

# WHAT'S THE CURRENT STATE OF BIOSECURITY & DISEASE PREVENTION TOOLS?

HOW CAN THE EU ENCOURAGE BETTER UPTAKE?

Ilias Chantziaras

# CHALLENGES TODAY

## – Risk of outbreaks

NEWS

### U.S. Bird Flu Cases Continue in Poultry. Here's Where HPAI Is Spreading in March 2025

By [Noah Rohlwing](#) | Published on March 3, 2025



Avian ir

#### In This Article

##### ► The Latest

What Producers Can Do  
Rising Worries About Human Cases

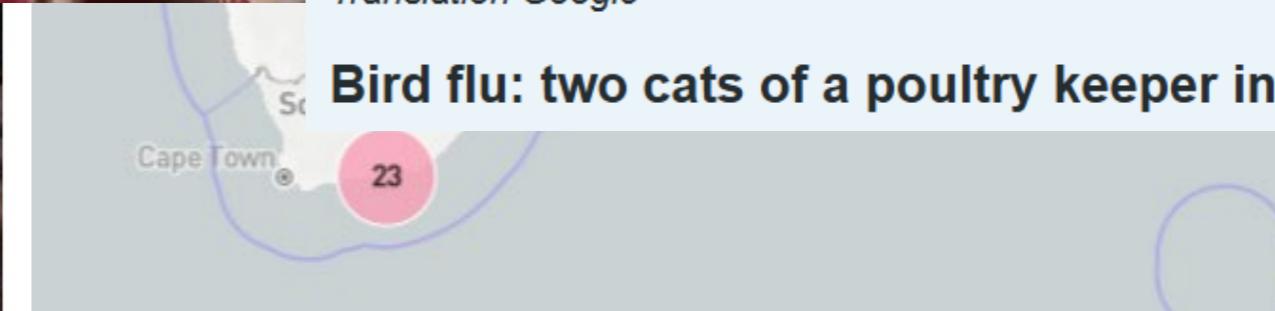


**Belgium - Bird flu detected in two cats of poultry keeper in Saint-Gilles-Waes**

Yesterday, 12:30 PM

*Translation Google*

**Bird flu: two cats of a poultry keeper infected, a first in Belgium**



Animal disease events Africa since 1/01/2024 (WOAH, 2024)

**ZOONOTIC DISEASES**

Italy culls tens of thousands of pigs to contain African swine fever

Outbreaks in the Lombardy 'pork belt' were extinguished, say experts, but wild boar could act as a reservoir



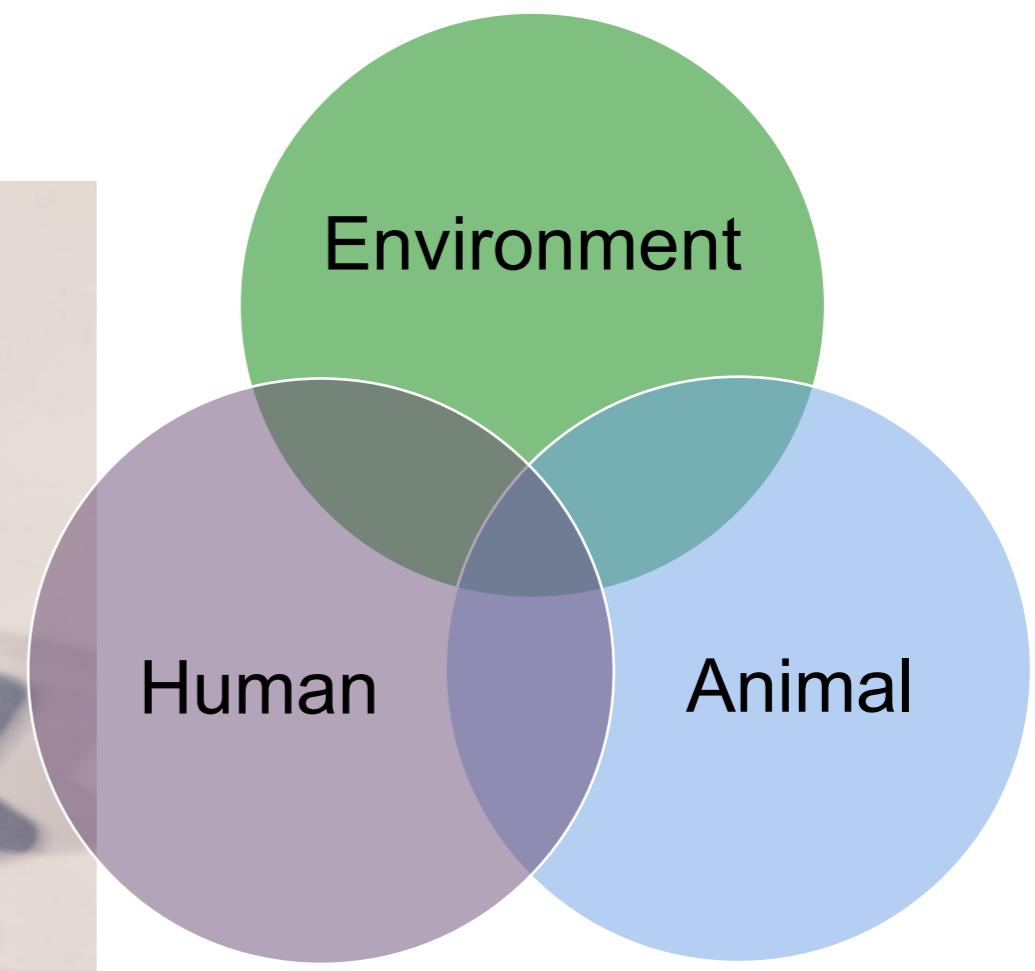
# CHALLENGES TODAY

- Risk of outbreaks
- Reduction of antimicrobial use



# CHALLENGES TODAY

- Risk of outbreaks
- Reduction of antimicrobial use ~ AMR threat



# CHALLENGES TODAY

- Risk of outbreaks
- Reduction of antimicrobial use
- Livestock farming sustainability



Epidemic diseases

Legislation

Endemic and zoonotic diseases

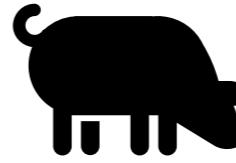
Reduction of antimicrobial use

**Biosecurity helps to address  
all these challenges**

# THE LEGISLATIVE LANDSCAPE



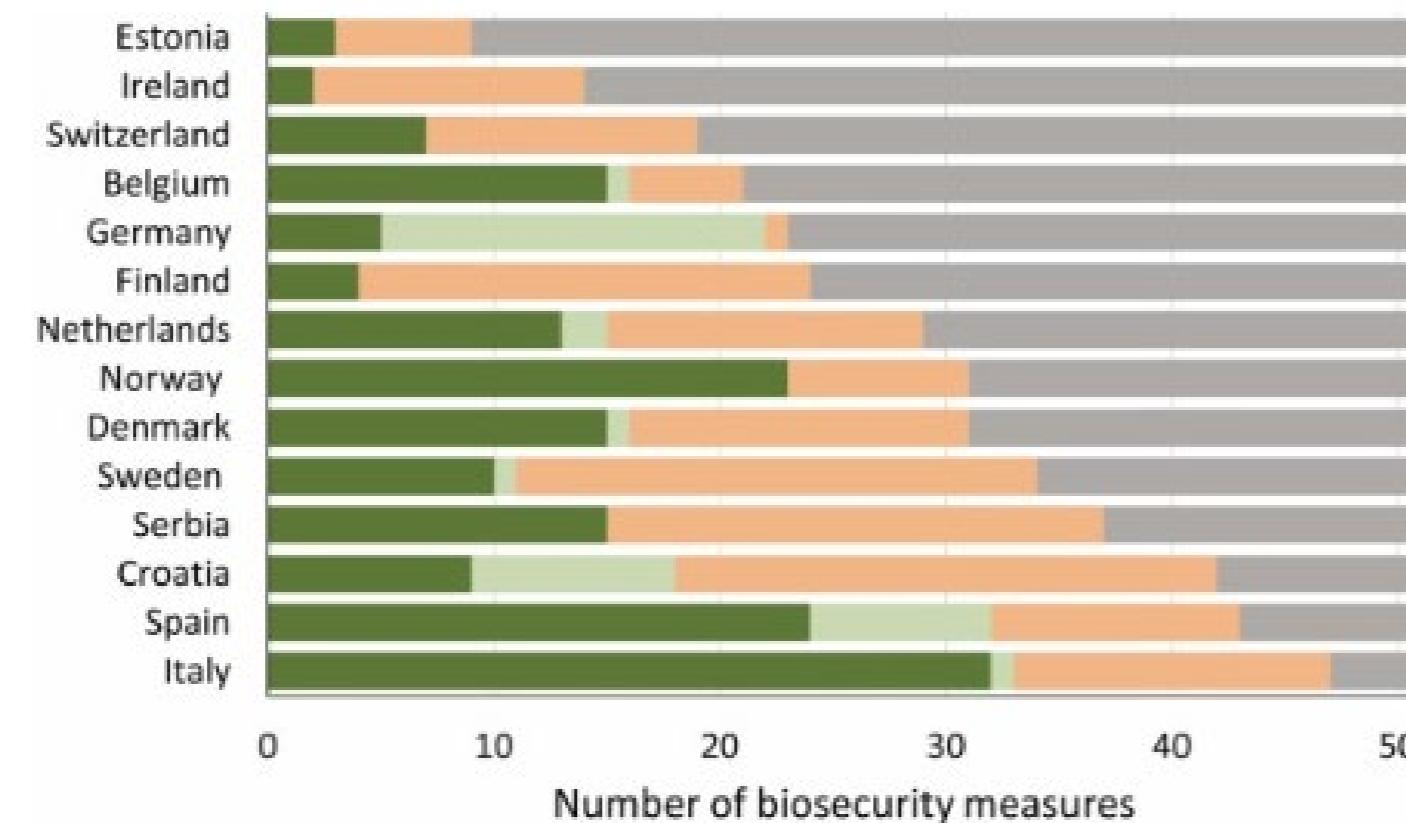
## Biosecurity measures identified in



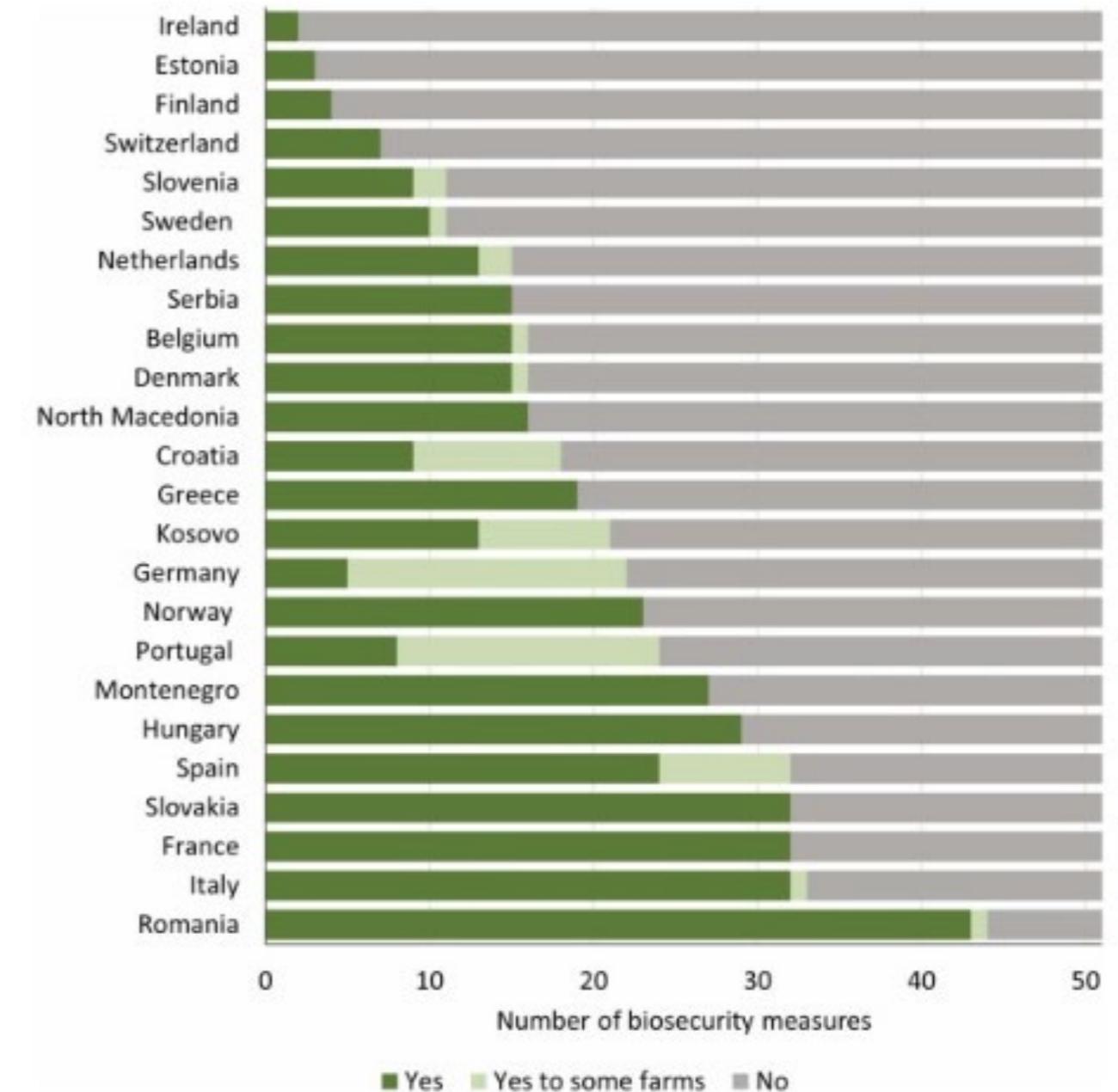
BETTER

– Legislation → → → →

– Private pig sector organizations



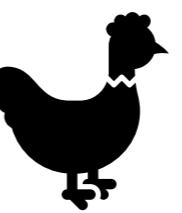
Number of biosecurity measures (n = 51)  
mandatory by law for the intensive pig production



# THE LEGISLATIVE LANDSCAPE



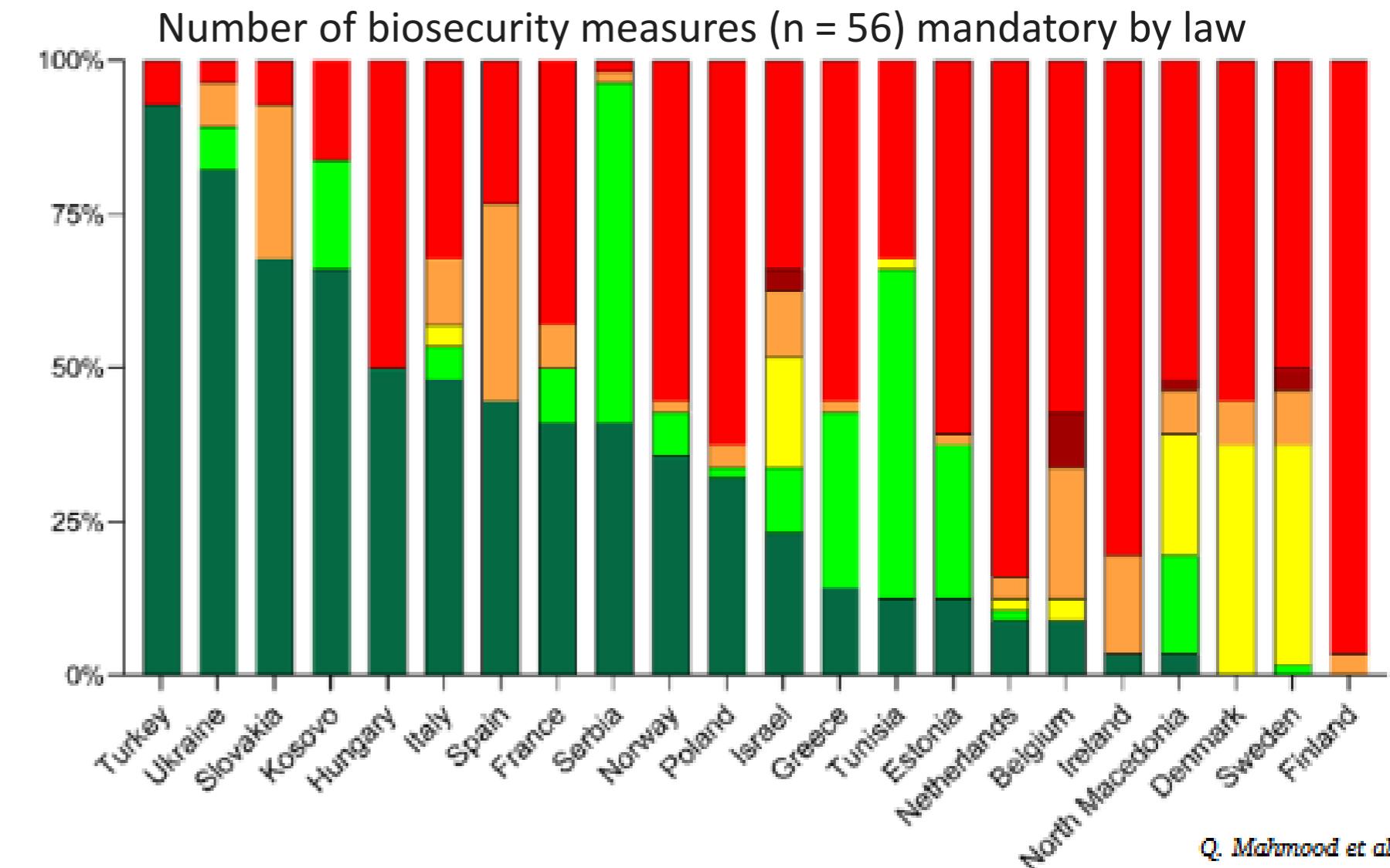
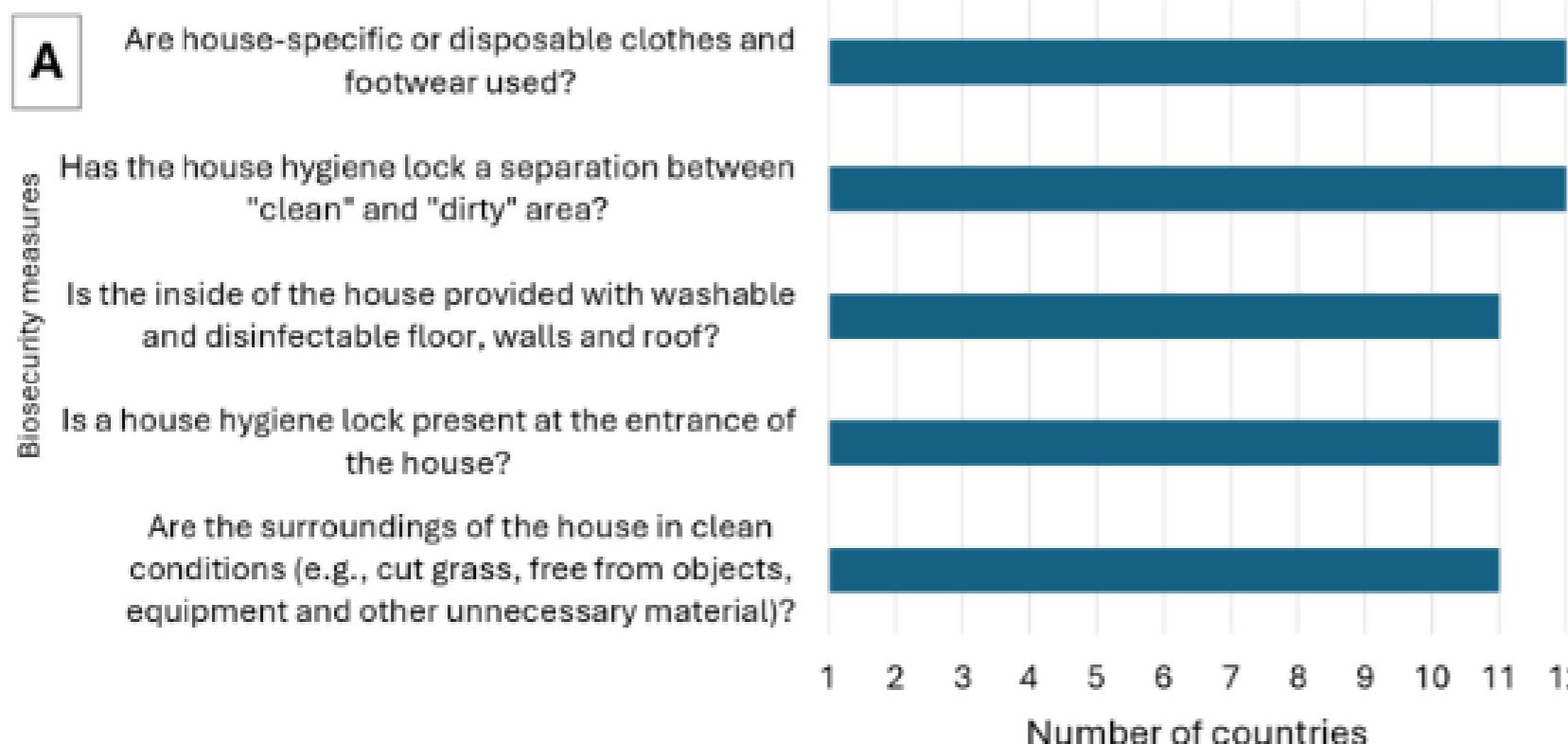
## Biosecurity measures identified in



BETTER

– Legislation → →

– Private poultry sector  
– Some countries rely heavily  
on private standards



Q. Mahmood et al.

➤ Similar findings in cattle (manuscript in prep)

**Heterogeneity as the standard in Europe?**

# THE PROCESS OF HARMONIZATION

Harmonization cannot be a simple 'copy-paste' of legislation!

Structural/sectoral differences to be accounted for!

- Challenge: How to compare “legal-focused” systems with “Industry-focused” systems?
- Solution: Benchmarking *via* standardized risk assessment **tools**

# MAPPING THE TOOLS

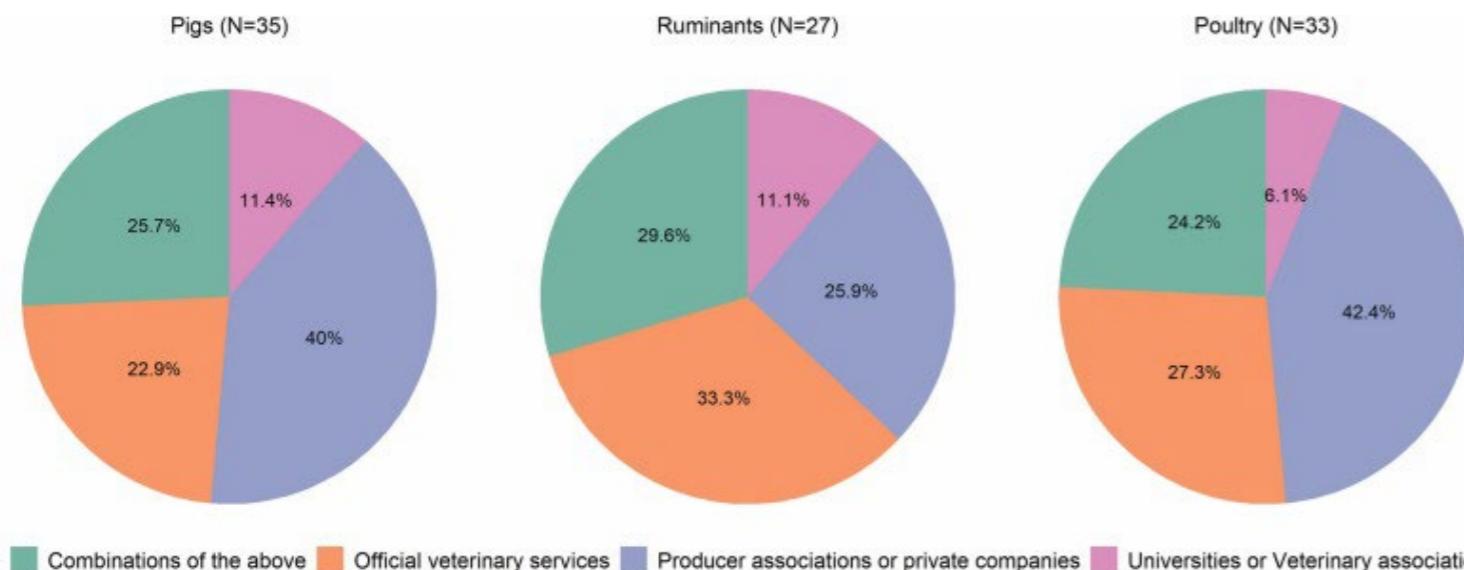


**BETTER**



Funded by  
the European Union

- Inventory of methods
- 74 distinct methods



*F. Duarte et al.*

- High diversity!
- Outputs, purposes



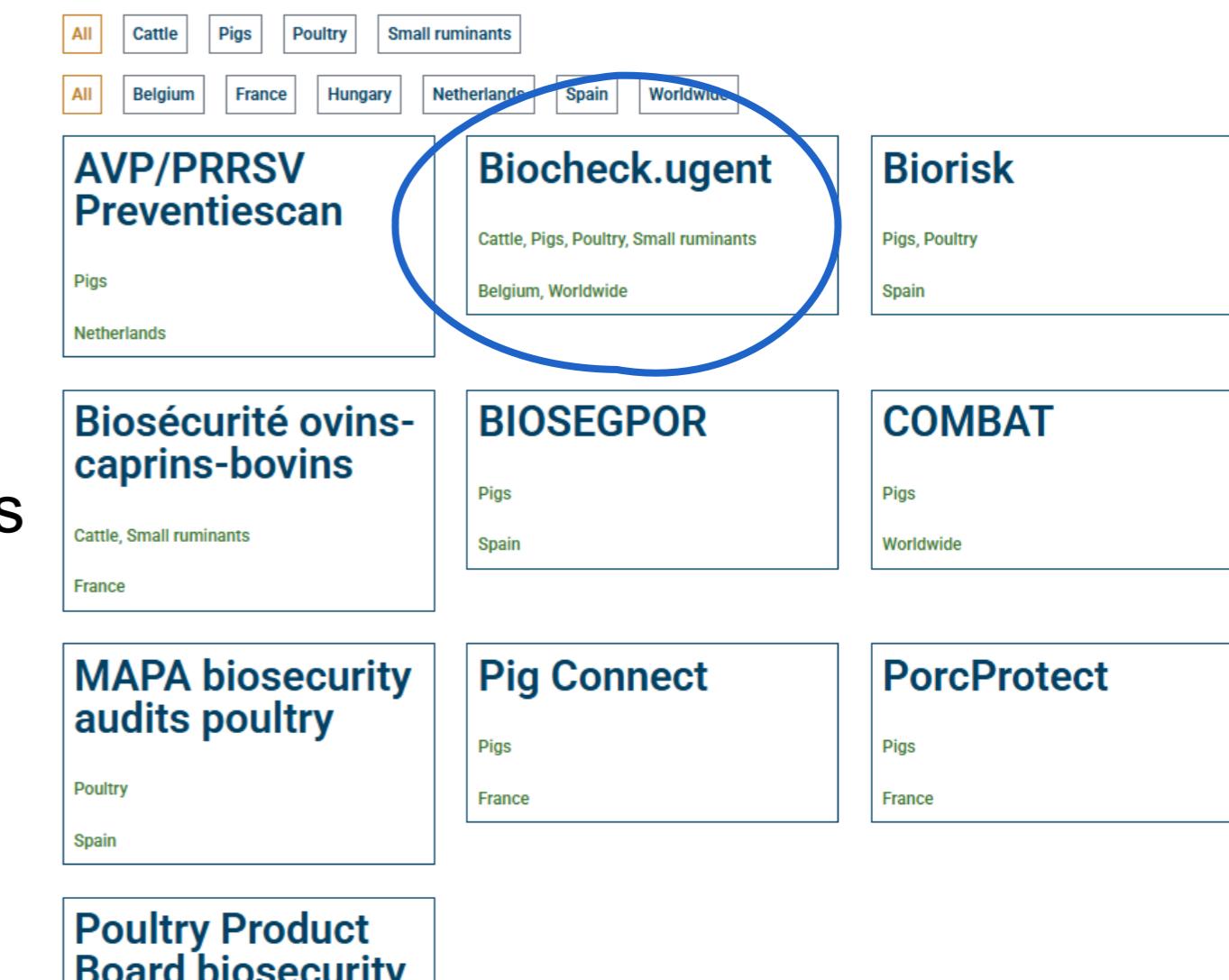
Funded by  
the European Union

- Inventory of tools

## Biosecurity Application Databases

One of the project objectives is to collect existing biosecurity intelligence throughout the livestock production chain. In many countries around the world data on the application of biosecurity practices on farms, transport companies and feed mills are collected.

The dashboard below aims to give the stakeholders and general public an overview of those biosecurity application databases. You can filter them based on species and/or location using the filters below.



Most tools  
local use!

# BIOCHECK.UGENT TOOL

About biosecurity

Our team

Our partners

FAQ

Contact us

 My Biocheck

EN ▾



Surveys

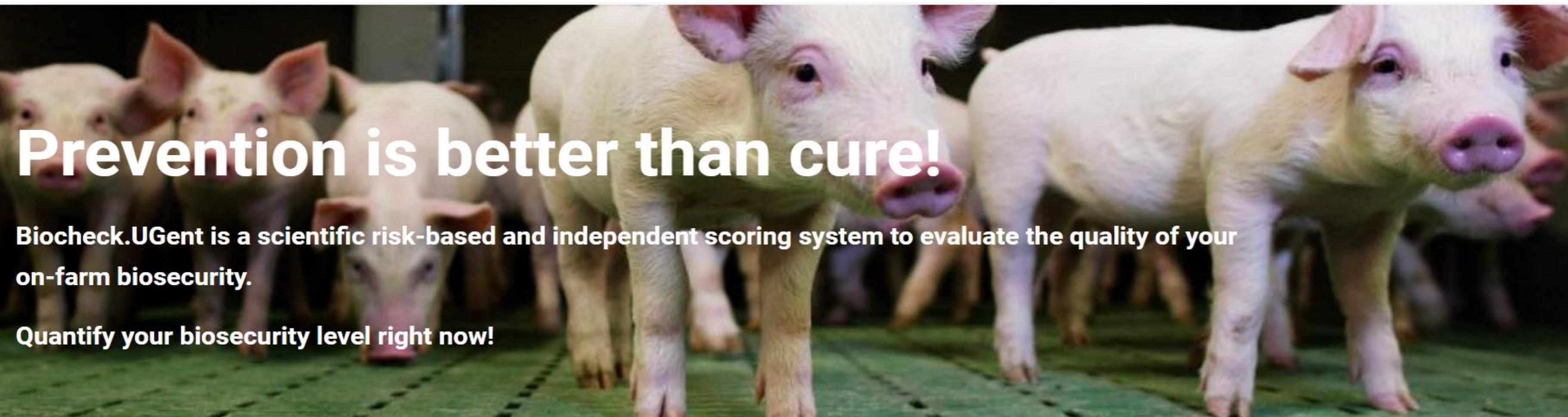
Worldwide

Features

E-learning

Other services

Newsletters



## Prevention is better than cure!

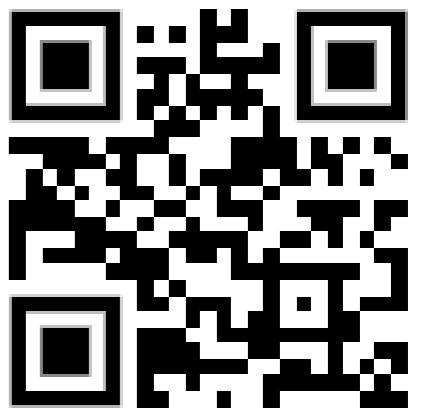
**Biocheck.UGent is a scientific risk-based and independent scoring system to evaluate the quality of your on-farm biosecurity.**

**Quantify your biosecurity level right now!**

# BIOCHECK.UGENT

→ Biosecurity scoring system

- Different animal species, different languages
- Free online application: [www.biocheckgent.com](http://www.biocheckgent.com)



## Surveys for multiple production systems



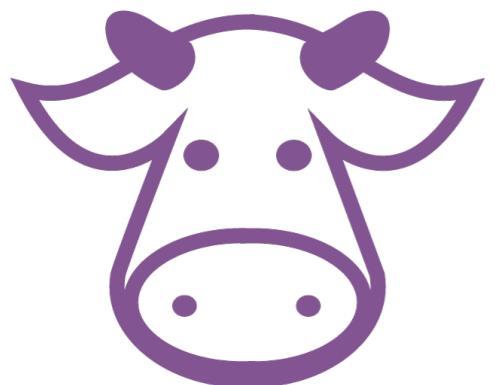
Rundvee

→ Vleeskalveren

→ Vleesvee

→ Melkvee

→ Dairy-source beef cattle production



ID: 201/572376/b/1\_1/F

Entry date: 2019-06-03 09:47:22

Identification:

**BEEF**

Nr	Description	Score	Country average	Global average
<i>External biosecurity</i>				
A	<u>Purchase and reproduction</u>	31 %	65 %	66 %
B	<u>Transport and carcass removal</u>	27 %	57 %	56 %
C	<u>Feed and water</u>	15 %	34 %	37 %
D	<u>Personnel and visitors</u>	32 %	55 %	55 %
E	<u>Vermin control and other animals</u>	41 %	53 %	54 %
<b>Subtotal External biosecurity:</b>		<b>30 %</b>	<b>57 %</b>	<b>58 %</b>
<hr/>				
<i>Internal biosecurity</i>				
A	<u>Health management</u>	5 %	32 %	32 %
B	<u>Calving management</u>	65 %	49 %	47 %
C	<u>Calf management</u>	39 %	38 %	38 %
D	<u>Adult management</u>	65 %	16 %	18 %
E	<u>Working organization and materials</u>	42 %	47 %	46 %
<b>Subtotal Internal biosecurity:</b>		<b>36 %</b>	<b>37 %</b>	<b>37 %</b>

N/A = Not applicable

Total:

33 %

47 %

48 %

## **Quantification of biosecurity status on farm level**

- ↳ Comparing scores between different herds
- ↳ Comparing scores between different countries
- ↳ Comparing scores in time
- ↳ Taking different risks into account

# THE WORLD'S BIGGEST DATABASE ON BIOSECURITY IN ANIMAL PRODUCTION

National implementation in

- Belgium (pig, poultry)
- Ireland (pig)
- Finland (cattle, pig)
- Italy (pig)
- ...

→ Worldwide statistics



54000



4228



162



16769

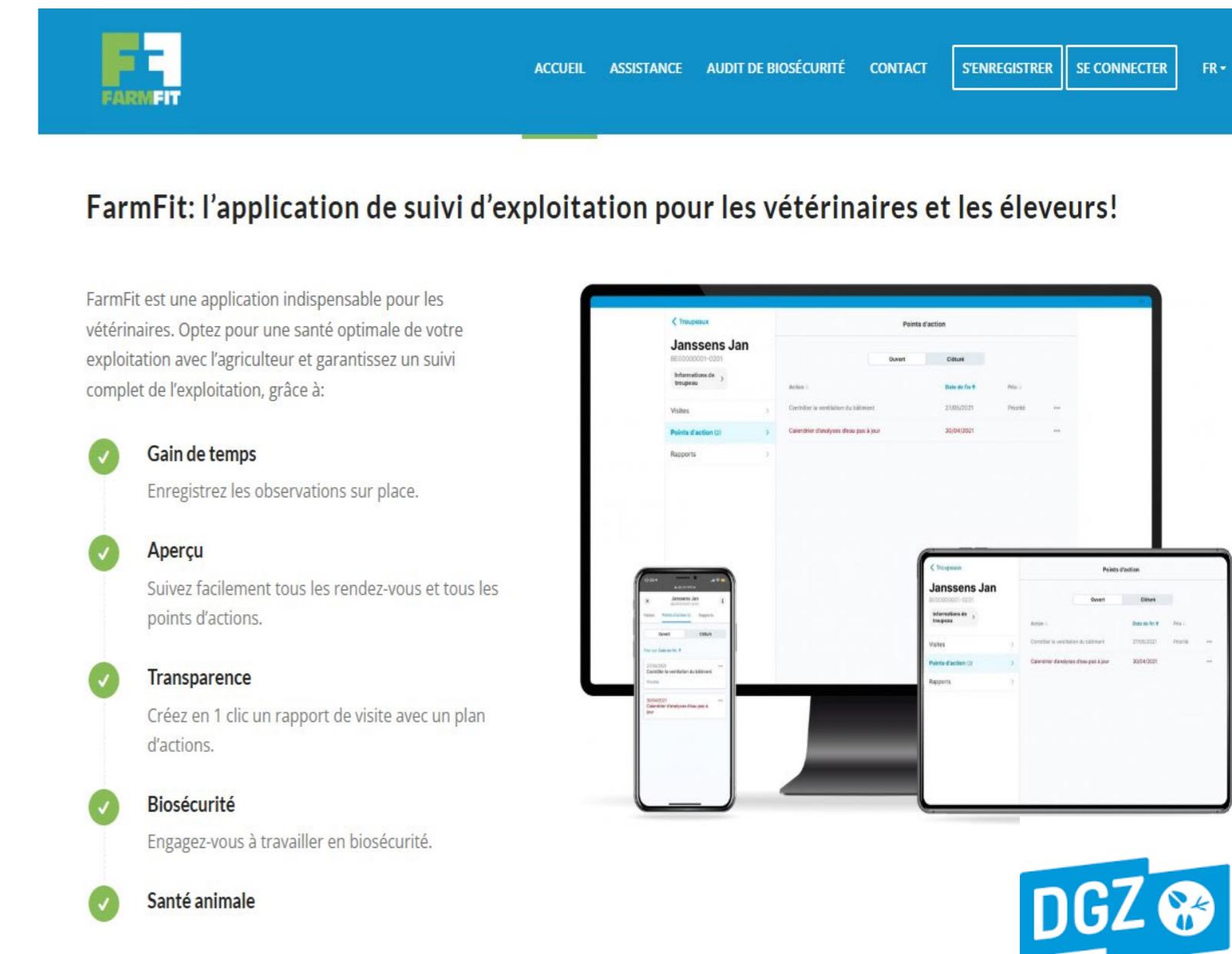
> 100000 data entries from >100 countries

Today

# REGIONAL INTEGRATION

## Case study: Flanders (FarmFit)

- Input: Standardized assessment (Biocheck.UGent).
- Connection: Links the score to Health Parameters (e.g., Mortality) and Antimicrobial Use (AMU) (Sanitel-Med).
- Strategic value:
  - Moves beyond compliance
  - Indispensable tool for vets, health managers



The image shows the FarmFit application interface on a desktop computer and a mobile phone. The desktop version has a blue header with the FarmFit logo, navigation links (ACCUEIL, ASSISTANCE, AUDIT DE BIOSÉCURITÉ, CONTACT, S'ENREGISTRER, SE CONNECTER, FR), and a main content area for 'FarmFit: l'application de suivi d'exploitation pour les vétérinaires et les éleveurs!'. The mobile phone shows a simplified version of the app's interface. Below the devices is the DGZ logo.

FarmFit: l'application de suivi d'exploitation pour les vétérinaires et les éleveurs!

FarmFit est une application indispensable pour les vétérinaires. Optez pour une santé optimale de votre exploitation avec l'agriculteur et gardez un suivi complet de l'exploitation, grâce à:

- ✓ Gain de temps  
Enregistrez les observations sur place.
- ✓ Aperçu  
Suivez facilement tous les rendez-vous et tous les points d'actions.
- ✓ Transparence  
Créez en 1 clic un rapport de visite avec un plan d'actions.
- ✓ Biosécurité  
Engagez-vous à travailler en biosécurité.
- ✓ Santé animale

DGZ

# RECOMMENDATIONS FOR EU POLICY



- ✓ Move to a harmonized biosecurity framework at an EU level
- But move with a plan:
  - **Common guidance:** Define specific measures and goals at the EU level
  - **National/local adaptation:** Allow countries to adapt implementation to their own contexts
- **Goal:**
  - ✓ Tailored, risk-based approaches
  - ✓ Promote consistency across (national) strategies
  - ✓ Strengthen response to threats (e.g. HPAI, ASF)

# CONCLUSIONS

- Legislative state: High heterogeneity in farm animal production
- Biosecurity tools/methods: High diversity, most tools local use
- BUT tools like **Biocheck.UGent** provide the necessary  
standardized benchmarking
  - ✓ Allows for further insights

Thank you for your attention!



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