EggDetect Unit, the first non-invasive technology to detect egg fertility pre-incubation and the chicken's gender pre-hatching

Fact Sheet

Project Information

EDU
Grant agreement ID: 773801

DOI
10.3030/773801

Closed project

Funded under
SOCIETAL CHALLENGES - Food security, sustainable agriculture and forestry, marine, maritime and inland water research, and the bioeconomy

Overall budget
€ 71 429,00

EU contribution
€ 50 000,00

Coordinated by
EGGDETECT LTD
Israel

Start date
1 June 2017

End date
30 September 2017

Objective

Over the last 25 years poultry farms, and particularly chicken farms, have been industrialised and transformed into efficient operations that can fulfil the demand for meat and eggs with nearly every step along the production process, optimised for speed and quality. Two critical processes, however, that have not yet been effectively developed are: the non-invasive detection of the fertility of eggs before they are moved to incubation and sexing (i.e. gender determination) of eggs before hatching.
(i.e. before the egg opens). Despite the critical economic implications and the clear benefits of performing pre-incubation fertility detection and sexing before hatching, there is currently no solution on the market that allows it. The ultimate objective for EggDetect’s business project is to bring to the global poultry industry a more efficient, cost-effective, and humane alternative to traditional methods of determining the fertility of avian eggs and the gender of the embryos before hatching to prevent the mass culling of male chickens (mass killing upon hatching by suffocation or maceration) and to increase the economic performance of hatcheries. EDU provides real-time, remote early detection of fertility and sex for a variety of eggs with an accuracy level of over 98% at the standard throughput of at least 50,000 eggs per hour. EDU guarantees substantial cost saving as well as a solution to the ethical and environmental problems associated with culling. EDU can increase annual gross profit of a layer eggs hatchery by up to 60%. EggDetect’s EDUs will be sold directly to the existing manufacturers of candling machines, which will in turn distribute the units directly to their customers, the hatcheries – either as part of newly sold candling machines or as an enhancement to existing machines. Local distributors will serve as main business partners. The machines will be updated when required providing additional market sales.

**Fields of science**

- **social sciences** › sociology › demography › fertility
- **medical and health sciences** › basic medicine › pharmacology and pharmacy › pharmaceutical drugs › vaccines
- **natural sciences** › computer and information sciences › artificial intelligence › machine learning › deep learning
- **social sciences** › economics and business › economics › sustainable economy
- **medical and health sciences** › clinical medicine › embryology

**Programme(s)**

- H2020-EU.3.2. - SOCIETAL CHALLENGES - Food security, sustainable agriculture and forestry, marine, maritime and inland water research, and the bioeconomy
- H2020-EU.3.2.4. - Sustainable and competitive bio-based industries and supporting the development of a European bioeconomy
- H2020-EU.3.2.1. - Sustainable agriculture and forestry
- H2020-EU.2.3.1. - Mainstreaming SME support, especially through a dedicated instrument
- H2020-EU.3.2.2. - Sustainable and competitive agri-food sector for a safe and healthy diet
Topic(s)

SMEInst-07-2016-2017 - Stimulating the innovation potential of SMEs for sustainable and competitive agriculture, forestry, agri-food and bio-based sectors

Call for proposal

H2020-SMEInst-2016-2017

See other projects for this call

Sub call

H2020-SMEINST-1-2016-2017

Funding Scheme

SME-1 - SME instrument phase 1

Coordinator

EGGDETECT LTD

Net EU contribution

€ 50 000,00

Address

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Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network

Other funding

€ 21 429,00