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# The societal impacts of animals

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HeathforAnimals, Executive Director

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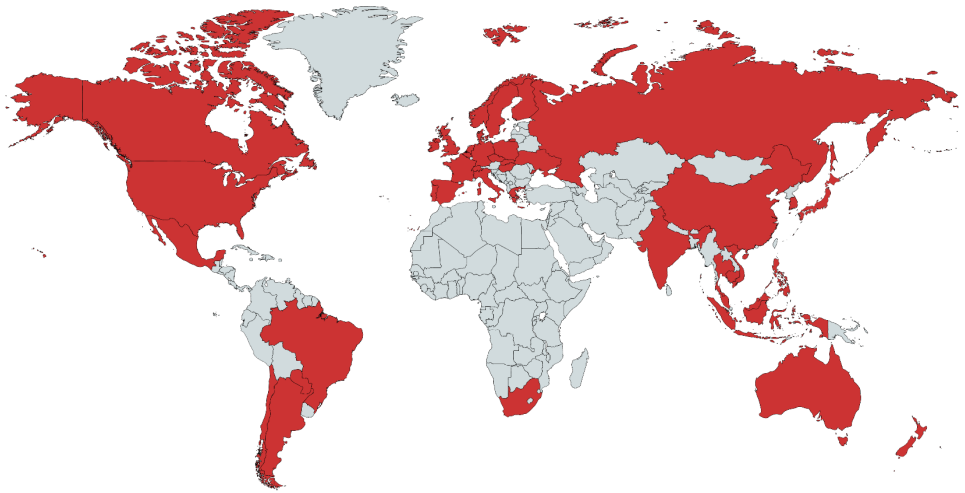
## 28 Regional & National Associations
Working in **40 countries**



## Ten Largest Animal Health Companies
Working in **100+ countries**

zoetis

Boehringer Ingelheim

Elanco

vetoquinol
ACHIEVE MORE TOGETHER

IDEXX

MERCK Animal Health

Virbac

Phibro
ANIMAL HEALTH CORPORATION ™

ceva

ZENOAQ

**Vaccines, anti-parasiticides, feed, diagnostics, digital services, antibiotics, etc.**

# Animals have multiple impacts on society

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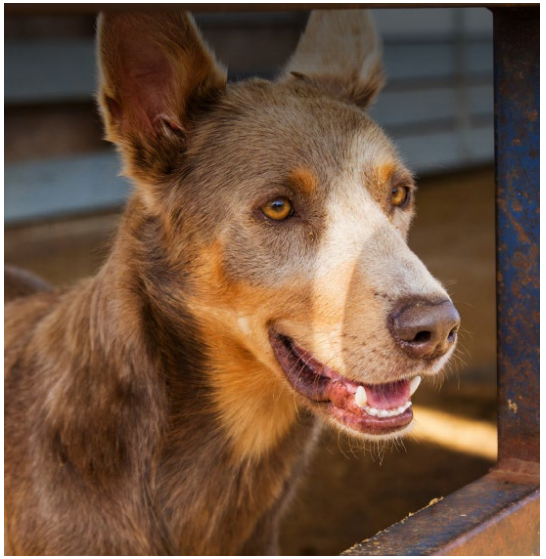
**Positive impacts** on society (humans and the environment):

- **Wild animals** have positive environmental functions (f.e. bats, bees, birds, fish, worms)
- **Farmed animals** provide 39% of global protein and17% of calories consumed by humans
- **Pets** provide companionship to humans
- **Working animals** help to plow, transport, power, herd, guard, guide, rescue, detect, etc.



But animals can also have **negative impacts**:

- **Disease source/spread:** 60-70% of diseases are zoonotic
- **Agriculture destruction:** wild pigs, elephants, river crayfish, wolves
- **Emit emissions:** that contribute to warming
- **Consume resources:** some (but only some) of which could be used otherwise

# Societal trends impacting animals

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**Population**: 1.7 billion more people in 2050. Hunger and malnutrition. Consumption changes.

**Land use:** urbanization leading to increasing contact with (zoonotic) diseases. Multiple reasons – multiple complex solutions.

**Environment:** extreme weather = farmers exposed + need to reduce emissions. Food production systems need to evolve.

**Social:** pets became family… Pet populations growing worldwide

**Aging:** older pets = 'old age' health problems = health spending on pets

**IMPACTS**

**More animal protein**
**More disease**
**More sustainability**
**More pets**
**More spending**

# More livestock production

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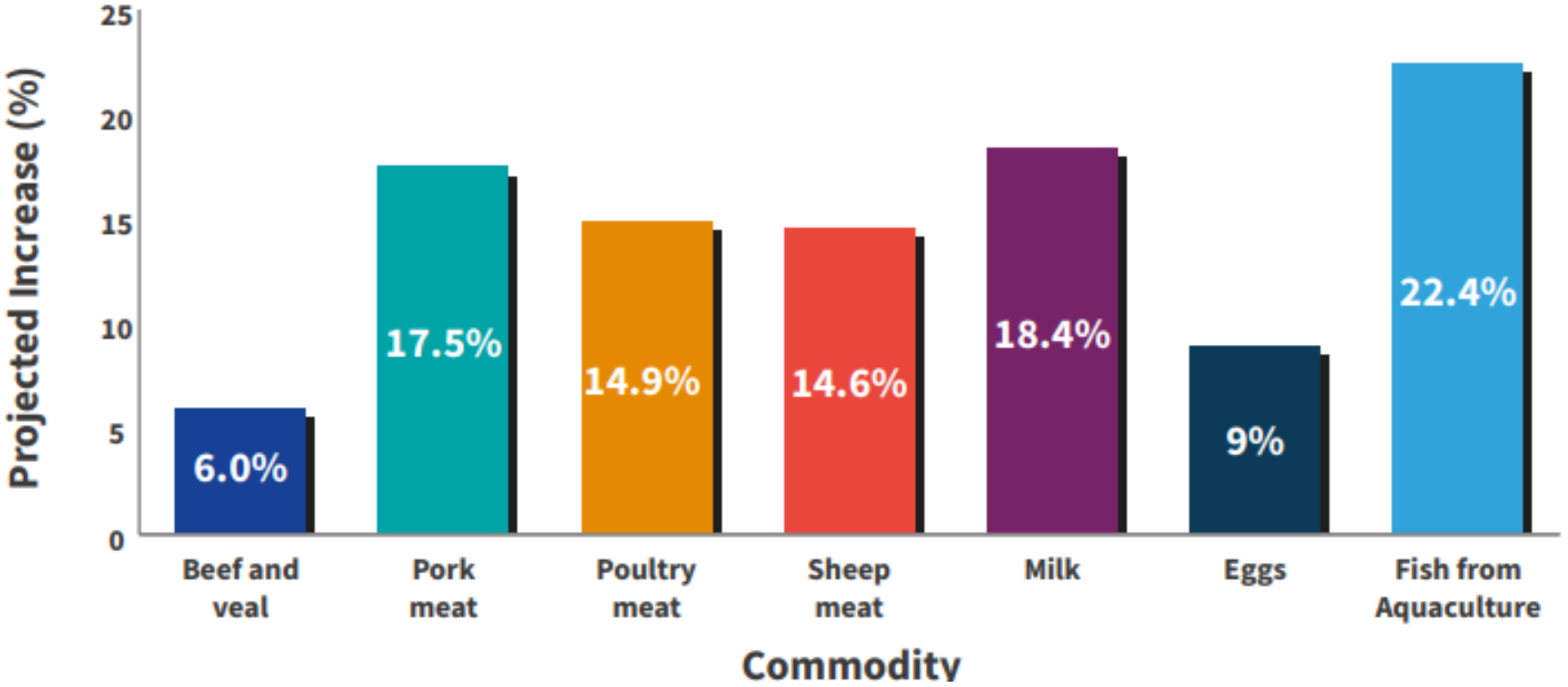
## Projected Increase in Livestock Commodity Production (2020–30)[2]



# More companion animals

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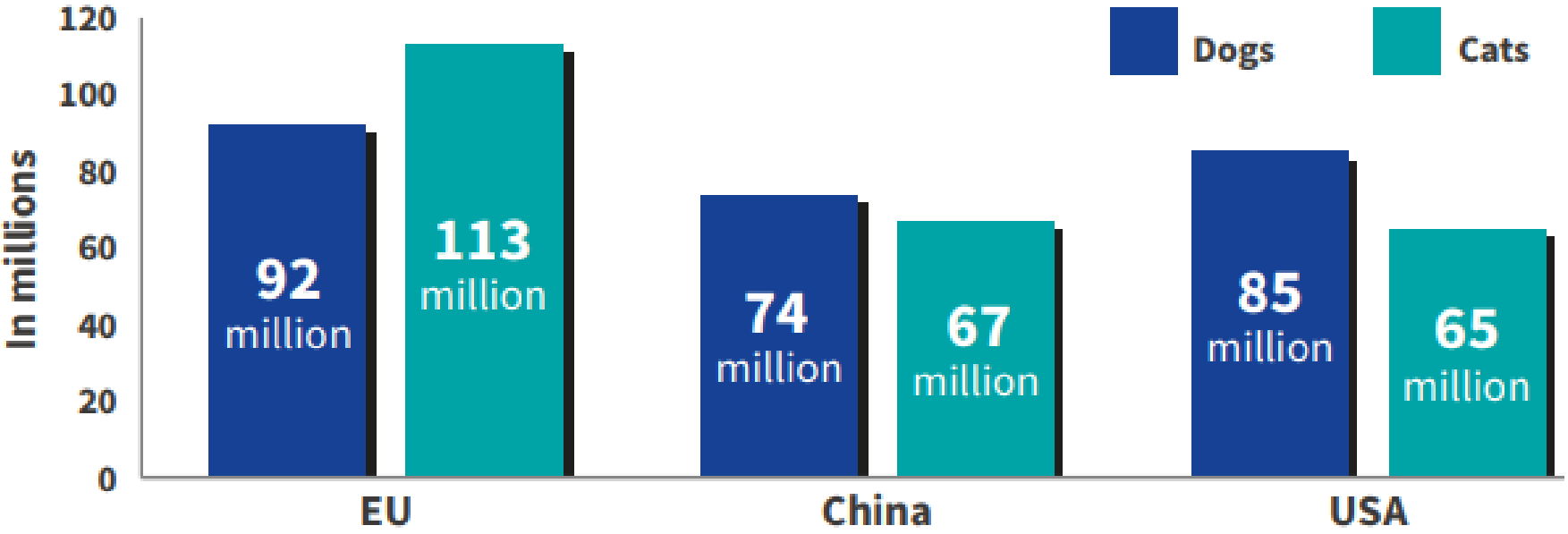
## Pet Populations in Major Markets[3]




**Worldwide estimates**
700 million - 1 billion dogs
400 million - 700 million cats

# Food security, nutrition and livelihoods

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**Food security and nutrition**

- 690 million people suffer from hunger - 25-33% of children under five stunted
- Meat, milk, eggs, fish have micronutrients for growth - in many regions, animal protein only way
- 12 zoonotic diseases sicken 2.5 billion people each year and kill 2.7 million people

**Livelihoods**

- Livestock production employs 1.3 billion people - 600 million poorest households keep livestock
- Positive effects on economies and rural livelihoods from animal production
- Livestock = 40% of agricultural output in developed countries, 20% in developing countries
- Protecting animals against illness (vaccination, veterinary access) = protects life + livelihoods

**YES, BUT…**

'***There is enough food, it just needs to be better distributed'.*** Yes, buts its not being distributed better. It is better to enable people to produce their own food.

***'Avoid animal protein, consume plant-based alternative meat and milk'.*** Small market in rich countries only (and struggling recently). Health impact + environmental imprint concerns. Animal product consumption stable in 'west' (white meat up, red meat flatish).

'***We should grow food instead of feed***': Livestock convert plant materials (which people cannot eat) into nutritious foods. 86% livestock diet is grasses, leaves, oil seeds.

# Livestock disease and prevention

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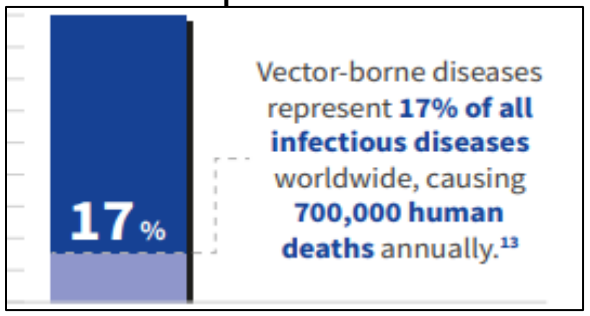
## Disease

- In 'normal' times, livestock is 'lost' to disease. 'Lost' means dead or suboptimal production
  - 2% in modern production facilities - up to 60+% in some developing countries
  - causes are disease, drought, infestation, conflict…

- **HPAI**: 500+ million dead birds (wild + farmed) = billions of costs = food price increases
- **African Swine Fever**: 700 million pigs lost (most in Asia)
- Mastitis, Rift Valley Fever, PPR, FMD, Brucellosis, etc.
- 3 out of 4 zoonotic diseases originate in wildlife
- Parasitic diseases (in livestock and pets) often forgotten…



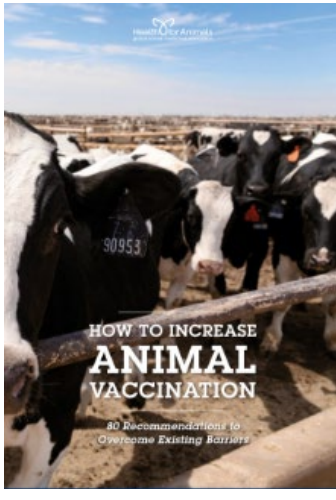

## Disease prevention

- On-farm: biosecurity, vaccines, feed, vet. access, analytics, preventative AB + parasite control

- Policies: surveillance/notification, border control, zones, preparedness

- Required: proactive drive for public/private leadership to increase vaccination

**Report: How to increase animal vaccination.**
80 recommendations for animal health community to overcome technical, political, regulatory, financial, societal hurdles to vaccination



# Sustainability

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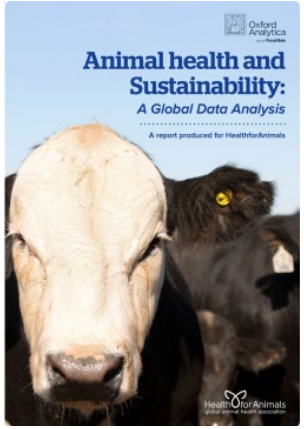
## Effect of climate change

- Farmers and animals exposed to climate change/warmer temperatures = disease spread
- People and animals more exposed to vector borne diseases (fe. Bluetongue spread in Europe)
- 5.8% or more of all GHG emissions from livestock/manure – needs more action
- FAO: "*wider adoption of existing best practices and technologies* in *feeding, health and husbandry, and manure management…could help global livestock sector cut its GHG emissions by as much as **30 percent**.*"

## Tools available

- **Animal health:** better care = less loss = more output with lower resources = more sustainable
- **Vaccination:** 40% global vax rate for cattle is associated with 5.2% reduction in land use
- **Feed additives**: existing products improve health. New methane-reducing additive = 30-45%↓




**Key results**

**Economic:** Livestock disease losses cause $358.4B in lost production per year

**Environment:** A fall in livestock disease of 10 percentage points is as sociated with an 800 million tonne decrease in greenhouse gas (GHG) emissions.

**Social:** Globally, on average, every two cattle vaccinated is associated with one person avoiding hunger

https://www.healthforanimals.org/wp-content/uploads/2023/04/Animal-health-and-Sustainability-A-Global-Data-Analysis-FINAL.pdf

# Human-animal bond

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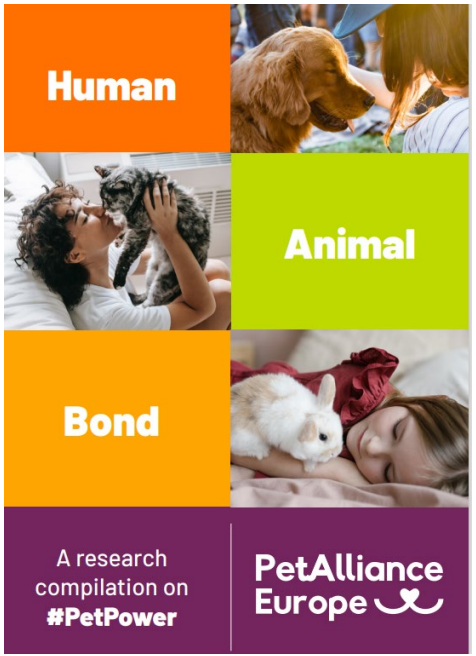
- Pets are good for human physical and mental health
  - decreased blood pressure
  - reduced risk of heart attacks
  - increased physical activity
  - increased sensory stimulation
  - emotional support
  - stronger sense of physical and psychological well-being
- Mutually beneficial and dynamic relationship between people and animals
- Positive economic impacts on healthcare systems

**Report provides numerous studies of the value of the human-animal bond**



# Changing pet realities

- From outside the house - to inside the house - to our beds
- Living longer: life expectancy risen by as much as 230% in some nations – due to more vaccination, veterinary care, improved awareness of needs
- Ageing pets can get: cancer, liver disease, diabetes, senility, osteoarthritis
- Fleas, ticks, worms remain common and continual issue for many pets
- Some parasites are zoonotic: parasites control is now 'household health'
- Veterinarians recommend: vaccinations, parasite control, prevention/early intervention, special nutrition, maintaining mobility + mental stimulation
- More and new pet products increasingly available: parasite control cancer, liver disease, diabetes, senility, osteoarthritis, also better diagnostics

**Report provides hundreds of data points and studies references.**


**HealthforAnimals.org/PetCare**

# Regulation and innovation

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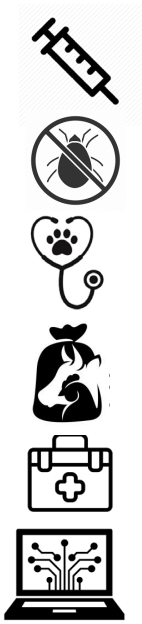
- Same regulatory requirements around the world (mostly) – '*good rules are good*' because they protect animals, consumers and keep substandard products off the market
- Meeting increasingly higher regulatory requirements makes it more expensive, and therefore less interesting to put certain products on the market
- Need to boost availability, especially for essential indications
- Good cooperation with many agencies about innovations and how best to regulate these



## Innovations

**Vaccination:** mRNA Vaccines, precision delivery, autogenous, and more

**Parasite Control**: 'Green' parasiticides, oral delivery, mRNA and more

**Diagnostics:** Artificial intelligence, microfluidics, and more

**Nutritional products:** Novel feeds, probiotics, phytogenics and more

**Antibiotics:** So-called alternatives, bacteriophages, nanotech, immunotherapies

**Digital Technologies:** Sensors, artificial intelligence, prediction tech and more

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# Thank you

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