Organizational Review of JISM and DAMAN Program

Final Report

Contract No.:	278-C-00-02-00210-00
Contractor Name:	Chemonics international, Inc.
USAID Cognizant Technical Office:	Office of Economic Opportunities USAID/Jordan
Date of Report:	October 21, 2004
Document Title:	**Organizational Review of JISM and DAMAN Program** *FINAL*
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Activity Title and Number:	Achievement of Market-Friendly Initiatives and Results Program (AMIR 2.0 Program) PSPI Component, 'Organizational Review of JISM and DAMAN Program' Task No. 535.02

Funded by US Agency for International Development

This report was prepared by Khaled Masri in collaboration with Chemonics International Inc., prime contractor to the US Agency for international Development for the AMIR Program in Jordan.

Data Page

Name of Component:	Private Sector Policy Initiative
Author:	Khaled I. Masri
Practice Area:	Trade and Investment
Service Offering:	N.A.
List of Key Words Contained in Report:	DAMAN; pre-shipment inspection (PSI); Jordan Institution for Standards and Metrology (JISM); accreditation; certificates of conformity; certification; certification marks; conformance testing; conformity; inspection; laboratory accreditation; product listing; quality assurance; standards; testing

Abstract

This report provides recommendations to the Jordanian Institution for Standards and Metrology (JISM) on program and structural reforms to ensure that appropriate product standards are applied to imported products in a manner that does not act as a barrier to trade.

Abbreviations and Acronyms

AU	Accreditation Unit of JISM
JABA	American Chamber of Commerce in Jordan
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
ASEZA	Aqaba Special Economic Zone Authority
AIDMO	Arab Industrial Development and Mining Organization
ACCSQ	Asian Consultative Committee for Standards and Quality
ANCE	Asociación Nacional de Normalización y Certificación del Sector Eléctrico
ASYCUDA	Automated System for Customs Data
BOO	Build Own Operate
BOOT	Build Own Operate Transfer
BV	Bureau Veritas
CSA	Canadian Standards Association
CB	Certification Bodies
CITS	Comprehensive Integrated Tariff System
CANENA	Consejo de Armonización de Normas Electrotécnicas de las Naciones de las Américas
CPSC	Consumer Product Safety Commission
EN	European Norms
EU	European Union
ETL	Extraction Transformation and Loading
FDA	Food and Drug Administration
HS	Harmonized System
ICCP	International Conformity Certification Programs
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Council
IPCCP	International Product Conformity Certification Program
ISO	International Standards Organization
JISM	Jordan Institution for Standards and Metrology
JDS	Jordanian Directorate of Standards
JS	Jordanian Standards
MRA	Mutual Recognition Agreement
NEMA	National Electrical Manufacturers Association
NIST	National Institute of Science and Technology
NAFTA	North American Free Trade Agreement
PASC	Pacific Area Standards Congress
COPANT	Pan American Standards Commission
RSS	Royal Scientific Society
SBS	Sanitary and Phyto-Sanitary
SGS	Société Générale de Surveillance
SAE	Society of Automotive Engineers
SDOC	Suppliers declaration of conformity
TBT	Technical Barriers to Trade
UL	Underwriters Laboratories
USDA	United States Department of Agriculture
WTO	World Trade Organization

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Executive Summary

An assessment review was made of the Jordan Institution for Standards and Metrology (JISM) pre-shipment inspection program known as DAMAN in Amman, Jordan, during August 25-September 21, 2004. Approximately 35 percent of the total imports to Jordan are subjected to the DAMAN program, amounting to $500 million. Vehicles take the lead ($11.2 million), followed by information technology ($1.9 million) and appliances ($1.5 million). There are no available statistics to suggest that US imports to Jordan are causing any health or safety concerns. JISM stated that they have no problems with US imports.

The purpose of the review was to recommend a possible program and structural reforms to ensure that appropriate product standards are applied to imported products in a manner that does not act as a barrier to trade.

Detailed recommendations were made for each of the areas reviewed. The key recommendations are:

1. JISM should 'fast-track' the elimination of the DAMAN program as currently practiced. In addition to the other recommendations made in this report that contribute to maintaining product standards, JISM should replace DAMAN with a suppliers declaration of conformity (SDOC) scheme while ensuring adequate post-market surveillance.

2. JISM should refine its risk assessment guidelines to include new criteria based on a product's national origin. Priority of border passage should be granted to imports from countries with the lowest risk rating, especially those with which Jordan has entered into special trading relationships. The refined guidelines must be compliant with Jordan's obligations to the World Trade Organization (WTO).

3. JISM should participate in the international Conformity Testing Scheme for Recognition of Results of Testing to Standards for Safety of Electrical Equipment which seeks to achieve maximum test acceptance for electrical products worldwide.

4. JISM should consider the potential for international harmonization of product standards and other regulatory requirements with sectors that seek harmonization.

5. The United States and Jordan should consider negotiating a partial bilateral agreement on conformity assessment as an interim step leading to accomplishing the previous two recommendations. This will facilitate trade and would enable manufacturers to obtain certification and acceptance in both markets without the need for additional certification.

6. JISM should consider the establishment of a technical committee on consumer product safety to develop responsible policies affecting consumer safety.

7. JISM should adopt a policy for public notification of its draft standards and technical regulations to ensure transparency, and where appropriate, involve international concerned parties.

8. Jordan should expedite the processes to develop its laboratory accreditation system and to create an independent accreditation body.

The European Union is planning a package of technical assistance to JISM worth €2.5 million. Assistance includes support for accreditation, standardization, metrology and market surveys, and capacity building for information centers and laboratories. It is important that before any further technical assistance is offered from USAID the assistance being provided by the European Union is clearly understood and all activities carefully coordinated.

1. Introduction

The Jordan Institution for Standards and Metrology (JISM) is the entity responsible for coordinating the setting of product standards and ensuring conformity with those standards in Jordan.

A number of factors have encouraged JISM to recently establish a pre-shipment inspection program:

a) A large increase in the volume of imports
b) lack of sufficient laboratory testing capacity
c) the large number of unique national product standards sought to support its conformity assessment role
d) inadequate consumer protection against product failure

As such, JISM contracted Bureau Veritas, a French-based multinational company, to operate the pre-shipment inspection program referred to as DAMAN commencing on September 1, 2003. Products considered to be most at risk of failing Jordanian standards are subject to the program, and include toys, electrical and electronic equipment, tires, motor vehicles, and personal safety devices. Imported products are inspected in the place of export, except for vehicles, which are inspected after arrival in Jordan.

Under the DAMAN program, each product consignment must be accompanied with a conformity certificate before entering Jordan. The conformity assessment performed on the products includes sampling, physical inspection, and, if necessary, testing. When compliance is proved the DAMAN conformity certificate is issued. The products covered under this program must comply with the requirements of Jordanian standards or the requirements of the relevant international standards in case there are no published Jordanian standards.

After one year of operation, many importers, manufacturers and trade associations have expressed concern that the pre-shipment inspection program is causing significant delay to the import process into Jordan. Several companies have complained that urgent shipments now require days, rather than hours, to be processed by all of Jordan's border agencies. Some US suppliers of individual consignments have declined to ship orders because of the additional procedures. Furthermore, there is concern that the few domestic manufacturers of products subject to DAMAN are not undergoing sufficient conformity assessment, thereby potentially placing the DAMAN in contravention of the national treatment principle enshrined in all WTO agreements.

Much of the criticism of DAMAN is from importers of US products. Historically, US exports to Jordan have enjoyed an excellent reputation for safety and quality. No evidence has been found to suggest that US imports are causing any health or safety concerns. This is due to the fact that the US manufacturing industry has established a rigorous conformity assessment system to ensure that products meet a high level of health and safety.

This report briefly reviews the activities of JISM and public concerns over DAMAN and recommends a number of steps to overcome these concerns while maintaining a high level of health and safety protection.

3. Standards and Metrology Background[1]

3.1 Standardization

A standard is defined as a prescribed set of rules, conditions, or requirements concerning definitions of terms; classification of components; specification of materials, performance, or operations; delineation of procedures; or measurement of quantity and quality in describing materials, products, systems, services, or practices. The true benefit of standards is realized in reducing inventories and increasing compatibility. Standards may be classified in numerous ways, some of which are:

- Test method standards define the process/procedures to be used to assess the performance or other characteristics of a product.
- Product standards establish qualities or requirements for a product (or related group of products) to ensure that it will function safely and/or effectively.
- Process standards specify requirements to be met by a process (e.g., an assembly line operation) in order to function effectively.
- Service standards (e.g., standards for servicing or repairing a car), establish requirements to be met in order to achieve the designated purpose of this service.
- Interface standards (e.g., a standard for the point of connection between a telephone and a computer terminal), are concerned with the compatibility of products.

Still another classification scheme distinguishes between voluntary standards, which by themselves impose no obligations regarding use, and mandatory standards. A mandatory standard (also referred to as technical regulation) is generally published as part of a code, rule or regulation by a regulatory government body and imposes an obligation on specified parties to conform to it. However, the distinction between these two categories may be lost when voluntary consensus standards are referenced in government regulations, effectively making them "mandatory" standards. Voluntary consensus standards may also become "quasi-mandatory" due to conditions in the marketplace. For example, the health care industry is sensitive to the need to use the safest products available to ensure patient safety and to protect manufacturers, vendors and health care providers against lawsuits. Informed buyers of health care products will frequently insist that products meet all appropriate voluntary consensus standards. If manufacturers wish to compete effectively, their products must conform to such standards.

Standards are vital tools of industry and commerce because they promote understanding between buyers and sellers and make possible mutually beneficial commercial transactions. Buyers cannot always evaluate product specifications or characteristics by inspection or even from prior experience. Information on a product's conformance (or non-conformance) to a particular standard can provide an efficient method of conveying information needed by a buyer on the product's safety and suitability.

One of the most important uses for standards is within a conformity assessment process. Standards provide the basis for conformity assessment activities which, in turn, are the basis for many buyer-seller transactions. Hence standards used in conformity assessment activities can have tremendous impact on companies and nations and even on the economic fabric of

[1] Definitions and explanations in this section have been drawn from: *ABC's of the US Conformity Assessment System*, Maureen A. Breitenberg, NIST, April 1997.

the world market. Standards can cover many aspects of the conformity assessment process. They can describe characteristics of the product for which conformity is sought; the methodology (e.g., test, inspection or other assessment methods) used to assess that conformity; or even the conformity assessment process itself (e.g., how a certification program should be operated). Standards used in conformity assessment should be clearly and concisely written, readily understood, precise, technically credible, and contain only unambiguous requirements - the absence or presence of which can be objectively verified. The use of well written standards in a conformity assessment process lends credibility and validity to the process, increasing its usefulness.

In addition, standards for conformity assessment methods (e.g., test methods) used in the conformity assessment process should be capable of evaluating the conformity of a product to the specified requirements in a manner that produces test results that are within an acceptable accuracy range. The results should also be consistent with results produced by the same laboratory when it repeats the test using the same or a similar test method. The results should also be reproducible, i.e., capable of being duplicated by other testing bodies using the same or similar test methods.

Standards used in conformity assessment should not impede innovation. For this reason, performance standards, which describe how a product is supposed to function, are preferred over design (also called prescriptive) standards, which define how the product is to be designed or constructed. Performance standards are also more likely to allow the inclusion of technological innovations in the product and to prevent unnecessary barriers to trade. This is why members of the WTO Agreements are encouraged to write technical regulations and standards in terms of performance rather than design.

The major problem facing a developing country like Jordan is the fact that no common, accepted best practice exist for the framework that links standards, conformity assessment and technical regulations. This issue is further complicated by the fact that standards and conformity assessment are used in both the voluntary and the regulatory domain, the former shaped by market forces and the latter controlled by government. JISM is Jordan’s recognized body for issuing Jordanian standards. The Standardization Department applies international practices and procedures in preparing and reviewing Jordanian standards, taking into consideration all requirements of the agreements signed by Jordan at the international and regional levels (i.e. the WTO Technical Barriers to Trade (TBT) and Sanitary and Phyto-Sanitary (SPS) Agreements, Euro-Jordanian Association Agreement, and the Jordan-United States-Jordan Free Trade Agreement (JUSFTA)).

At the national level, standardization work is conducted by standards committees which can obtain assistance from groups of experts. These committees or working groups are made up of qualified representatives from industrial circles, research institutes, public authorities, and consumer and professional bodies. At the regional or international level, the work is conducted by technical committees with national standards bodies assuming the secretariats. These technical committees are created by the technical management boards of the relevant regional or international bodies. All national members are entitled to be represented within the international or regional committee dealing with a specific subject matter.

Standards are defined by JISM as documents that provide for common and repeated use, rules, guidelines or characteristics, for a service, or for a product or its related production methods, including the applicable administrative provisions, with which compliance is not mandatory. This definition is the same as the voluntary standard previously described. JISM

standards deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product or its production method. Technical Regulations are defined as documents laying down the characteristics for a service or for a product, or its related production methods, including the applicable administrative provisions, with which compliance is mandatory.

The Jordanian Standards are generally developed by JISM in coordination with other government research and academic institutions, and Ministries. A draft standard is developed by the technical committee and then circulated for comments to interested groups. A 90 day comment period is normally allowed. Once comments are received they are discussed and addressed to obtain consensus. JISM is starting to involve more private sector groups such as the Chambers of Commerce and Industry in this process.

3.1.1 Harmonization of Standards

Harmonized standards provide an alternative to costly conformity assessment schemes such as pre-shipment inspection. Manufacturers seek to design and build one product that is accepted in all the markets of the world. They prefer using one standard and one test accepted globally. This will eliminate the need for redundant testing and will ease access to markets. It will also help reduce tariffs and regulations on products. Some regulations are necessary for health, safety, and environment. To accomplish the goal of one standard in the global marketplace, standards must be harmonized through an open and transparent process. Global standards provide worldwide acceptance and protection. Differences in climate, culture, and infrastructure are addressed through national/regional differences. Benefits of harmonized standards to Jordan include:

- One product or system accepted in multiple markets
- Lower production and inventory costs
- Lower cost of needed conformity assessment(s)
- Consumers and users get quicker access to the benefits of new technologies
- National differences may be used to address needs of authorities, consumers, government and manufacturers
- Resources needed to develop standards are shared

In North America, under the North American Free Trade Agreement (NAFTA), market forces aided by government commitment to reducing trade barriers are used to harmonize standards. Often, within these larger trading blocks or markets, even before the formal structures are established, industry needs cause harmonization of tri-national standards and product acceptance procedures. A typical example is the tri-national harmonization taking place between the United States, Canada and Mexico via standards-harmonization efforts of UL, the Canadian Standards Association (CSA), and the Mexican Standards Agency ‘Asociación Nacional de Normalización y Certificación del Sector Eléctrico’ (ANCE) under the umbrella of the ‘Consejo de Armonización de Normas Electrotécnicas de las Naciones de las Américas’ (CANENA) (Council for Harmonization of Electrotechnical Standards of the Nations of the Americas). Industry and user needs are the key to the harmonization of international standards. A key question is always, "Is industry in that sector seeking harmonization, and if so, to what level?" Often, harmonization with international standards may require the involved industries to modify specific products, which may require considerable investment of time and money. Sometimes it becomes difficult for manufacturers to make changes that are costly and add little or nothing to the safety or

marketability of the products involved. And yet, as the motivation grows to seek foreign markets —excited by the European Union (EU), NAFTA and other economic global developments—conformity to international standards becomes a prerequisite.

Harmonization of standards is important for trading within the region and for international trade. Harmonization between Jordan and its trading partners i.e., the United States and the European Union may not be feasible in some cases due to the high cost involved in bringing large numbers of experts together to participate in harmonization activities. Internet based conferences is an alternative to minimize the cost physical meetings. The International Standards Organization (ISO) and International Electrotechnical Commission (IEC) standards are gradually becoming more accepted by the US electrical and electronic industry. Therefore, the best option available to Jordan is to adopt the international standards as Jordanian standards. In the case of cars, where no single international harmonized standard exist, JISM should consider inviting local representatives of major car manufacturers to participate in harmonization activities on a pilot project basis. It is recommended that various product sectors (i.e., automotive, toys, information and communication equipment, etc.) as represented by the Jordanian trade and industry groups such as INT@J, the American Chamber of Commerce in Jordan (JABA), and others should be empowered to participate in the harmonization process in order to influence the desired change.

3.2 Conformity Assessment

Buyers in the global market demand that sellers fulfill their needs. Competing suppliers are motivated to convey assurance to their customers in the most efficient manner. Confidence that these needs can and will be met is built through a variety of means, including the assessment of conformity to standards. Conformity assessment is defined as any activity concerned with determining directly or indirectly that relevant requirements are fulfilled. There are many of these conformity assessment activities applicable to today's marketplace including inspection, testing, supplier's declaration, accreditation, and certification.

3.2.1 Inspection

Inspection is defined as conformity evaluation by observation and judgment accompanied as appropriate by measurement, testing or gauging. While a number of people regard inspection as an activity which is distinct from other types of conformity assessment activities, most other conformity assessment activities do involve inspection to some degree.

The Control Department at JISM inspects imported and locally produced products to ensure their compliance with Jordanian standards and technical regulations. Inspection on imported products starts at the borders before entry into Jordan and includes examination of each consignment, sampling and testing of products subject to Jordanian technical regulations.

JISM monitors locally produced products by conducting systematic visits to factories according to annual and monthly plans that are prepared based on the risk of the product and the previous inspection results. During the visits, the production lines and storage areas are inspected and samples are taken and sent for testing. In cases where deviations are identified, the manufacturer will be subject to the applicable penalty.

The Ministry of Health, the FDA and the Ministry of Agriculture share with JISM the responsibility of ensuring compliance of locally produced and imported food products with Jordanian technical regulations and the control of their entry into the local markets. Local

Municipalities in addition to the above mentioned authorities, depending on their mandates, conduct regular inspections on the local markets. JISM conducts market surveillance on a small-scale and random basis based on complaints received from consumers. It also conducts safety inspections on elevators after installation and prior to use. JISM is now working on developing the internal system of the Control Department to be able to fulfill and implement effectively the requirements of the ISO/IEC 17020 for inspection bodies.

3.2.2 Testing

A test is defined as a technical operation that consists of the determination of one or more characteristics of a given product, process or service according to a specified procedure. Testing laboratories support billion dollar industries and affect the entire operation of world industry and the international regulatory system. Each day major corporate and regulatory decisions are made based on data produced by testing laboratories. Test data are used in many tasks including:

- product design and research
- quality control prior to acceptance of incoming materials/components
- during production, and prior to shipment/sale
- insurance underwriting
- meeting contractual agreements
- satisfying government regulatory requirements
- certification and labeling
- buyer protection and information
- product comparisons
- building and structure design, construction and related engineering tasks
- medical and health services
- environmental protection
- product operation, maintenance and repair
- legal proceedings, and
- forensic work.

Flawed test data can result in defective products capable of causing serious injury or harm to the user or the environment. Testing can be performed by laboratories differing widely in size, legal status, purpose, range of testing services offered, and technical competence. They may be government regulatory laboratories, government research laboratories, or government supported laboratories. They can also be college/university laboratories, independent private sector laboratories, laboratories affiliated with or owned by industrial firms or industry associations, or manufacturers' in-house laboratories. Test laboratories can be for-profit or nonprofit. Laboratories can operate facilities in one or multiple locations; and may even operate in multiple countries. Laboratories can offer only a limited range of testing services or services in many fields. There are almost as many different types of laboratories as there are different types of users of the test data that the laboratories produce.

Jordanian laboratories lack capability to conduct some of the tests needed to ensure the compliance of imported or locally manufactured products with Jordanian standards or technical regulations. Consequently, only a few simple testing methods are conducted on these products. The following laboratories are available in Jordan:

- Royal Scientific Society (RSS) laboratories perform the main testing functions in Jordan. Fifteen of these labs are accredited for electricity, food, chemical analysis, construction, mechanical and water testing in addition to limited calibration testing.
- JISM laboratories test food products, chemical products, cosmetics, and precious metals in addition to a mass calibration laboratory with limited scope.
- Amman Municipality Laboratory for testing food products.
- The Central Laboratory of the Ministry of Health for testing food products and cosmetics.
- The National Center for Agriculture Research and Technology Transfer/Ministry of Agriculture Laboratories for testing fertilizers, pesticides and pesticide residues.
- A number of private sector laboratories, some of which have applied for national accreditation.

The above shows that food testing laboratories in Jordan are available, while testing of other products is very limited. In particular, electrical testing capability needs strengthening. Jordan should encourage private sector investment in this area. This can be achieved through outsourcing to qualified institutions using a “build own operate” (BOO) or “build own operate transfer” (BOOT) model. This approach allows JISM to focus on its core competencies including inspection, accreditation, quality assurance, and consumer protection. In addition, private laboratories which already exist in Jordan can be contracted to fill the gap in laboratories infrastructure, therefore, reducing dependency on DAMAN and Bureau Veritas laboratories.

3.2.3 Laboratory Accreditation

While a laboratory can self-declare or self-certify its compliance with requirements such as those listed above, or laboratory users can validate a laboratory's compliance for themselves, another method to ensure the quality and accuracy of laboratory test results is through the use of an independent third party. A third party (independent of the laboratory and the purchasers or users of laboratory testing and test data) can accredit the competence of a laboratory to conduct specific tests or to operate in specific fields.

Accreditation is defined in ISO 17025 as a: "procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks." In the case of laboratory accreditation, the tasks are tests or specific types of tests. Laboratory accreditation does not provide any guarantees about the test results obtained from the performance of any specific test procedures. Laboratory accreditation means that the laboratory is capable of performing specified test methods and procedures correctly, not that the laboratory has competently tested all products in each and every instance. In addition, accreditation provides assurance about a laboratory's capability SOLELY within the scope or areas for which accreditation was granted. If a laboratory is accredited to test concrete, no assurance is provided regarding that laboratory's ability to test any product other than concrete. It should also be noted that not being accredited does not necessarily imply that the laboratory is not technically competent since not all laboratories seek or require accreditation, and accreditation programs may not exist in the laboratory's field of operation.

Accreditation may recognize both the technical competence and impartiality (lack of conflict-of-interest) of a testing laboratory, or only its technical competence. The inclusion or exclusion of a requirement for impartiality is only one of many differences among the various approval criteria used in laboratory accreditation schemes. Such differences in requirements or criteria for accreditation must be considered in evaluating a particular scheme. The reasons

for and benefits of seeking accreditation are as diverse as the laboratories themselves. In general, however, laboratories participate in accreditation programs in expectation of some type of economic return (such as increased business) on the resources they invest in obtaining the accreditation.

The Accreditation Unit (AU) at JISM is the national accreditation body in Jordan managing the Jordanian Accreditation System (JLAS). AU accredits testing and calibration labs according to the international standard ISO 17025. AU has so far accredited 17 laboratories with more in progress.

AU is currently an associate member of the International Laboratory Accreditation Council (ILAC). In order to become a full member of ILAC, and be able to sign multilateral agreements with international accreditation organizations AU is working on fulfilling and implementing the requirements of the standard ISO/IEC 17011. This will facilitate the acceptance of Jordanian exports to international markets and enhance the acceptance of Jordanian conformity assessment results abroad by accepting testing reports, calibration certificates or certificates of conformity issued by accredited bodies in Jordan.

A new law for establishing an independent accreditation body has been approved by the cabinet recently and is awaiting the approval of the Jordanian parliament. The new law will allow the new national accreditation body to accredit inspection and certification bodies (personnel, products, management systems) as well as testing and calibration laboratories. It is expected that the new body will start operating by the beginning of 2005 and will replace the AU.

3.2.4 Certification

While a close interrelationship exists among standards, testing, accreditation and certification, these areas are distinct. Certification is the process of providing assurance that a product conforms to a standard or specification or that a person is competent to perform a certain task. Some (but not all) certification programs mandate that accredited laboratories conduct any required testing, but (as noted above) there are laboratory accreditation schemes that are not associated with a certification program. Certification and laboratory accreditation programs both use standards, but not all standards are intended for these uses.

Because standards, testing, laboratory accreditation, and certification are linked; strengths as well as deficiencies in any one area can have significant consequences for the other areas. For example, improvements in test method standards can significantly increase the capability of a laboratory to produce valid test data, which may then be used in a certification program.

Product certification schemes range from the simple to the complex. Many private organizations, as well as federal and state agencies in the United States, certify products ranging from electrical cords to meat products. In addition, many certification programs are operated at local government (city, township, county, etc.) levels. Consumers see evidence of the extensiveness of certification-related activities when they note the Underwriters Laboratories (UL) mark on such products as electric coffee pots and fire extinguishers, the United States Department of Agriculture (USDA) mark on poultry and other agricultural products, and the international Wool Secretariat's Woolmark or Woolmark blend on wool and wool blend textile goods - only a few of the many certification marks which may appear on consumer products.

Certification in Jordan includes quality management systems, environmental management systems, and product certification. Certification bodies working in this field are from both the private and governmental sectors. Two internationally accredited certification bodies, Lloyd's and Société Générale de Surveillance (SGS), are working in Jordan in the field of quality management system and environmental management system certification. Both are active in this area and have audited and certified a wide number of Jordanian companies against ISO 9000 and ISO 14000 (about 500 companies).

The certification department in JISM supervises product certification and grants the Jordanian quality mark for products according to specified instructions that include technical requirements higher than those stated in the Jordanian standards and management requirements that comply with the ISO 9001-2000. The certification department implements quality management systems that comply with the requirements of the ISO/IEC guide 65 and are working on adopting international systems for quality marks. The department is seeking international accreditation so that its results would be recognized globally.

Types of Certification

A. First Party Certification or self-certification is the process by which a manufacturer or supplier declares that the product meets one or more standards based on: (1) the manufacturer's confidence in the quality control system, or (2) the results of testing or inspection the manufacturer undertakes or authorizes others to undertake on his/her behalf. This process is also known as a manufacturer's or supplier's declaration of conformity (SDOC). The manufacturer's capability, integrity, and reputation determine the degree of confidence that can be placed in this type of certification.

   The criteria and procedures recommended for a self-certification program are established at the international level by the supplier's declaration of conformity standards ISO/IEC 17050-1:2004 -- Part 1: General requirements and ISO/IEC 17050-2:2004 -- Part 2: Supporting documentation. Such procedures frequently include the requirement that the self-certification or manufacturer's declaration be based on conformance with all requirements of a standard unless full disclosure is made of any limitations of the certification. Usually there are additional requirements for the adequate use and maintenance of test equipment, an effective quality control system, fully-trained staff, written certification procedures, and adequate record keeping.

   One of the most familiar certification programs in the United States, which gained international recognition, involves the identification of the weight of motor oils by the manufacturer of conformance to the Society of Automotive Engineers (SAE) standards. Consumers will recognize such weight designations as SAE 10W-40W or 10W-30W on the motor oils that they buy. These SAE designations are placed on the motor oils by the manufacturer based on its own testing and quality control mechanisms. This is primarily a self-certification program, though SAE does audit manufacturers' self-certifications to ensure that SAE standards are not being misused.

B. Second Party Certification is also common. In this case, it is usually the buyer who requires and certifies that the products he/she wishes to purchase from suppliers meet one or more standards. The nature of these programs varies greatly depending on the type of product being purchased and the needs of the buyer. These certifications are generally only available to and mandatory for those companies wishing to become suppliers to that

buyer. Examples of the second party certification includes: Pre shipment Inspection (PSI) programs such as DAMAN, which is a form of the more commonly known International Conformity Certification Programs (ICCP). These systems exist in several countries around the world.

C. Third party certification is a type of certification in which the producer's claim of conformity is validated by a technically and otherwise competent third party (a body not controlled by or under the influence of the producer or buyer. The sponsor of the third party program (the certifier) may be responsible for collecting the required data, generating test results or conducting inspections, in addition to reviewing the results of such activities and making a final determination on the product's conformance or lack of conformance. The certifier may also delegate all or part of the data collection and review activities to another party or parties. The degree of confidence that can be placed in third party certification programs varies greatly depending on (1) the number and types of testing/inspection methods used within the program to ensure product conformance, (2) the adequacy of the manufacturer's quality control system, and (3) the competence of the body which conducts the testing and/or inspection and evaluates the test results. Recommended criteria and procedures for third party certification programs are established in ISO/IEC Guide 65: 1996 "General requirements for bodies operating product certification systems."

4. JISM

4.1 Structure and Treaty Obligations

The Jordan Institution for Standards and Metrology (JISM) is the national standards body in Jordan. JISM is autonomous governmental institution established in 1995 to replace its predecessor, the Jordanian Directorate of Standards (JDS), which was founded in 1972 as one of the Directorates of the Ministry of Industry and Trade. Currently JISM operates by a new law "*The Law of Standards and Metrology" No 22 of 2000*, which superseded *Law No 15/1994*.

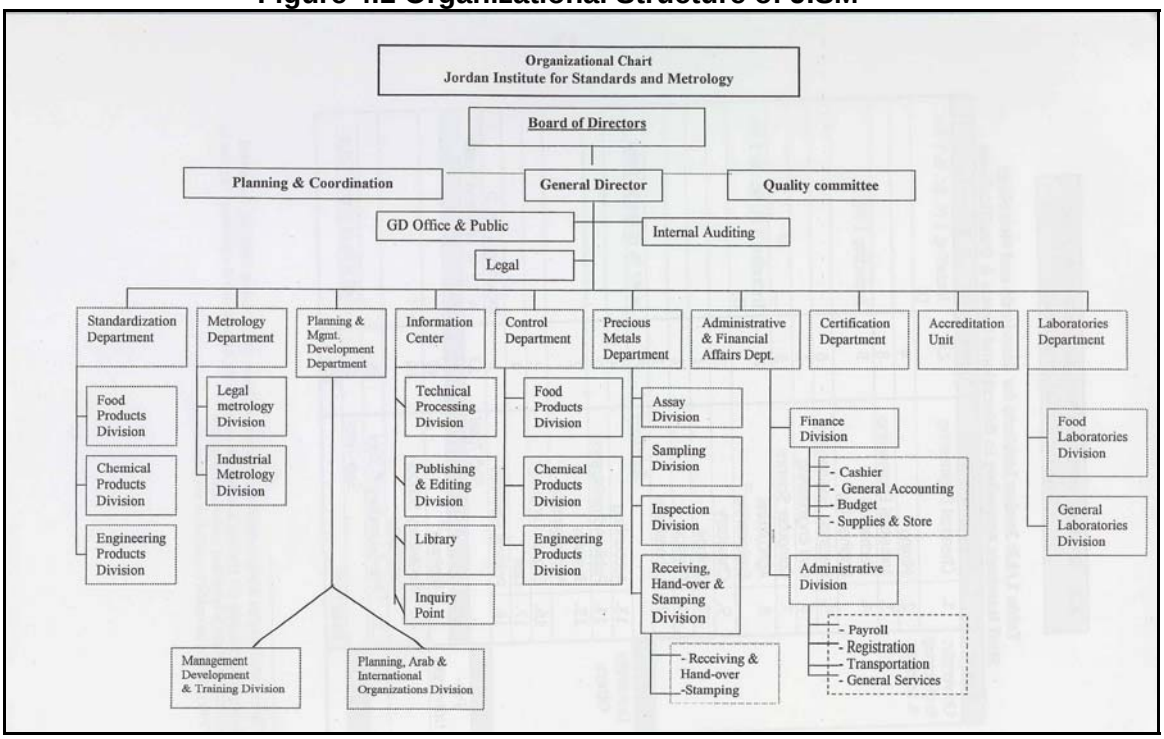
The goals of JISM are:

- To adopt and implement a national system for standardization and metrology according to international best practices.
- To keep abreast of scientific development in the fields of standardization, metrology, conformity assessment and accreditation of laboratories.
- To ensure health and environmental protection and public safety of citizens by assuring products conform with technical rules endorsed by JISM
- To assure quality of national products through the endorsement of appropriate Jordanian standards that further enhances the products' competitiveness in local and international markets, thus supporting the national economy

JISM is led by a Board of Directors, chaired by the Minister of Industry and Trade. The Boards is composed of 14 appointed members representing both the public and private sectors, including the General Director of JISM as the Deputy Chairman of the Board. The Board of Directors meet regularly to formulate and approve JISM's policies and oversee their implementation with respect to all matters regarding Metrology, Standards, Testing and Quality Management, as well as to approve national standards and technical regulations. The operational tasks are undertaken by JISM's 214 employee in nine different operational departments: Standardization, Control, Metrology, Laboratories, Precious Metals, Accreditation, Certification, the Information Center and the Financial and Administrative Departments. See the JISM organization chart on the next page.

JISM implements the WTO-TBT Agreement concerning operation, adoption and application of technical regulations, standards and procedures for assessment of conformity. The Agreement requires that these measures are not to be used as trade barriers. The Agreement also promotes transparency by requiring regular dissemination of information about technical regulations, standards and conformity assessment procedures; mainly their publication and notification through the establishment of a national Inquiry Point. In addition, JISM is required by the WTO-TBT Agreement, if possible, to accept technical regulations of other members as equivalent if they fulfil the objectives of its regulations, and to accept results of conformity assessment of other members if these procedures offer an equivalent assurance of conformity. JISM is also encouraged to enter into negotiations to sign mutual recognition agreements of the results of conformity assessment procedures.

Figure 4.1 Organizational Structure of JISM



JISM implements relevant aspects of the Euro-Jordanian Association Agreement regarding standardization and conformity assessment. The Association seeks to increase the application of European rules of standardization and conformity assessment, upgrade Jordanian conformity assessment agencies to prepare for mutual agreement on the recognition of conformity assessment, and strengthen the Jordanian standardization body.

JISM has also to comply with the JUSFTA regarding the Joint Statement on WTO Issues to facilitate trade between the two countries.

4.2 Benchmarking

Several regional standards organizations are presently operating in different parts of the world, namely: Pan American Standards Commission (COPANT), Asian Consultative Committee for Standards and Quality (ACCSQ), Pacific Area Standards Congress (PASC), Arab Industrial Development and Mining Organization (AIDMO). Jordan is a member of AIDMO. Most organizations have similar objectives – to promote the development of technical standardization and related activities in its member countries, with the aim of promoting their industrial, scientific and technological development in benefit of an exchange of goods and the provision of services, while facilitating co-operation in intellectual, scientific and social fields.

The extent of development of standardization activities in some of the countries in the Middle East region is summarized in the following table. Many factors determine an appropriate staff size for a standards agency, including the number of functions that have been out-sourced, the number of border posts being served and the variety and number of domestic manufacturers to be monitored. However, it is clear that those countries with more open

trade regimes have much lower ratios of staff members to total trade (imports and non-fuel exports), i.e. Bahrain, Kuwait, Qatar and the United Arab Emirates.

Table 4.1 Characteristics of MENA Standards Agencies

Country	Established	Staff Strength	Staff / $ billion of Total Trade (avg. 1998-2000)	No. of National Standards published	ISO Member Body
Bahrain	1992	20	3.6	49	Member
Egypt	1957	1,000	57.1	2,732	Member
Jordan	1995	214	36.9	1,139	Member
Kuwait	2003	15	1.4	20	Member
Oman	1976	170	24.6	1,138	Member
Qatar	2002	22	5.8	39	Member
Saudi	1973	500	14.2	2,500	Member
UAE	2002	25	0.5	53	Member

Staff numbers are also correlated with the number of national standards published. The objective of the WTO-TBT Agreement is to encourage countries to adopt international standards rather than create their own national standards that can act as trade barriers. However, some national standards can also just be a reclassification of a corresponding international standard so little can be suggested by merely counting the number of national standards.

5. DAMAN

To support its conformity assessment function, JISM implemented a pre-shipment inspection program referred to as the International Product Conformity Certification Program (IPCCP), and more commonly as DAMAN (see Annex A for program procedures). It is applied on products imported to Jordan from all countries. Under the program imported products must undergo documentary and physical inspection in the country of supply to ensure compliance with the Jordanian product standards. The program covers the following products categories:

1. Toys
2. Electrical and electronic products
3. Vehicles, new and used (used vehicles are inspected in Jordan)
4. Personal safety devices
5. Food products (optional)

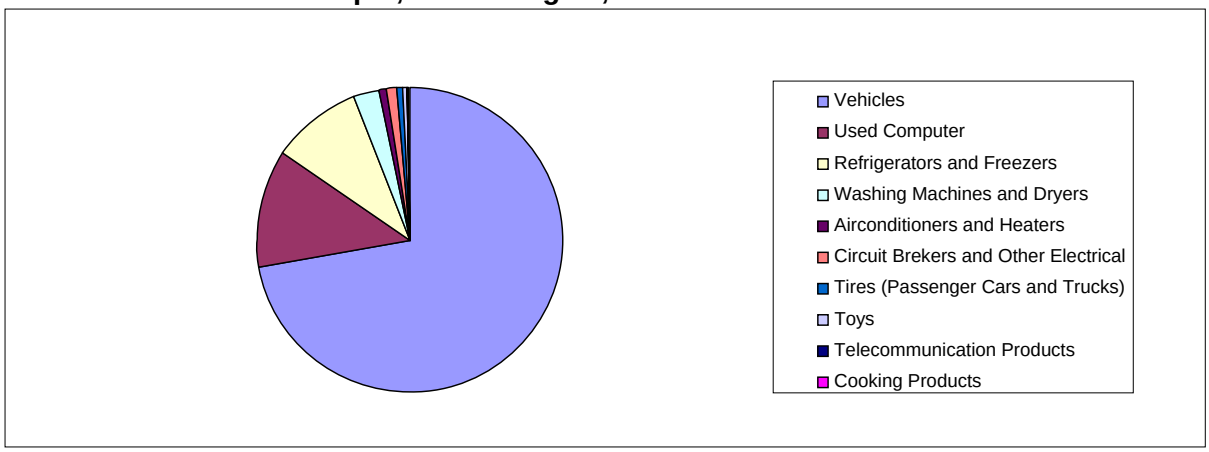
Currently, JISM is in the process of expanding the scope of DAMAN to include telecommunications equipment. Cell phone battery chargers have been approved and will soon be added to the list. JISM is also considering adding auto parts and ink cartridges for photocopiers to the list of products covered by DAMAN.

The following justifications are given by JISM for introducing the program:

- A sharp increase in the volume of imports and commercial activities during the three-year period preceding the implementation of the program. Currently JISM handles 100,000 shipments, 15,000 importers, and 70,000 to 100,000 retail shops in the country.
- Weak laboratory infrastructure.
- A large number of Jordanian standards.
- Weak personal injury and product liability law to protect citizens against defective and low quality products.
- A rise in the public perception suggesting that JISM is not fulfilling its objectives under the law.

Approximately 35 percent of the total imports to Jordan are subjected to the DAMAN program. This amounts to $500 million. The following chart shows the size of US imports to Jordan by sector. Vehicles take the lead ($11.2 million) followed by information technology ($1.9 million) and appliances ($1.5 million). There are no available statistics to suggest that US imports to Jordan are causing any health or safety concerns. JISM stated that they have no problems with US imports.

Figure 5.1 DAMAN Certificates Issued for Imports from the United States Sep 1, 2003 - Aug 30, 2004



5.1 Agreement between Bureau Veritas and JISM

JISM signed a four-year contract on September 1, 2003 with Bureau Veritas (BV), a global company based in France to act as its inspection, testing and certification agent. Under the agreement, BV pays to JISM "20 percent of all charged fees in return of JISM's managing and amending the program." The details of revenue sharing are not clearly specified in the agreement. The contract also calls for "providing training and technical support to JISM in order to enhance the capacity of both facilities and personnel." The details of the training program are not clearly stated. JISM staff interviewed stated that only one training workshop has been conducted by BV since the start of the program. The agreement is silent on the amount of testing of locally manufactured goods to be undertaken by BV. The agreement gives BV the right to verify quantity of shipments, which typically has been the role of Customs. This practice is viewed as a duplication of efforts.

The agreement calls for establishing a vehicle testing facilities in the first year of the contract as a joint investment between BV and JISM. A vehicle testing station has been established in the Zarqa Duty Free Zone. The agreement gives BV a monopoly on testing of all new and used vehicles in Jordan. In the remaining 3 years of the contract, BV is required to implement laboratory test facilities for electrical products, toys, safety personal devices, and food products.

Currently, importers can opt to have their food shipments inspected and certified by BV. There is no clear justification as to why food products are included in the DAMAN program. The proposed food testing by JISM/BV is considered a duplication of effort. Food safety in Jordan falls under the jurisdictions of the newly established FDA and the Ministry of Health. However, the Aqaba Special Economic Zone Authority (ASEZA) has sole jurisdiction over food imports through the port of Aqaba. Through the assistance of USAID, ASEZA has established a successful program for inspection of food imports based on risk assessment. ASEZA considers that their food import inspection program is successfully meeting the health and safety needs of the country without also subjecting food to DAMAN.

In addition, ASEZA has implemented a web-based electronic certification system known as E-Cert. The system links forms submitted electronically to a database using a data warehousing program. Documents submitted in paper format are scanned and are entered into the system as images. JISM should consider adopting a system similar to E-Cert.

5.2 Risk Assessment and Inspection

JISM has recently introduced a new risk assessment system to determine the level of inspection of imported products that are not subject to the DAMAN Program. Approximately 65 percent of total imports to Jordan are subject to this system. It is currently implemented only at the Aqaba and Amman customs centers. JISM is working on modifying the system to include other risk factors such as names of the exporter and importer. Implementation of the system will be expanded to all customs centers in the country.

The risk based system determines the level of associated risk and the degree of inspection to be imposed. The system is automated to ensure transparency. Shipments are classified into the following three colour-coded categories, based on which the level of risk and degree of required inspection is determined:

Green List – No inspection is required for shipment accompanied with the DAMAN certificate issued at the country of origin.

Red List – Physical inspection of shipments is conducted. Sampling plan is based on a matrix of risk level previously determined by JISM.

Yellow List – Inspection of shipping documents ONLY. Shipments which do not fall into any of the two above lists are subjected to 100 percent inspection of documents.

The consultant visited the Amman Customs Centre to observe day-to-day operations and the inspection procedures. In addition to JISM, representatives from the newly established FDA, and the Ministry of Agriculture are present at the facility. JISM employs four capable staff at this location. They are responsible for reviewing and processing import documents and performing the physical inspections of containers.

As JISM develops its risk assessment guidelines they should include new criteria based on a product's national origin. Priority of border passage should be granted to imports from countries with the lowest risk rating, especially those with which Jordan has entered into special trade relationships. The refined guidelines must be WTO-compliant. Refining the risk assessment guidelines is an action which JISM can take immediately to help resolve US concerns while continuing to work toward elimination of DAMAN.

JISM should consider adopting a strategy that promotes the lowest cost product certification requirements commensurate with product risk. DAMAN is considered an unjustifiable barrier to trade between the United States and Jordan since there are no documented statistics to demonstrate that US imports have caused any health or safety concerns. JISM should modify the risk based system to allow inspection-free passage of products from the United States.

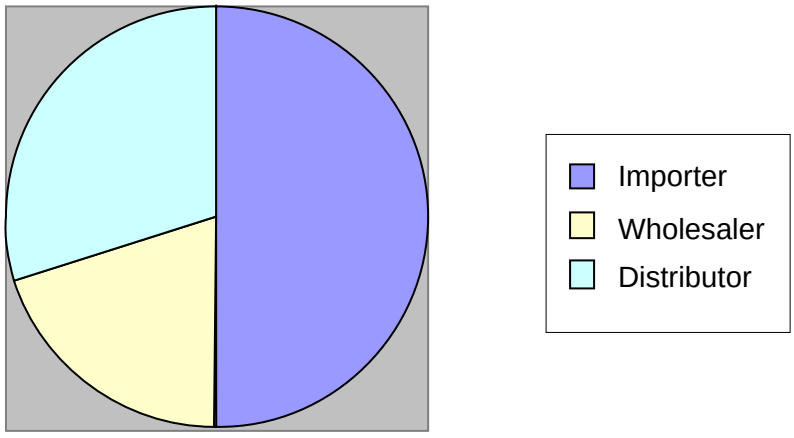
5.3 Case for Eliminating DAMAN

5.3.1 Survey

In addition to conducting interviews with selected individuals, a more wide-ranging survey was conducted to gather information relating to operations and concerns with DAMAN faced by domestic manufacturers and importers. Eighteen companies responded to the survey.

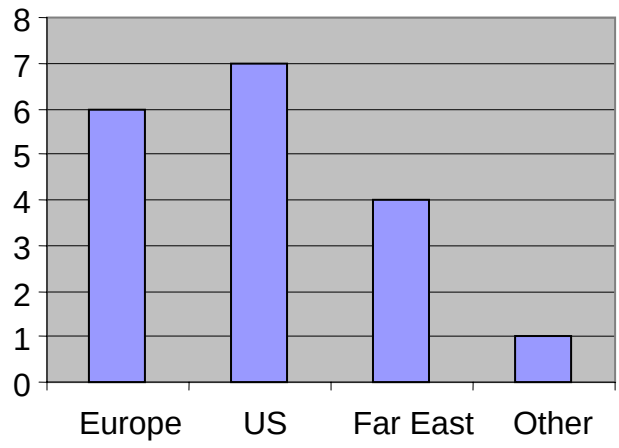
The chart below represents the types of businesses impacted by DAMAN that participated in the survey. The lack of responses from domestic manufacturers suggests that they are not affected by DAMAN.

Figure 5.2 Type of Business Impacted By DAMAN



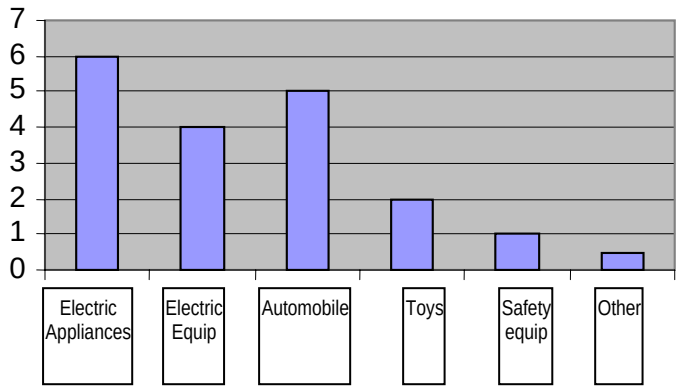
The chart below represents product's country of origin sold by the companies that participated in the survey. It suggests that the majority of the participating companies sell US and European brands.

Figure 5.3 Country of Origin of Product National Brand



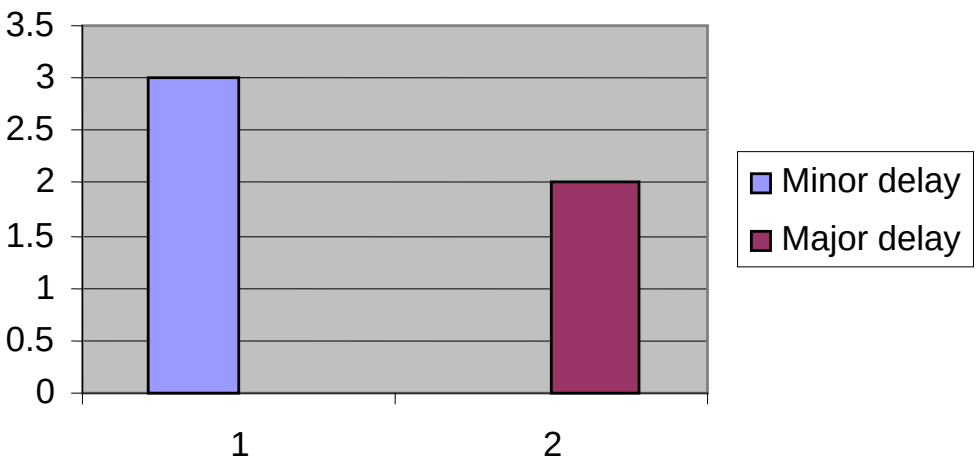
The following chart represents the number of companies in each product sector subjected to DAMAN. It is obvious that electrical appliances and cars are the largest.

Figure 5.4 Number of Companies Reporting by Product Sector



The chart below shows the number of companies that reported delays in receiving shipments due to DAMAN. The delay is categorised by major (more than on week) or minor (less than one week) delay.

Figure 5.5 Number of Companies Reporting Delays



5.3.2 Focus Group

The consultant attended a focus group session organized by JABA to assess the impact of the DAMAN program on its members importing American cars and home appliances. The outcome of the session is as follows:

Representatives of American car dealers raised the following concerns:

- Delays exist due to the additional procedures/inspections
- Each shipment/car is inspected
- Cost for inspection: $40 for every car
- JISM will issue a new vehicle standard after 2005 (dealers have tried to coordinate with DAMAN over specifications and the standards)

- US and Japanese car manufacturers will not adjust their manufacturing operations to meet unique Jordanian standards

Representatives of home appliances discussed the following points:
- The standards are not the problem
- Delays in procedures/inspection/documentation
- Inspection fee is high
- Unprofessional attitude of DAMAN staff

The interviews, questionnaires, surveys, and focus groups conducted as part of this analysis suggest the following:

- DAMAN is not achieving its claimed objectives of preventing low quality products from entering the Jordanian markets. Counterfeit products still enter the market
- It provides an unnecessary additional layer of inspection and certification – reputable manufacturers always certify their products
- It is causing delays in shipments
- It is causing additional costs to be incurred by importers
- It is a monopoly scheme where only BV is allowed to issue certificates of compliance

Based on the fee structure of the DAMAN program shown below, and budget revenue projections provided by JISM, the DAMAN program is expected to cost the Jordanian economy approximately $1.57 million in 2004. The potential cost to the Jordanian economy (over the 4 years duration of agreement) will be approximately $6.28 million.

Table 5.1 DAMAN Program Fees

Product Groups: Electrical Products, Toys, Safety Personal Devices, and Food Products	
FOB value of shipment	**Fees**
$0 – $5,000	$80
$5,000 – $51,111	$138
$51,111 – $199,999	0.27% of FOB value
$200,000 - $999,999	$540 plus 0.22% of FOB value exceeding $200,000
$1,000,000 and above	$2,300 plus 0.17% of FOB value exceeding $1,000,000
Product Group: Vehicles	
Used Vehicles	$47.50 per vehicle $114 minimum limit of fees per shipment
New Vehicles	$38 $114 minimum limit of fees per shipment

The Director General of JISM explained that prior to introducing the DAMAN program they reviewed similar practices in other countries and felt that they were in compliance with the Jordan-US FTA and the WTO-TBT. The pre-shipment inspection programs reviewed included the ICCP in Saudi Arabia and in Kuwait. However, the ICCP in Saudi Arabia has subsequently been eliminated.

The Director General of JISM has expressed willingness to grant "preferential treatment" for goods imported from the United States, providing that this does not cause problems for Jordan with the WTO. Such practice is permitted under WTO obligations if it is within the context of a bilateral mutual recognition agreement (MRA) on conformity assessment.

The JUSFTA does not refer to "*conformity assessment*". It is important to note that the DAMAN program was not in effect when the FTA was signed in October 2000. The United States Trade Representative considers DAMAN an unjustifiable trade barrier and would also like to see some improvement in the transparency of the development processes of standards and technical regulations.

Mutual recognition of conformity assessment procedures helps promote bilateral trade. The United States and Jordan should consider negotiating new provisions on conformity assessment and transparency. However, before such MRA can take place, JISM should develop its conformity assessment system based on international standards and should have received accreditation from recognized accreditation bodies.

Technical Assistance

The European Union is planning a package of technical assistance to JISM as part of Euromed Quality – a two-year program focusing on harmonization of European Norms (EN) with Jordanian Standards (JS). The program includes workshops on standardization, conformity assessment, and mark surveillance. A needs assessment has been completed but was unavailable for review by the consultant during the consultancy. JISM expects to receive €2.5 million of technical assistance in accreditation, standardization, information centers, metrology, market survey training and laboratory capacity building. The European Union is currently short-listing firms to provide the technical assistance.

It is important that before any further technical assistance is offered from USAID, that the assistance being provided by the European Union is clearly understood and all activities carefully coordinated.

The US conformity assessment system is not clearly understood by JISM. In order to make the Jordanian conformity assessment system consistent with the US system, JISM needs help to improve commercial laws governing product liability and consumer protection. JISM invited ideas from the United States to help shift the DAMAN program to a post-shipment inspection program. JISM has requested technical assistance from the United States to build its capacity in standardization, certification, accreditation, and conformity assessment. In addition, JISM wishes to enter into twinning agreements (memoranda of understanding) with the respective US counterparts (i.e., National Institute of Science and Technology (NIST), American Society for Testing and Materials (ASTM), National Electrical Manufacturers Association (NEMA), and the American National Standards Institute (ANSI)).

Other European donor assistance to JISM includes long term technical assistance from the German international aid agency GTZ. The most recent GTZ project was completed in 2001. More recently the Euro-Jordanian Action for the Development of Enterprise supported JISM to prepare a strategic plan for the organization.

The USAID-funded AMIR Program's Private Sector Policy Initiative has a technical assistance sub-component for customs reform and modernization. Two projects are currently funded under this initiative:

1. Comprehensive Integrated Tariff System (CITS). The objective of this project is to include all the Jordanian regulations in one source book which uses the Harmonized System (HS) code as basis.
2. Border Management Taskforce. The objective of this project is to streamline the process and enhance communication among all the boarder agencies (over 26 are issuing regulations on products crossing boarders).

It is highly recommended that JISM should cooperate extensively with AMIR under these two projects to improve coordination and transparency.

Under its Center of Excellence Initiative, the USAID-funded AMIR Program provided support to JISM, as well as other government agencies, to devise and implement their own strategy to compete for the King Abdullah II Award for civil service performance. JISM won the organization award in 2004.

6. International Best Practices

6.1 Supplier's Declaration of Conformity (SDOC)

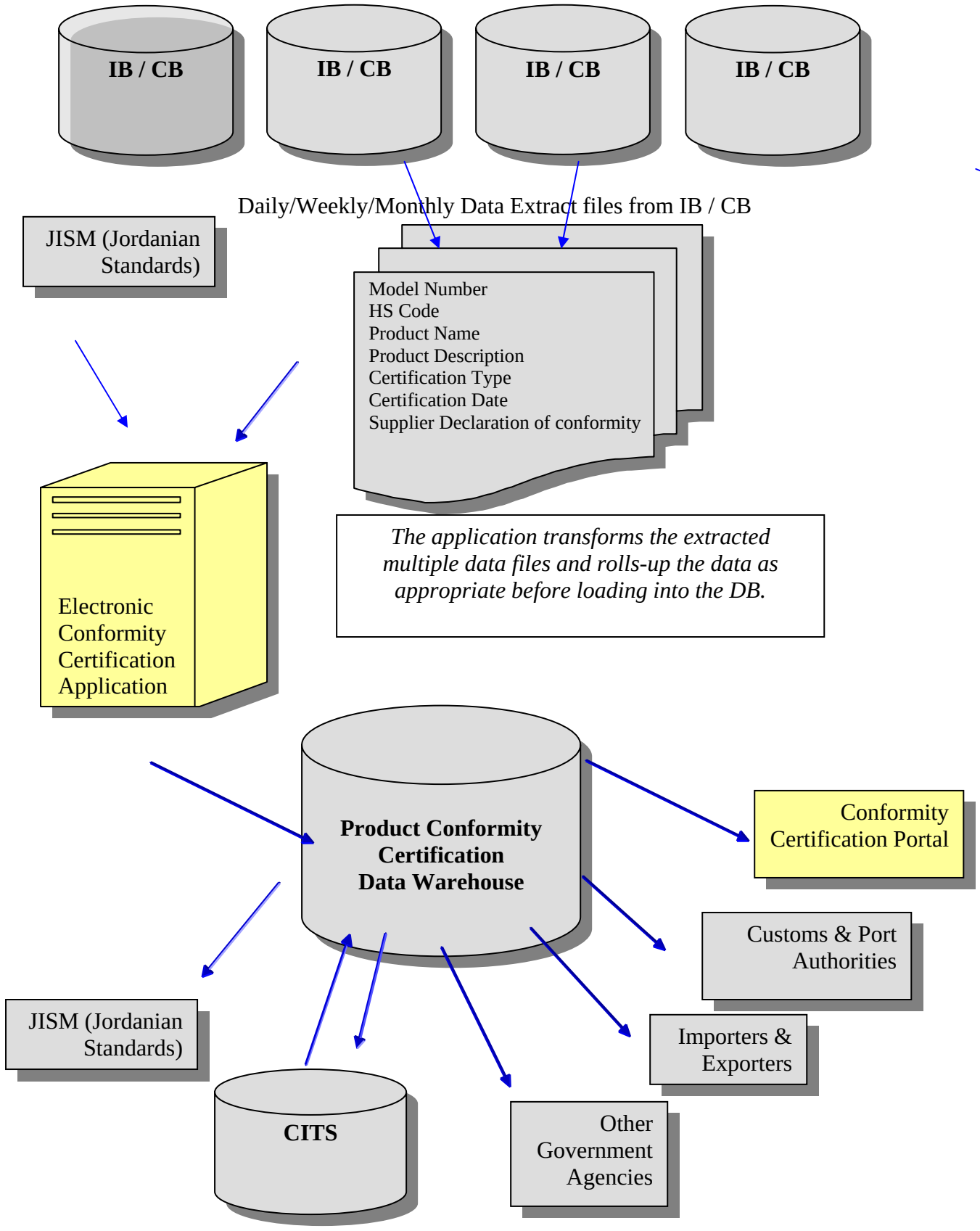
This process is also known as a manufacturer's or supplier's declaration of conformity (SDOC). It is a first party certification or self-certification process by which a manufacturer or supplier declares that the product meets one or more standards based on (1) the manufacturer's confidence in the quality control system, or (2) the results of testing or inspection the manufacturer undertakes or authorizes others to undertake on his/her behalf. The manufacturer's capability, integrity, and reputation determine the degree of confidence that can be placed in this type of certification. It is a market-driven approach that will result in the conformity assessment of greatest value. Confidence is the key for achieving this concept. Each product sector and country/region should allow the confidence needs and marketplace to determine the most effective CA mechanism(s). The competitive forces of the market should determine the viable choices. These may be different from one product sector to another.

JISM should rely on the private sector to the maximum extent possible to satisfy CA requirements. In particular, it should accept SDOC with proper documentation, unless it has good reason not to do so. SDCs are increasingly common as its procedure is generally faster than testing conducted by regulatory authorities. In practice, SDOC would mean that most products should be able to be shipped to Jordan without undergoing conformity assessment procedures specific to JISM. They would make Jordan comparable in its openness to the United States, Europe, and the Asia Pacific Economic Cooperation markets.

The following "Supplier's Declaration of Conformity Application" is a robust scheme being proposed to assist JISM in its effort to replace DAMAN with an in-house system based on SDOC. The system is modeled after the successful E-Cert system currently used by ASEZA. Manufacturers and suppliers of products destined for Jordan can submit declaration of conformity documents with relevant international standards directly on the system, prior to shipping. Upon arrival at the Jordanian ports, customs inspectors compare the SDOC included in the product shipping documents with the information previously submitted on the system and can make immediate decisions about access to market.

The application design shown below is based on Extraction Transformation and Loading (ETL) scheme typically used with data warehouse type implementation; data accuracy and timely updates are of the essence. The system, hosted at JISM, would be updated with data on product conformity to international standards. Data is collected from international inspection and certification bodies and merged with the Jordanian standards, technical regulations and market surveillance data provided by JISM. Product conformity data would be readily available to customs, import/export companies, government agencies, and the general public. Furthermore, the system can be integrated with the CITS and Automated System for Customs Data (ASYCUDA). The system will facilitate market access and trade by providing Customs with the information to accept or reject imported products based on their conformity to standards.

Figure 6.1 Supplier's Declaration of Conformity Application Design



6.2 Need for Adequate Post-market Surveillance

Under the previously described "One Standard - One Test" SDOC concept, JISM will continue its role in ensuring that products are in compliance with regulatory requirements for health and safety through post market enforcement mechanisms, which include market surveillance. An effective post-market surveillance system that supports a supplier's declaration should be as non-intrusive as possible while minimizing risks to consumers and the public. Some attributes of such a system would include:

- Random audits of compliance based on engaging the supplier through the least invasive level of detail necessary to ensure compliance; including spot checks, periodic audits by designated regulatory authorities, and/or customer-compliant driven.
- Communication, in plain language, of regulations, regulatory objectives, and the standards and requirements that must be met for suppliers declarations of conformity
- A system to assist in identifying those products in the marketplace where conformance is based on a supplier's declaration.
- Timely response to audits and non-compliance which begin with contacting the supplier and may include, if appropriate, requiring the supplier to submit the product to government or third party testing with the costs to be borne by the supplier if the product does not meet the required standards.

6.3 CAB Participation in Data Exchange Schemes (IECEE CB Scheme)

The IECEE CB Scheme is the Conformity Testing Scheme for Recognition of Results of Testing to Standards for Safety of Electrical Equipment. The scheme comprises an international data exchange network between certification bodies (CBs) and their testing laboratories in 34 countries. It allows a manufacturer to have testing results transferred from a laboratory in one country to a participating laboratory in another country. The purpose of the exchange is to obtain the conformity assessment mark needed for market access in the second country. Country participation in CB Scheme product categories is predicated on having a national standard based on the IEC standard with minimal deviations (harmonized standards).

Benefits of the CB Scheme include:

- More rapid certification and product acceptance
- One stop testing even though certification/product acceptance still has to be obtained country by country
- Faster product movement from plants to markets
- Reduction of trade barriers and opening up of new markets
- Manufacturers must still comply with the requirements of the body that issues the CA mark

JISM should participate in the IECEE CB Scheme to enable Jordanian laboratories and certification bodies to gain international recognition. The Scheme will also help eliminate the monopoly which currently exists by having BV as the only certification body recognized by JISM to issue certificates of conformity to Jordanian standards in the product categories covered under the DAMAN program.

7. Recommendations

1. JISM should fast-track the elimination of its pre-shipment inspection (PSI) program as currently practiced; gradually implement in its place Suppliers Declaration of Conformity (SDOC) with adequate post-market surveillance.

JISM should rely on the private sector to the maximum extent possible to satisfy conformity assessment requirements. In particular, it should accept Suppliers Declarations of Conformity (SDOC) with proper documentation, unless it has good reason not to do so. SDOC allows each product sector to determine the most effective CA mechanism(s) needed to build confidence in the marketplace. Confidence in the system is derived through market forces and surveillance. Manufacturers have greater control of the certification process and thus time to market. It is recommended that various product sectors (i.e., automotive, electrical, information and communication technology, etc.) as represented by Jordanian trade and industry groups such as INT@J, JABA, and others should be empowered to participate in the JISM process in order to influence the desired change.

The "Supplier's Declaration of Conformity Application" is a robust scheme proposed to assist JISM in its effort to replace DAMAN with an in-house system based on SDOC. The system is modeled after the successful E-Cert system currently used by ASEZA. Manufacturers and suppliers of products destined for Jordan can submit declaration of conformity documents with relevant international standards directly on the system, prior to shipping. Upon arrival at the Jordanian ports, Customs inspectors compare the SDOC included in the product shipping documents with the information previously submitted on the system and can make immediate decisions about access to market.

The proposed application design (shown in the best practices section of this report) is based on ETL scheme typically used with data warehouse type implementation; data accuracy and timely updates are of the essence. The system, hosted at JISM, would be updated with data on product conformity to international standards. Data is collected from international inspection and certification bodies and merged with the Jordanian standards, technical regulations and market surveillance data provided by JISM. Product conformity data would be readily available to customs, import/export companies, government agencies, and the general public. Furthermore, the system can be integrated with the CITS and the ASYCUDA at Customs. The system will facilitate market access and trade by providing Customs with information to accept or reject imported products based on their conformity to standards.

2. JISM should refine its risk assessment guidelines to include new criteria based on a product's national origin. Priority of border passage should be granted to imports from countries with the lowest risk factor, especially those with which Jordan has entered into a trade agreement. The refined guidelines must be WTO-compliant.

Refining the risk assessment guidelines is an action which JISM can take immediately to help ease the flow of imports from the United States while continuing to work toward the elimination of DAMAN. JISM should consider adopting a strategy that promotes the lowest cost product certification requirements commensurate with product risk. DAMAN is considered an unjustifyable barrier to trade between the United States and Jordan since there are no documented statistics to demonstrate that US imports have caused any health or safety

concerns. JISM should modify the risk based system to allow inspection-free passage of products from the Untied States.

3. JISM should participate in the IECEE CB Scheme methods of achieving maximum test acceptance worldwide.

The IECEE CB will help eliminate redundant testing by permitting one test for all markets. JISM should participate in the IECEE CB Scheme to enable Jordanian laboratories and certification bodies to gain international recognition. The scheme will also help eliminate the monopoly which currently exists by having BV as the only certification body recognized by JISM to issue certificates of conformity to Jordanian standards.

4. JISM should consider the potential for international harmonization of product standards and other regulatory requirements with sectors that seek harmonization.

Harmonized standards provide an alternative to costly conformity assessment schemes such as pre shipment inspection. Manufacturers seek to design and build one product that is accepted in all the markets of the world. They prefer using one standard and one test accepted globally. This will eliminate the need for redundant testing and will ease access to markets. It will also help reduce tariffs and regulations on products. Some regulations are necessary for health, safety, and environment. To accomplish the goal of one standard in the global marketplace, standards must be harmonized through an open and transparent process. Global standards provide worldwide acceptance and protection. Differences in climate, culture, and infrastructure are addressed through national/regional differences. Benefits of harmonized standards to Jordan include:

- One product or system accepted in multiple markets
- Lower production and inventory costs
- Lower cost of needed conformity assessment(s)
- Consumers and users have faster access to the benefits of new technologies
- National differences may be used to address needs of authorities, consumers, government and manufacturers
- Resources needed to develop standards are shared

Harmonization of standards is important for trading within the region and for international trade. Harmonization between Jordan and its trading partners i.e., the United States and the European Union may not be feasible in some cases due to the high cost involved in bringing large numbers of experts together to participate in harmonization activities. Internet based conferences are an alternative to minimize the cost of physical meetings. The ISO/IEC standards are gradually becoming more accepted by the US electrical and electronic industry. Therefore, the best option available to Jordan is to adopt international standards as Jordanian standards. In the case of cars, where no single international harmonized standard exist, JISM should consider inviting local representatives of major car manufacturers to participate in harmonization activities on a pilot project basis. It is recommended that various product sectors (i.e., automotive, toys, information and communication technology, etc.) as represented by the Jordanian trade and industry groups such as INT@J, JABA, and others should be empowered to participate in the harmonization process in order to influence the desired change.

5. The United States and Jordan should consider negotiating a partial bilateral agreement on conformity assessment as an interim step leading to accomplishing the previous two

recommendations. This will facilitate trade and would enable manufacturers to obtain certification and acceptance in both markets without the need for additional certification.

It is recommended that the United States and Jordan consider negotiating new provisions on conformity assessment similar to provisions the United States has recently negotiated with Bahrain and Morocco. This should recognize the integrity of accreditation systems and the results of independent laboratories that support the US market as a means of recognizing the safety of products from the United States and that both the US and international safety standards development are equally valid and produce safe products. Accepting the integrity of accreditation systems and the results of independent laboratories that support the US market is a means of recognizing the safety of products from the United States. Where appropriate, bilateral arrangements between JISM and its US standards and CA counterparts will help facilitate trade, resolve problems and handle safety issues.

6. JISM should consider establishment of a technical committee on consumer product safety to develop responsible policies affecting consumer safety.

The experience of the US Consumer Product Safety Commission (CPSC) provides a useful model for Jordan.

7. JISM should adopt a policy for public notification of its draft standards and technical regulations to ensure transparency, and where appropriate, involve international concerned parties.

Building on its reputation as winner of the King Abdullah award for Excellence, JISM should take advantage of the Comprehensive Integrate Tariff System, currently under development by Jordan National Customs under the support of USAID, designed to help government agencies fulfill their duty to communicate regulatory information to the public and stakeholders in a timely manner. The new procedure should:

- Publish the proposal, preferably electronically, to interested parties through the inquiry point established in accordance with the TBT Agreement, in addition to WTO Members;
- Include in the notice a statement describing the objective of the proposed technical regulation or conformity assessment procedure and the rationale for the approach being proposed;
- Allow at least 60 days after publication to receive public comments in writing on the proposal;
- Publish its responses to significant comments it receives from the public or other interested parties on the proposed technical regulation or conformity assessment procedure no later than the date it publishes the final technical regulation or conformity assessment procedure.

8. Jordan should expedite the processes to develop its laboratory accreditation system and to create an independent accreditation body.

Jordan has initiated the process to create a new body to oversee laboratory accreditation. A new law to regulate the accreditation of laboratories, as well as, inspection and certification bodies (e.g. personnel, products, management systems) has been approved by the Jordanian cabinet and is pending approval by the parliament. The new accreditation body should ideally

be fully autonomous financially and administratively from JISM. Jordan is on the right track in its efforts in this regard.

9. Implementation Timeline

ID	Task	Duration (months)	Predecessors	Resources
1.	Refine Risk Assessment	1		Consultant
2.	Eliminate DAMAN	1	1	
3.	Commence Implementation of SDOC	12		Team of 4 to develop computer application
4.	Develop Laboratory Accreditation	3		Full membership in Intl. Lab. Accreditation Council (ILAC)
5.	Participate in IECEE CB Scheme	6	4	Consultant, training
6.	Harmonize with International Standards	24		Consultant, training, sign MOU with standards organizations to obtain documents (e.g. ASTM, UL)
7.	Initiate Discussion on MRA on CA	1	1,2,3,5,6	
8.	Establish CPSC	2		Consultant, training, draft law
9.	Adopt Transparent Notification System	3		Draft regulation

Annex A: DAMAN Procedures

1. Inspection order

An Inspection Order (IO) containing details of the intended importation is lodged by the importer to the Bureau Veritas (BIVAC) Liaison Office (LO) in Amman, for each transaction subject to the programme.

The IO data is sent electronically to the appropriate Bureau Veritas (BV) Centre of Relations with Exporters (CRE).

2. Contact with the Exporter

The CRE in the country of supply sends a notice to the seller requesting when and where the goods will be ready for inspection and to provide the following information:

a) Technical details,
b) any available quality documentary evidence, such as:
    a. Conformity certification to an internationally recognized standard
    b. Manufacturers' quality process certification
    c. Certificate of analysis
    d. In-house testing certificates
    e. Certificate of origin.

3. Documentary Check

The CRE evaluates all the information provided by the exporter to verify whether the product complies with the required Jordanian standard. Where insufficient information is available, the seller is requested to submit a sample for testing by a JISM approved laboratory.

4. Physical Verification

The objective of the physical verification is to ensure that:

a) The goods being shipped are identical to those identified in the documentary checks, or, identical to the tested sample.
b) The goods are in compliance with all relevant Jordanian standards and regulations.
c) The goods are in compliance with the importer's inspection order.

When inspectors have any doubts, they have the option of taking a sample for testing in an approved JISM Laboratory. In case of discrepancies, the seller is requested to correct them before a certificate can be issued.

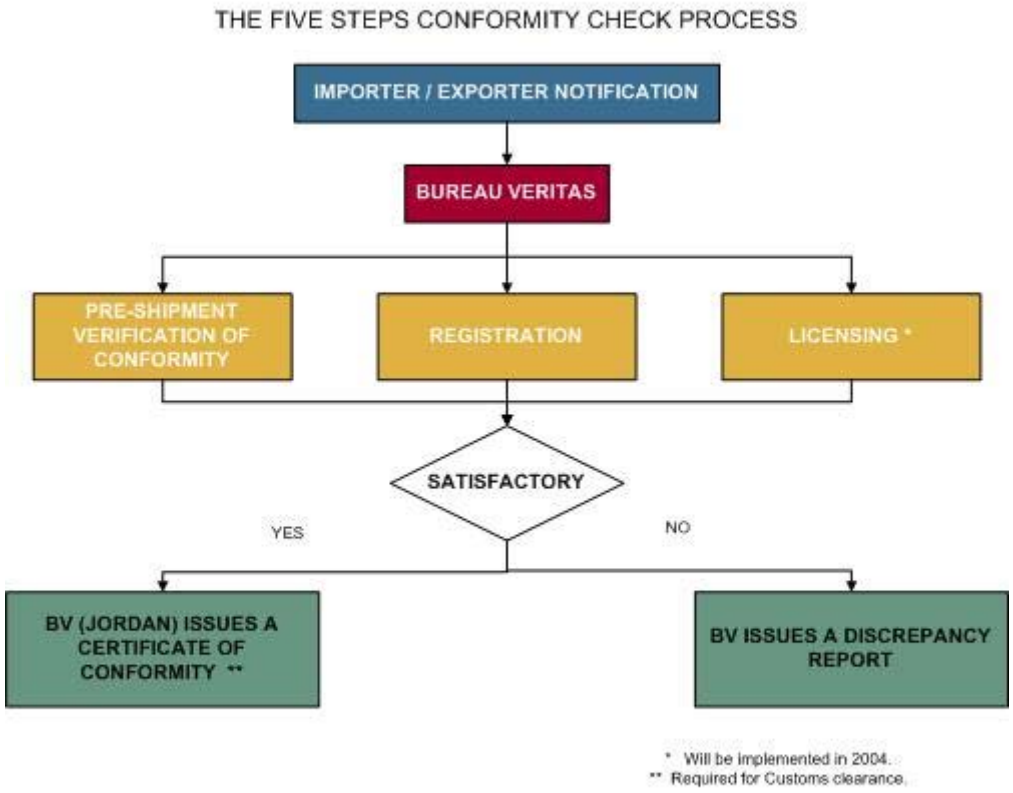
All irregularities not corrected result in a Discrepancy Report being issued and the importer advised accordingly.

5. Compliance Certification

Upon receipt of a satisfactory inspection report, documentary check and/or laboratory tests, the CRE evaluates whether the shipped products comply with the Jordanian standard or not. If full compliancy is established; the CRE issues the Certificate of Conformity.

6. Certificate Delivery

When the LO receives the Certificate date the LO delivers the Certificate of Conformity to the importer. The Certificate identifies the goods and the applicable Jordanian standard and Technical Regulations. The certificate is required for customs clearance.



Vehicle Procedures

New Vehicle Procedures

All vehicles require a Certificate of Conformity before being allowed into the Jordanian domestic market. Importers should notify the Bureau Veritas (Bivac) office in Amman and lodge an inspection order. This inspection order will be transmitted to the relevant CRE. An exporter may also contact the local CRE direct and lodge an inspection order. The fee shall be chargeable to the exporter:

- Per vehicle $38.00
- Minimum fee $114.00

The CRE will contact the exporter and request a declaration certificate in respect of the technical testing carried out at the factory. If the documentary checks are in order, a mutually convenient time will be arranged for physical verification.

A BV inspector will conduct a visual verification that the vehicle complies with all the Jordanian standards and regulations.

If the vehicle passes in all respects, a Certificate of Conformity is issued by the CRE and a tamper-proof sticker is affixed to the inside of the vehicle windscreen. Each sticker is uniquely numbered and this number will be printed on the Certificate of Conformity.

Vehicles that fail any of the tests will be rejected.

Used Vehicle Procedures

All vehicles require a Certificate of Conformity before being allowed into the Jordanian domestic market. An importer of used vehicles must arrange for the vehicle to be presented at the Vehicle Inspection Centre in Zarqa Free Zone.

The fee is: Per vehicle $47.50

The fee is to be paid into the Bureau Veritas (BIVAC) account (number 785400) at the Jordan National Bank at Zarqa Free Zone. The importer must present the bank receipt showing that payment has been made. When presenting the vehicle(s) for test, the importer will be required to present evidence of ownership (bill of sale as per customs clearance requirement), a copy of the cancelled registration in the country of export.

Vehicles are checked against the Jordanian standard applicable to that class of vehicle. The vehicle is then subjected to a full mechanical test to the same level as the current annual licensing test.

If the vehicle passes in all respects, a Certificate of Conformity is issued by the Vehicle Inspection Centre and a tamper-proof sticker showing the Vehicle Identification Number, date and Certificate number is affixed to the inside of the vehicle windscreen.

Vehicles that fail any of the tests are rejected. The importer has to carry out the required repairs before submitting the vehicle for retesting.