

2022 Q1 Customer Bulletin

Contents

2022 Q1 Customer Bulletin	1
The Message of Ph. D, Abdullah Gayret	2
Global Climate Summits	3
Hybrid Life	3
Close the Glass Loop.....	4
Deposit Refund System (DYS)	5
Adaption to Changing World: Blockchain	5
Packaging of the Future: Glass	6
International Year of Glass 2022	6
Global Inflation Crisis.....	7
UNICEF (United Nations International Children’s Emergency Fund).....	8
Simple Tips to Reduce your Carbon Footprint.....	9

The Message of Dr Abdullah Gayret

Since its establishment in 2015, GCA has been a company that has an innovative mindset and dynamic staff, attaches great importance to development in technological and digital fields and makes investments in this field, and manages all production processes on a global level with high quality and safety standards sensitivity.

Our understanding of service, which focuses directly on the wishes and needs of our business partners, the importance we place on quality and innovation in products, being always accessible to our business partners, is crowned with the successful and award-winning projects we have created together, and further strengthens the lasting bonds we have established with our business partners. With our second furnace investment in 2021, we doubled our capacity and worked without slowing down to better respond to all your needs. When we come to 2022, we aim to strengthen this bond further with our investment and employment plans. In this way, we will strive to respond to the market's high demand with the happiness of continuing to be an active player on a global scale together with you.

We were delighted to realize our investment adventure last year, just before a process declared as the "2022 International Year of Glass" by the United Nations (UN)! As GCA, we attach great importance to sustainability movements. In particular, we closely follow and participate in the projects and developments of the European Union Glass Packaging Manufacturers Federation (FEVE). We aim to crown our breakthroughs in "Healthy and Good Life," which has spread worldwide and which we hope will always remain a trend, with various projects this year, as we do every year. With the advantages of glass packaging, which does not interact with food and beverages, we are working at full speed to offer our customers a healthy future in long-term food storage. Finally, as one of Türkiye's most crucial glass packaging suppliers, we support the Deposit Management System (DYS) studies under the leadership of the Environment Agency, which the Ministry of Environment and Urbanization established, and we manage our research and studies on the subject meticulously.

Remembering that the world is for all of us, we say, "The Future is in Glass Packaging."

Dr. Abdullah Gayret

GCA General Manager

Global Climate Summits

Climate changes caused by global warming and greenhouse gas emissions have become a global problem in recent years. For this problem that has been going on for years, The United Nations has established a Climate Change Environmental Convention and pursues a regulatory purpose for different countries to continue their activities within the scope of this agreement and to carry out activities to reduce climate change. Within the range of this contract, the COP 1 conference was held in Berlin in 1995 for the first time. It is a summit held in a different participant country every year. In these summits, the participants talk about their global climate change targets within the scope of this convention.

The 3rd Summit, which was held within the scope of the United Nations Climate Change Environment Convention, was held in Kyoto. The Kyoto Protocol, which is the first concrete step of these summits, was signed during this Summit. The Kyoto protocol requires participating countries to reduce their carbon emission levels around 1990. Although the protocol was signed in 1997, it came into force in 2005. It came into force in 2005 because the carbon emission rates of the countries that signed this protocol in 1990 should be at the level of 55% of the total emission rate on Earth. After Russia signed this protocol in 2005, this level was reached the 55% of the Earth, and it came into force in 2005. Currently, 160 countries have participated in this protocol, and the total emission rate of these countries is more than 55% of carbon emissions.

In the 21st Summit, held in Paris in 2015, The Paris Agreement entered into force. This agreement that 191 countries have joined lays down principles on climate change mitigation, adaptation, and financing. The deal aims to limit the global temperature increase to 2°C. Determining it to 1.5°C is vital because it will reduce potential risks. In this context, it is aimed to balance the greenhouse gases emitted into the atmosphere by the end of the first half of the 21st century.

The World Climate Summits set ambitious and stable targets for global warming in this context. They set important visions and missions to make the world a more livable place with a sense of solidarity among the participating countries.

Hybrid Life

Because of the Covid-19 Pandemic, Hybrid Life has started to be adopted in every stage of our lives. This Hybrid Life Concept, which covers everything from education to business life, leads us to a mixed life model. What is meant by the mixed life model is the model in which compulsory activities such as business life, education life, etc., or our lifestyles which were traditionally carried out before, are realized differently by using technological instruments such as computers and smartphones. For instance, the model of online lessons can be given

instead of the face-to-face lesson model in schools due to the pandemic. This life model, which emerges as an inevitable result because of changing conditions and technological developments, has started to be adopted rapidly. By this model, activities that used to continue in their usual progress continue in their regular progress, and at the same time, it can be done with different alternatives. For example, a child who goes to school must perform compulsory physical participation to attend the classes. Thanks to this system, he will be able to participate via computer, and if he wants, he will be able to participate physically as before.

If we investigate the business world, it can be observed that it has started to be used very widely. Meetings previously held in an office environment can now be held online. This model is also great convenience and saving from transportation for the business world. This system, which has been applied rarely before, has become very common after the covid-19 pandemic.

Although this hybrid system seems good in every aspect, it causes some sociological and psychological problems. While sociological relations are more robust in a world where physical interaction is dominant, this phenomenon is reversed because of the rapid decline of physical interaction. As a result, it has been observed that various adverse effects such as fatigue, distraction, irritability, and sleep problems increase. The most important measures to be taken against such developments it is emphasized by the science world that sports activities and social interaction should be kept at the ideal.

Close the Glass Loop

The "Close the Glass Loop" movement, initiated by the European Glass Packaging Industry (FEVE), aiming to increase glass packaging conversion rates to 90% by 2030, was instituted as a proactive response to EU rules that aim to increase glass packaging recycling rates to 75% by 2030. Many companies supported this movement, which was started to increase the recycling rate and the quality of recycled products. GCA supports this movement in this context, and necessary actions are taken. At GCA, seminars are organized for employees to raise awareness of recycling, and all glass packaging products used in offices are recycled. Like GCA, our pilot project studies on recycling continue in this context. We believe that our pilot project will reveal precious information. We will share detailed information with you, our esteemed customers, when the project lines and stakeholders are decided in the upcoming period.

The "Close the Glass Loop" movement will boost the amount of glass packaging collected for recycling. This movement includes many European and national business partners, from municipalities to glass processing and recycling companies and industrial customers. At the same time, the partnership areas of this movement are vast, including the Extended Producer Responsibility programs operating in EU member states. Thus, it is planned to reduce CO2 emission rates and prepare the ground for a more livable world.

Deposit Refund System (DYS)

On December 30, 2020, it was published in the official gazette that the Environmental Law regarding the deposit was amended. With this amendment, it was decided to revise the mandatory deposit application. The Environment Agency (Çevre Ajansı) administered the compulsory deposit refund system. The Environment Agency has been empowered to supervise and manage the deposit-refund system. In this context, on January 1, 2021, the packaging types included in this application were determined as pet, glass, and aluminum.

The processing of the application will be executed as follows:

With this system, in case of purchasing the packaged products included in the scope of DİS by the customers, the customer will pay an extra fee for the packaging. For the refund of this fee, if they return it to the collection points determined by the system, they will get a refund of as much as they paid for the packaging. By the way, the direct participation of the end-user in recycling and reducing carbon emission rates is aimed. Within the scope of this system, it is thought that Türkiye will regain 1.4 billion Turkish Liras to the economy annually. With this system, the user who pays the deposit will receive the fee if he returns the package. If the customer does not return it, the government will use the refund fee for the development of DİS. Within the scope of this movement, it is planned to prepare infrastructure for both an economic and a sustainable future.

Adaption to Changing World: Blockchain

Blockchain operates using a very different system, unlike traditional databases. In this system, transactions. They are listed like a chain. Just as each ring in a chain is locked to each other separately, in the blockchain system, data is encrypted and saved to each other in the same way. Each block contains the encrypted code of the previous block. In this system, information is divided into blocks and encrypted. Each block is linked to the other by encryption.

For this reason, it does not have a single center. Such systems are called decentralized systems. Security is high in decentralized systems because there is no single center. While serious security problems may arise in case of an attack on the center in systems with a single-center, no data can be changed or attacked without the permission of the majority of the blocks in decentralized systems.

In the light of this information, we, like GCA, are closely interested in and follow such developments and technologies. Because data storage and cryptography are vital for every company, the confidentiality of company information and customer data is very important. The main reason for the increasing number of cyber-attacks in recent days is that systems with a single center do not have sufficient security standards. As GCA, we are aware of these advantages of the blockchain and follow the developments closely.

Packaging of the Future: Glass

The history of glass dates back to ancient times. Although it is not known precisely when it was first produced, the oldest glassware known is Ancient Egyptian glass beads dating back to approximately 2500 BC. Mosaics made of glass in the modern sense can be found in Alexandria during the Ptolemaic period and Ancient Roman civilizations.

Glass, which is used in almost every area of our life, from building tools to kitchen utensils, from furniture to accessories, has many benefits for our health. It is pretty healthy and green compared to its alternatives.

- Since glass is an inert and impermeable material, it does not interact with the outside environment. This feature shows that the stored products are protected in healthy conditions.
- It does not affect the foods' tastes, aromas, and smells.
- It is heat-resisting, so it is suitable for hot-filling. Therefore, it is healthy compared to its alternatives which are not heat-resisting.
- It is environmentally friendly as it can be used thanks to recycling endlessly. Being ecologically friendly also indirectly provides us with a healthier life.
- It does not contain carcinogenic substances.

Glass, which can be listed with many more features, is completely nature friendly in terms of both health and environment. In recent years, the issue of reducing carbon emissions has gained importance due to the global climate crisis. For these reasons, people have become more conscious about using glass. According to a study conducted by Statista.com, global glass production amounts were realized as 690 billion units in 2020 and were forecasted as 922 billion units in 2026.

International Year of Glass 2022

In a world where sustainability is becoming more essential and adopted day by day, the United Nations (UN) introduced new targets and projects for 2022. It is foreseen that this target and project will be an important opportunity to emphasize the importance of Glass in every aspect and to be adopted by larger communities in the world.

Glass presents excellent importance to humanity. It is the basis of the internet used at every moment of our lives to reach information. Glass is used in fiber optic cables used to web the world with an internet network. At the same time, the use of Glass in the health sector is extensive. It is used as a chemical-resistant packaging material to protect most drugs. In science and space, James Webb is a telescope that uses glass optics and Optoelectronic (OE)

technologies (OE: the study of electronic devices that interact with light and the application of these devices to practice.) These technologies may allow us to observe the moments before the big bang. Because it can be recycled continuously, Glass has become a necessity, not an alternative, for the future of humanity and a more livable world.

The world has faced a global climate crisis due to increasing carbon emissions because of globalization and rapidly growing industry. Precautions have been taken for these reasons. The most prominent example of safeguards is the Climate Change Summits. These summits are held annually and include 191 countries as a member. The purpose of these summits is to determine climate change mitigation, adaptation, and financing principles.

In this context, FEVE (European Glass Packaging Industry) conducts Extensive plans to ensure that the UN Year of Glass in 2022 is prosperous. FEVE has contacted art and scientific glass-themed societies, glassmakers, fabricators and suppliers, academia, R&D centers, and museums to share the concept and ask for support, both in creating and supporting activities. They have created 18 Regional Organizations so that each area of the globe has a local organizing committee. Shortly, they will start to fill these pages with more details of exciting ideas coming to fruition. It manages the financing of these organizations through sponsorships and donations.

Global Inflation Crisis

As of January 28, 2022, the total number of Covid-19 cases was 366 million, and the number of deaths was 5.6 million. With the increase in the spread of pandemics, there were sharp decreases in the stock markets, such as The London-based FTSE stock market, the Dow Jones Index on Wall Street, and the Nikkei index in Japan.

In addition, due to the restrictions imposed by the Pandemic, many people lost their jobs, and there were significant glitches in the supply chain. As a result, unemployment rates increased globally in developed and developing countries. According to IMF data, the unemployment rate in the USA reached %10,4. Moreover, the most affected sectors due to the restrictions applied to the Pandemic are the tourism, travel, and service sectors. Since the people working in these sectors became unemployed, governments offered them some applications such as short-time working payments. As the demand for money increased due to these applications, central banks have printed a lot of money. Thus, the value of currencies has decreased. At the same time, inflation rates increased in all countries. For example, the inflation rate of the USA, which is a developed country, was %1,4 at the end of 2020, and it was % seven at the end of 2021. For Türkiye, a developing country, while the official inflation rate was %14,60 at the end of 2020, it was %36,08 as of December 2021. To take precautions, the USA central bank has indicated increasing interest rates in 2022. As a result, they are planning to revive the economy and decrease the inflation rates.

UNICEF (United Nations International Children's Emergency Fund)

"UNICEF (United Nations Children's Fund) works for every child's survival, protection, and development, especially alienated and living in harsh conditions. It has a strong presence in 190 countries, with 156 Country Offices and 34 National Committees. In line with the Convention on the Child's Rights, ratified by the United Nations in 1989, UNICEF strives to ensure that the international community fulfills the promises made to children."

There are seven priorities determined and carried out by UNICEF in that context.

- Child Health
- Education
- Child Protection
- HIV & AIDS from mother to child
- Access to clean water
- Nutrition

Providing conditions to participate in a decision which affect children's life.

They work with governments, universities, the private sector, local governments, and individuals to realize the plans. They work in the field to increase the welfare of the children. UNICEF, which develops resources by receiving regular corporate and individual donations, also uses these resources to realize its long-term plans. It is possible to support UNICEF through individual contributions on their website.

UNICEF, which carries out long-term plans for children, who are the guarantors and trustees of our future, and trying to realize them, has done the following since 1990.

- Death rates of children under the age of 5 have decreased by 53%,
- The number of malnourished children has almost halved,
- Poliomyelitis was eradicated in 122 of 125 countries,
- The number of children not attending primary education fell by 44%,
- 2.6 billion people have access to better water resources,

UNICEF has a lot of contributions to happen these situations.

Simple Tips to Reduce your Carbon Footprint

The carbon footprint measures the damage caused by human activities to the environment regarding the number of greenhouse gases released into the atmosphere, measured in units of carbon dioxide. It consists of two main parts: direct (primary) and indirect (secondary). The primary footprint is a measure of direct CO₂ emissions from the combustion of fossil fuels, including energy consumption and transportation such as cars and airplanes. In contrast, the secondary footprint measures indirect CO₂ emissions from the entire life cycle of the products we use, related to their manufacturing and degradation in nature.

Due to the damage it causes to the environment. It will result in an unlivable world if it is not prevented. Unless the required actions are taken, and if global warming is more than 1,5°C until the mid of the 21st century, it may cause to migrate more than 1 billion people. In addition, in the situation where global warming increases at its current rate, it may be the reason for the extensive destruction of all civilizations.

For these reasons, we can individually stop this destruction with simple measures we will take in our lives, and these measures can be listed as follows.

- Using e-bills
- Not running the dishwasher until it is full
- Using a bicycle for short distances
- Using LED bulbs
- Going to the market physically to shop
- Using packages that are not harmful to the environment
- Using biodegradable products
- Using laptops instead of desktop PCs because of energy consumption
- Contributing to the reforestation studies
- Using recycle bin

By taking such small precautions, we can significantly decrease carbon emission rates and make our future more livable and cleaner.