

# New technology could prevent the mass cull of male chicks

March 30 2021

---



In Ovo founders Wil Stutterheim (left) and Wouter Bruins. They started the company while studying at Leiden University. Credit: Leiden University

A staggering 6.5 billion chicks are killed worldwide every year. These are generally male chicks that are of no economic value. In Ovo has

developed technology that can quickly determine the sex of a chick, to ensure that only female chicks are hatched. The first 150,000 chicks have now hatched in this animal-friendly process.

In Ovo has developed a machine—Ella—that quickly determines the sex of an egg. This gives hatcheries the option to only hatch females, which is a considerable improvement in terms of both animal welfare and sustainability. It is In Ovo's mission to roll this technology out worldwide and thus end the cull of male chicks. The company signed a covenant in 2014 with the Central Organization for Hatching Eggs and Chicks, Leiden University, Animal Protection and the government, and on this basis received funding to further develop its technology. The successful hatching of the first 150,000 chicks is the result of years of research and a crucial milestone in solving the problem.

## **Ella, where bio and tech meet**

Ella tests eggs early in the incubation process, works on brown and white eggs, and is quick and accurate. The technology was only possible thanks to a combination of technological breakthroughs. In Ovo found a new biomarker for sex in collaboration with Leiden University. And with the company Demcon it developed an automatic sampling method that can extract a minuscule sample from an egg, and was the first to use the world's fastest mass-spectrometer, the Sciex Echo MS, outside the lab. The result is the rapid, automated sexing of [eggs](#) on day nine of the incubation process, which means Ella can seamlessly be added to the existing process at commercial hatcheries.

The culling of male chicks is a problem that affects the poultry sector, consumers, policymakers, NGOs and retailers. In Ovo received vital input and help from various stakeholders. It is pleased that Het Anker hatchery has implemented the technology, and that egg suppliers Kwetters, Interovo Egg Group en Gebr. Van Beek committed at an early

stage to using the chicks. This group of partners is unique and makes it possible to scale up the technology.

In Ovo is growing fast and is ready to make more of an impact. To speed up the adoption of the technology, shareholders VisVires New Protein and Evonik Venture Capital have made a new investment of several million euros. One hundred and fifty thousand chicks is just the beginning. With the current Ella system, a hatchery will be able to hatch a million female chicks per year without culling day-old male chicks. To meet the high demand, the technology is constantly being improved. Within a few months a new Ella machine will be introduced with a capacity of five million hens per year, and the international roll out of this technology will begin.

Provided by Leiden University

Citation: New technology could prevent the mass cull of male chicks (2021, March 30) retrieved 6 May 2024 from <https://phys.org/news/2021-03-technology-mass-cull-male-chicks.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.