Science-based policy making in animal health surveillance

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Health and Food Safety

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Key elements for EU animal health surveillance

- *Fit for purpose*
- *Cost-effective*
- *Risk-based*
- *Internationally accepted and compatible*

EU mantra or …?

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Challenges and needs for surveillance Commission's perspective from the risk management angle

- *Purpose and objectives*
- *Technical and scientific issues*
- *Sustainability*
- *Understanding surveillance*
- *New challenges*

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Purpose and objectives

- *Which is the real purpose?*
  - **To gather data for science/research?**
  - **To enable/facilitate risk analysis?**
- *Surveillance is a disease management tool*
  - **Should primarily be aimed to provide data for that**
    - Early detection
    - Freedom demonstration
    - …
  - **Should be integrated in a context of pre-defined priorities**

Surveillance programmes are tools of the veterinary services intended for animal disease management

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Technical issues

- *Design and sampling*
  - **Harmonised/comparable surveillance strategies and sample sizes**
    - How to ensure and to check for comparability?
  - **Sample size**
    - How to ensure that sample size is calculated in a simple and straightforward way
  - **Representativity is key (sometimes neglected)**
- *Addressing "different" diseases*
  - **Vector bone**
  - **Emerging, etc….**

The design of the surveillance programmes should be:
- understandable
- adapted for each type of disease
- robust

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Sustainability of surveillance

- *Priorities:*
  - **Who sets the priorities for surveillance?**
    - Governments? stakeholders?... which ones? trading partners?
  - **How to set the priorities?**
    - Decision trees for other purposes (control) could be not adapted to set priorities for surveillance
- *Affordability/sustainability:*
  - **Who should bear the costs?**
    - It is not always evident who benefits from surveillance, so stakeholders may not be willing to support
- *Communication*
  - **Surveillance systems tend to be complex and difficult to understand**
  - **Trust and support of farmers and trading partners could be limited**

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Understanding surveillance in the EU legislative framework

- *Compulsory (AI) vs. voluntary (EBL in DK)*
- *Active (TB skin test) vs. passive (TB meat inspection)*
- *In domestic animals (AI) vs. in wildlife (rabies)*
- *Public funds (AI) vs. private funds (PTB)*
- *Harmonised (AI) vs. not harmonised (Bru free MSs)*

- *…*

A lot of different surveillance programme are being implemented.

The picture is complex

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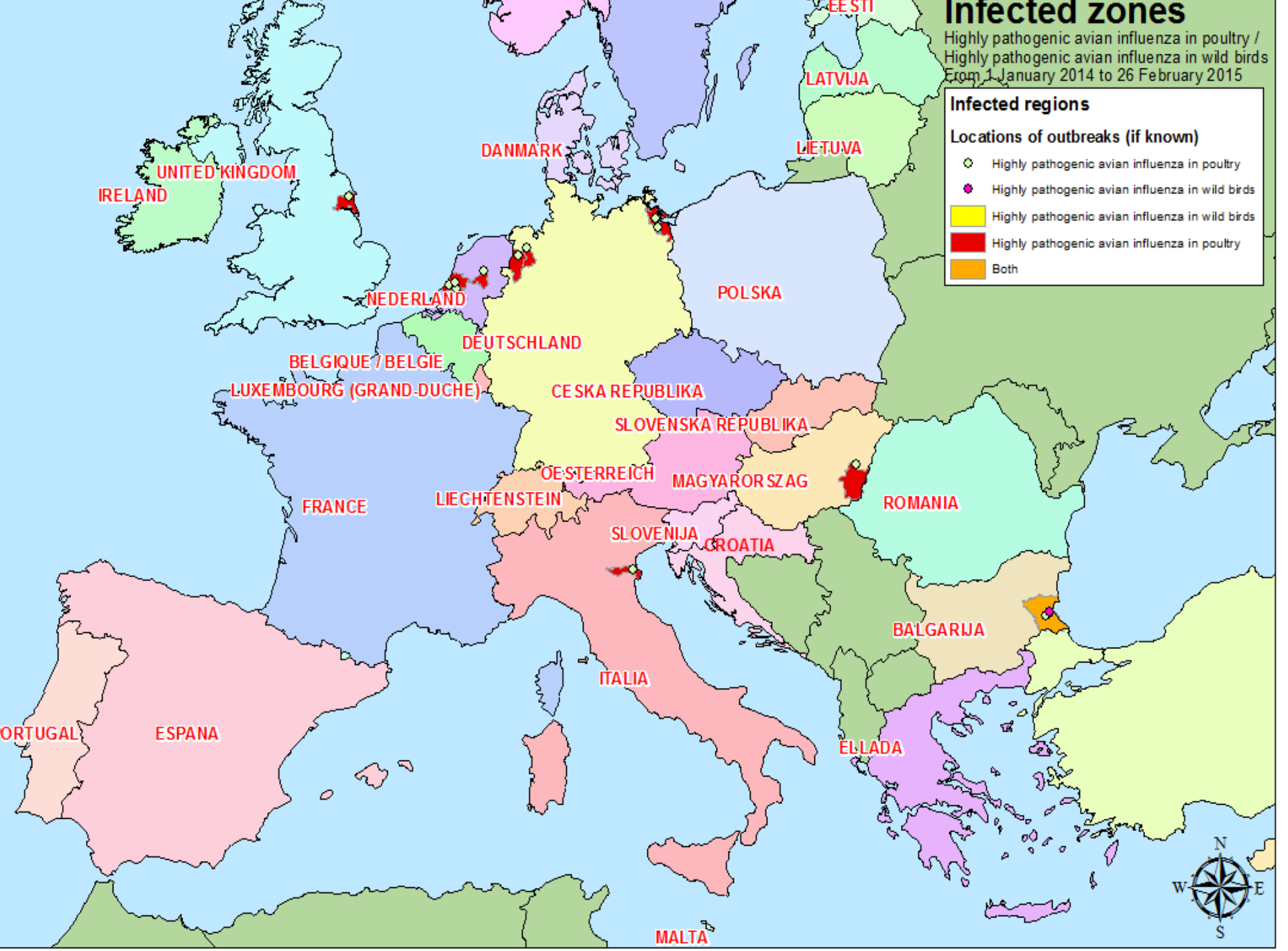
Actual questions

- *Active EU co-financed surveillance for AI in wild birds?*
- *To change post-mortem meat inspection system?*
- *Where and how much PEDv is in EU?*
- *How to collect data and who should be publishing on honey bee mortality and pathogens?*
- *Is the skin test the only to be used for bovine TB?*
- *How can EFSA process, use and publish data from member states for EU added value?*
- *…*


Infected zones
Highly pathogenic avian influenza in poultry /
Highly pathogenic avian influenza in wild birds
From 1 January 2014 to 26 February 2015
Infected regions
Locations of outbreaks (if known)
Highly pathogenic avian influenza in poultry
Highly pathogenic avian influenza in wild birds
Highly pathogenic avian influenza in wild birds
Highly pathogenic avian influenza in poultry
Both
EESTI
LATVIJA
LIETUVA
DANMARK
UNITED KINGDOM
IRELAND
NEDERLAND
POLSKA
DEUTSCHLAND
BELGIQUE / BELGIE
LUXEMBOURG (GRAND-DUCHE)
CESKA REPUBLIKA
SLOVENSKA REPUBLIKA
OESTERREICH
MAGYARORSZAG
LIECHTENSTEIN
FRANCE
ROMANIA
SLOVENIJA
HRVATSKA
BALGARIJA
ITALIA
ESPANA
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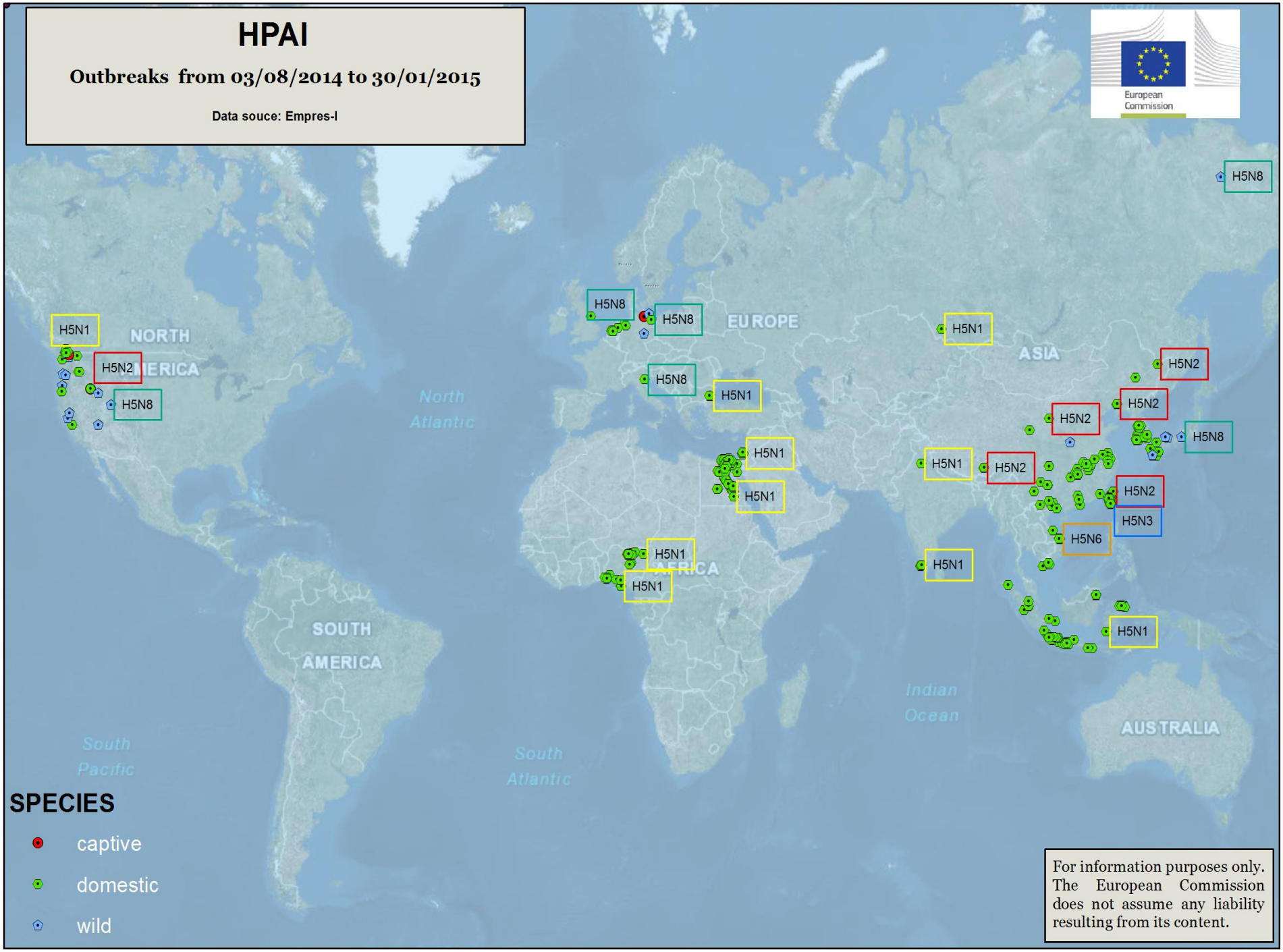
HPAI
Outbreaks from 03/08/2014 to 30/01/2015
Data souce: Empres-I
European Commission
H5N8
H5N1
NORTH
H5N2
H5N8
North Atlantic
H5N8
H5N8
EUROPE
H5N8
H5N1
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ASIA
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H5N2
H5N3
H5N6
H5N1
H5N1
SOUTH
AMERICA
Indian
Ocean
AUSTRALIA
South
Pacific
South
Atlantic
SPECIES
captive
domestic
wild
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AI surveillance

- *EU wide in poultry and wild birds*
  - **since 2003**
  - **risk-based**
  - **fit for purpose, affordable**
  - **clearly defined objectives**
  - **inform risk manager in order to trigger veterinary action**
  - **appropriate to species and poultry production systems**
- *Wild bird surveillance*
  - **EFSA/EURL recommend active & passive**

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New challenges on surveillance

- *One Health*
  - **Are we prepared to set surveillance schemes in this framework?**
- *Surveillance and the new animal health concepts*
  - Compartments
  - Regional/national/wider geographical scope: representativity and sample size
- *Research*
  - **Do we need new tools for surveillance on the "classic diseases"?**
  - **Emerging diseases: how to design surveillance for diseases of we do not know the causal agent?**
- *Antimicrobial resistance*
- *Honeybees (mortality, pathogens and pesticide residues)*
- *Surveillance of welfare*

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History: CVO conclusions Spanish Presidency (Sevilla, April 2010)

- *Surveillance:*
  - **one of the key elements of any animal health policy,**
  - **giving priority to preventive approach, early detection and quick response**
  - **Need to strengthen this concept into the new Animal Health Law**
- *Two key issues to strengthen surveillance:*
  - **to lay down clear objectives and**
  - **to improve the surveillance design with the aim of generating reliable, transparent and accessible epidemiological data.**
- *Surveillance at EU level:*
  - **should be based on harmonized parameters and criteria (incl. definitions and laboratory methodologies).**

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CVO conclusions (2)

- *Cost-effectiveness ratio:*
  - **surveillance costs should be proportionate to its overall benefits**
- *Resources:*
  - **mixed surveillance systems to improve efficient use of resources - addressing several pathogens or disease syndromes**
- *Scientific advances:*
  - **modern epidemiological tools (e.g. risk analysis) and laboratory capability enable the design of more effective and efficient systems**

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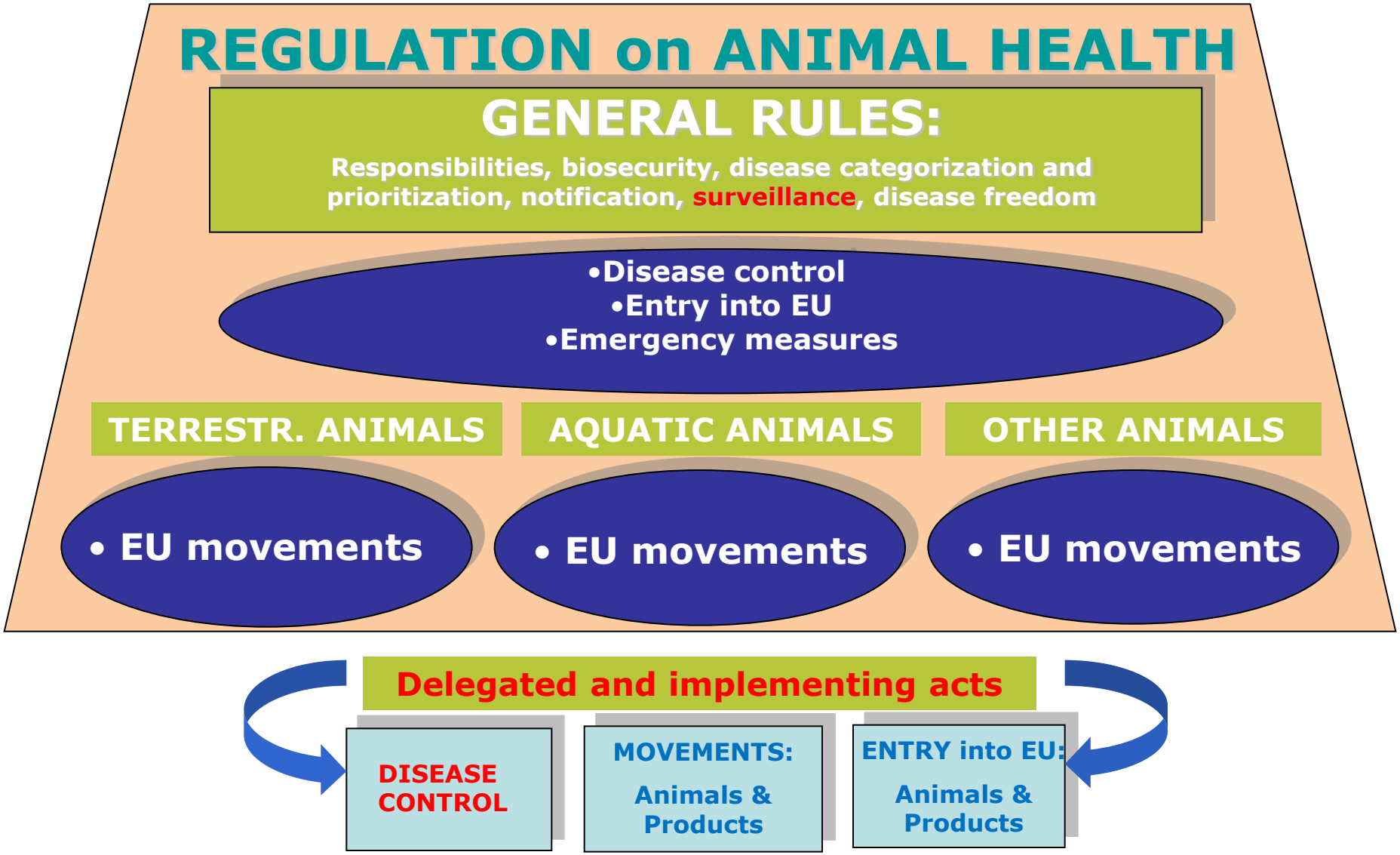
CVO conclusions (3)

- *Risk based surveillance:*
  - **considered a highly effective and efficient system used in EU**
  - **could be more efficient than traditional surveillance (higher sensitivity).**
  - **might have limitations and therefore must be well designed, correctly implemented, in particular if aimed at providing evidence of disease freedom**
- *International aspects:*
  - **coordination and two-way communication with international institutions and third countries to ensure safe trade,**
  - **the EU should take into account the surveillance systems put in place in both the EU Member States and third countries.**
- *Involvement of stakeholders:*
  - **training programs and periodical feedback for motivation and the commitment of stakeholders**


REGULATION on ANIMAL HEALTH
GENERAL RULES:
Responsibilities, biosecurity, disease categorization and prioritization, notification, surveillance, disease freedom
•Disease control
•Entry into EU
•Emergency measures
TERRESTR. ANIMALS
AQUATIC ANIMALS
OTHER ANIMALS
• EU movements
• EU movements
• EU movements
Delegated and implementing acts
DISEASE CONTROL
MOVEMENTS:
Animals & Products
ENTRY into EU:
Animals & Products

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Surveillance in the Animal Health Law: the principles

- *Surveillance is a new, central element of the new AHL*
- *Surveillance should be:*
  - **Flexible, robust**
  - **Fit for purpose**
  - **Cost-effective; linked to disease categorisation**
- *Provide links between preventive approaches:*
  - **Surveillance and biosecurity**
- *Proposed approach:*
  - **Combination of minimum requirements + guidelines**

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Surveillance in the Animal Health Law: the elements

- *Early detection and notification of diseases*
- *Surveillance principles*
  - **Risk-based surveillance – with caution (surveillance informed by risk assessment)**
- *Surveillance network is a general framework*
  - **Veterinary services always involved in surveillance but not necessarily implementing it**
  - **Laboratory investigation is only one component of the programme**
  - **Stakeholders to be involved (incentives)**

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Own chapter on surveillance

COM(2013) 260 final

- *Article 22-24: operators' obligation, visits*
- *Article 25: competent authority's obligation*
- *Article 26: methodology, frequecy, intensity*
- *Article 25: surveillance programmes*
- *Article 28: delegated powers*
- *Article 29: implementing powers*

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Framework for the pre-defined priorities

Article 25
The competent authority's obligation for surveillance

1. The competent authority shall conduct surveillance for the presence of listed diseases referred to in Article 8(1)(e) and for emerging diseases.

2. The surveillance shall be designed to ensure the timely detection of the presence of the listed diseases referred to in Article 8(1)(e) and emerging diseases by collecting, collating and analysing relevant information relating to the disease situation.

3. The competent authority shall ensure that the surveillance information provided for in paragraph 1 is collected and used in an effective and efficient manner.

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All the important details

Article 28

Delegation of powers

The Commission shall be empowered to adopt delegated acts in accordance with Article 253 concerning:

(a) the design, means, diagnostic methods, frequency, intensity, targeted animal population, and sampling patterns of the surveillance as provided for in Article 26;

(b) the criteria for the official confirmation and case definitions of listed diseases referred to in Article 8(1)(e) and where relevant emerging diseases;

(c) requirements for surveillance programmes provided for in Article 27(1) regarding:

(i) the contents of surveillance programmes;

(ii) the information to be included in the submission of surveillance programmes in accordance with Article 27(2) and regular reports in accordance with Article 27(3);

(iii) the period of application of surveillance programmes.

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Progress of AH Regulation

- *Proposal by Commission in May 2013*
- *European Parliament*
- *Council*
- *Trilogues*
  - **From February 2015**
- *Delegated and implementing acts*
  - **After final rule adopted**
  - **Transitional period**
  - **Surveillance: 2017-…**
- *In the meantime*
  - **PAFF Committee for individual diseases**
  - **CVOs (if) for political messages and principles**

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Final message

- *Animal diseases surveillance is a key element of animal health policies*

- *Challenges:*
  - **Purpose/objectives of surveillance**
  - **Technical/scientific issues related to surveillance**
  - **Sustainability of surveillance**
  - **Understanding surveillance**
  - **New challenges on surveillance**

- *To address challenges there is a need for better understanding and integration of*
  - **Science**
  - **Risk assessment**
  - **Risk management**

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