



Quality for Africa

The economic changes taking place in Africa demand new answers and measures that will improve the framework conditions for economically, ecologically and socially sustainable development. The work done by PTB's International Cooperation Department on the African continent draws on almost 50 years of experience. QUALITY FOR AFRICA turns this experience into

concepts which it uses together with realistic estimates to support Africa's prospects and potential. QUALITY FOR AFRICA determines the key parameters for collective action, and incorporates aspects of sustainable ecological growth and social development.

In developing countries, large-scale growth which reduces poverty, yet which is ecologically and socially sustainable, is only possible with a functioning system of quality infrastructure (QI). To date, Africa's economic development has been hampered by ineffective integration in the world economy. Africa makes up only around 3% of the world's trade; intra-African trade amounts to only 0.5% of total world trade. An increased exchange of goods and services within Africa is an important intermediate step towards better integration of Africa into the world economy. This goal is being pursued by many regional economic communities (RECs) in Africa and is meant to bring about a marked increase in production, particularly that of finished and semi-finished goods. Numerous policies as well, such as the African Union's *Action Plan for Boosting Intra-African Trade* (2012), are setting examples for activating regional trade. The RECs with their free trade areas form an important point of departure for reaching the goal of a pan-African *Continental Free Trade Area (CFTA)* in stages.

“The removal of tariff and non-tariff barriers to trade, as well as of measures that might distort trade, is important to realize the development potential of Africa” [2011, Germany and Africa: A Strategy Paper by the German Government, p. 13]

However, for successful regional economic integration and trade cooperation, the removal of trade barriers and of unjustified sanitary and phytosanitary (SPS) measures is of vital importance. This includes, for example, the harmonization of quality standards, as well as the harmonization of legal requirements for the constituents of individual products. Yet measures such as these often cannot be guaranteed by African QI institutions, as the services provided to verify product conformity to international requirements are frequently insufficient, or do not meet international requirements themselves.

The ecologically sustainable development of Africa is being impaired due to insufficient protection of the environment and of the climate. Furthermore, Africa's GDP is expected to triple by 2030 – a development that will be accompanied by a marked increase in energy consumption. For this reason, the requirements of the African Union's Agenda 2063 combine the goals of sustainable economic growth with the priorities of ecological sustainability, environmental protection and expansion of renewable energy sources.

Nevertheless, many African countries continue to be highly dependent on fossil fuels; the low percentage of renewable energy sources used, a lack of environmental consciousness, and insufficient testing and monitoring of the environment result in contamination of natural resources and habitats. A functional QI is necessary both for expanding renewable energy sources and for enhanced protection of the environment, yet is still insufficiently developed in many African countries. This means that it is often not possible to check the performance and safety of solar power facilities, to name one

example. Data on the status of the environment, which is necessary for environmental protection, cannot be collected.

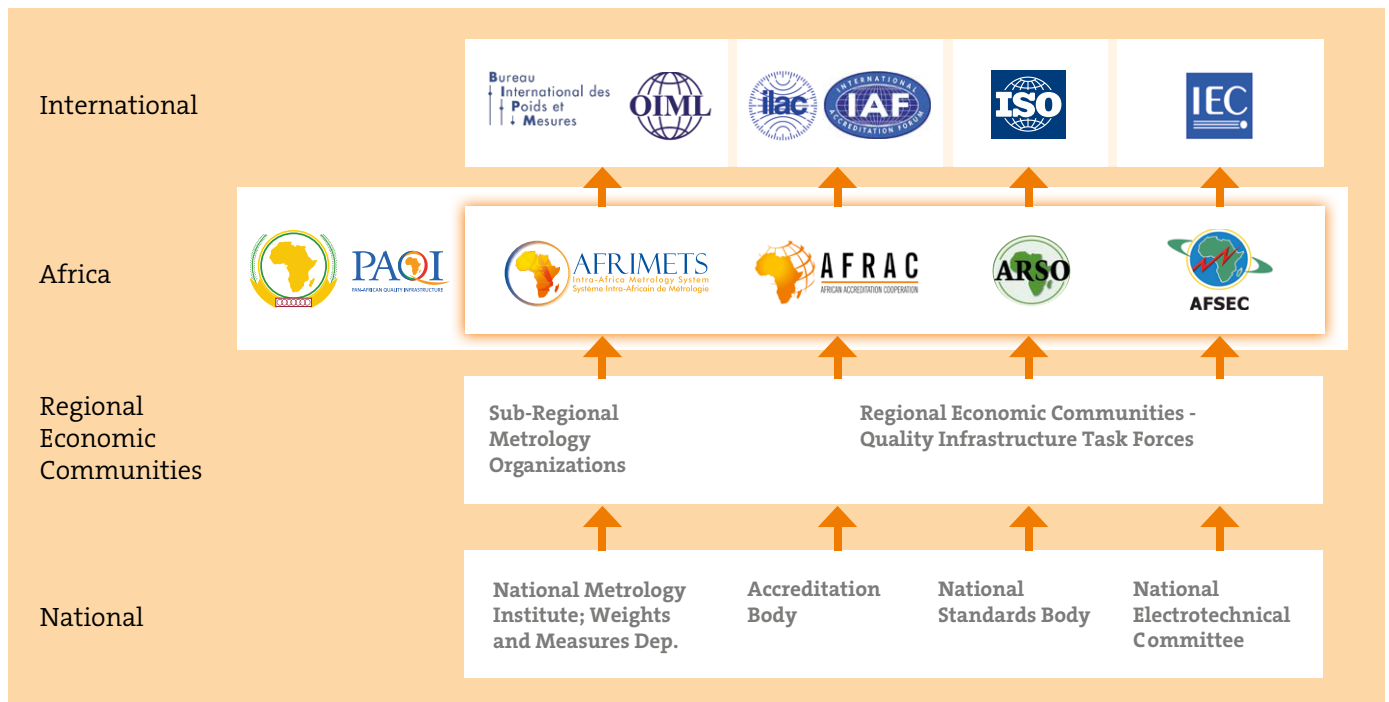
To achieve socially sustainable development in Africa, health protection must be ensured – yet life expectancy in almost all Central and West African countries is under 60 years. Effective healthcare requires functional institutions which provide medical diagnoses and treatment. For example, blood samples must be analyzed in such a way that reliable results are obtained which permit a correct diagnosis to be made. In addition, effective market supervision is necessary to protect the population from counterfeit and substandard medications, since many imported or locally produced medications do not fulfill international standards. In these areas as well, many QI institutions are not yet sufficiently developed to improve the health of the population.

Not every country is able to establish and maintain the full infrastructure for ensuring quality (or is required to do so), and not every country is able to mobilize the technical expertise that is needed for qualified participation in international expert committees. Here, there is enormous potential for tasks to be divided – potential that should (and must) be used within the scope of regional and pan-African cooperation.



© PTB/Ralf Bäcker

The cooperation landscape of PTB in Africa



© Physikalisch-Technische Bundesanstalt

Our Contribution: Assisting Development

The Federal Ministry for Economic Cooperation and Development (BMZ) is the largest bilateral donor in the field of quality infrastructure in Africa. PTB's outstanding technical expertise, combined with its strong connections in international professional networks, forms the starting point for successful and sustainable development cooperation.

In accordance with the founding treaty of the African Economic Community (Abuja Treaty, 1991), PTB supports the efforts of Africa to coordinate important QI elements throughout the entire continent and to participate in international quality infrastructure bodies. Here, African countries are not only intended merely to be members of the network of international professional associations, but qualified pan-African interest groups also ensure that these countries act together in a coordinated and harmonized way, thereby increasing awareness of the voice of Africa.

To fulfil these aspirations, PTB's QUALITY FOR AFRICA concept is based on a multi-level approach whose levels are interconnected in terms of their synergies and subject areas.

MACRO-LEVEL | PAN-AFRICAN LEVEL

In line with the development of the African continent, the Federal Republic of Germany supports the establishment of all pan-African QI institutions. Since 2013, in a development parallel to that of other continents, the four pillars for determining quality have been in place which together form the Pan-

African Quality Infrastructure (PAQI) forum. PAQI is the recognized platform for all aspects of standardization, metrology, accreditation and conformity assessment [Declaration of the Conference of African Ministers of Industry, 2013].

MESO-LEVEL | REGIONAL LEVEL

QUALITY FOR AFRICA supports the establishment of sub-regional professional associations. PTB's aim in this process is to connect these professional networks closely to the RECs, so as to achieve the highest possible level of impact. The RECs thus have a vital interest in having a functional and mutually recognized quality infrastructure in their communities.

For the creation of development-enhancing framework conditions, international structures and regulations will be taken into account. The aim of this process is not to establish comprehensive testing and measuring capabilities in every member state of an REC, but to establish such capabilities only in special sectors of the economy within the scope of a division of labour. The same applies to accreditation and certification bodies and to their staff of trained and recognized auditors and assessors.

One essential component of consulting on economic and development policy consists in identifying particular synergies. Other components are the division of resources and the selection of economic sites – two factors which, in the economic communities, are usually seen under political aspects.

Targeted support of the individual RECs in the field of quality infrastructure creates the opportunity to promote the division of labour and to establish the mutual recognition of services and certificates on the basis of technical criteria. In this way, the political and economic agenda of the economic communities is furthered by means of presentable, reliable and rapid results.

PTB is active in nearly all of the RECs via a variety of measures, each of which has a different sectoral emphasis.

MICRO-LEVEL | NATIONAL LEVEL

PTB supports national QI institutions by carrying out bilateral measures of its own. Depending on the initial situation, these activities encompass either the establishment/expansion of facilities for ensuring consumer protection, or the support of testing and calibration services in special economic sectors within the scope of important value chains. Due to the multi-disciplinary character of QI, this support comprises the promotion of trade, rural development, agricultural value chains, environmental testing capabilities, solar power and the healthcare and pharmaceutical sector. These undertakings are closely connected to the target group, to the corporate economy and to associations in civil society.

By carrying out comparison measurements and performance tests, national services are integrated into regional measures. In this way, national QI institutions are introduced into regional networks, and the technical expertise which has been established on a national level is used to strengthen regional networks.

INTERNATIONAL LEVEL | STRATEGIC ALLIANCES

QUALITY FOR AFRICA is not an isolated concept. PTB works in close coordination with other bilateral and multilateral donor organizations to ensure the division of labour and consistency of the concept. Furthermore, PTB uses its renown among international specialist organizations to give a voice to the interests of Africa in collaboration with these organizations. To this end, strategic alliances are pursued wherever they are meaningful.

The Impact of Our Work: Making Participation Possible

Defining “quality”, an abstract term, and making it verifiable is a challenge. We have taken on this challenge with success. Strategic consultancy and awareness-raising services provided to the African Union Commission (AUC), to the regional economic communities and to their regional specialized associations have demonstrated their impact. Avoidance of technical barriers to trade and unjustified sanitary and of phytosanitary (SPS) measures is the central issue not only in the scope of negotiations on the African free trade area but for all relevant regional economic communities.

Regional networking of QI institutions is advancing noticeably and coming to fruition: regionally available QI services are being increasingly used by African institutions, even across borders. Dependence on Europe in this area has decreased, and cost reductions for the users have been made possible.

On the national level, the number of qualified laboratories and testing centres is growing in order to provide proof of the conformity of products and services to the required standards and requirements.

The Pan-African Quality Infrastructure Forum has become the central contact partner organization not only for all technical matters but also for QI governance within Africa.

Although QUALITY FOR AFRICA is not a utopia, it still requires a sustained, collective commitment.



© PTB/Ralf Bäcker