



Australian Government  
Department of Agriculture,  
Fisheries and Forestry

# Biosecurity threat: 2022 in focus

Dr Beth Cookson  
Deputy Australian Chief Veterinary Officer  
9 November 2022



The situation

# Global bio *in*security?

## Lumpy Skin Disease confirmed in Sumatra, raising alert for Australia

Dr Ross Ainsworth, 03/03/2022

The Indonesian government last night signed off on an Emergency Declaration following confirmation that Lumpy Skin Disease (LSD) has been identified in Sumatra, increasing the risk of the disease entering Australia.

The international animal health agency (OIE) is also being notified.

Lumpy skin disease is a viral disease of cattle and buffalo that can cause painful skin lesions, fever, watery eyes, loss of



**African swine fever:**  
**An unprecedented global threat**  
 A challenge to livelihoods, food security and biodiversity  
*Call for action*

**African swine fever still a threat**

## Thousands of birds killed amid 'biggest ever outbreak of bird flu in Britain'

By James Ashworth  
 First published 6 January 2022



The 'biggest ever outbreak of bird flu in Great Britain' has been blamed for killing thousands of birds in the UK.

Wild and captive birds across the country have died or been killed as a result of the virus, with climate change suggested as having increased the severity of the outbreak.

A conservation success story on the Scottish and English border has been dealt a major blow in recent months after 4000 barnacle geese died as a result of bird flu.

Just a few hundred of the geese remained in the Solway Firth, but following intensive campaigning and changes to the law their numbers **increased to over 30,000**. Now the Royal Society for the Protection of Birds (RSPB) has said that up to 10% of the geese population have perished amid outbreaks of bird flu across the four nations of the UK.

**The World Organisation for Animal Health (OIE) calls for increased surveillance of avian influenza as outbreaks in poultry and wild birds intensify**

Press Release

AUSTRALIA VOTES Keep up with the latest from the campaign trail in our federal election live blog

### Foot-and-mouth fears for Australia as Indonesia grapples with outbreak

ABC News / By Daniel Fitzgerald and Warwick Long  
 Posted Fri 13 May 2022 at 5:48am, updated Fri 13 May 2022 at 7:14am



Foot-and-mouth disease outbreak in Indonesia. (Source: Sputnik)



...read rapidly across the globe since 2018, and more than 3,000 of the virus coupled with the increased demand for New Year, has biosecurity authorities warning Australia in illegally imported

### Lumpy skin disease found in Indonesia, putting northern biosecurity on high alert

ABC News / By Daniel Fitzgerald  
 Posted Fri 4 May 2022 at 8:04am



Indonesia has confirmed the detection of lumpy skin disease on the island of Sumatra. (Source: DAIN/Reuters)

# The new biosecurity landscape



Continually & rapidly evolving situation



Multiple threats across different regions/countries & industries/sectors

Estimated probability of an LSD outbreak in Australia in the next 5 years

An estimated **3 to 4-fold increase** in the perceived probability of a LSD outbreak

March 2021

**8%**

(range: 0 – 22%)

Source: CEBRA structured expert judgment 20a21



Map: LSD outbreaks 2019 – 20 (OIE)

April 2022

**28%**

(range: 4 – 56%)

Source: CEBRA structured expert judgment 2022

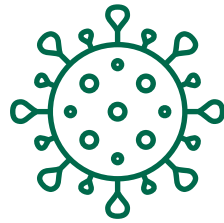


Map: LSD outbreaks 2021 – 22 (OIE)

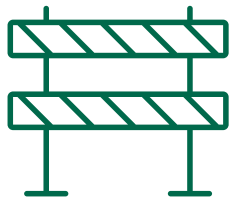
## The drivers



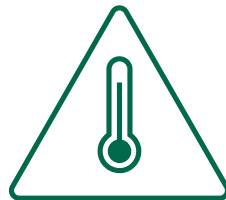
A world of biosecurity connections  
(regional outbreaks)



A world recalibrating  
(COVID-19)



A fractured & uncertain world  
(geopolitics)



A world of extremes  
(climate change)

## Risk pathways



Regulated goods and people movement:  
increased quantity &  
more complex

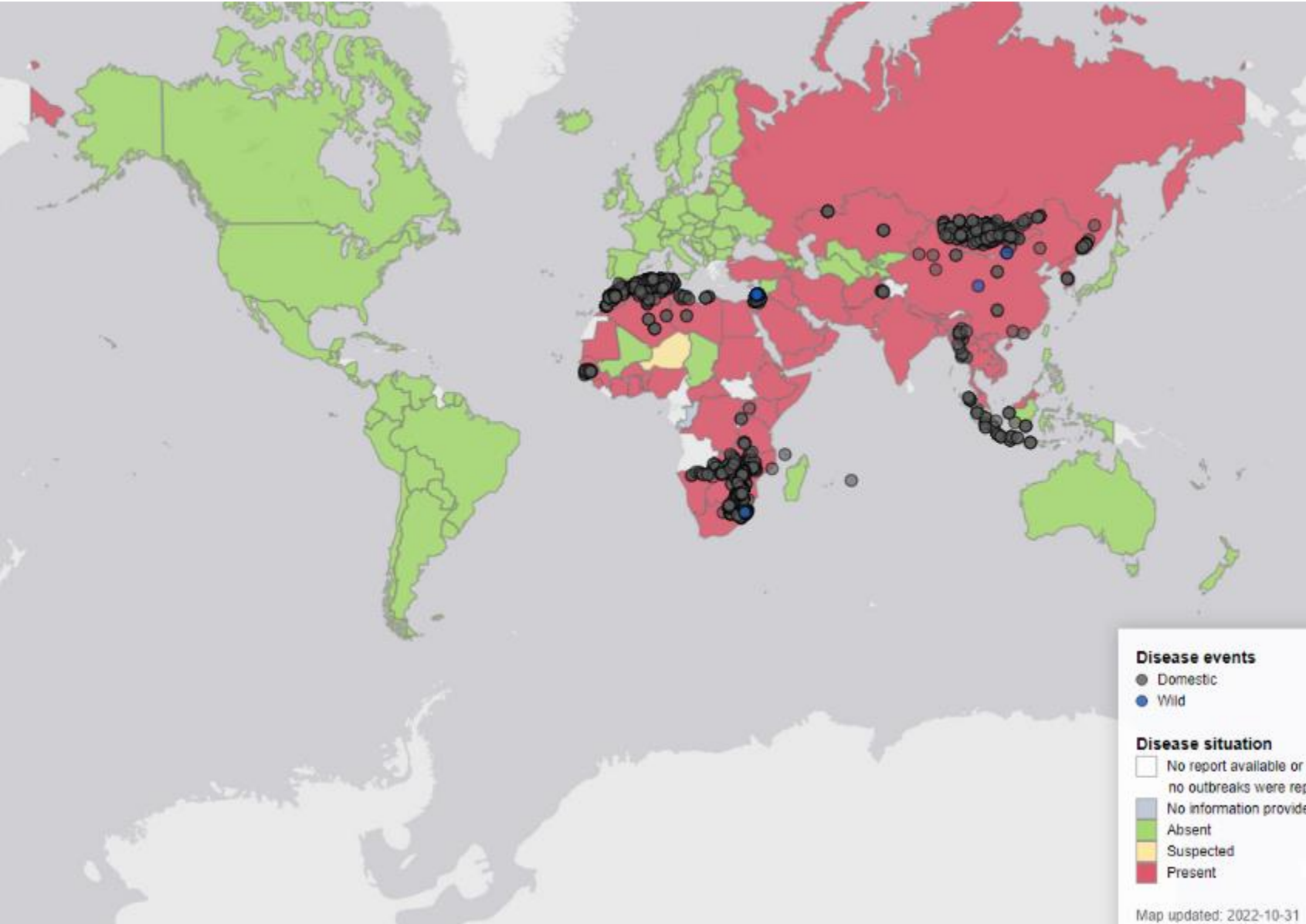


Unregulatable natural pathways:  
greater threat reflecting the current  
regional situation



Illegal activities  
(intentional or non-intentional):  
continued vigilance essential

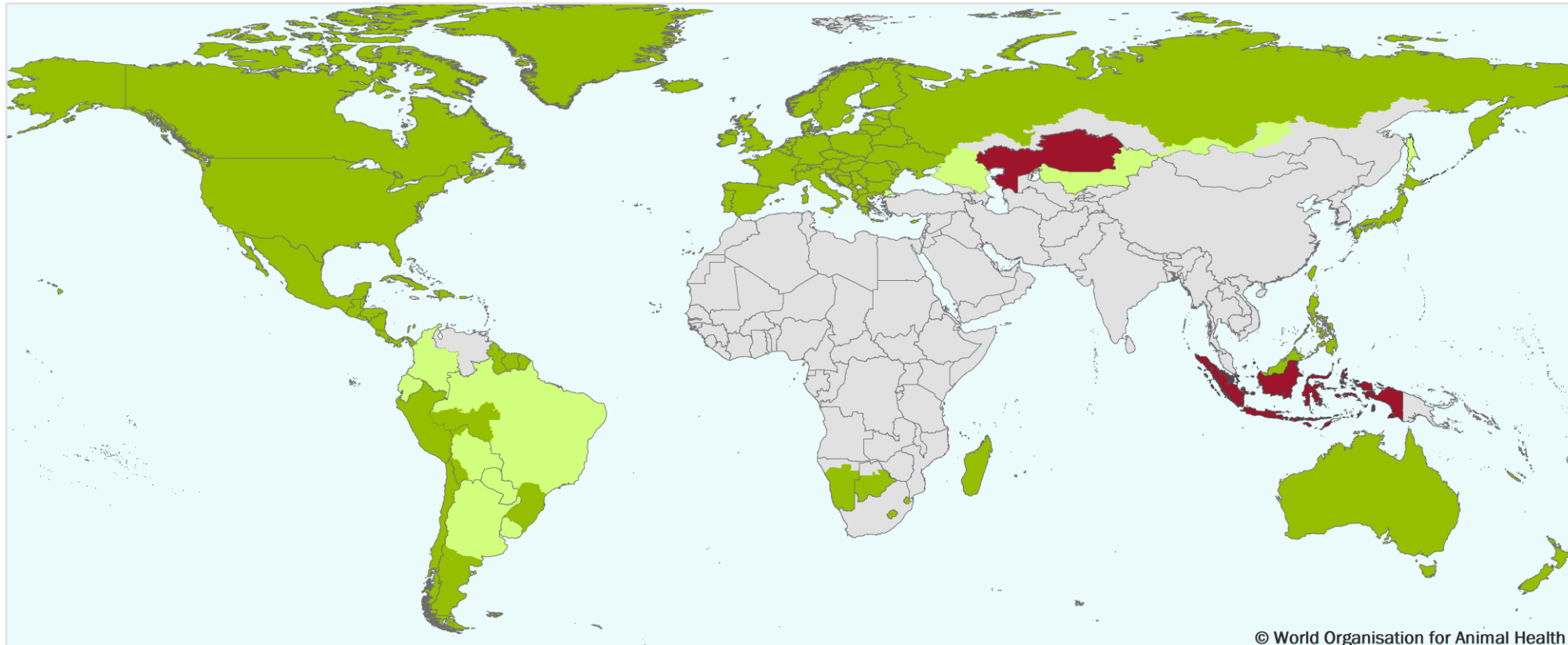
# Foot-and-mouth disease





# Foot-and-mouth disease



## WOAH Members' official FMD status map

Last update September 2022



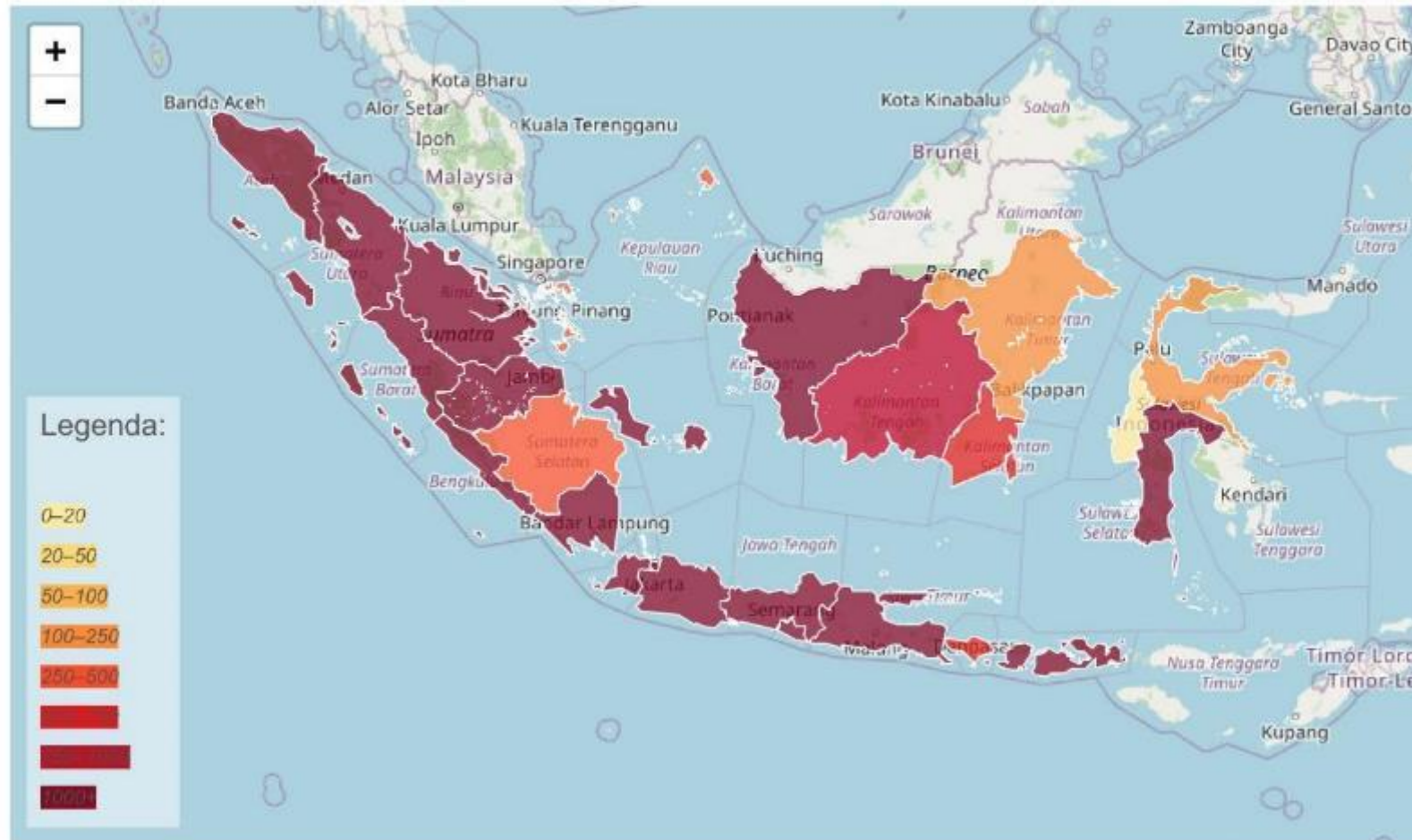
© World Organisation for Animal Health

-  Members and zones recognised as free from FMD without vaccination
-  Members and zones recognised as free from FMD with vaccination

-  Countries and zones without an official status for FMD
-  Suspension of FMD free status

# The current situation in Indonesia: Foot and mouth disease

Peta Density Kasus Penyakit Mulut dan Kuku Nasional Tahun 2022





# Lumpy skin disease



# The current situation in Indonesia: Lumpy skin disease

Peta Density Kasus Lumpy skin disease Nasional Tahun 2022



Hasn't spread as quickly as we thought. Under reported?

Vaccination rollout is slow.

FMD response is a higher priority for Indonesia

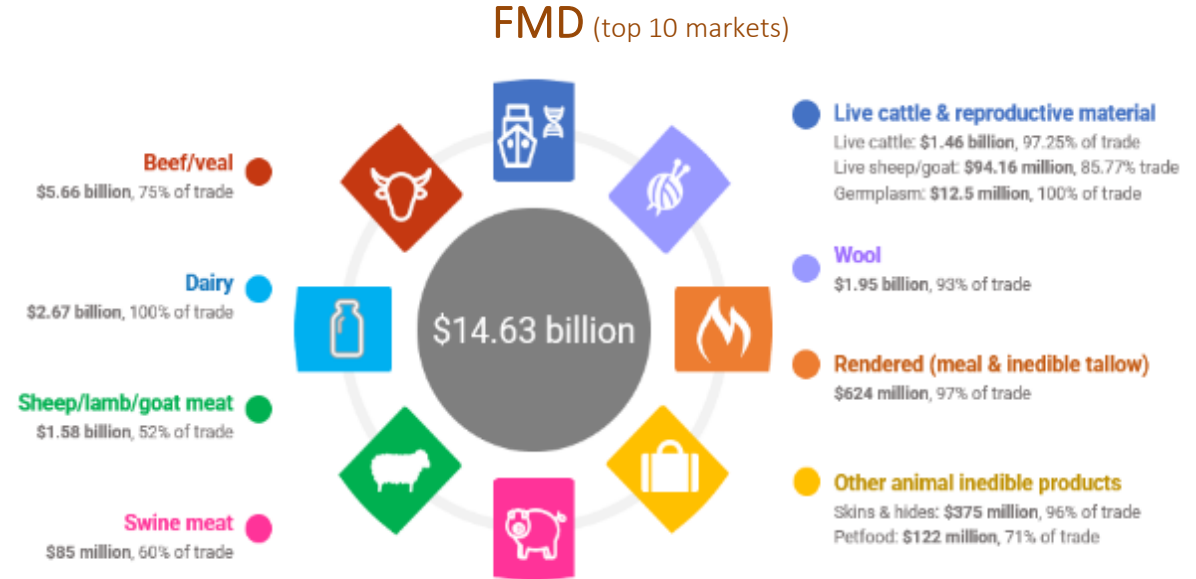
# The implications & response

# Trade implications

## Predicted impact on exports



Options can be considered pre-emptively to minimise trade impact



Options limited for pre-emptively minimising trade impacts

**Prevention is key.**

**Efforts must be made to strengthen Australia's ability to rapidly respond to, and eradicate, any outbreak**

Nicola Hinder – A/g Deputy Secretary  
Agricultural Trade Group





## National lumpy skin disease action plan

- Released by Senator the Hon Murray Watt, Federal Minister for Agriculture, Fisheries and Forestry 13 October 2022
- 8 objectives, 27 activities
- Government and industry consultation
- Northern Australia Coordination Network \$4.33M over 2 years



International engagement



Preparedness & response



Border biosecurity & trade



Awareness & communications



Diagnostic capability



Research & innovation



Surveillance



Recovery



## Advocacy & relationships





**Capacity building & technical expertise**



# Vaccines





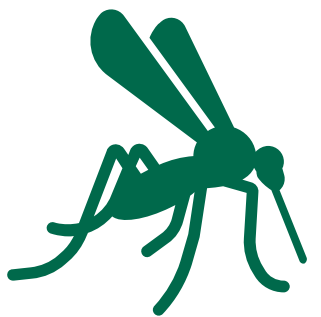




## Preparedness & response



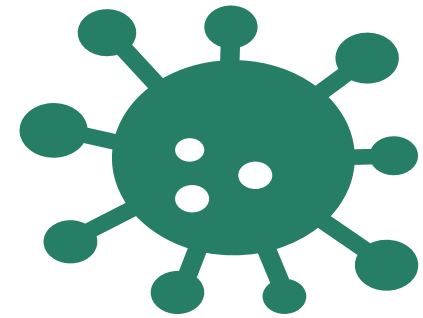
**Vaccine**



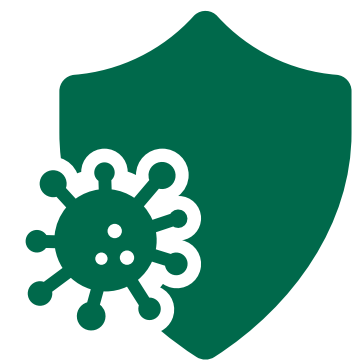
**Vectors**



## Research & innovation



**Live virus research at national laboratory/CSIRO**



**New vaccines?**

The challenges, priorities & new paradigms



# Challenges, priorities and new paradigms

## FMD

- \*Speed & scale of response
- \*Social licence – staying the course
- \*Traceability

## LSD

- \*The unknowns – vectors/vector control, modelling to predict disease spread and test containment and vaccination strategies
- \*Vaccines - registration processes, investment in new vaccine technologies
- \*Advocacy within the region for control – the ‘forgotten’ disease?

““ Overall, the system is strong, in particular in prevention and mitigation, and the system is sound””

““ ..scale and speed of response required...would be significant and place considerable pressure on the system””

# Biosecurity readiness & leadership

## UK orders temporary control zone after suspected FMD cases



**The 10-kilometer zone was declared following suspicion of vesicular disease in pigs.**

Compiled by staff | Jun 24, 2022

Government officials in the United Kingdom are enforcing a temporary foot and mouth disease control zone, following suspected cases in pigs near Norfolk.

In an update on the website, the Animal and Plant Health Agency said, "Following suspicion of vesicular disease in pigs, and as a precaution to prevent the spread of disease, a 10-kilometer temporary control zone has been declared around a premises near Feltwell, Kings Lynn and West Norfolk, Norfolk.

All in a days work!



Thank you.