



The European Union
for Georgia
EU4Business



ASSESSMENT OF PANDEMIC IMPACT ON PACKAGING SUPPLY CHAIN ENTERPRISES

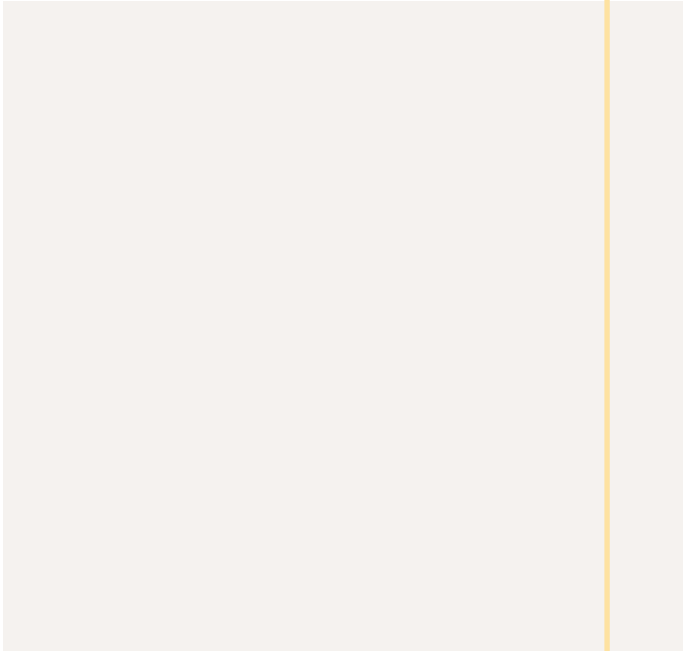
June
2020



act
Impact



The European Union
for Georgia
EU4Business



This research report has been prepared with the assistance of the European Union (EU) and the United Nations Development Programme (UNDP). Its contents are the sole responsibility of the research-based consulting company Analysis and Consulting Team (ACT) and do not necessarily reflect the views of the European Union and the United Nations Development Programme.



Executive Summary	6
Introduction	8
Research Methodology	9
Pandemic Impact Assessment on Packaging Supply Chain in Georgia – Research Results	10
1. Characteristics of Respondent Companies	11
2. Impact of COVID-19: General Assessment of Economic Effects of Pandemic on Business	14
3. Impact on Business Plans	19
4. Assessment of the need of financial and non-financial aid by the businesses in packaging value chain during and after the pandemic	35
5. Resilience and Readiness Indices	44
6. Brief overview of the packaging sector	47
7. Summary and Recommendations	50
Annex 1: Cluster Map of Companies in the Packaging Value Chain - UNDP	53

Diagram 1: Distribution of respondent companies by business size	11
Chart 1. Distribution of the number of surveyed companies by regions, sectors and company size..	13
Chart 2: Distribution of answers to the question “do you think that the COVID-19 crisis represents a serious threat to your enterprise?”	15
Table 1. Have the companies experienced any changes in their functioning amidst the pandemic? Quantitative and qualitative distribution of answers, in per cents	15
Chart 3. Percentage-based distribution of answers to the question “What was the impact of the coronavirus pandemic on your company?” by regions, by sector and by size of business.....	17-18
Chart 4. Percentage distribution of answers to the question “Did you have business interruption insurance before the pandemic crisis?” by sectors and by company size.	20
Chart 5: Percentage distribution of answers to the question “if there is an impact, how is the post-pandemic situation reflected on your business activity?”. Note: the respondents were able to mark more than one answer.	21
Chart 6. Percentage distribution of answers to the questions “what was the impact of the pandemic crisis on your revenues to date?” and “what impact the pandemic crisis will have on your revenues until the end of 2020?”, by company size.	22-23-24
Chart 7. Limited domestic and imported supply and solutions to it. Percentage distribution by company size and by sectors (multiple answers were allowed to both questions).	26
Diagram 2: Main barriers and solutions to these problems for the exporting companies engaged in the packaging value chain in Georgia.....	27
Table 2. Percentage distribution of answers to the question “did you start to face any impediments while exporting your products?” by sectors..	28
Chart 8: Measures taken by the companies in response to the crisis, percentage distribution of answers	30
Diagram 3: Distribution of the most frequently given answers to the question: “are you taking some measures for stopping the coronavirus impact on your business, and if yes, what measures have you applied so far?”. In addition, the diagram shows the most frequent respondents per each answer, by the company size.	31

Chart 9. Percentage distribution of answers to the question: “how long will your business activities be affected by the pandemic crisis?”, by company size.....	33
Chart 10. Percentage distribution of answers to the question: “did you receive or are you going to receive the assistance provided by any donor and/or government during the pandemic?”, by sectors	36
Chart 11. Availability of crisis recovery and business continuity plans among the respondents, percentage distribution by their company size and by sectors.....	37
Chart 12. Can the respondent companies mitigate the crisis impact with their own or raised resources?..	38
Chart 13. Percentage distribution of answers to the question “how much do the infrastructure and digital capacities of your enterprise meet the needs of business telecommunication/distance working?”, by company size and by sector.....	39-40
Chart 14. Assistance needs most frequently mentioned by the respondents.....	41
Table 3. Distribution of business development services by priorities	41
Chart 16. Support mechanisms that are important for the business; distribution by the number of companies.....	42
Chart 15. Distribution of answers to the question: “Do you agree that the events developed because of the pandemic create new opportunities for your business?” – by company size and by packaging sector.....	43
Table 4. Methodology of resilience and readiness indices	44
Chart 16. Distribution of companies according to their resilience and readiness indices. Average index indicators are marked in red in the chart (average resilience index =24, average readiness index - 33)	46
Chart 17. Distribution of companies in the packaging sector by the type of activities and by regions.....	47
Table 5. Distribution of business development services per priorities only for the packaging sector	49

EXECUTIVE SUMMARY

This research, aimed at assessing the impact of economic crisis caused by COVID-19 **on the companies in the packaging value chain in Georgia**, has revealed that the crisis is a significant challenge for the producers of packaging materials, the majority of which did not have business insurance, financial assets, contingency or business continuity plans before the crisis. According to the analysis, **71.4% of the respondents did not have any resilience to or readiness for the crisis**, they are vulnerable to radical changes of both the factors beyond the company control and those controlled by the companies.

The spread of the pandemic (COVID-19) at the outset of 2020 has significantly slowed down the development of the global economy, and this negative impact was felt in Georgia as well. Plunged domestic and foreign demand; impeded production; reduced tourism and trade; loss of customer confidence or imposing stringent financial terms and conditions – have created barriers for smooth functioning of every sector of the economy, including the packaging industry. Indeed, the state of emergency, introduced to stop the spread of COVID-19, has greatly affected the enterprises both domestically and throughout the world. Within the framework of the joint initiative of the EU and the UNDP, namely, the project “EU Innovative Action for Private

Sector Competitiveness in Georgia”, and in cooperation with the company ACT, the UNDP has conducted a research - Pandemic Impact Assessment on Packaging Supply Chain in Georgia. This report highlights the outcomes and key findings of the above-mentioned research.

According to the research, **83% of the surveyed companies perceive the pandemic crisis as a serious or partially significant threat** and estimate that it will have a substantial impact on business operations. It is noteworthy that despite these expectations, more than a half of the companies did not face any workforce shortage problems amidst the pandemic. For one fifth of them, the business processes were most of all affected by the restricted movement or quarantine of employees. Only 17.2% of the companies temporarily reduced the number of their employees. While combating the crisis in various ways, the new reality has generated the need of working remotely and telecommunication for businesses. Only one third of the companies turned out to be completely ready for the challenge. It is no surprise that the larger the companies grow, the readier their business infrastructure and digital facilities are for the remote work.

Other than the hindrances, the study enabled us to identify new opportunities for businesses amidst the pandemic and to pro-

duce respective recommendations. The majority of the companies agree that the events developed due to the pandemic create some new opportunities for businesses in various areas, such as: development of new goods/services; Changing and adjustment of the existing goods/services; exploration of additional markets; entering new markets; enhancing current capacities/production; development of online sales and purchases, etc.

The need to provide assistance to companies represents one of the key components in the recommendations produced based on the research. The survey has shown that it is a priority for businesses to plan their business continuity and to diversify the products and sales channels. Another important thing is to address the issues of business insurance and continuity. It is preferred that policy makers plan special measures for supporting this sector to ensure the strategic readiness of businesses; raise awareness about the importance of having 'crisis recovery' or 'busi-

ness continuity' plans; offer special insurance packages to businesses in order to insure against business interruptions, and communicate this information properly.

As the research suggests, the companies mostly need assistance in the following components: face-to-face business advice and consultation; holding webinars about possible assistance; sharing news via digital channels; receiving financial advice from accountants or banks; Learning from experience of other companies; receiving advice; financial support from the banking sector concerning loan disbursements. These needs can be easily addressed by implementing targeted programs and engaging business support organizations (associations, membership-based organizations) which have tighter and closer linkages with target businesses in the process; in addition, creating a cluster and focusing collective efforts will cope with these issues less painfully.

INTRODUCTION

The packaging industry has gradually developed into a coordinated system, which ensures safe and effective movement of goods along the entire supply chain. Along with the reduction of total costs of the system, the packaging value chain ensures improved quality and customer service, and eventually makes it possible to maximize the consumer value, sales, and, therefore, profit.

Importance of packaging materials is inseparable from the supply network management processes. In order to establish a successful supply network management, the packaging systems are linked to the aspects such as: marketing, logistics, production and environment. Protecting goods from damage and extending their shelf life makes it possible to effectively distribute the goods; establishes communication with a customer by means of packaging and is one of the key promoters of the goods at the competitive market.

Packaging value chain is a unity of elements that eventually affect the cost of packaging – inputs, labor resources, equipment, transportation and logistics, warehousing services, quality, supplier performance and other direct or indirect costs, which influence the supply chain. It is due to such multilayered impact and significance, that the streamlined functioning of the packaging value chain and its compliance with quality standards have an impact on many economic sectors.

The pandemic (COVID-19) spread at the outset of 2020 has significantly slowed down the development of the global economy, and this negative impact was felt in Georgia as well. Plunged domestic and foreign demand; impeded production; reduced tourism and trade; loss of customer confidence or more stringent financial terms create barriers for smooth functioning of every sector of the economy, including the packaging industry. Indeed, the state of emergency, introduced to stop the spread of COVID-19, greatly affects the enterprises both domestically and throughout the world

Within the framework of the joint initiative of the EU and UNDP, namely, the project “EU Innovative Action for Private Sector Competitiveness in Georgia”, and in cooperation with the company ACT, the UNDP conducted a research - Pandemic Impact Assessment on Packaging Supply Chain in Georgia. This report highlights the outcomes and key findings of the above-mentioned research.

In regard to further implementation of the program, the UNDP aims to take into consideration pandemic-related newly arisen problems and opportunities of the companies represented in the packaging value chain, and to provide adequate support to them to ensure that these companies are able to cope with the emerged situation effectively. For this to happen, relevant information should be collected about the businesses.

RESEARCH METHODOLOGY

In Georgia, the packaging value chain includes the companies producing the paper and cardboard, rigid or flexible plastic, glass, metal or wood packaging, also the companies engaged in the import, distribution and sales of packaging materials. The UNDP elaborated a cluster map of the companies represented in the packaging value chain (see Annex 1: Cluster Map of Companies in the Packaging Value Chain, UNDP), which shows the companies directly linked to the value chain. To assess the pandemic impact on these companies, a questionnaire was elaborated together with the UNDP, which was filled out online and via telephone interviews. The questionnaire contains both closed and open-ended questions. This questionnaire is comprised of four main parts:

- General information about the business;
- Impact of COVID-19: general assessment of economic effects of the pandemic on a business;
 - Assessment of the pandemic impact (if any) directly on the business and its operations;
 - Assessment of financial and non-financial assistance needed by the businesses during and after the pandemic;

The list of companies in the packaging value chain was made by the UNDP working group, where the survey participants were selected based on the principle of representative sampling. Representatives of 718 companies in the packaging value chain were interviewed within the framework of the survey. For analytical purposes, the surveyed companies were grouped under four sectors:

- Production/import of packaging materials;
- Production of food and beverage products;
- Agricultural activity;
- Other production.

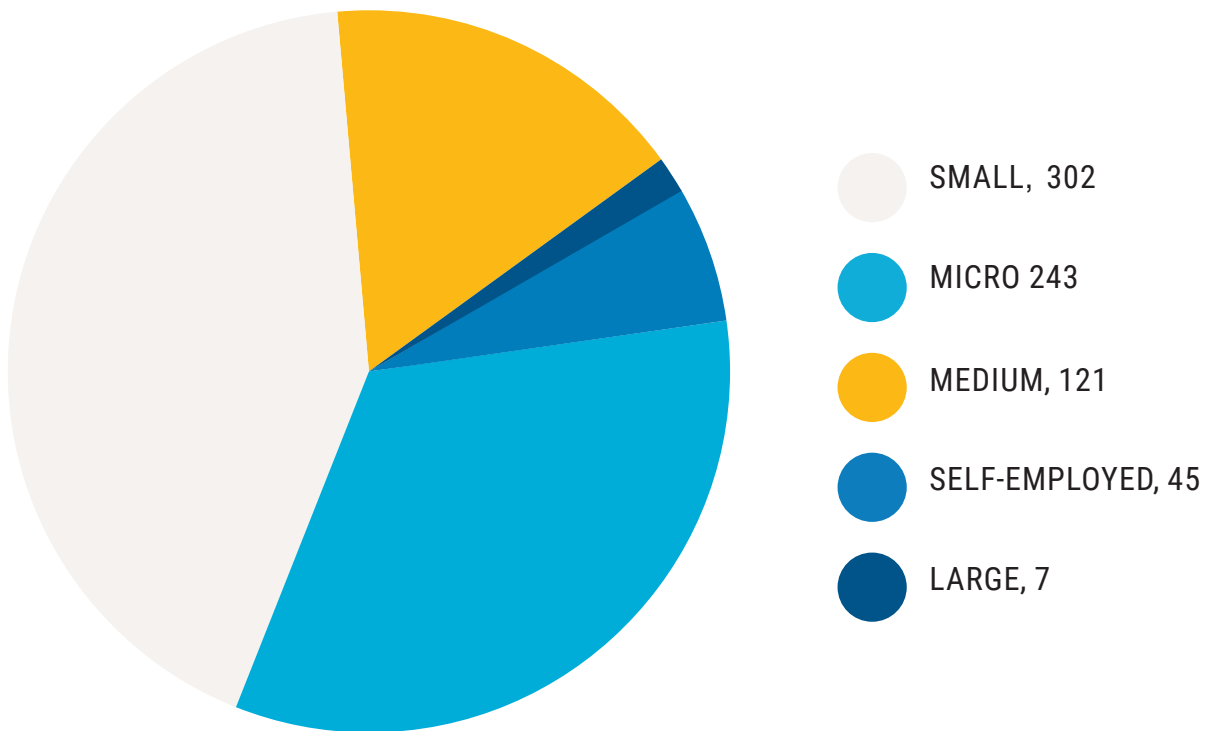
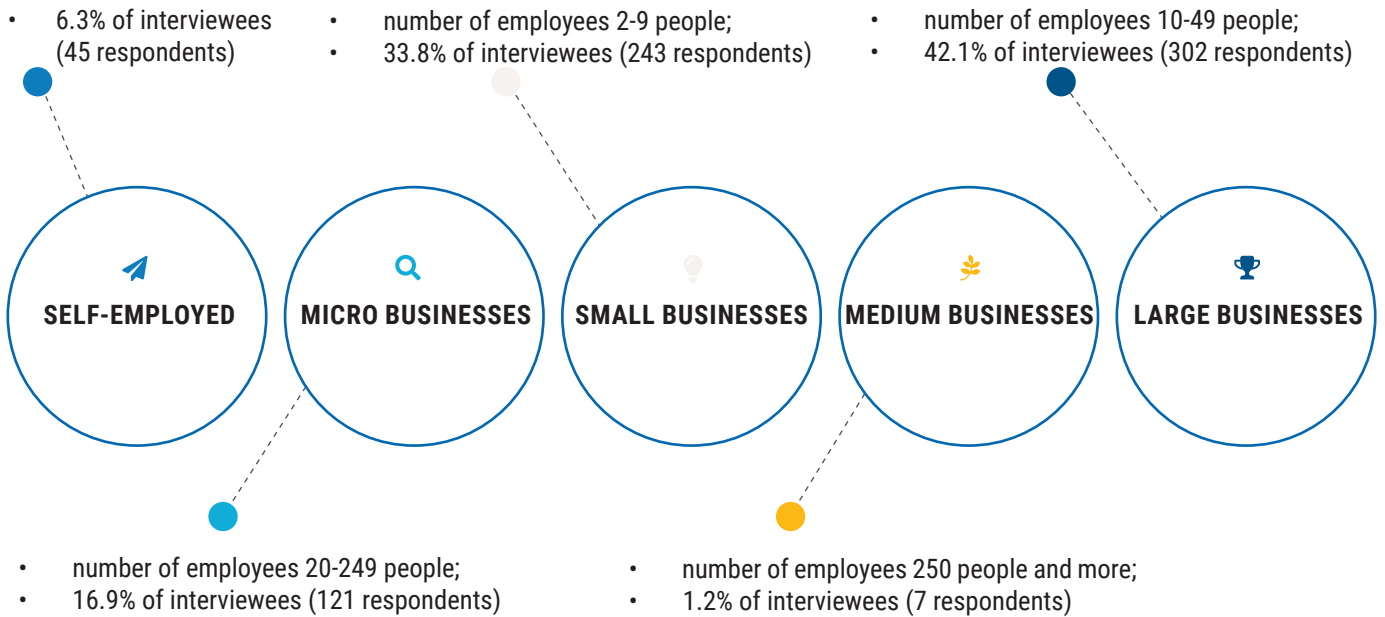
It is noteworthy to point out how the companies are represented in the packaging materials production sector: producers of paper and cardboard packaging – 38.5%, producers of polyethylene and plastic packaging – 40%, producers of glass packaging - 9.23%, producers of aluminum packaging - 7.69%, import/sale/distribution of packaging - 4.62%.

Pursuant to the interests of the project team, special emphasis was laid on Tbilisi, also on Imereti and Kakheti regions. The survey took place in May-June 2020.

PANDEMIC IMPACT ASSESSMENT ON PACKAGING SUPPLY CHAIN IN GEORGIA *– RESEARCH RESULTS*

1. Characteristics of Respondent Companies

DIAGRAM 1: DISTRIBUTION OF RESPONDENT COMPANIES BY BUSINESS SIZE



The surveyed companies represented in the packaging value chain were broken up into regions based on the location of their head offices (see Chart 1). Their majority, 371 companies, are based in Tbilisi and comprise 51.7% of the surveyed ones. In Kakheti and Imereti, respectively, 13.8% and 8.9% of respondent companies are represented. As for the remaining regions, the following are included therein: Shida Kartli and Kvemo Kartli, Mtskheta-Mtianeti, Samtskhe-Javakheti, Guria and Adjara regions. The businesses located in these regions comprise 25.6% of the respondents. It was expected to have such a region-based distribution considering that most of the companies in the packaging supply chain operate in Tbilisi. After Tbilisi, the largest regions were Kakheti and Imereti. Therefore, they were grouped as a separate region for the purpose of the analysis.

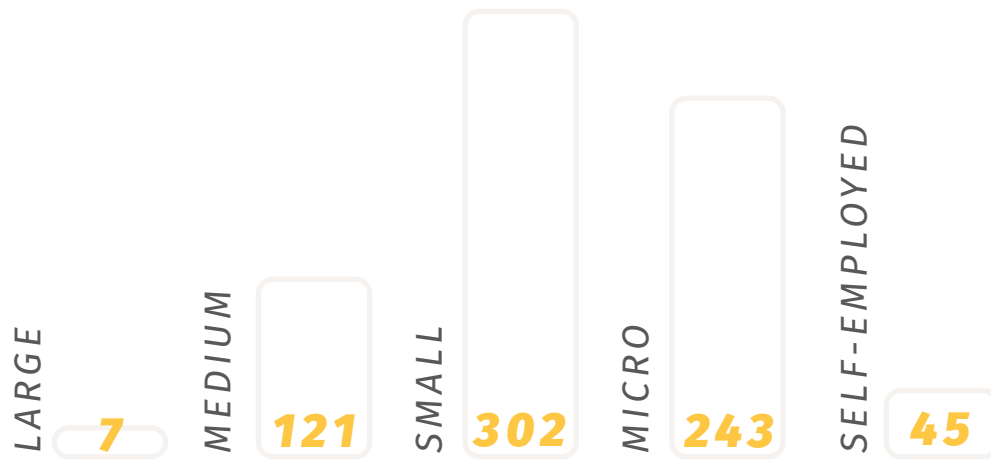
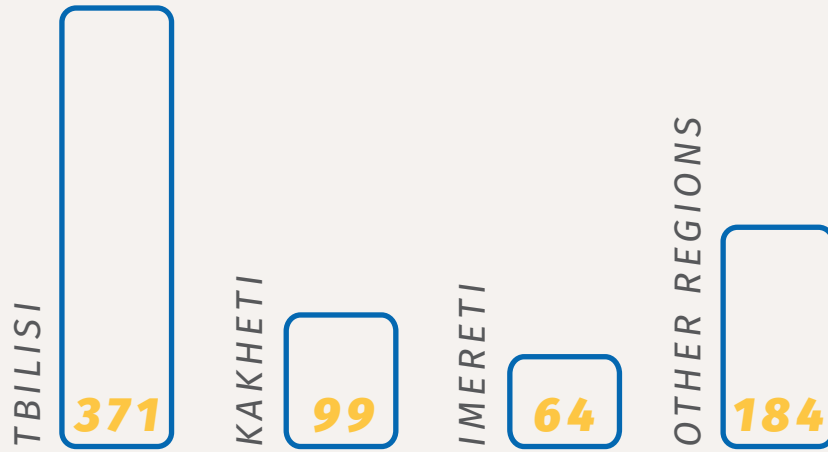
It is significant to look at the distribution of companies by size of their business. In this respect, 4 main categories were identified in terms of the number of employees, and 'the self-employed' were registered as a separate group, as an additional 5th category (see Diagram 1).

The majority of respondents were represented by small and micro businesses, and the large businesses represented the smallest group among interviewees (Chart 1). As for the sector-based distribution, the sectors were grouped according to the main activi-

ty of the companies. Some of the surveyed companies operate in two or three sectors (45 companies). Correspondingly, they were double-included in each sector-based group mentioned above: (1) Production/import of packaging materials, (2) Production of food and beverage products, (3) Agricultural activity, and (4) Other production. The group - Production of Packaging Materials includes the producers of paper/cardboard, polyethylene/plastic, glass and aluminum packaging materials, also the companies engaged in the import, distribution and sale of packaging materials. Other Production also combines retail trade and distribution. The biggest share, 38.9% was made up by the food and beverage producers. Besides, 13.6% of the surveyed companies were engaged in farming or agricultural activities, and 34.4% - in Other Production. As for the production of packaging materials, here 19.2% were included (Chart 1).

In general, characteristics of the surveyed companies are quite diversified according to the regions, as well as the sectors (main activities) and company size. This enables us to generalize the data and results obtained from the survey over all of the companies in the packaging value chain in Georgia, and to produce respective recommendations for the government and donor organizations in regard to providing support and financial or non-financial assistance to these companies during and after the pandemic.

CHART 1.
DISTRIBUTION OF THE NUMBER OF SURVEYED COMPANIES BY REGIONS, SECTORS AND COMPANY SIZE.



280

FOOD AND BEVERAGE PRODUCTION

247

OTHER PRODUCTION

138

PRODUCTION OF PACKAGING MATERIALS

98

AGRICULTURAL ACTIVITY

2. IMPACT OF COVID-19: GENERAL ASSESSMENT OF ECONOMIC EFFECTS OF THE PANDEMIC ON BUSINESS

In order to assess the general economic impact of the pandemic, the companies answered questions about their perception of how serious the threat posed by the pandemic crisis was for their undertakings. In addition, they provided an overall assessment of how the business is operating amid the pandemic and what changes are observed in the activities planned for the year.

The survey results showed that the companies have different perceptions of threat with regard to the COVID-19 crisis, but the absolute majority of the surveyed companies - 83.1% feel some threat posed by the pandemic impact. Among them, 45.1% of respondents (324 companies) think that the pandemic is a serious threat, 273 respondents (38%) think that the pandemic impact represents some threat, 14.1% does not perceive it to be a threat at all, and only 2.8% of interviewees are not sure about how strong its impact can be (see Chart 2). It turns out that COVID-19 generates the feeling of the least threat for large businesses (while answering the ques-

tion, their majority says that they do not perceive the pandemic to be a threat, or think that it represents some threat), as for the self-employed, and micro, small and medium businesses, a half of them considers that it is a serious or some threat, and they make up a group that is more vulnerable to the pandemic impact. As for the sectors, the pandemic represents a serious threat for 44.2% of the sector of production of packaging materials, for 45.3% of food and beverage production, for 34.7% of agricultural production and for 50% of other production. 41.3% of producers of packaging materials think that the pandemic poses some threat, and only 13% of them do not consider this problem to be a threat. There is almost a similar distribution by other sectors. This kind of distribution does not generate any big variances per regions.

It is noteworthy to observe the changes in the plans of companies for 2020 and in their functioning during the pandemic. These details are provided in Table #1.

CHART 2: DISTRIBUTION OF ANSWERS TO THE QUESTION "DO YOU THINK THAT THE COVID-19 CRISIS REPRESENTS A SERIOUS THREAT TO YOUR ENTERPRISE?"

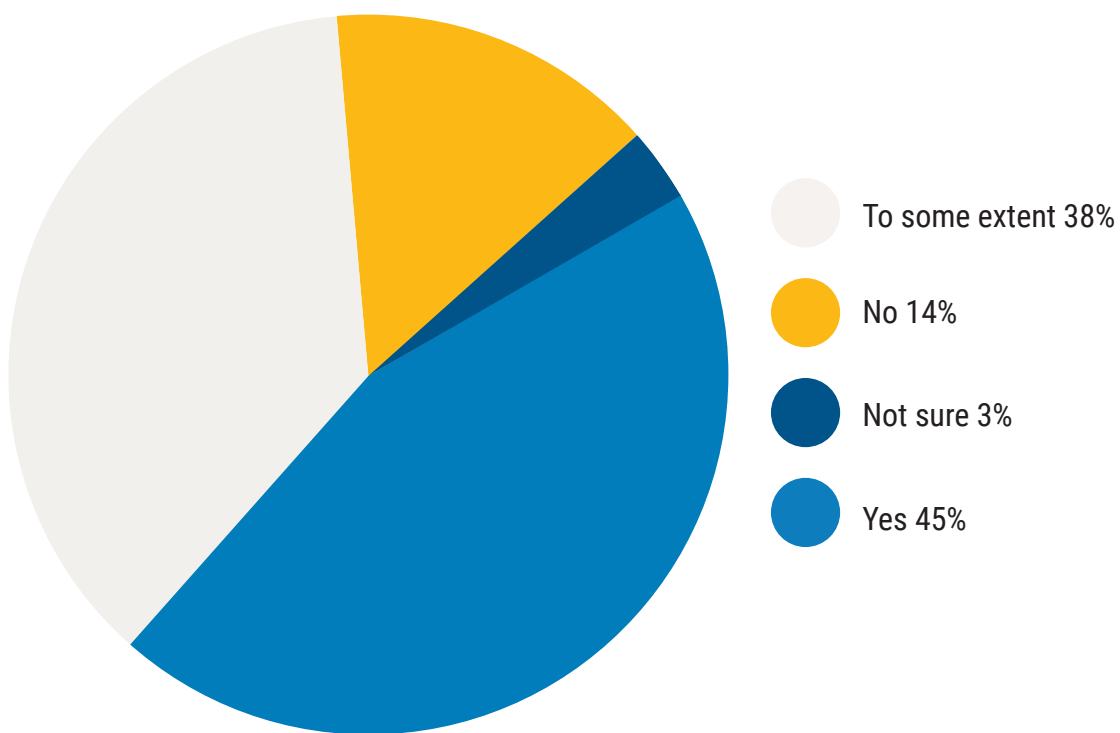


TABLE 1. HAVE THE COMPANIES EXPERIENCED ANY CHANGES IN THEIR FUNCTIONING AMIDST THE PANDEMIC? QUANTITATIVE AND QUALITATIVE DISTRIBUTION OF ANSWERS, IN PER CENTS.

		Quantity	Share (%)
Currently your company is operating	At full capacity	196	27.3
	At full capacity, but remotely	32	4.5
	Partially (among them, remotely)	326	45.4
	Not operating	164	22.8
Do you consider revising the activities planned by the company for 2020?	Do not consider	220	30.6
	Not yet	197	27.4
	Yes, I consider	301	41.9

The majority of the companies shifted to partial functioning during the pandemic, including remote work. However, it is important that one out of every five businesses (22.8%) stopped functioning during the current period – majority of them are represented by micro and small businesses.

If we focus on the production of packaging materials by sectors, currently the majority of companies (65.2%) are functioning partially (among them, remotely), 15.9% are not functioning, 15.2% operate at full capacity, and 2.6% - at full capacity, though remotely. The distribution provided in the table above is similar to the distribution of the data by other sectors and by business size, except for large businesses, where 18.1% of companies operate at full capacity, though remotely, and 42.9% operate partially (among them, remotely).

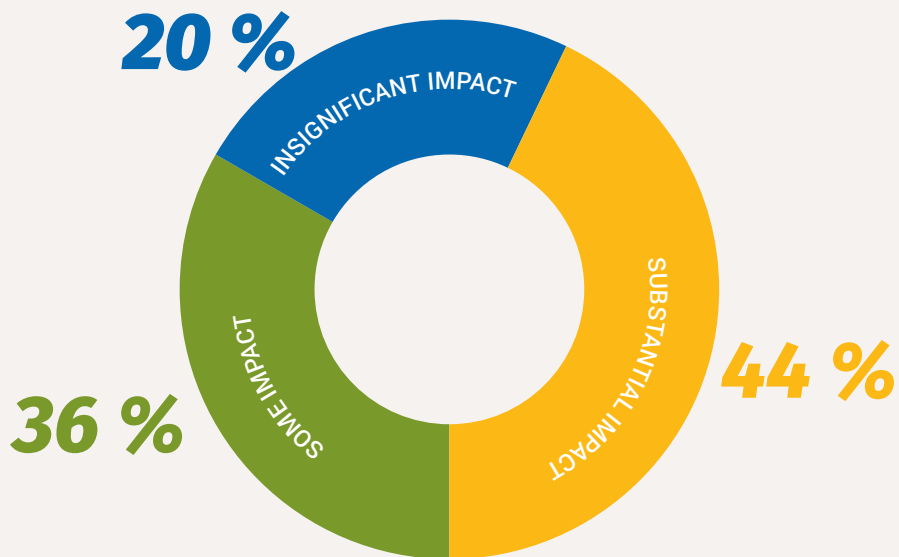
41.9% of the respondents consider revising their plans for 2020. Micro, small, medium and large businesses are represented in this category with almost the same share (on average 47%). Besides, significantly enough, the majority of companies (43% - 46%) in almost every sector, except the production of packaging materials, announce the revision of their plans for the current year. For the sector of production of packaging materials, one third (33.3%) of the companies do not consider revising the plans of 2020, the second third (33.3%) do not consider it yet, and the third of the companies (33.3%) do. Correspondingly, it is difficult to talk about any specific trend in this sector. The research does not reveal any sharp differences in the distribution by regions.

As for the question about the impact of the coronavirus pandemic on a company, the respondents were given three options to choose from: 1. substantial impact, which meant the significant interruption in business operations; 2. partial impact, which reflects the changes in business operations; 3. insignificant impact, when the business keeps on functioning as usual. If we look at the overall situation, the majority of businesses were substantially affected by COVID-19 (43.6%). The pandemic had an insignificant impact only on one fifth of the companies (see Chart 3).

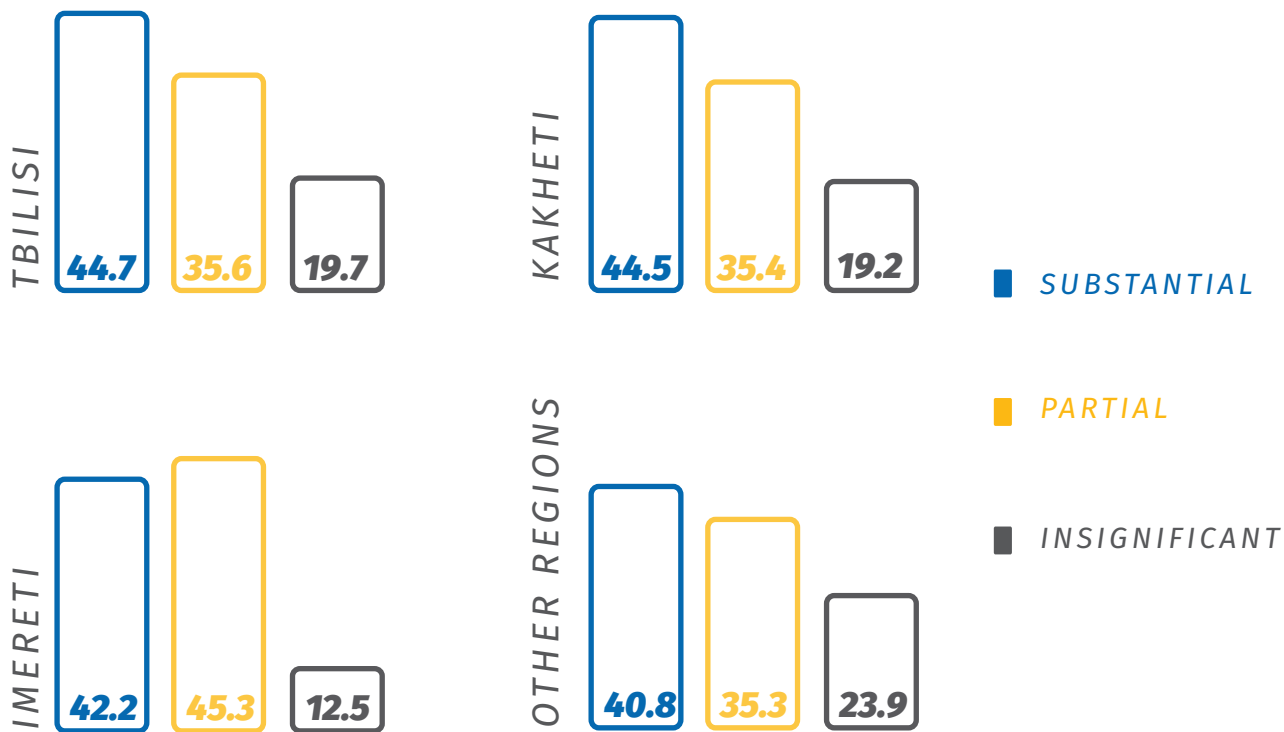
There is no difference in terms of the distribution of the extent of impact by regions, but we cannot say the same about the scope of impact by sectors and size of companies. It is easy to observe that the smaller the business, the more affected it is by the pandemic (Chart 2). The largest companies were affected the least, while the self-employed, also the representatives of micro and small business - the most.

The coronavirus pandemic left its traces on almost every field of activities. The majority of companies in all the sectors of packaging value chain consider that the impact of pandemic was substantial or partially substantial (each of these answers were given by 2/5 of interviewees). If we have a cumulative look at the substantial and partially substantial impact per sectors, the answers would be ranged as follows – production of packaging materials was affected the most, followed by the production of food and beverage products, other production and, lastly, agriculture activities.

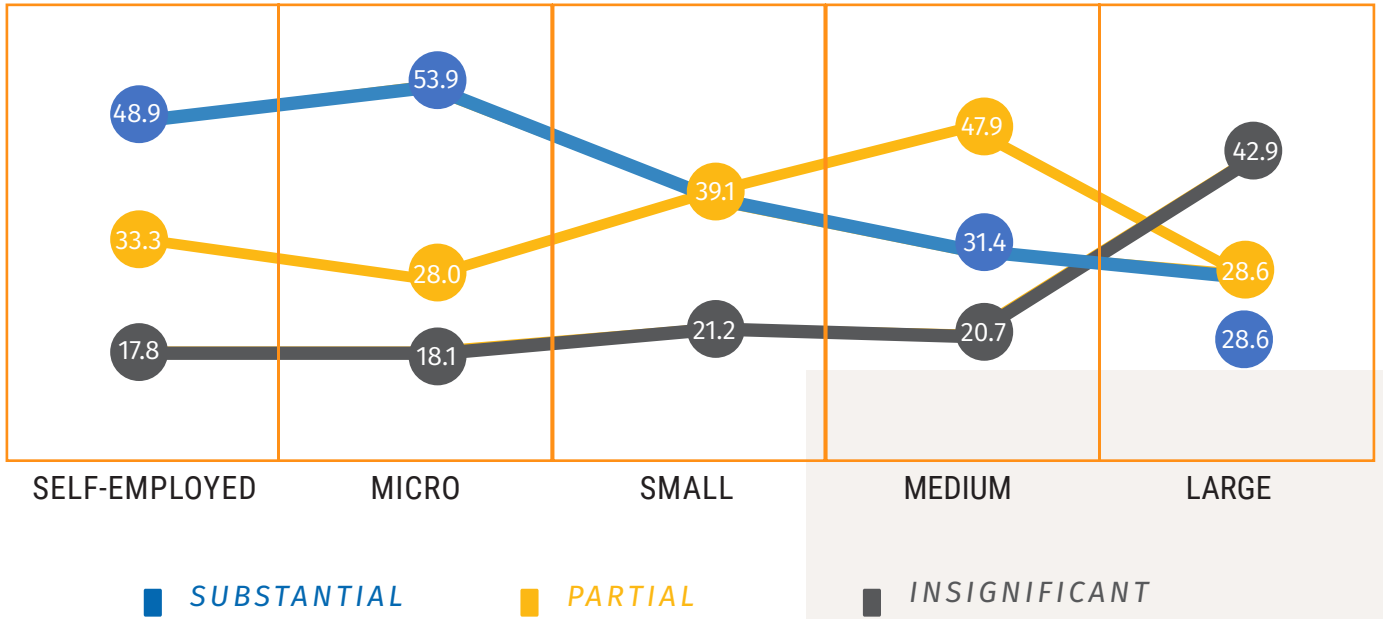
Chart 3. Percentage-based distribution of answers to the question “What was the impact of the coronavirus pandemic on your company?” by regions, by sector and by size of business.



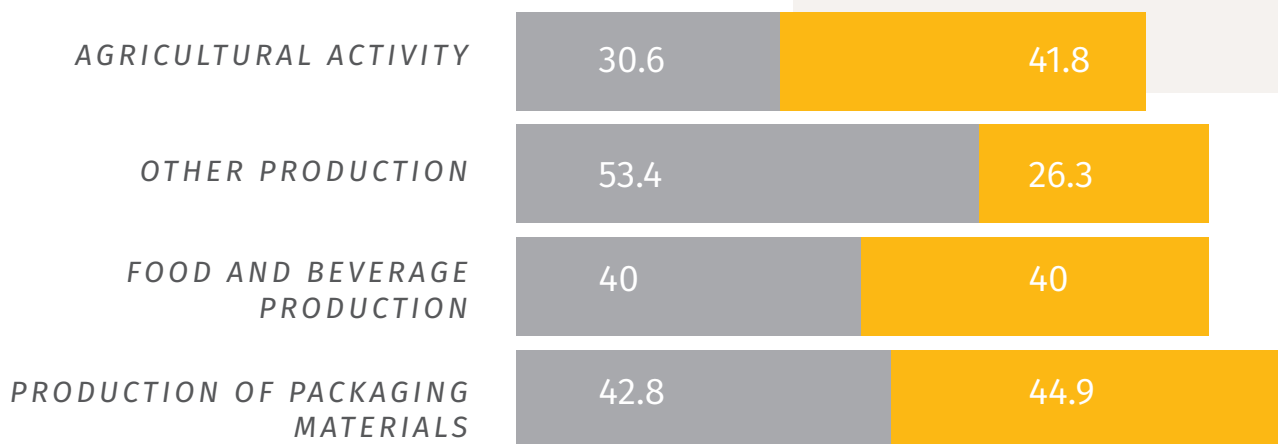
BY REGIONS



BY SIZE



BY SECTORS



3. IMPACT ON BUSINESS PLANS

The next part of the survey of companies in the packaging supply chain applies to those respondents only, whose businesses were substantially or partially affected by the coronavirus pandemic. Their number is 574, representing 79.9% of the companies involved in the survey. Several key directions and issues were emphasized while assessing the immediate impact of the pandemic on businesses, such as: impact on supply chain, revenues, workforce, etc.

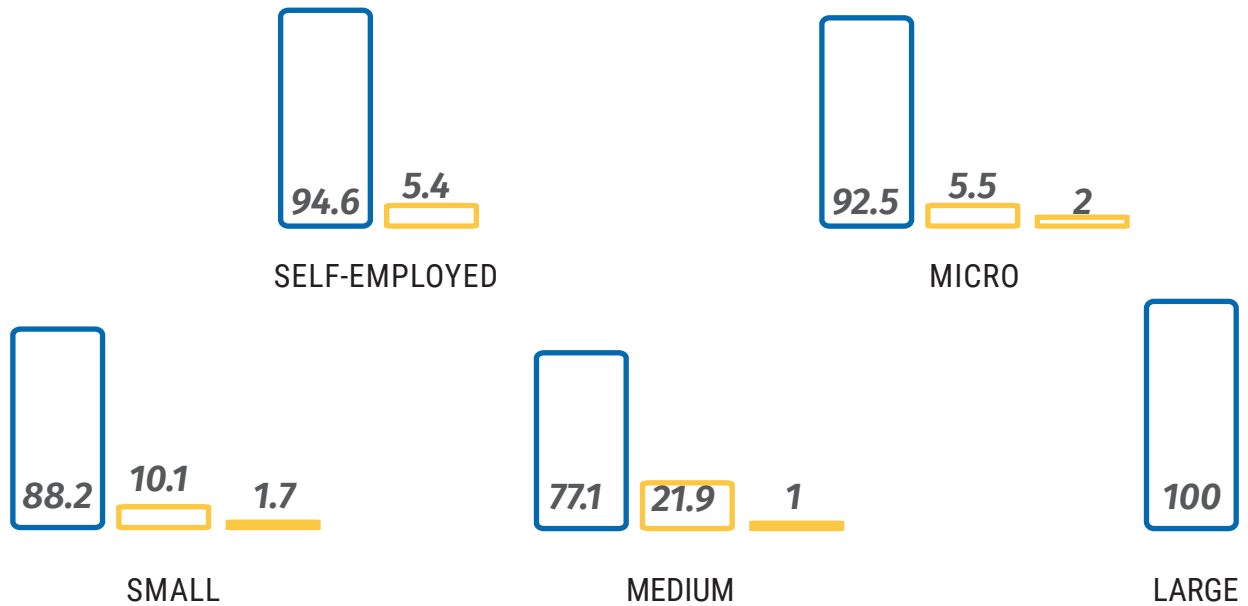
The majority of businesses (88.3%) did not have a business interruption insurance before the COVID-19 crisis

Business interruption insurance for halting the operations due to unforeseen events is an available service in Georgia. It is significant whether the businesses represented in the packaging value chain did any advance preparations for an unforeseen occurrence such as the pandemic, especially considering that the subsequent damage can be assessed in these cases. The research revealed that 88.3% of the companies did not have any insurance at all (Chart 4), only 1.6% of the respondents had such insurance. As for the rest of the companies (10.1%), they only had other type of insurance, such as insurance for immovable property and transport.

The survey results underline several important facts – large companies did not have any kind of insurance before the crisis. Only the minimum number of micro, small and medium businesses had business interruption insurance. The number of other kinds of insurance is also low. By sectors, only a very small part of producers of packaging materials (4.1%) had a business interruption insurance package for avoiding the expenses caused by unforeseen occurrences.

CHART 4. PERCENTAGE DISTRIBUTION OF ANSWERS TO THE QUESTION “DID YOU HAVE BUSINESS INTERRUPTION INSURANCE BEFORE THE PANDEMIC CRISIS?” BY SECTORS AND BY COMPANY SIZE.

BY SIZE

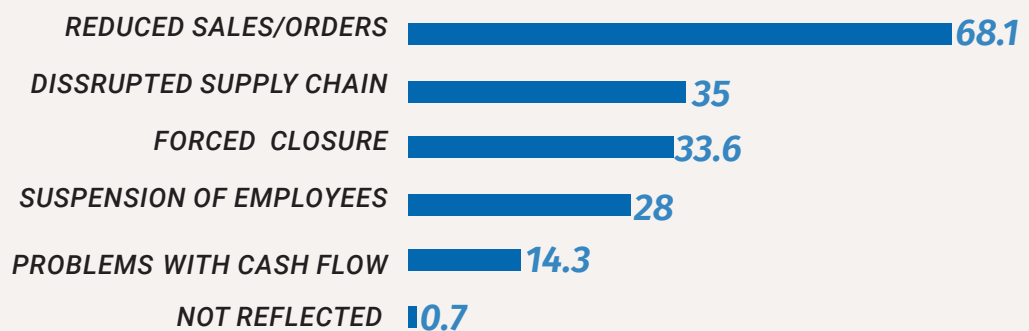


BY SECTOR



In the post-pandemic situation, the companies mostly experience the plunging sales, orders or demand (68.1% of the respondents), also the disruption of supply chain or complications regarding the supply of resources and inputs (35% of respondents). It should be noted as well that some companies were forced to close (33.6%) or suspend their employees for some time (28%). 14.3% of the respondents started to have problems with cash flow (see Chart 5). There is a similar distribution of the above-mentioned causes among the companies and sectors, and the shrinking sales, orders or demands are still named to be the main reasons.

Chart 5: Percentage distribution of answers to the question “if there is an impact, how is the post-pandemic situation reflected on your business activity?”. Note: the respondents were able to mark more than one answer.



The pandemic created some hindrances to the majority of the surveyed businesses. It is significant whether these companies halted their operations due to the crisis, and if they did, what the main reason was behind that. In this regard, 32.2% of producers of packaging materials are saying that their business activities have not stopped, and their company is operating, whereas 33.9% state that the company stopped, but has resumed its operations as of now. As for other businesses, in addition to the mentioned answers, the following responses are provided most frequently stating the reasons of halting operations – one fifth of the companies suspended their operations only for a short period of time, but resumed quite soon; about 18% of business have suspended their operations due to reduced number of orders; and another fifth (20.2%) have suspended their activities because of the instructions issued by the government.

Company revenues and orders have decreased significantly because of the pandemic. For a half of the companies, the reduction is more than 50%.

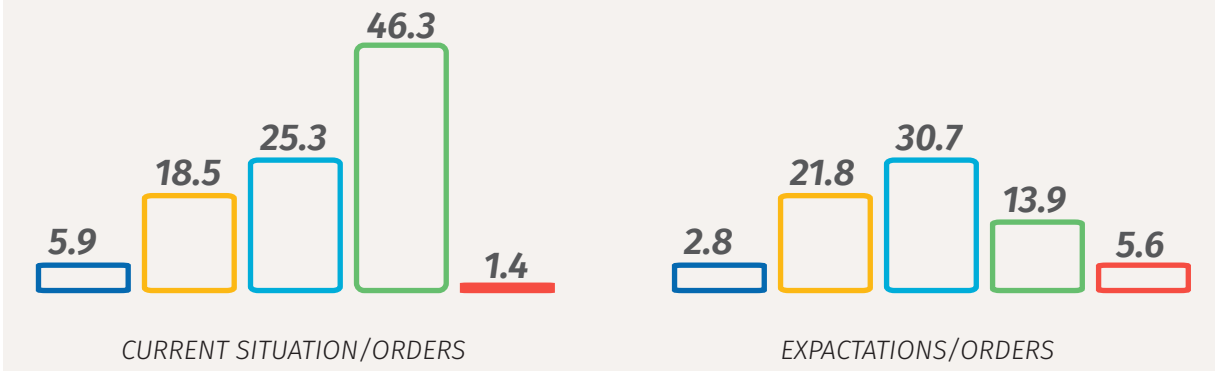
In order to assess the current impact of the pandemic crisis on businesses for the companies represented in the packaging value chain, we decided to have a look at the changes in revenues, orders and workforce volume. The survey revealed that for more than a half of the businesses, currently, the revenues and orders are decreased from 50% to 100%. As for the workforce, here the impact is relatively weak – about one fifth of the companies had to reduce more than 50% of their workforce, and 47.9% did not change the number of their employees. Therefore, we can see that the businesses are quite pessimistic in assessing the current situation (Chart 6).

According to the types of business, the revenues and orders shrank within the range of 50%-100% for about 44% of producers of packaging materials. 53% of them confirm that they did not have any changes in regard to workforce. The answers are distributed similarly for other sectors as well.

CHART 6. PERCENTAGE DISTRIBUTION OF ANSWERS TO THE QUESTIONS “WHAT WAS THE IMPACT OF THE PANDEMIC CRISIS ON YOUR REVENUES TO DATE?” AND “WHAT IMPACT THE PANDEMIC CRISIS WILL HAVE ON YOUR REVENUES UNTIL THE END OF 2020?”, BY COMPANY SIZE.

	Self-employed		Micro		Small		Medium		Large	
	Current situation	Expectations	Current situation	Expectations	Current situation	Expectations	Current situation	Expectations	Current situation	Expectations
No impact	2.7%	2.7%	4%	0%	4.2%	1.3%	6.3%	2.1%	0 %	0%
Reduced by 0%-25%	8.1%	5.4%	12.1%	17.1%	21.4%	22.3%	37.5%	33.3%	25%	0%
Reduced by 25%-50%	24.3%	24.3%	21.6%	40.2%	31.1%	34%	20.8%	33.3%	25%	25%
Reduced by 50%-100%	56.8%	24.3%	61.3%	15.1%	39.1%	16.8%	28.1%	5.2%	50%	75%

■ NONE ■ REDUCED BY 0-25 % ■ REDUCED BY 25-50% ■ REDUCED BY 50-100% ■ INCREASED

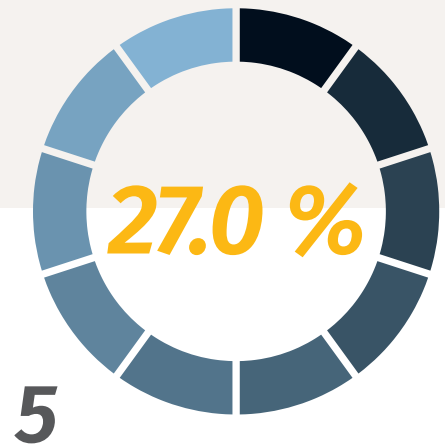
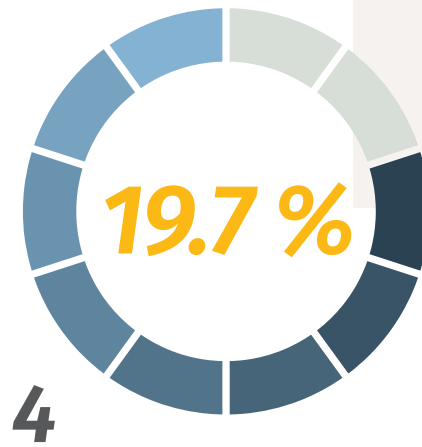
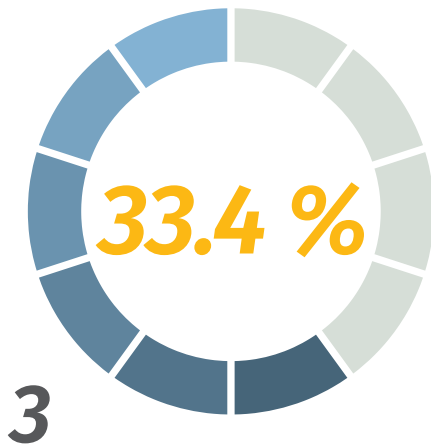
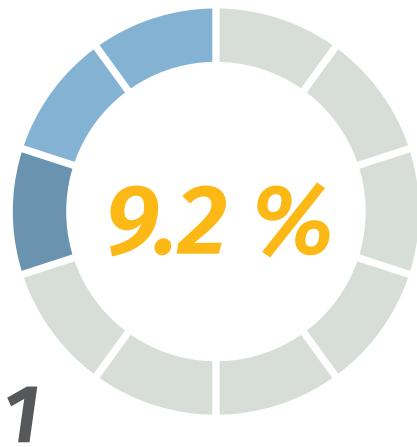


In addition to assessing the current situation, it is also very important to assess the expectations in the short run. This information gives us an impression about the dispositions among businesses and their likely behavior. Only 3.5% of the respondents think that their revenues will increase until the end of 2020. Expectations are much less pessimistic compared with the assessment of current situation. The majority of producers of packaging materials think that by the end of the current year their revenues/orders (41.3% in case of revenues and 38% - for orders) will shrink only within the range of 25%-50%. Their 35.5% announce no changes in their workforce, and 2.5% report the increase. The same applies to other fields of activity both for revenues and orders. If we make our observations by company size, large business representatives are most pessimistic while giving their estimates for the short-term future: their ¾ think that their revenues will decrease within the range of 50%-100% by the end of the year. Such a distribution is observed in regard to the changes in order and workforce volumes.

The pandemic is expected to affect the supply chain of business activities of the companies that are represented in the packaging value chain.

Uninterrupted performance of the supply chain is crucial for the perfect functioning of businesses. Therefore, we included this issue in the questionnaire. In order to assess the crisis impact on the supply chain of business activities, we gave a 5-point assessment chart to the

respondents, where 1 means that the crisis will have no impact on the supply chain, and 5 – that it will have a significant impact. The answers were distributed as follows:



As we can see from the results, the respondents think that the pandemic crisis will have a significant impact on the supply chain – the absolute majority of answers are concentrated within the range of “moderate impact – significant impact”. The significant impact of the crisis on supply chain is most severely perceived by the self-employed (43.2%) and large businesses (50%). The majority of small and medium businesses think that the impact on the supply chain is moderate (32.8% and 40.6%, respectively), whereas, about one third of the representatives of micro businesses think that the impact is significant and the other one-fifth think that it is moderate. There are no substantial differences in the distribution of answers by regions. Distribution of answers is identical by sector as well. 38% of the producers of packaging materials give 3 points to the questions (medium impact on the supply chain), and 21% - 4 points. Most of the answers range from medium to significant impact in this sector.

Along with assessing the impact on the supply chain, the problems created in the domestic and imported supply and export processes may turn into an additional impediment for business activities. We have seen that the pandemic created problems in the supply chain for most businesses. Correspondingly, it is important to know what the sources of these problems are for the companies (supply by import, domestic supply), and if there are such problems, what measures are taken to address them. We asked several questions to the respondents about this issue.

- What kind of problems did you start to face in regard to the imported supply and what have you done to address them?
- What kind of problems did you start to face in regard to domestic supply and

what have you done to address them?

- What kind of problems did you start to face in regard to exporting your products and what did you do when the export was interrupted?

Based on the general situation, considering the imported supply and domestic supply, 27.2% of the companies do not use any imported supply at all and for 26.1% this process has not been interrupted. For those companies, which started to have problems in regard to the imported supply, this was mostly related to price increase (23.0%) and import termination/interruption (32.1%).

In case of domestic supply, the picture is quite different. The companies depend on the local supply more, and about one third of them do not use imported supply at all. The share of the companies that do not use domestic supply is quite low and is 7.5%. This service has not been interrupted for 27.7% of companies. However, those, for which the domestic supply became problematic during the pandemic, state that this situation was mainly caused by the interruption/delay/termination of supply (44.9%), and by the price increase (28.7%). The distribution by sectors and sizes is provided in the Chart 7; there are no substantial variances observed by regions.

It is significant what measures the companies refer to for eliminating the interruptions in domestic supply of any kind, or for reducing the pressure. In both cases, the measures taken by companies are similar: about one fifth of the respondents mentioned the slowdown or discontinuation of production. Looking for other domestic suppliers turned out to be a solution to the problem only for 4.9% of respondents.

CHART 7. LIMITED DOMESTIC AND IMPORTED SUPPLY AND SOLUTIONS TO IT. PERCENTAGE DISTRIBUTION BY COMPANY SIZE AND BY SECTORS (MULTIPLE ANSWERS WERE ALLOWED TO BOTH QUESTIONS).

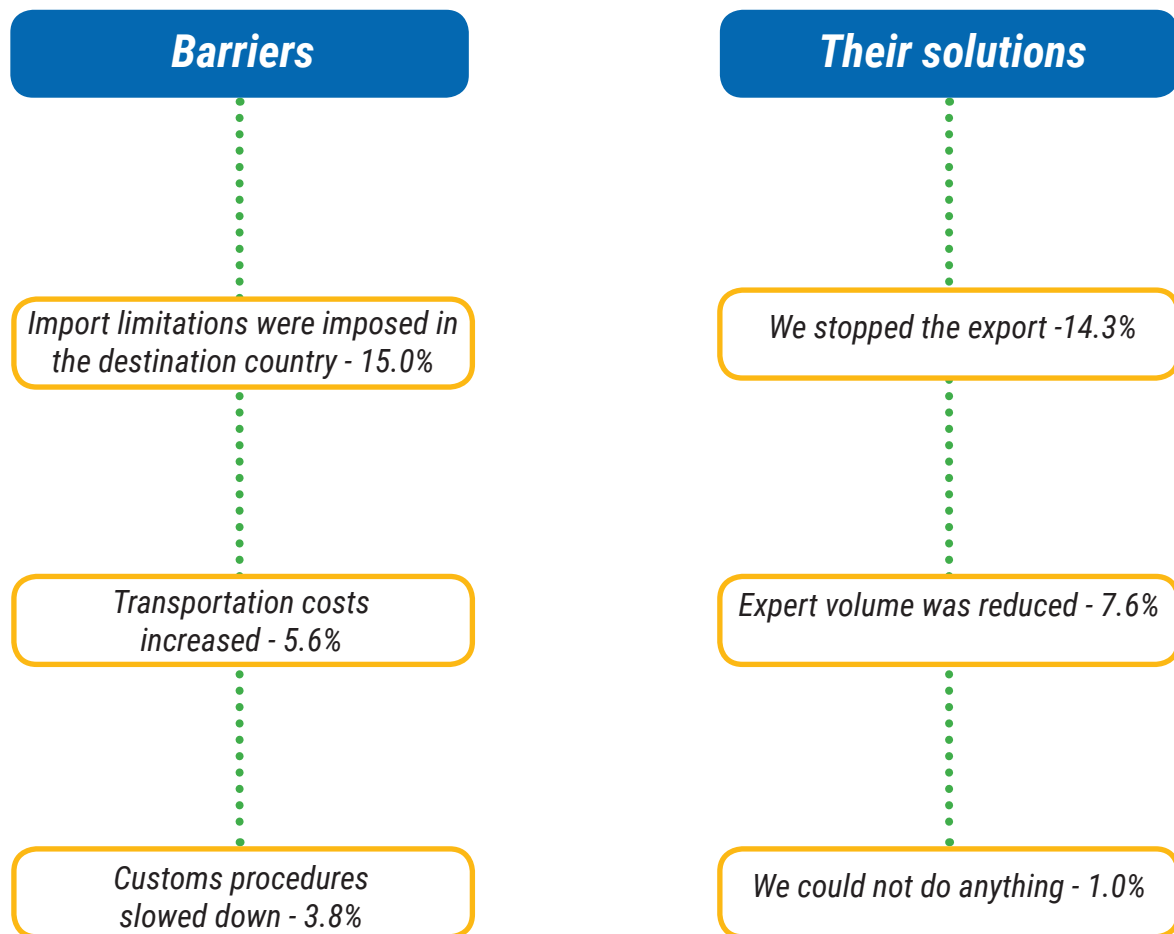


	Production of packaging materials	Food and beverage production	Other production	Agricultural activity
No import	17.4%	33.0%	26.9%	31.0%
Import stopped/delayed	29.8%	28.1%	37.6%	31.0%
Import became expensive	24.0%	19.6%	24.4%	33.8%
No domestic supply	6.6%	4.0%	11.7%	7.0%
Domestic supply stopped/delayed	34.7%	48.2%	49.7%	43.7%
Became more expensive	27.3%	28.1%	27.4%	42.3%

NOTE: THE TABLE CAPTURES THE MOST FREQUENTLY GIVEN ANSWERS BY RESPONDENTS.

The majority of the surveyed companies (55.7%) do not export their products, but for those that do (45.3%), it has not been interrupted. However, the pandemic impact turned out to create hindrances for the remaining companies to continuing their export activities. Exporting companies engaged in the packaging value chain in Georgia mention the emergence of the following types of barriers and problems, and the following solutions (see Diagram 2).

DIAGRAM 2: MAIN BARRIERS AND SOLUTIONS TO THESE PROBLEMS FOR THE EXPORTING COMPANIES ENGAGED IN THE PACKAGING VALUE CHAIN IN GEORGIA



There are no clear differences revealed by breaking up this component by regions and by company size. As for the distribution by sectors, 64.5% of packaging companies do not export their output at all, and this process has not been interrupted for 62.7% of those who does. On average, 59% of representatives of other sectors do not export their output, consequently, this fact has not had any impact on them. The remaining companies speak about the same impediments and solutions.

TABLE 2. PERCENTAGE DISTRIBUTION OF ANSWERS TO THE QUESTION “DID YOU START TO FACE ANY IMPEDIMENTS WHILE EXPORTING YOUR PRODUCTS?” BY SECTORS.

	Production of packaging materials	Food and Beverage production	Other production	Agricultural activity
Not applicable/ has no export	64.5%	43.8%	60.4%	54.9%
No interruptions	62.7%	45.2%	42.3%	31.2%
Import stopped/was delayed in the destination country	20.9%	38.8%	34.6%	34.3%
Transportation costs increased / prices went up	11.6%	9.5%	11.5%	28.1%
Customs procedures slowed down	4.7%	8.7%	10.3%	12.5%

NOTE: THE TABLE PROVIDES THE MOST FREQUENTLY SELECTED ANSWERS BY RESPONDENTS; EXCEPT FOR “NOT APPLICABLE / HAS NO EXPORT”, PERCENTAGE OF ALL THE ANSWERS HAVE BEEN CALCULATED FROM TOTAL RESPONDENTS THAT EXPORT THEIR OUTPUT PER SECTORS.

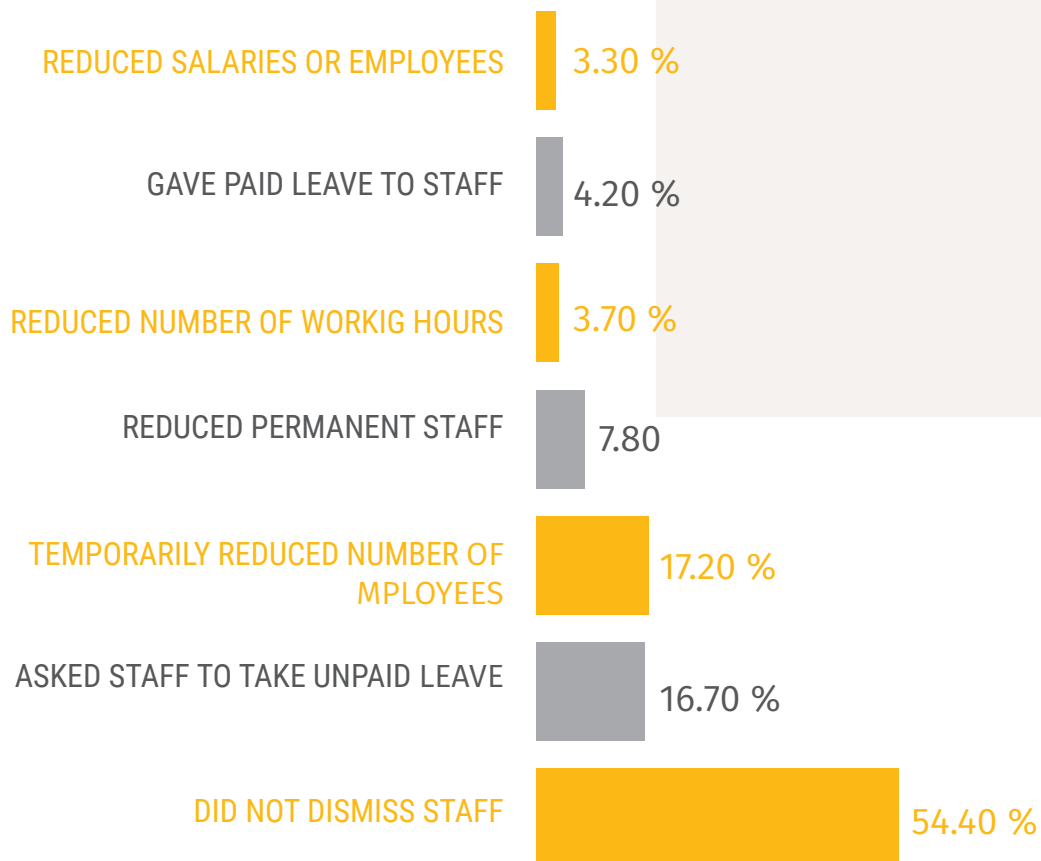
DURING THE PANDEMIC, MORE THAN A HALF OF THE COMPANIES DID NOT FACE A PROBLEM OF WORKFORCE SHORTAGE. FOR ONE FIFTH OF THEM, THE PROCESS WAS MOST OF ALL HINDERED BY THE LIMITED MOBILITY OR QUARANTINE OF EMPLOYEES.

MORE THAN A HALF OF THE COMPANIES (54.4%) DID NOT DISMISS THEIR EMPLOYEES. 16.7% ASKED THEIR EMPLOYEES TO TAKE AN UNPAID LEAVE; AND 17.2% ONLY REDUCED THE NUMBER OF EMPLOYEES TEMPORARILY.

Reducing or dismissing workforce is one of the most widespread approaches for cutting the operational costs during the crisis. This is why this issue is also important for the companies in the packaging value chain. It is noteworthy that the majority of companies (on average 70%) did not face a problem of staff shortage amid the pandemic. Limited mobility or quarantine of their staff hindered the process only for 19.7%.

If we discuss the issue in the light of measures applied by the companies themselves, more than a half of these companies (54.4%) did not dismiss their workforce, but 16.7% asked their employees to take an unpaid leave; 17.2% only reduced the number of staff temporarily. Together with these reasons, the respondents also mention the reduction of permanent workforce (7.8%), reduction of working hours (3.7%), giving unpaid leave to their staff (4.2%), reducing the salary of their employees (3.3%) (see Chart 8). There are no significant differences among the distribution of most frequently mentioned causes by sectors, regions and company size.

CHART 8: MEASURES TAKEN BY THE COMPANIES IN RESPONSE TO THE CRISIS, PERCENTAGE DISTRIBUTION OF ANSWERS



90.4% OF THE COMPANIES TOOK SOME MEASURES TO TACKLE THE CORONAVIRUS CRISIS.

In regard to the question: “are you taking some measures to stop the coronavirus impact on your business, and if yes, what measures have you applied so far?”, only 9.6% of the companies said that they did not apply any measures. While those trying to mitigate the pandemic effects with their own efforts, have referred to various measures.

Distribution of standard answers to the question is presented in the table below. Also, only the key respondents are identified for each answer, according to the company size. Remarkably, the representatives of small and medium business are referring to more diverse approaches (Diagram 3).

DIAGRAM 3: DISTRIBUTION OF THE MOST FREQUENTLY GIVEN ANSWERS TO THE QUESTION: “ARE YOU TAKING SOME MEASURES FOR STOPPING THE CORONAVIRUS IMPACT ON YOUR BUSINESS, AND IF YES, WHAT MEASURES HAVE YOU APPLIED SO FAR?”. IN ADDITION, THE DIAGRAM SHOWS THE MOST FREQUENT RESPONDENTS PER EACH ANSWER, BY THE COMPANY SIZE.

We stockpiled the goods and materials (17.2%)	self-employed - 21.6%; small - 21.4%, medium 15.6%
We introduced more flexible methods of working (18.3%)	small - 18.1%; medium - 26%; large - 25%
We dismissed the employees (21.3%)	micro - 24.1%; medium - 25%; large - 25%
We are looking for new options of supply chain (18.1%)	micro - 22.6%; medium - 24%
Diversification of existing service/product (4.9%)	medium - 11.5%
We changed the customer communication channels (9.9%)	medium - 14.6%
We introduced a flexible working system (13.4%)	small - 16.8%; medium - 15.6%
We decreased the supply (21.6%)	micro 21.1%; small - 24.4%; medium - 24%
We are negotiating the payment terms and conditions (7.7%)	medium - 13.5%

57 companies provided different answers from the list of answers to this question. They were applying the following measures in order to respond to the pandemic:

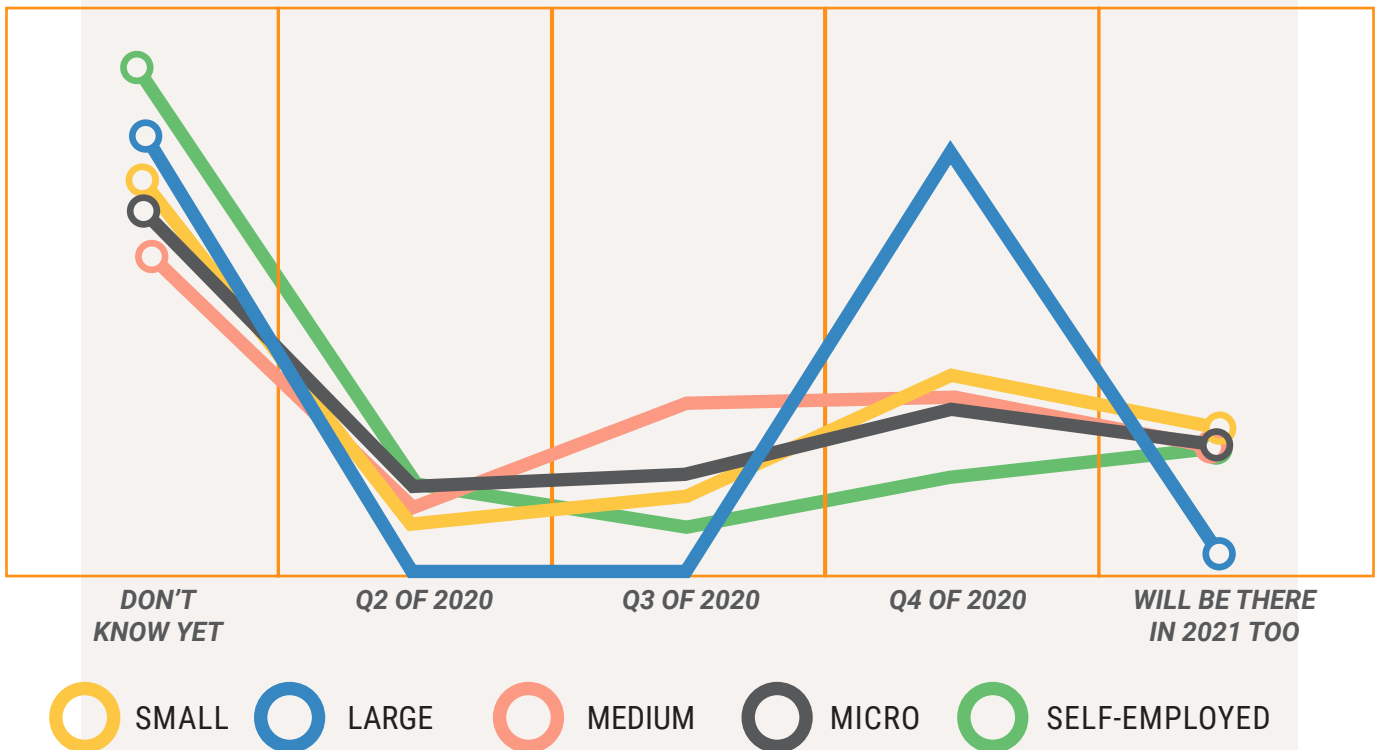
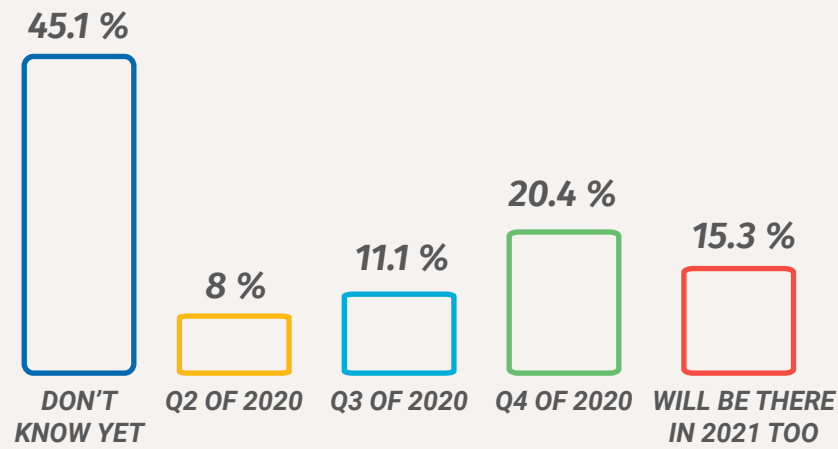
- Stopped working;
- Provide transportation for their staff;
- Gave paid leave to their staff;

Other than the measures listed above, the companies are implementing various additional policies to prevent infection of their employees. Among them, the most popular one is to ensure raising awareness of employees (36.9%), to encourage the staff to stay at home if they feel sick (26.1%), to ensure adequate social distancing among the employees (36.2%), to take temperature of employees (29.1%) and to ensure their protection with personal hygiene items such as a mask (56.1%). Only 11.3% of the companies let the staff work remotely. Other than basic answers, the businesses also mention: disinfecting the entire company and giving the staff an opportunity to work in an open space, employing family members, providing transportation to the staff.

***THERE IS NO COMMON CONSENSUS
AMONG THE COMPANIES PRODUCING
THE PACKAGING MATERIALS ON FOR
HOW LONG THE BUSINESS IS GOING
TO BE AFFECTED BY THE PANDEMIC.***

If we look at the overall picture, we will see that mostly, the companies cannot predict the duration of COVID-19 impact on business. 45.1% of enterprises do not know yet for how long this effect will persist, and 20.4% assume that this will affect even the fourth quarter of 2020; as for the most pessimistic ones - 15.3%, they expect the impact to be there even in 2021 (Chart 9). 41.3% of producers of packaging materials do not know how long the pandemic impact will last. Correspondingly, their answers repeat the general trend.

CHART 9. PERCENTAGE DISTRIBUTION OF ANSWERS TO THE QUESTION: "HOW LONG WILL YOUR BUSINESS ACTIVITIES BE AFFECTED BY THE PANDEMIC CRISIS?", BY COMPANY SIZE.



It is significant how the companies in the packaging value chain will be able to continue functioning and survive if the current restrictions are prolonged. As far as the majority of companies do not know how long the pandemic will have an impact on their business with all other things being equal, we asked the companies about how long their business would be able to operate if the current restrictions stay in place for a longer time. Only 21.8% think that even in these conditions, they can function indefinitely. Among other answers, the expectations were distributed as follows:

- **The business will survive for less than a week 9.8%;**
- **1-4 weeks - 9.1%;**
- **1-3 months - 19.5%;**
- **3-6 months - 16.7%;**
- **6-12 months - 15.0%;**
- **For more than 12 months - 8.2%**

The answers clearly suggest that the majority of companies cannot predict a long future for their business if the current situation continues. Besides, there was no big difference observed in the distribution of answers by company size and sectors.

Last but not least, those companies, whose business was in fact not affected by the pandemic, provide the following explanation for their success -

- **They had the right vision and planning;**
- **Easily managed to shift to working remotely;**
- **Field of activities was not subject to regulations and restrictions;**
- **Delivery service was activated;**
- **The employees did not actually have to work in the same space;**
- **Had non-seasonal business, etc.**

4. ASSESSMENT OF THE NEED OF FINANCIAL AND NON-FINANCIAL AID BY THE BUSINESSES IN PACKAGING VALUE CHAIN DURING AND AFTER THE PANDEMIC

At the last stage of the survey, we asked the respondents to assess their need for aid during the pandemic. In every country of the world, including Georgia, there is a considerable effort is made to mitigate the economic impact caused by the coronavirus crisis. Among them, one of the most widespread and large-scale approaches is to provide accurate and complete information about the pandemic. This process helps businesses to set their plans correctly and overcome the crisis. It is important whether the received information was sufficient and whether this approach assisted the companies in the packaging value chain in Georgia – the respondent feedback is mostly positive. 71.4% of the companies consider that the received information was sufficient for making their plans and overcoming the crisis. Only 7.7% think the opposite, and 20.9% are not sure (the same distribution applies to the producers of packaging materials, as their 73.2% think that the received information is sufficient).

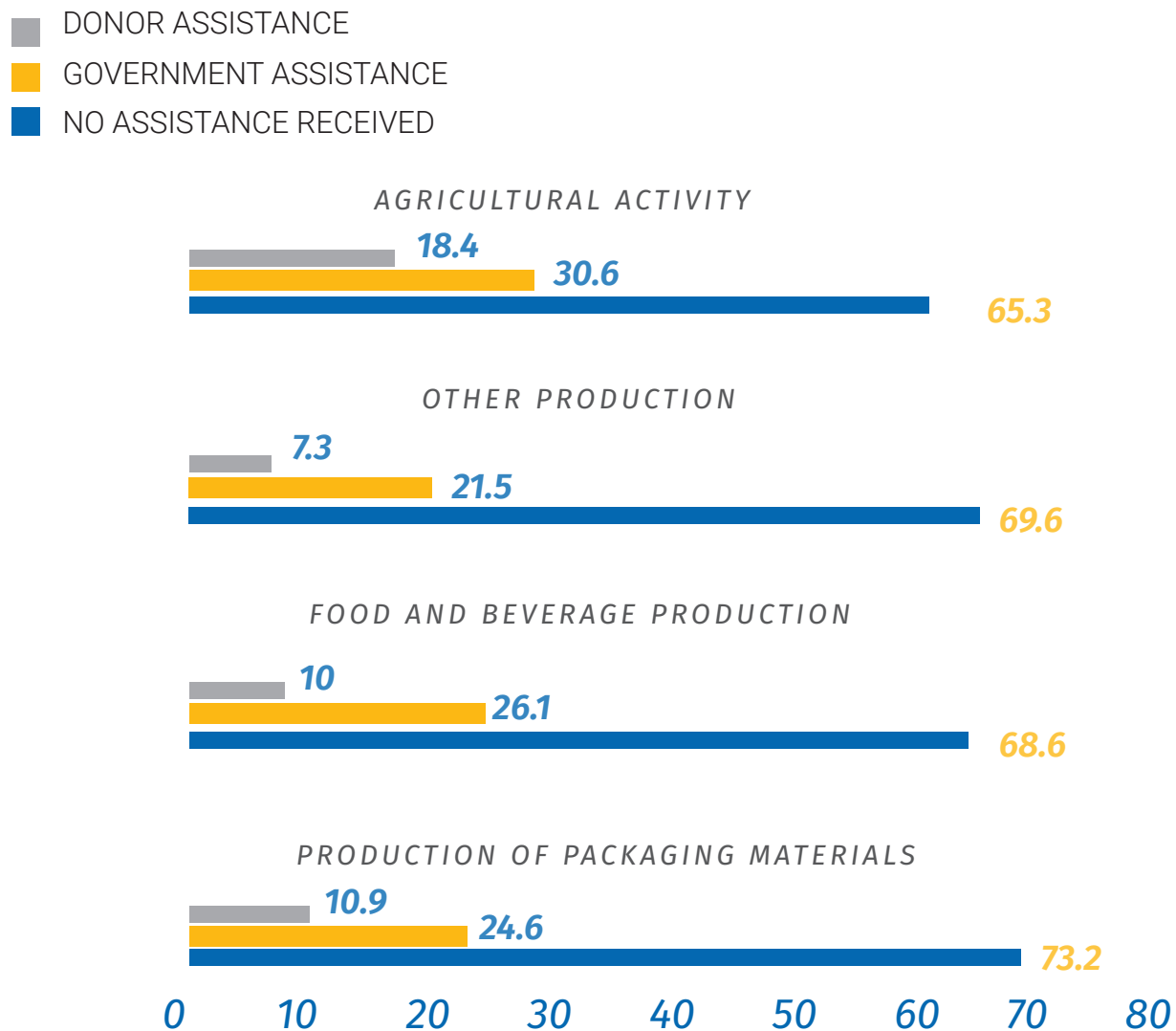
In order to support the economic activity and trade for ensuring that a big part of businesses remain operational, the Government of Georgia and international organizations

have taken many political steps. This includes the targeted financial assistance as well. It is significant how the surveyed companies represent the beneficiaries of these support measures. According to the survey, 23.8% of the respondents have received assistance from the government, and the majority of them are the producers of food and beverage products and other producers as well. Among the producers of packaging materials, 24.6% (34 companies) were the recipients of the government aid. Size-wise, small business represents the biggest beneficiary of the government aid.

10% of interviewees received donor assistance. In this category, the majority is represented by the same sector, and only 15 producers (10.9%) of packaging materials get the donor assistance (see Chart 10). In this case too, small business is the largest beneficiary of donor assistance, according to the company size. More than a half of the respondents did not receive this assistance.

Chart 10. Percentage distribution of answers to the question: “did you receive or are you going to receive the assistance provided by any donor and/or government during the pandemic?”, by sectors

CHART 10. PERCENTAGE DISTRIBUTION OF ANSWERS TO THE QUESTION: "DID YOU RECEIVE OR ARE YOU GOING TO RECEIVE THE ASSISTANCE PROVIDED BY ANY DONOR AND/OR GOVERNMENT DURING THE PANDEMIC?", BY SECTORS



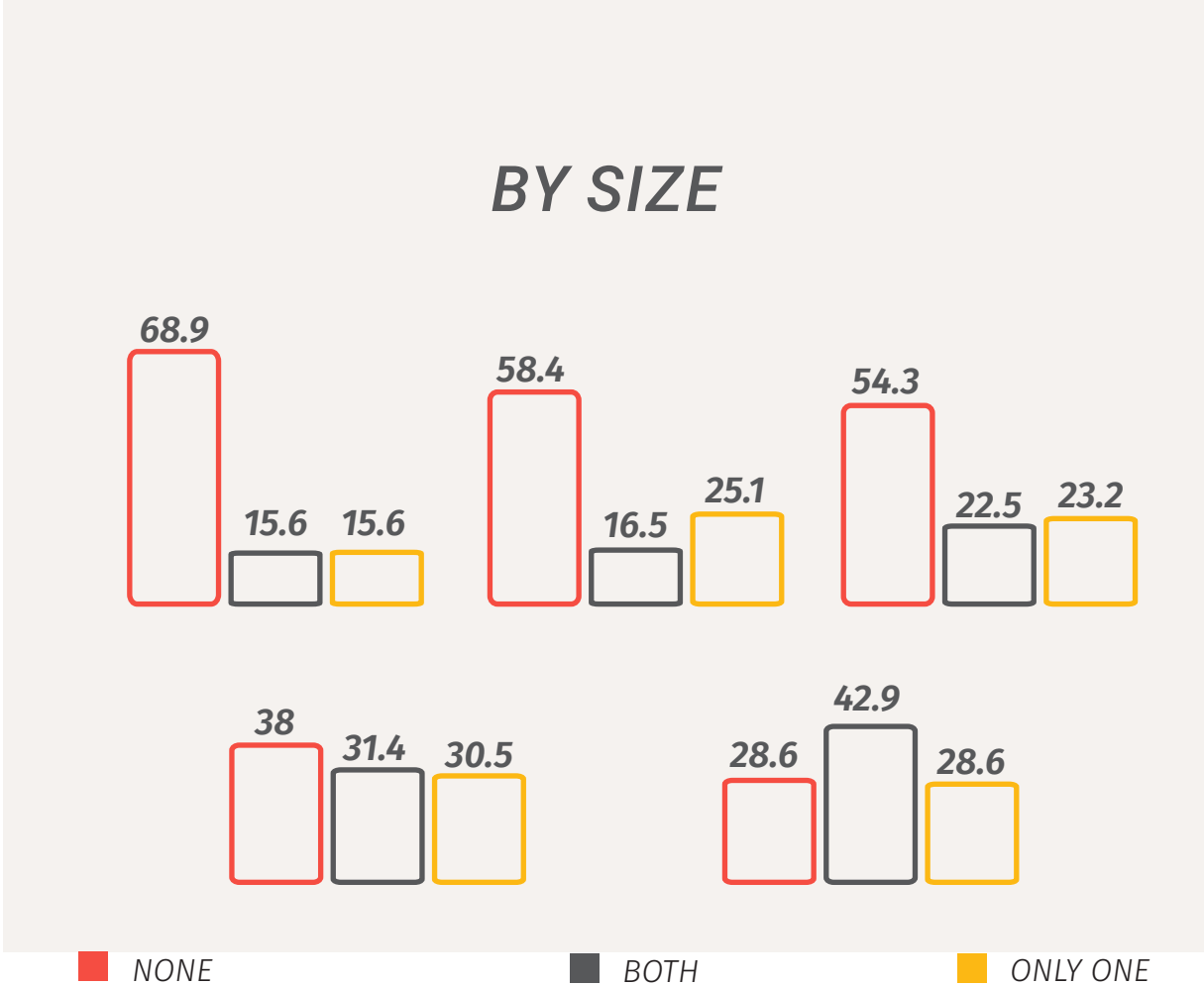
HALF OF THE SURVEYED COMPANIES DID NOT HAVE STRATEGIC READINESS TO MEET THE CRISIS; IT IS BECOMING NECESSARY FOR THE BUSINESSES TO REVISE THEIR STRATEGY AND ADJUST TO NEW CIRCUMSTANCES.

During the crisis, strategic readiness of a business can be demonstrated by the availability of “crisis recovery” (contingency) or “business continuity” plan of the company. When the pandemic poses threat to the functioning of a businesses, it becomes necessary to revise the business strategy and adjust to newly emerged circumstances. This is why the surveyed respondents answered the question: “does your company have a crisis recovery or business continuity plan?”. Unfortunately, more than a half of the companies (53.6%) did not have any strategic preparedness to meet the crisis, and therefore, did not have any of the plans. Only 21.7% of the respondents had

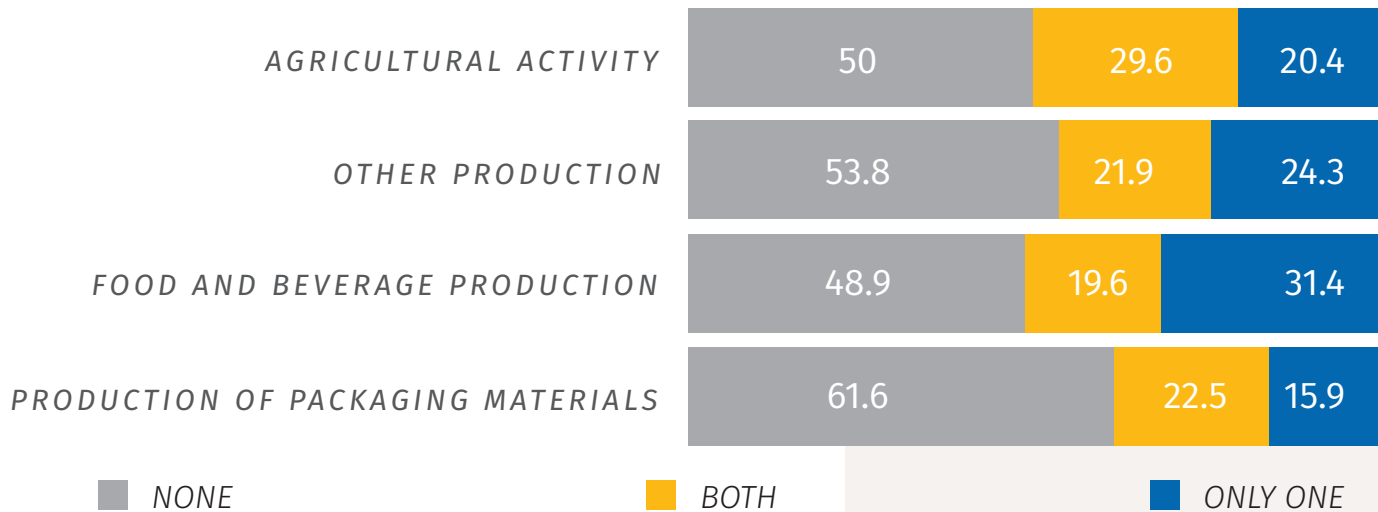
both plans, 14.1% had the business continuity plan only, and 10.6% had a contingency plan to recover from critical situations (Chart 11).

In terms of company size, the majority of the self-employed and micro businesses did not have any of the plans. The situation is slightly better for small and medium businesses. In case of large businesses, only 28.6% of the respondents met the pandemic without a crisis plan. By sectors, producers of packaging materials were the least prepared for the pandemic (see Chart 11). In case of other sectors, a half of the companies or more did not have a strategic preparedness to mitigate the pandemic effects on their businesses.

CHART 11. AVAILABILITY OF CRISIS RECOVERY AND BUSINESS CONTINUITY PLANS AMONG THE RESPONDENTS, PERCENTAGE DISTRIBUTION BY THEIR COMPANY SIZE AND BY SECTORS.



BY SECTOR



Other than the importance of having 'crisis recovery' or 'business continuity' plans, it is also vitally important for the companies to have access to financial resources during the crisis – be it their own finances or alternative/external funding sources, such as: loans and grants. When the majority of companies do not have such plans, it is noteworthy to know whether they have access to financial resources, and if they are able to mitigate the crisis impact at least in this respect. Unfortunately, the survey produced pessimistic results in this area too – 57.9% of the respondents do not have access to sufficient external or internal financial resources. Besides, the results also indicated a trend: **the smaller the company size, the lower the access to finances**, and the self-employed (66.7%) and micro business representatives (65.8%) are the least able to mitigate the crisis impact with their own or raised resources. For the businesses of other size, these shares are distributed as follows – 56% of small businesses, 44.6% of medium businesses, and 42.9% of large business do not have access to sufficient financial means. If we focus only on the producers of packaging materials in the sectors, their 55.8% (77 companies) confirm that they do not have sufficient own financial resources or access to alternative funding sources. See Diagram #12 for the general distribution.

CHART 12. CAN THE RESPONDENT COMPANIES MITIGATE THE CRISIS IMPACT WITH THEIR OWN OR RAISED RESOURCES?



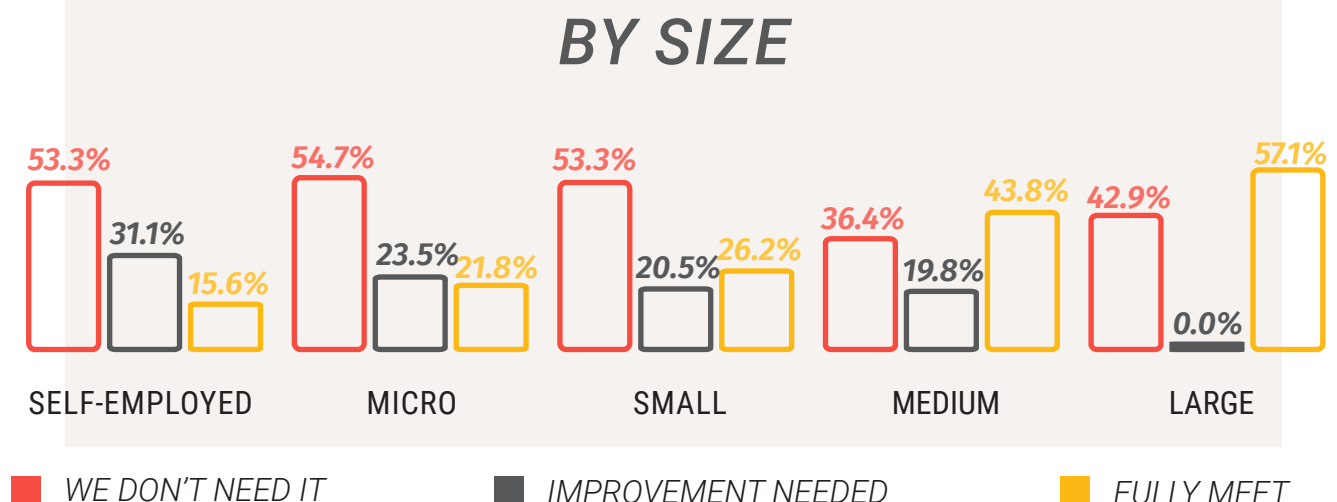
A HALF OF THE SURVEYED COMPANIES (50.8%) DID NOT FACE THE NEED OF WORKING REMOTELY AMID THE PANDEMIC. AS FOR THE OTHER HALF, ONLY 27.3% TURNED OUT TO BE FULLY READY FOR REMOTE WORKING OR TELECOMMUNICATION IN TERMS OF INFRASTRUCTURE AND DIGITAL CAPABILITIES.

The economic crisis caused by the coronavirus created a new reality for the majority of companies – it became necessary to introduce and set up telecommunication and remote working for functioning their businesses. During this period, it becomes necessary not only to rearrange business operations for engaging in trade and services remotely, but it is also possible to make required purchases online. In our case, 81.9% of the surveyed companies did not use or implement the e-commerce service – online sales or online purchases. As for those which did or enjoyed these services – the majority made the online sales within the country (97 companies).

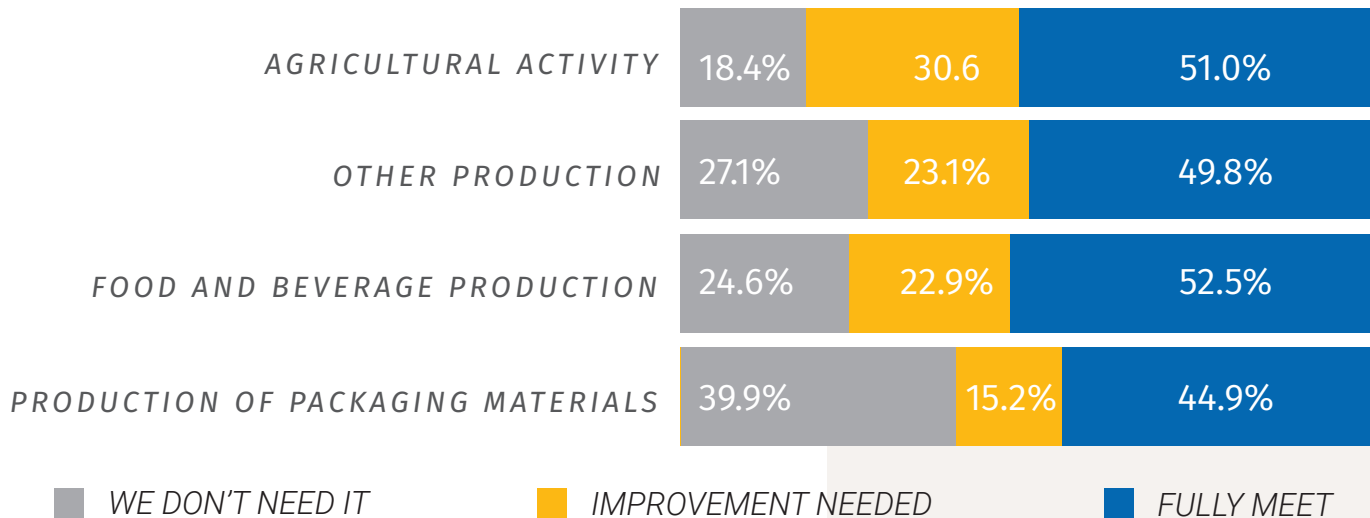
Other than the trend discussed above, a new question has been raised about how ready the companies targeted by the research were for introducing and setting up telecommunication or distance working. The bigger the companies, the readier the business infrastructure and digital capabilities are for working remotely. Medium and large businesses happened to be the most prepared for the challenge (Chart 13).

In order to identify the newly emerged problems, opportunities and assistance needs of the companies in the packaging va-

CHART 13. PERCENTAGE DISTRIBUTION OF ANSWERS TO THE QUESTION “HOW MUCH DO THE INFRASTRUCTURE AND DIGITAL CAPACITIES OF YOUR ENTERPRISE MEET THE NEEDS OF BUSINESS TELECOMMUNICATION/DISTANCE WORKING?”, BY COMPANY SIZE AND BY SECTOR.



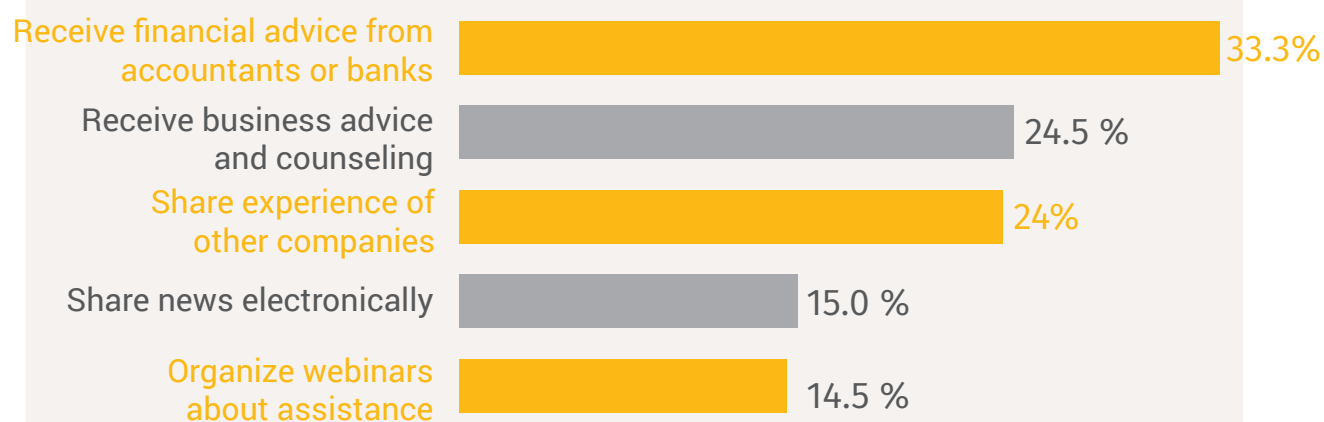
BY SECTOR



lue chain, we asked the companies what kind of assistance they would like to receive. The suggested areas of aid are quite diverse, but we can single out several key priorities (shown in the Chart #14), such as: receiving face-to-face business advice and counseling (24.5%); conducting webinars about available assistance (14.5%), sharing news electronically (15.0%), receiving financial advice from accountants or banks (33.3%), and share the experience of other companies and get their advice (24.0%). Among these potential assistance, there are no priorities identified as per the size of businesses, except for large business, where 71.4% of them would get financial advice from accountants or banks. By sectors, it became a priority for the producers of packaging materials (34.8%) to receive financial advice. Other than the listed answers, the respondents provide additional responses, which have less weight in reference to other responses:

- **Financial aid in terms of disbursing the loans by the banking sector;**
- **Lifting the restrictions imposed during the pandemic;**
- **Facilitating the export of their products;**
- **Assistance in selling their products;**
- **More awareness of the economic plan of the state.**

CHART 14. ASSISTANCE NEEDS MOST FREQUENTLY MENTIONED BY THE RESPONDENTS

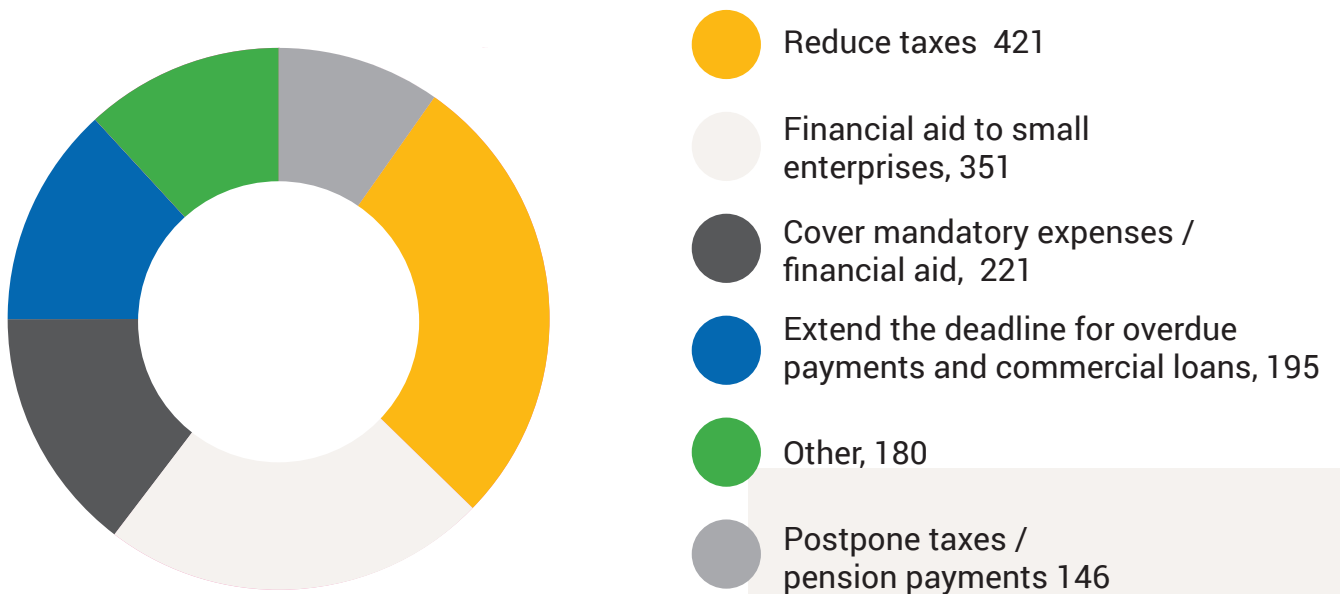


Other than the assistance needs, the companies require various services for development. The research has revealed that business continuity planning and diversification of products and sales channels represent a top priority for the companies. Priority preferences of the companies were distributed as shown below:

TABLE 3. DISTRIBUTION OF BUSINESS DEVELOPMENT SERVICES BY PRIORITIES

	1st priority	2nd priority	3rd priority	Less significant
Business continuity planning	61%	15.7%	5%	18.2%
Diversification of products and sales channels	56%	17.8%	8.4%	17.8%
Export related logistical requirements and limitations	22%	16.3%	11.8%	49.9%
Training in business management	16.7%	22.3%	16.3%	44.7%
Staff training	18.8%	20.6%	17.3%	43.7%
Receive legal advice about the regulations imposed amid the crisis	24.8%	19.4%	19.9%	35.9%

CHART 16. SUPPORT MECHANISMS THAT ARE IMPORTANT FOR THE BUSINESS; DISTRIBUTION BY THE NUMBER OF COMPANIES.



The majority of the companies agree that the events developed because of the pandemic create new opportunities for the business in various directions, but only one third of the respondents (28.6%) disagree with this idea. The respondents mention the following opportunities most often:

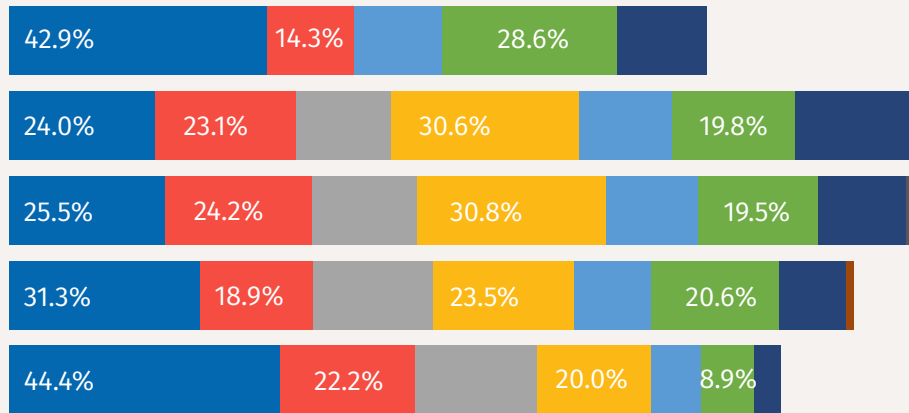
- *Develop new products/services - 22%*
- *Change and adjust existing products/services - 17.8%*
- *Explore additional markets, enter the new markets - 27.3%*
- *Increase existing capacities/productivity - 13.9%*
- *Develop online sales and procurement - 19.4%*
- *Continue the practice of working remotely in the future as well - 12.4%*
- *Engage in new programs - 0.3%*
- *Export the products - 0.3%*
- *Increase the volume of advertising - 0.1%*
- *More mobilization - 0.3%*

Remarkably enough, 0.8% of the medium enterprises also mention exporting their products alongside the opportunities listed above. 0.3% of small businesses (1 company) even started to produce sanitizers (see Chart 15).

It is also possible to include the government proposal in regard to the engagement in the production of personal protective gear (masks, ventilators, etc.) as one of the opportunities, for businesses. The majority of the respondents (66.9%) did not respond to this initiative. While among those engaged in this production, micro and small enterprises and by sectors – the companies specialized in food & beverage and other production prevail.

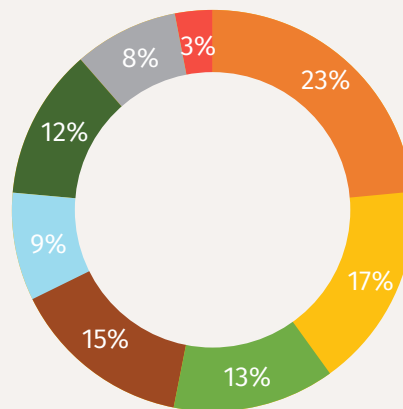
CHART 15. DISTRIBUTION OF ANSWERS TO THE QUESTION: "DO YOU AGREE THAT THE EVENTS DEVELOPED BECAUSE OF THE PANDEMIC CREATE NEW OPPORTUNITIES FOR YOUR BUSINESS?" – BY COMPANY SIZE AND BY PACKAGING SECTOR

BY SIZE



- Do not create
- Development of new product/service
- Change of existing product or service
- Exploring additional markets
- Increasing the capacity/productivity
- Development of online sale/purchase
- Development of the practice of working remotely
- Engagement in new programs
- Export the product
- Started to produce sanitizers

PACKAGING SECTOR



- Do not create
- Development of new product/service
- Change of existing product or service
- Exploring additional markets
- Increasing the capacity/productivity
- Development of online sale/purchase
- Development of the practice of working remotely
- Other

5. RESILIENCE AND READINESS INDICES

We developed the resilience and readiness indices for the surveyed companies to assess and better demonstrate the pandemic crisis impact on and opportunities for the business. The methodology for calculating these indices is based on a similar document of analytical research conducted in Turkey by the UNDP. Due to the country-specific characteristics and slight differences among the surveyed respondents, the methodology was slightly adjusted to the case of Georgia. Weights were assigned to the questions used for the development of the indices based on their importance, and the answers to each question were assigned the points from 0 to 100.

The resilience index is made up of the elements beyond the company control amid the crisis, therefore, the resilient companies (which collected more than 50 points in this index) are those affected the least by the crisis. In contrast, the readiness index is made up of the elements that are under the company control, e.g. strategic planning, crisis management capabilities, etc. (see the detailed methodology in Table 4).

TABLE 4. METHODOLOGY OF RESILIENCE AND READINESS INDICES

RESILIENCE INDEX

1. What was the impact of coronavirus pandemic on your company? (35%)
 - The impact was insignificant – the highest 100 points;
 - The impact was significant – the lowest 0 point.
2. What has been the impact of COVID crisis on your business orders so far? (35%)
 - The orders increased – the highest point;
 - The orders decreased by more than 50% - the lowest point.
3. What problems did you start to face in regard to local supply? (30%)
 - It was not interrupted – the highest point;
 - It was interrupted – the lowest point.

READINESS INDEX

1. Does your enterprise have a Contingency/Disaster Recovery) or Business Continuity Plan? (30%)

- Both – the highest point;
- None – the lowest point.

2. How much do your company's infrastructure and digital appliances meet the need of business for telecommunication/distant work? (30%)

3. Do you take some measures to stop the coronavirus impact on your business? What measures have you taken so far? (mark all the relevant answers) (20%)

- 3 points per each answer, i.e., those selecting 7 answers will receive 21 points

4. Do you consider revising the activities planned by your company in 2020 because of the Covid-19 crisis? (10%)

- No– the lowest point;
- Yes– the highest point;

5. Is the information received about Covid-19 sufficient for you to make plans and be able to recover from the crisis? (10%)

- Yes, the highest point;
- No, the lowest point;

AFTER PROCESSING THE DATA AND ASSIGNING RELEVANT POINTS UNDER EACH INDEX, THE RESPONDENT COMPANIES WERE DIVIDED INTO FOUR GROUPS:

1. Companies with no resilience, though with readiness

(resilience index - 24 points and less; readiness index - more than 33 points)

2. Companies with no resilience and no readiness (vulnerable)

(resilience index - 24 points and less; readiness index – 33 points and less)

3. Companies with both resilience and readiness

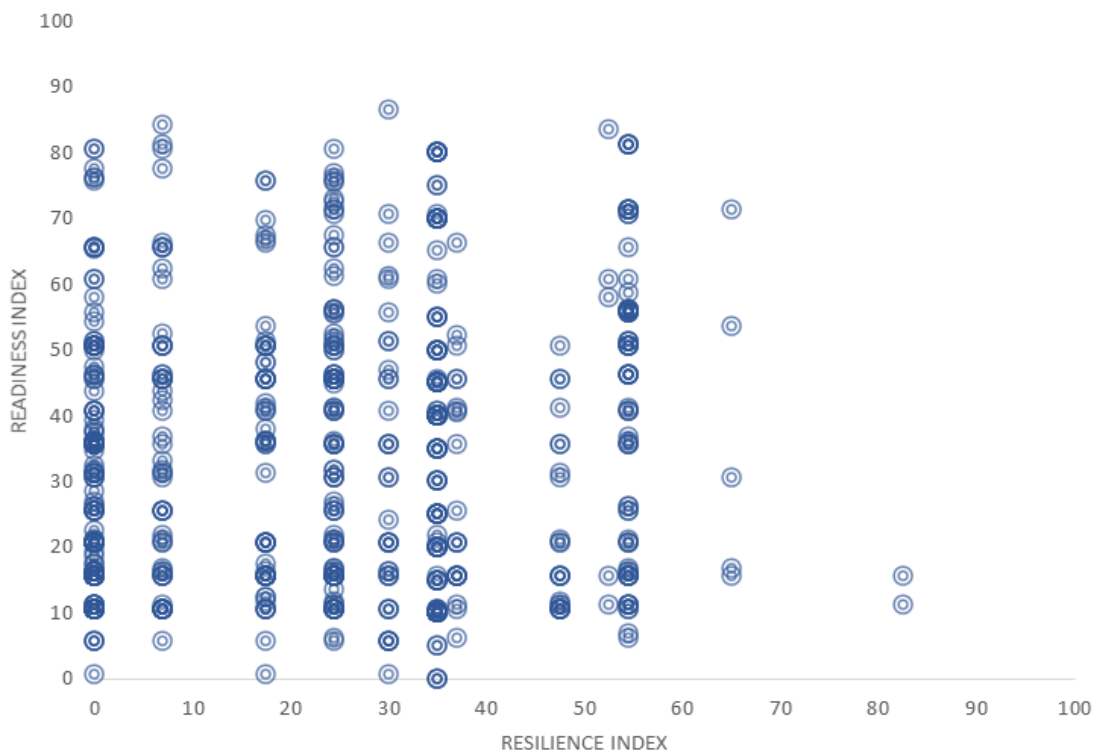
(resilience index - more than 24 points; readiness index - more than 33 points)

4. Companies with resilience, though without readiness (vulnerable)

(resilience index - more than 24 points; readiness index - 33 points and less)

Out of these four groups, the second one – companies with no resilience and the vulnerable ones require the most attention in terms of assistance, whereas the companies in the third group, which includes the companies with resilience and readiness coped with the pandemic best of all. Distribution of companies in the groups is represented in detail in Chart 16. As far as the company distribution per groups provides an opportunity for their differentiation, it is preferable to process the needs analysis for each group individually, and, correspondingly, develop assistance mechanisms separately for them.

CHART 16. DISTRIBUTION OF COMPANIES ACCORDING TO THEIR RESILIENCE AND READINESS INDICES. AVERAGE INDEX INDICATORS ARE MARKED IN RED IN THE CHART (AVERAGE RESILIENCE INDEX =24, AVERAGE READINESS INDEX - 33)



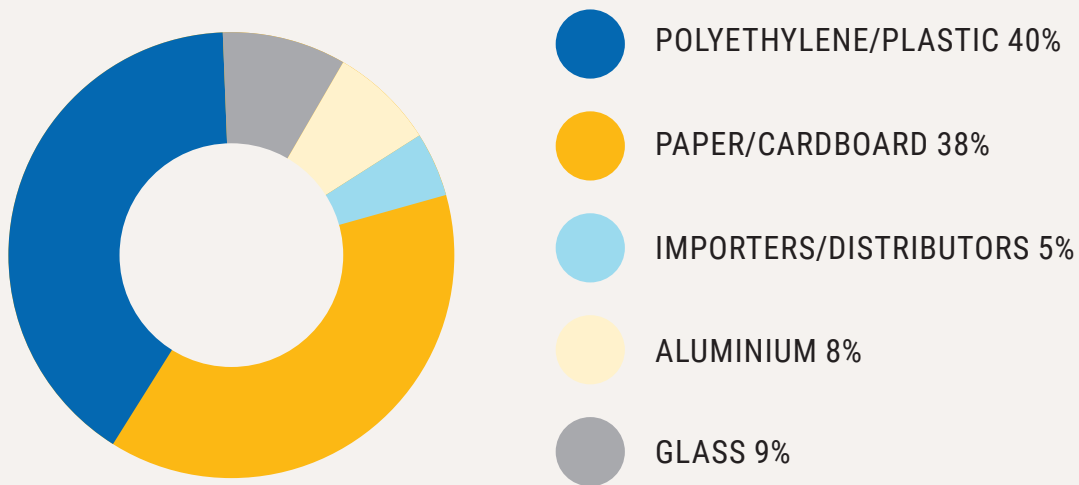
- | | |
|--|--------------|
| 1. Without resilience, but with readiness | 17% |
| 2. Without resilience and vulnerable | 24.7% |
| 3. With resilience and with readiness | 29.9% |
| 4. With resilience, but vulnerable | 28.4% |

6. BRIEF OVERVIEW OF THE PACKAGING SECTOR

For more detailed analysis of the pandemic crisis for the companies in the group of producers of packaging materials, let us briefly review and summarize the results of the analysis of this sector.

The packaging sector combines the producers of paper and cardboard packaging materials, producers of polyethylene and plastic packaging materials, producers of glass packaging materials, producers of aluminum packaging materials, importers of packaging materials and distributor companies.

CHART 17. DISTRIBUTION OF COMPANIES IN THE PACKAGING SECTOR BY THE TYPE OF ACTIVITIES AND BY REGIONS.



BY REGIONS %



The survey results suggest that the level of threat posed by the COVID-19 crisis is perceived differently by companies producing the packaging materials – the majority of producers of packaging materials consider that the pandemic crisis is a partial (41.7%) or serious (43.8%) threat. There is a similar distribution in regard to the pandemic impact assessment: the companies mostly think that the impact is significant or partially significant. 66% of the respondent companies from this sector have opted to shift to a partial, among them, remote functioning style during the pandemic.

Only one fifth of the representatives of the packaging sector did not halt their business operations amid the crisis, although 70% of the respondents from this sector did not have business interruption insurance before the onset of the crisis. Consequently, we may assume that this sector was not getting ready for contingencies in advance, and, as a result, suffered much damage. This resulted in the reduced revenues and orders in case of about 85% of the companies. However, there have not been profound changes in regard to workforce. In addition to the absence of insurance, more than a half (54%) of the companies did not have access to their own or raised financial resources for overcoming the crisis situation.

Producers of packaging materials also announce that the supply chain will be affected by the pandemic as well. Half of these producers consider that the crisis will have a moderate impact on the supply chain of

business activities with import, and the domestic supply plays a big role in the business operations of these companies; whereas, for about 2/5 of them, these processes were not interrupted. As for the remaining companies, they are responding to this challenge mostly by stopping their production or by shifting to new supply channels.

One fifth of producers of packaging materials assume that in the environment of extending the current restrictions, their business will be able to operate for 6 months maximum, and the second fifth predicts shorter life for their business – 1-3 months. In addition, the majority of them think that the crisis will continue until the end of 2020.

In regard to the need for assistance, 73.4% of the sector representatives confirm that the received information is sufficient for making plans and overcoming the crisis. Other than receiving the information, the same number of companies did not enjoy any assistance by donors or government (23% received the government assistance, and 10% - assistance by donors).

It is significant that the answers of packaging sector representatives to the questions about the availability of business continuity and crisis recovery plans resemble the situation of other sectors, and the majority (66%) do not have any of the plans. Only 22% have both plans, which makes it easier to overcome the crisis. As for the business development, the packaging companies distribute the priority needs in the following way (see Table 5).

TABLE 5. DISTRIBUTION OF BUSINESS DEVELOPMENT SERVICES PER PRIORITIES ONLY FOR THE PACKAGING SECTOR

	1st priority	2nd priority	3rd priority	Less significant
Business continuity planning	64.75%	16.55%	3.6%	15.11%
Diversification of products and sales channels	56.12%	18.71%	7.19%	17.99%
Export related logistical requirements and limitations	11.51%	15.11%	13.67%	59.71%
Training in business management	12.23%	22.3%	15.83%	49.64%
Staff training	17.27%	22.3%	15.11%	45.32%
Receive legal advice about the regulations imposed amid the crisis	22.3%	15.11%	21.58%	41.01%

Other than the above-mentioned, the packaging sector representatives think that the most preferred assistance areas are: receiving business advice and counseling, receiving financial advice from accountants or banks, also sharing the experience of other companies. As for the most needed assistance mechanisms, the companies identify the following directions: postponing taxes and pension payments; to reducing taxes; covering mandatory expenses (salaries, rent, electricity payment, fees, etc.) or providing financial assistance.

It is significant to see what new opportunities the pandemic crisis has created for the packaging sector. 35% of the respondents think that the pandemic does not generate any new opportunities, but for others these opportunities basically open up in the following areas: development of new products and services, improving the existing products and services; exploring additional markets.

7. SUMMARY AND RECOMMENDATIONS

Study of companies in the packaging value chain and the assessment of COVID-19 pandemic impact on them enabled us to see the big picture of economic situation for target companies, to identify their main needs and to develop recommendations.

Within the framework of the research, we made a separate section for assessing the financial and non-financial assistance needs of businesses in the packaging value chain during and after the pandemic. Correspondingly, policy makers may completely take this information into account as a basis for their future decisions.

It is noteworthy that despite the negative impact of the pandemic on the business (reduced revenues and orders, impact on supply chain of business activity), the majority of the surveyed companies stated that before the onset of the crisis:

- **They did not have business interruption insurance (88.3%);**
- At the same time, half of the surveyed companies did not have **strategic readiness** to meet the crisis – neither did they have any crisis recovery or business continuity plans;
- 57.9% of the companies do not have access to sufficient external or internal financial resources. Besides, **the smaller the company, the less the access to finances;**

These facts once again underline the vulnerability of the sector to the pandemic crisis. Therefore, it is preferred for the companies in the packaging value chain:

- to elaborate special insurance packages to businesses in order to insure against business interruptions, and to communicate this information properly

- at the same time, it is preferred if policy makers plan special measures for supporting this sector to ensure strategic readiness of businesses; **to raise awareness about the importance of 'crisis recovery' or 'business continuity' plans; to offer specialized or general trainings to the businesses for their practical implementation.** With these approaches, the target businesses will be able to cope better with similar crises anticipated in the future.

It can be regarded positive that the majority of companies considered that the information received about the pandemic crisis was sufficient for making plans and overcoming the crisis. However, this fact failed to prevent the companies from making pessimistic forecasts about the continuation of their business operations and their recovery in the pandemic environment. If this situation persists, the majority of companies cannot predict a long future for their own business and assume that their business may completely stop functioning within 1-3 months. Despite the difficult situation, more than a half of the surveyed respondents have not received any assistance from the government or from donors.

While combating the crisis, the new reality generated the need of distance work and telecommunication for businesses. Only 27.3% of the companies turned out to be fully ready for this challenge. It is no wonder that the bigger the companies, the readier their business infrastructure and digital facilities are for working remotely. Medium and large businesses turned out to be the most prepared for the challenge. Therefore, the small business owners are the most vulnerable in this component.

According to the research, the companies mostly need assistance in the following components: **receiving face-to-face business advice and counseling; conducting webinars about available assistance; sharing news electronically; receiving financial advice from accountants or banks, sharing the experience of other companies, advice and financial assistance from the banking sector regarding the loans;**

- These needs can be easily addressed by implementing targeted programs and engaging **business support organizations** (associations, membership-based organizations) having tighter and closer linkages with target businesses in the process;
- Creating a cluster and having collective efforts will help cope with these issues less painfully.
- Despite the government efforts invested in regard to providing loans to businesses, there are still many respondents in need of assistance in terms of taking loans from the banking sector. Therefore, it is desirable to provide more detailed information to businesses about the issue through diverse measures.

There have already been some steps taken in regard to important business support mechanisms identified by the respondents, but the research reveals that more efforts are needed in this direction, such as:

- To postpone/reduce taxes and postpone pension payments;
- To postpone debts and commercial loans;
- To cover mandatory expenses and provide funding;
- To provide financial assistance to small enterprises.

- We should not disregard the existence **of new opportunities for companies in the packaging value chain created as a result of the pandemic;**

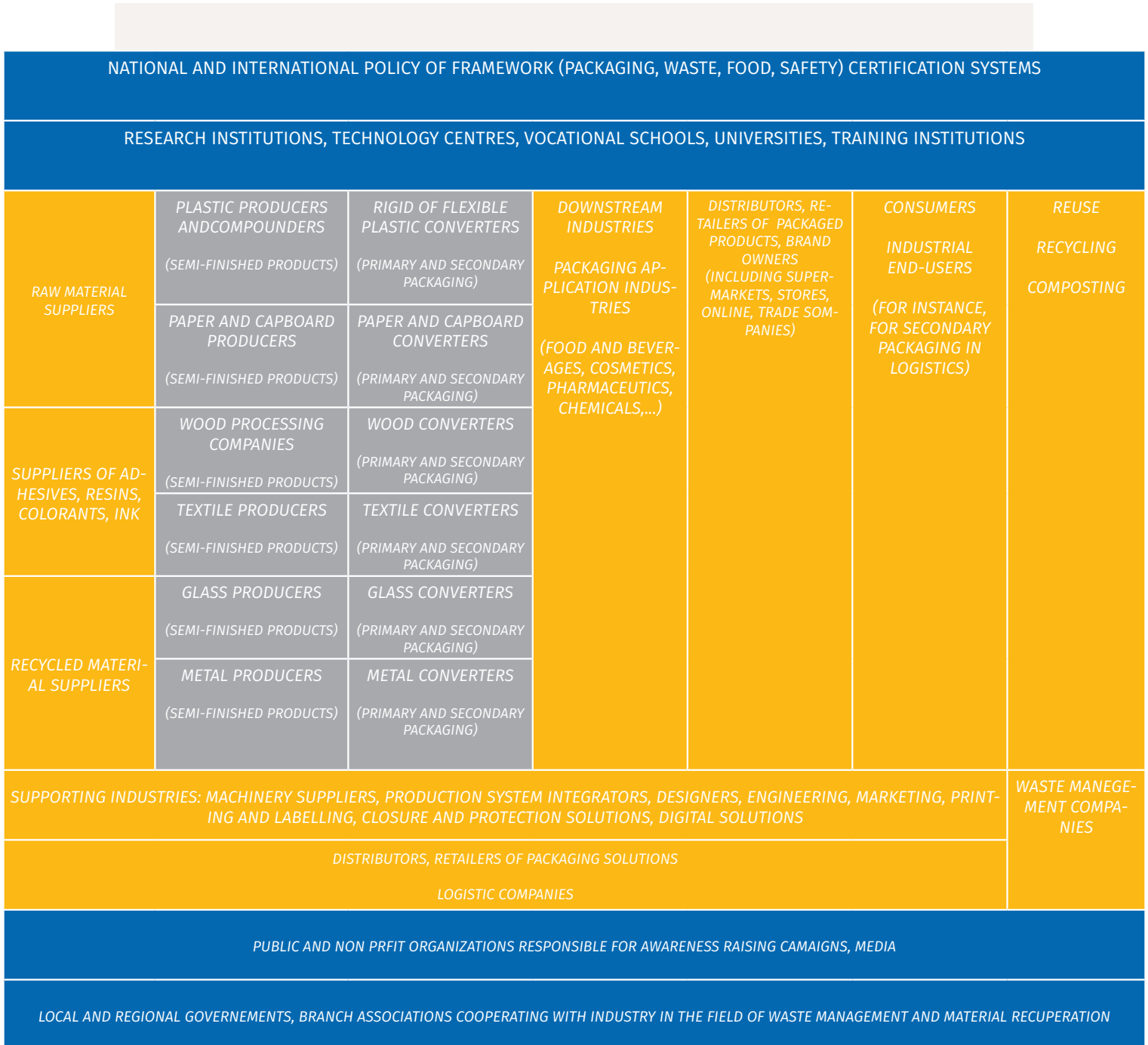
- Majority of businesses have started taking measures to develop new products or services, or to modify or improve them;

- In addition, a need to explore new/additional markets was created, correspondingly, the companies needed to implement new approaches and ways to achieve this goal;

- It is significant that the development of remote work and online sales practice is considered to be one of the important opportunities by the companies.

It is desirable to support the companies in taking the advantage of newly created opportunities, and to provide more information to them in reference to these opportunities.

ANNEX 1: CLUSTER MAP OF COMPANIES IN THE PACKAGING VALUE CHAIN - UNDP



■ FREE MEMBERS

■ MEMBERS

■ ASSOCIATED MEMBERS