



Costa Rica makes available to the scientific community the model that made possible returning 36,000 shells to their place of origin

- *The open-source model emerged as part of the actions developed for the “De vuelta a casa” (Back Home) project, which aims to mitigate the impact caused by the collection of shells and restore the ecological balance on Costa Rican beaches.*

Costa Rica, January 9, 2025. To mitigate the environmental impact of the massive extraction of seashells, FIFCO with its Imperial brand developed, in collaboration with the University of Costa Rica, the first application based on artificial intelligence capable of identifying the origin of the shells with just a photograph and guaranteeing their proper return. After successfully reintegrating more than 450 kilos of shells and recognizing that this problem transcends borders, the company announced that its model will be open source, which will allow other countries to adapt the technology to their local needs.

This tool is part of “*De vuelta a casa*”, an initiative of the brand to address the shell extraction issue in Costa Rica, with up to 6 tons of shells seized annually at airports, preventing them from fulfilling their fundamental role in the well-being of marine ecosystems. These shells could not be returned due to the risk of affecting ecosystems because their origin was unknown. Thanks to this model, constant supervision, a rigorous cleaning process and 200 volunteers, a significant number were returned.

*"This project not only reflects our commitment to sustainability, but also places Costa Rica as a world leader in technological innovation for marine conservation. In addition to promoting a collaborative approach that allows scaling the impact of the “De vuelta a casa” project, democratizing access to technology and facilitating the protection of marine biodiversity globally,”*said Maria Pia Robles, FIFCO's Director of Corporate Relations.

How does open-source work?

The tool is designed only for Costa Rica, since this model was trained with more than 18,500 photographs of 525 species that inhabit the coasts of the country, distributed: 278 from the Caribbean and 247 from the Pacific, with an average of 30 to 40 images per species. However, this can be modified to adapt to other species.

The scientific community of each country will be able to develop its own tool. The company makes available the trained model, its weights, architecture and a database. With this resource, it is hoped that new image classification models can be generated and that more countries will be able to train their own systems to identify seashells.

"Creating and training this model was a challenging process, but the gratification of returning more than 450 kilos of shells to our beaches was even greater. We have taken a great step and we want to share with the world the opportunity to do it as well, so, with the responsibility that has characterized us, today we make it available for its due training”, mentioned José Pablo Murillo, Connections Marketing manager at FIFCO.

It should be noted that FIFCO emphasizes that its use should be carried out by experts in biology, since these professionals not only validate the results of the system, but also interpret the data in a broader ecological context, ensuring that the actions derived from the use of the tool, such as the relocation of shells, respect the natural dynamics of the ecosystems.

Regarding the use of the application by the general population, Murillo added: *"We know that many people want to return the shells they have at home and we greatly appreciate their concern, however, we ask them to keep them for the time being, since even knowing their place of origin, the process of cleaning and preparation of the shells must be supervised by experts. We are working on a solution that will allow them to be returned, we hope to give you more news soon”.*



Aiming to generate awareness and action

The impact of the “*De vuelta a casa*” project is not limited to technology. The documentary of the same name, produced by Imperial in collaboration with strategic partners, seeks to educate the public about the importance of seashells and encourage responsible practices. Thus, FIFCO calls on tourists and Costa Ricans to become ambassadors of marine biodiversity, remembering that each shell is essential for the health of coastal ecosystems.

“At FIFCO we believe that sustainability is a shared responsibility. With this artificial intelligence tool, Costa Rica is not only solving a local problem, but offering the world an innovative and scalable solution for marine restoration and conservation,” concluded Robles.

The collaboration between FIFCO, MINAE-SINAC, AERIS and UCR underscores the power of public-private partnerships to address complex environmental problems. With this initiative, Costa Rica reaffirms its role as a global leader in sustainability, opening new opportunities for the protection of marine ecosystems worldwide.

For more information about “*De vuelta a casa*”, **visit the following link:** <https://imperial.cr/devueltaacasa/>. The model is now available at: https://huggingface.co/FIFCO/De_vuelta_a_casa.

About Imperial

Imperial was born in 1924 and has 5 line extensions for all tastes and lifestyles of its consumers: *Imperial Original*, *Imperial Silver*, *Imperial Light*, *Imperial Ultra* and *Imperial Cero*. Imperial is a benchmark brand in Costa Rica and the region, recognized and preferred for offering unique events and experiences, and for its flavor diversity and sustainability initiatives.

About FIFCO

FIFCO is a beverage and food company with 116 years of history. It has operations in Costa Rica, Central America, Dominican Republic, Mexico, and the United States, 5 manufacturing plants and 13 distribution centers. It has 3 business divisions that include *Florida Bebidas* (food and beverages), *FIFCO Hospitality* (real estate sector) and *FIFCO Retail* (retail sales). It exports to over 10 countries around the world and has a portfolio of 2,000 products.