

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 Rohlfiing](#) | Published on March 3, 2025



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



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

ZOONOTIC DISEASES

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

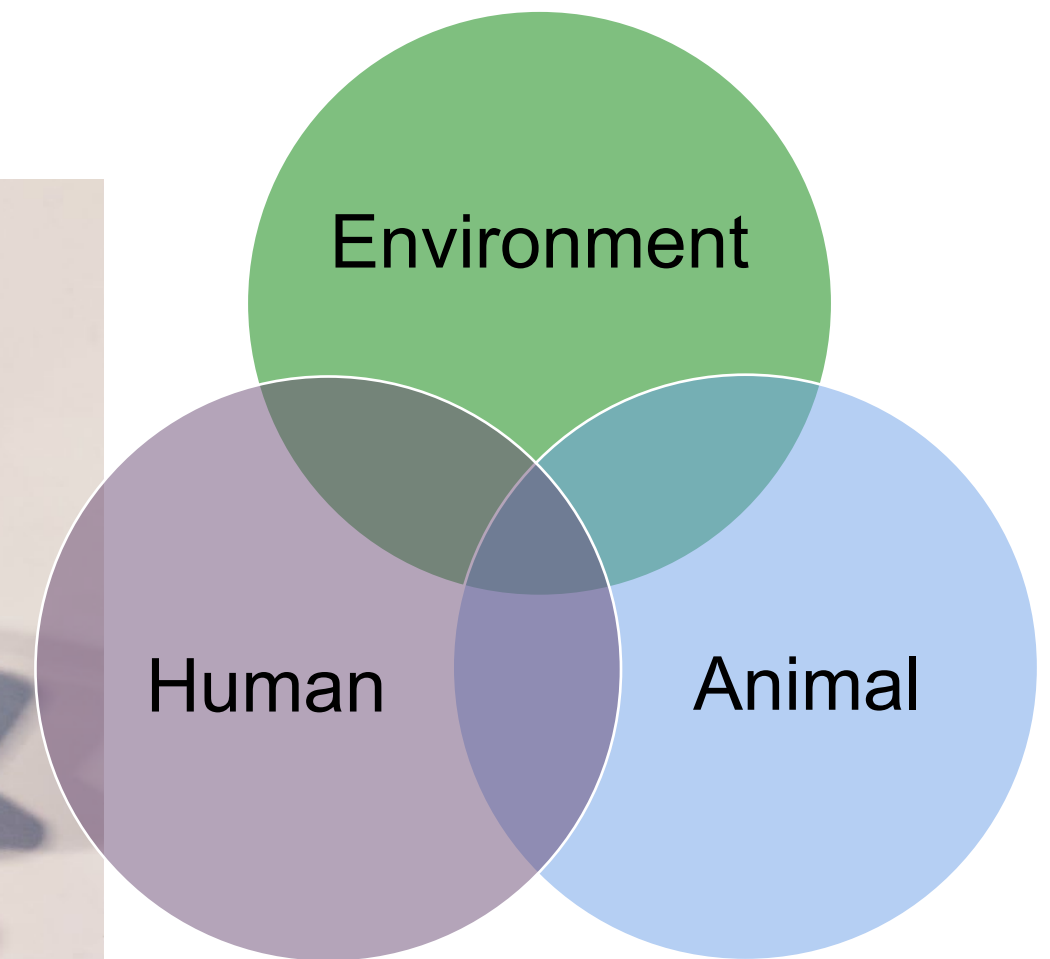
CHALLENGES TODAY

- 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

Endemic and zoonotic
diseases

Legislation

Reduction of
antimicrobial use

**Biosecurity helps to address
all these challenges**

THE LEGISLATIVE LANDSCAPE



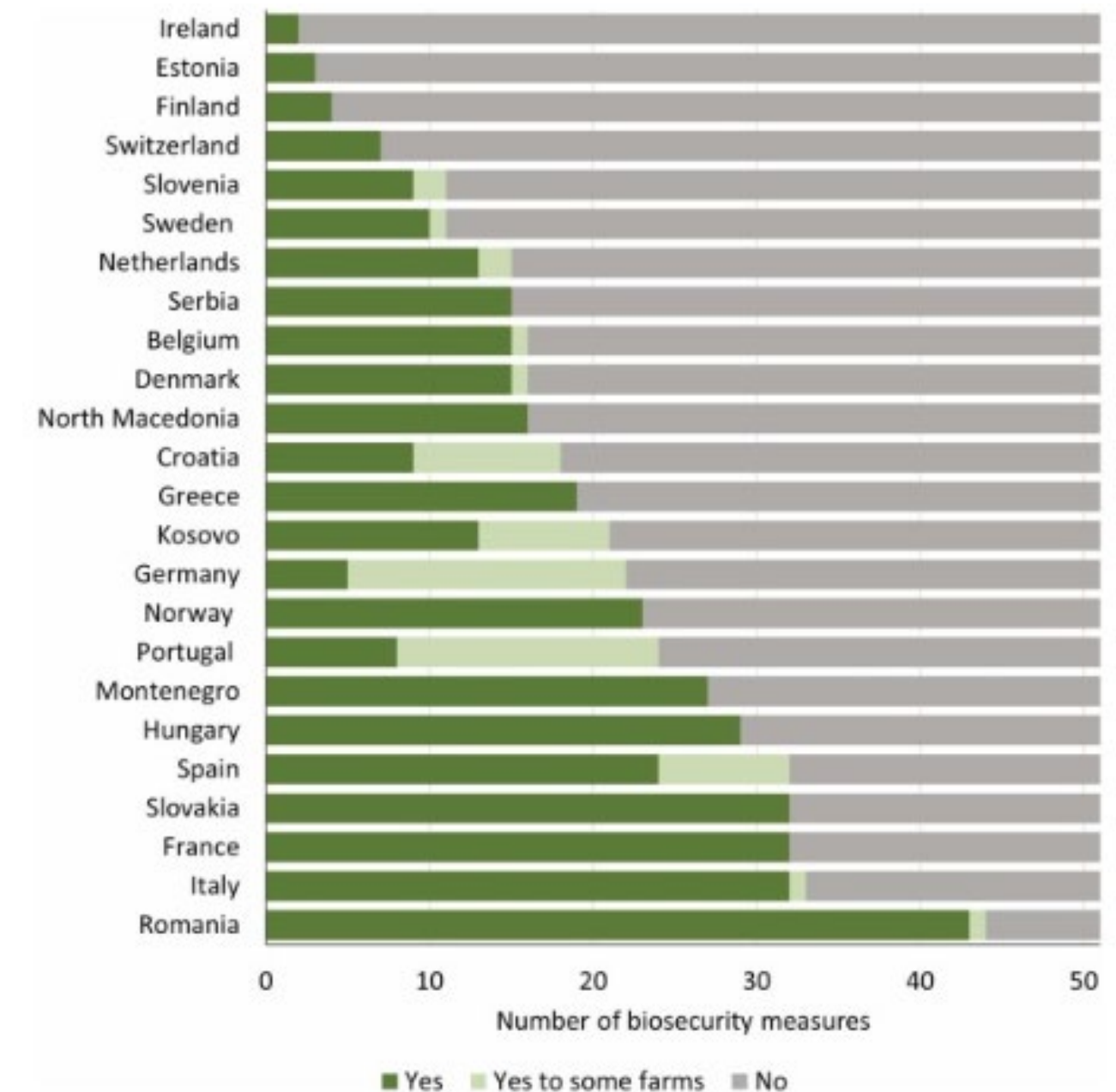
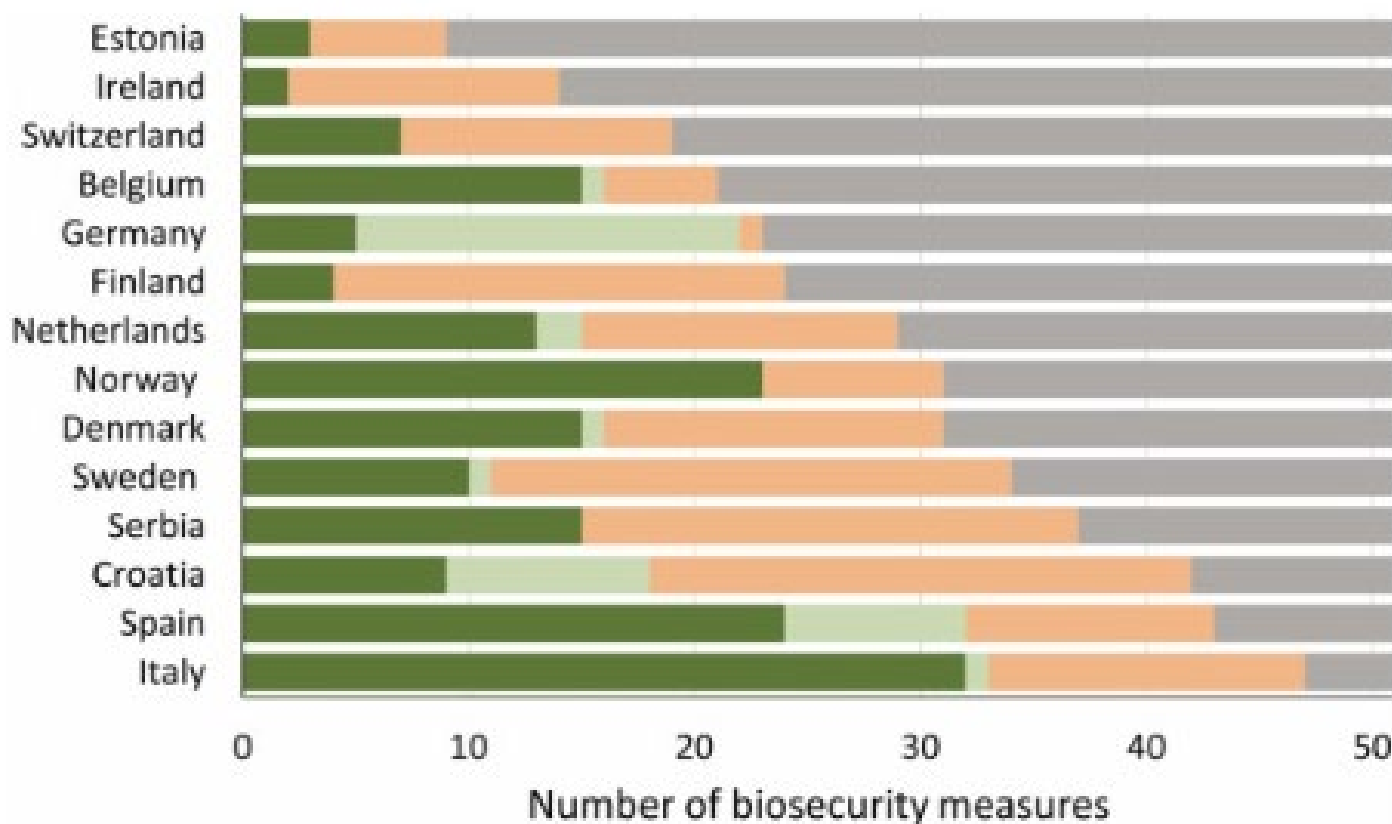
BETTER

Biosecurity measures identified in 

– Legislation → → → →

– Private pig sector organizations

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

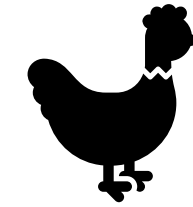


THE LEGISLATIVE LANDSCAPE

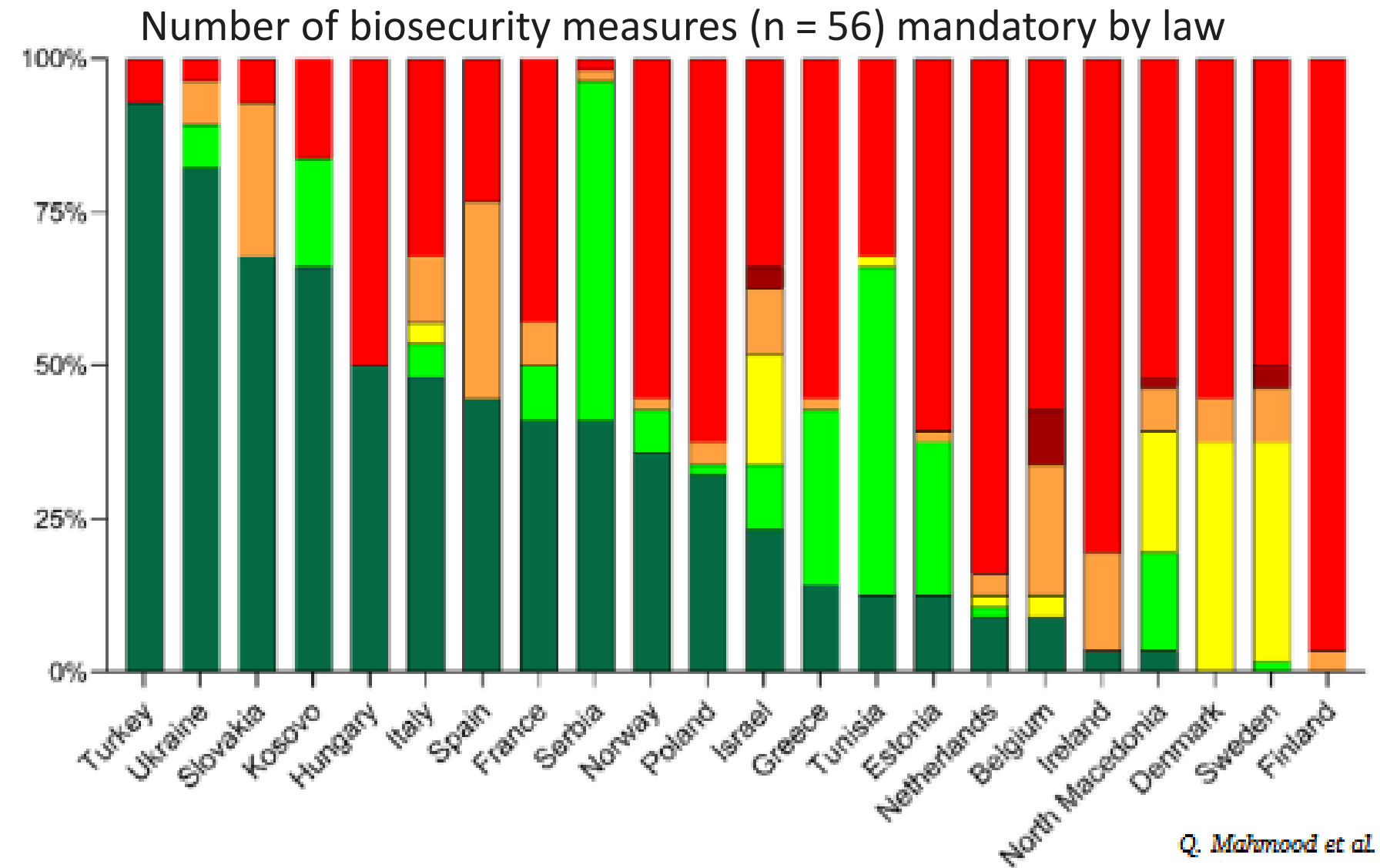
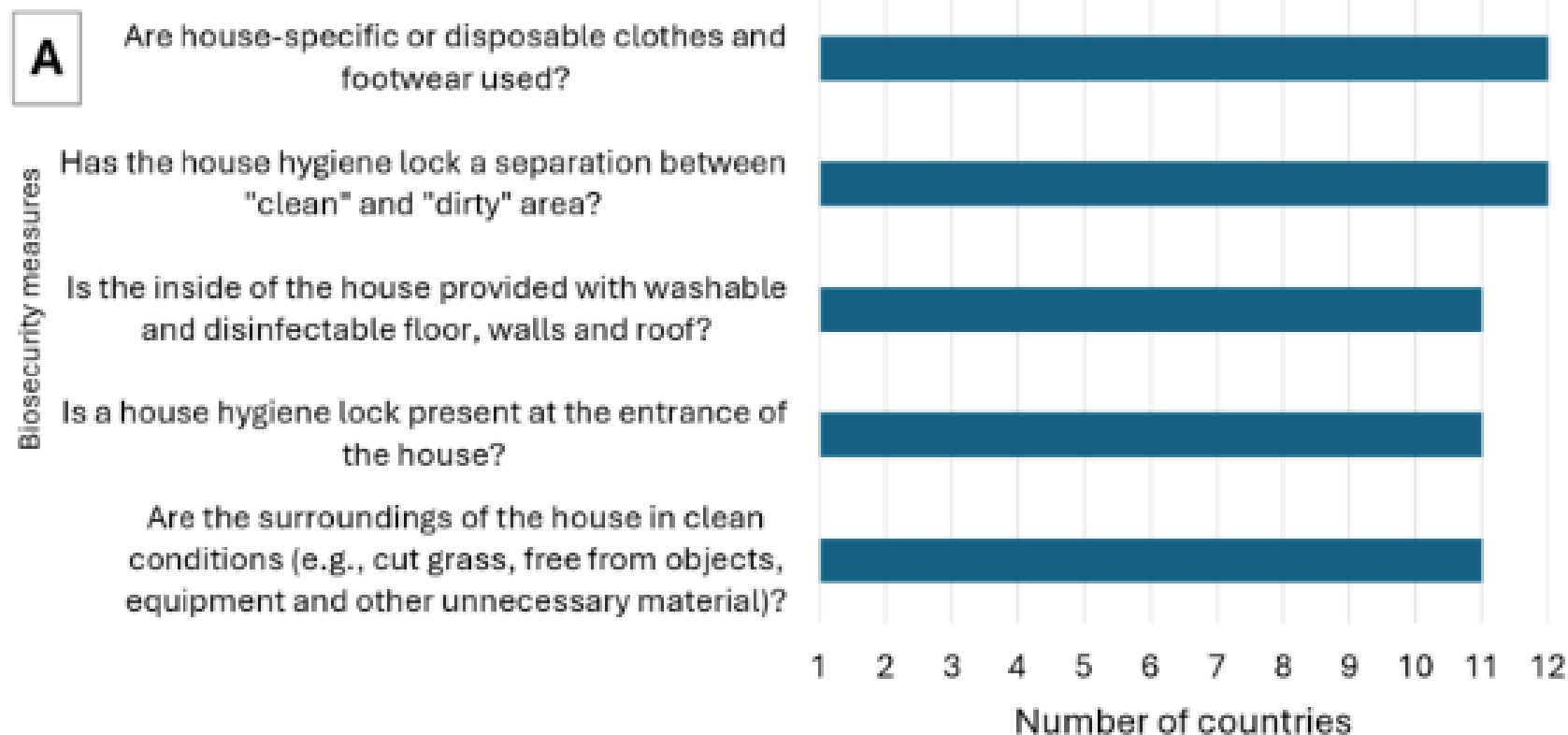


BETTER

Biosecurity measures identified in



- Legislation → →
- Private poultry sector
 - Some countries rely heavily on private standards



➤ 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!

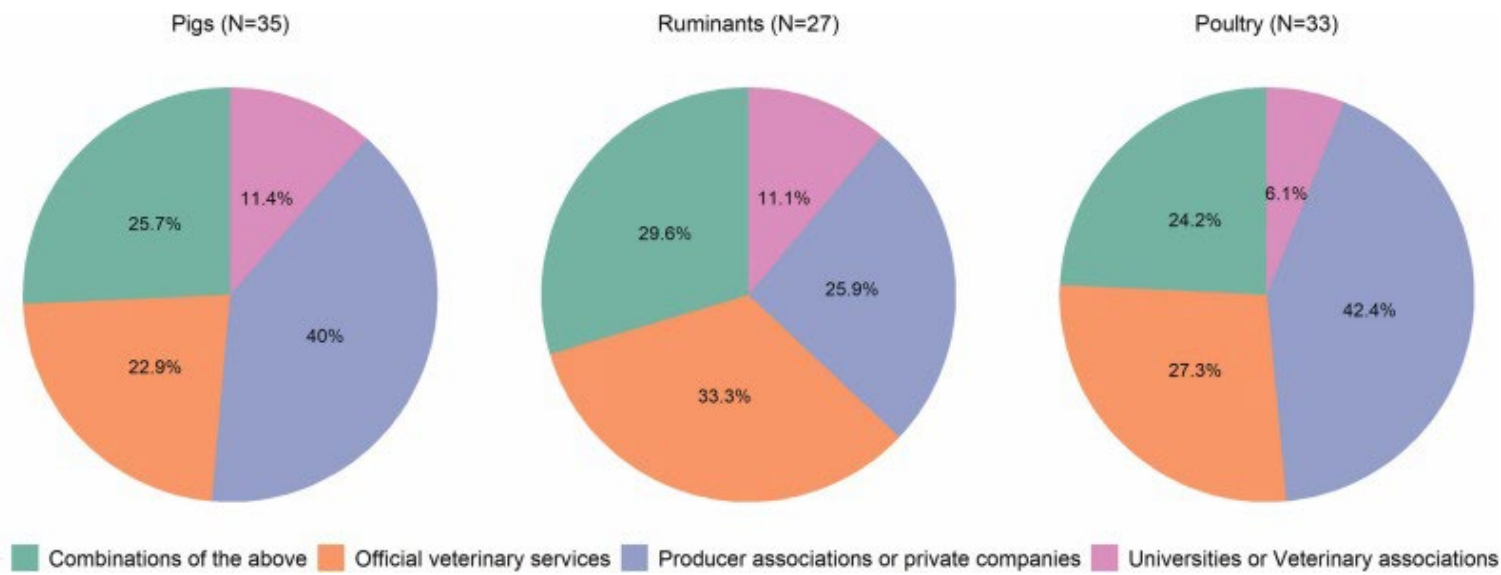
Structural/sectoral differences to be accounted for!

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

MAPPING THE TOOLS



- Inventory of methods
- 74 distinct methods



F. Duarte et al

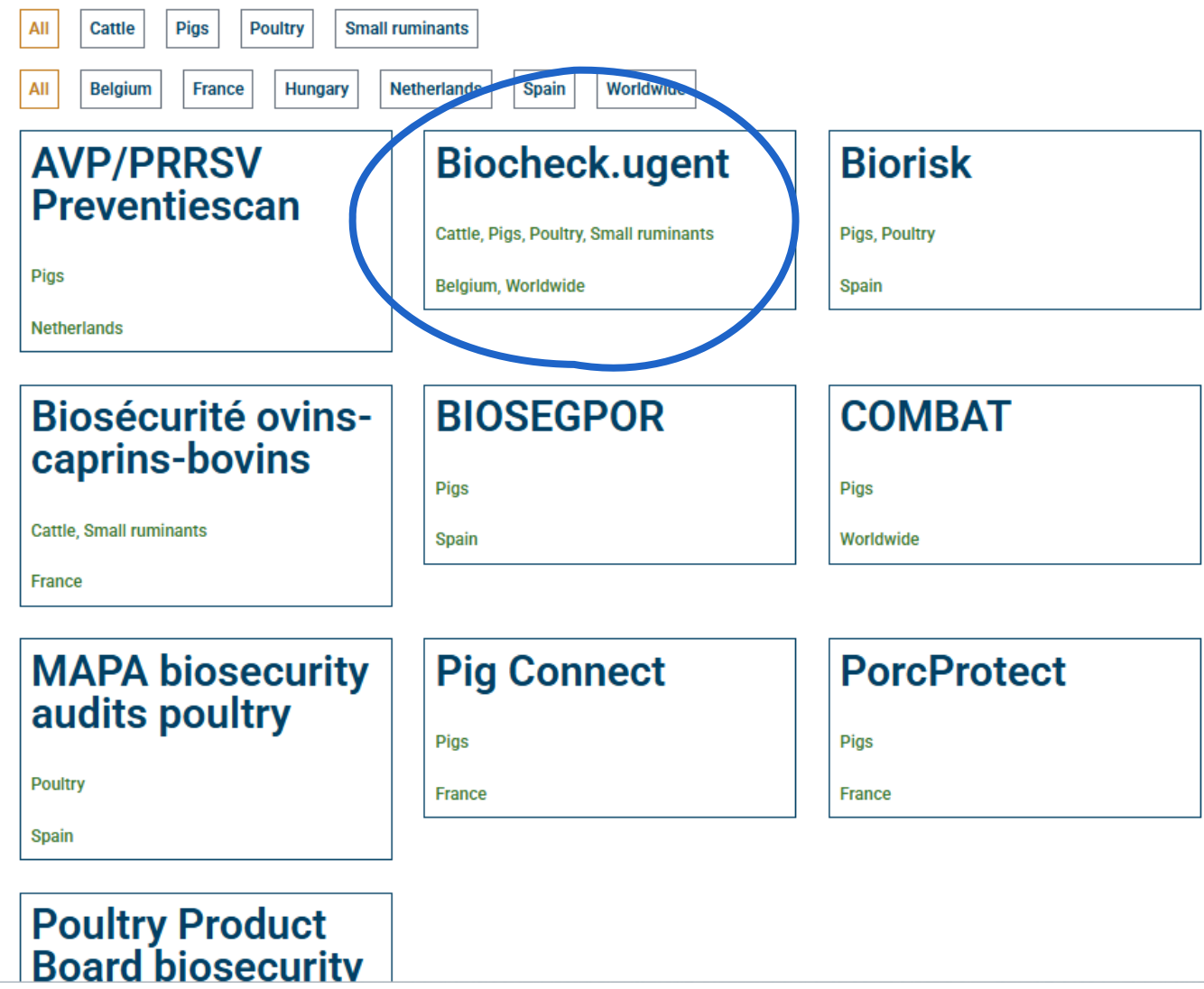
- High diversity!
- Outputs, purposes



- 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



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 % |
| Subtotal External biosecurity: | | 30 % | 57 % | 58 % |
| <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 % |
| Subtotal Internal biosecurity: | | 36 % | 37 % | 37 % |
| Total: | | 33 % | 47 % | 48 % |

N/A = Not applicable



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)

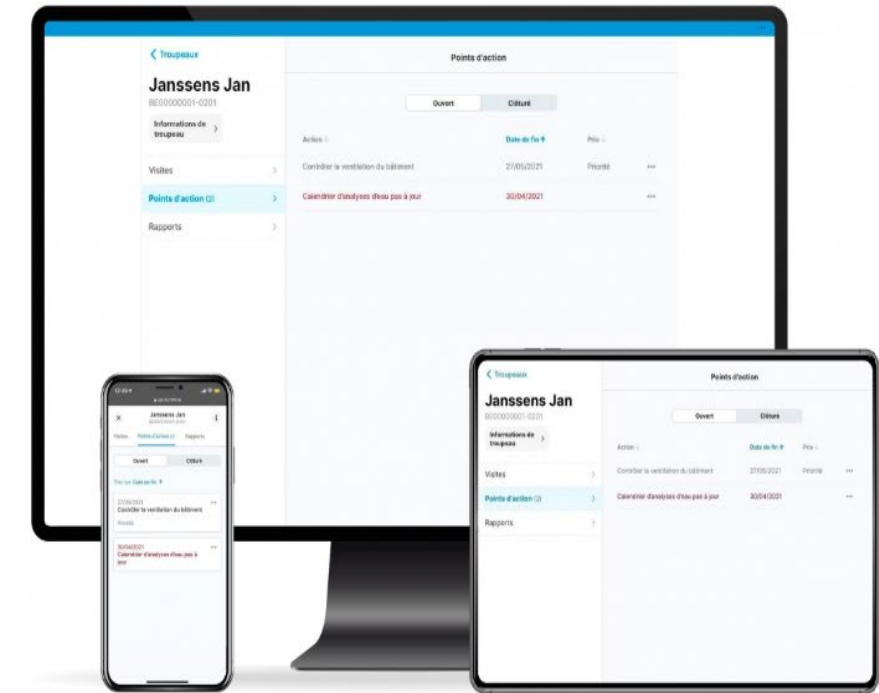
- Input: Standardized assessment (Biocheck.UGent).
- Connection: Links the score to Health Parameters (e.g., Mortality) and Antimicrobial Use (AMU) (Sanitel-Med).
- Strategic value:
 - Moves beyond compliance
 - Indispensable tool for vets, health managers



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 garantisiez 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**



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!

Ilias Chantziaras

Associate Professor

Chairholder of Biosecurity in Animal Production

Department of Internal Medicine, Reproduction and Population Medicine

E ilias.chantziaras@ugent.be

T +32 9 264 75 48

www.ugent.be

