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Quality Infrastructure in Egypt (1950's – 2009)

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The recent beginning in 1898

- The Government of Egypt Established the first Governmental Centralized Laboratories in Egypt and Middle East similar to laboratories in England at that time .
- This laboratories were assembled in an organization called “ **Chemistry Organization**” which was responsible for quality of all imported materials and other items, through the chemical and physical tests .

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QUALITY INFRASTRUCTURE IN EGYPT (1950`s – 2009)

FIELD (I)

- EGYPTIAN ORGANIZATION FOR STANARDIZATION AND QUALITY (ESO).
- THE NATIONAL INSTITUTE FOR STANDARS AND METROLOGY (NISM).
- EGYPTIAN ACCREDITATION COUNCIL (EGAC).
- CONSUMER PROTECTION HIGH AUTHORITY.
- THE GENERAL AUTHORIZATION FOR QUALITY OF EDUCAION.
- THE NATIONAL INSTITUTE OF QUALITY.

EGYPTIAN ORGANIZATION FOR STANDARDIZATION AND QUALITY (ESQ)

EOS

- IN 1957,

- ❖ Law no. 2/1957 stated the necessity of establishing an independent organization to be the national reference for all activities related to standardization. This body undertakes the responsibility of developing standards for all raw materials, products, technical processes, equipment, modules and certified references for unified terms, definitions and symbols of classification.

EOS

- ❖ Accordingly, the Presidential Decree no. 29/1957 stipulated the establishment of the Egyptian Organization for Standardization to become an independent body affiliated to the Ministry of Industry.
- ❖ - In 1979, the Presidential Decree no. 392/1979 was issued concerning organizing the Egyptian Organization for Standardization and joining Quality Control Center to it. Hence, it was renamed to be the Egyptian Organization for Standardization and Quality Control and it became the competent national body responsible for all matters related to standardization activities in Egypt.

EOS

- ❖ In 2005, the Presidential Decree no. 83/2005 has been issued stipulating the change of EOS name

To be:

The Egyptian Organization for Standardization
and Quality (EOS).

EOS

TASKS

- ❖ Developing Egyptian standards for raw materials, industrial products, measuring instruments, methods of technical testing and inspection, quality control, measurement and calibration along with developing Egyptian standards related to unified technical symbols, terms, definitions, classifications, engineering designings, manufacturing processes and technical-principles and provisions of implementation as well as performance method of products, industrial services and industrial safety.

EOS

- ❖ Conducting conformity assessment activities including inspections, sampling, testing, calibrating laboratory equipment and issuing conformity certificates and calibration certificates for measuring and testing instruments in all sectors.
- ❖ Granting the Egyptian Quality and Conformity Marks and certificates for industrial products .
- ❖ Revising conformity systems at the industrial establishments with the purpose of ensuring the product conformity to the requirements of the relevant standards.

EOS

- Providing training for technicians in competent bodies on all standardization activities.
- Providing information on standards, technical regulations and measures of conformity assessment, upon request, as EOS is the Egyptian Enquiry Point for WTO according to TBT Agreement.

EOS

- ❖ Representing Egypt in the corresponding international and regional organizations as well as following up their work and maintaining the coordination with these organizations in all matters related to standardization activities.
- ❖ Providing technical consultancy, information and training services for industrial companies and establishments in the fields of standards, quality control, quality, environmental and safety systems, calibration and testing.
- ❖ Verifying the accuracy of measuring and testing instruments used in industrial establishments

EOS ACTIVITIES

- Standards
- Quality of products
- Quality and Inv. and safety systems
- Industrial Measurements and metrology Testing
- Technical and international relations
- Information systems (It systems)
- Consumer protection
- Raising awareness and standards and quality



EOS


ACTIVITIES

STNDARDS

EOS develops, adopts and publishes the Egyptian standards for the following:


- Raw materials and products as well as methods of their testing.
- Measuring and testing instruments and methods of their calibration as well as verifying their accuracy.
- Methods of technical inspection, quality control as well as quality and environmental management systems.
- Terms, symbols, engineering designings ... etc.

EOS revises, amends, updates or withdraws all these standards according to revision results.



EOS

- ❖ In this field, EOS works according to recognized systems and regulations complying with the principles and bases of standardization taking into consideration the contemporary international changes including globalization and the intensity of competition in international trade whose rules were determined by WTO Agreements.
- ❖ EOS adopts the principle of planning in developing standards programs annually starting with identifying various state sectors needs of standards and then prioritizing them. The number and type of standards objects in the annual program are determined according to these needs.



EOS

EOS annual standards programs include the following:

- A limited number of standards developed by EOS national technical committees which are about 117 committees, each of them Comprises 10-15 members representing various competent bodies i.e: governmental organization, industrial and commercial organizations, academic and research institutes, measuring and testing bodies as well as consumers and others.
- Adopting a certain number of international and foreign standards that suit national needs as Egyptian standards.
- Revising all the standards published before and amending, updating or withdrawing them according to revision results.

EOS

- ❖ EOS has issued standards in different fields such as engineering industries (mechanical, electrical, metallic), chemical and petroleum industries and construction materials and refractories, textile industries as well as food industries. This is besides measuring and testing instruments and methods of their calibration and verifying their accuracy and the systems of quality, environment, health and safety in various fields as well as

EOS

❖ technical terms, definitions, documentation systems, sampling methods for testing, packing and packaging materials and others. Meanwhile, all Egyptian standards are voluntary except those related to safety, public health, consumer and environment protection which are mandatory according to ministerial decrees.

EOS

❖ EOS has a major role in the field of harmonization with the international standards as many of the Egyptian standards have been harmonized with the international ones through Industrial Modernization Program in which many experts, representing industrial chambers, producers, universities, research centers, ministries and concerned bodies are participating. All mandatory Egyptian standards relevant to health and safety have been harmonized taking into consideration the European Directives in safety requirements.

EOS

❖ EOS has also published Egyptian standards in new fields including communications, medical instruments, safety requirements in railway, traffic, maritime transport, quality, environmental and safety systems, consumer protection, tourism and services.

❖ All Egyptian standards have been transformed to the electronic form to be available on the internet.

Quality OF products

Quality Mark System

❖ It is voluntary, the industrial establishments are licensed by fixing Quality Mark on their products upon their request. This is carried out after EOS makes sure, through technical studies and laboratory tests, that those products are complying with the relevant standards and that the industrial establishment applies an integrated quality system in addition to fulfilling the requirements and criteria pertaining to Quality Mark license and paying the financial commitments for the utilization right of this mark.



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- Having Quality Mark on any product indicates necessarily that this product has been inspected, tested and proved its conformity with the relevant standard and that its producing establishment implements an effective quality control and quality assurance systems ensuring the continuity of its production quality.



EOS

Conformity Mark System

- It is applied to engineering products and commodities for which ministerial decrees have been issued for abidance by the relevant Egyptian standards by their request.

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- **Halal Mark System**
 - It is voluntary to be implemented on food products intended for export, according to which the industrial establishments producing food products are licensed for fixing Halal Mark on their products upon their request.



EOS


- **Conformity Certificate System**
 - It is voluntary, according to which a conformity certificate with standards (Egyptian or foreign) is granted to a lot or a batch from a product upon the request of the establishments .
- **Conformity Achievement System with Mandatory Egyptian Standards**
 - Producers abide by setting up a system for achieving the conformity of their products with standards for which ministerial decrees have been issued to be mandatory and this system is revised by EOS.



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Quality environmental and safety systems

- ❖ EOS has obtained the compliance certificate with the requirements of ISO Standard for Quality Management System i.e. ISO 9001/2008.
- ❖ EOS has adopted ISO 9000 and 14000 series as Egyptian standards. Moreover, it has translated the series of these standards along with ISO Manual 9000 for small industries .



EOS

- ❖ Providing training on quality, safety and environmental systems.
- ❖ Qualifying a number of industrial establishments and granting them the compliance certificates with the requirements of Quality and Environmental Management Systems along with Food Safety and Occupational Health and Safety Systems.



EOS

TESTING

- ❖ EOS labs carry out examination and testing activities for a broad range of industrial products and commodities along with industrial measurements and metrology required for ensuring the accuracy of measurements in industry. EOS comprises a great number of engineering, chemical,



EOS

- ❖ food and textile labs carrying out all various tests for industrial products and commodities.
- ❖ Testing labs carry out tests necessary EOS activities whether required for standards' development, for implementing Quality and Conformity Marks systems or upon the request of companies or other clients, importers or exporters, or various supervisory bodies.




EOS

Technical and international relations

EOS has a major role at the international and regional levels:

- International Organization for Standardization (ISO)
- International Organization for Legal Metrology (OIML)
- African Organization for Standardization (ARSO)
- Arab Industrial Development and Mining Organization (AIDMO)
- European Organization for Quality (EOQ)
- International Measurement Confederation (IMEKO)
- American Society for Testing and Materials (ASTM International).
- European Committee for Standardization (CEN)
- EOS as a member of WTO is the national competent body responsible for the application of TBT Agreement requirements



EOS

- ❖ EOS is also a member of the following international committees:
- ❖ International Committee of Legal Metrology (CIML)
- ❖ CODEX Alimentations Commission
- ❖ Committee on developing country matters (ISO/DEVCO) --Committee on consumer policy (ISO/COPOLCO)
- ❖ Committee on conformity assessment (ISO/CASCO)

EOS

- Membership in the Technical Committees affiliated to the International and Regional Organizations :
 - ❖ (110) ISO Technical Committees along with (117) ISO Sub- Committees .
 - ❖ (18) OIML Technical Committees.
 - ❖ (9) ARSO Technical Committees.
 - ❖ (3) CEN Technical Committees.
- EOS undertakes the technical secretariat of (14) AIDMO Technical Committees.



EOS

- ❖ Bilateral Cooperation Agreements :
- ❖ EOS has concluded bilateral cooperation agreements and memorandums of understanding with the following countries in the field of standardization:
- ❖ Arab countries :
 - Syria – Saudi Arabia – Lebanon – Sudan- Iraq – Bahrain – Morocco – Algeria – Tunisia – Jordan – Qatar – Palestine – Kuwait – Libya – Oman – Yemen .




EOS

Foreign countries :

China – England – France – Uganda – Australia – Ukraine – Kenya – Germany – Greece along with ASTM International .


- ❖ EOS has concluded a number of protocols with Egyptian universities and research centres in different fields like communication systems, computers, medical equipment, cars` components.



EOS

INFORMATION SYSTEMS

- ❖ EOS has a specialized library along with information centre based on the philosophy of utilizing communication and information technology in marketing EOS activities for the different industrial sectors and activating the exchange of standards and information with the corresponding international organizations.



EOS

- EOS activities in the field of information systems include :
 - Setting up databases in the fields of standards, quality and human resources.
 - Designing EOS main information network.
 - Designing information net in collaboration with the Ministry of Trade and Industry.
 - Developing EOS website along with selling Egyptian standards electronically.
 - Coordinating with ISO to exchange documents electronically.



EOS

- ❖ Designing EOS website “ www.eos.org.eg”
- ❖ Preparing EOS webpage (in Arabic) within Ministry of Trade and Industry's website.
- ❖ Issuing and updating Egyptian Standards Catalogue for Engineering – Chemical – Textile – Food – Measurements – Documentation and Information sectors.
- ❖ Setting up a quality map including Quality, Environmental Management Systems along with Food Safety, Occupational Health and Safety Systems as well as Egyptian quality and conformity marks.



EOS

CONSUMER PROTECTION

- As EOS is keen and interested as well in consumer protection, a consumer protection unit has been established, provided with experts to undertake the following tasks :
 - Receiving, studying as well as solving consumer's complaints.
 - Raising consumers awareness on the importance of quality and conformity marks to ensure the conformity of commodities to the relevant standards.
 - Protecting the consumer from any advertisements or allegations related to the commodities quality which deceive or mislead the consumers.



EOS

RAISING AWARENESS ON STANDARDS AND QUALITY

- ❖ EOS has issued a magazine entitled “The World of Standards and Quality” which is considered as a window for the reader as well as the interested parties to overlook EOS activities in the field of standards and quality. The magazine aims at spreading the culture of standards and quality and supporting the country's efforts in increasing



EOS

the Egyptian products competitiveness along with increasing export opportunities.

- ❖ Quarterly brochure is issued entitled “The Egyptian Codex Committee” to raise awareness on the Egyptian and international food standards.
- ❖ A monthly brochure entitled “The Consumer” is issued for raising the consumer's awareness.

The NATIONAL INSTITUTE FOR STANDARDS & METROLOGY

NISM

- In 1962, Egypt has joined the meter conversion and became a member of the bureau International de poids ET de Measure – BIPM.
- In, 1963, the industrialization program in Egypt was in full swing. The need for a high – level metrology institute was quite evident.
- A Presidential Decree was issued establishing the National Institute for Standards (NIS) to become responsible for realizing and disseminating the basic units of measurement.



NISM

MAIN FUNCTIONS

- Operating the National systems through the provision of calibration services for measurement equipment against National Standards.
- Contracted research and development in metrology and advanced measurement technology.
- Providing consultancy and advice to industry and other organization in all matters related to measurement, calibration and requirements of TOTAL QUALITY.



NISM

- Providing training courses in measurement technology and metrology related to Quality Management Systems.
- Providing Expertise and Transferee of Knowledge through sharing, taking part and organizing regional, international and national metrology and accreditation activities and seminars.



EGYPTIAN ACCREDITATION COUNCIL EGAC

www.egac.gov.eg

- In 1996, The Egyptian Accreditation Council (EGAC) is established by the presidential Decree no. 312/1996 and recognized by the presidential Decree no. 248/2006 of conformity assessment bodies in Egypt referring testing, calibration Laboratories, inspection and certification of products, systems as well as personnel.
- EGAC is headed by Ministers of trade and Industry and governed by a board of (14) members representing all stakeholders and concerned bodies.



EGAC

OBJECTIVES

- To be the focus for the enhancement of quality and competitiveness of Egyptian Industry.
- To raise and maintain stake holders confidence in the competence of conformity assessment organizations.
- To contribute towards the elimination of technical barriers to trade by achieving a uniform international approach to accreditation and conformity assessment.
- Cooperate with similar regional and international parties.

CONSUMER PROTECTION HIGH AUTHORITY

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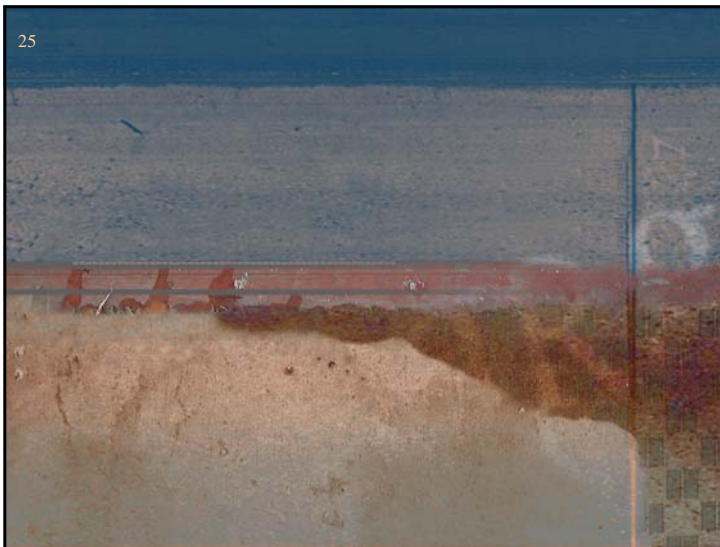
- In 2004, the government of Egypt established an independent organization (under the supervision of Minister of Trade and Industry) to provide the necessary protection to consumers (individuals and others) from:
 - Unsuitable materials, components, products and services .
 - Monopolization.
- This organization beside nongovernmental societies are currently supported from the government and penalties and fines are taken in millions sometimes from companies, agencies and traders to protect the society from bad products and services and from monopoly producers and traders.

THE GENERAL AUTHORIZATION FOR QUALITY OF EDUCATION

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- In 2004, the government of Egypt established an independent organization to be responsible for the QUALITY of education (for all levels of education schools, institutes and faculties).
- Main Tasks
 - Providing consultation and advices to education institutions .
 - Salting the procedures and performance criteria's of quality requirements.
 - Assessment of education institutions.
 - Issue the required certificates.
 - Reporting on the recommended strategies and policies needed to develop and improve the education processes in Egypt.

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THE NATIONAL INSTITUTE OF QUALITY

- In 2005, a Ministerial Decree was issued to establish the NATIONAL INST . OF QUALITY under the indirect supervision of minister of trade and industry to be responsible for :
 - Providing training courses in all quality issues to different organizations .
 - Assessment of training provider companies .
 - Providing consultancy studies and advices .
 - Study of quality issues and problems .
 - To coordinate with other national institutions and organizations concerning quality issues .

**QUALITY INFRASTRUCTURE
IN EGYPT
(1950 ' S -2009)
FIELD (II)**

- **ACADEMIC STUDIES**
- **TECHNICAL SCHOOLS AND VOCATIONAL TRAINING.**
- **CONTINUOUS EDUCATION.**
- **CONSULTATION STUDIES .**

ACADEMIC STUDIES

- At the beginning of 1950' s ,subjects such as Quality , Q. Engineering S Q. Control Techniques, Operation Research Models ,Design of Experiments , ...etc are introduced in curriculums of many specializations in Faculties of Engineering ,Science and Business Administration ..etc.
- 1950' s – 2000 ,topics of this subjects are developed and engineering laboratories are established to provide its services to many organizations in the society such as testing of materials , parts ,components , products , some of this laboratories are certified .

- **1970 - now**
Many of universities and institutes introduced postgraduate studies (diplomas, Master Degrees and Doctorates Degrees) in many of QUALITY issues , such as :
 - Total Quality Management .
 - Applications of Q. Methods and Techniques .
 - Researches in Q. Improvement Techniques
 -etc

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TECHNICAL SCHOOLS AND VOCATIONAL TRAINING

- In 1940 's the government of Egypt established many Technical Secondary Schools in all big cities to graduate semi – skilled educated workers in different trades.
- Many of his schools are built and developed from 1960 's until now .

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In 1956, the government of Egypt established the Productivity and Vocational Training dept (PVTD)

- And more than 50 vocational training centers are established from Alexandria in the north to Aswan in south , more than 78 different trades are provided in this training centers .
- More than 350000 skilled workers are graduated from this centers .

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CONTINUOUS EDUCATION

- 1960 's- NOW
- Training providers introduced hundreds of continuous education programs to employees and staff who are working in public sectors ,private sectors and governmental organizations in all subjects.

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,specially in fields of :

- Total Quality Management (TQM).
- Q .Management Systems .
- Q. Control Techniques .
- Q. Assurance .
- Q. Engineering .
- Statistical Q. Control(SQC).
- Q.Deployment Functions .
- ISO 9000 Family standards .
-etc.

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CONSULTATION STUDIES

- 1970 's- NOW
- Hundreds of consultancy studies are done to large number of organizations (industrial , petroleum , electricity and energy companies and service industries , .. etc)

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The main subjects of this studies were :

- Introducing Q. Control Systems .
- Design of Inspection and Testing Plans .
- Q.Deployment Function of products
- Establishing Q .Management Systems .
- Upgrading current Q.SYSTEMS to comply with ISO 9000 standards requirements
- Q. Costs Control Programs .
-etc

- 2000 - Now
- The government of Egypt adopted **The NATIONAL PROGRAM FOR MODERNIZATION OF INDUSTRY** to increase :
 - Productivity
 - Competitiveness'
 - Profitability

In about 10,000 industrial companies in 10 years plan .

The beneficiated companies from the governmental program gained many systems

such as (in fields of QUALITY)

- Certified ISO 9001 Q.M.S
- Certified ISO 14001 E.M.S
- Certified ISO 22000 Q.M.S
- Certified OHSAS 18001 system
- Certified ISO 17125 system
- Establishment of other Management systems .
- Total Management Audit System
-etc

