt, Building Stone, Blocks, Steel Reinforcement and Concrete Pipes
10.	Construction Laboratories at Amman Greater Municipality	Physical and Mechanical Testing of Aggregates, Gravels, Concrete, Asphalt, Building Stone, Steel Reinforcement, and Tiles
11.	Laboratory of Health and Business Inspection Department at Greater Amman Municipality	Microbiological Testing of Water and Chemical Testing of Fats, Oil and Water
12.	Slaughterhouse Laboratories at Amman Greater Municipality	Microbiological Testing of Meat, Poultry and Fish, Testing Antibiotic Residues in Meat and Poultry, and Fish Freshness Test
13.	Laboratories of the Jordan Standards and Metrology Organization	Chemical Testing of Food, Detergents, Soaps, Cosmetics, Chemicals, Hygiene Paper, Medical Gauze and Cotton, and Melamine, and Sensory Olive Oil Testing <sup>1</sup>
14.	Pharmaceutical Laboratory at the Jordan Food and Drug Administration (JFDA)	Active Matter Testing and Physical Testing of Pharmaceuticals, Sterility Test for Injectable, Microbiological Assay for Antibiotics, Microbial Contamination Test for non-sterile products, and LAL Endotoxin Test <sup>1</sup>

Accreditation scope:
http://www.jsmo.gov.jo/en/Who%20are%20we/Organizationstructure/Accreditation/AccreditationDirectory/Pages/Accredited-labs-list.aspx

15.	Food Laboratories at the Jordan Food and Drug Administration (JFDA)	Chemical Testing including Heavy Metals in Food, Food Additives and Alflatoxins., Physical Testing such Impurities and Visible Molds ,Microbiological Testing of Food (e.g. Salmonella, Ecoli, Staphylococcusaupeus, Bacillus cereus etc.)
16.	Laboratories of the Natural Resources Authority	Physical, Mechanical, Chemical and Mineralogical Testing of Limestone, Soil, Sand, Crude Oil, Oil Shale and Aggregate <sup>1</sup>
17.	Forensic Laboratories Department at Public Security Directorate	Chemical Testing of Human Blood, Identification of Narcotics and identification of Accelerants in Arson Samples <sup>1</sup>
18.	Laboratories of General safety and Hazardous Material Department at the General Directorate of Civil Defense	Chemical and Physical Testing of Dry Chemical Powder, and Physical and Mechanical Testing of Fire Rubber Hoses and Fire Extinguishers <sup>1</sup>
19.	Aqaba International Laboratories – BEN HAYYAN	Chemical and Microbiological Testing of Food and Water <sup>1</sup>



**HPLC Laboratories at JSMO** 

<sup>1</sup> Accreditation scope: http://www.jsmo.gov.jo/en/Who%20are%20we/Organizationstructure/Accreditation/AccreditationDirectory/Pages/Accredited-labslist.aspx



**HPLC Laboratories at JSMO** 



Food Microbiology Laboratories at JFDA



Food Microbiology Laboratories at JFDA



Food Microbiology Laboratories at JFDA



**Food Chemistry Laboratories at JFDA** 

#### **Royal Scientific Society (RSS)**

RSS provides testing services through 20 labs, in the following fields:

#### Chemical Labs

The chemical labs provide chemical and physical analyses for testing food, feedstuff, medical and industrial gases, paints, fuel, mineral oils, textiles, tobacco products, detergents, in addition to industrial minerals and products.

#### • Environmental Labs

Bio-safety and environmental chemical analysis are the main functions of these labs providing environmental testing services in the fields of water, wastewater, and soil.

#### Mechanical Labs

The Metallography lab conducts mechanical and physical testing on metallic products such as steel and alloys. The plastics and rubber lab conducts testing of physical and thermal properties of polymeric materials and products.

#### Non Destructive Testing Labs (NDTL)

These labs measure radioactive levels in food and environmental samples.

#### • Construction and Material Labs

The Construction and Material labs conduct physical and chemical analyses on construction materials such as cement, concrete, building components, insulation materials, ceramics, raw materials, soil, asphalt, rocks and construction chemicals.

#### Water Efficiency Lab

The lab provides water efficiency testing for plumbing and household kitchen and bathroom appliances.

Table 4. RSS accredited laboratories in Jordan

No.	Name of Accredited Laboratory	Scope of Accreditation
1.	Plastic and Rubber Laboratory	Testing of the Properties of Plastic Products and Materials
2.	Analytical Laboratory in the Industrial laboratories Division	Chemical Analysis Tests
3.	Cement Laboratory	Mechanical and Physical Testing of Cement
4.	Metallography Laboratory	Chemical, Mechanical and Metallurgical Testing of Metals and Alloys
5.	Ceramics and Glass and Water Efficiency Laboratory	Physical and Mechanical Testing for Ceramic and Glass and Water Efficiency
6.	Soil, Raw Materials and Asphalt Laboratory	Physical and Mechanical Testing of Aggregate and Dimensional Stone and Soil
7.	Concrete, Building Components and Construction Chemicals Laboratory	Physical and Mechanical Testing of Concrete, Cement Tiles, Building Gypsum, Insulating Materials, Precast Concrete Pipes and Blocks
8.	Food Laboratory	Chemical Testing of food
9.	Textile and Paper Laboratory	Chemical and Physical Testing of Paper and Textile
10.	Petrol and Lubricants Laboratory in the Industrial Laboratories Division	Testing of Lubricating Oils
11.	Gas Chromatography Laboratory	Analysis of Active ingredients In Pesticide Formulations and Polychlorinated Biphenyls (PCB's) for Transformer Oil, Water and Soil
12.	Paints and Lacquers Laboratory	Physical and Chemical Testing of Paints
13.	Radiation Protection Laboratory	Measuring the External Exposure of Radiation Workers and Measuring the Background Dose-Rate
14.	Gases Laboratory	Testing of purity of medical gases According to
15.	Spectroscopy Laboratory	Spectrometry (AAS and ICP) and Toys Safety Tests
16.	Industrial Minerals laboratory	Chemical Testing for Minerals and Cement (XRF and XRD)

#### **Private Laboratories**

There are more than 40 private owned labs (other than medical labs) that provide testing services in different fields including: construction, mechanical, physical, chemical, agricultural, metallurgy, water, environmental, microbiology testing, of which 22 labs are accredited.

Table 5. Accredited private laboratories in Jordan

No.	Name of Accredited Laboratory	Scope of Accreditation
1.	Laboratory at Arab Centre for Engineering Studies	Physical and Mechanical Testing of Soil, Aggregate, Concrete, Building Stone, Steel reinforcement, Curbstone, Cement Tiles, Bituminous Mixture, Bitumen, and Cement
2.	Concrete Laboratory at Lafarge	Physical and Mechanical Testing of Concrete

	Cement Jordan/ Al Fuhais	Aggregate
3.	Biotechnology Laboratory at Hikma	Physical and Chemical Tests of
4	Pharmaceuticals Co.	Biopharmaceutical Products (Biosimilars)
4.	Miyahuna Central Laboratories at Jordan Water Company (Miyahuna)/ Zai	Chemical and Microbiological Testing of Water
5.	Waste Water Laboratories - Miyahuna Central Laboratories at Jordan Water Company (Miyahuna)/ Abu Nusair	Chemical and Microbiological Testing of Waste Water
6.	Laboratory of Triple Corporation- Consultants Engineers	Physical, Mechanical and Chemical Testing of Bituminous Mixtures, Fresh and Hardened Concrete, Cellular Concrete Blocks, Pre-cast Concrete Kerb, Cement Tiles, Limestone, Ceramic Floor and Wall Tiles, Granular Aggregate and Soil, Reinforcement Steel Bars, and Physical and Mechanical Testing of Cement
7.	Testing Laboratory in International Center for Geotechnical Studies	Physical and Mechanical Testing of Aggregate, Soil, and Hardened Concrete, Physical and Mechanical Testing of Bituminous Mixtures, Fresh and Hardened Concrete, Cellular Concrete Blocks, Cement Terrazzo Tiles, Granular Aggregate and Soil and Reinforcement Steel Bars
8.	Arab Electrical Industries Laboratory	Electrical and Mechanical Testing of PVC insulated Cables and Switches
9.	Modern Engineering Laboratories	Physical Testing of Concrete, Soil, Building Stone, Bituminous and Steel, Physical Testing of Soil, Physical and Mechanical, Testing of Concert, Concrete, Blocks for labs, Precast Concrete Pipes, Soil, Cement Tiles, Asphalt Mixtures and Steel Bars
10.	Southern Engineering Laboratories	Physical and Mechanical Testing of Aggregate, Physical and Mechanical Testing of Concrete, Soil, Aggregate, Asphalt Mixture, Concrete Masonry Units, Concrete Blocks and Precast Concrete kerbs
11.	Testing Laboratory at the Engineering Axis for Studies	Physical and Chemical Testing of Soil, Aggregate, Bituminous Mixtures, Concrete, Steel Bars, Precast Concrete Kerbs, Concrete Blocks and Hollow Blocks for Slabs
12.	Sana Pharmaceutical Research Laboratories	Physical and Chemical Tests of Raw Materials, Pharmaceutical, Cosmetic and Food Products
13.	Jordan Engineering Laboratories.	Physical and Mechanical Testing of Concrete, Soil and Asphalt, Building Stones, Aggregates, Precast concrete Kerbs and Soil
14.	Karasneh Construction Laboratories	Mechanical and Physical Testing of concrete, soil and Aggregate
15.	Testing Laboratory at Asia Engineering Center for Soil Research and Material	Physical and Mechanical tests of Concrete, Soil, Aggregate, Concrete Masonry Units and Terrazzo Ties
16.	MAS Center for Engineering Tests	Mechanical and Physical Testing of Concrete, Concrete Pipes, Kerbs, Ductile Pipes, Soil, Aggregate, Steel Bars, and Plastic Pipes

17.	Advanced Agrochemicals and Veterinary Products Industrial Co.	Testing of Pesticides and Veterinary Medications (as raw material and final product)
18.	The laboratory of Arab Pharmaceutical Industry Consulting Company (Pharmaceutical Research Unit)	Chemical Testing of Pitavastatin Plasma Concentrations
19.	Mohammad Abu-Elkhair and Partners Co.(Naratech Labs)	Microbiological Testing of Food and Water
20.		Physical and Mechanical Testing of Concrete, Aggregate and Soil
21.	Laboratory of Al-Rajihi Cement ARC / Mafraq	Physical, Chemical and Mechanical Testing of Cement
22.	Agricultural Laboratory in Arab Center for Engineering Studies /Amman	Chemical Tests for Chemical and Organic Fertilizers



**Energy Efficiency Laboratories for lights at JSMO** 



**Energy Efficiency Laboratories for lights at JSMO** 



**Energy Efficiency Laboratories for lights at JSMO** 

#### Metrology

The Jordan Standard and Metrology Organization (JSMO) is responsible for supervising the National Metrology System in Jordan that is traceable to the International System of Units (SI), based on internationally accepted and implemented quality systems, so as to ensure reliable measurements and contribute to the national economy as well as to achieve better protection of human health and safety, the environment and consumer rights.

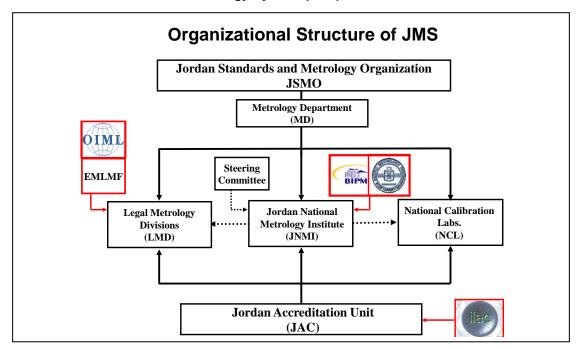


Figure 1. Structure of the Jordan Metrology System (JMS)

#### **Legal Metrology**

The Metrology Department performs periodic mandatory verification of legal metrology, including: blood pressure manometers, clinical thermometers, length, weights and balances, pre-packaged products, taxi meters, and fuel flow meters for fuel tanks and at gas stations.

The Metrology Department applies the instructions on Organizing Metrology Activities in the Kingdom No. (3) of (2012) and its amendments issued under the Bylaw No. (31) for the year (2001) on the National System of Measurement.

To ensure harmonization with international requirements, JSMO is a corresponding member of OIML and full member in Euro Mediterranean Legal Metrology Forum (EMLMF).

#### The Jordan National Metrology Institute (JNMI)

In March 2006, JSMO signed an agreement with the Royal Scientific Society (RSS) to establish and manage the Jordan National Metrology Institute (JNMI). Based on this agreement, JSMO agreed to appoint the calibration laboratories of RSS, as the Jordan National Metrology Institute (JNMI), in order to maintain, keep, and develop the national measurement standards and primary standards to ensure their traceability to SI units. JNMI is supervised by JSMO and monitored by a steering committee that consists of 9 representatives from the private and public sector.

The national measurement standards that are considered the most accurate measuring standards on the national level is in the following fields: electrical measurement such as measurement of voltage, current, resistance, capacitance, inductance, frequency and time and physical and mechanical measurement such as temperature, humidity, dimension, pressure, mass, and force. The JNMI is accredited nationally by the Jordan Accreditation System (JAS) and internationally by the German Accreditation Body (DAKKS) in the field of electrical, physical and mechanical standards since 1998.

#### **Calibration services**

• JSMO provides mass calibration as follows:

Field	Calibration range/class	Calibrated Instruments
Mass	1 mg – 20 kg	Mass for accuracy class M1, M2 and M3
Non-automatic weighing instrument	Up to 1500 kg	Weighing instruments of classes II, III, and IV
Weighing bridges	1 ton – 20 tons	Weighing bridges of classes III, and IV

 RSS provides calibration services in the fields of the electrical, physical and mechanical measurement as well as power, flow, volume, speed, luminance, and biomedical measurement equipment, as follows:

Field	Calibration Range/Class	Calibrated Instruments
Electrical	Voltage: Up to 1000 V DC/AC  Current: Up to 1000 A DC/AC  Resistance: Up to 100 GΩ  High Voltage: Up to 40 kV  Power Meters: Up to 12 kW  Power Factor: From (-1.00 to 1.00)	Analog/ Digital Multimeter ( V/A/OHM ) Voltmeter Ammeter Power Supply V/A Meggers / Earth Tester Decade Variable Resistance Resistance / Capacitance Standard Reference resistance/ capacitance Clamp On Meter Decade Variable Capacitance Current Injection Tester Insulation tester High voltage Tester /Probe Over charge Life Tester Battery Charger DC or AC Calibrator Trimming resistor Multimeter Volt, Ampere, Resistance, Frequency
RF / Frequency and Time	Function Generator / Frequency Counter/ Spectrum Analyser  Up to 300 MHz  Time: Up to 24 Hours	Timer Frequency Generator Frequency / Sweep Oscillator Oscilloscope Function Generator Frequency Counter Spectrum Analyser RF Millivoltmeter Level Meter Attenuator Power Meter Power Sensor RF Oscillator
Temperature	Temperature: -80 °C to 1100 °C	Liquid In Glass thermometer Thermocouple with Digital Read out

Chand	Humidity: From 5 % RH to 98 % RH	PRT with Digital Read out Dial Analog thermometer Temperature Calibrator Dry well calibrator / Infrared Thermometer Temp. and Hum. Recorder Temperature Simulator Heater Hot Plate For each Temp. Measurement Cell Furnace Drying Oven Water Bath Freezer Refrigerator Hygrometers Humidity Indicators
Speed Pressure	Up to 100,000 RPM -1 bar up to 700 bar	Centrifuge / Tachometer  Barometer  Pressure Gauge
		Pressure Gauge Pressure Transducer Pressure Calibrator
Length	Caliper: 0 mm to 500 mm  Micrometer: 0 mm to 250 mm  Dial Gauge: 0 mm to 100 mm  Gauge Blocks: 0 mm to 100 mm  Measuring Tapes: Up to 10 M	Caliper Micrometer Linear Scale Dial Gauge Filler gauge Gauge Block Precision standard Plate for each Ruler Measuring Tape
Mass	Balances: Up to 670 kg, Class I,II,III,IV  Weights: 1 mg Up to 50 kg Class E, F and M	Balance Moisturizer Balance with temperature Weight
Medical Equipment		Defibrillator Analyser ESU Tester CuffLink Patient Simulator Infusion Pump Analyser ECG Simulator Multiparameter Patient Simulator Phototherapy Radiometer Digital patient pressure Meter Safety Analyser Tachometer O2 Monitor Sound Level Meter Ventilator Tester Digital KV Meter US Wattmeter

		X-Ray Mass Meter Shortwave Therapy Analyser
Force	Machines: 10 N to 2000 kN, Class 0.5, 1, 2 or 3.  Load Cells: 10 N to 2000 kN Class 0.5, 1 or 2  Hardness Machines 10 gF to 500 kgF	Force Machine Tension Base Scale Force Machine Compression Base Scale Force Load Cell / Proving Ring Tension Force Load Cell / Proving Ring Compression X-Y Recorder Digital Force Gauge Extensometer for Hardness Tester Impact Machine Base Scale
Miscellaneous Measuring Equipment	0.9 L/kg to 1.1 L/kg 10 μL to 1000 μL 1 mL to 1000 L	Hydrometer Pipette Burette / Volumetric Flasks Any other Equipment can be calibrated upon Inspection

#### Royal Jordanian Air Force (RJAF):

The Precision Measurement Equipment Laboratories (PMEL) of RJAF are equipped in accordance with the highest military standards. PMEL provides calibration services in the following fields of DC and low frequency, microwave, physical and dimensional and electro-optics, as follows:

MWL				
Field	Calibration range/class	Calibrated Instruments		
Power measurement	1 (w) to 200(w) acc:+/-5% of rdg	Wattmeter     Com. nav		
	door, o /o or rug	Power sensor     Power meter		
Frequency	10 Hz to 26.5 GHz	5. Signal gen.		
measurement	gen.and read acc:< 2x10-12	<ol> <li>6. Navigation sys.</li> <li>7. Counters.</li> </ol>		
DCL				
Voltage	DC 0 - 1100V 5PPM→8PPM AC 1mv – 1100v 45ppm→8000ppm (50Hz - 100khz)	D.M.M		
Current	DC 0-11A 35 PPM→ 360PPM AC 0-11A 120 PPM→ 3600PPM (10Hz - 10KHz)	D.M.M		
Resistance	$0 \rightarrow 33~\text{M}\Omega$ $0.012\% \rightarrow 0.5\%$ as a source $20\text{m}\Omega \rightarrow 20\text{G}\Omega$ 10 PPM $\rightarrow$ 500ppm as a measure	D.M.M Decade Resistor		
Capacitance	$0.33 \text{ n F} \rightarrow 1.1 \text{ m F} \pm 0.25\%$	D.M.M		
Frequency	5 Hz → 1.3 GHz 2*10-12	Signal generators counters Oscilloscope		
PHL1				

Pressure	<ul> <li>Pneumatic (1): 0-1000psi</li></ul>	Air data calibrator Test gages Pitot static TS Inflator kits			
Temperature	TEMP. monitor Acc: +/-0.013C from -190to450C, +/-0.047C from450to 660 1. STD PLAT RES. Acc:+/-3mk from-200 to -150C, +/-2mk from -150 to 0C, +/-4mk from0 to 450C, +/-13mk from 450 to 661C NOTE:(1MK=0.001C)	Thermal calibrator Thermal sensors			
Flow	Gas flowmeter ACC:0.75%RDG	Flowmeters			
Force	Force ind.  • Acc for 50k load cell is 0.055%RDG  • Acc for 25k load cell is 0.045%RDG  • Acc for 2K load cell is 0.070%RDG	Force gages Weighing kits Dynamometers			
Torque	0.5 in.oz-2000 ft.lb +0.4% of ind.	Torque Tensiometer Push pull gage			
Balance	1 g -32100 g + 0.2 mg	Weight			
Vibration	10 Hz – 10khz + 3%	Accelometer Velocitymeter Displacement			
Weight	1mg – 550 lb 0.2 mg	Tensiometer Forcegage Balance			
	EOL				
Length	Range: 0 – 80 inches Accuracy: up to ± 6 µ inch Range: 0-2000 mm up to 0.0003 mm	Micrometers Dial indicators Calipers Depth gages Height gages			
Angle Vertical and horizontal	Range: 0° - 360° degree Accuracy: ± 1 arc-sec.	Clinometers Protractors Levels			
Squareness (Perpendicularity)	Range: up to18 inch Accuracy: 1.7 arc-sec	Angle plates Parallel box Right angle plate			
Roundness	Range: up to 8 inch diameter Accuracy: 10 μ inch	Cylindrical parts Cylindrical tubes			

 Private calibration labs: 3 private calibration labs work in Jordan in different fields, e.g. pressure, temperature, humidity, time, speed, velocity, electrical, etc. Unfortunately none of these labs are accredited.

#### Accreditation

The Accreditation Unit at JSMO grants accreditation as an official recognition of the technical competence of the conformity assessment bodies; testing and calibration laboratories, and certification bodies, on national, regional and international levels through implementing international practices and signing multilateral recognition agreement.

The accreditation services include:

- Accreditation of conformity assessment bodies: assessing the competence of conformity assessment bodies such as testing and calibration laboratories according to ISO/IEC 17025; medical laboratories according to ISO 15189 and product certification bodies according to ISO/IEC 17065.
- Proficiency Testing (PT): PT's are an objective evidence, that a laboratory is able to analyze samples
  and to report correct results. PT's results are used as quality control checks which demonstrate the
  lab competence.

The Accreditation Unit applies ISO/IEC 17011 and is an associate member of the International Laboratory Accreditation Cooperation (ILAC) and an associate member of the European Co-operation for Accreditation (EA).

#### **SPS Policy or Strategy**

Currently there is neither documented SPS policy nor strategy. Jordan's sanitary and phytosanitary measures are in compliance with WTO provisions under the Agreement on the Application of Sanitary and Phytosanitary Measures.

The Ministry of Agriculture with the other government authorities, namely the Jordan Standard and Metrology Organization (JSMO) and the Jordan Food and Drug Administration (JFDA) are responsible for the sanitary and phytosanitary measures, i.e. their issuance and approval, as well as their enforcement and review, in order to protect the human, animal and plant life and health against risks arising from additives, contaminants, toxins or disease-causing organisms in their food, beverages, feedstuff; plant- or animal-carried diseases; and spread of pests.

#### **Food Safety**

Food safety is described in Food Control Law No. 79 of 2001 and its Amendments as well as instructions and regulations. The authorities responsible for food safety are:

#### Jordan Food and Drug Administration (JFDA)

JFDA carries out all necessary actions on food safety by setting and implementing relevant legislation (instructions and technical regulations) performing monitoring and surveillance and raising the public awareness.

#### A regulatory body

For this purpose and as a regulatory body JFDA issues technical rules (instructions and technical regulations) relevant to food safety.

#### Pre-import certification

All food consignments must be accompanied by health certificates.

#### A surveillance authority

JFDA's supervisory and inspection functions are by virtue of the Food Control Law No. 79 of 2001 in coordination with various official agencies to guarantee seamless delivery of food safety services to an agreed high standard. JFDA performs food conformity evaluation procedures with sanitary measures issued by JSMO as technical regulations and standards to ensure food safety. Moreover, JFDA inspects any place handling food with workers place based on risk analysis, and controls good manufacturing practices, hazards analysis and critical control points of food handling operations according to the regulations in place. In addition JFDA cooperates with public and private agencies, universities, Jordanian scientific centers, Arab regional and international organizations working in the fields of food, environment, diseases, technical and health regulations, and provides advice on food safety issues to other government agencies involved in food control, to food industry and consumers.

JFDA applies a risk-based system for inspection of imported food consignments at border inspection posts (BIPs) where the procedures are computerized using ASYCUDA.

In addition, JFDA's surveillance mandate covers: infant formula, special formula and the complimentary food for infants, food supplements, food packaging and contact materials, food additives, food for athletes and energy drinks.

#### Support for exports

JFDA support exports by granting health certificates for the purpose of exporting the locally produced food according to the technical regulations and the applied health regulations upon the exporter request, as follows:

- Certificate of freely sold food supplements, where the company is licensed to place the product on the market for use in Jordan.
- Health certificate for exports, where the company is inspected periodically by the food inspectors of the JFDA and the materials produced by the company are permitted for sale in Jordan.
- Health certificate according to the Food Control Law and the health requirements in the Jordanian Technical Regulations, where the listed food items are randomly sampled for exports purposes, and are tested against physical, microbiological and chemical properties, and are found fit for human consumption.
- Food contact certificate where JFDA certifies that the factory is licensed by the Jordan Industrial Estates Corporation under license professions and trades number and is being inspected by JFDA. It also certifies that the onetime use of product is manufactured in a sanitary manner, and safe to be in contact with food according to EC. No 1935/2004.

#### JFDA laboratories

The JFDA Labs are located at Shafa Badran, as well as Irbid and Amman Customs Centers and have been established since 2005, where microbiological, chemical and physical specifications of food samples from imported and locally produced food are tested to verify its conformity to technical regulations and standards.

#### **JSMO**

#### A regulatory body

Technical regulations and instructions relevant to food safety for products and management systems are issued by JSMO and are implemented by the Ministry of agriculture, JFDA, municipalities and other government agencies, and are legally binding for all parties involved in the food chain. National standards relevant to food safety are considered obligatory if referred to in legislation. Moreover, in government procurement, the relevant technical regulations and national standards are compulsorily applied on supplies.

# Support for exports

Technical consultation and technical information on national legislation and worldwide market requirements are provided for traders to support exports. Moreover, JSMO provide accredited product certification services to grant conformity certificates for exports purposes based on mutual recognition agreements. Additionally, JSMO is accredited by the German Accreditation Body (DAKKS) to certify fresh produce (fruits and vegetables) intended for exports according to the Global Gap.

#### JSMO laboratories

JSMO Food labs are located in Dabouq area in Amman and have been accredited by the German Accreditation Body (DAKKS) since 2007. JSMO labs provide testing services for the quality specifications of processed food and raw materials under the agreement with JFDA. In addition, JSMO provides accredited testing for sensory analysis (organoleptic assessment) of olive oil in cooperation with the Ministry of Agriculture.

# **Animal Health**

# **Jordanian Ministry of Agriculture**

In accordance to Law No. 44 for the year 2002, the Veterinary Department at the Ministry of Agriculture is responsible for preparation, review and enforcement of sanitary measures relevant to animals, i.e. livestock, poultry, rabbits, aquatic and amphibious creatures, circus animals, animals of the equine species, wild animals, wild birds, dogs, cats, pigs and laboratory animals, and animal products (any material of animal origin), in order to protect human and animal life and health. The Veterinary Department protects human and animal life and health in Jordan against the risks resulting from additives, contaminants, toxins, or organisms that cause diseases and are found in the agricultural products or in the agricultural production inputs. See Annex I for contact details.

# A regulatory body

The Veterinary Department issues instructions governing animal quarantine procedures and veterinary medicine registration, and updates sanitary measure to ensure the protection of human and animal health. It identifies the countries or regions that have importation ban due to sanitary reasons until the elimination of these reasons.

#### Pre-import certification

- Primary request: the issuance of import license for animal products issued by the Department of Licenses and Border Posts except the following products imported from the country of origin: cooked cheese, pasteurized milk "shelf life 21 day or longer, canned fish, processed fish product, canned poultry product, and canned cream.
- Border request: an agricultural health certificate and certificate of origin.

# A surveillance authority

On borders visual inspection and laboratory tests are performed on animals where procedures and methods are used for the treatment of imported animals infected by diseases existing in the kingdom. Animal endemic disease surveillance and control is performed through field surveys on animal diseases. Inspection on livestock and poultry slaughterhouse for health, technical and environmental issues is also performed. Moreover, the Veterinary Department analyses import risk assessment data, and issues recommendations for granting import licenses for animals by the Department of Licenses and Border Posts.

# Support for exports

The Veterinary Department grants export certification for live animals.

#### **Animal Protection Labs**

The Animal Health Laboratories at the Ministry of Agriculture are located in Baqaa, Amman. It performs the following tests:

- Bacteriological tests
- Chemistry tests
- Virology tests
- Parasitological tests
- Feed analysis tests
- Drug analysis tests
- Food microbiological tests

# **Plant Health**

# **Jordanian Ministry of Agriculture**

In accordance to Law No. 44 for the year 2002, the Plant Protection and Phytosanitary Department is responsible for issuance, review and enforcement of phytosanitary measures related to plants (seeds, seedlings, tubers, bulbs, trees, forest trees, herbs, flowers, leaves) and all other parts and any material of plant origin that retains its vegetal nature till consumption, in order to protect the plant health in Jordan against the risks resulting from entry of pests, diseases or organisms that carry or cause diseases, or their spreading, and to prevent or mitigate these risks and any other damages resulting from the entry or spread of pests in Jordan.



The Plant Protection and Phytosanitary Department<sup>2</sup>

# A regulatory body

The Plant Protection and Phytosanitary Department issues instructions governing plant quarantine procedures, pesticide registration, and update of phytosanitary measure to ensure the protection of plant health, and issues recommendations for granting import licenses for plants and plant products issued by the Department of Licenses and Border Posts.

<sup>&</sup>lt;sup>2</sup>It represents the contact point for International Plant Protection Convention (IPPC). See Annex I for contact details.

#### Pre-import certification

- Primary request: the issuance of import license for plant products issued by the Department of Licenses and Border Posts.
- Border request: a phytosanitary certificate and certificate of origin.

# A surveillance authority

The Plant Protection and Phytosanitary Department develops plans and executive programs to monitor plant pests, epidemiological control, including desert locust and follow-up through their implementation, in addition to identifying the countries or regions that have importation ban due to phytosanitary reasons until the elimination of these reasons.

Moreover, the Plant Protection and Phytosanitary Department determines the conditions and procedures governing the passage of consignments of plant products in the territory of Jordan (transit). It also specifies the procedures and methods for the treatment of imported plants and plant products infected by pests existing Jordan.

#### Support for exports

The Plant Protection and Phytosanitary Department grants phytosanitary certificates for fresh fruits and vegetables, in addition to the GLOBALG.A.P certificate granted by JSMO.

#### Plant Protection labs

- The Plant Health laboratory at the Ministry of Agriculture is located in Baqaa, Amman. It performs the following tests:
  - Chemical tests (pesticide residues).
  - Microbiological tests (bacteria detection and identification, nematode isolation, insect and mites' detection and identification, and fungi isolation and diagnosis).
- The National Center for Research and Extension Laboratories is located in Baqaa, Amman. It performs the following tests:
  - Chemical tests (pesticide residues and heavy metals).

# **Sector Associations**

There are no sector associations dealing with quality, food safety, plant and animal health in Jordan.

# **Trade Promotion Organizations**

# **Jordan Enterprise Development Corporation (JEDCO)**

In the past trade promotion was part of the mandate of the Jordan Enterprise Development Corporation (JEDCO) but as of May 22, 2014, trade promotion activities were moved to the Jordan Investment Commission (JIC). JEDCO offers services related to export development for Jordanian companies. The majority of JEDCO's funds come from the European Union. Yet other local institutions support JEDCO. For example, the Ministry of Industry and Trade supports JEDCO financially through the Industrial Policy Budget and the Amman Chamber of Industry supports JEDCO via specific schemes such as the annual campaign for "Made in Jordan".

Examples where JEDCO provide assistance relevant to quality for:

- Jordanian manufacturing facilities to obtain HACCP (Hazard Analysis and Critical Control Points System).
- Jordanian companies to obtain CE marking.

- Jordanian companies to obtain ISO management system certification such as ISO 9001, ISO 14000, OHSAS 18000, and ISO 22000.
- Jordanian companies to get the GMP (Good Manufacturing Practices).

#### **Jordan Investment Commission**

The Jordan Investment Commission (JIC) is a new agency mandated, among other responsibilities, to support exports through assisting Jordanian exporters to participate in trade exhibitions around the world.

# **Amman Chamber of Industry**

Amman Chamber of Industry gives financial support for Jordanian companies interested in getting quality certification and CE marking with a limit of JD 5,000 per company.

**Other international aid organizations** have supported quality projects in Jordan such as GIZ, JICA, USAID, and the Netherland Aid Program.

# Other Quality and SPS-related Associations

# Jordan Society for Quality (JSQ)

The Jordan Society for Quality (JSQ) was founded as a NGO by a group of quality experts in 1995 to raise awareness on quality concepts and culture. JSQ's membership is open for individuals and/or organizations having an interest in quality. JSQ offers several services ranging from quality conferences, awareness seminars to certified training courses aiming at improving the quality of products and services, e.g. ISO 9001, EFQM, ISO 14001, HACCP, OHSAS 18001, etc.

JSQ in cooperation with the University of Jordan offers the "Certified Quality Manager" training course which tackles issues in the field of TQM and excellence.

JSQ is currently a Board Member in JSMO and King Abdullah II Centre for Excellence, and a founding member in the Middle East Quality Association (MEQA). JSQ is a member in the Arab Quality Assurance Association (ARQAA), the Health Care Accreditation Commission (HCAC), the Jordan Higher Education Accreditation Commission and the Arab Knowledge Management Society

# Training, Consulting, Advisory services

There are more than 15 consulting companies that provide consultancy services and training in the fields of quality management and other management systems. Most of them are member of International Management Consultants (IMC): http://www.imc.com.jo/members. Certification bodies also provide training on management systems.

Several organizations support quality initiatives in Jordan. They are as follows:

#### **European Bank for Reconstruction and Development (EBRD)**

EBRD is considered one of the international financial institutions which have opened a branch recently in Jordan. The EBRD provides project financing for banks, industries and businesses, both new ventures and investments in existing companies. EBRD also work with publicly owned companies.

Direct investments generally range from €5 million to €230 million. EBRD provide loan and equity finance, guarantees, leasing facilities and trade finance. Typically EBRD fund up to 35% of the total project cost.

There is one section of the bank that deals with SME support through a group called Small Business Support (SBS). There is also another section called Enterprise Growth which offer international consultancy in various industrial sectors.

EBRD offer grants to Jordanian SME to cover the 50-70% of the cost of consultancy services in various areas including quality. The maximum grant that could be offered to any Jordanian company is €10,000.

# The Higher Council for Science and Technology

#### Program: National Fund for Enterprise Support (NAFES)

#### Objectives:

- Assist Jordanian SMEs to become more efficient and competitive locally and internationally.
- Assist new projects with new ideas and start-up projects that work in the industry and service fields.

#### Services:

- Business Planning and Management Systems
- The application of international standards
- Quality Management Systems
- Production Management
- Financial Analysis/Management
- Marketing Analysis/Sales Support
- Feasibility Studies
- Human Resources Development Support
- IT and E-commerce Applications
- Productivity Improvement
- Training in the above mentioned areas
- All Studies related to Management Systems Development

See Annex I for contact details.

# Program: The National Program "Faculty for Factory"

# Objectives:

- Benefit from the wealth of knowledge and expertise and untapped potential for academic excellence in Jordanian universities.
- Improve participants' practical abilities in the applied scientific research field and transfer it to the students in order to step up quality of education.
- Break and remove the barriers between academic institutions and industrial sector.
- Development of long-term sustainable projects that benefit the national economy.
- Create new job opportunities and improve the professional skills of trainees.

# Services:

#### Academic

- Utilize the knowledge to improve the scientific and practical abilities.
- Improve the participant awareness and technology transfer techniques.
- Develop problem-solving skills, experimental proficiency, communication skills, and public relations.
- Transfer the gained experience to the students inside classrooms.
- Emphasis the undergraduate students' skills to easily get jobs.
- Improve the scientific research experience and teach it to the students.

# Industrial

- Develop the company/enterprise 'know how' through applying theoretical and practical concepts in solving problems.
- Improve the company/enterprise awareness and technology transfer techniques.
- Development of problem-solving skills through best alternatives
- Selection of criteria and improving employee communication skills, and public relations within the company/enterprise.
- Increase the company/enterprise profits and reduce its expenditures using the latest scientific and engineering methods.

 Identify minor problems, increase number of employees, and solve some technical and administrative problems.

See Annex I for contact details.

#### Program: Industrial Scientific Research and Development

# Objectives:

- Support Jordanian industries by investing science and technology in order to achieve development in terms of production processes and industrial management products quality and development, and improve the competitiveness of Jordanian industries.
- Encourage Jordanian industries to provide support for the scientific research and development and benefit from its result.
- Create suitable opportunities for universities and scientific research centers and consulting firms to link their research and consulting activities to the needs of the industrial sector in particular and development process in general.
- Identify problems faced by various industries can guide how to solve these problems.

#### Services:

IRDF resources are allocated to be spending on research scientific and training activities that contribute in increasing the competitiveness of the Jordanian industries and export it, this includes the following areas:

- Development of industrial products.
- Raise the quality of industrial products.
- Increase the efficiency of the industrial production process.
- Develop the local scientific technology.
- Any other areas that the IRDF board finds suitable.

See Annex I for contact details.

# Information on Standards, Technical Regulations, Sanitary and Phytosanitary Measures

# **WTO/TBT Enquiry point**

The TBT Enquiry Point is hosted in the Knowledge Management Department at JSMO.

#### Services:

- The TBT Enquiry Point is responsible for answering all inquiries and providing relevant documents regarding:
  - National technical regulations and conformity assessment procedures adopted or proposed within Jordan.
  - National Jordanian Standards and drafts.
  - The agreements signed by Jordan relevant to TBT and mutual recognition agreements.
  - Technical regulations and conformity assessment procedures, issued by other WTO member, as well as other national, regional and international standards to Jordanian exporters.
- Preparation of TBT notifications on draft technical regulations and conformity assessment procedures issued by JSMO and dissemination of TBT notifications of other WTO members to relevant industries to get their feedback on them.

# WTO/SPS Notification and Enquiry point

The Ministry of Agriculture – International Cooperation and Trade Agreement Department/Sanitary and phytosanitary Notification Division is the responsible authority for WTO/SPS Notification and the SPS Enquiry Point.

#### Services:

- Preparation and dissemination of SPS notification to the WTO Secretariat as well as receiving SPS notifications from WTO country members.
- The enquiry point is responsible for answering all reasonable questions and providing relevant documents regarding:
  - Any sanitary or phytosanitary regulations adopted or proposed within the country.
  - Any control and inspection procedures, production and quarantine treatment, pesticide tolerance and food additive approval procedures, which are operated within the country.
  - Risk assessment procedures, factors taken into consideration, as well as the determination of the appropriate level of sanitary or phytosanitary protection.
  - The membership and participation of the country, or of relevant bodies within its territory, in international and regional sanitary and phytosanitary organizations and systems.

# **Chapter III**

# Major National Programs on Quality and SPS Compliance

# **Major National Programs on the Quality Infrastructure**

Twinning project: JO04/AA/OT/03 "Strengthening of the Jordan Institution for Standards and Metrology for its compliance with the EU-Jordan Association Agreement" (2005-2007)

# Objective:

JISM is strengthened in its Institutional Building process to fulfill the Government of Jordan's commitments within the EU-Jordan Association Agreement in that related to Standardization, Metrology, Conformity Assessment and Accreditation.

#### **Project Purpose:**

Upgrade the legal and institutional capacities of JISM to provide an appropriate environment for exporters and importers by developing the Jordanian quality infrastructure and market surveillance systems.

#### Results:

- Support the development of an internationally recognized Jordanian Accreditation Body
- Development of Conformity Assessment Bodies in JISM
- Development of Market Surveillance and Inspection System
- Development of Standardization and a relevant Information System
- Development of a National Metrology System in Jordan

#### Contact details:

Rula Madanat Assistant Director General for Technical Affairs Project Team Leader P.O. Box: 941287 Amman, 11194 Jordan Rula.madanat@jsmo.gov.jo

Twinning Project: JO 10/AA/AC/013 "The Implementation of the Roadmap for the Conclusion of the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA)" (2011-2013)

#### Objective:

The overall objective of the project is to fulfill the commitments of the Government of Jordan in the context of the EU-Jordan Association Agreement which will lead to the establishment of a free trade area between Jordan and the European Union through the signature of the ACAA Agreement.

#### **Project Purpose:**

The purpose of the project is to assist the Jordan Standards and Metrology Organization (JSMO) and relevant stakeholders in implementing the ACAA Roadmap in preparation for the negotiation and signature of the ACAA Agreement.

#### Results:

- Approximation and enforcement of all identified and valid EC legislation, including the adoption of referenced harmonized EN standards, relevant to the industrial products which have been selected as priority sectors.
- Proactive market surveillance activities are operated and instructions for market surveillance are established in conformity with EU system.

- A notifying authority is established and in operation, and accordingly at least one competent
  Jordanian body for each selected EC Directive is in the process of accreditation and prepared for
  notification.
- Information and technical help is provided to the industry.

#### Contact details:

Rula Madanat Assistant Director General for Technical Affairs Project Team Leader P.O. Box: 941287 Amman, 11194 Jordan Rula.madanat@jsmo.gov.jo

# **Major National Programs on SPS Control**

# Two EU Jordan Twinning Projects were implemented, as follows:

A. Capacity building for Ministry of Agriculture in the field of EU third country listing criteria for plant and their fresh products (JO10/ENP-AP/AG/12) between September 2005 and November 2007.

#### Objectives:

The project dealt with three aspects of agriculture production:

- Enhancement of the phytosanitary inspection system.
- Establishment of a traceability system.
- Improvement of the extension service and of post-harvest practices.

# Results:

- Upgrade the phytosanitary legislation of Jordan in compliance with EU and international legislation and prepare the phytosanitary inspectorate for implementing them.
- Establish general system for traceability of plants and fresh products incompliance with EU and international standards.
- Improving capacities of the national center for agriculture research and extension.

#### Contact details:

Dr. Radi Al Tarawneh General Secretary Ministry of Agriculture P.O. Box 2099 Amman, 11181 Jordan Radi.t@moa.gov.jo

Dr. Amani Khudeir Ministry of Agriculture eu.affairs@moa.gov.jo

B. Reform of the Jordan Veterinary and Phytosanitary inspection services (JO04/AA/AG/01) between March 2005 and November 2007

#### Objective:

 To assist the Hashemite Kingdom of Jordan in its trade liberalization process through its accession to the World Trade Organization (WTO) and its ratification of the EU-Jordan Association Agreement.

#### Overall purpose:

• To improve animal and plant health, and therefore animal and plant products in Jordan in order to bring them in line with EU and international standards.

#### Results

- An animal identification and farm registration system "AIRS" is established.
- The Epidemiology Unit within Veterinary department is re-established and surveillance systems for epidemic animal diseases are upgraded.
- The rapid notification form for epidemic diseases from field to center offices of veterinary department is upgraded.
- Contingency plans for epidemic diseases according to the EU standards are prepared.
- The veterinary services in Jordan are restructured into a financially separate agency.
- The inspection procedures on the borders for live animals and their products, and plants pests are improved.
- New import licenses and health certificates for live animals and their products are established.
- Pest list according to international standards is prepared.
- A road map is prepared identifying gaps and needs for future listing of Jordan as an EU third country list, and highlighting opportunities for the private sector.

#### Contact details:

Dr. Radi Al Tarawneh General Secretary Ministry of Agriculture P.O. Box 2099 Amman, 11181 Jordan Radi.t@moa.gov.jo

Dr. Amani Khudeir Ministry of Agriculture eu.affairs@moa.gov.jo

# Enhancing Horticulture Perishable Products Circulation among the Mediterranean territories (1/1/2014-31/12/2015)

#### Objectives:

 Enhancing technical and administrative procedures and operation for Horticulture Perishable Products (HPPs) circulation between Lebanon, Jordan and Italy through adopting harmonized and shared procedures and implementing an innovation ICT tool, to adopt shared and harmonized IT procedures for an improved circulation of horticulture perishable products between Lebanon, Jordan and Italy.

#### Results:

- Developing and adopting harmonized and shared procedures for HPPs circulation in the involved countries.
- Improving control methods of quality and origin related to HPPs at border exit point and entry points
- Setting up and implementing an ITC tool for modernizing and administrative and technical operations related to HPPs circulation.
- Raising the information level and awareness of public and private stakeholders on the importance of simplification and harmonization of trade procedures and their impact on horticulture products circulation.

#### **Contact Details**

Eng. Hazim Smadi Ministry of Agriculture P.O. Box 2099 Amman, 11181 Jordan Hazim.smadi@gmail.com

Eng. Nada Frihat Ministry of Agriculture P.O Box 2099 Amman, 111 81 Jordan sps@moa.gov.jo

# Twinning project between JFDA and the Danish Food and Veterinary Administration (2005-2007)

# Objectives:

 To bring Jordanian food safety through the restructuring and upgrading of Jordanian inspection services and food chain laboratories up to EU and international standards.

# Results:

- Coordination and strategic planning.
- Reforming of the Jordanian Food Inspection Services.
- Reforming of the Food Chain Laboratories.

# **Annex I**

# **Contact details of relevant organisations in Jordan**

Organization category	Organization	Membership
National Standards Body	Jordan Standards and Metrology Organization (JSMO) Dabouq area, #50 Khair Al-Din Al-Ma'ani St. P.O. Box 941287 Amman 11194 Jordan Call Center: +962 6 550 6060 Tel.: +962 6 530 1225 Fax: +962 6 530 1249 Toll Free: 080 022 860 E-mail: jsmo@jsmo.gov.jo Website: www.jsmo.gov.jo	<ul> <li>Participating member of the Arab Organization of Industrial Development and Mining (AIDMO)</li> <li>Member body of the International Organization for Standardization (ISO)</li> <li>Associate member of International Electro-technical Committee (IEC)</li> <li>Contact point of Jordan's membership in Codex Alimentarius</li> <li>Affiliated member of CEN</li> <li>Affiliated member of CENELEC</li> </ul>
National Metrology Institute	Jordan National Metrology Institute Royal Scientific Society 70 Ahmad Al Tarawneh St., Al-Jubaiha, Amman, Jordan P.O. Box 1438 Al-Jubaiha, Amman 11941 Tel.: + 962 6 534 4701 Ext. 2300 Fax: + 962 6 534 8796 Email: jnmi@rss.jo Web Site: www.jnmi.gov.jo	
National Accreditation Body	Accreditation Unit Dabouq area, #50 Khair Al-Din Al-Ma'ani St. P.O. Box 941287 Amman 11194 Jordan Tel. fax: +962 6 530 1252 E-mail: lana.marashdeh@jsmo.gov.jo Website: www.au.gov.jo	<ul> <li>Associate member of ILAC A</li> <li>Associate member of EA</li> </ul>
National Weights and Measures Organization	Metrology Department Jordan Standards and Metrology Address: Dabouq area, #50 Khair Al-Din Al- Ma'ani St. P.O. Box 941287 Amman 11194 Jordan Tel. fax: +962 6 530 1253 E-mail: mohammad.alaskar@jsmo.gov.jo Website: www.jsmo.gov.jo	Associate member of OIML     Full member in Euro Mediterranean     Legal Metrology Forum (EMLMF)
National Enquiry Points (TBT and SPS)	TBT Enquiry Point TBT Enquiry Division Knowledge Management Department Jordan Standards and Metrology Organization P.O. Box 941287 Amman 11194 Jordan Tel.: +962 6 530 1225 ext. 1065 Fax: +962 6 530 1249 E-mail: enquiry@jsmo.gov.jo Website: www.jsmo.gov.jo	
	SPS Enquiry Point Sanitary and Phytosanitary Notification and Enquiry Division International Cooperation and Trade	

Organization category	Organization	Membership
	Agreement Department Ministry of Agriculture P.O. Box 2099 Amman 11181 Jordan Tel. fax: +962 6 566 9308 E-mail: sps@moa.gov.jo Website: www.moa.gov.jo	
National Food Authority	Jordan Food and Drug Administration Shafa Badran, Marj Al Faras- Kayed Al Qtaishat Street (next to the Directorate General of the Gendarmerie) P.O. Box 811951 Amman 11181 Jordan Tel: +962 6 563 2000, +962 6 460 2550 Fax: +962 6 510 5916 E-mail: info@jfda.jo Website: www.jfda.jo	
Veterinary Service	The Veterinary Department Ministry of Agriculture Madaba St., Jawa, Amman, Jordan P. O. Box 2099 Amman 11181 Jordan Tel.: +962 6 413 0530, +962 6 413 0531 Fax: +962 6 412 0713 E-mail: monther.r@moa.gov.jo Website: www.moa.gov.jo	Contact Point for World Organization for Animal Health (OIE)
National Plant Protection Organisation	The Plant Protection and Phytosanitary Department Ministry of Agriculture 39 Queen Rania St., Amman, Jordan P. O. Box 2099 Amman 11181 Jordan Tel.: +962 6 568 6151 Ext. 381 Fax: +962 6 568 6310 E-mail: f_rawabdeh@yahoo.com Website: www.moa.gov.jo	Contact Point for the International Plant Protection Convention (IPPC)
Trade Promotion Organization	Jordan Enterprise Development Corporation (JEDCO)  1 Aqremah Al Qurashi St., Shmeisani, Amman, Jordan P. O. Box 7704 Amman 11118 Jordan Tel.: +962 6 560 3507 Fax: +962 6 568 4568 E-mail: crm@jedco.gov.jo Website: http://www.jedco.gov.jo	

# **Conformity Assessment Bodies**

# Testing

Public Laboratories			
Animal Wealth Laboratories at the Ministry of Agriculture Zarqa Autostrad, near Zarqa Municipality, Zarqa P. O. Box 2099 Amman 11181 Jordan Tel.: +962 5 3896207, +962 5 3896208 Fax: +962 6 412 0713 E-mail: jawa@moa.gov.jo Website: www.moa.gov.jo	Plant Wealth Laboratory at the Ministry of Agriculture Baq'a, Amman, Jordan P. O. Box 2099 Amman 11181 Jordan Tel.: +962 6 472 6201 Fax: +962 6 472 5704 E-mail: moa.mail@moa.gov.jo Website: www.moa.gov.jo		
National Center for Research and Extension Laboratories Baq'a, Amman, Jordan P.O. Box 639, Baq'a Amman 19381 Jordan Tel.: +962 6 472 5071 Fax: +962 6 472 6099 E-mail: director@ncare.gov.jo Website: www.ncare.gov.jo/	Laboratories of Environment Protection at the Ministry of Health Building No. 15, Jaber Ben Hayyan St., Shmeisani, Amman, Jordan P.O. Box 58 Amman 11118 Jordan Tel.: +962 6 568 5396 Fax: +962 6 566 6147 E-mail: cic@moh.gov.jo Website: www.moh.gov.jo		
Laboratories and Quality Bureau of Water Authority at the Ministry of Water and Irrigation Al-Khansa'a St., Bayader Wadi Al-Seer, Amman P.O. Box 2412 Amman 11183 Jordan Tel.: +962 6 586 4361, +962 6 586 4362 Fax: +962 6 582 5275 E-mail: randa_tuffaha@mwi.gov.jo Website: www.waj.gov.jo	Laboratories of Jordan Valley Authority at the Ministry of Water and Irrigation Al-Masri Triangle, Damieh Area, Dair Ala, P.O. Box 5012 Amman 11181 Jordan Tel.: +962 5 358 4532 Fax: +962 5 358 4531 E-mail: alimhindi@yahoo.com Website: www.jva.gov.jo		
Research and Information Laboratories at the Jordan Authority of Atomic Energy of the Ministry of Energy Al-Nab'a Triangle, Yajouz Road, Amman, Jordan P.O. Box 70 Amman 11934 Jordan Tel.: +962 6 520 0460 Fax: +962 6 520 0471 E-mail: contact@jaec.gov.jo Website: www.jaec.gov.jo	Radiation Detection Laboratories at the Energy and Minerals Regulatory Commission of the Ministry of Energy Building No. 7, Bayader Wadi Al-Seer, Next to Ministry of Information and Telecommunications Technology, Amman, Jordan P.O. Box 1865 Amman 11821 Jordan Tel.: +962 6 580 5000 Fax: +962 6 580 5003 E-mail: abedalraheem.akayle@emrc.gov.jo Website: www.emrc.gov.jo		
Laboratories of the Ministry of Public Works and Housing Building No. 380, King Abdullah II St., 8 <sup>th</sup> Circle, Amman, Jordan P.O. Box 122 Amman 11118 Jordan Tel.: +962 6 580 3803 Fax: +962 6 582 8567 E-mail: mpwh@mpwh.gov.jo Website: www.mpwh.gov.jo	Construction Laboratories at Amman Greater Municipality Al- Istiklal St., Hashmi Jenoubi, Amman, Jordan P.O. Box 132 Amman 11118 Jordan Tel. fax: +962 6 490 8319 E-mail: belal.k@ammancity.gov.jo Website: www.ammancity.gov.jo		
Laboratory of Health and Business Inspection Department at Greater Amman Municipality Al- Istiklal St., Hashmi Jenoubi, Amman, Jordan P.O. Box 132 Amman 11118 Jordan Tel.: +962 6 491 8791 Fax: +962 6 491 8797	Slaughterhouse Laboratories at Amman Greater Municipality Al- Istiklal St., Hashmi Jenoubi, Amman, Jordan P.O. Box 132 Amman 11118 Jordan Tel. fax: +962 6 491 8791 E-mail: ammancity@ammancity.gov.jo		

Public Laboratories			
E-mail: mervat.m@ammancity.gov.jo Website: www.ammancity.gov.jo	Website: www.ammancity.gov.jo		
Laboratories of the Jordan Standards and Metrology Organization Dabouq area, #50 Khair Al-Din Al-Ma'ani St. P.O. Box 941287 Amman 11194 Jordan Call Center: +962 6 550 6060 Tel.: +962 6 530 1225 Fax: +962 6 530 1249 Toll Free: 080 022 860 E-mail: jsmo@jsmo.gov.jo Website: www.jsmo.gov.jo	Pharmaceutical Laboratory at the Jordan Food and Drug Administration (JFDA) Shafa Badran, Marj Al Faras- Kayed Al Qtaishat Street, next to the Directorate General of the Gendarmerie P.O. Box 811951 Amman 11181 Jordan Tel: +962 6 563 2017 Fax: +962 6 510 5916 E-mail: info@jfda.jo Website: www.jfda.jo		
Food Laboratories at the Jordan Food and Drug Administration (JFDA) Shafa Badran, Marj Al Faras- Kayed Al Qtaishat St., next to the Directorate General of the Gendarmerie P.O. Box 811951 Amman 11181 Jordan Tel: +962 6 563 2000, +962 6 460 2550 Fax: +962 6 510 5916 E-mail: info@jfda.jo Website: www.jfda.jo	Laboratories Directorate at the Natural Resources Authority Wadi Alsir, Amman, Jordan P.O. Box 7 Amman 11118 Jordan Tel.: +962 6 550 4390 Fax: +962 6: 581 1866 E-mail: rockmech@nra.gov.jo Website: www.nra.gov.jo		
Forensic Laboratories Department at Public Security Directorate Prince Hashem Bin Al Hussein St., Al-Yasmin Suburb, Amman P.O. Box 935 Amman Jordan Tel.: +962 6 429 3150 Fax: +962 6 429 3163 E-mail: labs.dept@psd.gov.jo Website: www.psd.gov.jo	Laboratories and Hazardous Material Department at the General Directorate of Civil Defense Taberboor (next to the Arab Open University), Amman P.O. Box 1050 Amman 11118 Jordan Tel.: +962 506 6471 Fax: +962 506 6431 E-mail: labo@cdd.gov.jo Website: www.cdd.gov.jo		
Aqaba International Laboratories – BEN HAYYAN Aisha Baooneya Street, Aqaba, Jordan P.O. Box 2565 Aqaba 77110 Jordan Tel.: +962 3 209 0666 Fax: +962 3 209 0688 E-mail: wabutuaimeh@aseza.jo Website: http://www.aqabazone.com			

#### **Private Accredited Laboratories** Royal Scientific Society Middle East Laboratory & Technical Services/Amman 70 Ahmad Al Tarawneh St., Al-Jubaiha, Amman, 70 Ahmad Al Tarawneh St., Al-Jubaiha, Amman, Jordan Jordan P.O. Box 1438 Al-Jubaiha, Amman 11941 Jordan P.O. Box 1438 Al-Jubaiha, Amman 11941 Jordan Tel.: +962 6 534 4701 Tel.: +962 6 534 4701 Fax: +962 6 534 4806 Fax: +962 6 534 4806 Email: rssinfo@rss.jo Website: www.rss.jo Email: rssinfo@rss.jo Website: www.rss.jo Construction Materials Testing Laboratory Concrete Laboratory Arab Center for Engineering Studies (ACES) Lafarge Cement Jordan Building No. 33, Ibrahim Qatan St., Amman Shaker Circle, Fuhais, Amman, Jordan P.O. Box 5504 Amman 11183 Jordan P.O. Box 930019 Amman 11193 Jordan Tel:: +962 6 581 0777 Tel.: +962 6 560 0600

Private Accredited Laboratories			
Fax: +962 6 581 2777 E-mail: acesamman@aces-int.com Website: www.aces-int.com	Fax: +962 6 560 0639 E-mail: concrete.info@jordan.lafarge.com Website: www.lafarge.com.jo		
Biotechnology Laboratory Hikma Pharmaceuticals Co. King Abdullah II Industrial Estate - Sahab P.O. Box 41 Amman 11512 Jordan Tel.: +962 6 402 3916 Fax: +962 4023917 E-mail: tkayyali@hikma.com, ashanneir@hikma.com Website: www.hikma.com	Miyahuna Central Laboratories Jordan Water Company (Miyahuna)/ Zai Zai, Salt, Jordan P.O. Box 1247 Salt 19264 Jordan Tel.: +962 5 351 0442 Fax: +962 5 951 1275 E-mail: labs@Miyahuna.com.jo Website: www.miyahuna.com.jo		
Waste Water Laboratories Miyahuna Central Laboratories at Jordan Water Company (Miyahuna)/ Abu Nusair Abu Nusair, Amman, Jordan P.O. Box 1247 Salt 19264 Jordan Tel.: +962 5 351 0442 Fax: +962 5 951 1275 E-mail: labs@Miyahuna.com.jo Website: www.miyahuna.com.jo	Laboratory of Triple Corporation Consultants Engineers Mohamed Al-Dura St., Al-Muqabalin, Amman, Jordan P.O. Box 182583 Amman 11118 Jordan Tel.: +962 6 420 7034 Fax: +962 6 420 2036 E-mail: triplecorp@gmail.com		
Testing Laboratory International Center for Geotechnical Studies Shmesani, Amman, Jordan P.O. Box 961427 Sport City Amman Jordan Tel.: +962 6 569 9130 Fax: +962 6 560 1004 E-mail: info@geotest-jo.com Website: www.geotest-jo.com/	Arab Electrical Industries Laboratory Industrial City- Sahab, Amman, Jordan P.O. Box 3 Amman 11512 Jordan Tel.: +962 6 405 0550 Fax: +962 6 405 0492 E-mail: hk@aei-jo.com Website: www.aei-jo.com		
Modern Engineering Laboratories Sobar Complex, Abu Abdullah Al-Rashdi St., Bayader Wadi Al-Seer, Amman, Jordan P.O. Box 2745 Tela'a El ali Amman 11935 Jordan Tel.: +962 6 586 1806 Fax: +962 6 581 9067 E-mail: modernengl527@yahoo.com	Southern Engineering Laboratories Al Thanyeh, Karak, Jordan P.O. Box 3 Amman 61112 Jordan Tel. fax: +962 3 238 6792 E-mail: sel_lab1992@yahoo.com		
Testing Laboratory Engineering Axis for Studies Sweifieh, Amman, Jordan P.O. Box 140945 Amman 11814 Jordan Tel.: +962 6 586 4893 Fax: +962 6 586 1477 E-mail: eng_axis@hotmail.com	Sana Pharmaceutical Research Laboratories 48 Arab street, Shafa Badran, Opposite the Applied Science University, Amman, Jordan P.O. Box 710473 Amman PC 11171 Jordan Tel.: +962 6 523 3349 Fax: +962 6 523 3744 E-mail: info@sana-pharma.com Website: www.sana-pharma.com		
Jordan Engineering Laboratories Tela'a El Ali, Amman, Jordan P.O. Box 773 Amman 11953 Jordan Tel. fax: +962 6 553 5821 E-mail: jordan_labs@yahoo.com	Karasneh Construction Laboratories Al Ml'ab Al Baladi St., Irbid, Jordan P.O. Box 1990 Irbid Jordan Tel. fax: +962 2 724 1404		
Testing Laboratory at Asia Engineering Center for Soil Research and Material Al Madinah Al Munawarah St., Amman, Jordan P.O. Box 1279 Amman 11953 Jordan	MAS Center for Engineering Tests Northern Marka, Amman, Jordan P.O. Box 7821 Amman 11118 Jordan Tel. fax: +962 6 487 3110		

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Tel. fax: +962 6 533 6127 E-mail: asia center2008@hotmail.com	E-mail: masengineeringtests@yahoo.com		
Advanced Agrochemicals and Veterinary Products Industrial Co. Abdullah II Bin Al-Hussein Industrial Estate, Sahab, Amman, Jordan P.O. Box 294 Amman 11512 Jordan Tel.: +962 6 402 2640 Fax: +962 6 402 2340 E-mail: <a href="mailto:chemvet@orange.jo">chemvet@orange.jo</a> Website: <a href="mailto:www.chemvetjo.com">www.chemvetjo.com</a>	The laboratory of Arab Pharmaceutical Industry Consulting Company (Pharmaceutical Research Unit) Building No. 19, Yajouz St., Al.Jubaiha, Amman, Jordan P.O. Box 1438 Amman 11941 Jordan Tel.: +962 6 535 8290 Fax: +962 6 535 8261 E-mail: info@pru.com.jo Website: www.pru.com.jo		
Mohammad Abu-Elkhair and Partners Co. (Naratech Labs) Building No. 170, 1st floor, Mecca St., Amman, Jordan P.O. Box 140199 Amman 11814 Jordan Tel.: +962 6 550 6539 Fax: +962 6 550 6538 E-mail: Khalilyahia@naratech.net Website: www.naratech.net	Laboratory of Ready Mix Concrete and Construction Supplies (Kingdom Concrete) Al- Bayader, Amman, Jordan P.O. Box 851602 Amman Jordan Tel.: +962 6 585 8110, +962 6 585 8109 Fax: +962 6 581 2364, +962 6 581 8177 E-mail: qc@ kingdomconcrete.jo Website: www.kingdomconcrete.jo		
Laboratory of Al-Rajihi Cement ARC / Mafraq Al-Mafraq - Jordan P.O. Box 17629 Amman 11195 Jordan Tel.: +962 6 552 0304 Fax: +962 6 552 0408 E-mail: i.awad@alrajhicement.com, m.zaidaneen@alrajhicement.com Website: www.alrajhicement.com	Agricultural Laboratory in Arab Center for Engineering Studies /Amman Building No. 33, Ibrahim Qatan Street, Amman, Jordan P.O. Box 5504 Amman 11183 Jordan Tel.: +962 6 581 0777 Fax: +962 6 581 2777 E-mail: quality.amman@aces-int.com Website: www.aces-int.com		

Certification and Inspection Bodies			
Lloyd's Register Adel Hajarat Complex, 2nd Floor, Office 208, Salah Izhimat St, Swifieh, Amman, Jordan P.O. Box 850936, Amman 11185 Jordan Tel.: +962 6 586 5740 Fax: +962 6 586 4286 E-mail: amman-lrqa@lr.org Website: www.lrqa.com	SGS Jordan Co. Caracas Building, Entrance No. 1, 3rd Floor, Office 311, Al-Jbeiha, Yajouz St., Amman, Jordan P.O. Box 930388 Amman 11193 Jordan Tel.:+962 6 537 7355 Fax: +962 6 537 7356 E-mail: me.ssc.jordan@sgs.com Website: www.sgs.com		
Bureau Veritas Ismail Al-Belbaisi Bldg., 2nd Floor, Office No. 3, Prince Hamza St., Alhashimi Amman, Jordan P.O. Box 930316 Amman 11193 Jordan Tel.: +962 6 506 0670 Fax: + 962 6 506 0504 E-mail:hisham.almajali@jo.bureauveritas.com Website: www.bureauveritas.com	DNV Abu Mayyaleh Complex, Office No. 6, Al Hureyyah St., Near Electric Mall, Amman, Jordan P. O. Box 630051 Amman 11163 Jordan Tel.: + 962 6 420 6060 Fax: + 962 6 420 6070 E-mail: businessassurance.me@dnv.com Website: www.dnv.com		
TÜV Austria Hellas Building No. 1 first floor, 61 Abdulrahim Alwakid St., Alshmeisani, Opposite to Le Meridian Hotel, Amman, Jordan P.O Box 204917 Amman 11121 Jordan Tel: +962 6 568 6771	Absolute Quality Certification (AQC Jordan) 23 Ali Sarairah St., Sweifieh, Amman, Jordan Tel: +962 6 583 3576, +962 6 583 3577 Fax: +962 6 583 3578 E-mail: info@aqc.jo Website: www.aqc.jo		

Certification and Inspection Bodies		
Fax: +962 6 568 6772 E-mail: gm@tuvaustriahellas-jo.com Website: www.tuev.at		

Calibration Laboratories			
Royal Scientific Society Address: 70 Ahmad Al Tarawneh St., Al-Jubaiha, Amman, Jordan P.O. Box 1438 Al-Jubaiha, Amman 11941 Jordan Tel.: +962 6 534 4701 Fax: +962 6 534 4806 Email: rssinfo@rss.jo Web Site: www.rss.jo	Precision Measurement Equipment Labs (PMEL) Royal Jordanian Air Force Khaw, Zarqa, Jordan Tel.: +962 6 489 5923 Fax: +962 6 489 3625 Email: pmelprv@rjaf.mil.jo Web Site: www.rjaf.mil.jo		
Metrology Department Jordan Standards and Metrology Dabouq area, #50 Khair Al-Din Al-Ma'ani St. P.O. Box 941287 Amman 11194 Jordan Tel. fax: +962 6 530 1253 E-mail: mohammad.alaskar@jsmo.gov.jo Website: www.jsmo.gov.jo			

Quality Association	Membership		
Jordan Society for Quality (JSQ) 29 Bareed St., Sports City Area, Amman, Jordan P. O. Box: 941458 Amman 11194 Jordan Tel.: +962 6 515 4641 Fax: +962 6 516 1240 E-mail: info@ jsquality.jo Website: http://www.jsquality.jo/	<ul> <li>Founding member in the Middle East Quality Association (MEQA)</li> <li>Member in the Arab Quality Assurance Association (ARQAA)</li> <li>Member in the Health Care Accreditation Commission (HCAC)</li> <li>Member in the Jordan Higher Education Accreditation Commission.</li> <li>Member in Arab Knowledge Management Society</li> </ul>		

Organizations Supporting Quality Initiatives			
National Fund for Enterprise Support (NAFES) Tel: +962 6 533 1451 Fax: +962 6 534 1307 E-mail: nafes@nafes.org.jo Website: www.nafes.org.jo	The National Program "Faculty for Factory" Tel: +962 6 535 5000 Ext: 22722, 22721 Fax: +962 6530 0813 E-mail: yousef.alabdallat@gju.edu.jo Website: http://facultyforfactory.ju.edu.jo		
Industrial Scientific Research and Development Tel: +962 6 534 0401 Ext (240) Fax: +962 6 534 0589 Email: rima@hcst.gov.jo Website: www.irdf.gov.jo			



Headquarters of Jordan Standards and Metrology Organization (JSMO)



Headquarters of Jordan Food and Drug Administration (JFDA)



Headquarters of the National Center for Agricultural Research and Extension (NCARE)





