NATIONAL QUALITY POLICY
Republic of Ghana
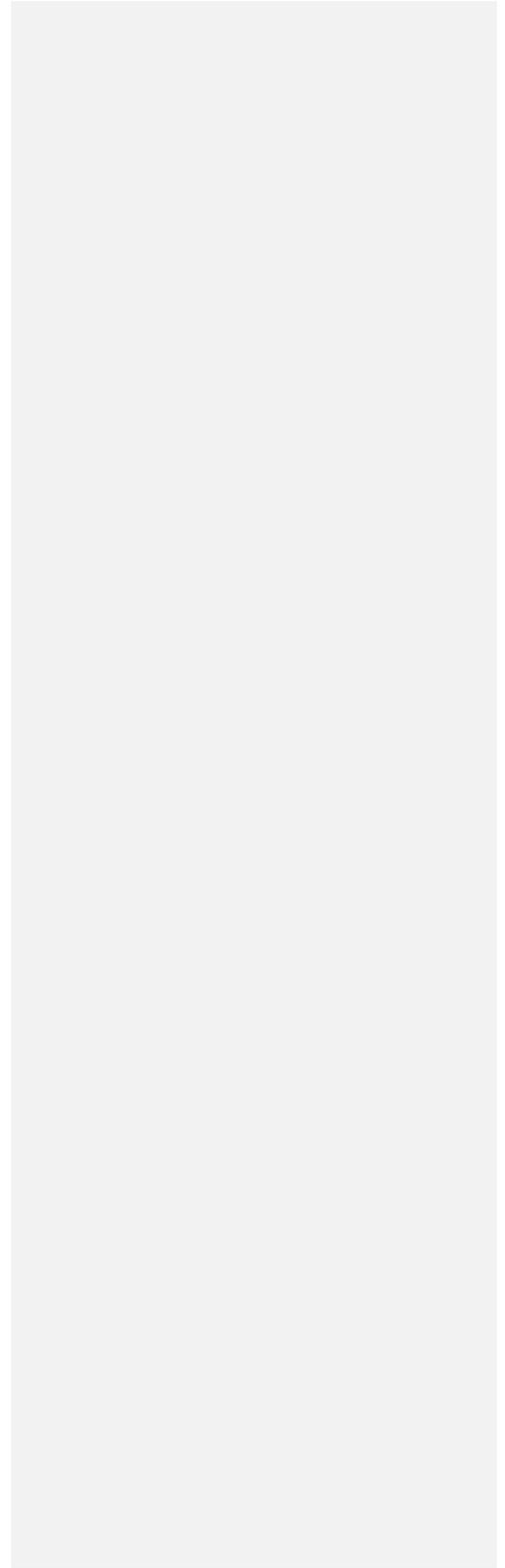
Table of Contents

ABBREVIATIONS AND ACRONYMS

AFRAC	-	African Accreditation Cooperation
AFRIMETS	-	Intra-Africa Metrology System
AFSEC	-	African Electrotechnical Standardisation Commission
ARSO	-	African Regional Organization for Standardization
ASTM	-	American Society for Testing and Materials
BIPM	-	Bureau International des Poids et Mésures
CAB	-	Conformity Assessment Body
CAC	-	Codex Alimentarius Commission
CPESDP	-	The Coordinated Programme of Economic and Social Development Policies
CMC	-	Calibration and Measurement Capability
CSIR	-	Council for Scientific and Industrial Research
ECOWAS	-	Economic Community of West African States
EU	-	European Union
FDA	-	Food and Drugs Authority
GSA	-	Ghana Standards Authority
GTA	-	Ghana Tourism Authority
HACCP	-	Hazard Analysis and Critical Control Point
IAF	-	International Accreditation Forum
ICC		International Chamber of Commerce
IEC	-	International Electrotechnical Commission
ILAC	-	International Laboratory Accreditation Cooperation
IPPC	-	International Plant Protection Convention
ISSP	-	Industrial Sector Support Programme
ISO	-	International Organization for Standardization
MMDA	-	Metropolitan, Municipal and District Assemblies
MDA	-	Ministries, Departments and Agencies
MoTI	-	Ministry of Trade and Industry
NGO	-	Non-Governmental Organization
NAB	-	National Accreditation Body
NMI	-	National Metrology Institute
NES	-	National Export Strategy
NSB	-	National Standards Body
NTRF	-	National Technical Regulation Framework
NQI	-	National Quality Infrastructure
OIML	-	Organisation Internationale de Métrologie Légalé
OIE	-	World Organisation for Animal Health
PSD	-	Private Sector Development
PSDS	-	Private Sector Development Strategy
MSME	-	Micro Small and Medium Enterprises
SPS	-	Sanitary and Phyto-sanitary
SQAM	-	Standardization, Quality Assurance, Accreditation and Metrology
TBT	-	Technical Barriers to Trade
TSSP	-	Trade Sector Support Programme
UNECE	-	United Nations Economic Commission for Europe
UNIDO	-	United Nations Industrial Development Organization
WTO	-	World Trade Organization
ACP	-	African, Caribbean and Pacific Group of States

1.0 INTRODUCTION

Globalization, characterized by significant increases in global flows of information, ideas, factors of production and technology has brought about a deep and pervasive integration of the world economy. Successive rounds of international agreements have systemically reduced tariff barriers in developed countries while introducing non-tariff barriers like technical regulations. Developing countries have followed suit, inspired by the success of several East Asian economies.

Increased trade flows in manufactured goods provide increased opportunities. Hence, a developing country seeking sustained growth needs to free itself from dependence on primary products and diversify into manufacturing exports, whose added value translate into wealth. However, in order to compete successfully in developed markets, enterprises face a formidable array of challenges. Over and above the logistics, management and financial issues, one of the major stumbling blocks is the attainment of demonstrable product and/or service quality as demanded by authorities and purchasers in domestic and especially foreign markets.

Furthermore, governments have an inherent responsibility related to the quality of goods produced and services provided, and consumed by its citizens from the perspective of health, safety, deceptive practices and the environment. The role of the Government is therefore to promulgate and enforce laws and regulations focused on the protection of human, animal and plant health and the environment while creating an enabling environment for businesses.

In order to fully leverage the opportunities for trading with foreign markets, enterprises in an economy need cost-effective access to an internationally recognized, and supportive National Quality Infrastructure (NQI) that can provide the required independent evidence of product compliance. Development and implementation of the right quality infrastructure has a significant impact on the reduction of poverty and inequality. A functional Quality Infrastructure (QI) is important to support the entry of small firms into supply chains.

Developing countries, especially those within Sub-Saharan Africa, must establish appropriate quality infrastructure that can provide efficient standardization, metrology and conformity assessment services to the manufacturing and processing industry. Fortunately, international best practices have evolved and can be adopted by governments.

Africa, through the adoption of Agenda 2063, is expected to show improved standards of living; transformed, inclusive and sustained economic growth and development through the implementation of the Action Plan for Boosting Intra-African Trade (BIAT) under the African Continental Free Trade Area (AfCFTA). This requires a functional NQI which provides an environment of trust, health and safety for both producers and consumers and drastically reduces technical barriers to trade.

A number of factors are influencing changes in technical barriers to trade. These include the drive to liberalise and globalise international trade; the determination that trade should be subject to rules which are transparent, non-discriminatory, and administered by a body which can impose penalties for non-compliance; the emphasis on maximising private and civil society involvement in setting standards and norms as against the earlier reliance on the state; the growth of international best practices in all fields; and the need to be receptive to national and international public opinion.

Most of the measures to reduce technical barriers can be related to the implementation of good regulatory practices. The technical regulation regime should be simplified and rendered more transparent and predictable. Market forces should be allowed to operate wherever possible without compromising the safety and health of people and the environment. In most cases this also means that the government would change its strategy from testing and approving products before they are marketed to a post-marketing surveillance approach, placing the responsibility for the integrity of products squarely on the shoulders of the suppliers.

The Organisation for Economic Cooperation and Development (OECD) countries have recognized this reality and have developed a body of guidelines to effect better regulatory practices[1]. A number of developing countries are in the process of reviewing their technical regulation practices, e.g. Brazil, South Africa, Chile, Uganda, etc. Countries which are current or aspiring members of the EU have had to radically transform their technical regulation systems in order to comply with the EU's *acquis communautaire*.

In all of these processes three (3) phases can be identified, namely deregulation, regulatory quality improvement and regulatory management, which are progressively implemented. Many countries start with a drive to deregulate, i.e. getting rid of obsolete regulations. The next logical step would be to improve the performance of the institutions that are involved in technical regulation. In addition, the decision-making mechanism as to when to implement technical regulations is improved by utilising Regulatory Impact Assessments (RIA). But all of these steps are to some extent tinkering with the current, normally fragmented system. It is only when the system is addressed holistically, i.e. when regulatory management is considered, that real progress is achieved. These phases are therefore interdependent, and all of them must be considered in reducing technical barriers to trade.

Recognizing that industrial development and effective trade are hinged on a functional NQI, ECOWAS, after adopting the West Africa Common Industrial Policy (WACIP) in 2010, instituted measures to guide Member States in formulating National Quality Policies (NQPs). Implementation of NQPs is expected to lead to the establishment of NQIs that will facilitate trade within and among Member States in the sub-region, the continent (under the **AfCFTA**) and with other trading partners and to meet the following targets by 2030:

- Contribution of manufacturing to Regional GDP increased from 7% to 20%;

---

[1] Examples: *Guiding Principles for Regulatory Quality and Performance* and the *OECD Reference Checklist for Regulatory Decision-Making*, OECD, 1995

- Intra-Community trade increased from 12% to 40%; and
- Exports of goods manufactured in ECOWAS to the global market increased from 0.1% to 1.0%
- Ensure consistent GDP growth of 7% and at least a third of all products/services generated by local firms.

The Government of Ghana, as part of its transformational agenda has identified a functional National Quality Infrastructure consistent with international best practices as key in supporting industrialization toward accelerated economic growth.

In view of Government programmes on rapid industrialization and promotion of increased export earnings, it is anticipated that the growth in the demand for Quality Infrastructure services, such as Accreditation, Conformity Assessment, Metrology and Standardization will outstrip the supply in the medium to long term if investments in the sector continues to be largely Government-led.

There is therefore the need to have a National Quality Policy that streamlines the operations of actors in the National Quality Infrastructure space and at the same time crowd-in private sector investments to ensure that services provided remain affordable and competitive to enhance the competitiveness of made-in-Ghana goods and services. This has been the international best practice as it frees up resources for the most critical compliance and enforcement activities which are the mandate of Government. The fundamental principle underlying the Policy is that the private sector is the engine of growth, with Government providing an enabling environment designed for the National Quality Infrastructure to thrive over the long term.

1.1 Structure of The Policy

The policy is structured into the following five (5) thematic areas and several crosscutting issues:

1. Metrology
2. Standards
3. Accreditation
4. Conformity Assessment

5. Technical Regulations and Good Regulatory Practice

To ensure clarity of presentation, each policy component within the five thematic areas, has been analyzed on the basis of the policy context, policy objective and policy prescriptions. This will ensure that the specific policy prescriptions to be adhered to, are not only clearly identified, but also properly understood within the relevant context.

The National Quality Policy (NQP) presented in this document essentially provides the broad guidelines and agreed framework for formulating and implementing a 5-year implementation

programme. The NQP Implementation Programme will be a comprehensive set of related projects, each with a defined plan of action, budget and objectively verifiable results to be achieved within specific timelines. Provision will be made in the Programme, for a periodic review by relevant stakeholders in order to assess impacts and make appropriate adjustments.

2.0 THE NATIONAL QUALITY INFRASTRUCTURE (NQI)

For the purposes of this Policy, the "*National Quality Infrastructure (NQI) is taken as the totality of the institutional framework (public or private) required to establish and implement standardization, metrology (scientific, industrial and legal), accreditation and conformity assessment services (inspection, testing, verification and validation, andcertification) necessary to provide acceptable evidence that products and services meet defined requirements, be it demanded by authorities (technical regulation) or the market place (contractually or inferred).*"

> **Commented [RJ1]:** Personally, this is a good definition. However, the below is the official definition and aligned with thew AQP, which caters for the technical regulatory and good regulatory practices through the inclusion of market surveillance.

QI is a system comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes. The Quality infrastructure is required for the effective operation of domestic markets, and its international recognition is important to enable access to foreign markets. It is a critical element in promoting and sustaining economic development, as well as environmental and social wellbeing. It relies on metrology, standardization, accreditation, conformity assessment, and market surveillance *(Source: Definition adopted in June 2017 by INetQI) ;*

This definition allows for NQI institutions to provide services to suppliers and consumers. The NQI institutions can be in the public as well as the private domain and in many countries conformity assessment services (i.e. inspection, testing, verification and validation and certification) are progressively being provided by private industry rather than by government entities, whereas governments retain the responsibility to ensure that the fundamentals, i.e. standards, metrology and accreditation are maintained.

The optimum arrangement of the NQI at the national level is therefore as much a government policy issue as well as a market-related service provision concern. The notion that two separate systems are required, i.e. one for government authorities and one for the market place, is outdated and leads to unnecessary duplication and inefficiency of the systems. In a modern NQI, technical competency issues and the required legal checks and balances, can appropriately be dealt with through elements such as accreditation and conformity assessment. Hence a

single, coherent NQI can advantageously serve both government authorities and the market place.

Table 1 below provides a summary of the elements that make up the NQI, the typical institutions and the services they should provide. These elements are interrelated and in most cases the output of more than one will be required to provide the purchaser, user or the authorities with the required information and confidence that a product, process or service meets expectations and requirements. Figure 1 clearly illustrates the interrelationships of the various elements of a NQI.

Ideally, each of the elements of the NQI would be an independent organization to avoid overlapping mandates and conflicts of interest. However, the reality in some developing economies is that inadequate financial and technical capacity causes the combination of some of the elements. Some conflicts of interest have to be considered when combining the NQI elements, namely:

- The accreditation function cannot be combined with the provision of conformity assessment services i.e. inspection, testing and certification in the same organization.;
- The national standards body may also become the national accreditation body, but then it cannot provide conformity assessment services (e.g. Canada or Malaysia);
- Regulatory agencies should allow suppliers to use the services of technically competent, i.e. accredited conformity assessment service providers, and let market forces determine the overall effectiveness and efficiency of such service provision.
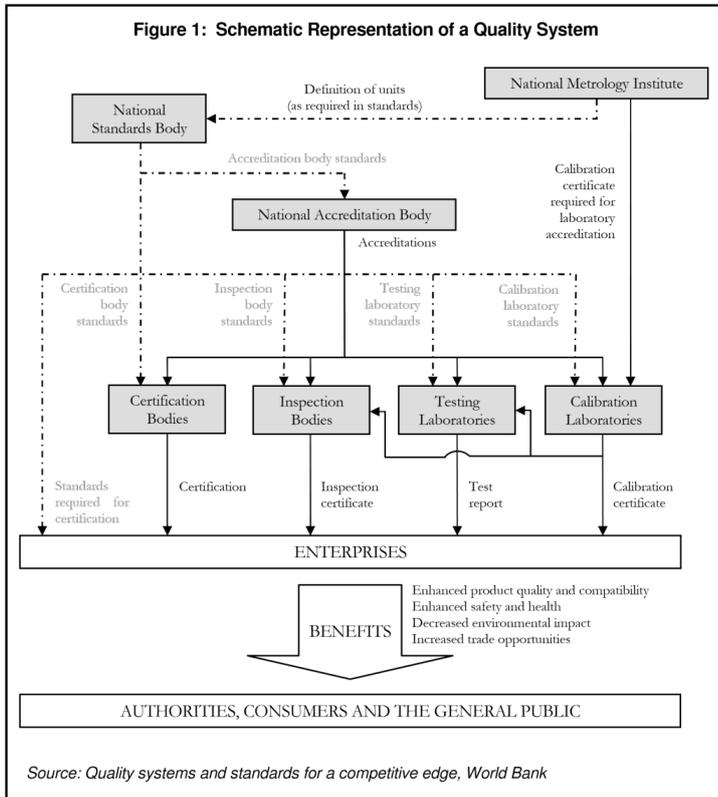
Although fundamental metrology and accreditation is not *per se* a conflict of interest (as defined by the BIPM, ILAC and the IAF) it is perceived to be close to being so, and hence developing countries should rather shy away from such a construct;

Table 1: National Quality Infrastructure Service Outputs and Institutions

Element	Description of service	Institution(s)
Standards	Publication of a formal document (standard), generally developed by consensus, containing the requirements that a product, process or service should comply with. Suppliers are encouraged to use standards in order to promote productivity, health and safety of consumers and the environment.	• National Standards Body (NSB) • Sectoral Standards Development Organizations (SDO) • Industry based standards organizations NOTE: Although most NSBs are public organizations, a few private NSBs exist. A public NSB is usually a monopoly, and a private NSB has an agreement with the government to this effect. The SDOs are mostly private.
Metrology	The technology or science of measurement. Metrology can be subdivided into scientific metrology (the development and organization of the highest level of measurement standards), legal metrology (the assurance of correctness of measurements where these have an influence on the transparency of trade, law enforcement, health and safety) and industrial metrology (the satisfactory functioning of measurement instruments used in industry, production and testing).	• National Metrology Institute (NMI) • Calibration Laboratories (public or private) • Legal Metrology Department (LMD) NOTE: The NMIs and LMDs are invariably public organizations. Calibration laboratories may be public or private.
Element	Description of service	Institution(s)
Accreditation	The activity providing independent attestation as to the competency of an individual or an organization to offer specified conformity assessment services (e.g. testing, inspection or certification).	• National Accreditation Organization/Body NOTE: This is usually a public organization with a defined monopoly.

Inspection	The examination of a product design, product, process or installation and determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements. Inspection is often conducted on consignments such as import inspection, to ensure that the whole consignment is equivalent to the product sample tested.	• Import inspection agencies • General inspection agencies NOTE: These can be public or private agencies. Competition in the market place is the norm.
Testing	The determination of a product's characteristics against the requirements of the standard. Testing can vary from a nondestructive evaluation (e.g. X-ray, ultra sound, pressure testing, electrical, etc. where after the test the product is still fit for use) to a total destructive analysis (e.g. chemical, mechanical, physical, microbiological, etc. where after the test the product is no longer fit for use), or any combination thereof.	• General Testing laboratories (including environmental labs) • Medical laboratory testing NOTE: These can be public or private laboratories. Competition in the market place is the norm.
Verification and Validation	Verification is a confirmation of a claim (i.e., information declared by the client), through the provision of objective evidence, that specified requirements have been fulfilled. Validation is a confirmation of a claim, through the provision of objective evidence, that the requirements for a specific intended future use or application have been fulfilled	• Validation Bodies • Verification Bodies NOTE: These can be public or private agencies.
Certification	The formal independent third party attestation by a certification body after an evaluation (e.g. testing, inspection or assessment) that a product, service, organization or individual meets the requirements of a standard.	• Product certification organizations • System certification organizations • Persons certification bodies NOTE: These can be public or private organizations. Competition in the market place is the norm.

Commented [RJ2]: The standards and recognition as a conformity assessment activity is relatively new within the ISO toolbox, thus this function is not address is most NQP' AQP etc.

Figure 1: Schematic Representation of a Quality System

National Metrology Institute

Definition of units
(as required in standards)

National
Standards Body

Accreditation body standards

National Accreditation Body

Accreditations

Calibration
certificate
required for
laboratory
accreditation

Certification
body
standards

Inspection
body
standards

Testing
laboratory
standards

Calibration
laboratory
standards

Certification
Bodies

Inspection
Bodies

Testing
Laboratories

Calibration
Laboratories

Standards
required   for
certification

Certification

Inspection
certificate

Test
report

Calibration
certificate

ENTERPRISES

BENEFITS

Enhanced product quality and compatibility
Enhanced safety and health
Decreased environmental impact
Increased trade opportunities

AUTHORITIES, CONSUMERS AND THE GENERAL PUBLIC

Source: Quality systems and standards for a competitive edge, World Bank

3.0 CONTEXT
3.1General Context

A number of public institutions together with private organizations constitute the current Ghanaian NQI landscape. Some major public organizations involved in NQI activities include the Ghana Standards Authority (GSA), the Food and Drugs Authority (FDA), the Council for Scientific and Industrial Research (CSIR), Ghana Tourism Authority (GTA), The Ghana National Accreditation Service (GhaNAS), and the Metropolitan, Municipal and District Assemblies (MMDA) among others. Some private organisations also in the NQI landscape include among others Bureau Veritas, SGS, Intertek, Cotecna. A number of Ministries and their Agencies also undertake QI activities such as the development of normative documents and technical regulations, testing and certification within their mandates.

It is known that the activities of Public institutions often overlap mostly due to inconsistencies in legislations, leading to a lack of clarity regarding the division of labour. Such inconsistencies exist for example between the Ghana Tourism Authority (GTA) and the Food and Drugs Authority (FDA), etc. This lack of clarity is having a negative impact on the effectiveness and efficiency of the system, leading to unnecessary and often acrimonious confrontations and is therefore not in the best interest of the country.

Metrology functions are spread over a number of institutions such as the Ghana Standards Authority (GSA), the Council for Scientific and Industrial Research (CSIR-IIR), the National Communications Authority (NCA) and the Ghana Atomic Energy Commission (GAEC) as there is no National Metrology Institute (NMI). This policy seeks to consolidate the calibration activities of these institutions into a national calibration system to comply with international best practice.

Ghana is in the process of establishing a national accreditation body to accredit conformity assessment bodies seeking international recognition. Seeking accreditation outside a country is an expensive exercise ***and does not allow government the control to effectively address its….*** There are presently very few accreditation bodies on the African continent which are internationally recognized. These include those of South Africa, Egypt, Tunisia, UEMOA, Nigeria, Kenya, Sudan and Southern African Development Cooperation (SADC). The Quality Policy provides details of the preferred NQI and the relevant responsibilities of the institutions to facilitate proper division of work.

Government has to take a leading role in establishing key NQI organizations. In developing economies, the involvement of government in these early stages is necessary to provide the NQI organizations with the requisite authority and to provide the required finances. Some NQI

services will always be funded totally or in a large part by government, and these include: fundamental metrology, standards development and promulgation and accreditation.

3.2 Policy Context

The National Quality Policy (NQP) is set within the context of relevant constitutional provisions and the following key national policies:

1. The Coordinated Programme of Economic and Social Development Policies (CPESDP) (2017-2024)
2. **National Export Development Strategy**
3. National Food Safety Policy
4. Ten Point Industrial Transformation Agenda

3.2.1. The Coordinated Programme of Economic and Social Development Policies (CPESDP) (2017-2024)

Within the CPESDP, government realizes that the main thrust of private sector development policy is to establish Ghana as the most business friendly country in Africa. This will entail creating an enabling environment to attract both domestic and foreign investors, with the aim of growing businesses and expanding the private sector. To this end, Government will, as a matter of priority, identify and address the systemic structural and institutional bottlenecks that constrain the environment for business expansion and growth.

The NQP, therefore has been developed as a tool for addressing systemic structural and institutional bottlenecks that constrain NQI institution with a consequent effect on private sector investments.

3.2.3. National Export Development Strategy

One of the key strategic objectives of the National Export Development Strategy (NEDS) is to strengthen and resource export development related institutions and networks of business development service providers, policies and programmes for providing well-focused and enhanced support services to enable export businesses to flourish. This objective is in line with the general aim of an NQP.

Also aligned with the quality policy is the strategic output that emphasizes institutional capacity and resources for export value chain infrastructure development and enhanced support service delivery.

3.3.4. National Food Safety Policy

The vision of the National Food Safety Policy is a well-established and structured food safety system that clearly outlines the roles of all relevant stakeholders for the management and control of food safety. The mission of the National Food Safety Policy is to put in place a well-coordinated management system to ensure food safety that guarantees consumer protection and public health. The goal of the National Food Safety Policy is to provide for the management and control of food safety to ensure public health and safety.

.

3.3.5. Ten Point Industrial Transformation Agenda

Industrialization and Private Sector Development in general, present opportunities to expand the economy and create more jobs. Government has therefore embarked on a comprehensive industrial transformation and private sector development agenda, encapsulated in a Ten Point Industrial Transformation Agenda. The NQP would sit at the core of building strong institutions that would provide the needed quality infrastructure support for this industrialization agenda by developing standards, testing, calibration, inspection, accreditation and measurement facilities.

4.0 CHARACTERISTICS OF THE QUALITY POLICY

4.1 Scope of the Policy

The scope of the policy covers the key elements of the NQI which are; Metrology Standardization, Technical regulations and Good regulatory practices, Conformity assessment and Accreditation.

The Government of Ghana plans, through its Trade Policy and its supporting Industrial Transformation Agenda, to ensure the establishment of an environment that would help Ghana's society prosper in different economic, social and technological areas. This will take into account the opportunities, potential and changes that are anticipated at the regional and international levels in the upcoming era. Ghana is committed to re-orientate and re-engineer its National Quality Infrastructure (NQI) in a holistic manner so as to become more effective and efficient and to ensure that it meets international standards and recognition. Here, the Government of Ghana will focus on quality and technical competency to ensure that the proper environment exists for national goods and services to gain a competitive edge in international markets, thereby leading to expanded exports and hence sustainable growth of Ghanaian society.

In parallel with the re-engineering of the NQI, the Government of Ghana is committed to develop and implement a common approach to technical regulation, i.e. a Technical Regulation Framework (TRF), and ensure that the division of work between the NQI and the authorities responsible for the administration of technical regulation is properly coordinated, so as to ensure that the safety and health of its people, and the environment is not compromised.

These measures will be pursued always taking into consideration the realities of the Ghanaian situation, ensuring that no unnecessary barriers to trade are established, providing for a common approach in dealing with imported and domestic products and services, and as far as is possible, align the NQI and TRF with best practices found in current or future trading partners.

The Policy will provide the necessary framework for the development of a National Quality Infrastructure that encourages private sector participation while making Government resources available for critical areas where the private sector is not capable of performing as well as strengthening the regulatory framework.

4.2 Rationale for the National Quality Policy

The primary objective of the Quality Policy is to ensure that goods and services emanating from or traded in Ghana are designed, manufactured and supplied in a manner that match the needs, expectations and requirements of the purchasers and consumers as well as those of the regulatory authorities in the local and in the export markets. In support of this, implementation of the Quality Policy should raise the quality consciousness amongst both suppliers and consumers. Furthermore, it is an undertaking by government to introduce and maintain a quality culture in public life throughout society.

The immediate outcome of the implementation of the Quality Policy will be the reengineering of the current situation to establish a world-class metrology, standardization, accreditation, inspection, testing and certification infrastructure, i.e. the NQI, and to support the application of its techniques, practices and service provision to demonstrably comply with international standards.

In parallel with the streamlining of the NQI, the technical regulation regime of Ghana will be reviewed and adjusted, including its related legislation, to meet regional and international requirements such as the WTO TBT and SPS Agreements as well as international best practices. This includes the development of effective cooperation amongst the NQI institutions and their regional and international counterparts.

The Government of Ghana is driven to purposefully provide industry-supportive standards, metrology, accreditation and conformity assessment services that are accepted globally. In doing so it is guided by the need of industry to have access to conformity assessment services that are affordable and acceptable in all the target markets so that these products meet customer requirements. Government has the desire and determination to efficiently and effectively manage its regulatory responsibilities in order to fulfil its primary mandate, namely the safety and health of its people and the protection of the environment. In this respect, those that are being regulated should be subject to a transparent and steady state regulatory system without having to navigate bureaucratic bottlenecks.

4.3 Vision

The National Quality Policy of Ghana (NQP) aims to develop an effective, efficient and globally recognized National Quality Infrastructure.

4.4 MISSION

The mission is "to coordinate all elements of the National Quality Infrastructure to ensure the supply and usage of compliant goods and services".

To achieve the vision and mission the National Quality Policy will establish a National Quality Infrastructure to:

- develop and implement a common approach to technical regulation, i.e. Good Regulatory Practice (GRP) including a Technical Regulation Framework (TRF) and market surveillance;
- eliminate overlapping functions by ensuring that the activities of the NQI and regulators are properly coordinated;
- ensure that the health & safety of citizens as well as the protection of the environment are not compromised;
- ensure that non-tariff barriers do not impede trade;

- provide a common approach in dealing with imported and domestic products and services.

4.5 Strategic Objectives
The strategic objectives of the National Quality Policy are to:

- improve the international competitiveness of Ghana leading to enhanced export performance,
- protect consumers and the environment from counterfeited and unsafe products;

- raise the quality of life of the Ghanaian people;
- support Government's industrial transformation agenda and other national strategies for increasing exports;
- enhance import substitution and improve business regulations and the ease of doing business

5.0 THEMATIC AREAS OF THE POLICY

5.1 Introduction
The main thematic areas of the NQP are Metrology (Scientific, Legal and Industrial), Standards, Accreditation, Conformity Assessment (Testing, Inspection, verification, validation and Certification) and Technical Regulations.

5.2 Metrology

Policy Context

Currently, the legislation governing metrology in Ghana is outdated and does not meet the needs of industry and consumers. Also, metrology functions are spread across various NQI institutions creating overlaps and making coordination at the national level difficult.

To maximize the benefits derived from an efficient Metrology system, there is the need to consolidate the current fragmented metrology service delivery in the country by establishing an independent National Metrology Institute (NMI) in Ghana. Ghana Standards Authority (GSA) will incubate the new NMI until it is matured enough to be weaned off as an independent National Metrology Organisation for Ghana.

Policy objective

To increase the awareness of metrology and to establish a common metrological framework as one of the fundamental building blocks of the quality infrastructure.

Policy Prescriptions

Government will:

- Consolidate the current fragmentation of metrology in the country by establishing an independent National Metrology Institute.

- Ensure that Ghana uses the International System of Units (SI) of measurements at the national level and where applicable, other local or traditional units of measurements are phased out gradually;

- Establish and strengthen the NMI with the responsibility of acquiring and conserving national measurement standards capable of providing accurate and reliable measurements in the country
- Provide an enabling environment for the establishment of private calibration laboratories
- Ensure that all calibration laboratories are appropriately accredited against the relevant international standards
- Ensure that a national calibration system is established, maintained and continuously improved to diffuse the national measurement standards into industry, authorities and society.
- Ensure that no other Ministry or Agency shall establish legally enforceable metrology requirements for measuring equipment unless in coordination and with the approval of the NMI.
- Ensure that the NMI shall have the responsibility to type-approve measuring equipment, have the same verified on placement into service and thereafter have them regularly calibrated and verified.
- Ensure protection of consumers by controlling pre-packaging operations of products, all of which to be based on relevant regional or international standards.

- Ensure the NMI's participation in international bodies concerned with metrology.

5.3 Standardization

Policy Context

There is limited in-house capacity by the GSA in drafting technical text for the development of sector specific standards in new and emerging areas. Additionally, standards development is capital intensive and this limits the GSA's ability to develop new standards and review existing ones.

Some regulatory agencies do not reference standards published by GSA, rather, reference other international standards even though those standards have been adapted to suit the Ghanaian context.

Policy objectives

- To ensure that the standards development process continues to be an activity that depends on achieving consensus amongst stakeholders, in a participatory and transparent environment.
- To develop and promote appropriate standards for new and emerging sectors for effective use by industry to improve productivity, quality and enhance competitiveness.

Policy Prescriptions

Government will:

- Encourage the adoption of relevant international and regional standards based on the needs of regulatory authorities, industry and consumers.
- Ensure that the development of national Standards remains the preserve of the Ghana Standards Authority.
- Use national, regional and international harmonised standards as relevant basis for the development of technical regulations.
- Ensure that all standards are developed and periodically reviewed to ensure continuous conformity with technological developments, market trends and international requirements.
- Encourage the Ghana Standards Authority to provide the framework required to develop and publish national standards and other normative documents on a national level, and to regularly review and update same.
- Ensure that their standardizing bodies accept and follow the Code of Good Practice for the Preparation, Adoption and Application of Standards as provided in Annex 3 of WTO Agreement on Technical Barriers to Trade;
- Ensure that no other Ministry or Agency publishes normative documents that purport to be Ghana Standards or references standards other than national standards, except in cases where there are no national standards.
- Ensure that the Ghana Standards Authority participates in the process of developing regional and international standards on behalf of Ghana.
- Ensure that, to develop national standards, the Ghana Standards Authority establishes the relevant technical committees, in line with approved guidelines and rules based on the WTO TBT Agreement requirements and ISO/IEC Directives.
- Encourage Ministries, academic and scientific institutions and industry to commit to actively participate and/or sponsor technical committees.

5.4 Accreditation

Policy Context

Ghana is in the process of establishing a national accreditation body. Accreditation is an independent third-party attestation of the technical capabilities of conformity assessment service providers to carry out specific tasks. Public and private laboratories currently seek accreditation from outside the country at exorbitant costs, hence the establishment of a national accreditation body is timely.

Policy Objective

To establish an internationally recognised accreditation body providing accreditation services in the subregion within the next 5 years.

Policy Prescriptions

Government will

- Develop and promulgate legislation that would regularize the status of the Ghana National Accreditation Service.
- Encourage the Ghana National Accreditation Service to work in accordance with international standards and pursue international recognition.
- Ensure that no Ministry or Agency shall establish or be allowed to pursue activities that are akin to the accreditation of conformity assessment bodies.
- Ensure that the governance of the Ghana National Accreditation Service shall be set up in such a way to facilitate international recognition.
- Ensure that the Ghana National Accreditation Service shall establish the relevant technical committees to handle all required sectors to be accredited, such as test laboratories, calibration laboratories, bodies for the certification of products and management systems, inspection bodies and bodies carrying out training and certification of quality related personnel.
- Encourage the Ghana National Accreditation Service to cooperate closely with

Ministries and their Agencies in developing accreditation programmes.

5.5 Conformity assessment

Policy Context

A well-established conformity assessment infrastructure is made up of adequate numbers of private and public conformity assessment bodies which have been accredited for specific tasks. However, there is lack of incentives for private sector participation in conformity assessment service provision.

Many regulatory agencies maintain laboratories, however the capacity required to satisfy the more developed markets or to test all products that have a bearing on the safety and health of Ghanaian consumers, is still inadequate. A major challenge, is the maintenance and proper calibration of test equipment. The infrastructure to provide these services are inadequate.

Policy objectives

To ensure that conformity assessment services demonstrate the quality of products and services independently.

To ensure that conformity assessment services provision are transparent, non-discriminatory and avoid unnecessary barriers to trade.

To create a level playing field to encourage the private sector to participate in conformity assessment (testing, calibration, inspection, verification and validation or certification) services.

Policy prescriptions

Government will

- Develop legislations to regulation for conformity assessment bodies to ensure their operations are based on national standards and guidelines.
- Encourage conformity assessment bodies to obtain and maintain accreditation to minimize the need for retesting or recertification.
- Ensure that conformity assessment services are provided by laboratories, inspection and certification bodies both in the private and public domains that demonstrably fulfil the requirements of the relevant international standards.
- Establish, maintain and continuously improve the conformity assessment service provision and all quality infrastructure related institutions in the public domain.
- Create a policy environment that will not hinder, but facilitate the development of private conformity assessment service providers, whiles enhancing the capacity of the public institutions.
- Utilize the services of private conformity assessment bodies in public procurement and the enforcement of technical regulations.

5.6 Technical Regulations and Good Regulatory Practice

Policy Context

Ministries, Departments and Agencies are involved in the development and enforcement of technical regulations. The mandates of some of the key QI Institutions are not clear enough to eliminate overlapping functions. Currently, there is no specific regulatory framework for technical regulations that coordinate the mechanism for developing and enforcing TRs in Ghana. The use of a regulatory framework with guidelines for developing technical regulations will bring about uniformity in the development process and enforcement procedures. Collaboration of all stakeholders with a multi-sectoral approach, will create openness and understanding of issues at stake to promote easy compliance. Market surveillance, an integral part of enforcing technical regulations, is not effectively conducted.

Policy Objective

To develop a Technical Regulatory Framework with guidelines for the development, enforcement and monitoring of TRs to streamline the regulatory regime in the country.

Policy Prescriptions
Government will:

a) Develop, in line with international best practice, a technical regulatory framework that will be the basis for coordinating the development and enforcement of technical regulations.
b) Improve the existing market surveillance regime to promote effective enforcement of technical regulations.
c) Ensure that a transparent Regulatory Impact Assessment process and regime becomes operationalized in MDAs and regulatory bodies.

6.0 CROSSCUTTING ISSUES

These are issues that cut across the main technical components of the NQI and promote effective operation of the quality infrastructure. These thematic areas include:

a. Micro, Small, Medium and Enterprises (MSME)
b. Precision Quality, Quality Promotion and Quality Culture;
c. Education, Training and Human Resources development;
d. Financing the NQI;
e. Information Network;
f. Legal Framework for QI Institutions;
g. Research and Development
h. Quality Awards;
i. Role of International Standards Setting Organizations;
j. Stakeholders' Dialogue.
k. Gender

6.1 Micro, Small, Medium Enterprises (MSME)

Small, medium and micro enterprises constitute the bulk of Ghanaian industry. Hence, the government will introduce special incentives to support the implementation of quality management systems into MSMEs and to enhance the quality of their products without distorting the market for conformity assessment services.

The support provided by the government will consist of rebates offered to MSMEs once they have demonstrably complied with quality requirements. These rebates will be made up of initial percentage payback after certification, and further percentage payback after three years if MSMEs maintained their certification.

In determining the scope of technical regulations the government will consider lowering the requirements for micro enterprises or even waive them altogether if it can be shown that it will not lead to widespread deceptive practices. Health and safety considerations will be excluded from such considerations

6.2 Precision Quality, Quality Promotion and Quality Culture

6.2.1 Precision quality

Precision quality highlights the value of precision industries and quality products and services in job creation. It places focus on precision in industry, services and processes to ensure that goods, services and products are of world-class quality. To guide the attainment of precision quality for MSME's standards and educational materials shall be developed. Government shall ensure that precision quality is embedded in all industries, especially MSME's.

6.2.2 Quality Promotion and Quality Culture

Quality promotion and quality culture are very important for a sustainable QI in a country. One of the major constraints that regulators in quality infrastructure face is low level of public awareness, market information and advocacy on the importance of safe and good quality products. As a result, consumers are unknowingly exposed to cheap, unsafe and substandard goods and services that tend to pose public health hazards.

It is therefore very important to create quality consciousness among public, consumers, traders, manufacturers, trade and professional associations in the electronic and print media. This makes all stakeholders and decision makers adequately aware of the importance and benefits of a functional National Quality Infrastructure.

Quality conscious consumers will make demands that serve as catalyst to compel, manufacturers, producers and traders to focus on quality. Accredited organisations will be encouraged to lead the awareness creation.

6.3 Education, Training and Human Resource Development

Training of personnel in Quality Infrastructure related subjects in Ghana is inadequate. Quality as a subject must be introduced at all levels of the education ladder. In addition, short courses on standards, technical regulations, conformity assessment, accreditation and calibration, should be offered to relevant officers. This will help create a labour force for the QI institutions.

In order to facilitate such training programmes, it may be advisable to encourage interested Ghanaians to liaise with the Ministry of Education to publish simplified books on Quality Infrastructure.

There is paucity of local consultants in the area of management systems certification or accreditation to establish the capability of companies.

Government and the QI Institutions will:

- Undertake awareness campaigns and trainings with the view to raising knowledge and awareness of quality in society.
- Create and conduct capacity building programmes in QI institutions including preparation and publication of technical brochures, manuals;
- Promote application of quality tools to improve products and services through training of industry personnel.
- Support consumers and consumer organizations to disseminate knowledge and information about standards and quality;
- Create national pools of experts in quality management to support producers and services to apply quality management systems;
- Encourage close involvement of the private sector in all relevant initiatives.

6.4 Financing the NQI

The government shall be responsible for financing the development of, and upgrading and restructuring, the existing NQI institutions within the public sector. Government will mobilize resources from public funds, development partners and the private sector for the implementation of the National Quality Policy.

Government will encourage public-private collaboration in the financing and delivery of QI services. However, the government will retain full responsibility for the funding of:

a) The development and publication of national standards;
b) The establishment and maintenance of the national measurement standards;
c) The legal metrology services, in so far as they cannot be funded through the fees and levies paid by the users of measuring equipment;
d) The establishment and short-term operational expenses of the National Accreditation Body;
e) The participation and maintenance of the membership of the National Standards Body, National Accreditation Body, National Metrology Institute, and other relevant institutions in regional and international organizations;
f) Strategic conformity assessment areas that are not commercialized, until such a time that government redesignates those areas; and
g) The establishment of a proper market surveillance system to ensure that technical regulations are enforced.

In order not to distort the market, and to provide for a steady flow of internally generated funds for the NQI institutions, government institutions that make use of the conformity assessment services of the NQI, must pay for such services. Pricing shall be set by the NQI institutions.

6.5 Information Network

A national information network shall be created on quality infrastructure database where stakeholders can share knowledge and experiences. Facilities used by the Notification authorities and Enquiry Points for TBT, SPS and National Codex Contact Point to supply information should be improved and upgraded for easy flow of information to all stakeholders and interested parties. Government may put in place an enabling environment that allows extended media coverage for quality information dissemination.

6.6 Legal Framework for QI Institutions

Legislation on QI Institutions have to be specific and relevant at all times. Some of the existing legislations are old and need review to allow concerned organisations to function effectively. New legislation for a National Accreditation Body, a National Metrology Institute and Good Regulatory Practice need to be developed in line with international best practices. Institutional functions shall be clearly defined and aligned so as to eliminate the inherent overlapping of functions.

6.7 Research and Development

To sustain the operations of the elements of QI in the country, continuous improvement is needed. In this regard, research and development (R&D) will be made an integral part of the implementation of the NQP. Internal and external R&D measures will be identified and addressed.

Internal R&D will seek to address reducing waste; improving service delivery; identifying and incubating new businesses; and researching into competitiveness and innovative matters.

External R&D will seek to address partnership and collaborative activities between academia and other research institutions. QI institutions will serve as solution hubs for industry.

6.8 National Quality Awards

National Quality awards are marks of recognition conferred on organisations that have performed excellently. Applicant's performance is usually assessed in relation to a set of criteria to determine awardees. The scheme for quality awards is meant to introduce competition in quality promotion and it encourages organisations to continuously improve on their performance. Government will continuously provide support for the National Quality Awards Scheme

6.9 Role of International Standards Setting Organizations

International standards organizations play a major role in the effective operation of NQI. These organizations are concerned with product, system and measurement standards as well as other normative documents which are made available to members and encourage members to participate.   Memberships offer access to database of standards and other documents, and the opportunity to make input into QI related matters.

6.10 Stakeholders' Dialogue

Government shall promote a public-private collaboration in implementing the National Quality Policy, as well as establish an effective coordination mechanism with the private sector, development partners, NGOs, consumer organizations, civil society and business associations. In this regard, the National Quality Infrastructure Committee will play an important role. In particular the government shall:

a) Support and encourage the private sector to implement national standards and adopt quality management systems.
b) Ensure that interests of consumers are represented at appropriate fora.
c) Improve the quality of products, hasten the introduction of international best practices in the field of quality.
d) Encourage the private sector to participate actively in representative structures and technical committees dealing with standardization, accreditation and conformity assessment.
e) Encourage the private sector to invest in the development of quality infrastructure.
f) Mobilize resources from public funds, international development partners, and the private sector, for the implementation of the National Quality Policy.

7.0 INSTITUTIONAL FRAMEWORK FOR THE IMPLEMENTATION OF NQP

7.1 Establishment of a National Quality Committee (NQC)

The Ministry of Trade and Industry will set up a National Quality Committee made up of NQI Institutions. The NQC will develop strategies and promote overall quality initiatives and ensure that objectives in the Implementation Matrix of NQP are adequately achieved. The structure of the NQC shall demonstrate a representation of key players from both the public and private sectors.

7.2 Objectives of the National Quality Committee

The objective of the NQC is to Coordinate all NQI matters and ensure that the components of NQI are properly established and made to collaborate and operate in an interrelated and recognised manner.

8.0 TERMS AND DEFINITIONS

1. **Accreditation:** means a procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks

2. **Calibration:** means a set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring instrument or measuring system, or values represented by a material measure or a reference material, and the corresponding values realized by standards.

3. **Certification:** means a procedure by which a third party gives written attestation that a product; process or service meets specified requirements.

4. **Conformity Assessment:** means the demonstration that specified requirements relating to a product, process, system, person or body are fulfilled.

5. **Inspection:** means the examination of a product design, product, process or installation and the determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements.

6. **Metrology:** means the science of measurement and includes scientific, industrial and metrology. No testing would be possible unless the characteristics of the product or service in question can be measured in a way, which compares them against physical or chemical reference of known values. Therefore, adequate methods for measuring the properties of products and services are fundamental to the quality assessment process.

7. **National Metrology Institute** means institution designated by national decision to develop and maintain national measurement standards for one or several quantities.

8. **National Quality Infrastructure (NQI)**: The totality of the institutional framework (public or private) required to establish and implement **standardization, metrology** (scientific, industrial and legal), accreditation and conformity assessment services (**inspection**, **testing** and product and system **certification)** necessary to provide acceptable evidence that products and services meet defined requirements, be it demanded by authorities (technical regulation) or the market place (contractually or inferred). The NQI is the key tool for the implementation of the National Quality Policy.

9. **National Quality Policy (NQP**): An official national document adopted at a highest level of a Country (Government or National Assembly) which gives the general visions on quality and technical regulation issues that are in coherence with the general national policy adopted by the national authorities in all the areas. The NQP helps for the definition of

objectives and results to be achieved, as well as the necessary resources to be mobilized in the field of quality.

10. **Quality** means the degree to which a set of inherent characteristics fulfills requirement.

11. **Regulator** means authority that carries out the mandate given under the law to oversee implementation and administration of technical regulations and includes national and provincial government departments, local authorities and regulatory agencies established by legislation.

12. **Standard** means a document established by consensus and approved by a recognized body that provides for common and repeated use, rules, guidelines or characteristics for activities or their results aimed at the achievement of the optimum degree of order in a given context.

13. **Standardization** means the activity of establishing, with regard to actual or potential problems, provisions for common and repeated use, aimed at the achievement of the optimum degree of order in a given context.

14. **Standards Body** means a standardizing body recognized at national, regional or international level that has as a principal function, by virtue of its statutes, the preparation, approval or adoption of standards that are made available to the public.

15. **Technical Regulations** means document that lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.

16. **Testing** means the determination of one or more characteristics of an object of conformity assessment according to a specific procedure.