

## The case Unionplast

Increasing the sustainability of an extraordinary material,  
reducing risks and enhancing opportunities.



FEDERAZIONE GOMMA PLASTICA

Among the many challenges that humanity is facing in this complicated time, environmental sustainability still plays a major role. If we look closely, most of the problems we discuss every day can be traced back to pollution and the bad habits we have as consumers and businesses. Pandemics, migration, hunger, drought, global warming and extreme weather events are largely caused by a poor management of the relationship between our development model and the environment that surrounds us.

Ecosystems, in fact, in addition to supporting life on our planet, are the basis of our economy and more generally of our well-being. The continuous destruction of the natural habitat by human beings breaks the ecological balance and generates irreversible situations.

The time available to take counteractive initiatives is limited.

In this critical context, there is the issue related to the management of plastic products, in particular with regard to their function and their disposal that often, especially when not managed properly, can cause contamination in the terrestrial and marine environment.

Directive EU 2019/904 says: *“The high functionality and relatively low cost of plastic means that this material is increasingly ubiquitous in everyday life. While plastic plays a useful role in the economy and provides essential applications in many sectors, its growing use in short-lived applications, which are not designed for re-use or cost-effective recycling, means that related production and consumption patterns have become increasingly inefficient and linear”*<sup>1</sup>.

Beyond the political declarations and slogans reported by the media it is clear that, if on the one hand, it is completely unrealistic to imagine a drastic farewell to plastic materials (the Covid-19 experience has been a further confirmation), on the other hand it is useful and timely to define what is meant by "sustainable plastic management" and to act urgently to apply such an approach to processes and products.

It is a fact that the more plastic is used (more and more plastic has been produced and used for decades), the more it reaches nature, either directly or indirectly. The evident and serious problem of plastic materials released into the environment is not only the consequence of their pervasive use (in some cases even excessive), but depends on various other factors, in part attributable to municipal administrations (which are often lacking in indications on the proper disposal of waste, specifically packaging waste), to market dynamics (there is not always demand for the waste

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<sup>1</sup> DIRECTIVE (EU) 2019/904 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 on the reduction of the impact of certain plastic products on the environment, (Text with EEA relevance).

collected, and therefore it is not easy to valorize it through recycling and the creation of new raw materials and/or new artifacts); and also to the (bad) habits of citizens who too often do not pay attention to the phase of conferring waste to the separate waste collection even in cases where it has been purposely organized or, in general, to more virtuous and environmentally friendly behavior.

In practice, there is an overall system that fails to activate the principles of the circular economy in an effective manner. This is due both to the lack of a precise orientation of some important players in the supply chain (for example, institutions in Italy have not yet taken decisive initiatives to relaunch and promote facilities to give new life to collected packaging waste or to promote products with recycled plastic) and to the irresponsible behavior of others (consumers included).

The challenge of the Marketing Award, now in its 33rd edition, is part of this comprehensive aim.

## CHALLENGE 2021

### **THE CURRENT NEED**

*Until now, plastics have brought great value added to our daily lives, our progress, our well-being and, paradoxically, to the environment. Today, however, plastics risk to lose their good reputation. The perception that increasingly emerges about plastics is that of a material with many negative aspects. This perception damages the industry and, in many cases, does not help the environment. The negative dimension tends to outweigh the many benefits of plastics (especially in some markets). Also because sometimes the alternative to plastic is represented by other materials that have a less sustainable production and disposal cycle.*

### **THE OBJECTIVES**

By putting yourself in the shoes of a company that produces consumer goods (groceries and personal and home care products), find the best ways to achieve the following goals:

1. enhance in the best way the plastic packaging of the chosen product, even after the performance of its primary function.
2. find the most effective way to make the final consumer aware of the correct disposal or recycling of the same and encourage him/her in this action when managing the end of life of the packaging,
3. encourage a more sustainable behavior regarding the use of plastic packaging, first of all by the final consumer, but possibly also by other actors involved in the production-distribution chain.

In detail, each team must develop a marketing plan that describes the strategic and operational aspects necessary to achieve the objectives described above. Specifically, the plan must:

- a. Analyze market offerings from large food (and non-food) companies regarding the latest innovations in plastic packaging recycling and reuse, also in light of the most recent legislation.
- b. Analyze the demand currently being addressed by your chosen product-packaging combination.
- c. Identify one or more target segments (among those already served by the company you have identified and/or potentially new ones) to which the new packaging proposal should be addressed.
- d. Define an operational and original packaging proposal (without envisaging product changes), a communication plan and collaboration and co-marketing actions with commercial intermediaries (first and foremost the large-scale retail trade).

The plan must be developed over a period of 24 months and must employ a total budget of 1 million euros (the budget refers only to marketing expenses and therefore you must not consider the costs related to the design and production of the new packaging).

## PLASTICS AND THEIR CHARACTERISTICS

Plastics are organic materials with a high molecular weight, i.e. made up of molecules with a very long chain (macromolecules), which essentially determine the specific framework of the characteristics of the materials themselves.

The IUPAC (International Union of Pure and Applied Chemistry) in defining plastics as "polymeric materials that may contain other substances aimed at improving their properties or reducing costs", recommends the use of the term polymers instead of the generic term plastics.

The most common polymers in the packaging world are those listed and described below with coding 1 through 6. The codes used (established as an international standard SPI - Society of Plastic Industry) are those used to identify the material for recycling. Code 7 refers generically to all other types of plastics.

Table 1 – Different polymers

Symbol	Polymer	Common Uses	Properties	Recyclable?
 PETE	Polyethylene terephthalate	 Plastic bottles (water, soft drinks, cooking oil)	Clear, strong and lightweight	Yes; widely recycled
 HDPE	High-density polyethylene	 Milk containers, cleaning agents, shampoo bottles, bleach bottles	Stiff and hardwearing; hard to breakdown in sunlight	Yes; widely recycled
 PVC	Polyvinyl chloride	 Plastic piping, vinyl flooring, cabling insulation, roof sheeting	Can be rigid or soft via plasticizers; used in construction, healthcare, electronics	Often not recyclable due to chemical properties; check local recycling
 LDPE	Low-density polyethylene	 Plastic bags, food wrapping (e.g. bread, fruit, vegetables)	Lightweight, low-cost, versatile; fails under mechanical and thermal stress	No; failure under stress makes it hard to recycle
 PP	Polypropylene	 Bottle lids, food tubs, furniture, houseware, medical, rope, automobile parts	Tough and resistant; effective barrier against water and chemicals	Often not recyclable; available in some locations; check local recycling
 PS	Polystyrene	 Food takeaway containers, plastic cutlery, egg tray	Lightweight; structurally weak; easily dispersed	No; rarely recycled but check local recycling
 OTHER	Other plastics (e.g. acrylic, polycarbonate, polyactic fibres)	 Water cooler bottles, baby cups, fiberglass	Diverse in nature with various properties	No; diversity of materials risks contamination of recycling

Source: Ourworldindata.org, last accessed 05 January 2021.

## Packaging

Packaging is defined as "*the product, composed of materials of any nature, used to contain certain goods, from raw materials to finished products, to protect them, allow their handling and delivery from the producer to the consumer or user, ensure their presentation, as well as disposable items used for the same purpose.*" Packaging is divided into:

**Primary:** designed so as to constitute a sales unit for the end user or consumer at the point of sale. They are characterized by single-component solutions (the simple box) or multi-component solutions (for example, wine bottle with cap and label).

**Secondary:** designed in such a way as to constitute the grouping of a certain number of sales units, regardless of whether it is sold as such to the end user or consumer, or only serves to facilitate the replenishment of the shelves at the point of sale. It can be removed from the product without altering its characteristics.

**Tertiary:** designed to facilitate the handling and transport of a number of sales units or multiple packages to avoid their handling and transport-related damage, excluding containers for road, rail, sea and air transport.

## PACKAGING IN THE FOOD INDUSTRY

The food sector (including condiments) uses a wide variety of packaging, without which it would be impossible to guarantee transport and preserve product quality. For example, in less developed countries, where less packaging is used, the percentage of food subject to deterioration before reaching the final consumer can reach 50%, which means less healthy food if not even harmful to health. Packaging is therefore fundamental in the fight against food waste: thanks to packaging, in fact, some foods can be stored for longer without compromising quality.

And then, packaging remains an extraordinary marketing tool, both in terms of consumer service (simplicity and practicality in the use of the product) and communication. Thanks to labels or other types of information on the pack, companies can communicate various information to the final consumer ranging from the composition of the product to the end-of-life management of the packaging.

The evident increased use of packaging in recent years is due to multiple factors, due to new eating habits, lifestyles and different demographic characteristics of the society. In particular, there has been a steady growth in:

- pre-packaged products (such as cheeses and cold cuts);
- fresh fruit and vegetables (pre-washed and bagged);
- foods in single portions (typical product for "singles");
- foods that save time in purchasing and preparing meals (such as ready-made and frozen meals).

To ensure that the increase in packaging does not further increase the volume of waste, creating negative impacts on the environment, a number of avenues can be pursued including:

(a) Study and design of "sustainable" packaging that reconciles functionality at the stages of production, distribution, consumption and disposal.

- b) Creation of more effective systems of recovery, recycling and reuse of packaging, perhaps even having the ability to create "new" markets.
- c) Educate consumers to use packaging more responsibly, in its use-reject-recycle-reuse cycle and especially in its end-of-life phase.
- d) Encourage the virtuous behavior of intermediaries in order to optimize the use of plastic packaging in a logic of sustainability.

In recent years, great investments have been made in research on materials and new designs to make packaging more sustainable. Several startups have also been founded proposing innovative solutions, exploiting biodegradable or even edible materials. However, it's good to remember that novel products don't always have a better environmental impact, especially if you scientifically evaluate the quantities that might be used and their entire life cycle.

## **The Federazione Gomma Plastica**

Founded in 2005 from the aggregation of Assogomma and Unionplast, the Federazione Gomma Plastica is a non-profit organization that represents the interests of the Rubber, Electric Cables and Plastic and Allied Industries. It associates plastics, rubber and power cable processors, as well as sorters and recyclers.

Through its two primary components, Assogomma and Unionplast, the Federation boasts more than 70 years of experience of daily activity in the promotion and protection of the represented sectors. The Federazione Gomma Plastica is made up of hundreds of companies in the sector, employing about 45,000 people, and sharing a concrete commitment to growth in a perspective of sustainable development.

The Federation aims to satisfy the needs of its member companies by providing them with advice, information, publications, organizing events and initiatives, supporting strategic projects and initiatives aimed at the development of the industrial system. It pursues the constant growth of the Sector towards the continuous improvement also through the monitoring and the active participation to the realization of processes of normalization, regulation and standardization.

In particular the Federazione Gomma Plastica wants to:

- Increase its associative base in order to integrate the largest number of enterprises of the sector;
- Offer formative and informative moments to its Associates;
- Disseminate all the technical and economic information useful for the management of companies, also through the web-site and digital newsletters;
- Manage working groups to address issues related to national and European standards;
- Develop a strategy on the sustainability of the sector;
- Negotiate with public and private entities to protect the interests of its members in technological, environmental and social growth and development.
- Represent the sector at national and European institutions and public organizations.