

Barilla: a  
factory app  
designed by  
and for workers  
with Google  
App Engine

By consulting factory workers about their needs and aspirations, Barilla Injenia created with Google Cloud technologies a successful social-style app to improve efficiency on the production line.

**Google  
Cloud**

The Barilla logo consists of the word "Barilla" in a bold, blue, sans-serif font.

The Italian Food Company. Since 1877.

## About Barilla

E.G Barilla is an Italian multinational food business and the world's leading producer of pasta. Barilla also produces readymade pasta sauces, and is Italy's premier provider of baked goods. Barilla has factories in ten countries and offices in 17 territories. More about Barilla: [www.barilla.com](http://www.barilla.com/) (<http://www.barilla.com/>)

Industries: Retail & Consumer Goods

Location: Italy

Products: [App Engine](https://cloud.google.com/appengine/)

(<https://cloud.google.com/appengine/>), [Cloud SQL](https://cloud.google.com/sql/) (<https://cloud.google.com/sql/>), [G Suite](https://cloud.google.com/g-suite/)

## Results

- Replaced conflicting, time-consuming paper logs with a near real-time, transparent app
- Scaled rapidly and easily to accommodate new teams thanks to Google App Engine
- Enables photographic and video communication to replace confusing text

New food solution out in days



## About Injenia

Injenia helps businesses engineer digital transformation, with innovative, flexible solutions. The consultancy specialises in collaboration tools, mapping services, search and the cloud. Based in Bologna, Injenia is one of Google's leading partners in Italy. More about Injenia: [www.injenia.it](http://www.injenia.it) (<http://www.injenia.it/>)



App Engine (<https://cloud.google.com/appengine/>)

Cloud SQL (<https://cloud.google.com/sql/>)

G Suite (<https://gsuite.google.com/>)

Google Drive (<https://gsuite.google.com/products/drive/>)

Docs (<https://gsuite.google.com/products/docs/>)

Sheets (<https://gsuite.google.com/products/sheets/>)

Google Meet (<https://gsuite.google.com/products/meet/>)

Forms (<https://gsuite.google.com/products/forms/>)

Google+ (<https://gsuite.google.com/products/googleplus/>)

In 1877, Pietro Barilla set up a small pasta and baked goods for the people. Today, Barilla applies its 140 years of knowledge on a global scale, with six major manufacturing sites in Italy and an international network employing over 8,000 people.

leading producer of pasta, Barilla knows that when it comes to making quality food, great communication is key. That's why the company plans to become a completely digital, looking to technology to improve the way it works.

Teams at the Barilla factory in Cremona work along a production line more than one-kilometer long, staffed by three shifts of workers a day. When one shift handed over to the next or requested machine maintenance teams, they used paper notebooks and unofficial instant messaging to communicate. That meant there was no authoritative, real-time record of events, communication was messy, oversight was poor, and teams had to hold daily morning meetings to synchronise notes.

Barilla worked with the Google Cloud Partner [Injenia](http://www.injenia.it/) (<http://www.injenia.it/>) to create a solution, beginning with a consultative process on the factory floor.

"We had the idea to start from the bottom and work up," says Cristiano Boscato at Injenia. "Barilla's top staff were brilliant about letting us do it. Eight of us from Injenia spent months on the factory lines with Barilla workers, collecting ideas on [Google Docs](https://www.google.com/docs/about/) (<https://www.google.com/docs/about/>), making presentations with [Slides](https://www.google.com/slides/about/) (<https://www.google.com/slides/about/>) and collecting feedback with [Forms](https://www.google.com/forms/about/) (<https://www.google.com/forms/about/>). The

CollaborAction app we created is the result of an amazing partnership.”

## Co-designing a team social network

“Everything at the Cremona plant was managed offline, with paper,” explains Alessandra Ardrizzoia, Digital Engagement Senior Manager at Barilla.

“Workers on the line would track events in notebooks, the shift leader would have another notebook, and the leader of the maintenance team would have yet another notebook. Everybody wrote their own text description of events, so there would be mismatches in the information going around.”

To resolve this, teams would meet at 8:30am every day to reconstruct a consistent narrative. In addition, machine maintenance workers were already using instant messaging to communicate with the line. Barilla and Injenia looked for a solution that could deliver a searchable, single version of events, with the ease of use of a mobile messaging application.

“We aim to  
anticipate change  
by focusing on

digital  
transformation,  
with the long-term  
goal of becoming  
a completely  
digital company.  
That starts with  
storing and  
sharing  
information that  
so far has been  
offline.”

—Alessandra Ardrizzoia, Digital  
Engagement Senior Manager,  
Barilla

After consulting factory workers for ideas, Injenia created CollaborAction, a custom-built app that brought **G Suite** (<https://gsuite.google.com/>) collaboration tools together on an **Google App Engine** (<https://cloud.google.com/appengine/>) platform, using **Google Cloud SQL** (<https://cloud.google.com/sql/>) to index files. **Google+** (<https://plus.google.com/>), **Google Drive** (<https://www.google.com/drive/>) and **Hangouts** (<https://hangouts.google.com/>) were not only highly available and easy-to-use, they also “helped with fast

adoption, with interfaces that workers could already relate to.” Meanwhile Google App Engine enabled the Injenia team to deliver updates and new versions at speed, as part of a feedback process with workers who offered suggestions through a link to [Forms](https://www.google.com/forms/about/) (https://www.google.com/forms/about/) embedded in the app.

Google+ provides an intuitive social media dashboard that workers felt comfortable with. Now teams use company tablets placed at intervals along the line to log in, report issues to other teams, photograph problems, schedule maintenance, give status updates through [Hangouts](https://hangouts.google.com/) (https://hangouts.google.com/) chat, and have visibility on the whole process as it takes place.

“Everyone in the Cremona plant was really happy with the new social collaboration process. Because they were involved in designing the solution, they felt involved and really engaged with the process,” says Alessandra. “And now that everyone is aligned with CollaborAction, all the work in the plant is more effective. They are more agile and can use their time in more added-value activities.”

## Optimization and a national roll-out

Created in Cremona, now CollaborAction connects over 1,000 users in six of Barilla’s factories in Italy. “The pilot at Cremona took one month, and adoption has been easier and faster in every plant we’ve taken it to,”

says Cristiano. “We have another five or six plants more, and it takes no more than 15 days to introduce. That’s incredible.”

Because CollaborAction is a mobile app built on Google App Engine, scaling to meet new demand has been simple. Now maintenance teams use the app on smartphones, line workers use it on tablets, and shift leaders use it on laptops, so the entire team is aligned in close to real-time on a single version of events. And now teams communicate with video and photographs as well as text, there’s less room for confusion, as Alessandra explains. “It’s no problem understanding what’s happening in a video or picture, compared to a message that just says ‘something is going wrong.’ On a production line, where one part leads into the next, that speed makes a difference, and means we don’t have to throw as much food away when something breaks down.”

“Now we’re collecting feedback from all of the plants using CollaborAction and using it to create a standardised solution that we can apply across all of our plants,” says Alessandra. “We’re side-by-side with the workers in that sense, trying to address their needs with new features. It’s a way to make the workers feel like part of the solution, and that the app represents their needs and their voice.”

“People are social, and when they have a community, they start to share knowledge and know-how. CollaborAction is a great example of how social collaboration brings value to a business. It’s built on Google App Engine and ties into G Suite tools, so people on the factory line can communicate and collaborate in a social way.”

—Alessandra Ardrizzoia, Digital Engagement Senior Manager,  
Barilla



## Solving a universal problem

By the end of 2018, Barilla and Injenia aim to have deployed CollaborAction to 2,700 employees at 18 factories worldwide. Barilla has already collected more than 50,000 posts with the app, including around 20,000 photographs and videos, and is now considering ways to apply **Cloud Machine Learning Engine** (<https://cloud.google.com/ml-engine/>) to create a maintenance chatbot or direct IoT connection with machinery.

“CollaborAction hasn’t just made our maintenance processes faster and more efficient, its also exponentially increased the knowledge and understanding employees have about their work,” says Alessandra. “It’s improving team spirit, too, such as when employees use CollaborAction to arrange to play soccer. It’s become the main communication tool for the entire plant.”