

THE INDUSTRY YOU DON'T EXPECT: 10 STORIES OF INNOVATION ACCORDING TO BARILLA QUALITY AND CONTINUOUS NUTRITIONAL IMPROVEMENT INSPIRED BY THE *"GOOD FOR YOU, GOOD FOR THE PLANET"* MISSION

Gluten-free pasta, bread with special flours, lower fat croissants with sourdough, hi-tech cookies, zero km sauces with no preservatives and snacks with no trans fats or added sugar. Some still call them traditional foods, but symbolic Italian food products are not the same as the ones we ate 10 years ago.

Barilla is well aware of this and in recent years, with a view to fulfilling the new requirements of consumers who are increasingly attentive to and aware of what lies "behind" their food, and respond to new nutritional guidelines or, more simply, to the changing tastes and sensitivity of the people who buy its products, it has "updated" many of the evergreens in our food cupboard, offering the new versions in ever-greater ranges, ethical and sustainable ingredients, reformulated recipes and clear labeling, in keeping with its **"Good For You, Good For the Planet"** mission.

ORGANIC, WHOLEMEAL, HEALTH-CONSCIOUS: THAT'S WHAT ITALIANS WANT THEIR FOOD TO BE

Product innovation is also a precise response to a richer and more varied kind of shopping, after years of economic crisis, without losing sight of the need for healthiness and practicality. According a survey by GFK, **1 in every 2 Italians regards health as more important than flavor and saving money when shopping**. Particularly noteworthy is the recent **organic boom**, **+16%** compared to the first half of 2017 and a turnover of 1.5 billion euros. The 4 Italians in 10 who buy organic products will be looking with interest at the launch, during Cibus 2018, of 4 organic Mulino Bianco products (Frollini Cookies with spelt and barley malt, Frollini Cookies with chocolate chips, Crackers with spelt and Piadina with spelt, see press release) which follow the ones launched by Barilla last year with semolina pasta, flour and sauces.

WHOLEMEAL PLEASURE: WHEN HEALTHY FOOD ALSO CONQUERS THE PALATE

The growth in wholemeal (+4.8% compared to the first half of 2017) reveals that, in addition to the requirement by health enthusiasts to supplement their diet with more fiber, there is a real evolution in taste, with wholemeal food no longer being seen as a chore but as a satisfying choice to be exalted, not hidden. Rather than fine grain wholemeal flour, which is less visible and easier to chew, Mulino Bianco, for example, has opted to invest in bran with a larger grain size, obtained using a high-tech grinding system that cuts it into "wide flakes", i.e. larger and coarser layers, with the aim of making the wheat flavor more dominant and clearly visible in the dough, enriching the product with a contrasting structure, flavor and softness, combining the more marked and toasted notes of the wholemeal cereal with the more neutral ones of classic type 0 flour. This combination is also found in the classic Pan Bauletto by Mulino Bianco, a range which has gradually expanded to include variants that play on the contrasts between wheat and alternative flours (barley malt, rye or spelt, for example) or a combination of softness/crispness created with a surface covering of seeds including sesame, soy, flax or sunflower.



SOURDOUGH AND FRESH CREAMS IN BARILLA CROISSANTS

Speaking of flavor, yeast is also a characterizing element in baked goods and cookies. At Barilla, many doughs are made with sourdough which has been freshened and looked after daily for over 40 years. The long leavening period ensured by sourdough in snacks and croissants enhances their flavor and aroma. It also makes the dough softer than other leavening agents and, thanks to a more regular and uniform honeycomb structure, it is now just as good as any other pastry. In the case of croissants in particular, 15 years of research and work on production methods, recipes and product design have resulted in a moister and softer product, with more visible coils and layers and a slightly more flattened shape at the base. Even the cream fillings are freshly prepared just before filling using an innovative pasteurization method which avoids the use of preservative additives. A wide range, with both traditional and filled products, recently been expanded to include a product with no added sugar which will soon include a new version with 100% wholemeal flour, produced for the first time with wholemeal sourdough.

TWO YEARS OF "FOOD ENGINEERING" TO REINVENT THE CHOCOLATE SNACK

Another traditional flavor undergoing innovation is the combination of bread and chocolate, which Barilla has transformed into its **pane + cioccolato Mulino Bianco.** The challenge was to make two components coexist which normally find it difficult to interact successfully: on the one hand bread, which needs to remain moist, and on the other chocolate, which needs to be kept away from water. Making this difficult cohabitation a success required a gestation period of 2 years between recipe creation, adaptation and testing of the production lines and start-up. The result is a soft bread and a crunchy chocolate with a good bite that lingers on the palate.

HI-TECH SNACK "FOR ADULTS", STEAM-COOKED AND PRINTED IN 3D... WITH ONLY 116 KCAL

Combining Italian know-how with a traditional Japanese dessert, 12 years of research and an innovative production method. Everyone knows that Italian snacks are an evolution, on a large scale, of traditional Italian cakes like *ciambellone, crostata* and *torta margherita*. But the **Pan di Stelle Mooncake** by **Barilla** has gone further and taken inspiration from Japanese cake-baking craftsmanship. In the Land of the Rising Sun, Mooncake is in fact so deeply rooted in gastronomic culture that, in the autumn, it is the subject of a major Festival. Barilla's R&D sector's ability has been to transform a snack with a very short shelf life into a long-lasting snack which maintains all the main characteristics of the artisanal cake. This has been possible above all thanks to an innovative **ambient pressure steam double-cooking** method, **with a 3D printer** decorating the snack with the brand's iconic star.

One of the nutritional characteristics of Mooncake is its **low supply of energy: 116 calories** and a low fat content. One of the reasons why it is particularly liked by women.

It consists of a cocoa sponge cake surrounding a dark chocolate cream heart which is more than 50 percent of the product. The double consistency and strong flavor of the dark chocolate have conquered all "dreamers", especially adults. A snack with a distinctive, iconic shape and a strong promise: the perfect treat. Versatile and suitable for different occasions - as a sweet snack or a quick after dinner dessert - Pan di Stelle Mooncake can even be enjoyed warm by placing the snack on its little tray in a microwave for 10 seconds on a low setting (160W).

PASTA FOR ALL, THE MADE IN ITALY SYMBOL BECOMES ORGANIC AND GLUTEN FREE



Pasta deserves a chapter to itself. Simple and natural ingredients (semolina and water) and the skill of the Italian pasta maker to make the difference. In the last 15 years, world pasta production has increased by almost 57% and fifty-two countries (compared to thirty 18 years ago) now consume at least 1 kg per capita per year. According to a study by the Oxfam NGO, conducted in 17 countries on a sample of 16 thousand people, pasta is everyone's favorite dish, worldwide. Barilla is the world leader in this market, with an annual production of over 1 million tons and a portfolio of formats and types that meets all the needs of the global consumer: from classic durum wheat semolina to wholemeal pasta, through gluten free and organic, making pasta an increasingly democratic pleasure that fulfills every nutritional or ethical requirement. But even basic pasta like lasagna, the most traditional and "original" format, has become hi-tech. The skill of the Barilla pasta makers has made the sheets pliable, removing the need for them to be blanched before being placed in the pan. Cooking them simply with the wateriness of the béchamel or sauces, inside the oven, the starches are not dispersed and improve the flavor and sweetness.

SUPPLY CHAIN CONTRACTS AND PRECISION AGRICULTURE: THE BARILLA RECIPE FOR "GOOD WHEAT"

Barilla has made major investments in ensuring the quality of its raw materials, all the details of which can be found at www.guardatustesso.it. One example of this is the three-year durum wheat cultivation contracts which started last year and are bringing great benefits for both farmers around 20 percent more profitability compared to the market price - and for Barilla itself, which receives a high quality, sustainable product. The 5,000 Italian farms that have signed up to the supply chain contract have been supplied by Barilla with tools to encourage the use of sustainable agricultural practices in their supply chains, in line with the "Good for you, Good for the Planet mission. In 2009, the company set up a cooperation project with Horta, a spin-off of the Catholic University of Piacenza, which resulted in the "Handbook for Sustainable Cultivation of Barilla Durum Wheat." This contains 10 rules and fundamental advice on long crop rotations, certified quality seeds, minimum and rational use of fertilizers and plant protection products according to the real needs of the plant. Barilla has also made available to farmers "Granoduro.net," which allows traditional good farming practice to be combined with innovation: a software analyzes numerous objective parameters - weather trends, soil fertility, phenological condition of the plant - helping farmers to optimize cultivation techniques, costs, yields and product quality. This optimization of farming techniques has also allowed Barilla to cut CO₂ emissions by 35 percent over the last 3 years.

Continuing on this direction, the Parma Group decided to take up another challenge and together with the **Institute of Biometeorology of the CNR in Florence and Foggia**, it has launched Agrosat (https://agrosat.it): a completely free service that **helps farmers manage fertilization through precision farming techniques**.

DESIGN THINKING: THE EXAMPLE OF LEGUMOTTI IN COLLABORATION WITH ESSELUNGA

Among the increasingly popular foods bought by Italians are **pastas made with "alternative" flours** (+9%). Barilla's Legumotti are part of this trend, produced exclusively for Esselunga and resulting from a design thinking project carried out with supermarkets. This vegan and gluten-free range is made with flour from pulses (Red lentils, chickpeas and peas, Red lentils and peas and Red lentils and chickpeas), a source of fiber and rich in proteins. Legumotti are easily cooked in just 9 minutes and can be used for a variety of recipes for hot and cold dishes.



THE FUTURE IS NOW: BARILLA COOKER AND 3D PASTA

When the personalization of taste and nutritional needs is pushed to the extreme, the food industry can end up "colonizing" the world of electrical appliances as well as the food cupboard. One example of this is the **3D pasta printer**. Science-fiction has become a reality with **Barilla producing the first prototype in the world**. A shape is designed on the computer and the information is sent to the printer, which creates it using dough instead of ink. But while mass production using this new tool is still far away, the **CucinaBarilla** is already on the market: **this cross between a microwave oven and a kitchen robot does everything for you** (pasta, pizza, risotto, etc.) quickly and without wasting water or saucepans. You start with fresh ingredients, which the oven "recognizes" by reading the chip on the packaging and then plans and completes the recipe completely independently... or almost, adjusting the water and cooking temperature. Saving time for people who can't or don't want to spend too long in the kitchen.

FROM TOMATOES TO READY-MADE PASTA SAUCE (WITH NO PRESERVATIVES) WITHIN A FEW KILOMETERS

If too much "science fiction" makes you nostalgic for the flavors of the past and the good old times of your grandmother's cooking, the production of Barilla's ready-made sauces is perhaps the most striking example of innovation applied to a traditional production process. And it responds, on the one hand, to a growth in demand for ready-made products (+7% compared to 2016, REF Ricerche - Nielsen data) and, on the other, to the 70% of consumers who are passionate about local produce. All the production of Barilla's sauces and *pestati* gravitates around the Rubbiano production plant near Parma, at the heart of the food valley. All the fresh basil is 100% Italian, and 100% of the tomatoes are from the Po Valley. In the fields near the production plant, planting takes place in May (tomatoes and basil) and the sauces and pestos are made as early as the summer. With customers eating the sauces before autumn starts. As was the case in the 50s and 60s, when peasant Italy discovered well-being but continued to be rooted in its (beloved) countryside. And tradition meets well-being: over the last three years, the salt content of Barilla sauces has been reduced by 23%. Its products are now also free of preservatives and colorings. In order to guarantee a 100% safe product, sauces are brought up to a temperature of between 92 and 95 degrees (or 121 °C if they contain meat) and poured into jars, which subsequently undergo heat treatment with hot air.

The Rubbiano factory itself is a beautiful story of quality made in Italy: its ingredients, recipes, technology and "know-how" are all totally Italian and last year an investment of **50 million euros** (added to the 40 million euros of the initial investment made in 2012) to expand the plant with the aim of making further progress in reducing the environmental impact (7% reduction in CO₂ emissions - 9% reduction in water consumption and more than 95% of waste recycled) and bring the plant's maximum production capacity to over 122,000 tons/year, with a total covered surface area of around 30,000 sq.m.

The Barilla Group

Founded in Parma in 1877 from a bakery and pasta-making store, Barilla is now one of Italy's biggest food groups, world leader on the pasta market and number one in ready-to-use sauces in mainland Europe, bakery products in Italy and



crispbreads in the Scandinavian countries. The Barilla Group has 28 production sites (14 in Italy and 14 abroad) and exports to more than 100 countries.

Every year, its plants produce about 1,700,000 tons of food products, enjoyed by consumers all over the world, under the Barilla, Mulino Bianco, Harrys, Pavesi, Wasa, Filiz, Yemina and Vesta, Misko, Voiello, and Academia Barilla brands.

When he opened his store in 1877, Pietro Barilla's overriding aim was to make good food. Today, that principle has become Barilla's corporate mission: "Good for You, Good for the Planet."

"Good for You" means constantly improving our products, encouraging the adoption of healthy lifestyles and improving people's access to food and social inclusion.

"Good for the Planet" means promoting sustainable supply chains and reducing CO₂ emissions and water consumption during production.

For further information, please visit: www.barillagroup.com Twitter: @BarillaGroup

For information: Luca di Leo Head of Media Relations <u>luca.dileo@barilla.com</u>

Media Relations Andrea Belli andrea.belli@barilla.com +39 0521 262217