

SRA Benelux , Brussels 14th March 2016

*Opening risk gouvernance with a
vigilance system:
lessons learned from the Blue Tongue
Virus outbreak in 2006*

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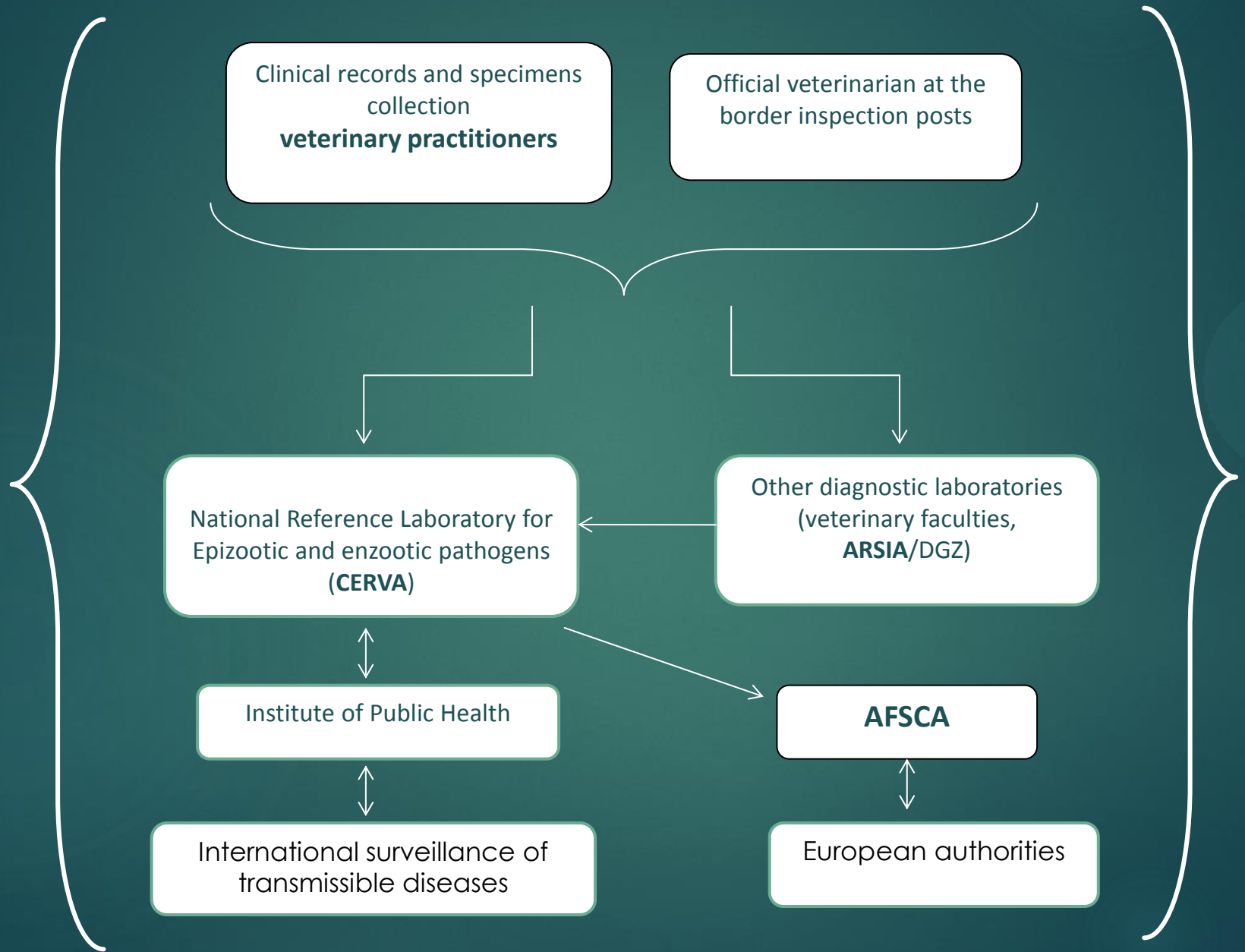
Plan

- 1) Ensuring public safety : Epidemio-surveillance in Belgium
- 2) Adapting the public safety regime to emerging hazards:
the BTV outbreak in 2006
- 3) A complementary approach : « vigilance »

1) Animal health : Epidemio-surveillance in Belgium

- ▶ Still a **federal centralized** political competence (including EU regulation)
 - a federal authority as independant agency : **AFSCA**
- ▶ A dense **knowledge** network
 - with the 2 universities
 - and the 2 federal centers for animal health (CERVA) and human health (ISP)
- ▶ A **liberal local network**, between the individual producer (farmer) and the vet, with the resource of farmers associations and resource centers

Animal and zoonotic
Infectious diseases



Surveillance on life animals

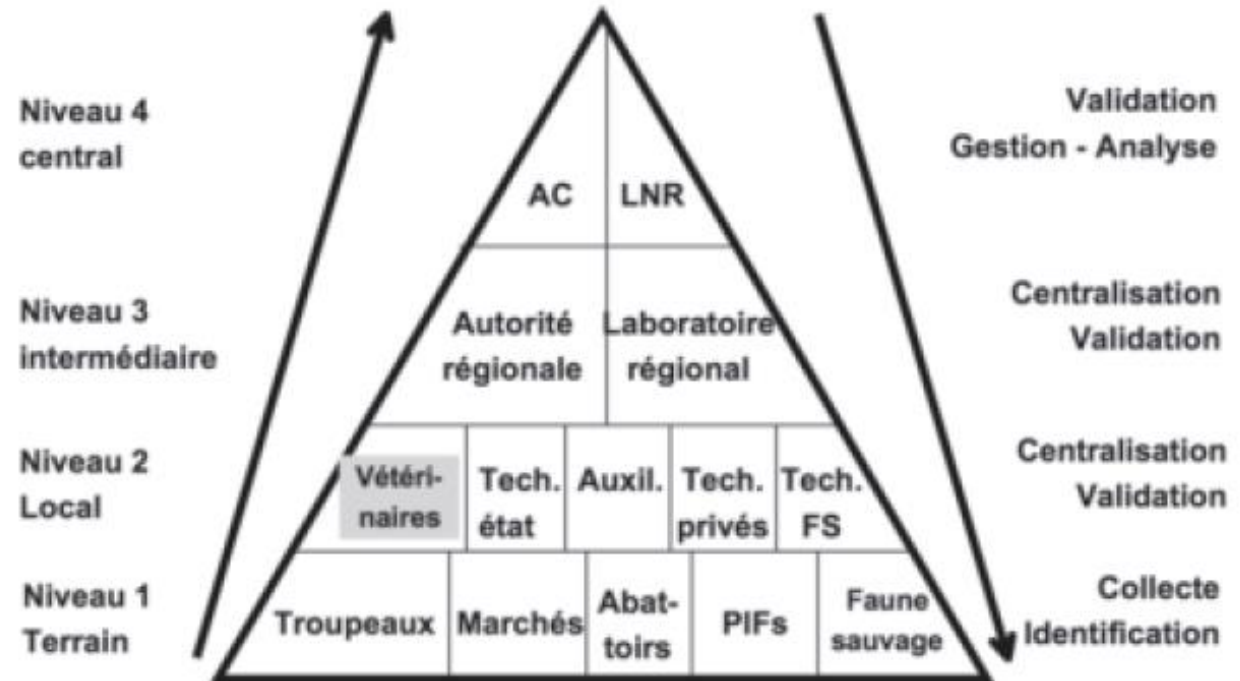
The dynamics of monitoring regimes :

Monitoring emerging diseases is mainly based on the knowledge of farmers and local vets. This was very true in 2006, during the emergence of FCO in Belgium

« Un réseau généralement standardisé, formalisé à travers des protocoles et hiérarchisé pour assurer la circulation verticale des données et des informations, des praticiens et laboratoires vers les unités de contrôle »

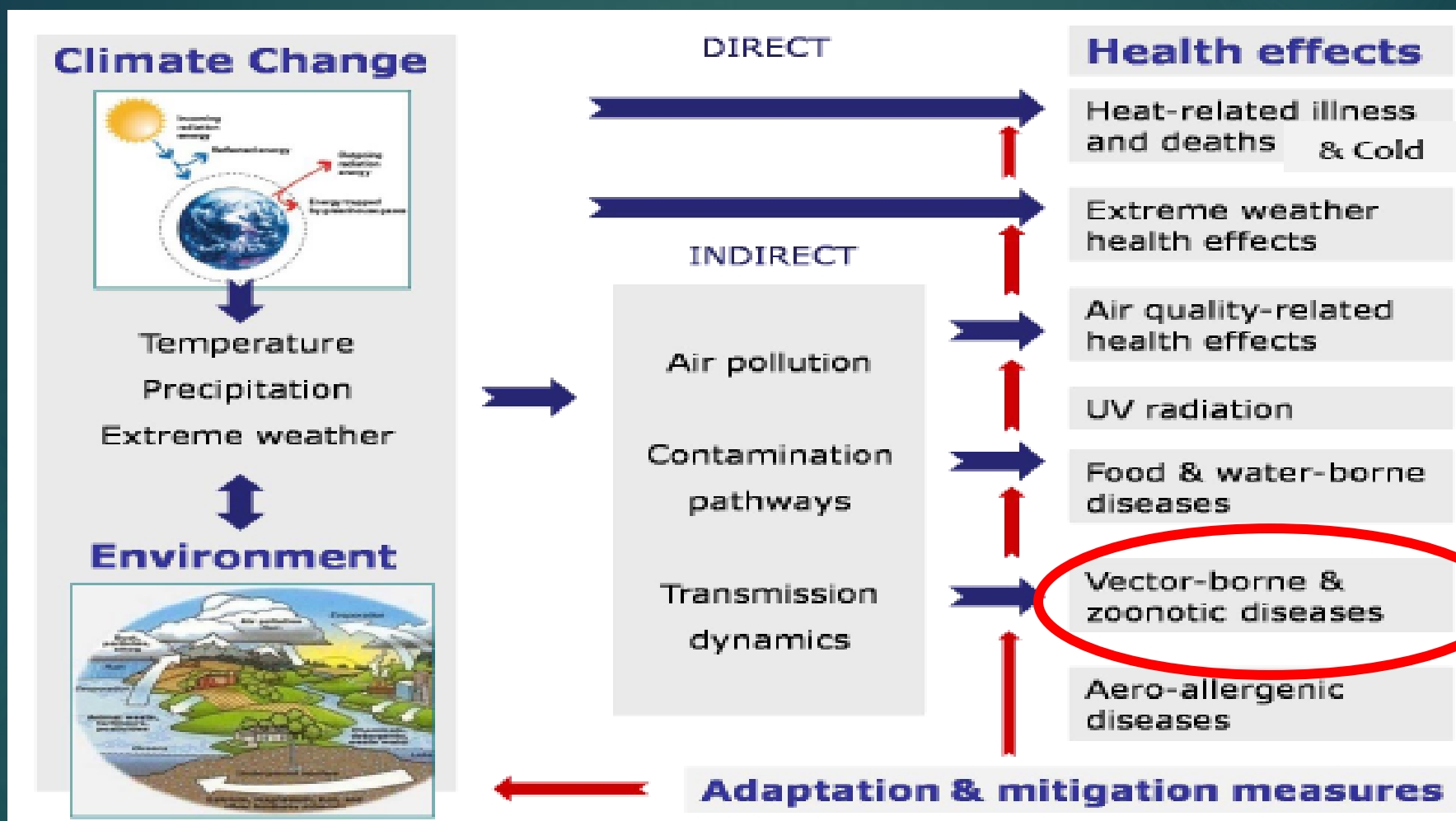
E. THIRY - A. MAUROY - B. MUYLKENS - B. PLOUVIER - A. SCIPIONI - C. SAEGERMAN

Figure 1 : Le schéma de l'épidémiosurveillance. Le vétérinaire praticien en est un élément essentiel (PIFs : postes d'inspection frontalière ; Tech. : technicien ; auxil. : auxiliaire ; FS : faune sauvage ; AC : autorité compétente ; LNR : laboratoire national de référence).



Health impacts of climate changes

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Risk factors for vector-borne viruses as emerging pathogens : climate change (migration patterns of birds and wildlife, vector population, landscape), human activities (landscape, human international movements), trade, virus genetic mutations.

→ 2) Research issue : how does the surveillance regime adapt to emerging diseases ?

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Emergence as an expected scenario :

where is FCO ?

How to develop BTV vaccines?

How to control vector populations ?

▶ **Learning from the past** : exotic vectors on sheep

▶ **Learning from current trends** : BTV identified; not a very important target

→ No incentive to « **sortir du canal d'alerte automatique** » (Chateauraynaud et Torny, 1999)

→ **Adopt counterproductive behavior patterns**

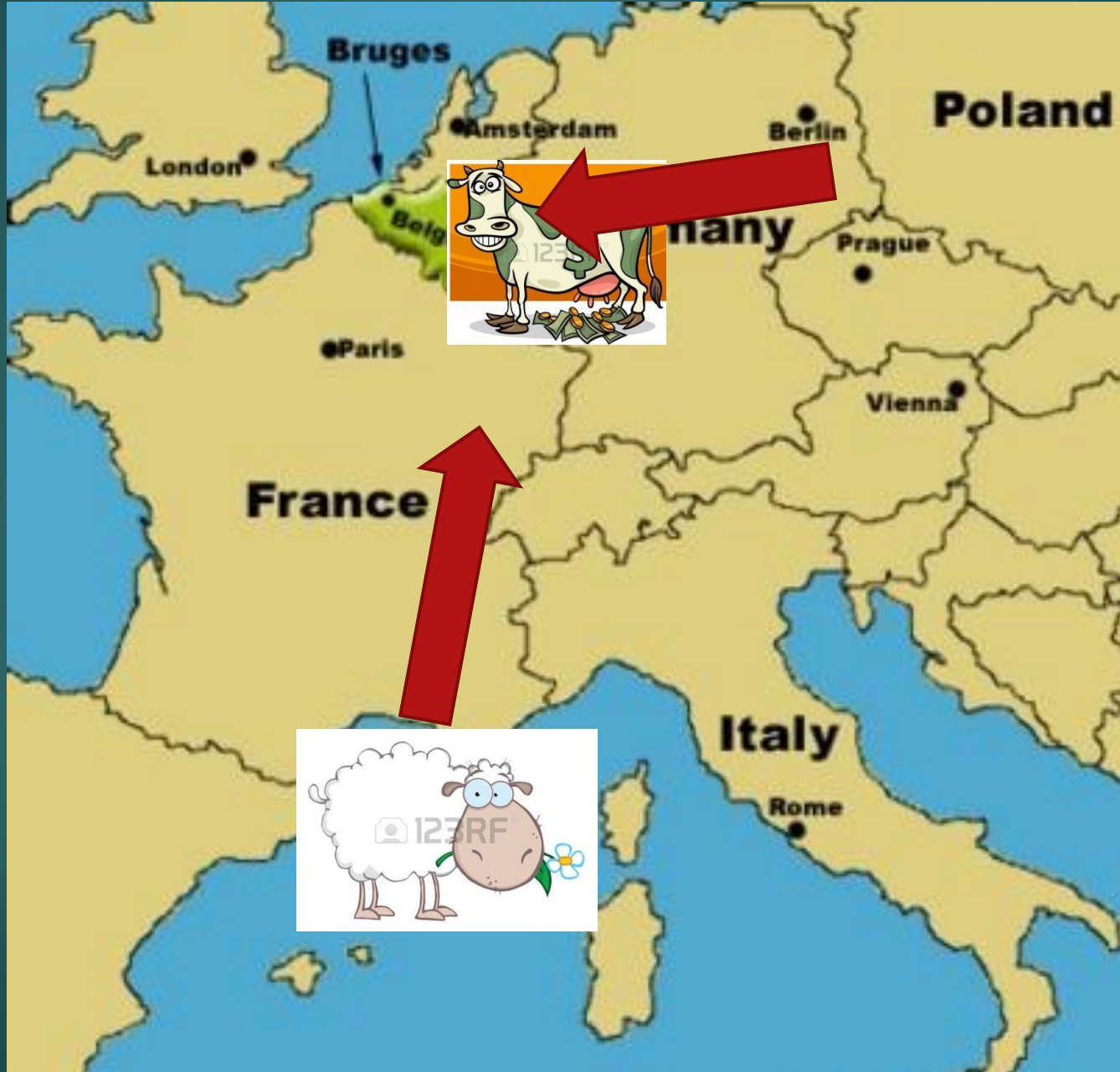
The FCO case

EU directive (2000): a notifiable disease

Belgian regulation (2001):

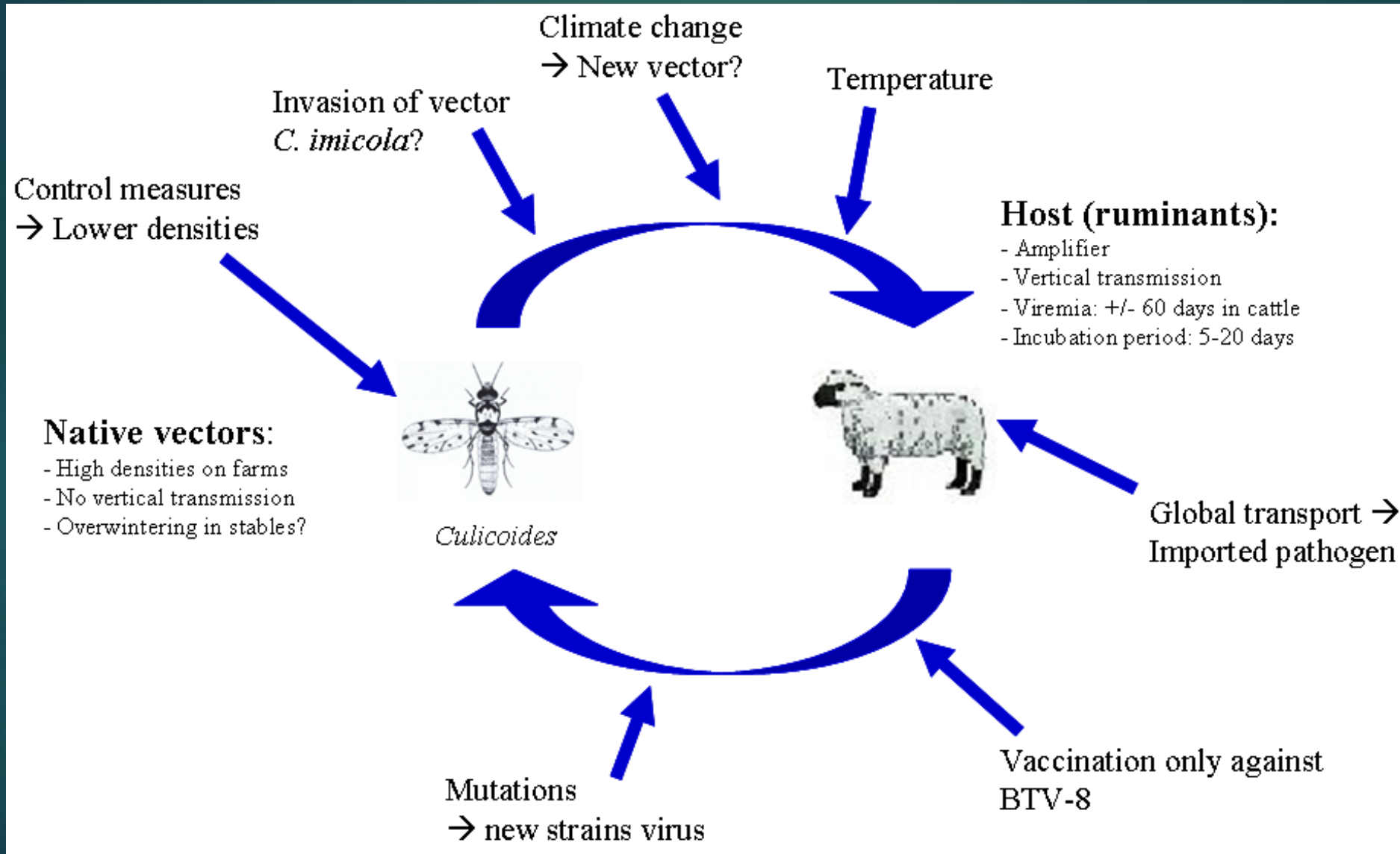
- Inform the authorities
- Kill and destroy the animals (€)
- Launch a research programme at CERVA on the BTV

« La maladie n'existe pas encore chez les ruminants mais elle existe déjà dans les règlements, le laboratoire de référence et dans la liste des MDO dont chaque vétérinaire agréé est censé avoir connaissance. »



Case study: Bluetongue viruses (2006)

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Case study: Bluetongue viruses (2006)

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Surveillance and control	Problems encountered	What could be done for a better reaction ?
Patterns of bovine-FCO not referenced in the list : no clear regulatory frame → uncertainty	Avoid AFSCA;	How to encourage the distribution of information ?
FCO control : kill the infected animals	Economic interest of both partners	Adapt the control measure to the sector : ensure vertical communication
Looking for information	How to access the expertise ? How to organise the cooperation with a " imperative of suspicion "	Create a forum with the reference experts (Cerva / ARSIA / universities) and fed through the field vets.

The concept of "**vigilance**" is based on a new articulation between administrative management and local competencies - the latter are mobilised by first line experts such as GPs, Vets, or farmers

3) A vigilance attitude : learning in a “living lab”

- A “*living lab*” place : organising a place for cooperation rather than competition, supporting trust, by developing networks and informal contact points between managers and local actors
- A “*living lab*” attitude : sharing knowledge from different perspectives → think “out of the box”
- Avoiding power positions and organising a form of leadership supporting a “problem solving approach”
 - Avoiding a hierarchical structure
- Working with scenarios : multidimensionnal; complexity; context based ; participatory;

While maintaining a good"vigilance system

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- ▶ **Simple**: the network should be perceived as simple by the first line actors who feed it
- ▶ **Data quality**– analyse the lacking or incomplete data (mistake in reporting by the first line actors)
- ▶ **Acceptability**: what is the motivation of the first line actors to partake in the functioning of the network? Why are they reluctant to report?
- ▶ **Sensitivity / Selectivity**: Can the network detect an emerging disease?
- ▶ **Representativeness**: the network can give a good image of the situation of the diseases
- ▶ **Rapidity**: what is the time span between the different steps in the reporting process?
- ▶ **Stability**: is the network reliable and operational?

A vigilance system : the MoSS

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A Web-based application for the early detection of (re)-emerging animal diseases where :

- Veterinary practitioners are encouraged to enter a clinical description of any atypical case they encounter
- All records are compared with each other and are aggregated through a hierarchical clustering process when they show a similarity of at least 55%.
 - Act as focal point to share information between veterinary practitioners and experts, the MoSS should help to shorten the time between the onset of disease and the identification of the causative agent.
- The MoSS is redundant with the list of obligatory declaration
 - is risky as it can lead to more confusion

(ref/ Behaeghel, I. et al., at CODA-CERVA)

Conclusion :

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- Is it possible to merge surveillance and vigilance ?
- The answer should be institutional as well as organizational, and context sensitive
- Are the actors ready to open their networks and to settle new modes of cooperation ?

Thank you for your attention

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