NATIONAL STANDARDIZATION STRATEGY 2022-2024

A national standardization strategy (NSS) is a policy roadmap for Georgia to make certain that its national strategic priorities are supported by relevant National, International Standards and European Standards.

GEORGIAN
NATIONAL
AGENCY FOR
STANDARDS
AND
METROLOGY
(GEOSTM)

Contents

Acronyms and Abbreviations	3
List of Tables and Figure	4
Introduction	5
Executive Summary	5
Part 1. Standardization in Georgia	1
1.1. NSB	1
1.2. NTC	1
1.3. GEOSTM's Membership & Partners	2
1.3.1. Membership	2
1.3.2. Commercial Agreement	3
1.3.3. Partners	3
Part 2. Overview of NSS	3
2.1. Introductions	3
Part 2. Applied Methodology	3
2.1. Economic priorities	3
2.2. Non-Economic Priorities	4
2.2.1. Introduction	4
2.3. Priorities Ranking and Definitions	4
2.4. Export and Import	6
2.5. Non-Economic Priorities	8
Part 3. Some Sectorial Overviews	9
3.1. Construction	9
3.2. Agriculture and Food Safety	10
3.3. Mining and Quarrying	11
Part 4. National Development Priorities	12
4.1. Approximation to the EU legislations	12
4.2. TBT area	12
4.3. Trade Policy	13
4.4.1. Free Trade and Role of Standards	14
4.5. SMEs Development	14
4.6. Electricity Sector and Renewable Sources	16
4.7. Road Transport Safety and CO2 Emissions	16
4.8. GHG Emission	17
4.9. New Emerging Sectors - Sectors with Increasing Export Potential	18

4.10. Public Administration	18
4.11. Tourism	18
4.12. Occupational Health and Safety	19
4.13. Environmental Management	19
4.14. Energy Efficiency	20
4.15. Innovation, Information Technology and Telecommunications	20
Part 5. SDGs and Standards	21
Part 6. Summary Results	22
Part 7. Implementation	24
7.1. Adoption methods	24
7.2. Human Resources	25
7.2.1. Overview	25
Annexes	33
Annex A. Standards Projects Under the SDGs.	33
Annex B. National Standards Plane (2022-2023-2024).	
Sources and Notes	34

Acronyms and Abbreviations

CEN	European Committee for Standardization		
ETSI	European Telecommunications Standards Institute		
CENELEC	European Committee for Electrotechnical Standardization		
ISO	International Organization for Standardization		
IEC	International Electrotechnical Commission		
ITU	International Telecommunication Union		
GEOSTM	Georgian National Agency for Standards and Metrology		
EASC	Euro-Asian Council for Standardization, Metrology and Certification		
LEPL	legal Entity of the Public Law		
CSB	Companion Standardization Body		
NSO	National Standardization Organizations		
MoESD	Ministry of Economy and Sustainable Development of Georgia		
AA	Association Agreement		
DCFTA	Deep and Comprehensive Free Trade Agreement		
GES	Georgian Standards		
NSP	National Standardization Plan		
NSS	National Standardization Strategy		
CAP	Conformity Assessment Procedures		
STF	Strategy Task Force		
NSB	National Standardization Body		
NTC	National Technical Committees		
NGO	Non-Governmental Organization		
TBT	Technical Barrier to Trade		
WG	Working Group		
ILO	International Labour Organization		
NACE	Statistical Classification of Economic Activities in the European Community		
IDT	Identical Translation Method		
SO	Standards Officers		
NSO	National Standards Organization		

List of Tables and Figure

Table 1.	Ranking GDP Sectors
Table 2.	Ranking Export
Table 3.	Ranking Import
Table 4.	Priorities Ranking and Definitions
Table 5.	GDP by Economic Activities (in percentage)
Table 6.	Ranking Economic activities Contribution to total Export (USD)
Table 6.2.	Exports by Broad Economic Categories (BEC)
Table 7.	Ranking Economic activities Contribution to total Import (USD)
Table 7.1.	Ranking Economic activities Contribution to total Import (USD) by Determined Ranks
Table 7.2.	Imports by Broad Economic Categories (BEC)
Table 8.	Non-Economic Priorities
Table 9.	Nationally approximated the EU legislations
Table 10.	National approximation to the EU legislations (plan)
Table 11.	External Trade by Country Groups
Table 12.	SDG Dashboards and Trends
Table 13.	Type of Standards Project Under the Sectors
Table 14.	Summary of priority sectors for standardization
Annex A	Standards projects under the SGDs
Annex B	National Standards Plan
Figure 1.	Technical Committee's Members by Stakeholders Group

Introduction

The world is in need of further, sustainable economic growth. Ever since the Austrian economist Joseph Schumpeter's seminal work in the 1930s, it has been recognized that innovation in products and processes is a prerequisite for long term economic growth. To ensure persistent economic growth over time, it is however not sufficient to create new knowledge through research and development. The knowledge must also be spread and applied by a broad group of companies and institutions.

Standards that are developed in consensus with the participation of companies are an effective means for spreading and applying knowledge, and in turn creating benefits for the wider economy. A standard is a common solution to a recurring problem or to reach a certain level of attainment. In modern economies, standards typically cover a vast range of activities. Standardization can entail, among other aspects, a specification of how a product should be made or how a certain process should be managed. There are standards specifying how credit cards should be manufactured, how companies can improve their environmental performance, what dimensions a door should have, how to implement systems that increase the probability of detecting corruption, and standards that aim to increase safety in the workplace, to mention just a few.

Today, there is a large volume and variety of standards; some standards are e.g. European Standards (EN, ETSI) developed by the European Standards Organizations (CEN, CENELEC, ETSI), or International Standards, developed by the International Standards Organizations (ISO, IEC, ITU).

NSB represents country interest in international and European standardization organization and relevant standardization technical committees. NSB, which ensures that the most relevant standards under development to the national context can be identified to provide an effective allocation of resources. NSB is most broadly representative in its country in matters of standardization. NSB role is to help improve the quality and safety of products, services and systems by enabling the creation of standards and encouraging their use. NSB underpinned by a collaborative approach, engaging with industry experts, government bodies, trade associations, businesses of all sizes and consumers to develop standards that reflect good business practice. One of the key aspects of the mission of NSB is to liaise with organizations from all stakeholder groups to engage them in standardization and to help them get the most from standards.

Standards cover products, services and processes providing organizations of all types and sizes with a passport to trade and they give confidence to consumers.

There are many benefits of standardization for the private sector, the public sector and consumers. The use of standards in international and local trade and everyday life is now commonplace and well embedded; so much so, that socio-economic systems without standards are not conceivable.

Executive Summary

Purposes NSS of Georgia is to define short run road map for development and trying to mapping stakeholders (business, academia, consumers, government agencies, NGOs and etc.) interest to standardization activities and standards.

NSS aims to makes assessment of needs and availability of National and International, European standards for supporting sustainable development of national economy.

The objective of an NSS is to provide benefits to areas of national priority through the promoting use of standards, which offer a set of powerful business and marketing tools for organizations of all sizes.

Part 1. Standardization in Georgia

1.1. NSB

GEOSTM is a legal entity of the public law within the system of MoESD and represents a warranty of progress and reliability in standardization and metrology¹. GEOSTM is recognized NSB of Georgia.

Mission of NSB is to develop standardization system in Georgia, to evolve Georgian standards on national production with engagement of all stakeholders, to ensure accessibility of International and European standards, to enhance competitiveness of Georgian entrepreneurs and increase country's export potential, to facilitate farther integration with the European market. GEOSTM perform National enquiry point functions according to the the "TBT Agreement" of WTO².

1.2. NTC

NTC reviews and develops standards project and make relevant recommendations. NTC Members are experts and delegates, adequately qualified and equipped for the task, broadly representative of all those stakeholder groups with a legitimate interest in the project and conscious of its potential impact.

NTCs of GEOSTM are functioning in following areas:

- TC 1 Electrotechnical Committee;
- TC 2 Management and Conformity Assessment;
- TC 3 Food Products;
- TC 4 Tourism and Related Services;
- TC 5 Construction and Increased Hazardous Objects;
- TC 6 Natural Gas;
- TC 7 Energy Efficiency;
- TC 8 Road for Vehicle and Road Traffic Safety;
- TC 9 Terminology.

As for now more than 200 representatives from different sectors are involved in NTC works, among them are (Figure 1)³:

- Industry and commerce manufacturers, producers, service industries, warehouse and transport operators, retailers, banks and financial institutions, business and trade associations;
- Public sector

 national government and local government departments and agencies, regulatory
 authorities;
- Consumer national and local consumer organizations, individual experts engaged from a consumer perspective;
- Labour national and local trade unions, federations of trade unions;
- Academia and Research Bodies universities and other higher educational bodies, professional associations, research institutions;

- Users of Standards not otherwise covered accreditation, inspection, testing and certification bodies, organizations devoted to promoting the use of standards;
- NGOs organizations operating on a not-for-profit basis that have a public interest objective related to social, or environmental concerns.

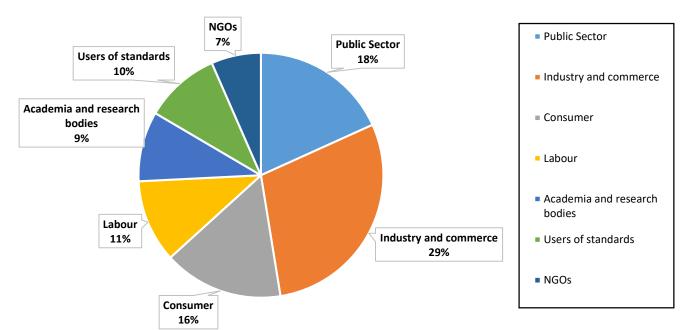


Figure 1. Technical Committee's Members by Stakeholders Group

1.3. GEOSTM's Membership & Partners

1.3.1. Membership

ISO - Correspondent member (since 2006) – observer Member of following TCs:

- TC 34 Food products;
- TC 228- Tourism and related Services;
- TC 147- Water quality;
- TC 242-Energy management;
- TC 176- Quality management and quality assurance.
- ISO/CASCO Committee on conformity assessment
- ISO/DEVCO Committee on developing country matters
- ISO/IEC JTC 1/SC 27 Information security, cybersecurity and privacy protection.

IEC - Associate member (since 2010) - member of following TCs:

- TC 17 High-voltage switchgear and controlgear;
- TC 42- High-voltage and high-current test techniques;
- TC 44- Safety of machinery Electrotechnical aspects;
- TC 77- Electromagnetic compatibility.

CEN and CENELEC- CSB (affiliate member from 2008 – 2017, CSB since 2017)- Member of CEN/TC 224 "Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment" WG 19 "Breeder Documents.

ETSI – NSO (since 2018) European Standards Organization dealing with telecommunications, broadcasting and other electronic communications networks and services.

EASC - Member (since 1995) - membership include access to published documents.

1.3.2. Commercial Agreement

ASTM – MOU (since 2018) – according to agreement ASTM standards on the territory of Georgia to any interested person.

BSI – Partner (since 2019) – grant possibility to GEOSTM provide BSI publication as well as books and other valuable content and publications on the territory of Georgia.

1.3.3. Partners

- Austrian Standards:
- Latvian Standards;
- Czech Standards Agency;
- Standards Institute of Moldova;
- Polish Committee for Standardization.

Partnerships concerning the cooperation, mutual exchange of information, publications and awareness raising events to standardization, facilitate knowledge transfer related to services and implement projects in the field of standardization.

Part 2. Overview of NSS

2.1. Introductions

STF member responsible to plan and develop all activities related to NSS development procedures as well as ensure stakeholders involvement and development NSS based on ISO methodology⁴, all step are used based on current situation and priorities, reassure availability and national priorities.

We analysis of economics key sectors of economic for further asset tendency of development and challenges in those areas and try to find correlation between sectors sustainable development and overleap of challenges via increasing of availability of standards.

GEOSTM as an NSB impact and give further support to national economic development in the way of mapping economic, non-economic and priorities derived from national or sectoral development plans to standards.

Part 2. Applied Methodology

2.1. Economic priorities

Development of NSS and for national economic structures assessment, determined the importance of different economic sectors based on their contribution to GDP and trade (import, export) of Georgia⁵.

Table 1. Ranking GDP Sectors

Rank	Sectors contribution to GDP	
#1	≥ 10%	
#2	5 – 9.9%	
#3	1 - 4.9%	

#4	0.2 – 0.9%
#5	< 0.2%

Table 2. Ranking Export

Rank	Contribution to Export
#1	≥ 10%
#2	5 – 9.9%
#3	1 – 4.9%
#4	0.2 – 0.9%
#5	< 0.2%

Table 3. Ranking Import

Rank	Contribution to Import
#1	≥ 10%
#2	5 – 9.9%
#3	1 – 4.9%
#4	0.2 – 0.9%
#5	< 0.2%

2.2. Non-Economic Priorities

2.2.1. Introduction

Standards have direct impact on sustainable development of economic, as well as role of standards import for development non-economic priorities which same times cannot be measured by economic indicators but indirectly has huge impact of countries social-economic well-being.

Non-economic losses are best understood in relation to economic losses. Economic losses can be understood as the loss of resources, goods and services that are commonly traded in markets. As such, economic losses will be recorded by and manifest in the system of national accounts (although not for economic losses that are born in the informal economy); that is to say that economic losses can affect gross domestic product. Market prices can be used to value economic losses.

Non-economic losses can be understood as the remainder of items that are not economic items; that is to say that non-economic items are those that are not commonly traded in markets. The absence of a market price is one of the main reasons why assessing non-economic loss and damage is challenging, but their effect on human welfare is no less important. Non-economic losses can also be given a substantive, although incomplete, description. Non-economic losses can be understood as losses of or related to, among other things, life, health, displacement and human mobility, territory, biodiversity, ecosystem services, cultural heritage, indigenous/local knowledge and other social capital.

2.3. Priorities Ranking and Definitions

Detail assessment of the economical, non-economic priorities as well as priorities derived from sectorial plan is based on following ranks and definitions.

Table 4. Priorities Ranking and Definitions

Rank	Rank Economic priorities	Non-economic priorities (social, environmental or other)	Priorities derived from national or sectoral development plans	
#1	Very important & urgent	Very serious & urgent problems,	Great importance in the	
		public outcry	near future	
#2	Highly important	Serious problems, common	Great importance, if	
		occurrence, media attention	conditions apply	
#3	Moderately important	Serious problems, some media	Importance in the medium	
		reports	term	
#4	Of secondary importance	Problems are localized, no media	Important in the long term	
		reaction		
#5	Not important	Other issues	Unimportant	

- 2.3. Assessment of National Economic and Non-economic priorities
- 2.3.1. Economic priorities (Aggregates GDP, Export, Import)

Table 5. GDP by Economic Activities (in percentage)⁶

NACE Rev.2	Economic Activities Economic Activities	% share of GDP	Rank
A	Agriculture, forestry and fishing	6,6	2
В	Mining and quarrying	1,4	3
С	Manufacturing	18,4	1
D	Electricity, gas, steam and air conditioning supply	2,1	3
E	Water supply; sewerage, waste management and remediation activities	0,7	4
F	Construction	12,6	1
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	11,6	1
Н	Transportation and storage	7.0	2
I	Accommodation and food service activities	5,4	2
J	Information and communication	2,7	3
K	Financial and insurance activities	3,9	3
L	Real estate activities	7,6	2
M	Professional, scientific and technical activities	1,9	3
N	Administrative and support service activities	1,3	3
0	Public administration and defence; compulsory social security		2
P	Education	2,9	3
Q	Human health and social work activities	4.0	3
R	Arts, entertainment and recreation	3,4	3
S	Other service activities	0,7	4
Т	Activities of households as employers; undifferentiated goods and services producing activities of household for own use	0,1	5

2.4. Export and Import

Standards do far more than just help you comply with the relevant rules and regulations. They play a crucial role in facilitating international trade, supporting businesses into export markets by lowering barriers to trade.

Table 2.4.1. Ranking Economic activities Contribution to total Export (USD)

NACE Rev. 2	Economic Activates	%	Rank
A	Agriculture, forestry and fishing	0,9	4
В	Mining and quarrying	5,0	2
С	Manufacturing	34,3	1
D	Electricity, gas, steam and air conditioning supply	0,2	4
E	Water supply; sewerage, waste management and remediation activities	0,02	5
F	Construction	0,35	4
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	30,53	1
Н	Transportation and storage	15,52	1
I	Accommodation and food service activities	0,06	5
J	Information and communication	0,02	5
K	Financial and insurance activities	0,20	4
L	Real estate activities	0,05	5
M	Professional, scientific and technical activities	1,71	3
N	Administrative and support service activities	0,10	5
О	Public administration and defence; compulsory social security	0,02	5
P	Education	0,01	5
Q	Human health and social work activities	0,02	5
R	Arts, entertainment and recreation	0,01	5
	Other Sections ⁷	11,00	1

Table 2.4.2. Exports by Broad Economic Categories (BEC)

Categories	USD	% of total
Food and beverages	790 693,1	20,82
Industrial supplies not elsewhere specified	1 543 963,2	40,65
Fuels and lubricants	25 168,7	0,66
Capital goods (except transport equipment), and parts and accessories thereof	126 491,4	3,33
Transport equipment and parts and accessories thereof	864 469,3	22,76

Consumer goods not elsewhere specified	439 326,0	11,57
Goods not elsewhere specified	8 337,8	0,22
Total Exports		79 8449,5

Table 2.4.3. Ranking Economic activities Contribution to total Import (USD)

NACE	Economic Activates	%	Rank
Rev. 2		0,56	
A	Agriculture, forestry and fishing		4
В	Mining and quarrying	0,30	4
С	Manufacturing	10,56	1
D	Electricity, gas, steam and air conditioning supply	2,25	3
E	Water supply, sewerage, waste management and		5
	remediation activities	0,08	
F	Construction	3,84	3
G	Wholesale and retail trade; repair of motor vehicles and		1
	motorcycles	59,64	
Н	Transportation and storage	11,92	1
I	Accommodation and food service activities	0,54	4
J	Information and communication	0,68	4
K	Financial and insurance activities	0,61	4
L	Real estate activities	0,27	4
M	Professional, scientific and technical activities	0,71	4
N	Administrative and support service activities	0,40	4
О	Public administration and defense; compulsory social		4
	security	0,22	
P	Education	0,07	5
Q	Human health and social work activities	0,43	4
R	Arts, entertainment and recreation	0,11	5
	Other Sections	6,81	2

Table 2.4.5. Imports by Broad Economic Categories (BEC)

	Categories	USD	% of total
1	Food and beverages	1 019 693,8	10,71
2	Industrial supplies not elsewhere specified	2 658 827,3	27,94
3	Fuels and lubricants	1 239 796,6	13,03
4	Capital goods (except transport equipment), and parts and accessories thereof	1 390 992,0	14,6
5	Transport equipment and parts and accessories thereof	1 555 464,9	16,34
6	Consumer goods not elsewhere specified	1 642 291,3	17,25
7	Goods not elsewhere specified	9 845,5	0,10
	Total Imports	9 516 91	1,3

2.5. Non-Economic Priorities

Based on analyze of current publications, regulations/laws, social researches of Georgian of different organization we defined main non-economic priorities which have significant impact on country sustainable development and social-economic welfare of country (table 2.5.1).

Table 2.5.1. Non-Economic Priorities

N°	Non-economic priority	Rank	Situation surrounding the problem and time
1.	Road safety	1	Road safety is a national priority number of traffic accidents count 5839, among them died 481 and 7921 injured. Cost of Fatalities and Serious Injuries, 2016: \$809 million. Cost as % of country GDP, 2016: 5.3%
2.	Food safety and agriculture productivity	1	According to "Agriculture and Rural Development Strategy of Georgia 2021 – 2027" Maximizing the agriculture potential and its purposeful utilization is of vital significance for the national economy. At the same time, food security and food safety are especially important for the country, which is a key obligation of the Government of Georgia. While implementing the EU Association Agreement, there were reforms implemented in a complex manner in all the areas, especially in the field of food safety.
3.	Occupational health and safety	1	Occupational health and safety in main issue of country, many incident related to those factors. requirements and general principles of preventive measures that are related to matters of occupational safety, existing and potential hazards, the prevention of accidents and occupational diseases, the training of employees and the provision of information and consultation to such employees, and the equal participation of employees in matters related to occupational safety and health care are crucial goals of different regulations.
4.	Healthcare System, Quality of health services	2	The Georgian Health System State Concept 2014–2020 on universal health coverage and quality control defines these actions as does the launch of a universal health coverage programme in 2013, to extend basic coverage. Current challenges related to the quality of primary health care and explored options for improvement ⁹ . Based on UNDP Study on citizens' satisfaction with public services in Georgia (2019), 49% of the respondents were satisfied with the healthcare system, and 35% were neither satisfied nor dissatisfied.
7.	Waste management	3	In 2016, the Georgian government adopted a National Waste Management Strategy for 2016-2030 and a National Action Plan for 2016-2020. It provides a

			target timeline for recycling certain materials. For
			example, it states that by the country should be
			recycling 30% of plastic by 2020, 50% by 2025 and
			80% by 2030. Currently, waste management is
			primarily financed by the central government. The
			national strategy aims to make the waste management
			industry fully self-sufficient by 2030, by initiating a
			system in which the population and private sector will
			fully cover the expenses. The system will be gradually
			introduced from 2020.
			The growing importance of cybersecurity in the
			modern world security architecture makes it
			necessary to pay more attention to strengthening
			cybersecurity in Georgia. Georgia is a country that has
			repeatedly become the subject of cyberespionage and
			full-scale cyber-attacks. According to statistical data
			from the Ministry of Internal Affairs, the number of
10	Information security		cybercrimes is increasing daily. Consequently,
10	information security		without an effective cybersecurity system, the
			stability and development of the country remains at
			risk. Given the fact that Georgia's existence and
			development have to contend with the tense
			geopolitical situation in the region, where non-state
			actors are becoming more active and cyberspace is
			used with increasing frequency for political purposes,
			Georgia may be at high risk of cyber-attacks.
		2	According to NUMBEO, Pollution Index (an
			estimation of the overall pollution in the city. The
12	Air pollution		biggest weight is given to air pollution, then to water
14	All pollution		pollution/accessibility, two main pollution factors.
			Small weight is given to other pollution types) of
			Georgia is 71.09, 2020.

Part 3. Some Sectorial Overviews

3.1. Construction

Main aspect of construction covered by standards (safety, design, management, sustainability and act), standards play crucial role in construction products development as well. Construction sector is one of the largest parts of Georgia's economy. In 2017, added value in construction sector exceeded GEL 3 billion, thus, being 9.3% of Georgia's economy GDP. In 2014-2017, Georgia's economy on average has been growing by 3.8% annually, while during the same period an average annual growth rate of Georgia's construction sector was more than triple – 12%. Share of Construction in GDP, 2019-year 8.6 percent.

Foreign Direct Investments (FDI) had a positive impact on the growth of construction sector. FDI in construction sector has significantly increased in 2014-2017, when on average USD 225 million has been annually flowing to Georgia. FDI's share in construction sector has also increased and, in 2014-2017, it was on average 13% of total FDI. In 2017, investments in construction sector were only behind investments in transportation (USD 488 million) and finance (USD 304 million) sectors.

Construction sector is one of the largest employers in Georgia. In 2017, 8.7% of total contracted employees worked in this sector. Employment in construction sector has an increasing trend. However, since 2012 share of employees working in construction sector has been decreasing. In 2016, number of employees working in construction sector reached its highest figure – 71 600. Only 1.2% (901 persons) of contracted employees work in state-owned construction companies, therefore, 98.8% is employed in private construction companies. 53 709 persons (75.5% of employed in this sector) out of 71 203 are employed in local companies and 17 474 persons (24.5%) are employed in foreign companies.

The construction and construction products sector is crucial for the European economy, representing approximately 10% of the EU GDP and providing 20 million jobs. Construction also represents a key component in the quality of life of citizens, as they spend a considerable amount of time in buildings and other built infrastructures¹⁰.

Further development of construction sectors on Georgian related to overcome challenges related to periodically replace used basic documents and implement European standards for ensure sustainable development and increase export potential of construction products.

Georgia approximated national legislation the EU regulation (EU) No.305/2011 "Construction Products", all harmonized standards adopted as a Georgian standard, DCFTA Implementation Medium Term Action Plan for 2021-2023 define the framework of further approximation to the regulation¹¹.

Law of Georgia "Space Planning, Architectural and Construction Activity Code" underline importance of gradual transposition to Eurocodes that are expected to contribute to the establishment and functioning of the internal market for engineering services and structural design of buildings.

GEOSTM and relevant NTC will play important role for adoption Eurocodes in national language and develop/review national annexes (NA) for Georgia, same time support adoption of European Standard on construction products by IDT method.

3.2. Agriculture and Food Safety

More than 3 million hectares of the land in Georgia is agricultural. According to 2014 Agricultural Census, approximately one-fourth (788 thousand hectares) of the land is privatized, i.e. owned by agricultural holdings, while 99.65% of those holdings are households.

In 2019, agricultural sector produced goods worth 4.7 billion GEL, while value added created by agriculture, forestry and fishing amounted to 3.1. billion GEL, equating to 7.2% of the total value added of the country. However, despite the increase in output, the share of the sector in total GDP is declining. That is, the growth rate of agriculture lags behind the growth rate of the overall economy. Land fragmentation, low mechanization, high production cost of agricultural products, lack of relevant knowledge or outdated infrastructure hinder the growth of the sector. Moreover, cultivars with low resistance to pests and various organisms, improper irrigation and drainage systems, high sensitivity to climatic conditions, low level of knowledge and expertise - all of these significantly affect the productivity and hinder the stable growth. 2012-2019 years 39% of all employees work in agriculture¹².

Farmers, manufacturers and food producers are the main beneficiaries of standards, for example ISO providing guidelines for internationally agreed best practice and specifications for tools, machinery and other products and processes, ISO standards ensure production is seamless and facilitate global trade. Standards help increase efficiencies, sustainability and traceability in food production. They also provide

a common international language, widening opportunities for cross-border trade of foodstuffs and farm animals.

Standards help organizations meet legal and industry requirements by setting benchmarks for the functional safety, traceability and quality of everything from the machinery and materials used in agriculture to the final food products.

According to Agriculture and Rural Development Strategy of Georgia (2021-2027)¹³ Maximizing the agriculture potential of Georgia and its purposeful utilization is of vital significance for the national economy. Therefore, elaboration of a clearly defined agrarian policy, which is focused on competitive production, and support for attracting financial resources in this sector of economy will be the primary safeguard for reaching this positive result. At the same time, food security and food safety are especially important for the country. Development of rural territories of Georgia is important for addressing the objectives such as: food security, environment protection, economic development, establishment of high quality of life and state security.

Based on AA (Chapter 10 "Agriculture and Rural Development"), Georgia has an obligation to ensure an agriculture and rural development in compliance with the EU policy and best practices, and to harmonize the Georgian legislation with the European Legislation.

Importance of agriculture and food safety undrained in government program 2021 - 2024 "Building a European state" ¹⁴.

Additionally, for development of agriculture or better managing of food safety issues following documents elaborated: State program "Plant the Future"; "Food Products/Animal Feed Safety, Veterinary and Plant Protection Code".

NSS will support national among to the traditional areas of export to stimulate production of products that follow recent markets requirement.

3.3. Mining and Quarrying

Georgia is host to an array of minerals that include aluminium, antimonite, arsenic, barite, bentonite, clay, coal, construction materials copper, diatomite, gold, lead, manganese, marble, precious gems/stones, zeolites, and zinc. While a country-wide geological map has not been prepared to reflect the current state of the country's mineral reserves, some mapping has been conducted. A "cadastral map" indicating licence areas is also maintained. In Georgia, geodata collection, safe storage, access to, and Government's analysis capacity is problematic and should be improved through more on-the-ground survey work, use of modern technology and strengthened geodata management.

Especially in the last five years, renewed interest in Georgia's minerals sector has emerged; it is estimated that 35% exports are mineral-related (raw, processed and semi-processed minerals). Apparently because of its untaxed export policy, Georgia has quietly become a "re-export" or 3 transit country for gold, copper, and ferrous metals mined in other countries. It is estimated that up to 30 000 Georgians are employed in the minerals sector (e.g., exploration, mining and processing)¹⁵.

According to Government Program 2021-2024 Toward Building a European State and "Mining Sector Development Strategy" approved in 2019 the reform of the mining industry will continue to establish a competitive and investment-friendly environment and support development of this sector.

NSS for sustainable development of this sectors as well as for increase export penitential will focus on standards for safety, environmental infarct assessment, equipment, terminology and quality management systems.

3.4. Manufacturing

Manufacturing play important role in economic growth rate of Georgia. Popular sectors: apparel, footwear, bags, furniture, pharmaceuticals, construction materials, plastics. Emerging of those sectors dated back to Soviet times, thus main challenges for further increasing productivities related to insufficient level of technological development and applied innovations. Sectors newly emerging: animal feeding stuffs and wooden toys.

NSS will focus on international and European standards which will help sectors for further development of productivities, simplifying conformity assessment procedures and use of export opportunities derived from free trade agreements signed by Georgia.

Part 4. National Development Priorities

4.1. Approximation to the EU legislations

The EU and Georgia signed an AA on 27 June 2014, and it has entered into force since 1 July 2016¹⁶. The agreement introduces a preferential trade regime – DCFTA. This regime increases market access between the EU and Georgia based on having better-matched regulations. The DCFTA has been provisionally applied since 1 September 2014¹⁷.

The DCFTA implies the liberalization of trade in both goods and services. In addition, it covers a wide range of trade issues (e.g. food safety, competition policy, intellectual property protection, financial services, etc.) and provides for the gradual approximation of Georgian legislation to Europeans.

4.2. TBT area

AA/DC FTA Agreement "chapter 3" considers the approximation of Georgian Standards, technical regulation, metrology, market surveillance, accreditation and conformity assessment systems with relevant EU systems, which entails both legislative and institutional approximation ¹⁸. Approximation of horizontal legislation covers the transfer of the institutional and functional arrangements in the abovementioned fields into Georgian legislation, while sectorial approximation covers approximation of Georgian legislation with new and global EU approach directives, including 21 EU directives related to industrial products¹⁹.

Above mentioned process underlines the role of harmonized standard - European Standard elaborated on the basis of a request from the European Commission to a recognized European Standards Organization (CEN, CENELEC or ETSI) to develop a European Standard that provides solutions for compliance with a legal provision. Such a request provides guidelines which requested standards must respect to meet the essential requirements or other provisions of relevant European Union harmonization legislation. Compliance with Harmonized Standards provides a presumption of conformity with the corresponding requirements of Harmonization legislation. Manufacturers, other economic operators or conformity assessment bodies can use Harmonized standards to demonstrate that products, services or processes comply with relevant EU legislation²⁰.

At this stage, Georgia has approximated its legislations with 11 European ones (table 4.2.1), all harmonized standards of those directives/regulation are published on Georgian Standards online platform (sst.GEOSTM.gov.ge), in some cases based on consultations with stakeholders' some standards translated into Georgian language and adopted. The remaining 15 directives will be approximated gradually (table 4.2.2).

Table 4.2.1. National legislations approximated to the EU legislations

#	EU Directives/Regulations
1	Directive 92/42/EEC - Boilers
2	Regulation (EU) 2016/424 - Cableway installations
3	Directive 2014/33/EU - Lifts
4	Directive 2014/68/EU - Pressure equipment (PED)
5	Directive 2014/29/EU - Simple pressure vessels (SPVD)
6	Directive 2013/53/EU - Recreational craft and personal watercraft
7	Directive 2014/34/EU - Equipment for explosive atmospheres (ATEX)
8	Regulation (EU) 2016/426 - Gas appliances (GAR)
9	Regulation (EU) 2016/425 - Personal protective equipment (PPE)
10	Directive 2006/42/EC – Machinery (MD)
11	Directive 2009/48/EC - Safety of toys
12	Regulation (EU) No305/2011 - Construction products (partly)

GEOSTM active participation in national approximation process and guarantee adoption of all harmonized standards as a national standard, thus support national stakeholders' sustainable movement to the EU practices and requirement²¹.

In framework of NSS we will focus on harmonized standards of updated nationally approximated directives/regulations (table 4.2.1) and harmonized standards of remaining the EU legislations which are part of DCFTA (Table 4.2.2).

Table 4.2.2 National legislations approximations to the EU legislations

#	Title of the EU Directives/Regulations
1	Directive 2014/28/EU ²² - Explosives for civil uses
2	Directive 2014/53/EU - Radio equipment (RED)
3	Directive 2014/30/EU - Electromagnetic compatibility (EMC)
4	Directive 2014/35/EU - Low voltage (LVD)
5	Regulation (EU) 2017/745 ²³ - Medical devices
6	Regulation (EU) 2017/746 - In vitro diagnostic medical devices
7	Directive 2014/31/EU - Non-automatic weighing instruments (NAWI)
8	Directive 2014/32/EU - Measuring instruments (MID)

4.3. Trade Policy

Liberal foreign trade policy is one of the major principles of the economic policy of Georgia. The Government of Georgia implemented reforms in tariff policy as well as in technical regulations sphere. As a result, nowadays Georgia has one of the most liberal foreign trade policies in the world, which

implies the facilitated foreign trade regimes and customs procedures, low import tariffs and minimal non-tariff regulations²⁴.

Georgia works consistently in order to transform its economy towards larger share of manufacturing and service sectors. The country has liberal trade policy that aims to utilize opportunities of its free trade agreements to get integrated into the global value chains. Georgia is a member of the WTO and currently has free trade agreements with the EU and EFTA, all countries of the CIS, Turkey, the People's Republic of China and Hong-Kong SAR, China. This puts the country in a unique position to serve as a connector between some of the largest economies of the world — China and the EU. Furthermore, Georgia also benefits from GSP with the United State of America, Canada and Japan. All these agreements create a fruitful basis for Georgia to become a trade and manufacturing hub.

According to Enabling Trade Index 2016 developed by World Economic Forum Georgia is in 41st position among assessed 136 countries. Trade openness share of GDP same period is 71.1%.

4.4.1. Free Trade and Role of Standards

Standards can facilitate trade by reducing transaction costs relating to TBT measures, notably by providing information on product requirements. However, they can also have negative effects on trade when they are carelessly developed or implemented. One way the TBT Agreement aims to diminish these negative effects is through harmonization. The Agreement requires that the technical regulations and standards of WTO members be based on relevant international standards, including those developed by ISO. Moreover, WTO members are required to participate in international standardizing bodies, such as ISO.

A study on textile and clothing exports from 47 sub-Saharan countries directed towards the European Union, which back then consisted of 15 members, found that EU standards that are not harmonized with ISO standards reduce African exports, while those that are harmonized have a positive effect on African exports A similar study from the World Bank, Product Standards, Harmonization and Trade: Evidence from the Extensive Margin, focusing on the textile, clothing and footwear sectors of two hundred countries exporting to the EU, found that a 10 % increase in EU standards harmonized with ISO standards represented an increase of 0.2 % in the variety of imports. This effect is 50 % stronger for low-income countries²⁵.

All above mentioned underline macroeconomic role NSB which give accesses national stakeholders to the standards and support economic development. Availability of international or European standards at the national level especially important for countries with developed and developing/emerging economies which have limited resources for development standards according to the internationally agreed best practices.

Based on above mentioned GEOSTM annually increasing amount of international and Europeans standards adopted as a national standard.

4.5. SMEs Development

The economic policy of Georgia is based on the principles of free market, where private sector is the driving force of economic growth and core generator of workplaces Accordingly, the country's economic policy is focused on supporting the development of private sector, especialy small and medium-sized enterprises (SMEs) and creating favorable business environment for its further advancement. This is also reflected in the Governmental program for 2021-2024 "Towards Building an European State".

Small and medium-sized enterprises, with their potential for employment growth and job creation, as well as their contribution to the development of the economy and its growth, could be considered as the backbone of any country's economy. A strong and well-developed SME sector plays a crucial role in raising the overall welfare of the country. It supports significantly the export growth, innovation and the creation of a modern entrepreneurial culture. In addition, SMEs can make significant contributions to the improvement and application of new technologies due to their innovative and flexible structures.

In Georgia, as in many countries around the world, including the European Union, the development of small and medium-sized enterprises is consedered as a key instrument of achieving the goals of "inclusive growth" and "employment".

Approximately 26 million small and medium-sized enterprises operating in the EU provide for the employment of 109 million people and consitute 2/3 of the Europe's Gross National Product (GNP).²⁶ In Georgia, the share of employees in SME sector is 65%, and its share in total value added equals 59% (2019)²⁷.

SME development strategy for 2021-2025²⁸, determination of vision and priority directions, as well as of relevant objectives and activities in this sector, has gained particular significance. The urgency of the strategic vision for the further development of the SME sector is reinforced by the EU-Georgia AA (the integral part of DCFTA), in the context of which raising of competitiveness of SMEs and meeting the DCFTA requirements by private sector, especially by SMEs is of utmost importance. The goal of the 2021-2025 SME Development Strategy of Georgia is to restore the positive trends of pre-pandemic and to support further development of SME sector.

There are a number of clear, tangible benefits for SMEs in implementing standards, which can far exceed the cost of accessing and using these documents. At the most basic level, standards allow SMEs to apply tried and tested best practice to their business. They encourage a business to focus on the products or services being delivered, the processes being followed and the way the business is managed overall. Standards provide a practical framework for the review and continuous improvement of different areas, and can make a business more efficient, improve the quality of its products and services, assist in obtaining new customers and ultimately boost the all-important bottom line.

Standards should form an important part of any company's strategy to remain competitive. In the current market, where competition is fierce and resources are scarce, it has never been a better time to use standards, and more and more businesses are realizing the benefits of their strategic use to achieve measurable improvements to their competitiveness²⁹.

Further development of SMEs is one of the top priorities of countries, according to SME Development Strategy of Georgia³⁰ following main weaknesses for sectorial development are identified:

- Lack of business skills and business experience;
- Low level of competitiveness;
- Low productivity;
- Limited access to finance to long-term investment resources;
- Low level of innovation and R&D and insufficient collaboration between public R&D institutions and SMEs;
- Limited capacities for technology absorption;
- Insufficient level of human resources;
- Lack of knowledge on foreign markets;
- Low capacity for export and internationalization;

- High costs for new technologies/manufacturing equipment;
- High cost for consultancy services for SMEs;
- Difficulties in closing business.

Same of those weaknesses can be overcome via promoting implementation of standards and increasing awareness on these areas as well as stimulation capacity building activities.

NSP will incorporate international and Europeans standards for achieving goals of SMEs development strategies as well as stimulate their participation in standardization activates.

4.6. Electricity Sector and Renewable Sources

The Main Directions of State Policy in the Energy Sector, outline general energy policy directions but provide neither the rationale for these strategic priorities nor guidance on strategy development. Although the more detailed Energy Strategy of Georgia 2020-2030 was approved by ministerial order in October 2019, the absence of a comprehensive energy strategy has affected all aspects of the energy sector and hampered its development³¹.

Georgia has an obligation under the Association Agreement between the EU and the European Atomic Energy Community and their Member States and Georgia and Protocol Concerning the Accession of Georgia to the Treaty establishing the Energy Community to harmonize the EU Directive 2009/28/EC on the Promotion of the use of Energy from Renewable Sources.

National legislation target for renewable energy at 35% to be achieved by 2030 as well as determine the mandatory national common target indicators of the total share of energy received from renewable sources in the total final consumption of energy and in the consumption of energy by transport, also provides the freedom to choose support schemes to achieve the aforementioned national target³².

4.7. Road Transport Safety and CO2 Emissions

The transport sector in Georgia growing rapidly in parallel with the increase in road and passenger transport. In 2015, almost 70% of passenger transport activity was performed by private cars, public transport buses, minibuses and railways (including Metro) shares, in the respective sequences, were 13%, 14% and 4%, respectively. Number of private cars increasing annually which same time underline importance of road safety and environmental protection (CO₂ emissions).

National Road Safety Strategy of Georgia cover main challenges (e.g. transport safety; effectiveness of emergency services; medium and excessive speed levels, non-experienced drivers and etc.) of this area and underline the importance of cooperation between governmental, non-governmental organization and society.

Road safety and CO₂ emissions is one of the top priorities of international standardization, some standards are already published e.g. development of the future ISO 39001 for road traffic safety management systems is to provide organizations active in road safety with the means of increasing and promoting their related safety standards. The standard will be set at a level of principles and systems, and will provide an opportunity to integrate safety into commercial and non-commercial decision making. For governments, ISO 39001 will provide a further opportunity to engage more partners on safety. For public and private organizations, the standard will provide an important opportunity to promote safety systems as a point of difference and excellence. ISO standards routinely contribute to reducing injury and death on the world's roads³³.

Providing guarantees of measurement and performance, standardization can make a solid contribution to the worldwide acceptance of electric and hybrid car. ISO's standards for hybrid electric vehicles are already being referenced all around the world.

WHO projects that by 2030, the fifth most common reason for loss of health will be an injury generated within the road transport system. Road accidents are one of the most common causes of injury and death. However, even serious events can be prevented by systematic and evidence-based interventions.

ISO standards are designed to be policy-neutral, giving them the flexibility to be applied to many different GHG programmes around the world. The growing use of ISO GHG standards for both regulatory and voluntary purposes is a testament to their versatility and their contribution to linking GHG markets around the world. They provide an internationally agreed framework for measuring GHG emissions, verifying claims and accrediting the bodies that carry out such activities to ensure accuracy and completeness.

4.8. GHG Emission

The UN Framework Convention on Climate Change "Paris Agreement" officially entered into force for Georgia on June 7, 2017. In line with the requirements of the Convention, Georgia has updated its national contribution document, as well as developed the 2030 Climate Change Strategy ³⁴ and the 2021-2023 Action Plan³⁵, which are a mechanism for planning and implementing coordinated efforts to achieve nationally targeted climate change mitigation goals.

Climate Strategy and Action Plan Identify Ways to Achieve Greenhouse Gas (GHG) Emission Reduction Goals in Georgia by 2030 and sets out the state policy on climate change mitigation in the following sectors:

- Energy generation and transmission;
- Energy consumption in the transport sector;
- Energy consumption in buildings;
- Energy consumption in industry and industrial processes; Agriculture;
- Waste management and forestry.

In order to achieve the stated long-term vision for 2030, which includes a reduction in greenhouse gas emissions by 35% compared to 1990 levels, the Climate Strategy and Action Plan sets out the following objectives for each sector:

- Goal 1: Reduce GHG emissions in the energy generation and transmission sector by 15%, 2030 year in line with the baseline forecasts;
- Goal 2: Reduce GHG emissions in the transport sector by 15% by 2030, in line with the baseline forecasts;
- Goal 3: Promote the development of low-carbon approaches in the building sector by promoting climate-friendly and energy-efficient technologies and services;
- Goal 4: Promote the development of low-carbon approaches to the industrial sector by promoting climate-friendly and energy-efficient technologies and services to reduce emissions by 5% by 2030, in line with the baseline forecasts;
- Goal 5: Promote low-carbon development of the agricultural sector by promoting climate-friendly and energy-efficient technologies and services;
- Objective 6: To promote the low-carbon development of the waste sector through the promotion of climate-friendly and energy-efficient technologies and services;

• Goal 7: Increase carbon sequestration capacity by the forestry sector by 10% by 2030 compared to 2015 levels.

NSP will focus on the International³⁶ and European Standards for supporting sustainable achievement of those goals and approximation national legislation to international and the EU best practices.

4.9. New Emerging Sectors - Sectors with Increasing Export Potential

Development new emerging sectors of economy and diversification trade relation are key priorities of Georgian economic development. Enterprise Georgia³⁷, which is the key implementing partner of "Produce in Georgia" and is responsible for business support, export promotion and investment in Georgia sectors, in coming year will support intensive promotion programs for sectors having significant potential for export growth and import-replacement, namely:

- Chemical production;
- Manufacture of some building materials;
- Production of metal, plastic, rubber and glass primary products;
- Textile industry and footwear manufacturing;
- Manufacture of electrical installations and components;
- Manufacture of animal food and food additives;
- Manufacture of auto parts and other vehicles (e.g. bi-cycles) or parts thereof;
- Manufacture of medical instruments;
- Furniture production;
- Marine fishing.

In order to promote the growth of the export potential of export-oriented small and medium-sized businesses, Enterprise Georgia is launching an Export Assistance Program. The program provides technical assistance to exporting companies. In particular, the elimination of export barriers in beneficiary companies and the introduction of export incentive mechanisms to facilitate the diversification of export markets, products and services, identify sectors and products with high export potential, and stimulate international sales.

4.10. Public Administration

The quality of its institutions, both governmental and judicial, is a key determining factor for a country's well-being. Public authorities must be able to adjust to the dynamic and often disruptive changes in the economy and society³⁸.

This is where standards come in not to replace regulations, but to complement them. Standards are shaped by best practice, so if an organization is using them, it's probably being well managed. This makes it easier for regulators to decide where to focus their attention. Standards are the foundation on which a risk-based approach to regulation can be built.

Standards support stimulation smart regulation practices and economic activities via increasing quality of services provided and meet international recognized practices in different area of activities.

4.11. Tourism

Georgia has substantial potential for tourism development because of its great natural beauty, varied topography, a pleasant climate, and rich culture and history. To facilitate tourism, the Government of

Georgia eased its visa regime, began widespread rehabilitation of roads, privatized infrastructure and hotels, and established limited tax incentives for tour operators.

The COVID-19 pandemic and regulations to curb the spread of the virus caused a reduction in tourism revenue and overall economic growth. To help spur economic recovery, the Georgian government teamed up with commercial banks to develop a stimulus package for the hospitality industry, which endured an economic shock due to flight cancellations, border closures, and public health safety measures. Although the government is not yet able to assess the full effect of COVID-19 on the economy, the government and private sector remain hopeful that Georgia's tourism sector will rebound after the global epidemiological situation normalizes³⁹.

NSS will focus on standards linked to terminology, services, safety and covid19 challenges.

4.12. Occupational Health and Safety

The ILO estimates that some 2.3 million women and men around the world succumb to work-related accidents or diseases every year; this corresponds to over 6000 deaths every single day. Worldwide, there are around 340 million occupational accidents and 160 million victims of work-related illnesses annually. The ILO updates these estimates at intervals, and the updates indicate an increase of accidents and ill health.

Some of the major findings in the ILO's latest statistical data on occupational accidents and diseases, and work-related deaths on a world-wide level include the following:

- Diseases related to work cause the most deaths among workers. Hazardous substances alone are estimated to cause 651,279 deaths a year.
 - The construction industry has a disproportionately high rate of recorded accidents.
- Younger and older workers are particularly vulnerable. The ageing population in developed countries means that an increasing number of older persons are working and need special consideration.

Occupational health and safety if one of the objectives of international or European standardization activates, many standards already published those statistical information underline increased role of International and European standards development organization in process of addressing those issue and develop new standards.

In this regards, New Organic Law of Georgia on Occupational Health and Safety (adopted in 2019) define general principles of basic requirements and preventive measures that are related to occupational safety and health (OSH) at workplace, the existing and anticipated risks, prevention of accidents and occupational diseases, training, informing, and consulting of the employees, their equal engagement in the occupational health and safety protection issues.

Based on the results of this document's performed analysis, the construction industry got a high rank, as well as occupational health and safety issues which mostly related to construction activities distinguished by high priority. Thus, NSS will focus on ISO 45000 family and standards on quality, which help organizations across the world improve occupational health and safety management to better protect workers.

4.13. Environmental Management

A management system is the way in which an organization manages the interrelated parts of its business in order to achieve its objectives. These objectives can relate to a number of different topics, including

product or service quality, operational efficiency, environmental performance, health and safety in the workplace and many more. Organization achieve the intended outcomes of its environmental management system, which provide value for the environment, the organization itself and interested parties. Consistent with the organization's environmental policy, the intended outcomes of an environmental management system include: enhancement of environmental performance; fulfilment of compliance obligations; achievement of environmental objectives. As well as role of environmental management highly connected to quality of air.

GEOSTM actively working on the adoption of environmental management standards for further support national activities in this area, including actions on increase the quality of air.

4.14. Energy Efficiency

Georgia gradually approximation national legislations to the European and international best practices. National legislations on Energy Efficiency and Energy Performance of Buildings – are important milestones for Georgia in meeting its requirements under, as well as its membership of the Energy Community as well as these laws will enable to realize energy savings of 14 per cent by 2025, thereby helping the country to meet its international obligations in combating climate change, increase its energy security and strengthen its energy links with the EU.

The potential for improving energy efficiency in Georgia is huge. Fossil fuels are the main source of greenhouse gas emissions, in the country and account for up to 75 per cent of primary energy supply. The payoffs are also attractive. Energy efficiency helps to reduce greenhouse gas emissions, curb the demand for energy imports, and lower costs on a household and economy-wide level⁴⁰.

In addition, these laws will help improve the energy performance standards for new constructions and building retrofits in line with the EU standards.

Newly created NTC 7 are actively involved in reviewing International/European standards projects developed in national language, furthermore NSS will focused on energy efficient standards for different type organizations.

4.15. Innovation, Information Technology and Telecommunications

Innovation, information technology and telecommunications sectors are one of the fast-developing spheres of economy in the world. Georgian Legislations cover all necessary areas of sectors sustainable development, namely: Electronic Communications, Broadcasting, Innovations, Electronic Signature and Electronic Document, Information Security, Personal Data Protection, Information technology zones and etc. The acts (Legal acts of the ITU are the Constitution, Convention, International Telecommunications Regulations and Radio Regulations; Legal Acts of the UPU are the Constitution, General Regulations, Convention, Postal Payment Services Agreement, Letter Post Regulations, Parcel Post Regulations) of International Telecommunication Union (ITU) and Universal Postal Union (UPU) ratified by the Parliament of Georgia.

Implemented actions positively impact on well-known international index. Namely, according to the latest Report of 2019 of Network Readiness Index (NRI) Georgia ranks 68th out of the 121 economies. Based on The Global Innovation Index (GII) 2020 Georgia ranks 63rd among the 131 economies featured, 17th among the 37 upper middle-income group economies and 6th among the 19 economies of Northern Africa and Western Asia.

Standards set the framework by defining common vocabularies, establishing the essential characteristics of a product or service, and by identifying the best practice within the ecosystems that will ensure successful outcomes. Once these rules are in place, the pace of innovation will be accelerated and success will be much more likely.

NSS will apply Intentional and European standards for stimulation further development of competition in national market, ensure safety and sustainability of sectors representatives, as well as support ongoing reforms, including obligations came from AA.

4.16, CAP

Conformity Assessment – Conformity assessment is a process, which means defining compliance between the product/service and regulation or standards. The main forms of conformity assessment are testing, certification, and inspection.

Conformity in Georgia is assessed by accredited laboratories, inspection, or certification institutions. All these institutions are private entities that have received respective accreditation at the United National Body of Accreditation, Accreditation Centre.

In 2017 GAC has received first recognition from European Accreditation Forum (EA), Recognition covered 5 accreditation schemes: schemes for calibration and testing laboratories, scheme for inspection bodies, scheme for product and personal certification bodies. Later on, in 2019 international recognition was extended to the scheme for medical laboratories.

Standards that laboratories can follow to help ensure that their results can be trusted. NSS considers to review of existing International and European standards adopted as a Georgian standard, thus based on needs assessment define new priorities area and relevant standards for adoption, as well as follow ISO/CASCO work programme and activities.

Part 5. SDGs and Standards

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.

On July 13, 2020 Georgia presented the second Voluntary National Review (VNR) of Sustainable Development Goals implementation at the virtual United Nations High-Level Political Forum (HLPF) on Sustainable Development, which took place under the auspices of the United Nations Economic and Social Council (ECOSOC). The report focuses on Georgia's three priority directions: economic growth; human capital development and social welfare; and democratic governance. In addition to achievements the report also highlights challenges ahead and areas where further work is needed⁴¹.

The Government's policies and priorities are well-aligned to the SDGs – making them a very solid basis of the country's reform agenda. The level of integration of nationalized SDGs into Georgia's development planning, in line with its EU integration aspirations, is very high - 36 sector strategies and the EU-Georgia Association Agreement jointly incorporate 96% of the country's nationalized SDGs targets⁴².

Georgia ranks 56 of the 165 countries, according to the Sustainable Development Report 2021 that presents the Sustainable Development Goals (SDG) Index and Dashboards for all UN member states.

Georgia's SDG index score is 72.2. Georgia is on track to achieve SDG 7 (Affordable and Clean Energy) and SDG 16 (Peace, Justice and Strong Institutions), moderately improving in other SDGs, but faces challenges (Table 12).

Table 12. SDG Dashboards

Achieved	Challenges remain	Significant challenges remain	Major challenges remain
4SDG	7SDG; 16SDG; 6SDG;	1SDG; 2SDG; 3SDG; 8SDG; 9SDG;	5SDG; 10SDG;
	12SDG	11SDG; 12SDG; 13SDG; 17SDG	14SDG; 15SDG

Based on above mentioned analyze NSS cover priorities areas and sectors where challenges still remain for achieving SDG, thus NSP will based on correlation analyze between those SGD and published standards. Availability of those standards at national level give additional stimulus of ongoing processes and reforms for SDGs achievement.

Annex A. represent list of standards projects under the all SGDs where challenges remain.

Part 6. Summary Results

All stakeholders applying standards, regardless of which sector they belong to, is the application of modern technologies, ensuring the safety and quality of products and services, achieving competitiveness on the local and International/European market and attracting investment. In this regard, GEOSTM is utilizing all available resources in order to stimulate national stakeholders for further social-economic development, furthermore, increase the availability of standards to assist all types of stakeholders in the process of ensuring compliance with legislation and the implementation of national plans, including economic and non-economic priorities, as well as achieving SDGs where challenges remain.

Stakeholders' priorities assessed via using different channels of communications (calls, emails, letters), as well as reviewing authoritative documents and analyze of conducted public opinion survey researches.

According to defined methodology within this document, identified the need in different sectors for a number of standards' adoption, development, monitoring, and translation, as well as revisions to existing standards (Table 13).

Table 13. Type of Standards Project Under the Sectors

Table 10. Type of Standards 110 feet officer the beetons					
Sector	Amount of project by type				
Sector	Ad	Мо	Na	Ad/IDT	Ad/Rev
Construction Materials and Buildings	50	6	10	10	1
Metallurgy	28	0	0	0	0
Agricultural	96	6	0	0	0
Services	28	4	0	0	0
Mining and Quarrying	46	0	0	0	0
Energy and Energy efficiency	53	10	0	4	0
Tourism and Services	42	1	0	1	1
Innovation, information Technology and Telecommunications	80	0	0	0	0

Health and Safety	92	2	0	0	0
Environment	70	1	0	2	0
Conformity Assessment	9	0	0	1	2
Road Transport Safety Management	7	2	0	1	0
Manufacturing	47	0	0	0	0
Food Safety	64	0	0	3	3
Trade	24	0	0	0	0
SMEs	5	0	0	0	0

Based on the comparative analysis of the priority economy sectors and country social-economic environment, as well as the most important areas in the development and expressed needs of the interested parties. Process of priority standards adoptions, development and publication will be continued in future NSS will additional road map and increase suitability of this process.

NSS is dynamic document and in process of implementation GEOSTM will actively follows the International and European trends, as well as the national market needs, which have possibility to impact of different sectors development and adoption methods.

Table 14. Summary of priority sectors for standardization

Classification		A143	
	Sector	Fields	Average priority rank ⁴³
		In general	2.47
ī	Construction Materials	Safety	2.08
1	and Buildings	Structural design	2.52
		Construction products	2.81
		In general	3.08
II	Metallurgy	Ferrous and non-ferrous metals	3.18
		Ferroalloys	2.48
		In general	2.27
		Milk and Milk products	2.42
		Fruits and vegetables	3.31
III	Agricultural	Alcoholic and non-alcohol beverages	2.63
		Meat and meat products	2.56
		Fish and fishing	2.50
		Pesticides and other agrochemicals	3.04
IV	Services	In general	2.51
1 V	Services	Quality	2.94
V	Mining and Quarrying	In general	2.87
V	Willing and Quarrying	Processing of minerals	3.02
		In general	2.89
VI	Energy and Energy	Renewable energy	1.57
V I	efficiency	Equipment	2.45
		Electromagnetic compatibility	3.14
VII		In general	2.04
	Tourism and Services	Services	1.97
V 11	Tourism and services	Recreational areas	2.38
		Hotels and restaurants	2.56
VIII		In general	3.30

	Innovation, information	Security	2.50
	Technology and	Networking	2.50
	Telecommunications	Equipment	2.11
		In general	2.74
		Laboratories	3.31
IX	Hoolth and Cafaty	Quality	2.24
1A	Health and Safety	Human disabilities – ensuring accessibility	1.76
		Equipment and medical devices	1.97
		Safety	1.96
		In general	2.35
		Ecolabelling	1.85
	Environment	Biobased products	2.23
X		Wastes	1.55
		Recycling	2.53
		Air quality	1.56
		Circular Economy	2.98
XI	Conformity Assessment	In general	2.41
	D 1 T C - C - C - C - C - C - C -	In general	2.62
XII	Road Transport Safety	Safety	3.12
	Management	Traffic management systems	2.57
XIII	Manufacturing	In general	3.90
AIII	Manufacturing	Processing of products	3.80
XIV	Food Safety	In general	1.51
XV	Trade	In general	1.96
XVI	SMEs	In general	2.06

This document presents a medium-term plan for the adoption of Georgian standards for the 2022–2024 year. Annex B of this document provides a detailed list of standards with the link of national priories that will be adopted over a period of 2,5 years.

Part 7. Implementation

7.1. Adoption methods

Based on national practice and legislative environment and role of NSB in Interactional or European organization GEOSTM apply following type of adoptions:

- **Type 1:** adoption of an International (or regional) Standard [abbreviated as: **Ad**] this type applies if an International (or regional) Standard exists and has been identified as being appropriate to address national needs. Standard adopted as a national one without any modifications in publication language (mainly in English) by NSB.
- **Type 2:** monitoring (or observing) an ongoing development project of an International (or regional) Standard [abbreviated as: **Mo**]. This type applies if an International (or regional) Standard is under development which is of a certain (but not a very high) national priority. In such a case, active participation by the NSB in the project is not required.
- **Type 3:** development of a national standard [abbreviated as: **Na**) this type applies if an International (or regional) Standard does not exist, but there is a significant national priority for such a standard.
- **Type 4:** Adoption of an International (or regional/European) Standard with full translation methods [abbreviated as: **Ad/IDT**] without any modifications. This type applies when national stakeholders from the relevant area of economic activities have language barriers and difficulties in process of standards implementations or conformity with national legislative obligatory requirement.

- **Type 5:** Revision of standard [abbreviated as: **Ad/Rev**]. This type applies when standards adopted and revision are required by standards users, legislations or periodical (at least five years after adoption) revision by TC are needed.

7.2. Human Resources

7.2.1. Overview

Standards development and adoption procedures are managed by GEOSTM standards department staff with close cooperating with TC members and other stakeholders.

SO of GEOSTM are is taken into account for the calculation humans resources needed for standards development and adoptions. SO key activities typically comprise:

- Assessment TC members organization's needs;
- Analysis and preparation of documents;
- Circulating documents to the TC members;
- Organizing meetings and conducting meetings;
- Organizing voting processes;
- Preparing meeting reports;
- Manage standards adoption procedures.

Standards translation and linguistic checking done by outsourcing that will be calculation with close cooperation with relevant organization representatives and accumulated experiences. The editing and preliminary evaluation usually performed within TC members, and only a little concentration required for final design of the adopting standard according to defined criteria and rules.

In this SDP we consider a SO as a person, who is eligible to perform all the above-mentioned tasks in the assigned to sector of standardization as well as with the support of administration divisions (e.g. logistical division, financial division, procurement division) to manage the needs and performance of activities done by different participants.

8.2.3. Calculating Human Resources based on Project Type

- Project type 1 - Adoption "Ad"

Standards Development Task	Woi	Work time		Repetitions per lifecycle	Total W	ork time (WT)		Total time for all tasks
	TO	ED/TR	SECR		ТО	ED/TR	SECR	
Preliminary analysis	0.2	0.2	0	1	0.2	0.2	0	0.4
Preparation & management of TC meetings	0.00	0	0	0	0	0	0	0
Preparation of TC meeting report	0	0	0	0	0	0	0	0
Verification & circulation of drafts	0	0	0	0	0	0	0	0
Communication with stakeholders	0.1	0	0	1	0.1	0	0	0.1
Project management	0.1	0	0	1	0.1	0	0	0.1
Commenting on ISO projects (WD)*	0	0	0	0	0	0	0	0
Commenting on ISO projects (CD)*	0	0	0	0	0	0	0	0
Balloting on ISO DIS with comments*	0	0	0	0	0	0	0	0
Balloting on ISO FDIS*	0	0	0	0	0	0	0	0
Editing/finalization of adopted ISO standard	0	0.2	0	1	0	0.2	0	0.2
			•					
				Totals:	0.4	0.4	0	

* Not applicable for "Adoption"

Total time for 1 Ad: 0.80

- Project type 2 - Monitoring "Mo"

Standards Development Task	I -		Repetitions per lifecycle	Total V	Vork time (WT)		Total time for all tasks	
	SO	ED/TR	SECR		ТО	ED/TR	SECR	
Preliminary analysis	0.5			1	0.5	0	0	0.5
Preparation & management of TC meetings					0	0	0	0
Preparation of TC meeting report				1	0	0	0	0

Verification & circulation of drafts			1	0	0	0	0
Communication with stakeholders	0.5	0.5	1	0.5	0	0.5	1
Project management	0.5		0.5	0.3	0	0	0.25
Commenting on ISO projects (WD)	0.5		0.5	0.5	0	0	0.23
				0	0	0	0
Commenting on ISO projects (CD)				0	0	0	0
Balloting on ISO DIS with comments				0	0	0	0
Balloting on ISO FDIS				0	0	0	0
Editing/finalization of adopted ISO standard				0	0	0	0
			Totals:	1.3	0	0.5	

Total time for 1 Mo: 1.75

- Project type 3 - National development "Na"

Standards Davelanment Task		Work time		Repetitions per	Total V	Total time		
Standards Development Task	SO	ED/TR	SECR	lifecycle	то	ED/TR	SECR	for all tasks
Preliminary analysis	3		0.5	2	6	0	1	7
Preparation & management of TC meetings	2		0.75	2	4	0	1.5	5.5
Preparation of TC meeting report	2		0.75	4	8	0	3	11
Verification & circulation of drafts	2		0.5	2	4	0	1	5
Communication with stakeholders	3		0.5	2	6	0	1	7
Project management	3		0	3	9	0	0	9
Organization of balloting on national project	1		1	1	1	0	1	2
Collation, analysis and circulation of comments	1		0.5	2	2	0	1	3
Resolution of comments / Update of draft standard	3		2	1	3	0	2	5
Editing/finalization	5		5	2	10	0	10	20

Totals: 53 0 21

Total time for 1 Na: 74.5

^{*} Not standard project with 25-30 pgs.

- Project type 4 – Adoption by IDT method "AD/IDT*"

	Work time			Repetitions per	Total W	Total		
Standards Development Task	so	ED/TR	SECR	lifecycle	то	ED/TR	SECR	time for all tasks
Preliminary analysis	5	0	0	1	5	0	0	5
Preparation & management of TC meetings	1.75		0.75	3	5.25	0	2.25	7.5
Preparation of TC meeting report	1		0.75	3	3	0	2.25	5.25
Verification & circulation of drafts	0.5		0.5	3	1.5	0	1.5	3
Communication with stakeholders	2		0.5	2	4	0	1	5
Project management	3		0	1	3	0	0	3
Commenting on ISO projects (WD)*					0	0	0	0
Commenting on ISO projects (CD)*					0	0	0	0
Balloting on ISO DIS with comments*					0	0	0	0
Balloting on ISO FDIS*					0	0	0	0
Editing/finalization of adopted standard	3.5		1.25	1	3.5	0	1.25	4.75

Totals: 25.25 0 8.2

- Project type 5 – Revision of Standards "Ad/Rev*"

Total time for 1 AD/IDT:	33.5

		Work time		Repetitions	Total	Total time		
Standards Development Task	so	ED/TR	SECR	per lifecycle	то	ED/TR	SECR	for all tasks
Preliminary analysis	0.1		0.5	2	0.2	0	1	1.2
Preparation & management of national TC meetings	1.00		0.75	1	1	0	0.75	1.75
Preparation of the meeting report of the national TC	1		0.75	1	1	0	0.75	1.75
Verification & circulation of drafts	0.5		0.5	1	0.5	0	0.5	1
Communication with stakeholders	2		0.5	2	4	0	1	5
Project management	3		0.5	0.5	1.5	0	0.25	1.75

^{*} Not applicable for "AD/IDT"

^{*} Note: standard project with 25-30 pgs.

Totals:	8.2	0	4.25	
	Tota	I time for 1	Ac:	12.45

^{*} Not standard project with 25-30 pgs.

8.2.4. Human resource required

- Required working days per project type and role

Roles	Ad	AD/IDT	Ad/Rev	Мо	Na	Annual working days per role	Overall duration of the plan (in years)
то	0.5	25.25	8.2	1.25	53	107	
ED/TR	0.2	0	0	0	0	214	2.5
Sec	0	8.25	4.25	0.5	21.5	214	
Total (per project type):	0.7	33.5	12.45	1.75	74.5		

- Available versus needed human resources

Number of national projects for a planning period						Technical Officers (TOs) - Resource planning								
	Types of national projects			Available human resources		Needed human resources (TO) in workdays								
Divison and sectors of TOs in the NSB	# of Ad	# of AD/IDT	# of Ad/Rev	# of Mo	# of Na	# of TOs	WorkDays	TO/Ad	TO_AD/IDT	TO_Ad/Rev	TO/Mo	TO/Na	TOTAL	Difference
Standards Registry Maindance Division	2738	0	0	32	0	5	1337.5	1095.2	0	0	40	0	1135.2	202.3
Standards Division	0	0	0	0	10	2	535	0	0	0	0	530	530	5
Management and Conformity Assessment procedures	0	3	2	0	0	2	535	0	75.75	16.4	0	0	92.15	442.85
Food and Food Products	0	4	3	0	0	2	535	0	101	24.6	0	0	125.6	409.4
Tourism and Related Services	0	1	1	0	0	1	267.5	0	25.25	8.2	0	0	33.45	234.05
Construction Products and Increased Hazardous objects	0	10	1	0	0	2	535	0	252.5	8.2	0	0	260.7	274.3
Vehicle and Road Traffic Safety	0	1	0	0	0	1	267.5	0	25.25	0	0	0	25.25	242.25
Energy efficiency		4	0	0	0	1	267.5	0	101	0	0	0	101	166.5
Total:	2738	23	7	32	10	16	4280	1095.2	580.75	57.4	40	530		1976.65

Difference over whole plan:

Difference per year: 7.39

18.47

Resource needs calculation per year for the duration of the standardization plan

Project type	2022 (July-December)	2023	2024	SO	ED/TR	Sec	
	# of project	s (by year)	Resource needs by role (in # of workdays)				
Ad	732	1003	1003	1095.2	0	0	
Мо	0	0	32	808	0	264	
Na	1	2	7	82	0	42.5	
DT	15	4	4	28.75	0	11.5	
AD/Rev	7	0	0	371	0	150.5	
Total:	755	1009	1046	2384.95	0	468.5	

8.3. Financial Resources

GEOSTM finance generated from state budget and provided services. The financial resources needed to implement the NSP, which generally incorporate:

- Salaries;
- Maintaining the work environment (electricity, heating, stationery, securities, cleaning and ect.);
- Logistical costs (fixed and mobile communication, internet, postal services, logistics for IT, software's, etc.);
- Standards translations (outsourcing);
- Linguistic checking (outsourcing);
- Organization of TC meetings.

The necessary financial support for the active participation of national experts in the development of international and European Standards is continuously provided by the organizations that have delegated them or donors. Additionally, cost related to GEOSTM employees participation in the work of International and European Standards organization activities.

9. Conclusion ad Future Plans

Present document is first comprehensive attempt for development strategic document reflected stakeholders' main needs and requirements with relation to standards and standardization activities. Strategy elaborated with focus on economic, non-economic, legislation and national priories which should be linked to standards project.

As a result, after full implementation on NSS will further increase availability of economic sectoral needs-oriented standards, including harmonized standard of in DCFTA referred the EU regulations/directives for further development of national economic in line with standardized best practices. Within the strategy defined standards for support ongoing processes and reforms for SDGs achievement, mainly in the area where significant or major challenges remains.

The NSS will be reviewed each year for being in line with national stakeholders requirements and international and Europeans standardization organization strategies. In case of need, the NSS can be supplemented, adapted, refined, in the manner and according to the procedure as it was adopted.

In order to successfully coordinate certain activities on implementation of NSP and ensuring publicity GEOSTM will publish related information on webpage and social media.

Annexes

- Annex A. Standards Projects Under the SDGs.
- Annex B. National Standards Plane (2022-2023-2024).

Sources and Notes

- ¹ Note: Due to the specifics of present document, the strategy will be elaborated in the field of standardization.
- ² Georgia accepted of TBT Code of Good Practice in 2003.
- ³ Source: The structure of the committee members is sorted by Guidance for ISO national standards bodies (https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100269.pdf)
- ⁴ Source: ISO methodology for developing a national standardization strategy

(https://www.iso.org/member/1950.html?view=participation&t=OP)

- ⁵ Note: 2019 year dates, source: www.geostast.ge
- ⁶ GDP at current price (mil. Gel), source: www.geostat.ge
- ⁷ Note: Despite, the ranking we could not consider "Other Sections" for further analyze.
- ⁸ Source https://www.roadsafetyfacility.org/country/georgia
- ⁹ See: Quality of primary health care in Georgia. WHO, 2018.
- ¹⁰ Source: <u>https://ec.europa.eu/</u>
- 11 Source: https://dcfta.gov.ge/en/
- ¹² Source: www.geostat.ge
- ¹³ Source:https://leap.unep.org/countries/ge/national-legislation/agriculture-and-rural-development-strategy-georgia-2021-2027
- ¹⁴ Source: https://www.gov.ge/index.php?lang_id=ENG&sec_id=41&info_id=78149
- ¹⁵ Source: Georgia Mining Sector Development Programme, Phase I Policy and Strategy. European Bank, 2018.
- ¹⁶ See https://eur-lex.europa.eu/legal-content/en/TXT/PDF/?uri=CELEX:22014A0830(02)
- ¹⁷ Note: Before the DCFTA, Georgia benefited from the unilateral Generalised Scheme of Preferences (GSP). Under the current GSP regulation Georgia qualified for a special incentive rewarding sustainable development and good governance (GSP+) with better access to the EU market. Georgia benefited from GSP+ until 31 December 2016. This transition period allowed business to adjust to the new preferential trade regime provided by the DCFTA.
- ¹⁸ Note: Chapter 4 of the AA agreement related covers measures related to products falling under sanitary and phytosanitary arrangements, as well as the arrangements for protecting the health of people, animals and plants. GeoSTM will adopt harmonized standards based on relevant authority's requirement.
- 19 Source: http://www.dcfta.gov.ge/
- ²⁰ Source: https://www.cencenelec.eu/
- 21 Georgian standards available thought electronic platform: $\underline{\text{https://sst.geostm.gov.ge/}}$
- ²² Note: Directives repealed: 2008/43/EC, 93/15/EEC.
- ²³ Note: Directives repealed: 90/385/EEC, 93/42/EEC.
- ²⁴ See: http://www.moesd.gov.ge/?page=ecopolitic&s=12
- ²⁵ Source: https://www.iso.org/news/ref2428.htm
- ²⁶ See: EuroStat. 2019. Statistics on SMEs.
- ²⁷ Source: www.geostat.gov.ge
- ²⁸ Source: <u>www.economy.ge</u>
- ²⁹ See: 10 good things for SMEs, ISO 2014.
- ³⁰ Source: http://www.economy.ge/?page=ecopolitic&s=45&lang=en
- ³¹ Source: Security of Supply Statement in Electricity Sector, Georgia 2021.
- ³² Georgian law "Encouraging the Production and Use of Energy from Renewable Sources".
- ³³ Source: On the road to safety. ISO Focus October 2009
- 34 See: https://mepa.gov.ge/En/Files/ViewFile/50123
- 35 See: https://mepa.gov.ge/En/Files/ViewFile/50122
- ³⁶ See: ISO and climate change, 2018.
- ³⁷ See: https://www.enterprisegeorgia.gov.ge/en/home/about
- ³⁸ Source: Quality of Public Administration A Toolbox for Practitioners. Publications Office of the European Union, 2015.
- ³⁹ Source: <u>www.trade.gov</u>
- ⁴⁰ Source: https://www.ebrd.com/news/2020/georgia-takes-big-strides-towards-an-energyefficient-future.html
- ⁴¹ See: https://sustainabledevelopment.un.org/memberstates/georgia
- ⁴² Note: According to the Sustainable Development Goals Report 2021, the world had been making progress although uneven and insufficient to meet the Goals. Now, the COVID-19 pandemic is likely to have severe short-term negative impacts on SDG 1, SDG 2, SDG 3 and SDG 8 and the pandemic gravely amplifies inequalities in many forms.
- ⁴³ Note: represent average dates of each priorities analyzed (e.g. economic; non-economic; priorities derived from national or sectoral development plans; priorities initiated by stakeholders).