



Calidena – Closing Quality Gaps Jointly

One of the main prerequisites for participating in the global economy is an efficient and internationally recognised quality infrastructure (QI). In order to comply with increasingly complex quality requirements demanded by clients and consumers in domestic and foreign markets, the producing sector essentially depends on access to various conformity assessment services (e.g. testing, calibration and certification). These services are usually provided by specialised private or public QI institutions and they need to be based on user-orientation and internationally recognized quality criteria. However, in many developing countries and emerging economies, quality-related services do not always comply with international standards and user requirements.

The challenge is twofold. On the one hand, QI institutions are insufficiently consumer-oriented, meaning that their services do not satisfy the needs of their potential clients. On the other hand, the private sector is not sufficiently aware of the key role of quality-related services as a prerequisite for consumer protection and their (international) competitiveness. This challenge can be addressed by studying quality requirements along value chains. Assessing where QI services are needed to address these requirements and prevailing gaps gives stakeholders – both QI providers and demanders – the means to practically understand why QI services play such an important role.

Calidena is a participatory methodology developed and implemented by the *Physikalisch-Technische Bundesanstalt (PTB)* to stimulate quality in value chains. The methodology can be used in projects that intend to strengthen the user orientation of the national QI, and in value chain initiatives that aim at closing quality-related gaps. It seeks to systematically and sustainably support the improvement of the QI in developing countries and emerging economies by addressing quality aspects along an exemplary value chain. The goal of the process is to directly address these quality topics through relevant QI services. The process is structured into three phases: preparation, a participatory workshop and follow-up. The whole Calidena process should be limited to 18 months.

Calidena also attracts different stakeholder groups along the value chain and, therefore, promotes a dialogue among clients and suppliers of QI services. The target groups are the providers of QI services and their users as well as representatives of public and private business support organisations. Interaction between users and suppliers is aimed at improving the latter's understanding of the services needed by their potential clients and promoting actions to foster quality services according to users' needs. The collaboration also helps to increase awareness of the benefits of using standards and conformity assessment services which are designed to increase the demand for QI services in the long run. The establishment of cooperation and coordination activities among quality service suppliers constitutes a central aspect of Calidena. It is geared towards the initiation of a collaborative and systematic process of the national QI development and the creation of an enabling environment for doing business. In the long term, improved quality services enable the private sector to better comply with national and international quality requirements, to increase its competitiveness in domestic and foreign markets, and to enhance its performance as well as foster the broader economic development of the country.

Calidena is applicable to export and domestic value chains. Moreover, the methodology can also be applied to the context of public good provision, for instance in the area of energy and water management. It is also possible to expand QI services within the regulated sphere, such as through promotion of the accreditation of the laboratories and inspection bodies of the public authorities. Although Calidena has been predominantly applied to agricultural value chains in the past, it is also increasingly being implemented in the context of a circular economy (e.g. renewable energies, waste management, etc.).

What can be achieved through Calidena?

- Dissemination of a quality culture among (small) enterprises and consumers
- Increase in demand for QI services by stakeholders from the value chain and improving existing QI services or even creating new ones (which can also be relevant for other value chains)
- Enabling of access to new markets and clients by meeting higher quality standards
- Upgrading of national value creation and productivity through improved resource efficiency and product quality
- Contribution to enhanced environmental protection and social welfare.



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PTB – the National Metrology Institute of Germany

As Germany's National Metrology Institute, PTB has been Germany's highest authority for over 125 years when it comes to correct and reliable measurements. It is the supreme technical authority of the Federal Ministry for Economic Affairs and Energy and employs a staff of approx. 1900.

International Cooperation of PTB

PTB supports developing and emerging economies in the comprehensive field of QI and thereby contributes to sustainable economic, social and ecological development. It is committed to the development policy of the German government and pursues international goals (Sustainable Development Goals, Paris Declaration).

More detailed guidelines, templates and case studies are available at www.calidena.org.

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