



EUROPEAN FOOD SAFETY AUTHORITY

# Salmonella in the EU

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# Data collection on zoonoses

- ❖ Directive on the monitoring of zoonoses and zoonotic agents (2003/99/EC) gives EFSA the task to examine the data collected from the Member States and to publish an annual Community summary report
- ❖ Member States have an obligation to report each year
- ❖ EFSA took over the task in 2005

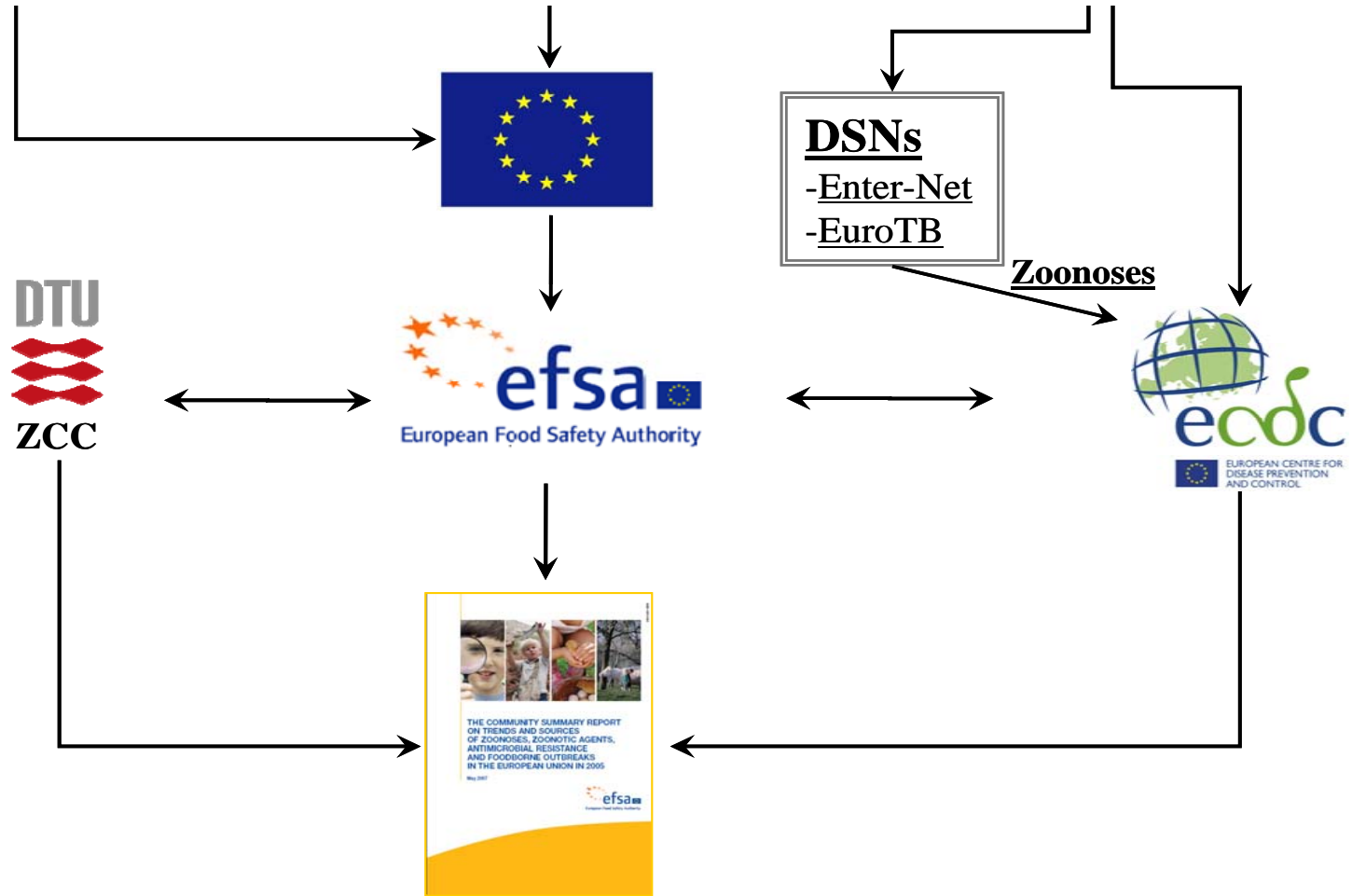
# Member States



Animal, food and feed monitoring

Foodborne outbreaks

Communicable human diseases



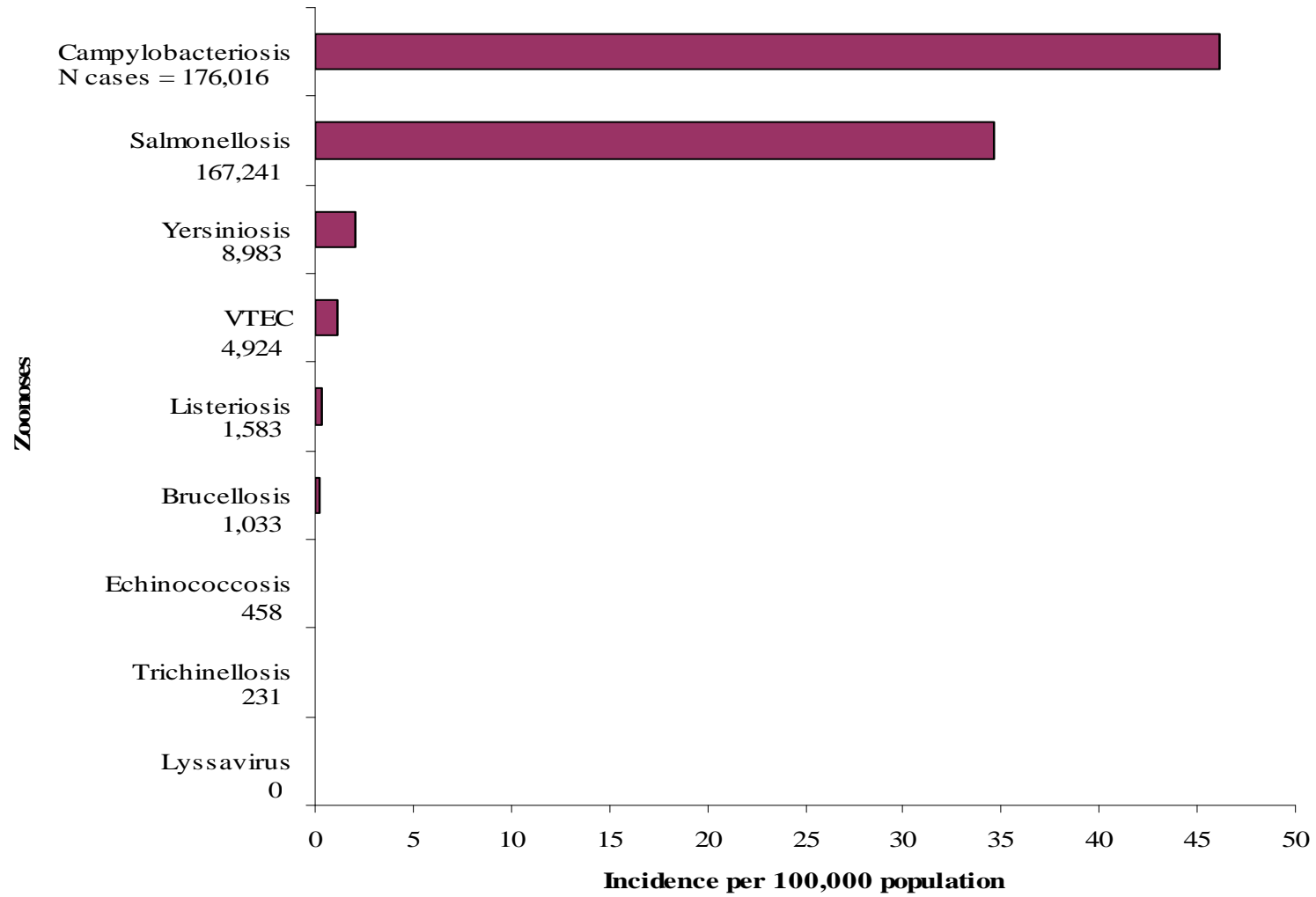
# Community Summary Report

- Published each year; data from all EU MS + NO, CH, Iceland, Lichtenstain
- Information and analyses of human zoonoses cases comes from the European Centre for Disease Prevention and Control (ECDC) and their disease networks
- 2006 Summary Report: EFSA's 3. and the 2. one in collaboration with ECDC – still a draft

# Analyses of the Zoonoses Data

- Analyses of trends over the years (in MS/ EU)
- Identification of sources of human infections (which foodstuffs/ animal species)
- Geographical distributions
  
- Huge amount of data each year → Summary of the main findings

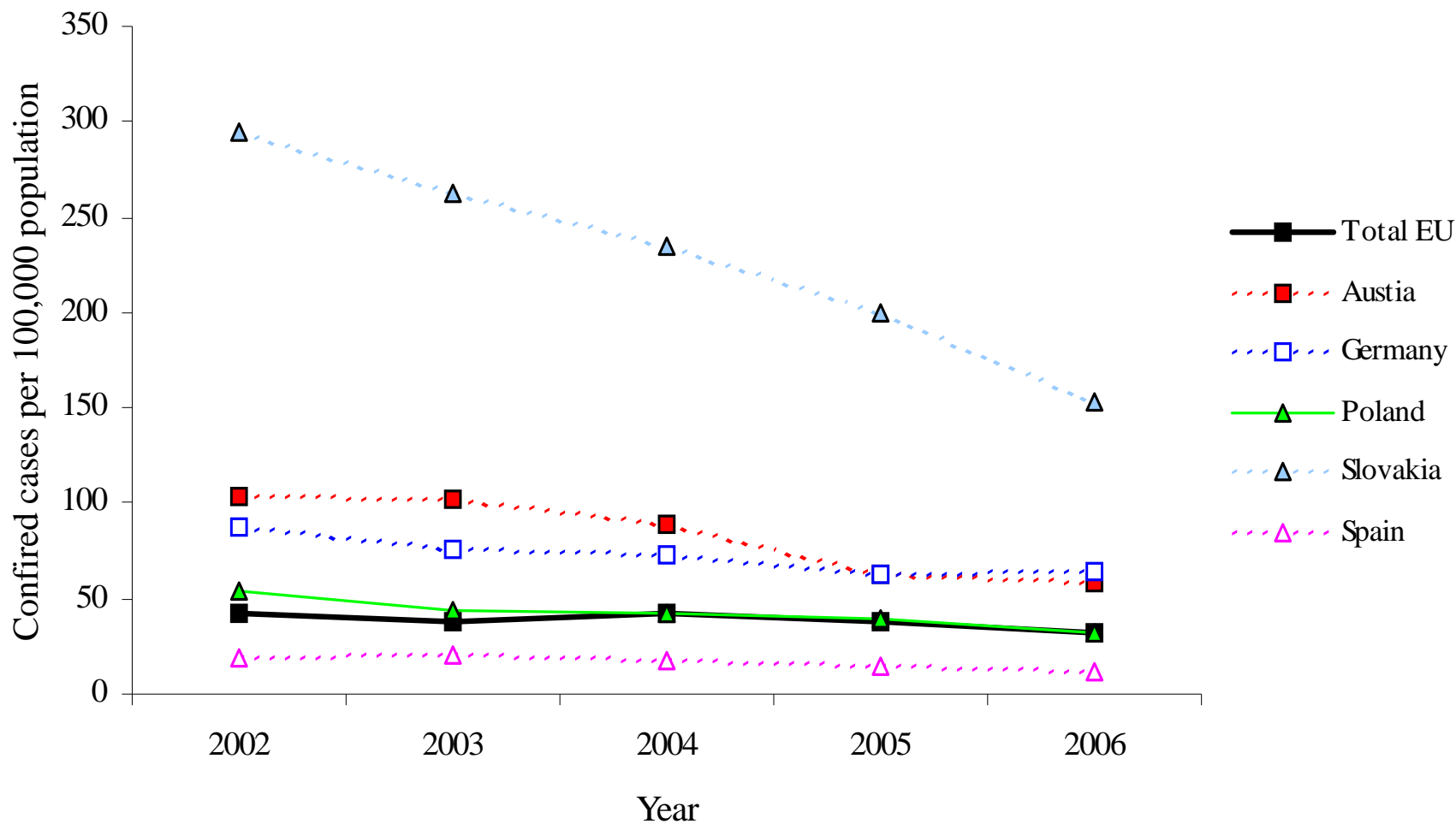
# Human cases, incidence 2006 -draft



# Human salmonellosis in 2006

- A total of 160,649 reported confirmed cases (25 MS)
- Incidence 34.6 cases/100,000 population (0-236)
- Decreasing trend over 5 past years in EU, statistically significant for last 3 years
- S. Enteritidis 62% human cases, S. Typhimurium 13%, other serovars less than 1% each

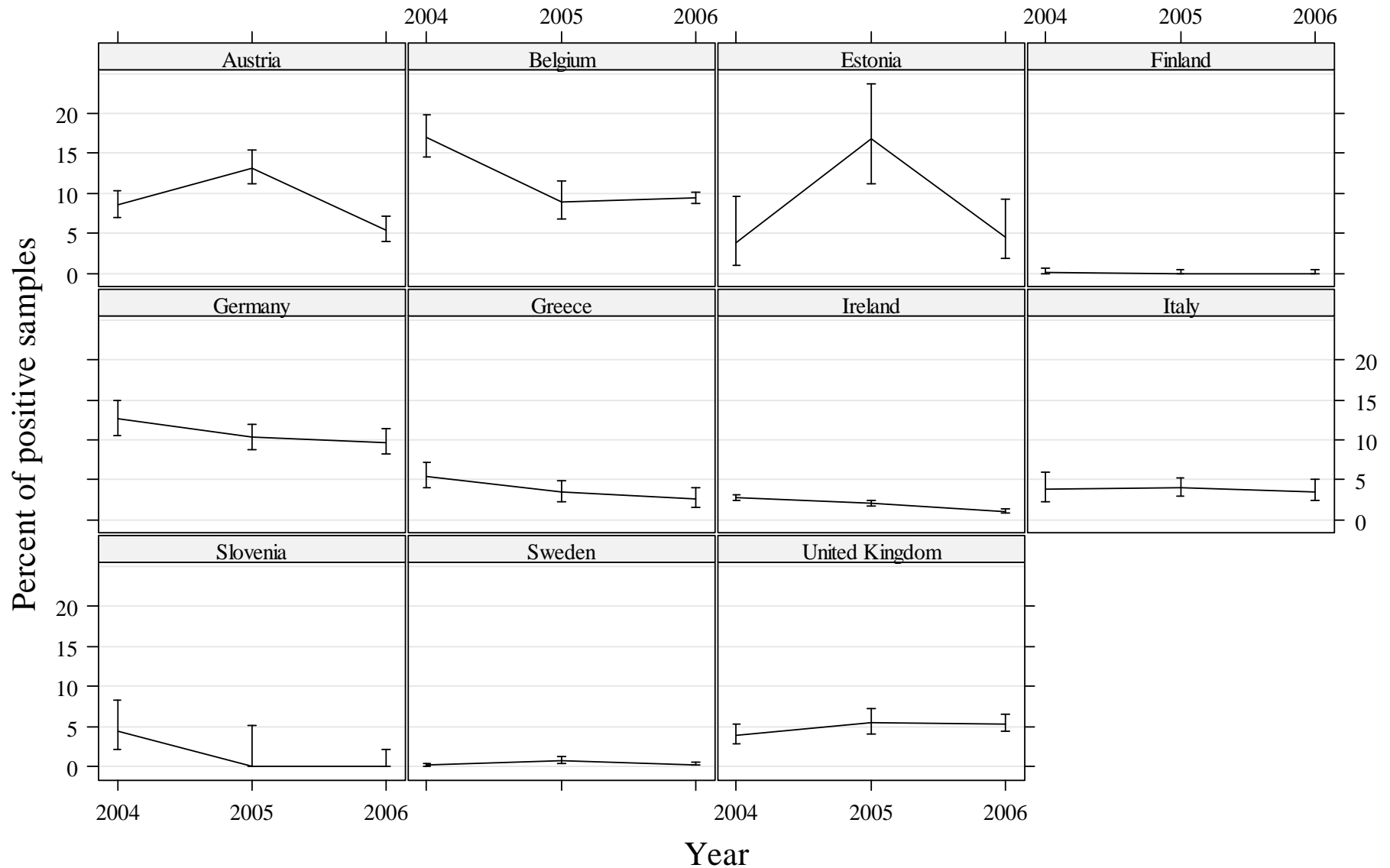
# Human salmonellosis incidence, 2006, draft – a decrease



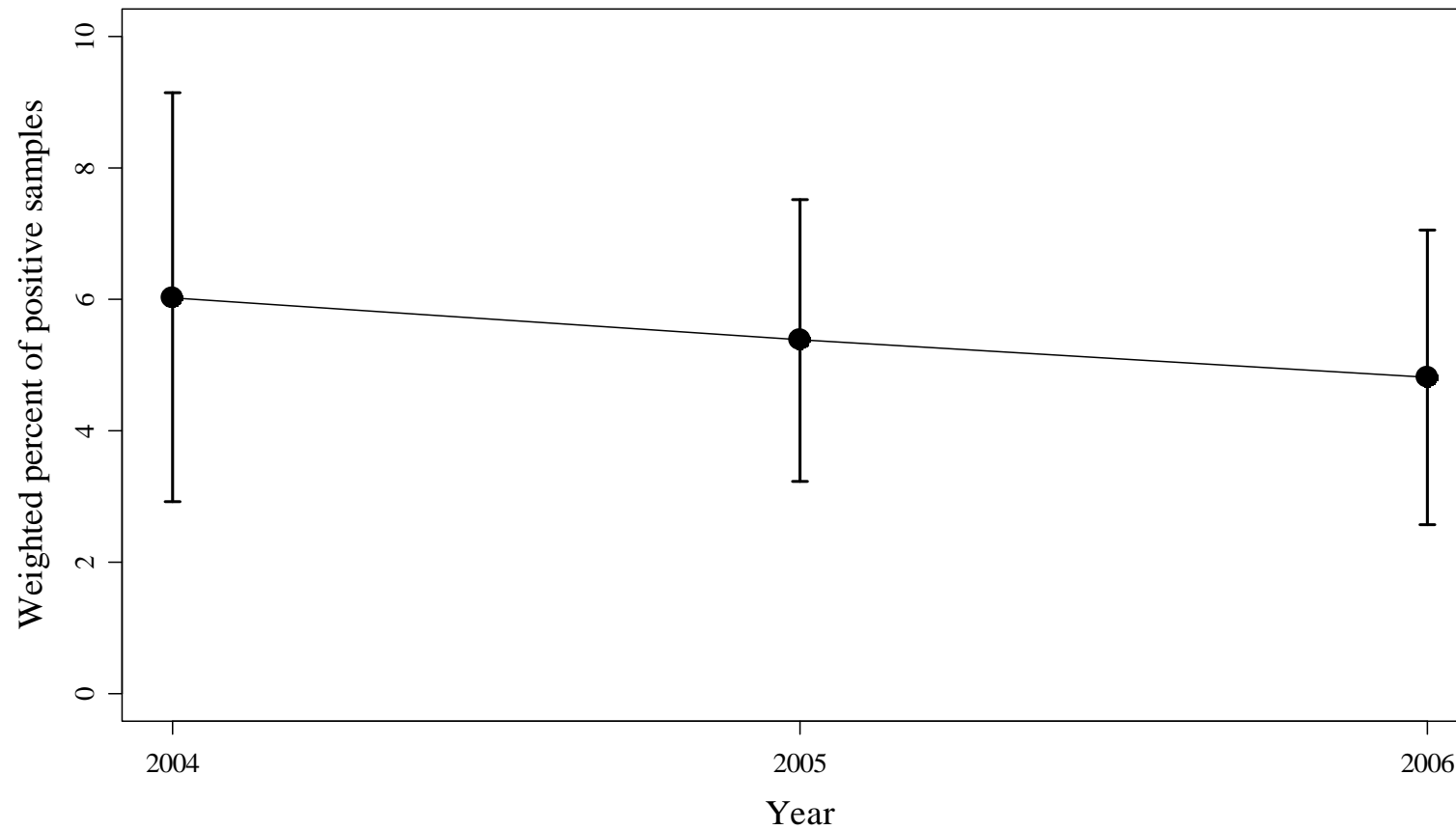
# Salmonella in foodstuffs

- Salmonella detected in a variety of different foodstuffs
- Most frequently from fresh broiler meat (average 5%, up to 68%) and fresh pig meat (average 1.1%, up to 11.5%)
- Less frequently from fresh bovine meat (<1%, up to 7.5%), table eggs (<2%, up to 7.1%)
- Other food: typically very few findings

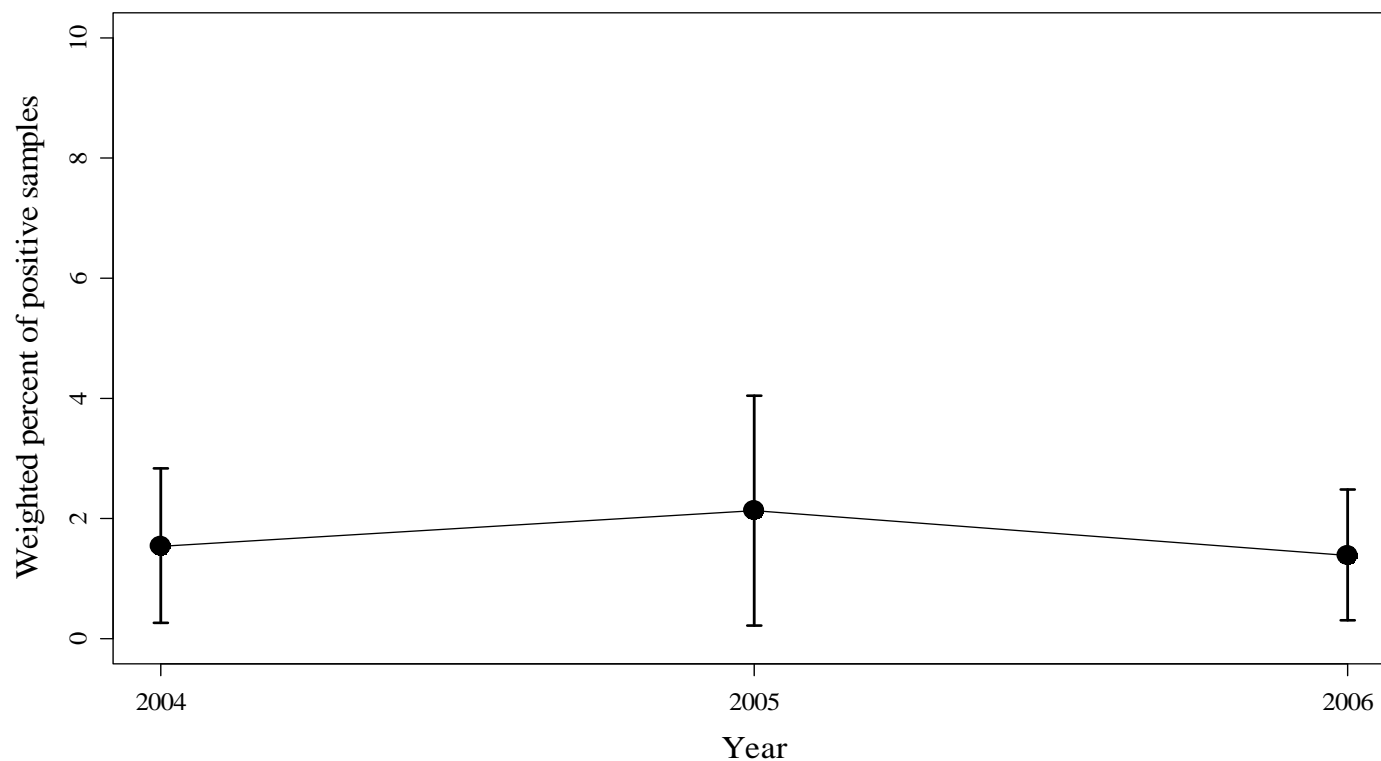
# Salmonella in fresh broiler meat, 2006, draft



# EU mean, Salmonella in broiler meat, 2006, draft – no significant trend



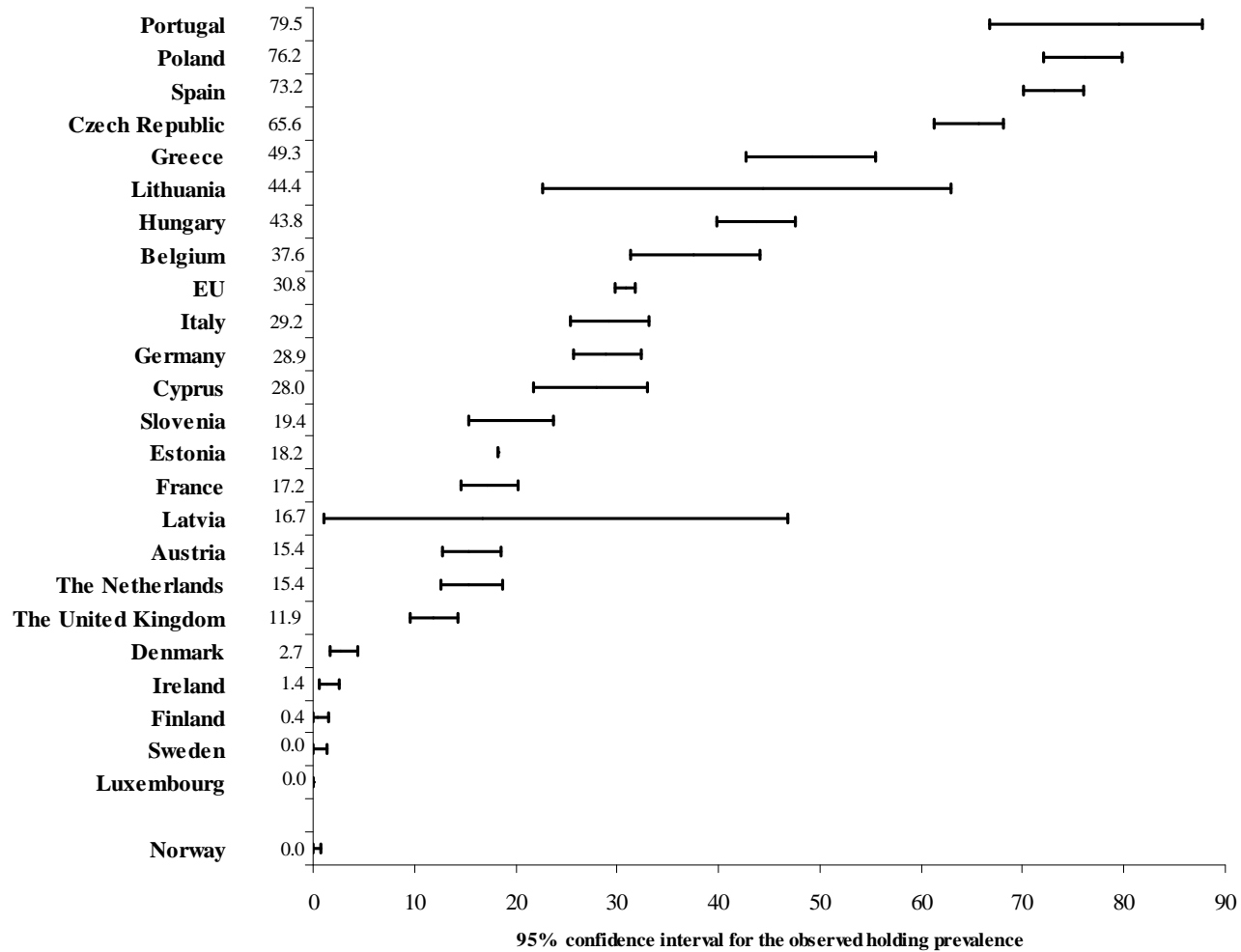
# Salmonella in table eggs, 2006 (6 MS mean) – no trend



# Salmonella in animals, 2006

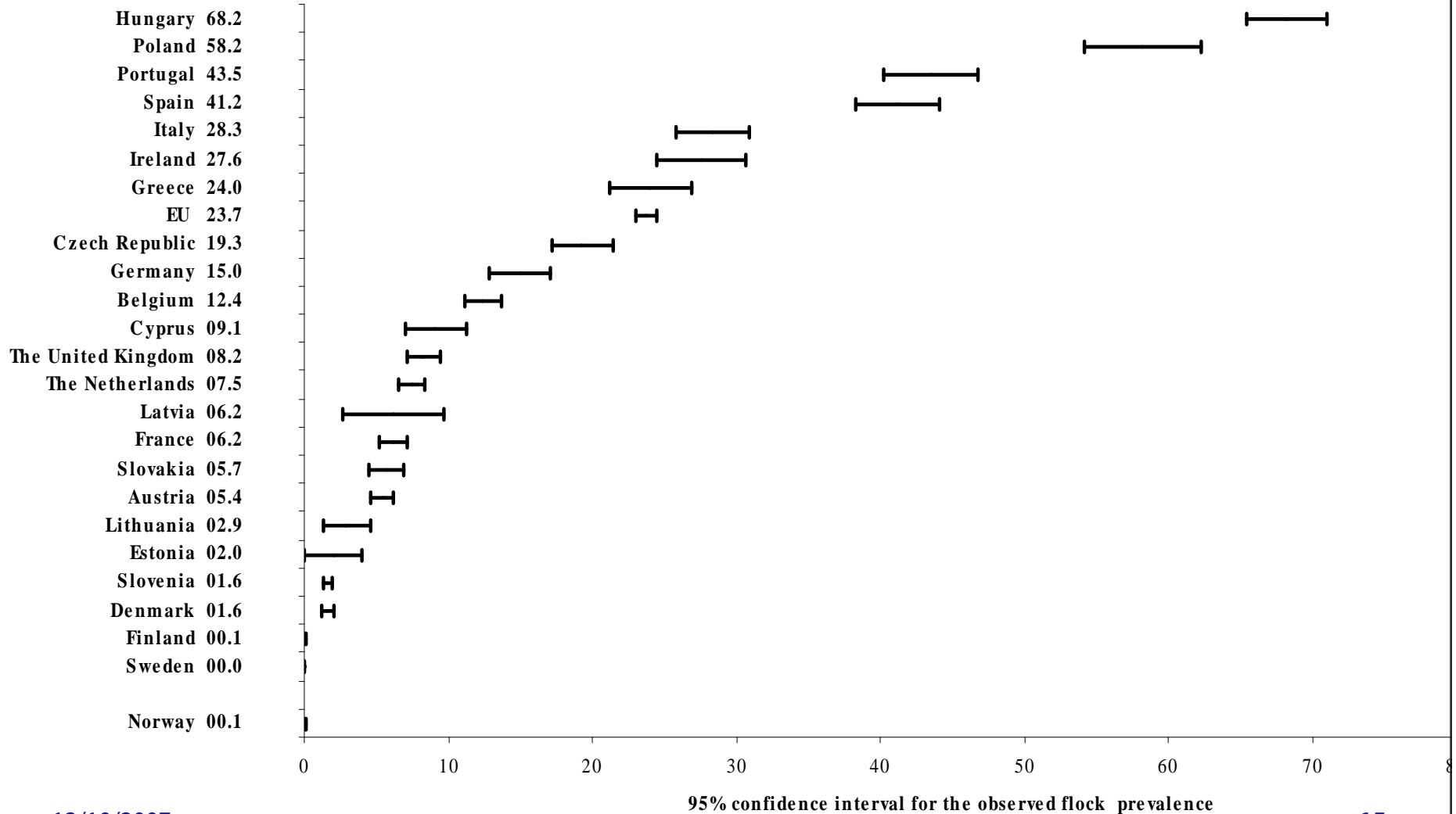
- Findings reported from many animal species
- *Gallus gallus* breeding flocks for layers 2.2% and for broilers 5.2% in EU
- Laying hen flocks 4.4% (0-31%), broiler flocks 3.4% (0.2-66%)
- Turkeys 5.0% (0-14%), ducks 43%, geese 10%
- Pigs 0-55%, cattle 0-7%
- Variation large between the MS

# Salmonella in laying hen flocks, EU baseline survey 2004-5

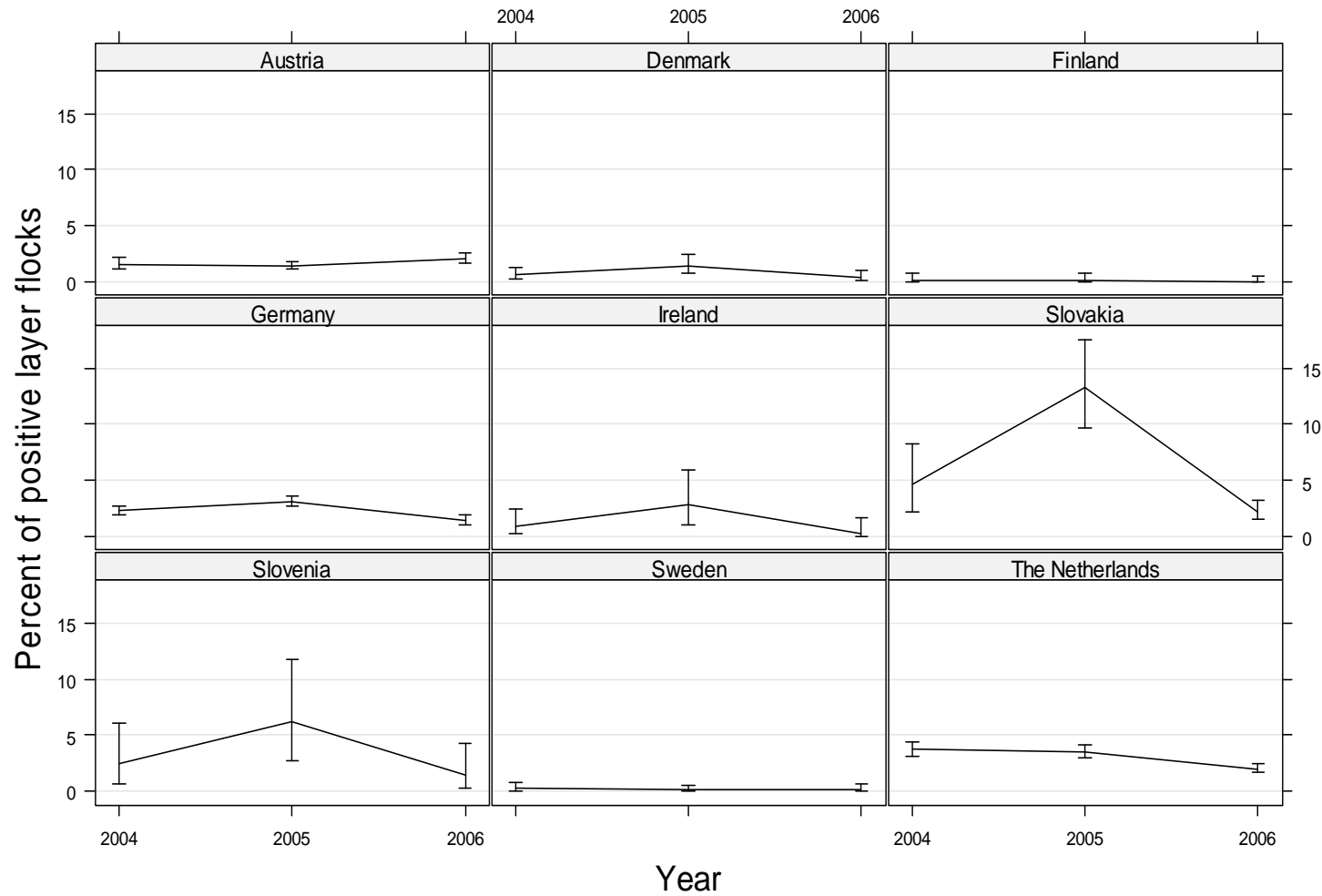


# Salmonella spp. in broiler flocks

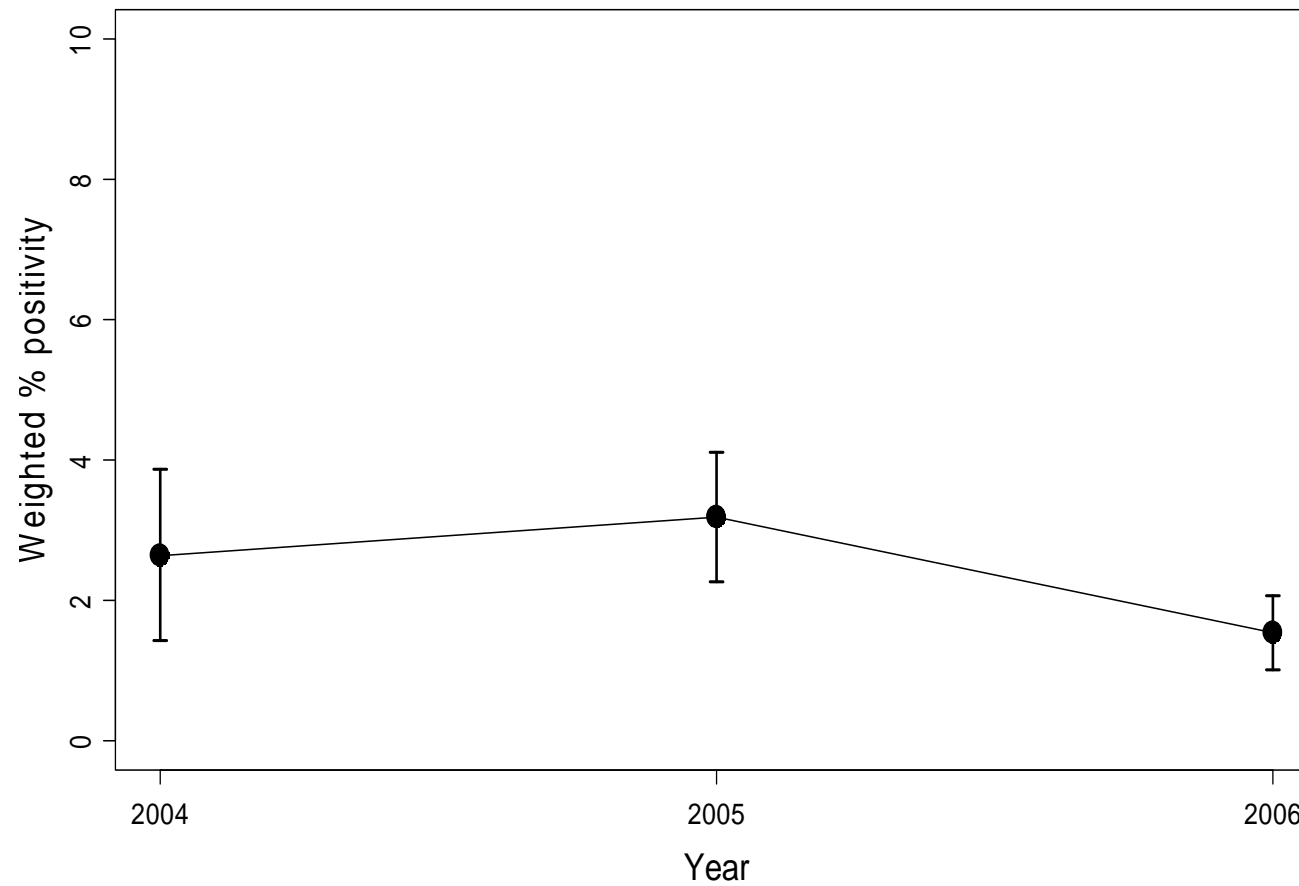
## EU baseline study 2005-06



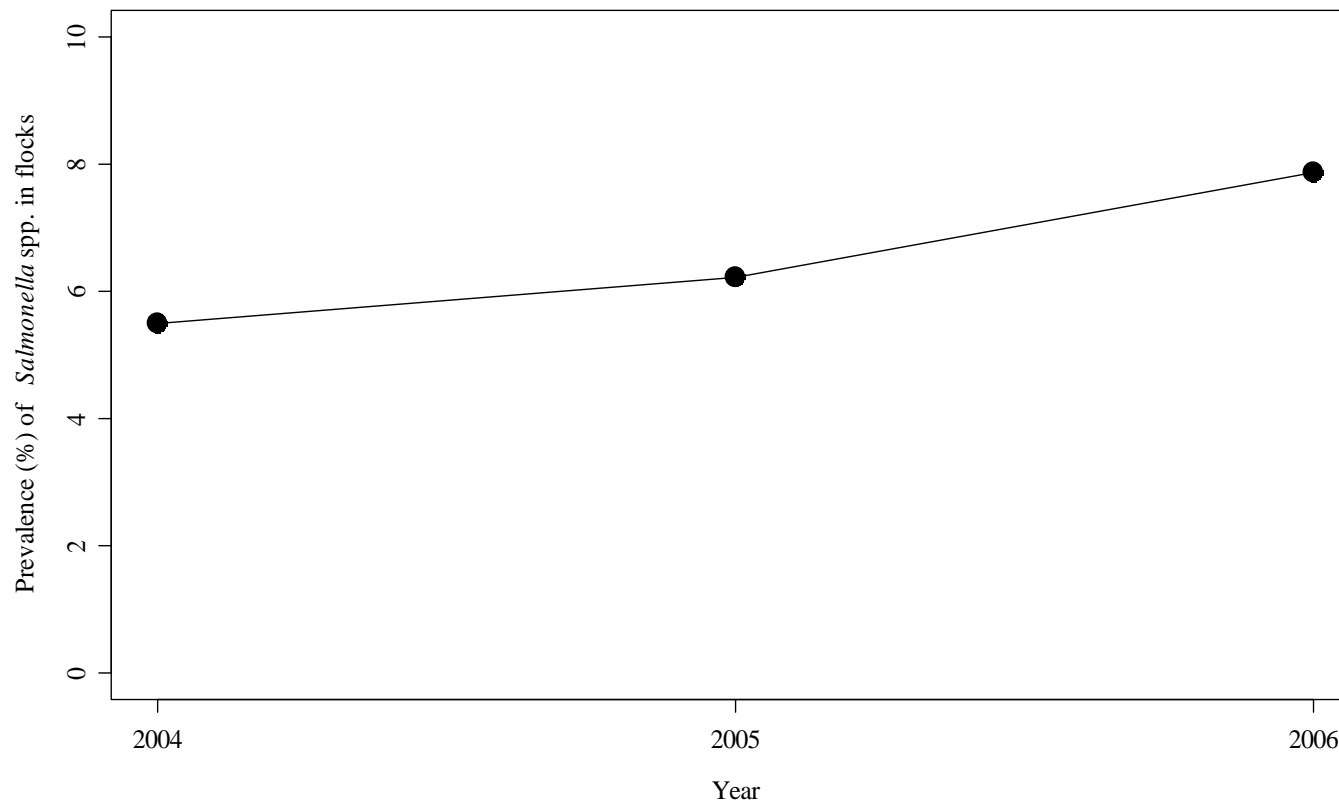
# Salmonella in laying hens, 2006, draft, in MS



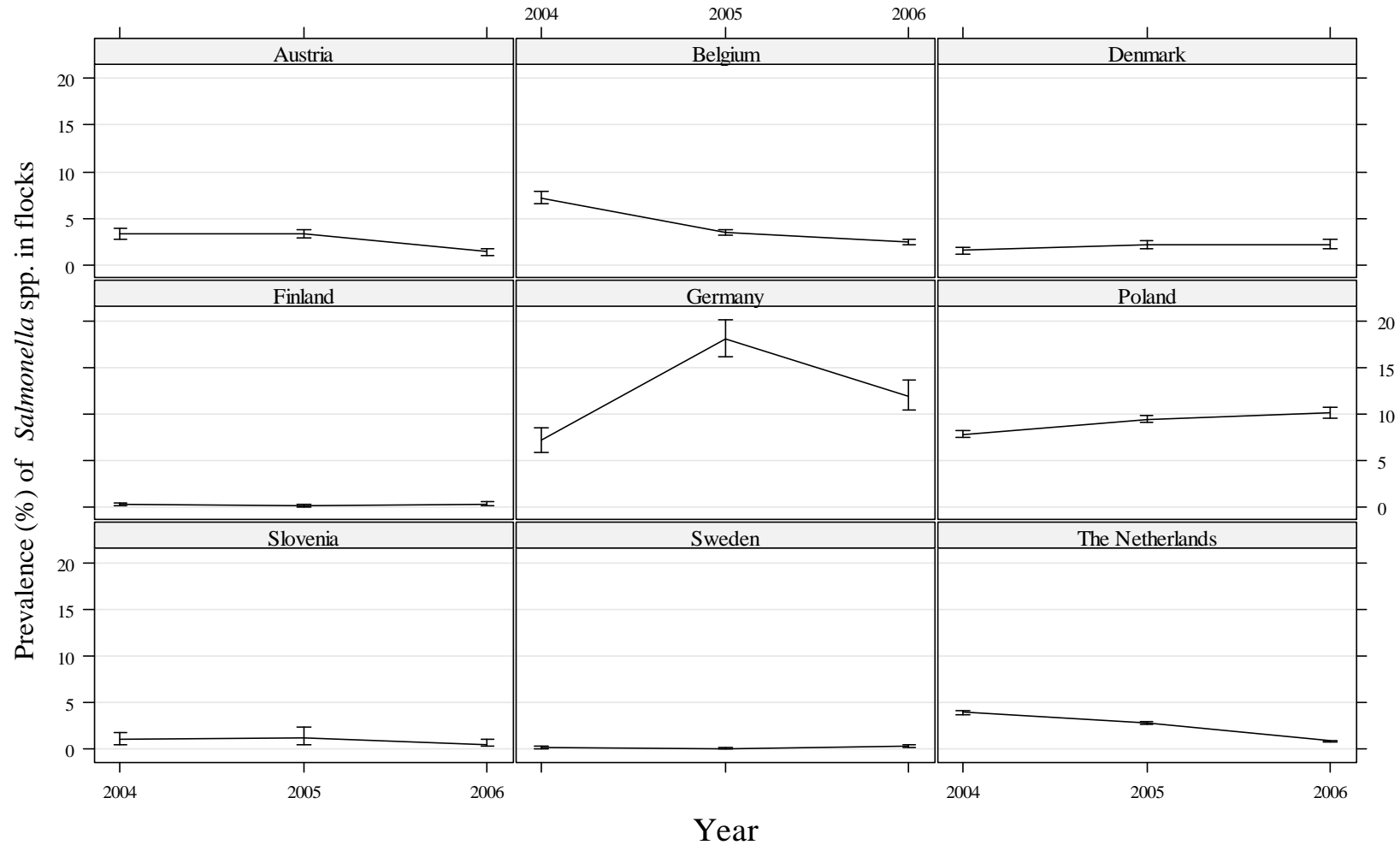
# Salmonella in laying hens, EU weighted mean, 2006, stat. significant trend



# Salmonella in broiler breeding flocks, 2006, draft, EU mean



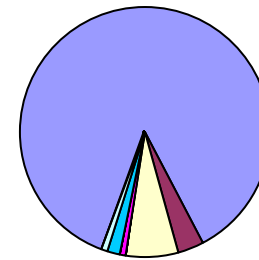
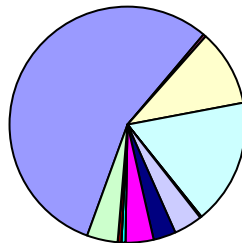
# Salmonella in broiler flocks, 2006, draft



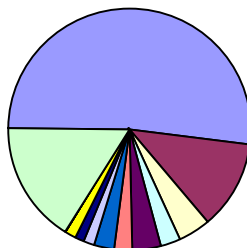
# Salmonella serovars, 2006

## Breeding flocks for egg production

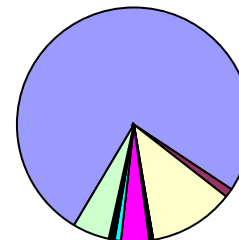
### Breeding flocks for meat production






















### Broilers

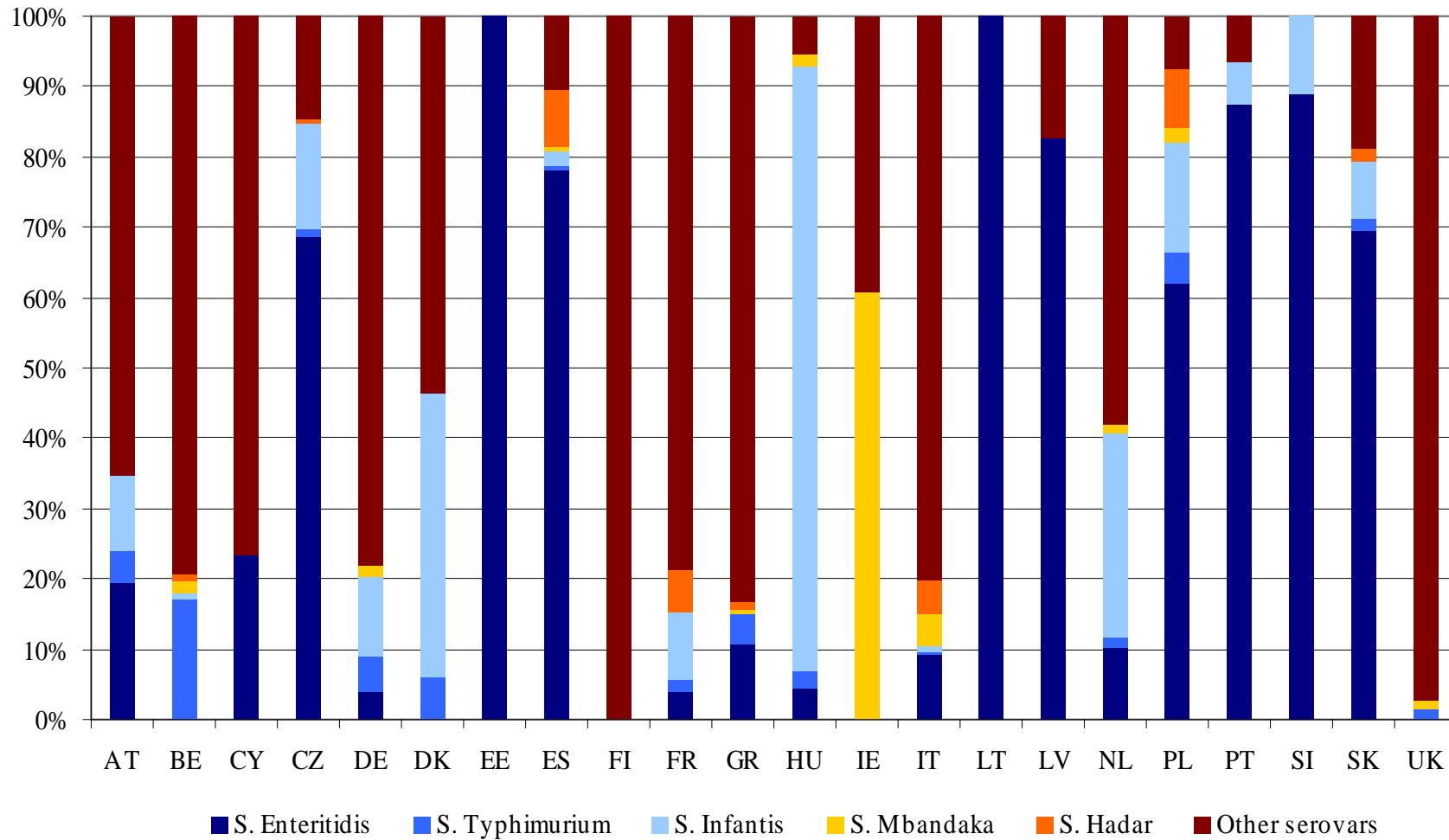


### Laying hens



- |  |  |   |   |
|--|--|---|---|
|  S. Enteritidis           |  S. Infantis    |  S. Typhimurium  |  S. Hadar      |
|  S. Paratyphi B var. Java |  S. Mbandaka    |  S. Blockley     |  S. Virchow    |
|  S. Livingstone           |  S. Senftenberg |  S. Anatum       |  S. Montevideo |
|  S. Heidelberg            |  S. Agona       |  S. Kentucky     |  S. Corvallis  |
|  S. Havana                |  S. Gallinarum  |  Other serotypes |   |

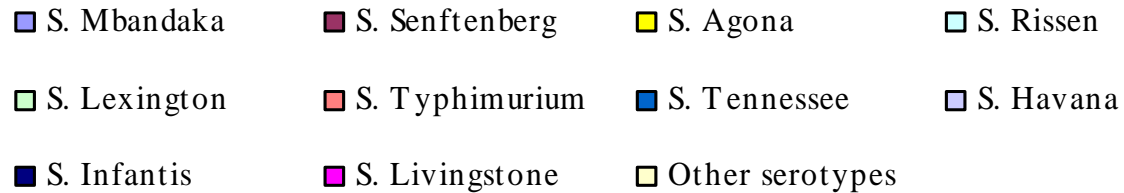
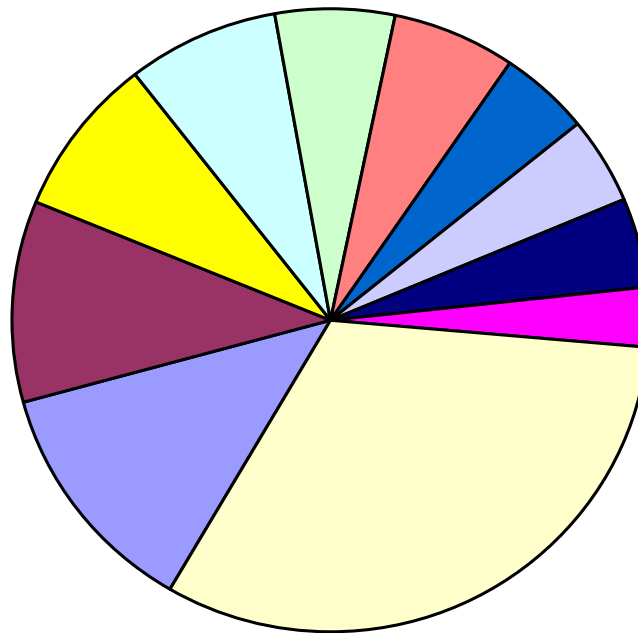
# Salmonella serovars, broiler baseline survey, 2005-06



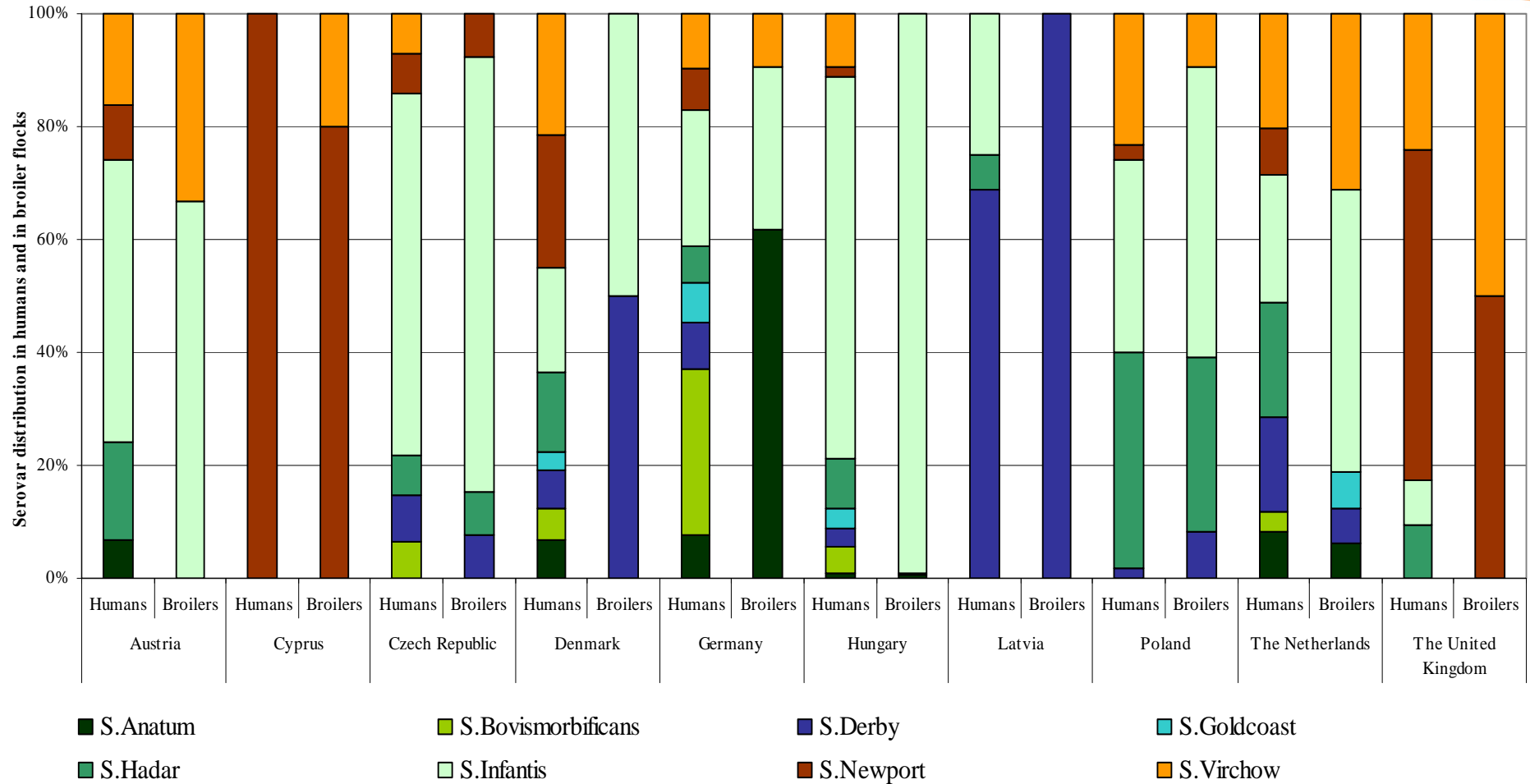
# Salmonella in feedingstuffs, 2006, draft (20 MS)

- Raw materials: fishmeal 1.9%, meat and bone meal 2.3%, cereals 0.3%, oil seeds 2.5%
- Compound feedingstuffs 0-9.4% at EU
- Cattle feed 0.7% (0-9.4%)
- Pig feed 0.6% (0-3.3%)
- Poultry feed 0.8% (0-5.3%)
- S.Enteritidis and S. Typhimurium relatively seldom found (SE by 4 MS and ST 3 MS in compound feed)

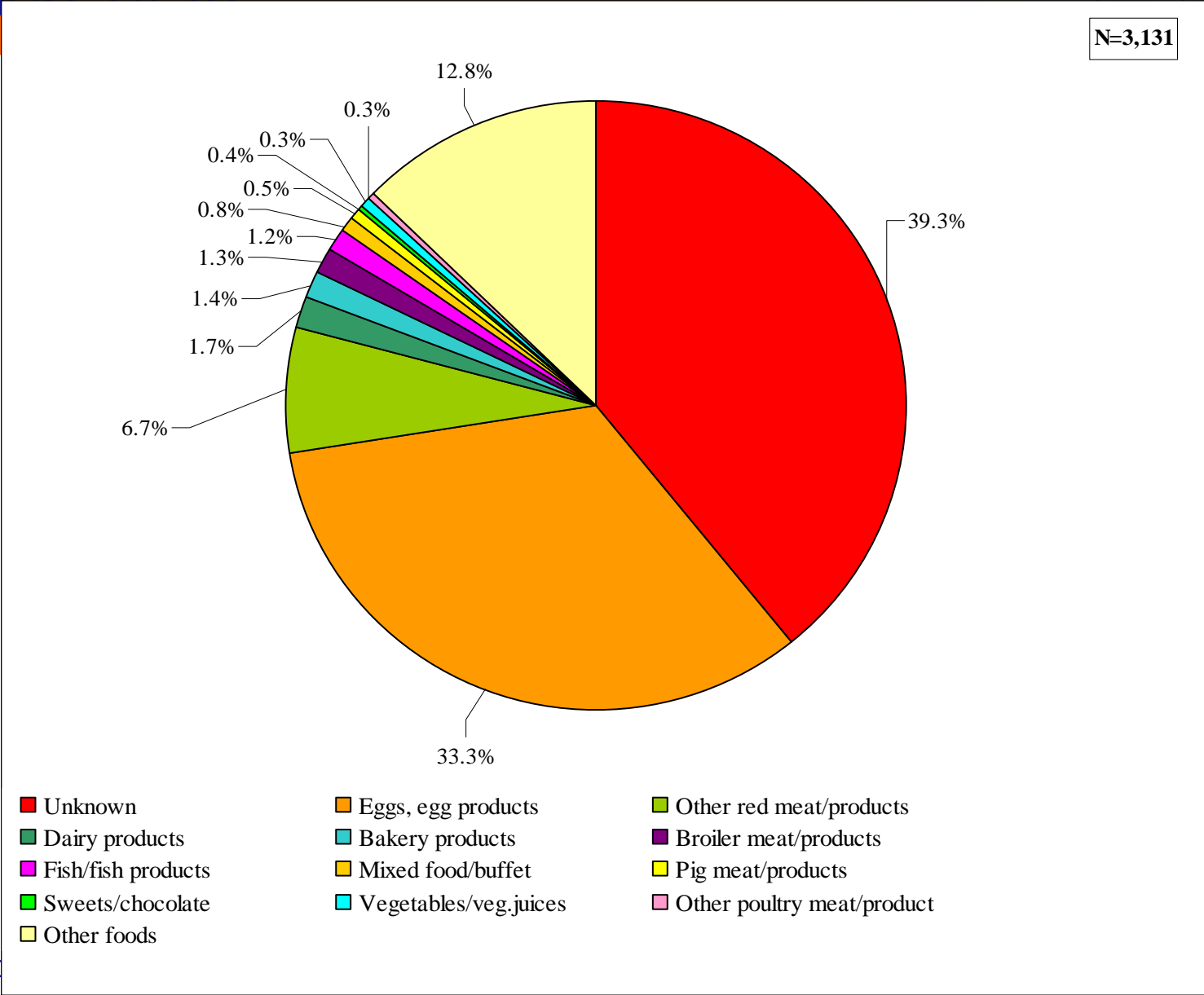
## Distribution of the ten most common *Salmonella* serovars in feedingstuffs



# Non SE-ST serovars in broilers and human cases (baseline survey)



# Salmonella outbreaks, food vehicles, 2006 draft



# Conclusions

- Numbers of reported human salmonellosis cases decreasing in EU
- Eggs and meat from poultry and pigs appear to be the main sources of human *Salmonella* infections
- In animals *Salmonella* prevalence highest in poultry and pigs – some decrease in egg sector
- In feed: *Salmonella* findings both from feed materials and end products, mostly serovars other than *S. Enteritidis* and *S. Typhimurium*

Thank you for your  
attention!

Community Summary  
Reports  
[www.efsa.europa.eu](http://www.efsa.europa.eu)

