Business challenge

To create an AI offering designed to help egg farms in Spain streamline a labor-intensive process, Pixelabs needed sophisticated object recognition technology and a supportive ecosystem.

Transformation

Participating in the Watson Build challenge, IBM Business Partner Pixelabs created a prototype designed to transform a time-consuming process for Spain's egg farmers. Using an IBM® Watson® model trained to analyze images, the startup will launch an AI offering to help improve the speed and accuracy of cracked-egg detection while also driving down costs.

Carlos Sangüesa
Chief Executive Officer
Pixelabs

Results

Will launch an industry-first offering
and accelerate time to market with IBM support

Will speed egg processing
with AI for fast, accurate detection of cracked eggs

Will help drive down costs
by reducing the number of cartons returned by retailers

Pixelabs

An AI innovator helps egg farms transform a labor-intensive process and cut costs

Founded in 2015, Pixelabs is a technology startup specializing in the development of AI solutions. The IBM Business Partner works with organizations across industries—including advertising, agriculture, broadcasting and logistics—to help them address pressing demands more easily and effectively with AI technology. Pixelabs is headquartered in Madrid, Spain and employs 11 people.

"We knew that IBM Watson could support a very fast time to market."

—Carlos Sangüesa, Chief Executive Officer, Pixelabs

Share this

A transformative concept for farms in Spain

Since its launch in 2015, Pixelabs has focused on creating AI solutions for everyday business scenarios. "We like to say that we make artificial intelligence easy," says Chief Executive Officer (CEO) Carlos Sangüesa. "Our approach is simply to try to identify common issues in an industry and address them with AI."

Headquartered in Madrid, the startup saw an opportunity to put AI to work in Spain's agricultural sector. Each year, the country's farms produce millions of eggs for retail sales in grocery stores and markets. Packaging the product requires multiple workers at each farm to identify and remove cracked eggs from the supply chain.

Observing the operations at a local farm, Pixelabs envisioned a first-of-its-kind AI solution designed to transform the time-consuming, labor-intensive process. To develop the concept, the startup needed object recognition technology capable of "learning" to analyze and classify images with great accuracy.

An industry-first prototype powered by AI

In addition to the advanced AI capabilities Pixelabs needed for its platform, IBM offered access to key resources and guidance within its larger Watson ecosystem. "We knew that IBM Watson could support a very fast time to market," says Sangüesa.

Creating a concept based on IBM Watson Visual Recognition technology, Pixelabs entered Watson Build, an annual global competition for businesses developing new AI solutions with Watson and IBM Cloud services. Over the course of the challenge, the startup built a solution prototype, working on IBM Cloud to develop a mobile app based on a Core ML framework.

Pixelabs incorporated the Watson Visual Recognition technology—a powerful AI tool for classifying virtually any visual content—to analyze images and identify cracked eggs. "We gathered thousands of images of cracked and uncracked eggs and used them to train our Watson model to classify them," says Mario Conejos, Engineer for Pixelabs.

In practice, a camera located at the beginning of a farm's egg sorting and packaging workflow will capture and stream images to the Pixelabs app running on a laptop or smartphone. When the platform identifies a cracked egg, a farm worker can remove the egg manually or incorporate an automatic sorter to create a completely hands-free process.

Speed, accuracy and cost savings ahead

Pixelabs advanced to the finals of the Watson Build competition and will soon launch a fully operational pilot for its solution in northern Spain. During the three-month pilot project, Pixelabs will continue to work in an IBM Cloud environment to fine-tune and optimize its offering for commercial release in the near future.

With scalable IBM Cloud infrastructure, powerful Watson technology and a strong working relationship with IBM, the Pixelabs team is confident in future success. "Our collaboration with IBM has allowed us to understand that we can deliver this," says Sangüesa. "We have the technology and business support we need."

For Spain's farms, Pixelabs anticipates transforming a lengthy, burdensome process into a streamlined operation powered by AI. "Our solution improves both the velocity and the accuracy of the quality control process," says Alma Pérez, Designer for Pixelabs.

And since retailers return cartons containing cracked eggs to farms for reimbursement, the Pixelabs offering has the potential to deliver a significant financial benefit. "Quality control isn't only about a farm's reputation—it's also about reducing those failure costs," says Conejos.

Take the next step
To learn more about the IBM solutions featured in this story, please contact your IBM representative or IBM Business Partner.