Barilla's Principles for Sustainable Packaging

The role of packaging is pivotal for food companies: it protects the product, keeping it from spoiling and enabling it to be consumed away from where it was produced.
Barilla has always been very attentive to the quality of its packaging, both in designing new solutions and constantly improving the packaging it has already developed.
Over the last decades, packaging has been evolving and continually improving with the introduction of the "Sustainable packaging" principle, requiring packaging design and methods to be re-specified in line with the times.
Barilla's first guidelines for packaging design appeared back in 1997. Today the "Barilla Guidelines for Sustainable Packaging Design" have been designed:

1) Reducing the quantity of material in packaging
2) Utilizing recyclable packaging
3) Utilizing materials from responsibly managed forests
4) Validating the choice of technical packaging solutions using LCA impact analysis
5) Utilizing materials coming from renewable sources not in competition with food chains

REDUCING THE QUANTITY OF MATERIAL IN PACKAGING

The packaging system has been designed in compliance with the guidelines of EU Directive 94/62 on Packaging and Packaging waste. Some of the main goals are:

- Reducing the quantity of packaging material, utilizing all of the technological tools and latest materials on the market.
- Minimizing the use of composed materials, focusing choices on materials made up of homogeneous components that are easier to dispose of after consumption.
- Seeking logistical optimization to maximize saturation in storage and transportation.

UTILIZING RECYCLABLE PACKAGING

One of the main drivers of the choice of packaging is its suitability for recycling. Deciding which materials to utilize, therefore, becomes very important, with the preference being for recyclable materials when the product organoleptic characteristics allow it.

To help consumers to differentiate correctly, Barilla have devised special icons to feature on product packaging. Five different symbols have been created:

UTILIZING PAPERBOARD AND CARDBOARD FROM RESPONSIBLY MANAGED FORESTS

Barilla's approach to responsible management of its paper and cardboard packaging is to utilise virgin fibre materials from supply chains managed in line with the FSC or PEFC standards that guarantee sustainable forest management based on environmental protection, respect for for human rights and cultural traditions, and the promotion of economically sustainable forestry activities.

VALIDATING THE CHOICE OF TECHNICAL PACKAGING SOLUTIONS USING LCA IMPACT ANALYSIS

Life Cycle Assessment (LCA) is a methodology for studying and quantifying the environmental impacts generated along the production chain, from the production of raw materials to the disposal of finished products. The rules for conducting an LCA analysis are defined by ISO (International Standard Organization) standards 14040 and 14044. Barilla has made this into a straightforward, smart system by creating the LCA Pack Design Tool: a fast and efficient calculation tool for verifying environmental performance and comparing different solutions at the packaging design phase. The tool

is used for significant changes of packaging, compared to the reference category; when the change applies to the whole category a thorough study is carried out.

UTILIZING MATERIALS COMING FROM RENEWABLE SOURCES NOT IN COMPETITION WITH FOOD CHAINS

Barilla will use materials, to produce its packaging, which come from renewable sources, not in competition with food chains, such as: trees, agro food scraps, and whatever will become available in the future, according to the upcoming technologies.

For paper and cardboard the goal is easily reached, raw materials are already coming from renewable sources different from those related with food chain.

For plastics, we will look for innovative materials that can keep the same performances of the current ones, in terms of food protection, efficiency of the packing lines, and processability with our processes.