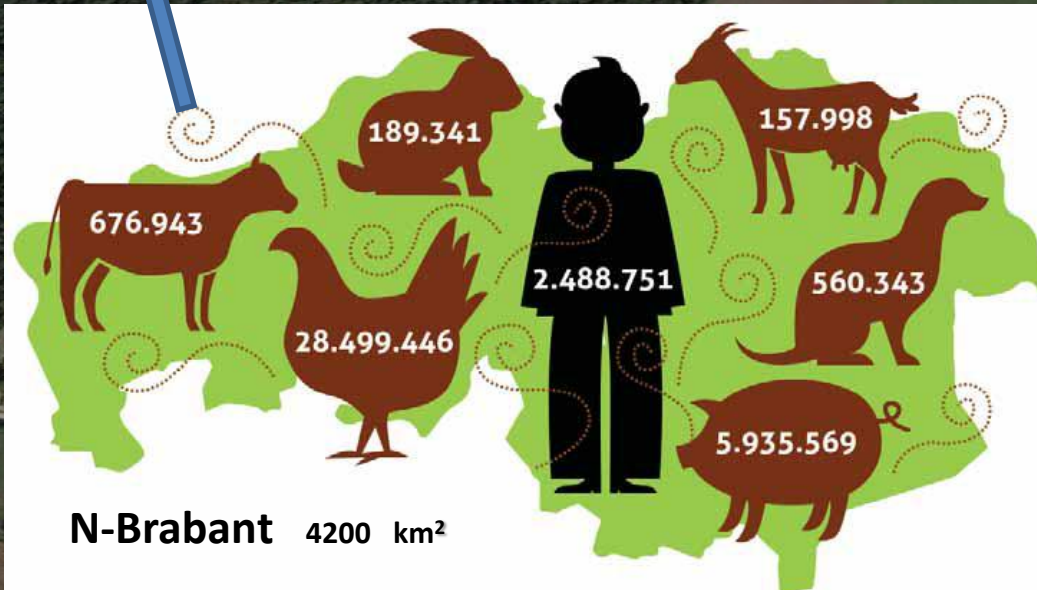
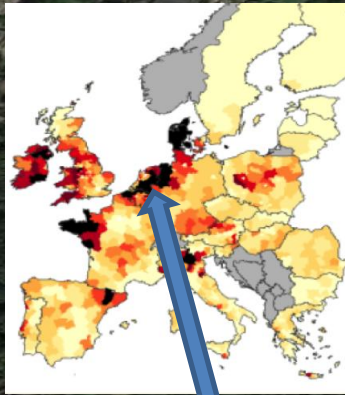


HEALTH related PROBLEMS

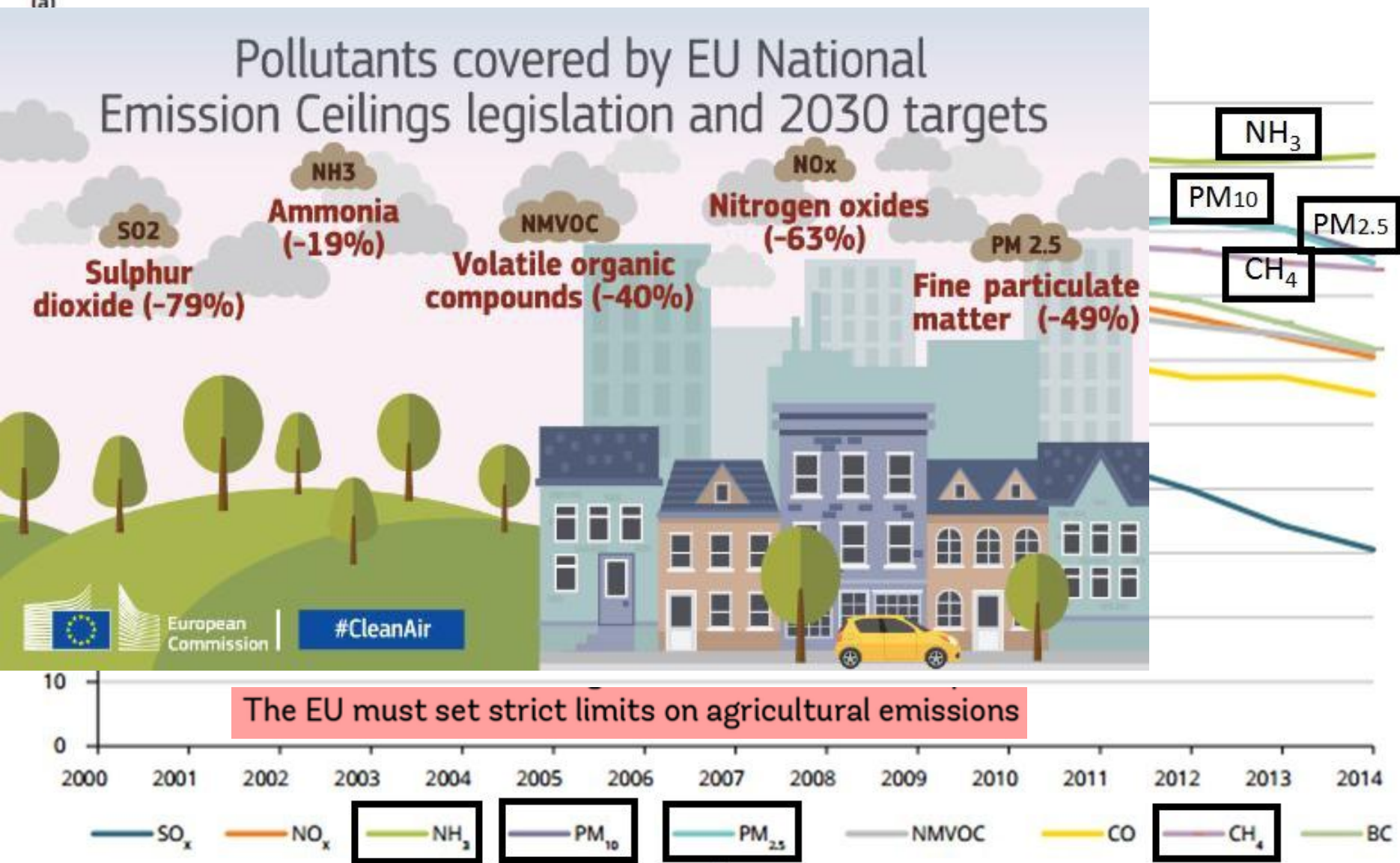
Intensive livestock farming



- Ammonia
- PM_{2.5}
- Antibiotics
- Fungicide
- Zoonosis
- Soil / Air
- ??

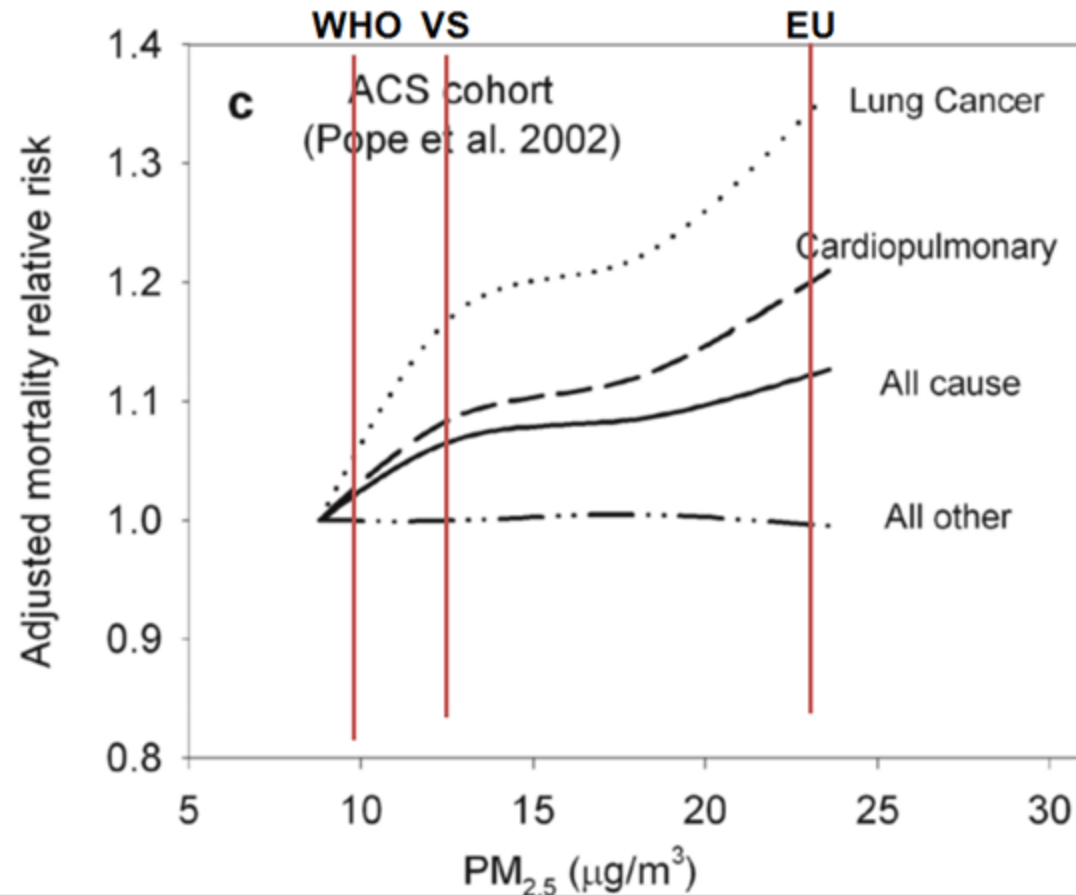
Figure 2.1 Development in EU-28 emissions, 2000–2014 (% of 2000 levels):
 SO_x , NO_x , NH_3 , PM_{10} , $\text{PM}_{2.5}$, NMVOCs, CO , CH_4 and BC

(a)



Treshhold PM_{2.5}

1



Fungicide

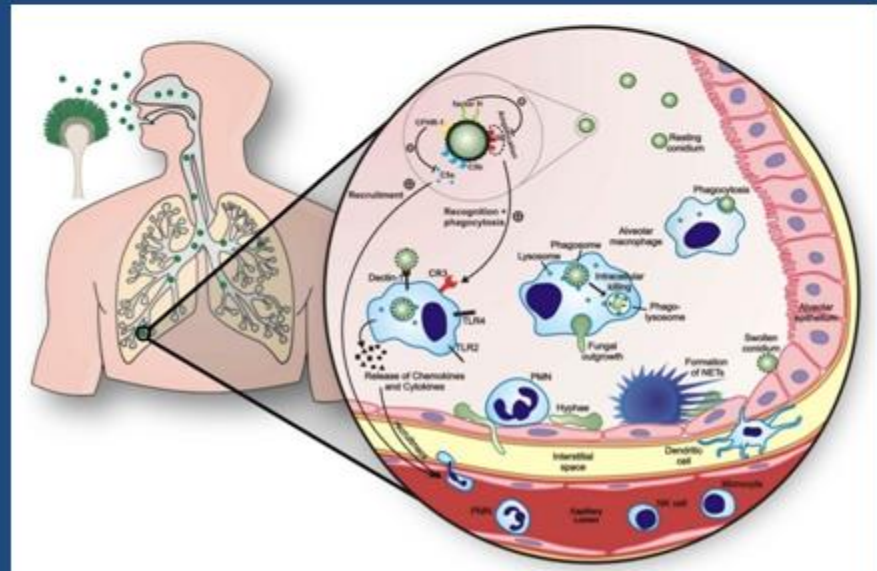
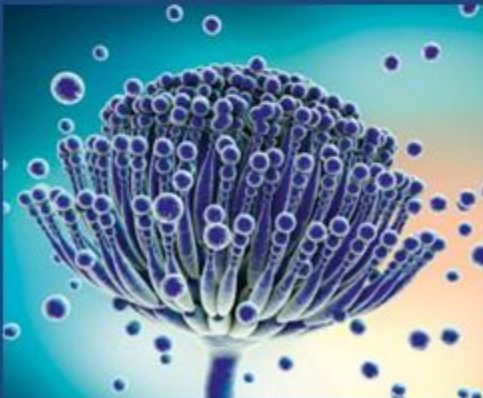


Aspergillus infection (NL) - 200 to 400 annually

- 35 % †

Azole-resistance

- 85 to 90 % †



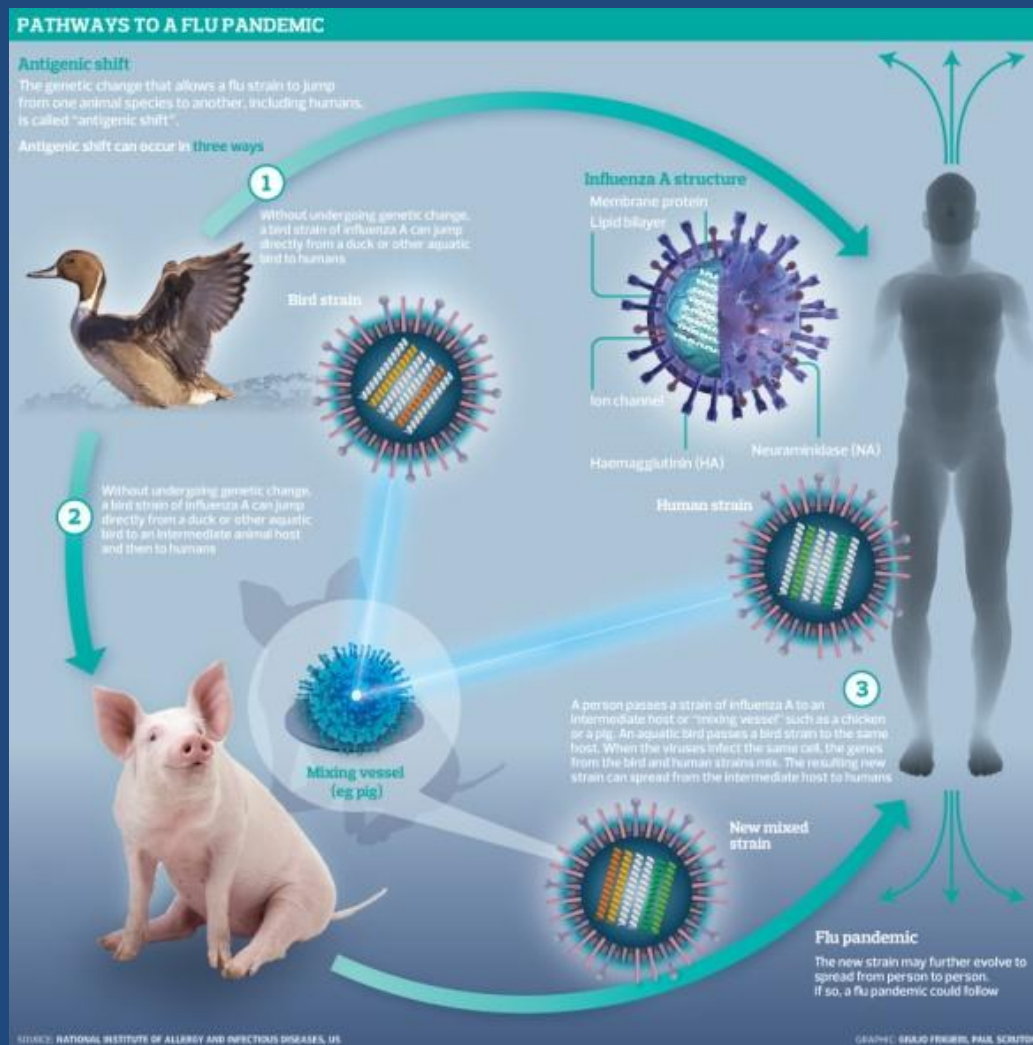


Pig mixing vessel

Influenza A virus

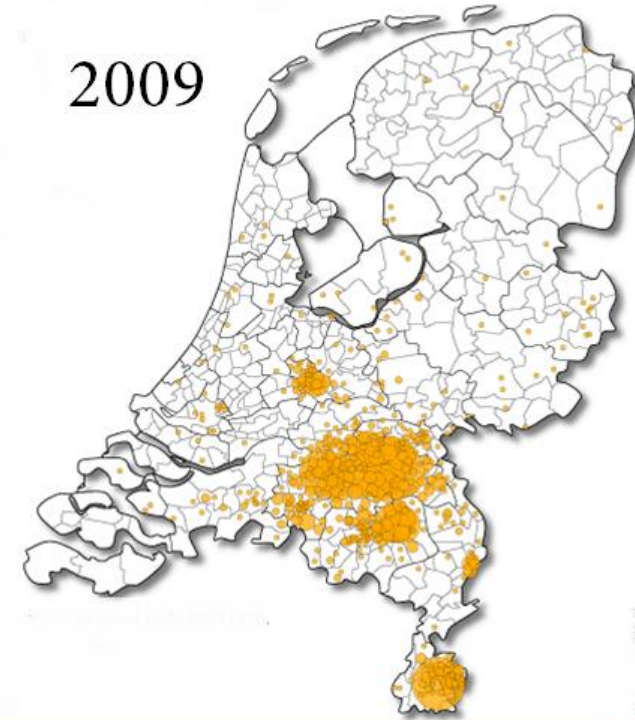
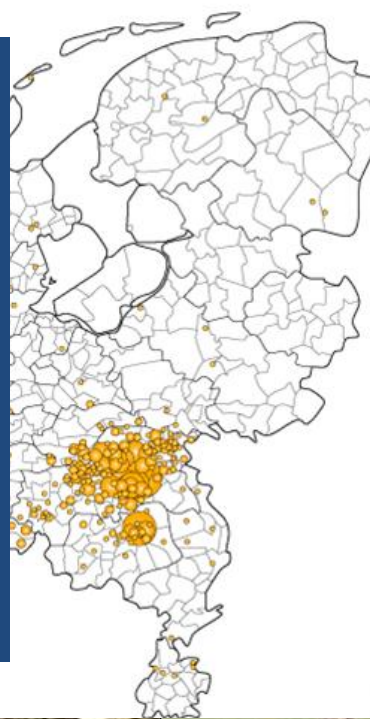
- Swine Flu 1918 H1N1
- Asian flu 1957 H2N2
- Hongkong flu 1968 H3N2
- Mexiacan flu 2009 H1N1

- Bird flu pandemic ?
WHO: calculated risk



Zoonoses Q - Fever

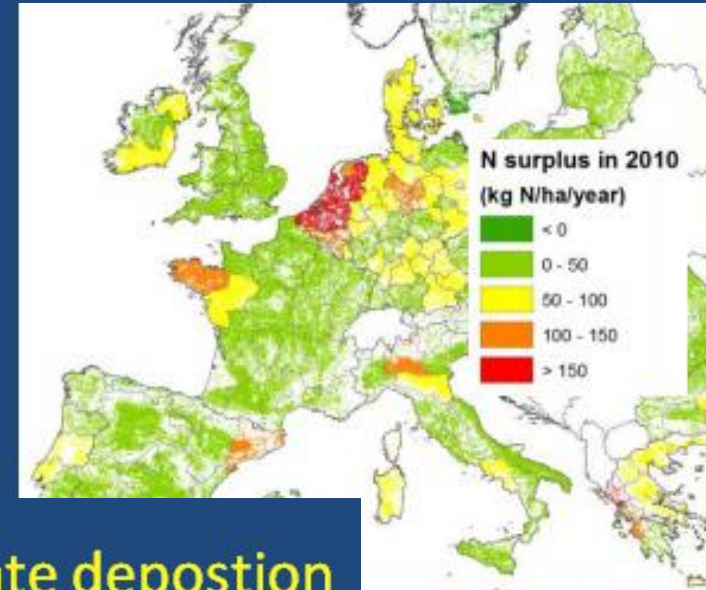
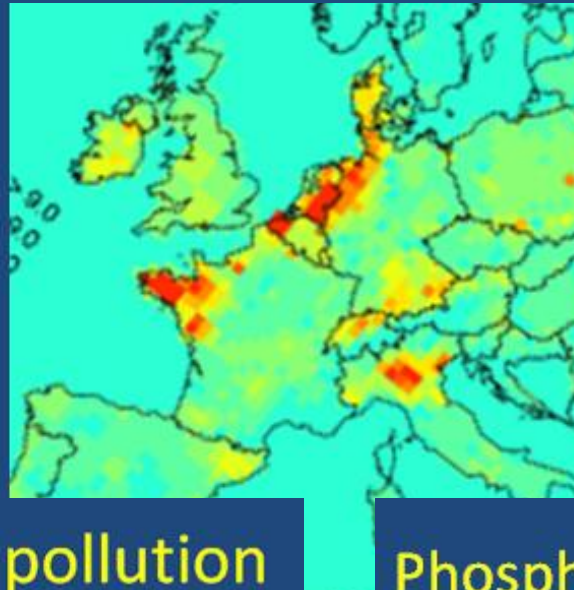
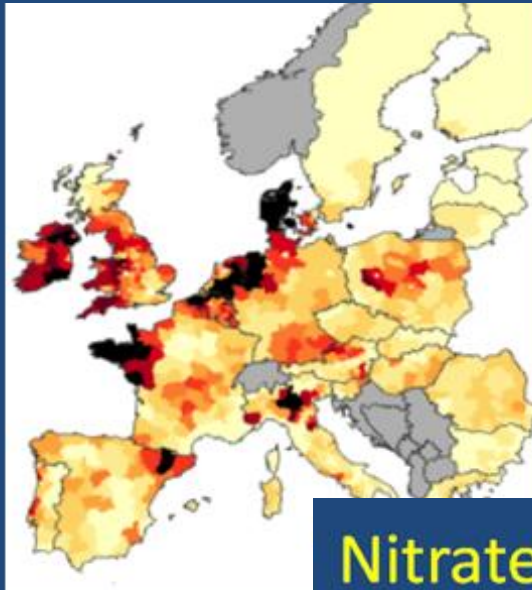
- *Coxiella Burnetti*
- 40.000 people
- manifestation time
- 400 chronic
- overall mortality 16%
- chronic fatigue syndrome



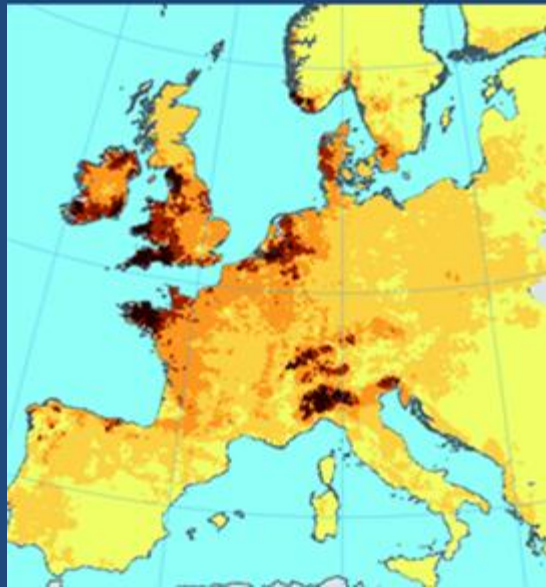
Livestock

NH₃ emission

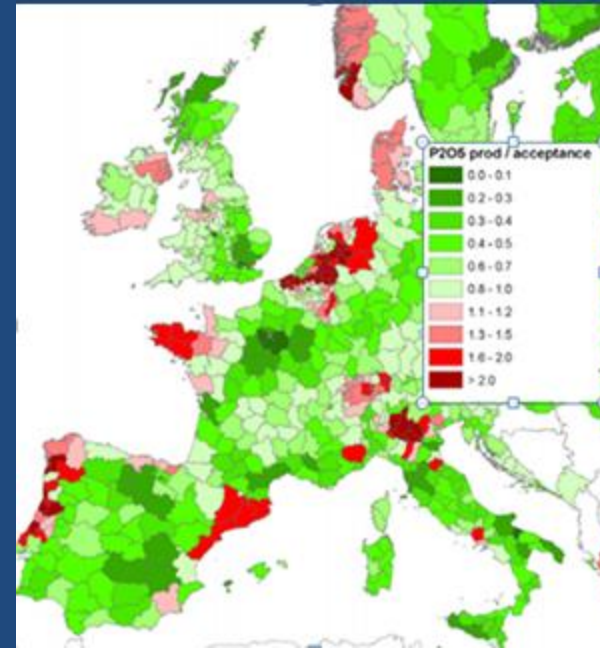
Nitrogen surplus



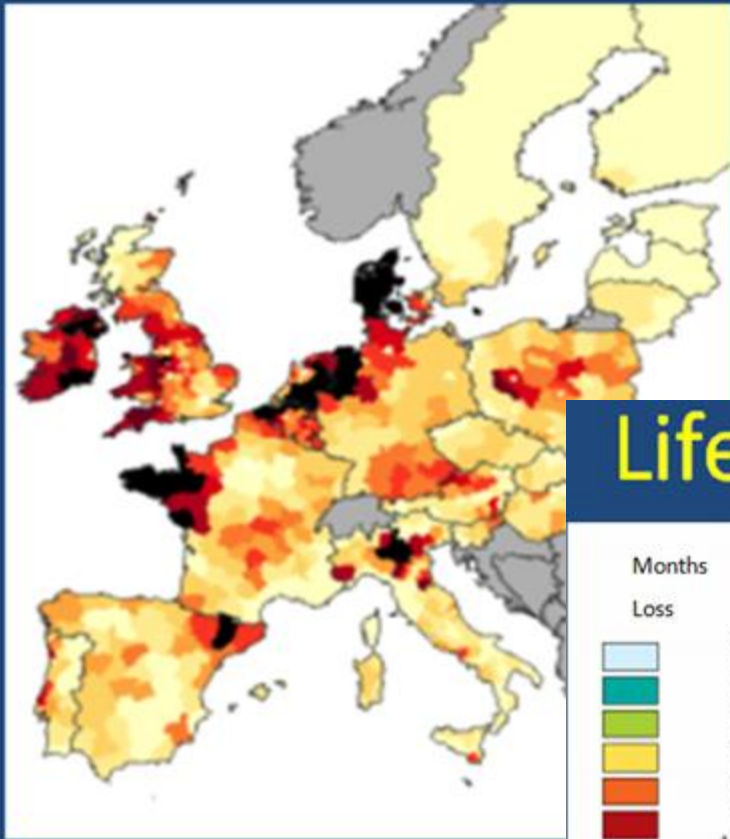
Nitrate pollution of water



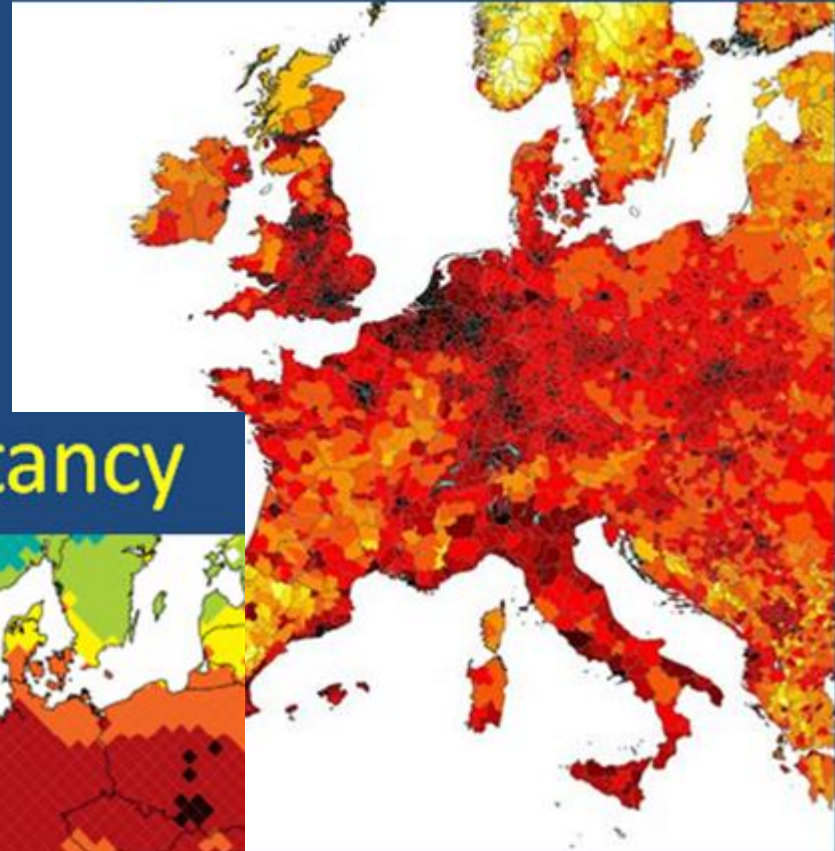
Phosphate deposition



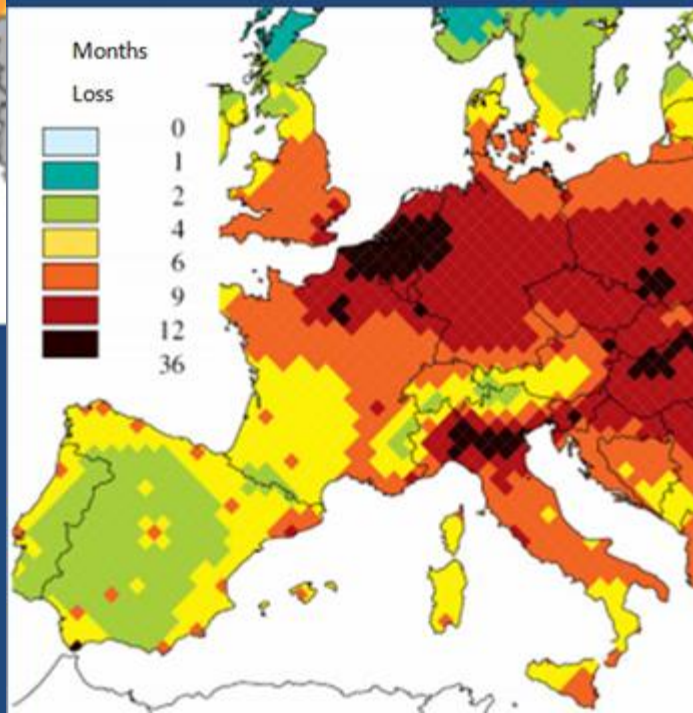
Livestock

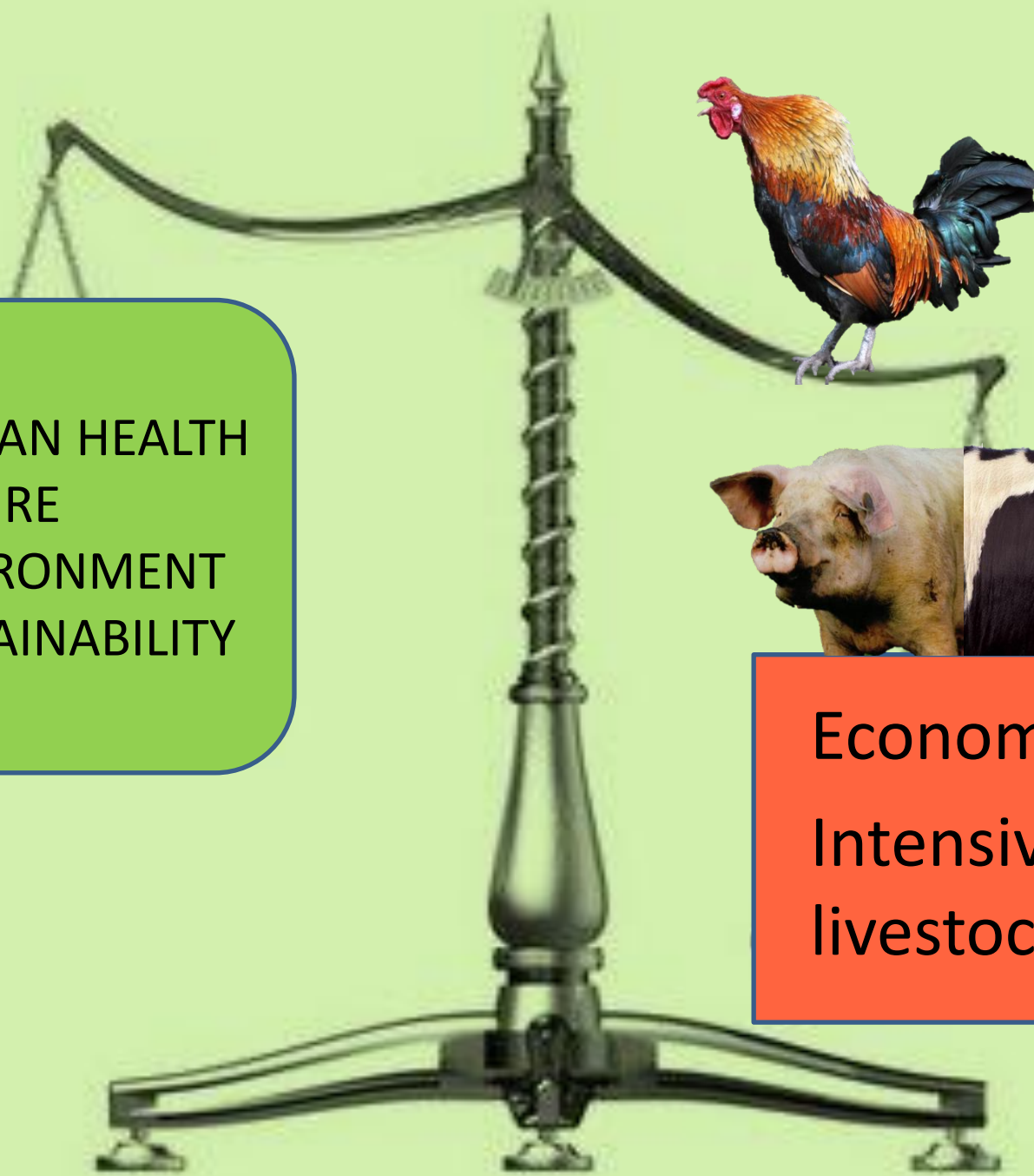


Population density



Life expectancy



- 
- A large, ornate metal balance scale is the central element of the image. The left pan is elevated and contains a colorful rooster. The right pan is lowered and contains a pig and a black and white cow. The scale's base is a heavy, three-legged metal stand. The background is a solid light green.
- HUMAN HEALTH
 - NATURE
 - ENVIRONMENT
 - SUSTAINABILITY

Economy
Intensive
livestock