

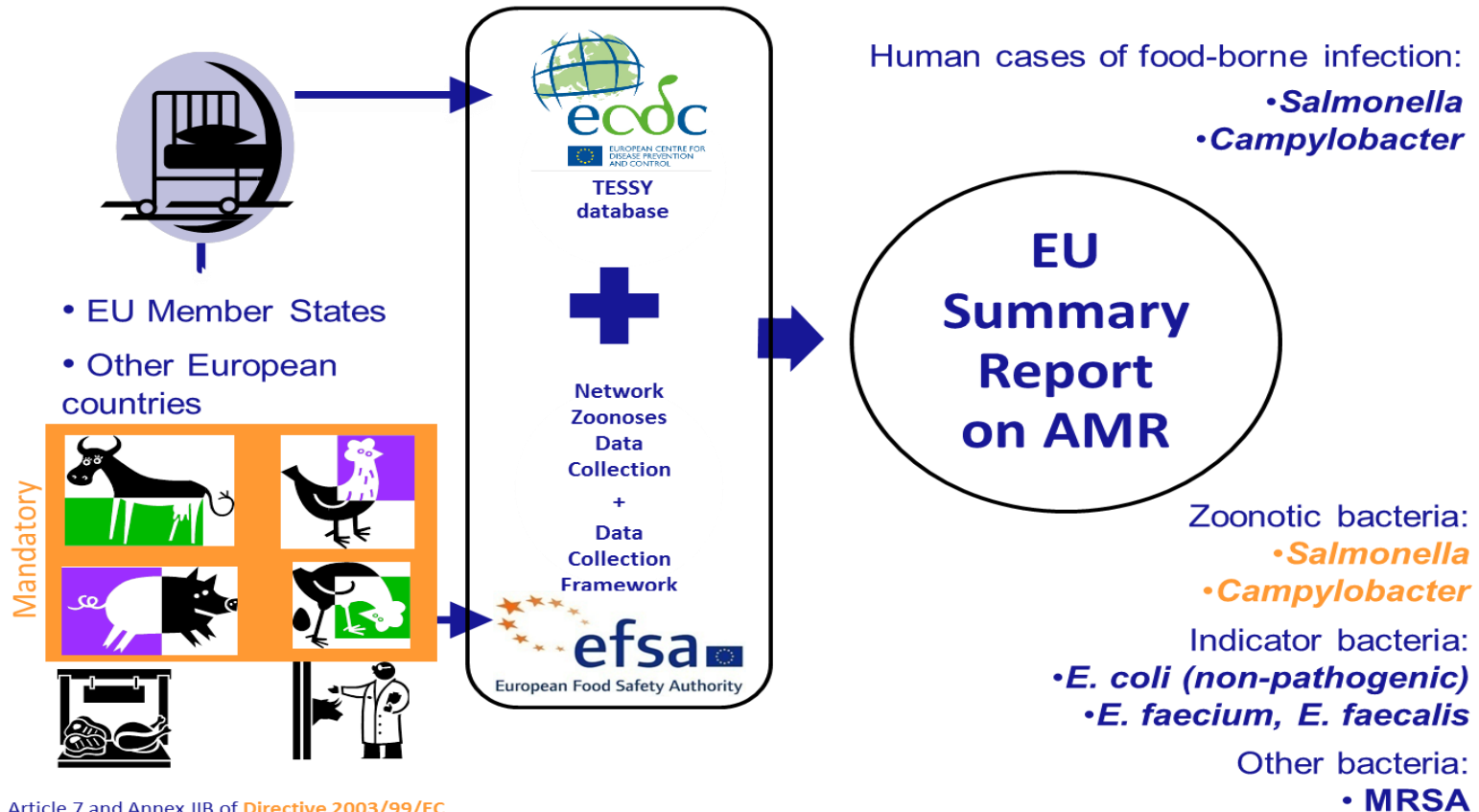


Update on the epidemiology of ARM in food-producing animals and food in the EU

P.-A. Beloeil
BIOCONTAM Unit

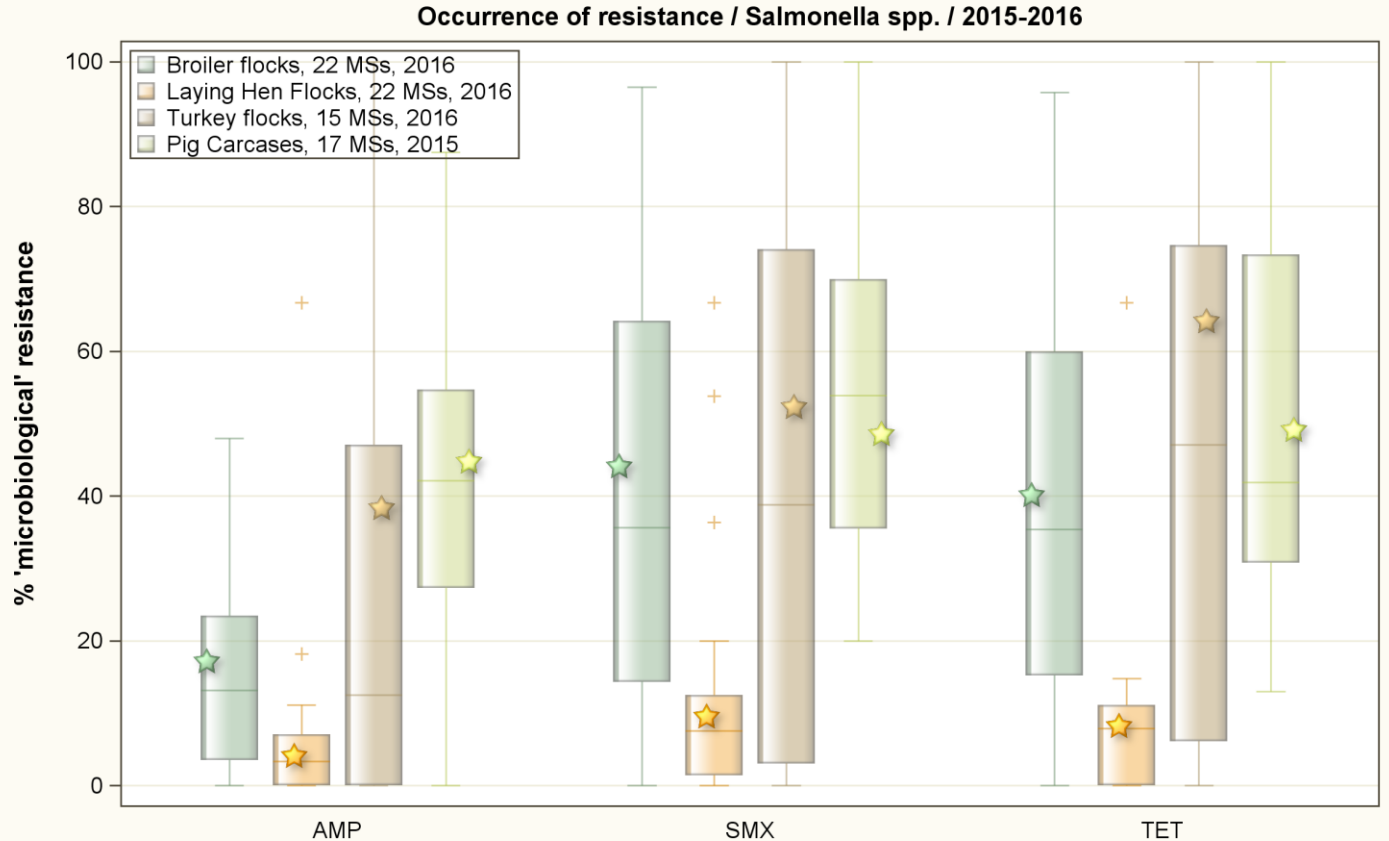
'One Health' Network on Antimicrobial Resistance
5 February, 10:00 – 18:00
CCAB - Rue Froissart 36 – 1040 - Brussels

European Union Summary Report on AMR (annually)



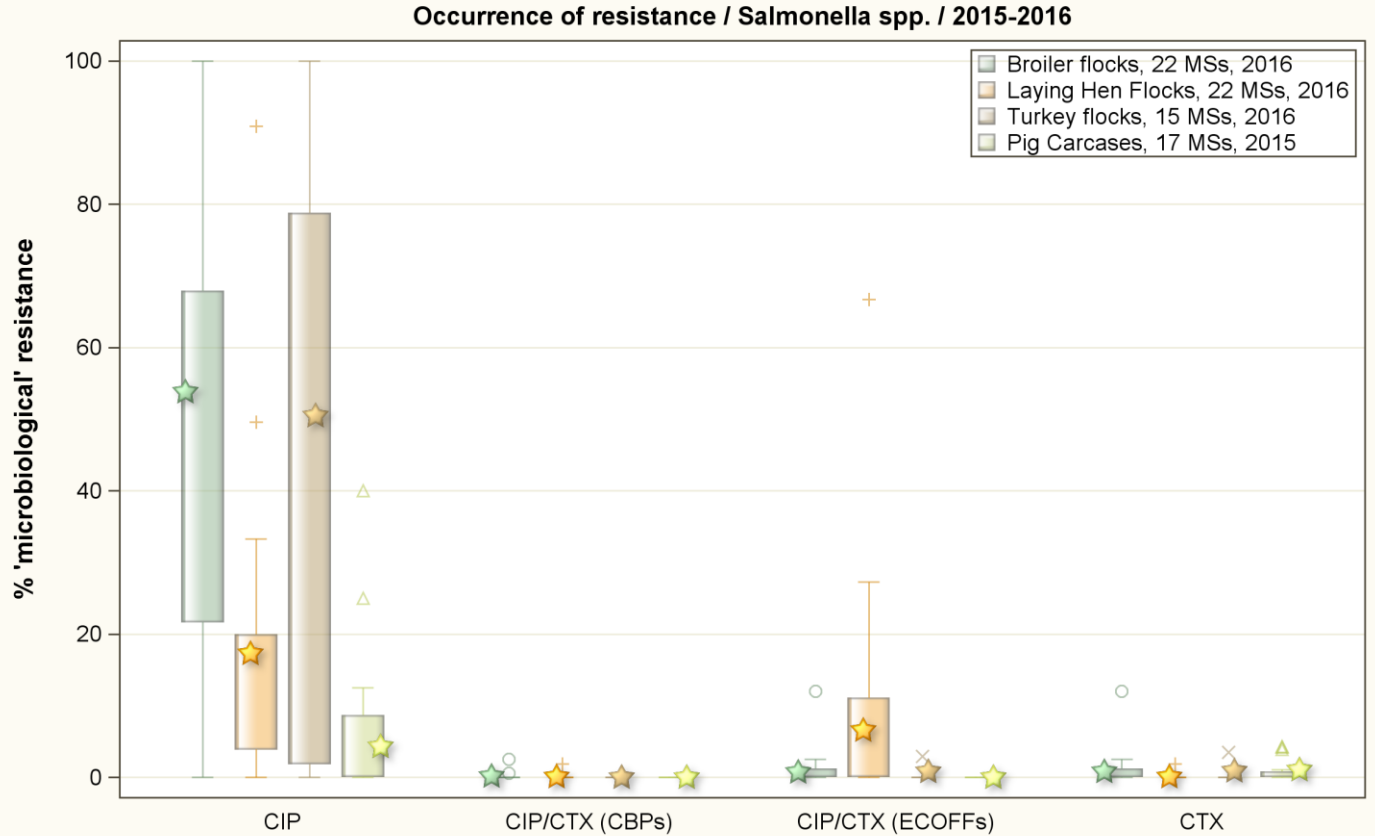
RESISTANCE IN *SALMONELLA* SPP. IN FOOD PRODUCING ANIMALS

- Important resistance
- Marked variation between MSs
- Impact of the distribution of serovars

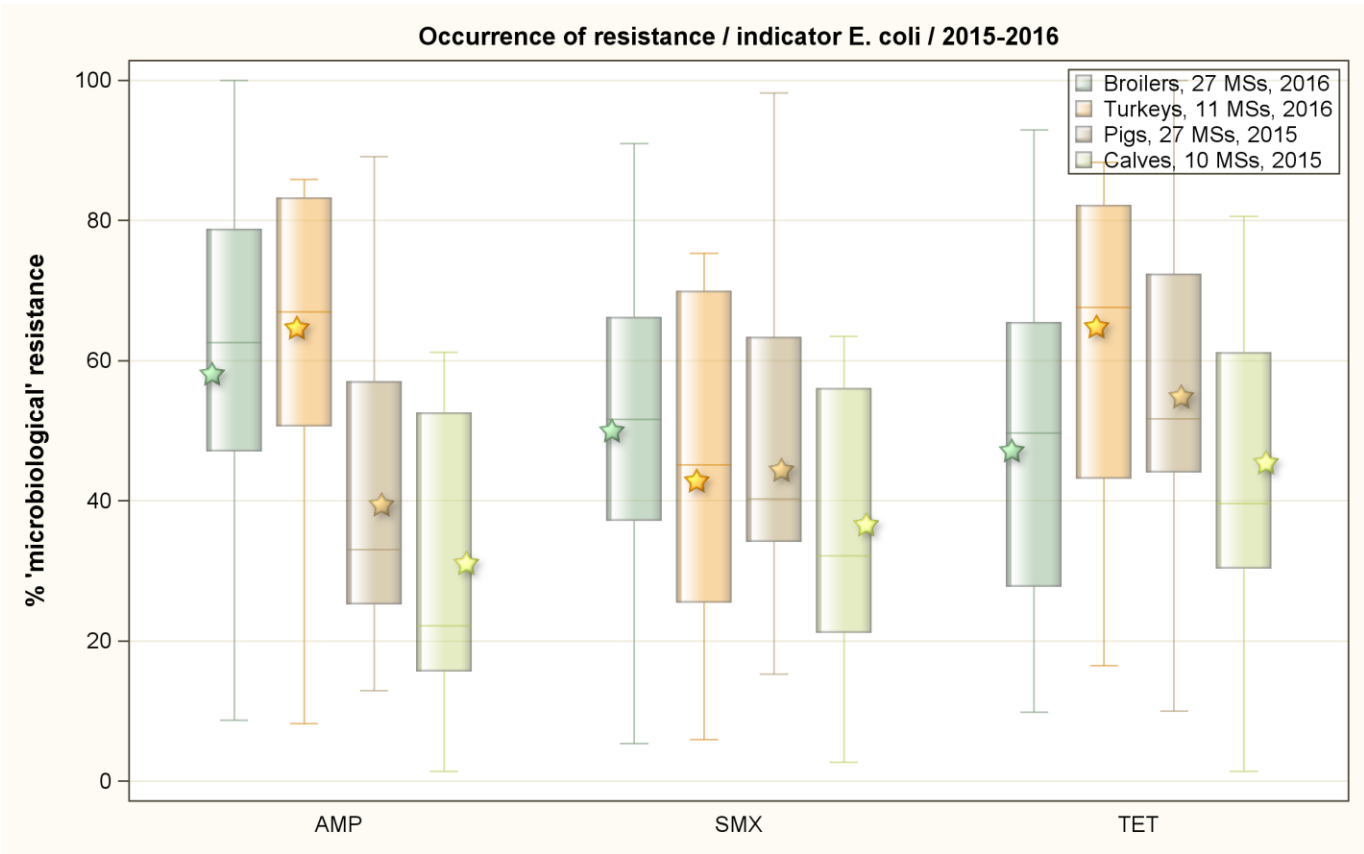


RESISTANCE TO CIA IN *SALMONELLA* SPP.

- Important resistance to fluoroquinolones (CIP) in Broilers and Turkeys
- Very low resistance to C3G (CTX)
- Very low to no co-resistance to CIAs

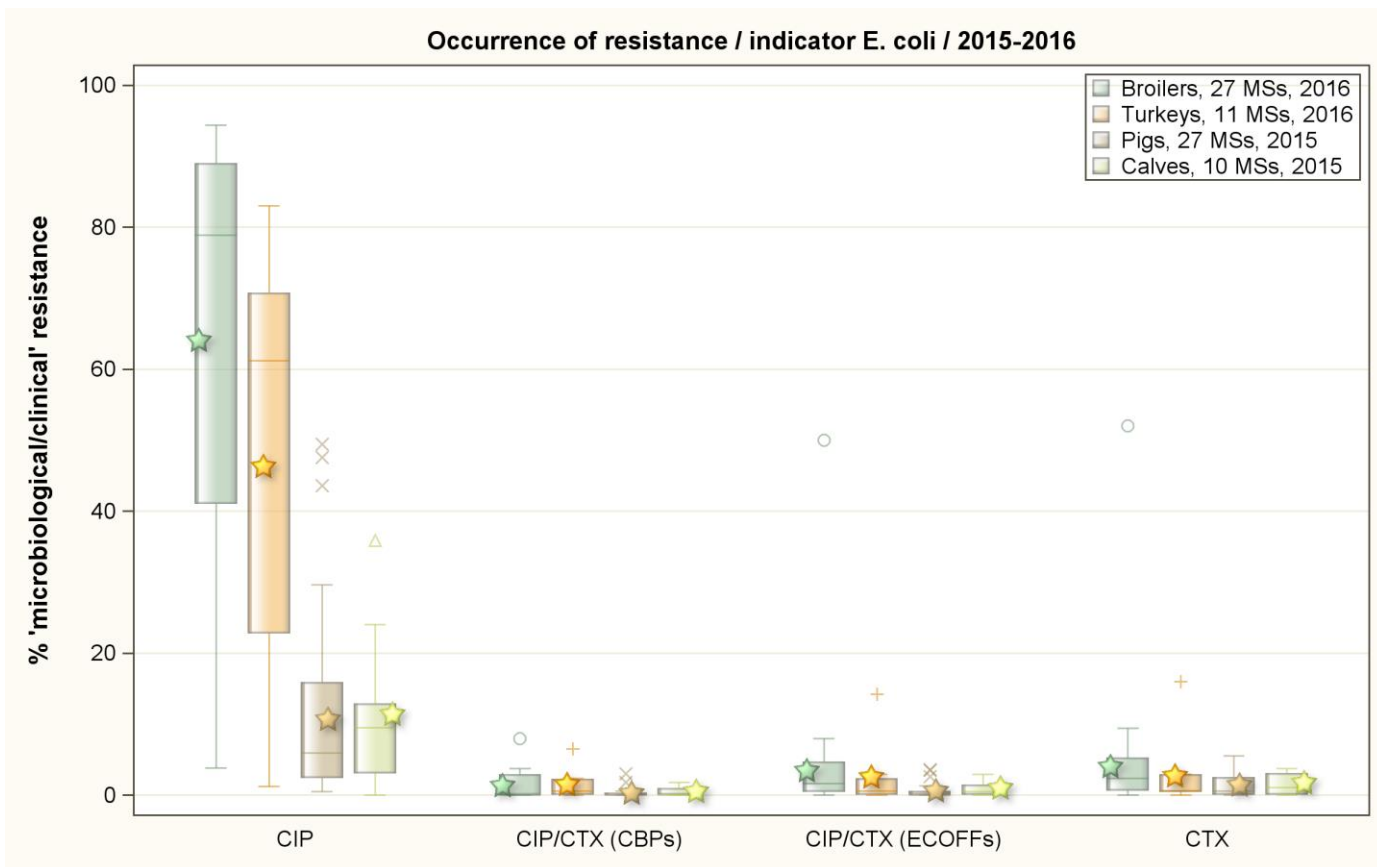


RESISTANCE IN INDICATOR *E. COLI* IN FOOD PRODUCING ANIMALS



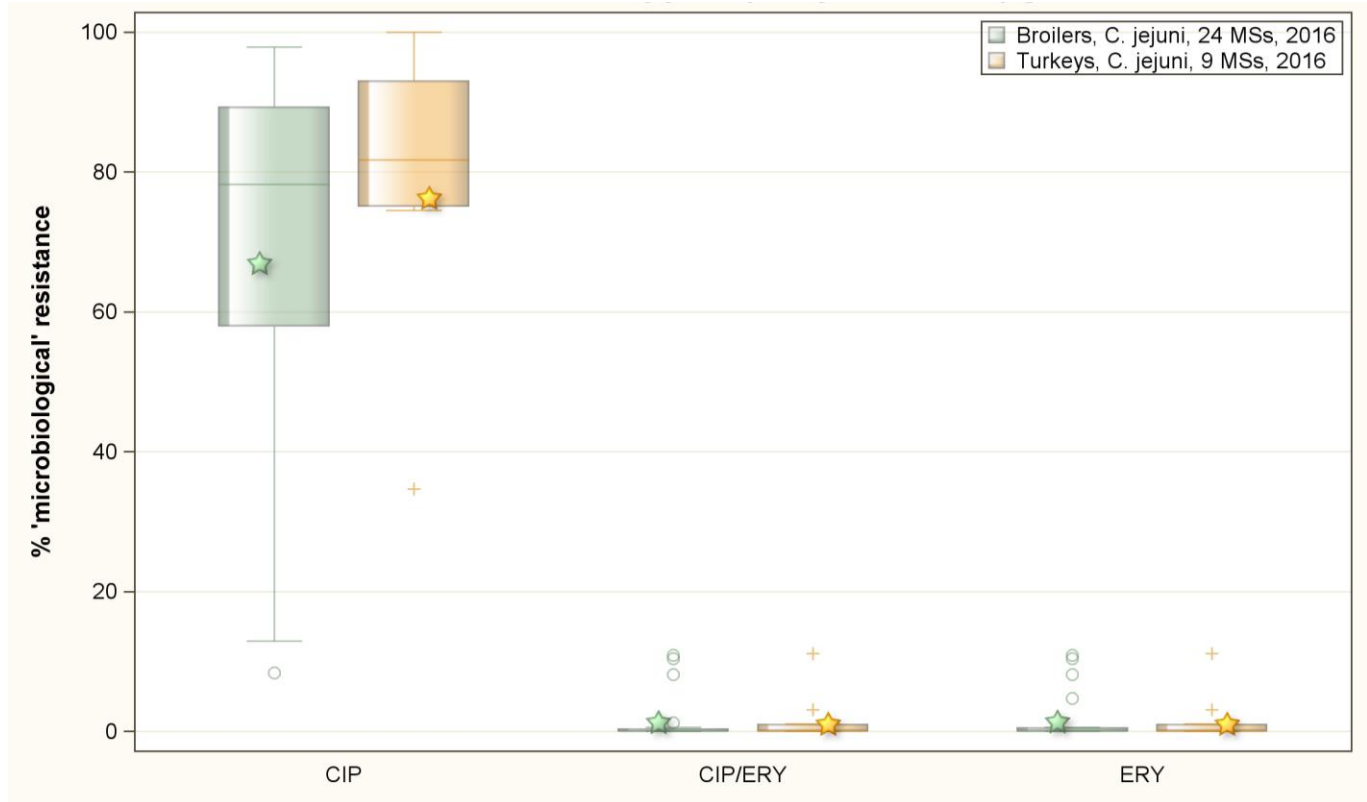
RESISTANCE TO CIAS IN INDICATOR *E. COLI*

- Important resistance to fluoroquinolones (CIP) in Broilers and Turkeys
- Very low resistance to C3G (CTX)
- Very low co-resistance to CIAs: There are outliers for Broilers!



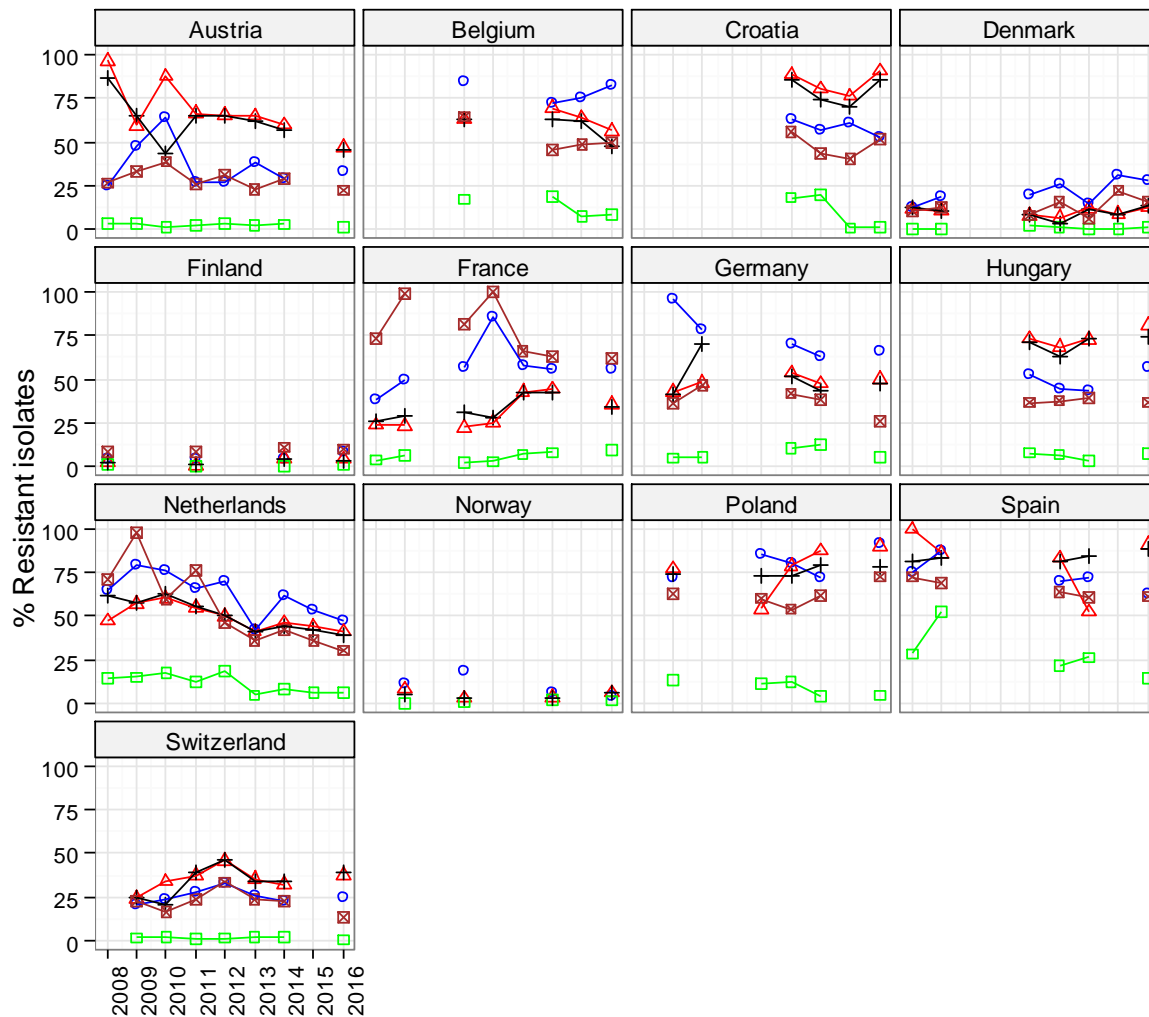
RESISTANCE TO CIA IN *CAMPYLOBACTER*, 2015-2016

- Important resistance to fluoroquinolones (CIP)
- Low resistance to Macrolides (ERY)
- Low combined resistance to CIAs in poultry: there are outliers for broilers!



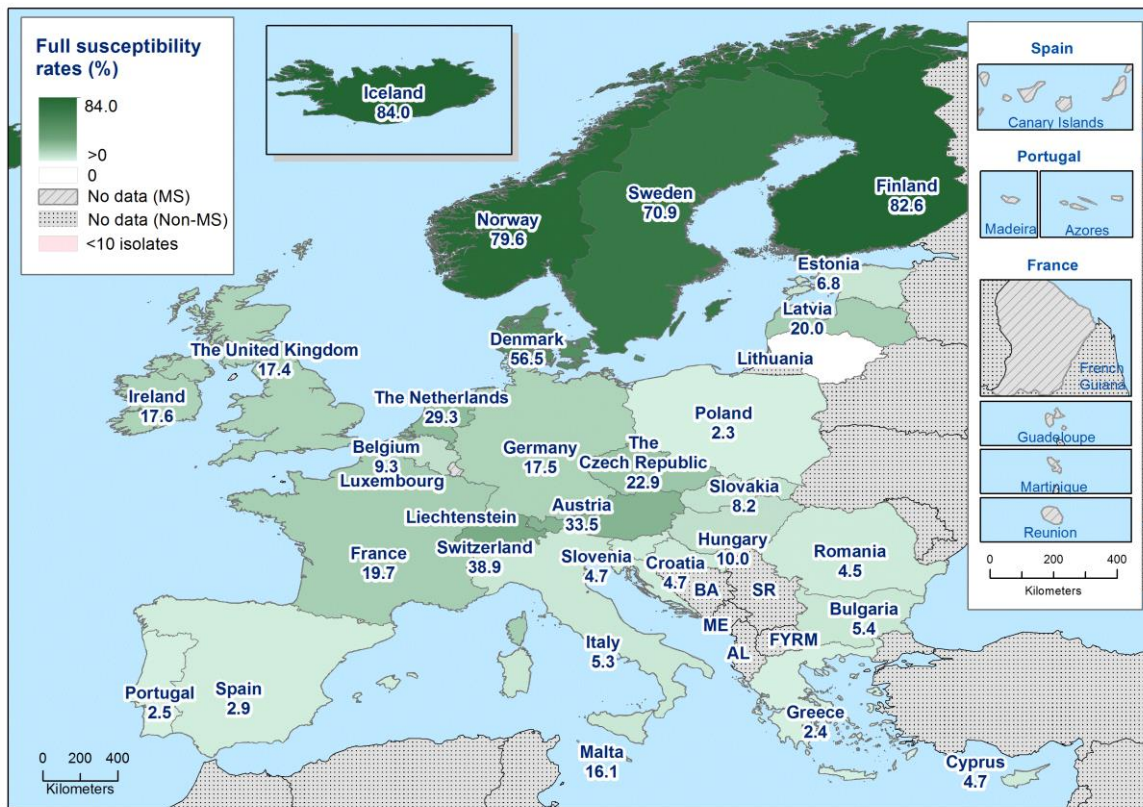
TRENDS

- Indicator *E. coli* from broilers
- Decreasing trends in AMR observed in MSs where control programme is in place

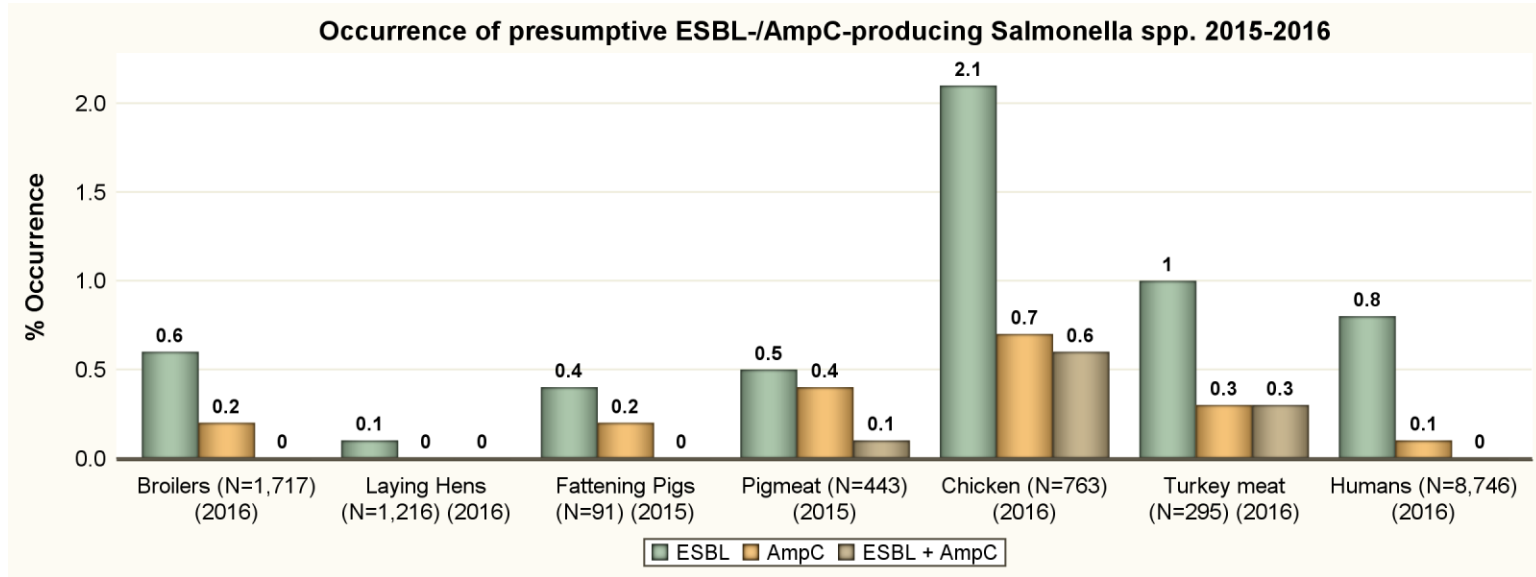


COMPLETE SUSCEPTIBILITY - INDICATOR *E. COLI* - BROILERS (2016)

■ North-South gradient



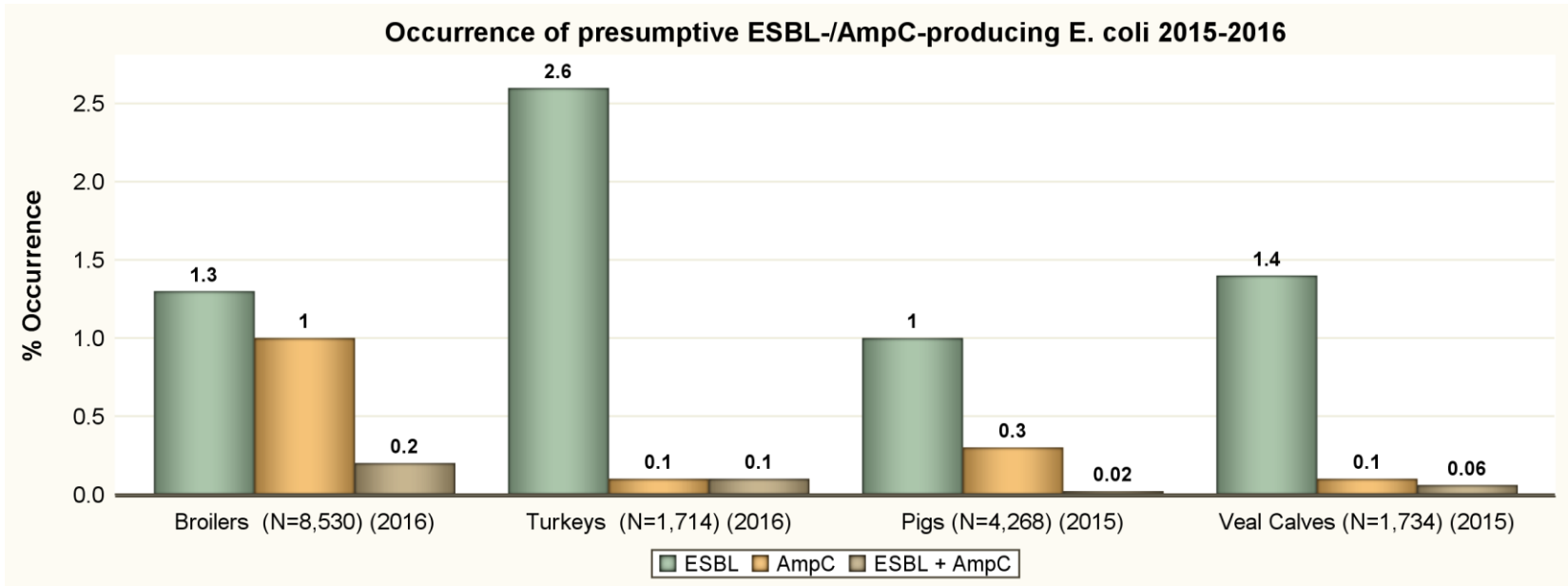
3RD-GENERATION CEPHALOSPORIN RESISTANCE



3RD-GENERATION CEPHALOSPORIN RESISTANCE

Indicator *E. coli* 2015 - 2016

- Presumptive ESBL/AmpC producing *E. coli*



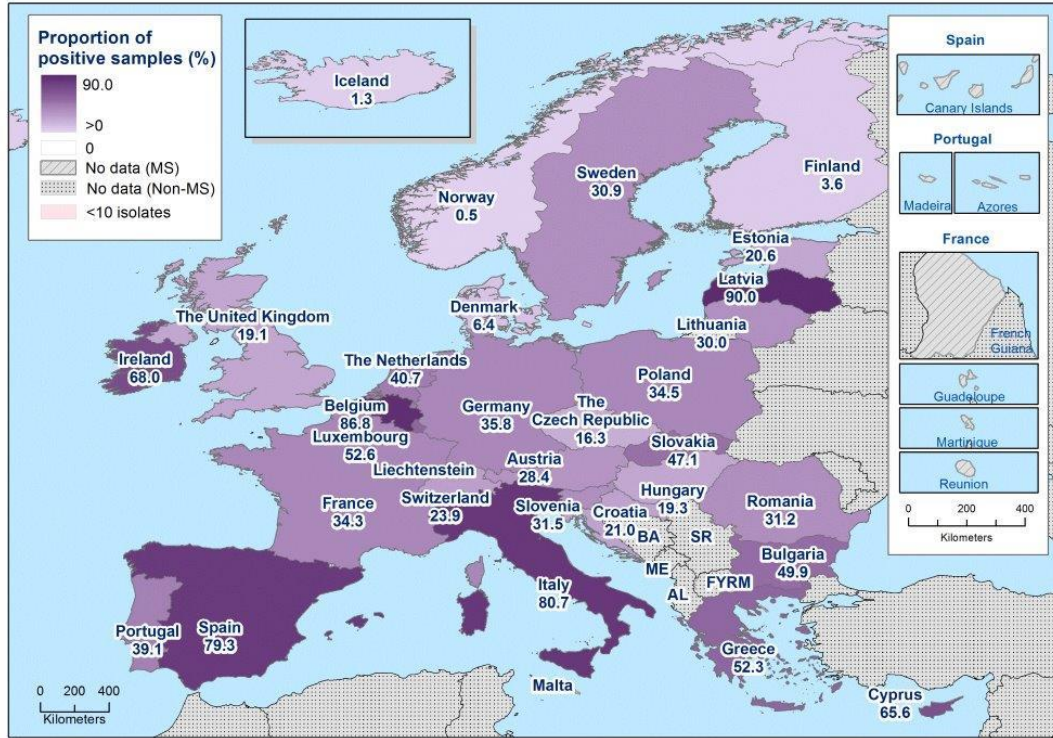
SPECIFIC MONITORING OF ...

ESBL-/AmpC-producing *E. coli* - 2016

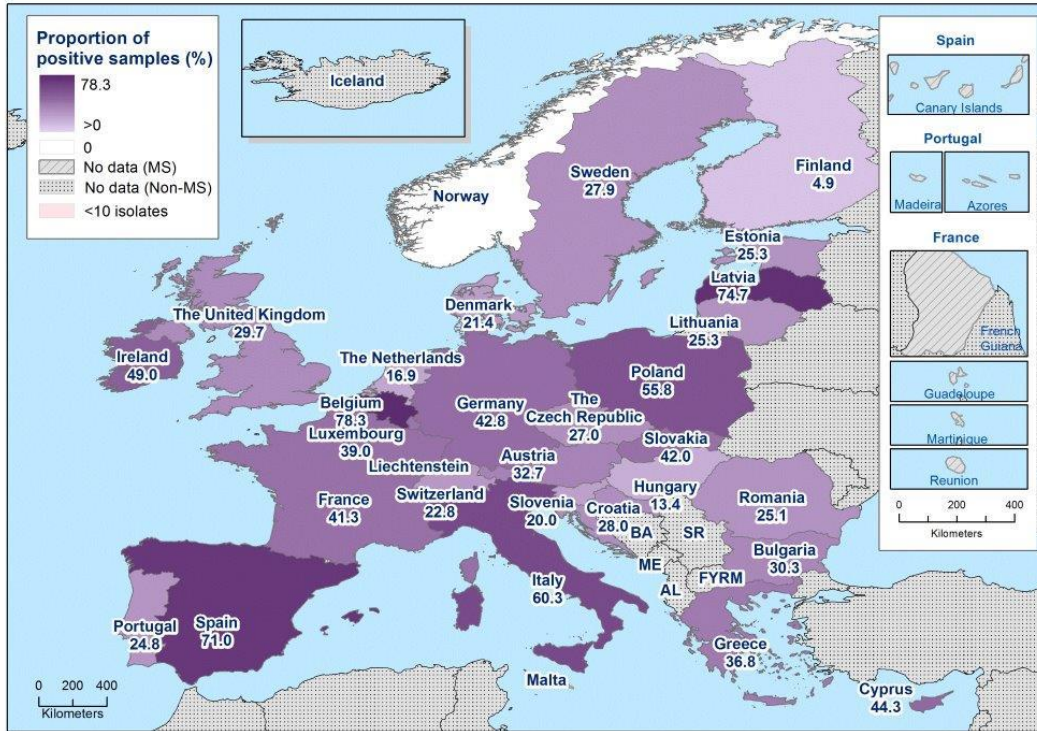
- Prevalence (in %)

	ESBL	AmpC	ESBL + AmpC
Meat from broilers (27 MSs)	35.9	26.8	2.0
Broilers (27 MSs)	35.4	24.4	2.6
Fattening turkeys (11 MSs)	36.6	7.2	1.7

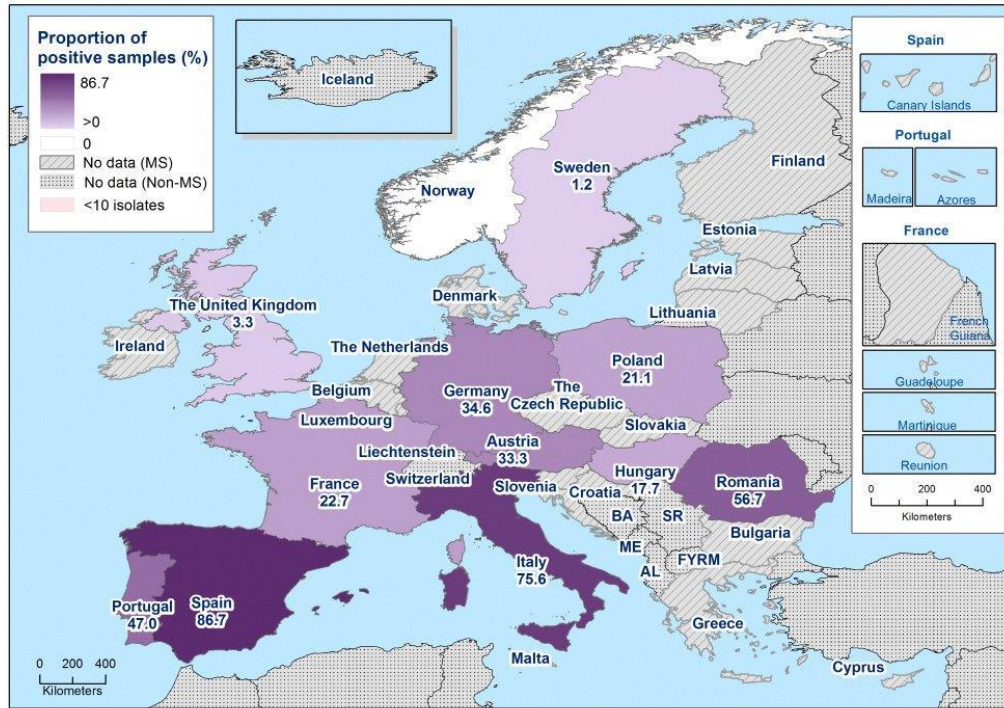
ESBL PREVALENCE IN BROILERS (2016)



ESBL PREVALENCE IN MEAT FROM BROILERS (2016)



ESBL PREVALENCE IN TURKEYS (2016)



RESISTANCE TO CARBAPENEMS IN 2015

- Specific monitoring of carbapenemase-producing *E. coli*
 - Meat from pigs: 8 MSs – 1,833 samples
 - Fattening pigs: 10 MSs – 2,584 samples
 - Meat from bovines: 8 MSs - 1,818 samples
 - Bovine animals: 3 MSs – 682 samples
 - Calves: 2 MSs – 516 samples

➤ No positive results detected

- Other (routine) monitoring
 - 2 carbapenemase-producing *E. coli* detected
 - in the pig sector in **2 MSs** in 2015

RESISTANCE TO CARBAPENEMS IN BROILERS 2016

- ◆ **15** carbapenemase producers from **poultry** and its **meat** in 3 MSs
- ◆ Routine monitoring of resistance
 - **Cyprus: 1** isolate from **broilers**
- ◆ Specific monitoring: ESBL-/ AmpC-/carbapenemase producing *E. coli*
 - **Cyprus: 8 isolates** from **meat from broilers**
 - the **Netherlands: 1 isolate** from **meat from broilers**
- ◆ **Voluntary** specific monitoring of carbapenem-producing *E. coli*
 - **Romania: 2** isolates from **broilers** and **1** isolate from **broiler meat**,
 - OXA-48-producing *E. coli* detect
 - **Cyprus: 1** isolate from **broiler meat**, and **1** isolate from broiler.

OVERVIEW OF AMR IN THE EU

- New legislation successfully implemented by MSs
- Enlarged scope of AMR monitoring
- Frequent resistance to Fluoroquinolones observed
- Low resistance to other Critically Important Antimicrobials
- Low occurrence of ESBL/AmpC producers
- Prevalence of ESBL/AmpC-producing *E. coli* assessed in 2016
- Carbapenemase producers detected in broiler sector in 2016

Continually evolving threat from emerging AMR: There is a need to review the data collected, interpret the findings and assess trends.

Thank you for your attention !



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