

 Prevent event



# IMPROVING OUTCOMES AND SUCCESS IN THE POULTRY INDUSTRY

Mustafa Seçkin SANDIKLI  
Ceva Global Marketing Director

# Our business purpose

**“Together, our passionate people drive innovative health solutions for all animals, contributing to the future of our diverse planet.”**



 **Prevent event**

# Global reference in Poultry Vaccination



# #1

IN HATCHERY  
VACCINATION

# 22%

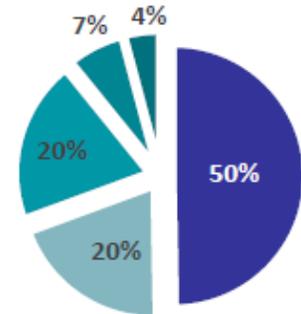
GLOBAL VACCINE  
MARKET SHARE

# 27.4 Billion

DOSES OF NEW TECHNOLOGY  
HATCHERY VACCINES IN 2022

# 850 Poultry PROFESSIONALS

2022 - New Technology Vaccines  
Global Supply Per Company



■ Ceva ■ Supplier A ■ Supplier B ■ Supplier C ■ Others

# 180 Vet

SPECIALISTS CLOSE TO YOU

# 195 Hatchery

SPECIALISTS AT YOUR SERVICE

# 64 %

OF HATCHERIES  
IN THE WORLD AUDITED BY THE C.H.I.C.K  
PROGRAM



# Poultry vaccines in the center of Ceva's strategy

## Innovative range of vaccines – 6 Key Diseases

### Focus on hatchery

Broilers  
Layers  
Breeders

### 6 key diseases

IBD  
ND  
IB  
H9 / H5  
Cocci  
Salmonella

**NEXTMUNE**

**Vectormune<sup>®</sup>  
ND**

**NEWFLEND<sup>®</sup>  
ND H9**

**RESPONS AI H5**  
- Fast immunity RNA technology

**Cevac  
IBird<sup>®</sup>**

**cevac  
SALMOVAC**

**vectormune  
AI**

**IMMUCOX<sup>®</sup>3 IMMUCOX<sup>®</sup>5**

## 3 Key services & 4 Key Hatchery Equipment

### Health performance monitoring :

- Global disease awareness
- GPS with Real World Evidences statistics
- Global lab network + SSIU
- Smart glasses & Data pulse platform



### Quality of vaccination & innovative hatchery equipment :

- CHICK Program
- Egginject, Laserlife, Ovosense, Dovac Line



**egg inject<sup>®</sup>**  
IN OVO SYSTEM

**laser LIFE<sup>®</sup>**  
CANDLING SYSTEM

**OVCsense<sup>®</sup>**  
EGG SETTING ANALYZER

**DOVAC  
HIGHSPEED LINE**

**Viral and Bacterial Autogenous vaccines for selected geo**

# Layer : A specific value proposition for Layers & Breeders



Immunize your pullets from the hatchery and reduce field booster application for Marek's, IBD, ND, IB, H9 and Coccidiosis



Perfect balance between safety and efficacy in a single injection, Allows you to use other vector HVT vaccines at the hatchery

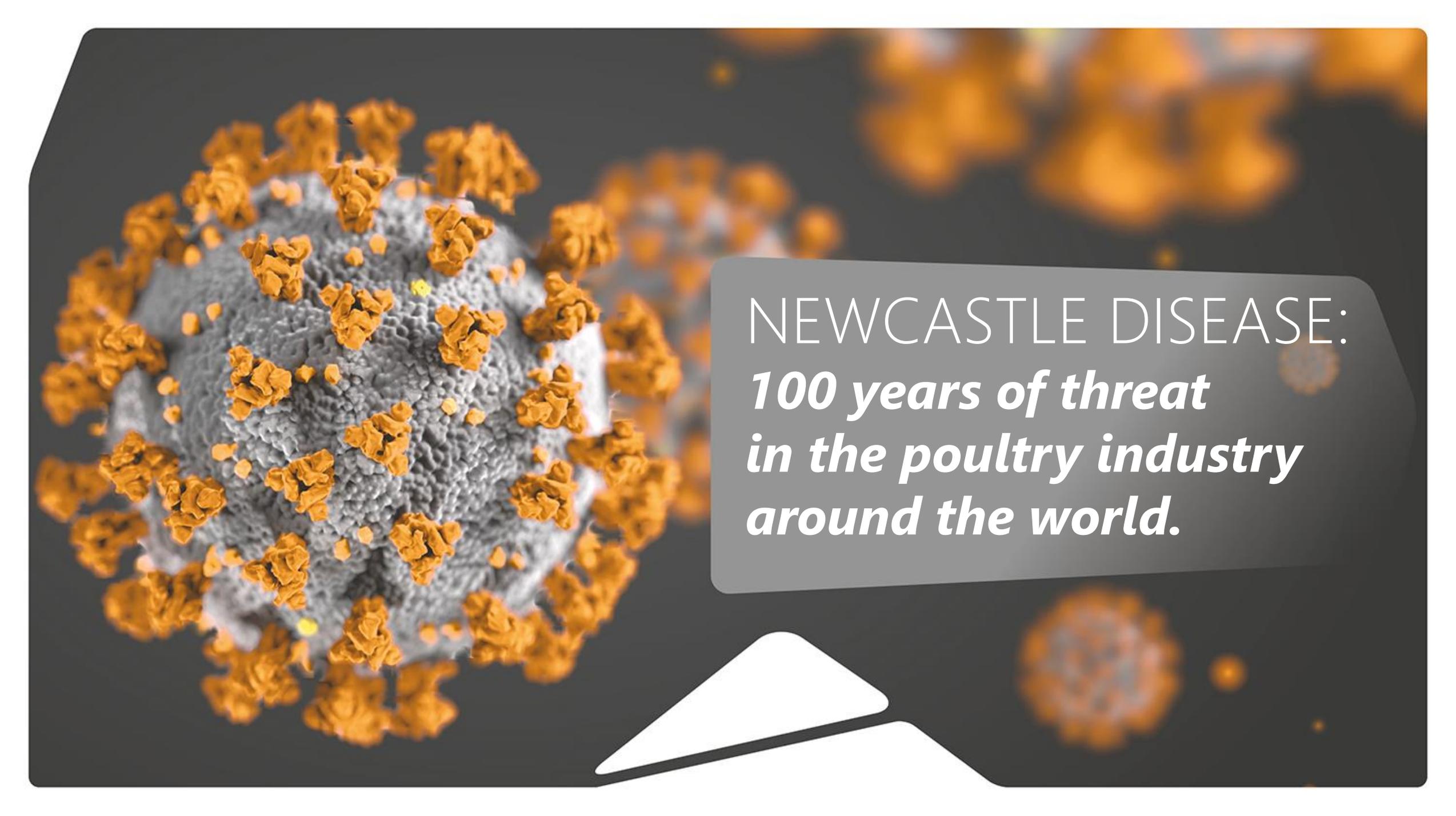


Broad protection in a single injection, reduce catching stress and handling of birds.



The strongest and longest SE and ST protection





NEWCASTLE DISEASE:  
*100 years of threat  
in the poultry industry  
around the world.*



**Why do we still have  
ND in the field ?**

# Lack of control

## 3 Key Success Factors

1. Biosecurity
2. Vaccine and Vaccination
3. Immunization

## 3 major problems associated with vaccination against Newcastle Disease:

1. Interference between MDA and (conventional) ND vaccines
2. Quality of administration
3. Possible post-vaccination reactions (PVR)

# Innovation of ND Vaccines to overcome the limitations

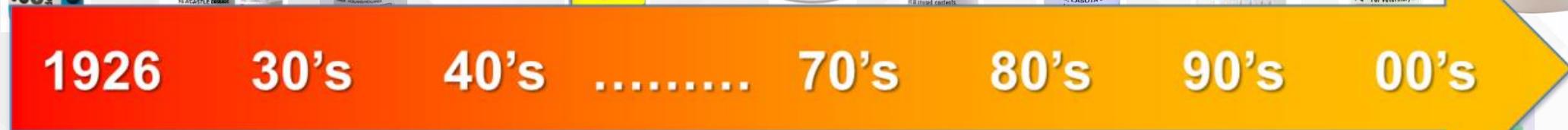


First description of the disease

Mesogenic strains, HB1 and LaSota strains

Cloned ND vaccines

Vector vaccines



1926

30's

40's

.....

70's

80's

90's

00's

**Vectormune<sup>®</sup>**  
**ND**

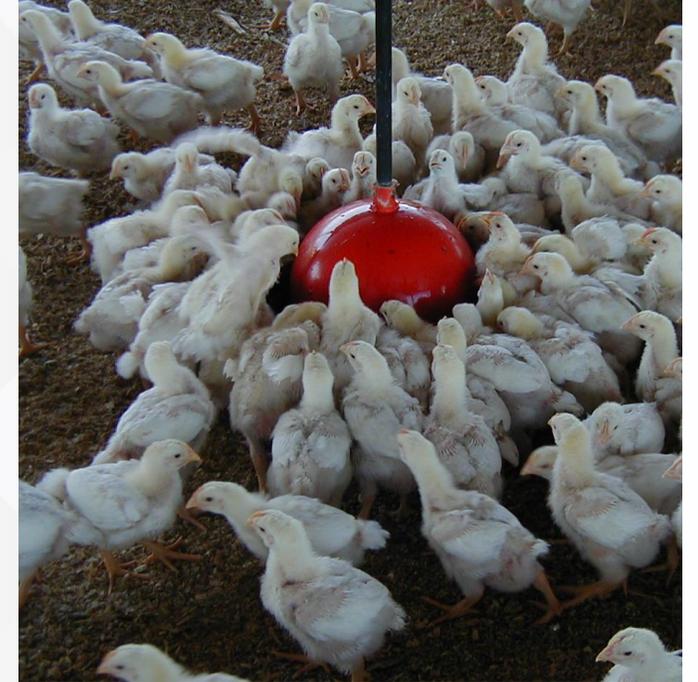


First studies on attenuation of virulent NDV

Thermo stable strains

Apathogenic enteric strains

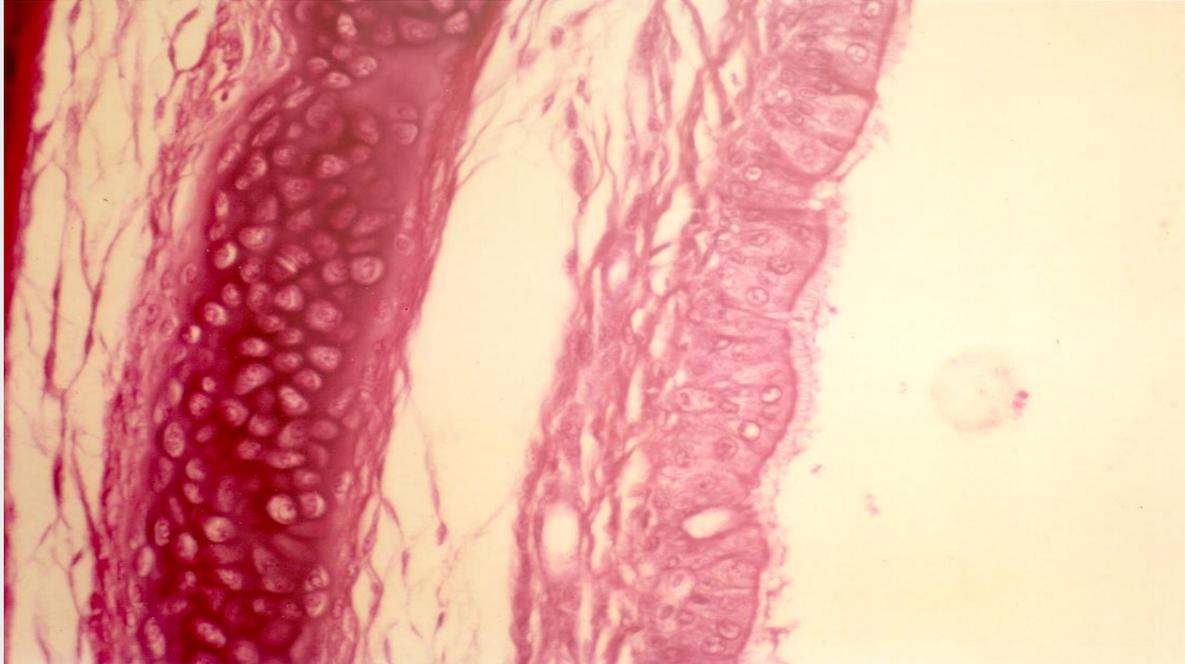
# Poor quality of farm vaccination



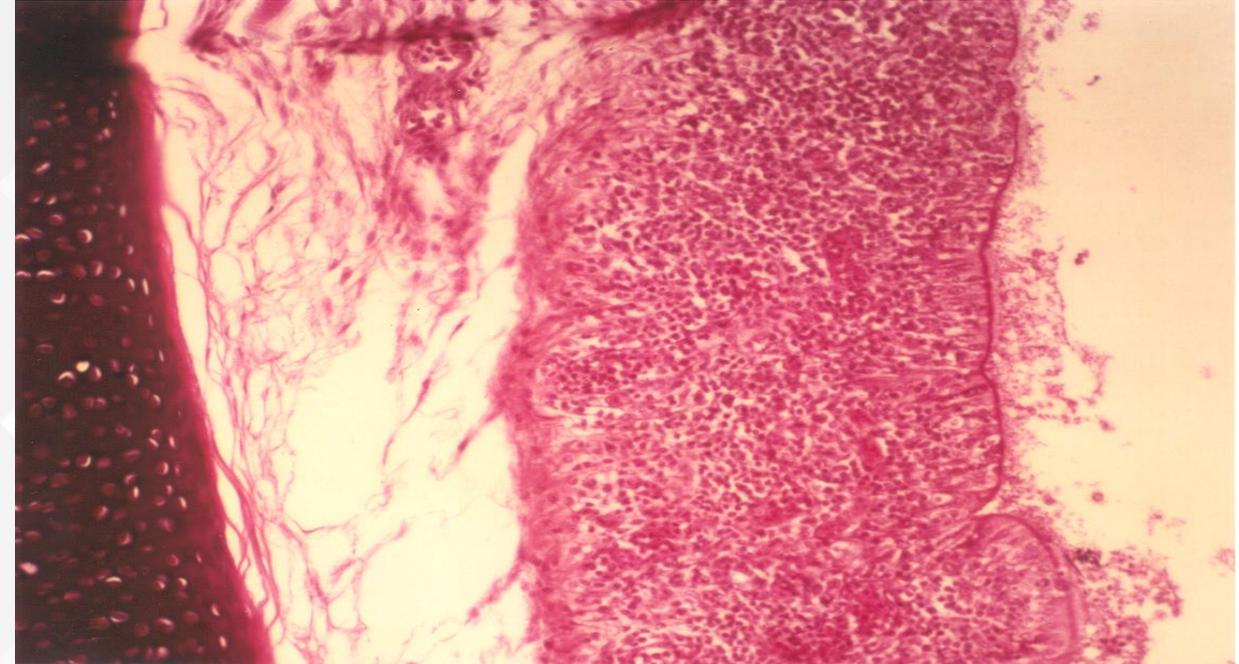
# Post-vaccination reactions

## Tracheal histopathology

Normal image

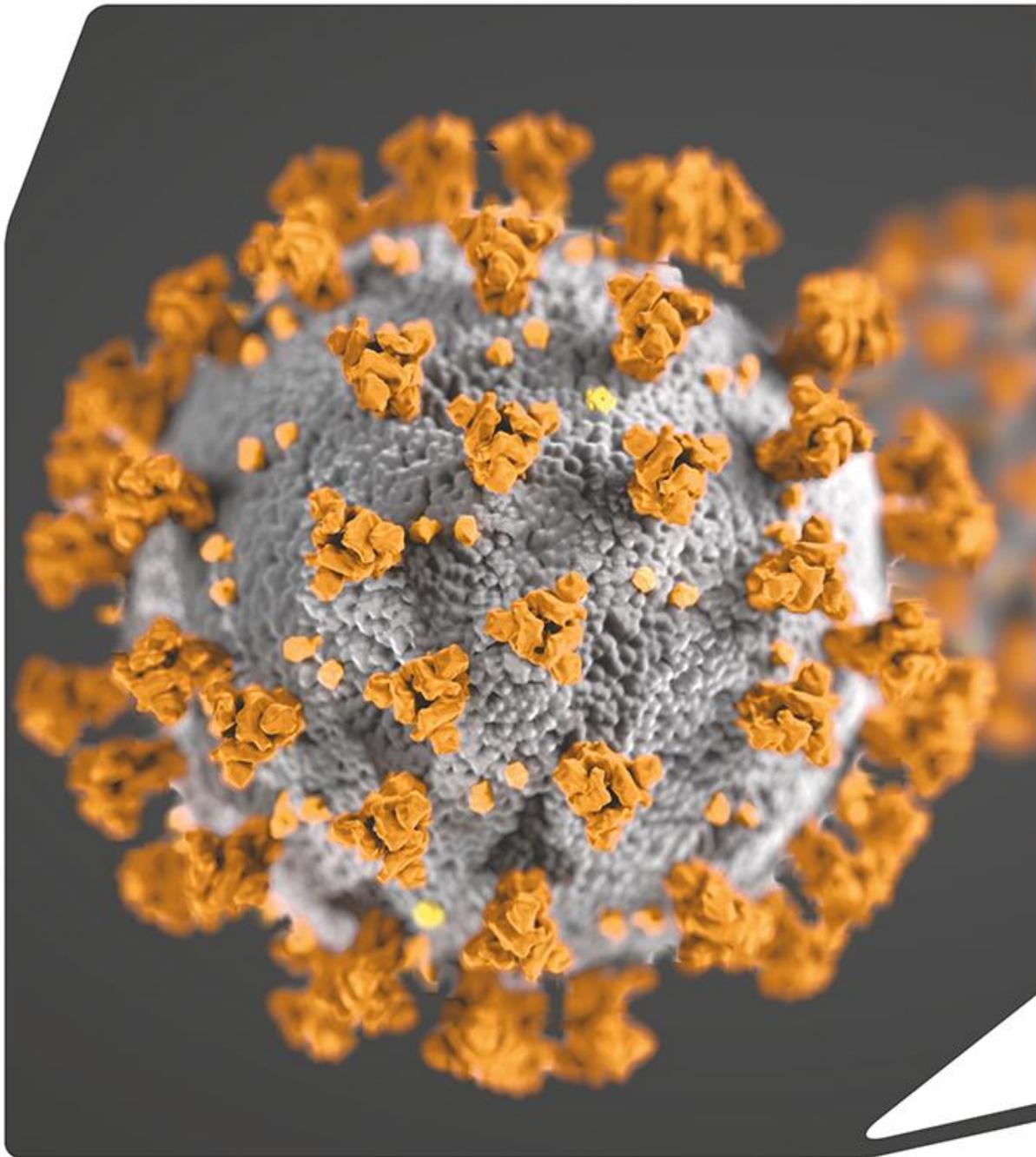


Lymphoid Infiltration : +++ Congestion : +



Pneumotropic ND strains

Source: AFSSA, 1999



**TAKE CONTROL  
OF TRANSMISSION**

*Vectormune*<sup>®</sup>  
**ND**

**Vectormune<sup>®</sup> ND is the proven reference  
for the reduction of Newcastle disease transmission.**

Whatever your situation; Vectormune<sup>®</sup> ND protects your performance against lentogenic  
and velogenic strains, thanks to the best in class transmission control!



# WVD has STEER THE BIRD MEMBERS TOGETHER



PROTECTION AGAINST GUMBORO DISEASE

# in ovo or 1 day old

The 2 faces of modern technologie  
in 1 vaccin

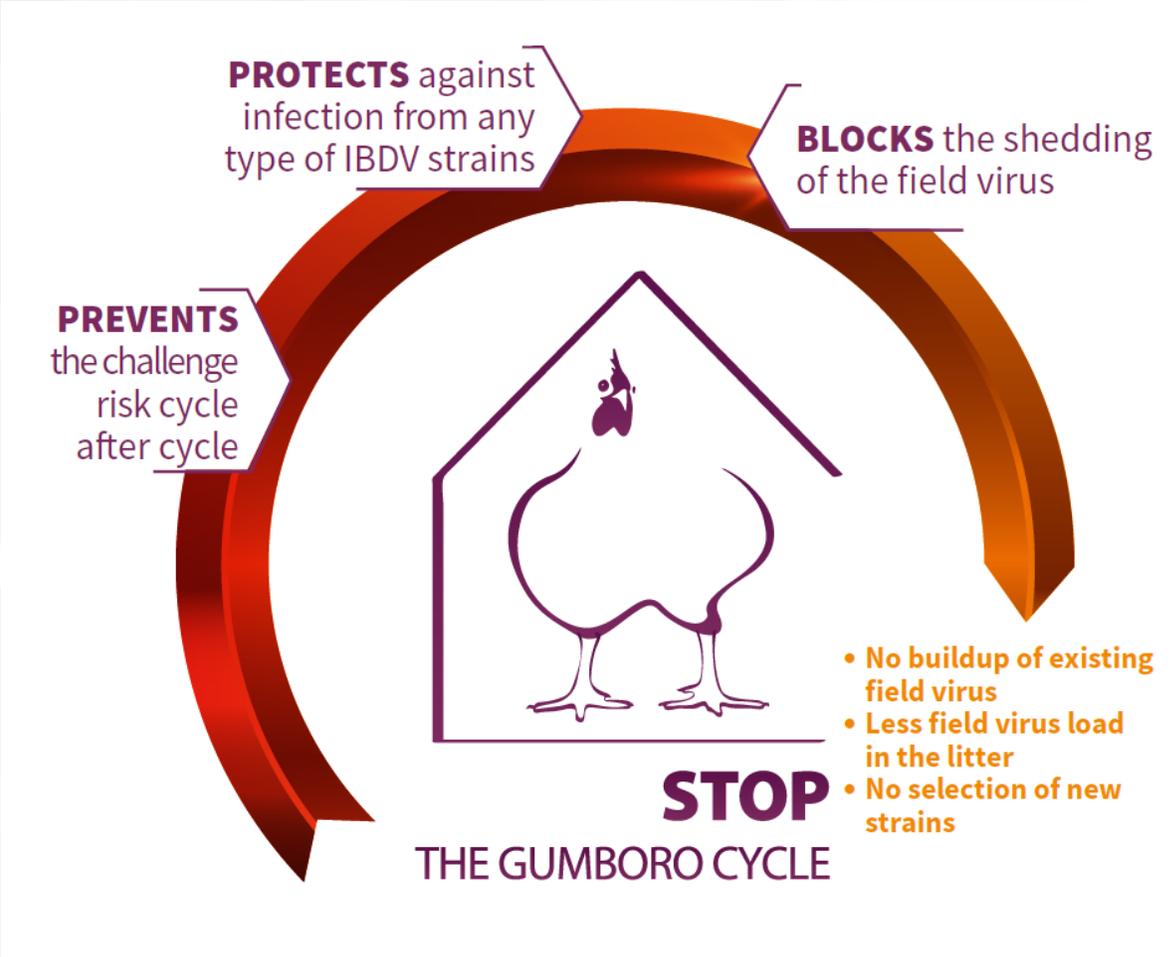



CEVAC TRANSMUNE® IBD

CEVA  
SANTO SPIRITO

CEVAC AVIAN BIOLOGICAL RANGE

CEVA S.p.A. - Via Belfiore, 1 - 37060 - Montebelluna (TV) - Italy - Tel. +39 0422 57 31 40 - Fax +39 0422 57 31 41  
E-mail: [info@ceva.com](mailto:info@ceva.com) - [www.ceva.com](http://www.ceva.com)



# TRANSMUNE® IBD



**STOP**  
THE GUMBORO CYCLE

Transmune® stops reinfection and protects against all IBD virus strains



# NEXTMUNE®

A NEXT STAGE >> IBD



**FASTER GUMBORO DISEASE CONTROL**  
TO PROTECT AGAINST ALL IBD VIRUS

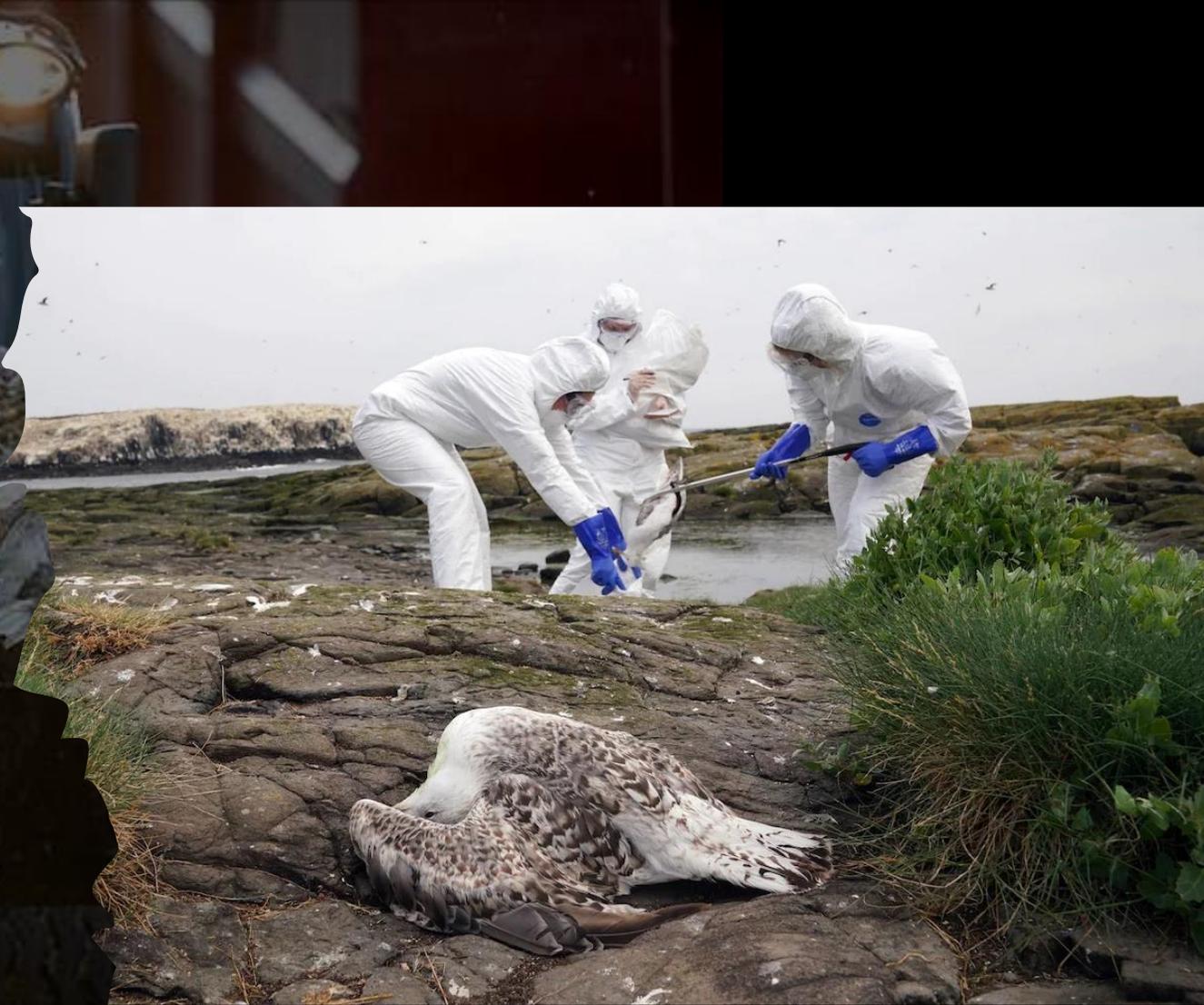


# Avian Flu

We've tried to build  
**WALLS**, lockdown against  
pandemics...



Avian Influenza  
is a major threat



# Avian Influenza is back to the news

**Bangkok Post**  
THAILAND WORLD BUSINESS OPINION AUTO

WORLD

## Japan culls record 10m birds as avian flu spreads

PUBLISHED: 10 JAN 2023 AT 12:26 WRITER: KYODO NEWS



Officials in protective suits work at a chicken farm where an outbreak of a highly pathogenic bird flu was confirmed in Mitoyo, western Japan, on Nov 5, 2020. (Photo: Kyodo News)

**The Korea Times**  
North Korea National Business Finance Lifestyle Entertainment & Art Opinion Sports

## National

Forestry

### Korea reports 2 more avian influenza cases



A quarantine officials disinfect a truck near a poultry farm in the city of Hwasong, Gyeonggi Province, Nov. 17, North Korea.

**BusinessWorld**

## Egg prices seen rising further on bird flu impact

January 16, 2023 | 12:05 am



Philippine Egg Board Association (PEBA) president Gregorio A. San Diego, Jr., chairman of Philippine Egg Board Association, said in a text message on Sunday.

**20 SAN DIEGO**

## Ecuador: niña de 9 años resulta ser el primer caso de aviar en humanos

El Ministerio de Salud confirmó que se trata de una niña de nueve años de la provincia de Bolívar.



**World Organisation for Animal Health**  
70 934 abonnés  
18 h

Over 272 MILLION poultry died or were culled due to #AvianInfluenza since October 2021. On #WorldPoultryDay, and everyday, we must work together to stop the spread and prevent new outbreaks, for #EveryonesHealth. ...voir plus



**philstar GLOBAL**  
HOME HEADLINES OPINION NATION WORLD

NATION

## Philippines reports new bird flu outbreaks

Catherine Talavera - The Philippine Star | Jan 18, 2022 | 12:00am



MANILA, Philippines — Avian influenza or bird flu continues to spread across country as new outbreaks have been recorded in Luzon and Mindanao.

In two separate follow-up reports to the World Organization for Animal Health the Philippines said new avian flu outbreaks were detected in Pampanga, Nueva Ecija, Isabela, Tarlac, Benguet and Laguna in Luzon.

In Mindanao, bird flu outbreaks were recorded in South Cotabato, particularly Barangays Teresita and Katipunan in Sto. Niño town.

**The New York Times**

## Cambodia Investigates After Father and Daughter Infected With Bird Flu

Two family members were infected with H5N1; the daughter died. Eleven contacts, some with symptoms, have tested negative, according to the W.H.O.



Chickens in a market in Phnom Penh, Cambodia. For now, experts believe the cases there are from direct exposure to infected birds. Tang Chhin Soth/Agence France-Presse

Bird flu: Health officials draw up COVID-style model looking at pandemic possibilities

The plans to boost the UK's preparedness for a bird flu pandemic come after an 11-year-old girl died from the virus in Cambodia. The WHO warns that even if the world is more prepared than for COVID, "we are not yet prepared enough".

Josephine Francis  
Sky News reporter @Joe\_Francis



**CBN NEWS**  
BUSINESS ENTERTAINMENT LIFE SPORTS OVERSEAS SPOTLIGHT WEAR

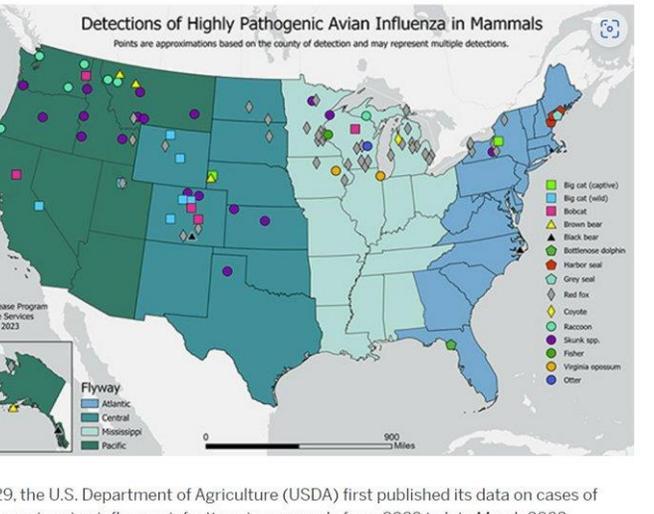
## Bird flu cases rise to record in Japan

Kyodo News  
Posted at Jan 03 2023 02:47 PM

TOKYO — Bird flu cases in Japan hit a record high after new infections were reported in Fukuoka prefecture, the farm ministry said Tuesday.

As of Tuesday, a total of 54 cases of avian flu were confirmed this season, according to the Ministry of Agriculture, Forestry and Fisheries.

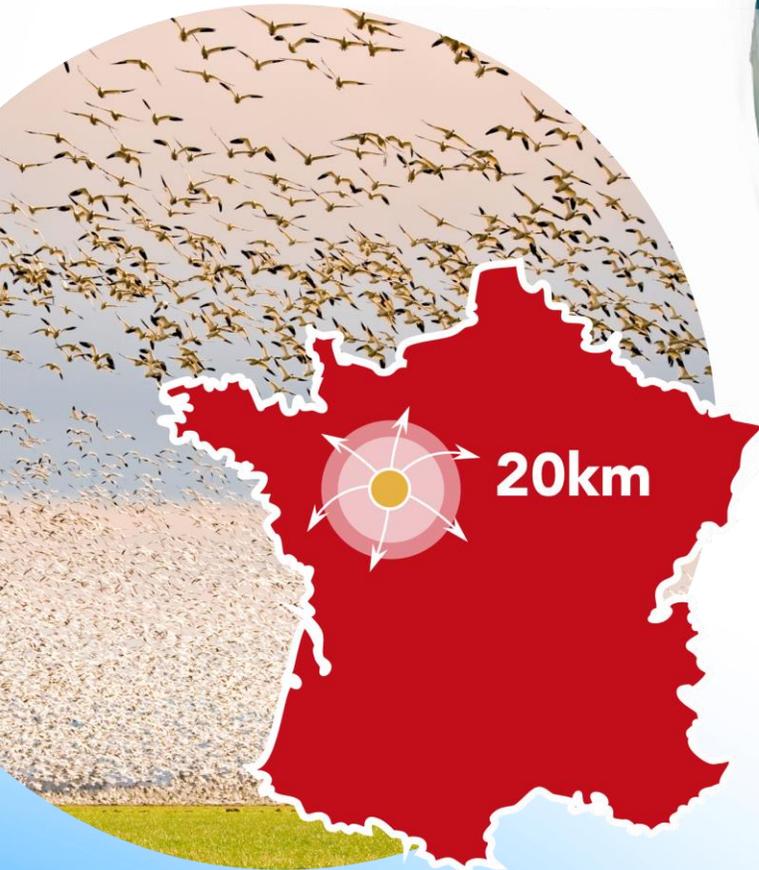
At a poultry farm in Chiba Prefecture, eastern Japan, near Tokyo, workers in protective suits were seen handling chickens.



# How Avian Influenza became endemic in Europe



Traditional migratory route for wild birds from Siberia/North Pole and heading south across Northern Europe, contaminating open-air production farms.



2020 – Climate change created a new route from South Africa, mixing with local European birds in cities like Angers – France and contaminating a 20km perimeter around them.





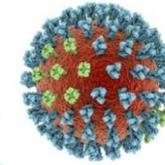
**We must maintain  
efforts in biosecurity**



*A biosecurity sign is seen at the Powers  
Farm (US)*

*Nathan Howard/Getty Images*

New technology vaccines opens new perspectives for modern H5 control and monitoring



# Choice of vaccine must be tailored to the disease threat and animal

*Chicken & Turkeys*



vectormune AI

For chickens and turkeys

**Killed vaccines** (old technology)

- matching of field and vaccine strains is a challenge esp. for H5 given the yearly emergence of new strains
- Not DIVA

RESPONS AI H5

Vector HVT vaccine (new technology)

Vectormune AI (H5)

For ducks, geese and turkeys



*Duck, Geese & Turkeys (tbc)*



**Killed vaccines** (old technology)

- matching of field and vaccine strains is a challenge esp. for H5 given the yearly emergence of new strains
- Not DIVA

**RNA vaccine** (New technology)



*Vector HVT vaccine not efficient in Duck*



- Wide H5Nx HPAIV clade protection and shedding reduction;
- Stop virus transmission ( $R_0=0$ );
- One single application in the hatchery;
- 100-week duration of immunity (Tatar-Kis T. *et al.*, 2021);
- Stimulation of cell-mediated immunity, besides humoral immunity (Rauw F. *et al.*, 2015 & 2016, Ingrao F. *et al.*, 2018);
- DIVA compatible.

*THANK YOU FOR YOUR ATTENTION*

