INTERNATIONAL COOPERATION

Physikalisch-Technische Bundesanstalt
National Metrology Institute

Rapid Quality Infrastructure Market Potential Assessment for Georgia

Executive summary of the scoping study on QI services for green and digitalized value chains

Project: Quality Standards for Increased Trade in the Eastern Partnership Countries, PN: 2021.2236.4

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1 PRELIMINARY REMARKS

The European Union (EU) is working with Eastern Partnership Agreement (EaP) countries (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, and Ukraine) to promote environmental and climate resilience and digital transformation. In this context, PTB is implementing the project "Quality Standards for Increased Trade in the Eastern Partnership Countries", PN: 2021.2236.4. This project aims to build the quality infrastructure (QI) necessary for a sustainable and digital transformation.

This study describes the potential of the QI of Georgia to make a significant contribution to green and digital transformation. The QI services are crucial for an economy based on the division of labour to function efficiently and effectively. Standards, measurement, and testing ensure trust between economic actors and smooth production and distribution flow. Sustainable production methods require appropriate evidence to prevent greenwashing. The digitalisation of the economy and the QI services is also necessary here. Ultimately, QI enables EaP countries to participate in international trade and to develop national economies sustainably. The study analyses existing publications and policy documents on the country's economy, development, and quality infrastructure and interviews conducted in Autumn 2022. The research is guided by the Calidena Guide and Toolbox (www.calidena.ptb.de).

2 NATIONAL ECONOMY AND QUALITY INFRASTRUCTURE ASSESSMENT

The diversification of markets and introduction of innovative products is crucial for the development of Georgian economy especially in view of the green and digital transformation. With the existing Free Trade Agreements (FTAs), among which the most important one is the Association Agreement (AA)/Deep and Comprehensive Free Trade Area (DCFTA)

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with the EU, the favourable conditions for the growth of export increase in developed countries exist. The dependence on inputs originating in Turkey does not present much impediment with the mechanism of Diagonal Cumulation in place that provides significant opportunities for the Georgian manufacturers to consider expansion of their markets to the EU countries for industrial products[1]. Furthermore, the strong governmental support through Enterprise Georgia provides important incentives for the development of the private sector. According to the "Economy 2030" document the priority sectors with significant potential for export growth and import substitution among other products include construction materials; metal, plastic, rubber and glass primary products and furniture[2].

The Climate Change Strategy of the Government aims at reducing GHG emissions to 35% below 1990 levels by 2030 for all the key sectors of the economy that includes the support in developing low-carbon approaches in the construction and industrial sectors through the promotion of climate-smart and energy-efficient technologies and services. The actions cover: the development of energy efficiency certification of buildings and certifying personnel for conducting energy audits, studying the emission factors in the industrial sector, supporting waste recycling, etc[3]. At the same time, digitalization is a key priority for the Government of Georgia.

According to the GQII 2020[4], Georgia ranked 80 from the 184 economies of the world. In recent years the significant progress has been achieved by the Georgian QI institutions in achieving international recognition, namely:

- LEPL[5] Unified National Accreditation Body - Accreditation Center (GAC)[6] is;
    - A member of European co-operation for Accreditation (EA) and a signatory to the EA Multilateral Agreement (MLA)
    - A full member of International Laboratory Accreditation Cooperation (ILAC) and a signatory to the ILAC Mutual Recognition Arrangement (MRA)
    - A full member of International Accreditation Forum (IAF) and a signatory to the IAF Multilateral Recognition Arrangement (MLA).

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[1] The scope of Diagonal Cumulation does not cover agricultural products.

[2] Ministry of Economy and Sustainable Development of Georgia, news of 06.07.2021, presentation available.

[3] Georgia's 2030 Climate Change Strategy, 2021.

4 The Global Quality Infrastructure Index (GQII) is based on the official data from national and international accreditation, standardisation and metrology bodies. For additional information, see https://gqii.org/programme/

[5] Legal Entity of Public Law

[6] The detailed information on GAC activities can be accessed at www.gac.gov.ge

- LEPL Georgian National Agency for Standards and Metrology (GeoSTM) includes National Metrology Institute and Standards Body[7]:
  - Metrology – GeoSTM is an associate member of General Conference on Weights and Measures (CGPM), has joined Mutual Recognition Arrangement (MRA) of International Committee for Weights and Measures (CIPM) since 2008, has published 65 Calibration and Measurement Capabilities (CMCs), permanently participates in international Interlaboratory Comparisons (ILCs). The active measures are undertaken for becoming the member of European Association of National Metrology Institutes (Euramet).
  - Standardization – GEOSTM is a correspondent member of International Organization for Standardization (ISO), an associated member of International Electrotechnical Commission (IEC), an affiliated member of European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC).

Noteworthy to mention that some services of QI institutions are exported, mainly in the neighbouring countries (E.g., by National Metrology Institute, private calibration laboratories). Nevertheless, in some cases QI is still more supply-driven and the demand on services is initiated to a lesser extent by the users/industry. In view of this, the objective of the project is to support the strengthening of the relationships with the industries by making them more knowledgeable about the QI as well as providing opportunities to the QI institutions to address the needs of specific value chains, when feasible.

The conformity assessment services available in the country do not fully cover all the industrial products and all parameters, and therefore it is perceived as the key impediment for verifying the conformity of some products with the defined characteristics that subsequently affects competitiveness (e.g., since the large size samples are transported abroad for conformity assessment, the cost of the product increases while the imported products are already accompanied with the relevant conformity assessment documents). The development of conformity assessment services is important for the country and the priority areas have been defined that include construction materials, packaging materials, textile, wood, and furniture products, etc[8]. The conformity assessment also envisages CE marking

[7] The detailed information on GeoSTM activities can be accessed at www.geostm.ge

[8] Mission Report "Supporting Ministry of Economy and Sustainable Development in Conducting the Capacity and Needs Assessment of Georgian Laboratories Performing the Conformity Assessment in the Industrial Products", dated 8.12.2021.

being important for the products to be exported. Such service is delivered by the notified bodies which are not available in Georgia at present[9].

In addition to the conformity assessment, the following issues are on the agenda for further development: the transition from GOST to ISO/EN standards by industrial sector as well as conformity assessment bodies (undertaken gradually); the lack of the availability of ISO or EN standards in Georgian language (translation undertaken gradually), the interpretations of standards, elimination of improper practices of management system certifications in private companies[10].

Last but not least, in general, the approximation with the EU legislation envisaged under the DCFTA and full enactment of the adopted regulations is a challenge across different sectors and public institutions (e.g., the awareness of the private sector about the legislation and pending changes, the product conformity with the legislation requirements and international/EU standards, full implementation of market surveillance, lack of relevant testing services, etc.).

3 QI MARKET POTENTIALS PROVIDING SERVICES FOR GREEN VALUE CHAINS

Based on the assessment of the national economy, including the government's policy development priorities and development cooperation priorities, as well as the interviews conducted with the stakeholders, the consultancy identified three (3) value chains (construction materials, packaging materials, furniture) for the rapid QI market potential assessment according to the following criteria:

- High importance for the country's gross domestic product and employment
- High significance for the country's foreign (export and import) or domestic trade
- Prioritisation by national development planning. Political support
- High priority for the green transformation and digitalisation
- Increased need for action around safety, health, environmental protection, and quality
- Existing support through development policy programmes and projects (GIZ and others)
- Interest from critical actors in the value chain to participate in the Calidena process in the framework of the PTB project.

[9] The information on notified bodies can be accessed at NANDO webpage https://ec.europa.eu/growth/tools-databases/nando/

[10] The certificates are not issued by the certification bodies accredited in Georgia.

Construction Materials. Georgia has experienced the boom of construction industry with its share to GDP on average being 7.5% during 2016-2021 years[11]. The demand for construction materials and its economic development is obviously derived and closely intertwined with the dynamics of the construction industry. In view of the green deal, the sector is very important in terms of green transformation, circular economy, reduction of the emission of the buildings, and energy efficiency.

A major part of the locally produced construction materials is sold on Georgian market, however, they face fierce competition from imported products. At the same time, some export trends are also demonstrated. The quality of construction materials is paramount from safety, health, environmental perspectives which is not always perceived adequately by B2B customers, consumers or public procurement.

The Government of Georgia adopted the Resolution N476 on "Approving Technical Regulation of Construction Products"[12], harmonised with the EU Regulation N305/2011 and at present covering: cement, reinforced steel, electric cables, plastic pipes, and gypsum plasterboard[13]. It is expected that gradually it will encompass other construction products as well.

The lack of laboratory testing services for some products and parameters is considered to be the biggest obstacle by the construction product manufacturers. Despite the fact that construction material testing laboratories exist in the country, there are tests which are not conducted in Georgia, e.g., fire resistance testing for doors, sandwich panels, an important precondition for participating in the public procurement or hotel tenders in Georgia. For the export, CE Marking is required – a service to be acquired abroad.

The management system certification (e.g., ISO 9001, ISO 14001, ISO 45001) is important for companies. There are some companies that might also be interested in achieving the accreditation for their in-house laboratories according to ISO 17025 standard requirements.

Georgian Construction Materials Cluster (GCMC) established with the support of Clusters4Development project funded by the EU and the German Government and implemented by GIZ (the project ends in June 2023) has 17 SME members producing various types of products and makes attempts to address the QI needs of its members.

Packaging Materials. The packaging materials sector is dominated by the manufacturers of packaging materials for food and beverage and thus, the development of the value chain

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[11] PMCG Research, Construction Sector, Sector snapshots, Issue 5, June 2022.

[12] Market surveillance undertaken by LEPL Market Surveillance Agency.

[13] Certain types, not full varieties.

is linked to the growth and trends existing in agri-food sector. While majority of companies operate on the local market, there are some that export abroad. High dependence on imported raw materials is considered as one of the major impediments by packaging manufacturers. Disruptions in the raw material supply chains, unstable input prices and transportation costs have increased the costs of the final goods. The deficit in raw material supply is high which is further constrained by the lack of recycling practices. The collection of recyclable materials and their integration into the production process is practiced, but whether the recycled materials are food grade, is not being tested.

At present, the Technical Regulation No. 72 "Sanitary-hygiene norms of the Food Contact Packaging Materials" is effective, however, it will be replaced by the Government Resolution No. 317 "Requirements for Food Contact Materials and Objects" which is harmonized with the relevant EU regulations. Additionally, the Government of Georgia has adopted the Technical Regulation No. 472 on "Regulating Plastic and Biodegradable Plastic Bags". EN standard 13432:2000 “Packaging - Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging” referenced in this regulation, has been registered by GeoSTM.

The Extended Producer Responsibility mechanism in terms of packaging materials is not yet enforced. The complete list of the EU legislation requirements can be accessed at European Commission webpage[14], which gradually will be integrated into the Georgian legislation and will include also heavy metal restrictions, REACH[15] requirements, etc.

As stated by the representatives of the value chain, due to absence of state control, the competition is sometimes unfair which envisages dishonest practices of some private sector representatives not being controlled. E.g., despite the ban of plastic bags, while some manufacturers made efforts and spent financial resources to begin the production of biodegradable bags, plastic bags are still placed and sold on the market. This issue is also closely linked with the lack of testing services in the country, since the conformity to the defined requirements for the packaging materials cannot be verified and therefore to some extent has a negative impact on fair competition.

In general, the testing services, if required, are obtained abroad, mainly Turkey, e.g. migration tests, basic weight g/m^2, moisture, short span compression tests (SCT CD), etc. The service of microbiological testing of the food contact materials including the packaging materials can be provided locally by the Georgian laboratories.

[14] https://food.ec.europa.eu/safety/chemical-safety/food-contact-materials/legislation_en

[15] REACH - Registration, Evaluation, Authorisation and restriction of chemicals

As for the management system certification, some companies have ISO 9001, ISO 22000 certification. BRCGS Certification is also observed on the market (e.g. Caucaspack) [10].

The major QI gap for packaging material value chain observed is the lack of laboratory testing services in the country and low awareness of the legislation requirements among private sector representatives. It seems that the metrological services are not widely used as well by the companies, despite of having at least the scales in the production process.

Packaging Manufacturers Association of Georgia (PMAG) with its three clusters (Tbilisi, Kakheti, Imereti) is supported by the EU and UNDP which together with the donors and Enterprise Georgia make attempts to penetrate the EU markets.

Furniture. The sector is dominated by many small companies, and they are very much influenced by the construction and construction material sector trends, having some common products like doors, for instance.

In general, the dependence on imported inputs is a persistent challenge for furniture producers. The problems are related to the access of high-quality wood materials as well and competition with the low quality furniture imported from Turkey. Sometimes, solid wood is also imported since the local material is improperly processed or does not have Forest Stewardship Council (FSC) certificate (demanded in some cases for products to be exported). All these subsequently increases the cost of production.

The main market of trade for Georgian furniture value chain is Georgia, however, some companies have regular export abroad. In such cases the requirements regarding quality and stable supply are important to be met by the manufacturers.

At present QI services are basically not used by the value chain, except of some companies having ISO 9001 certification. For wood, phytosanitary certificates might be required to be issued by LEPL National Food Agency in case of export. FSC Certification and formaldehyde testing are sometimes further required for export products, none of them available in the country. The testing is neither undertaken nor highly demanded at present with imported raw materials accompanied by relevant certificates (e.g., FSC for timber, paints, etc.). Metrological services are not widely used, although the measuring devices are available in the production process.

Small companies find it difficult to retrieve information from the webpages about the quality requirements due to lack of time and language barrier. Considering the lack of knowledge about the requirements. It is important for the value chain to obtain the relevant information applicable for the export markets which might also be relevant for the domestic trade.

Georgian Furniture Cluster was created with the EU and GIZ support. In total there are 32 members in the cluster, however, some of them more actively cooperate with each other. The cluster management is motivated and dedicated to further continue the activities of the cluster as evidenced by the in-kind contributions provided by them.

4 RECOMMENDATIONS

In order to strengthen cooperation between QI institutions and private sector as well as encourage the initiation of demand on QI services from the private sector, PTB project intends to apply CALIDENA methodology and to work with the Georgian QI institutions on developing services required by the selected value chain.

The results of the evaluation of the preselected three (3) value chains are presented in Table 1. As evidenced, construction materials value chain secured the highest score. According to the undertaken assessment, construction material and packaging material value chains seem to have higher priority for green economy compared to furniture value chain. The construction materials sector was named by most of the QI institutions as a priority sector. Also, the employment rates, as research has indicated, prove to be much higher in construction materials sector than in the packaging or furniture value chains[16]. While none of the value chains are strongly export-oriented, the Diagonal Cumulation gives them the possibility to consider European countries for the expansion. In terms of SMEs, all three value chains are dominated by small and medium sized enterprises. Based on the interviews and desk research, it was clear that more diverse QI services were required by construction materials and packaging materials, however, further to that, it was evident that quality improvement needs and QI services were of higher importance to the construction materials sector, which was also demonstrated by the strong motivation of the private sector representatives to dedicate time and resources for the needed tasks. Presence of other donors in similar value chains being important for PTB for possible synergies is evidenced in construction materials (EU/GIZ, USAID) and packaging materials (EU/UNDP, USAID) including the support provided to the cluster/associations, while the Georgian furniture cluster is not provided any support at present.

In view of the above, understanding the importance and urgency of the topic which also includes the challenges of the existing and pending regulations to be enforced, it is recommended that the project considers construction materials as a first priority for the support. However, as a further step, the product or product groups should be identified within

[16] USAID Economic Security Program, Sector and Value Chain Analytics, The Fifth Analytical Report (Quarter III of 2021), February 2022.

the construction materials, understanding that the sector consists of the broad spectrum of products with different types of requirements.

Table 1. Matrix for the selection of the value chain

Criteria/Products	Construction Materials	Packaging Materials	Furniture
High priority for Green Deal or digitalization	3	3	2
The priority for the country and QI institutions	3	2	2
Employment rates	3	2	2
Real opportunities to export to Europe	2	2	2
Participation of SMEs in the chain	3	3	3
Diverse quality services required	3	3	2
Conscious need for quality improvement	3	2	2
Existing external support (donor funded projects)	3	3	2
Motivation of stakeholders for dedicating time and resources	3	2	2
Total (max. 27 points)	**26**	**22**	**19**

Note: Each criterion is scored from 0 to 3 (0 = not applicable, 1 = applies to some extent, 2 = applies in general, 3 = good conditions).