

Canada's National Compartmentalization Program (NCP) for African swine fever (ASF)

Dr. Egan Brockhoff (Canadian Pork Council)

Dr. Penny Greenwood (CFIA)



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Zoning & Compartmentalization

Zoning & Compartmentalization

Why we use these tools?

To establish and maintain different **subpopulations** with specific health status within a territory/country for the **purposes** of International Trade, Disease Prevention or Disease Control.

Zoning & Compartmentalization

Zoning (Regionalization)

- Applies to an animal **subpopulation** primarily defined on a **GEOGRAPHICAL** basis using natural, artificial or legal boundaries.

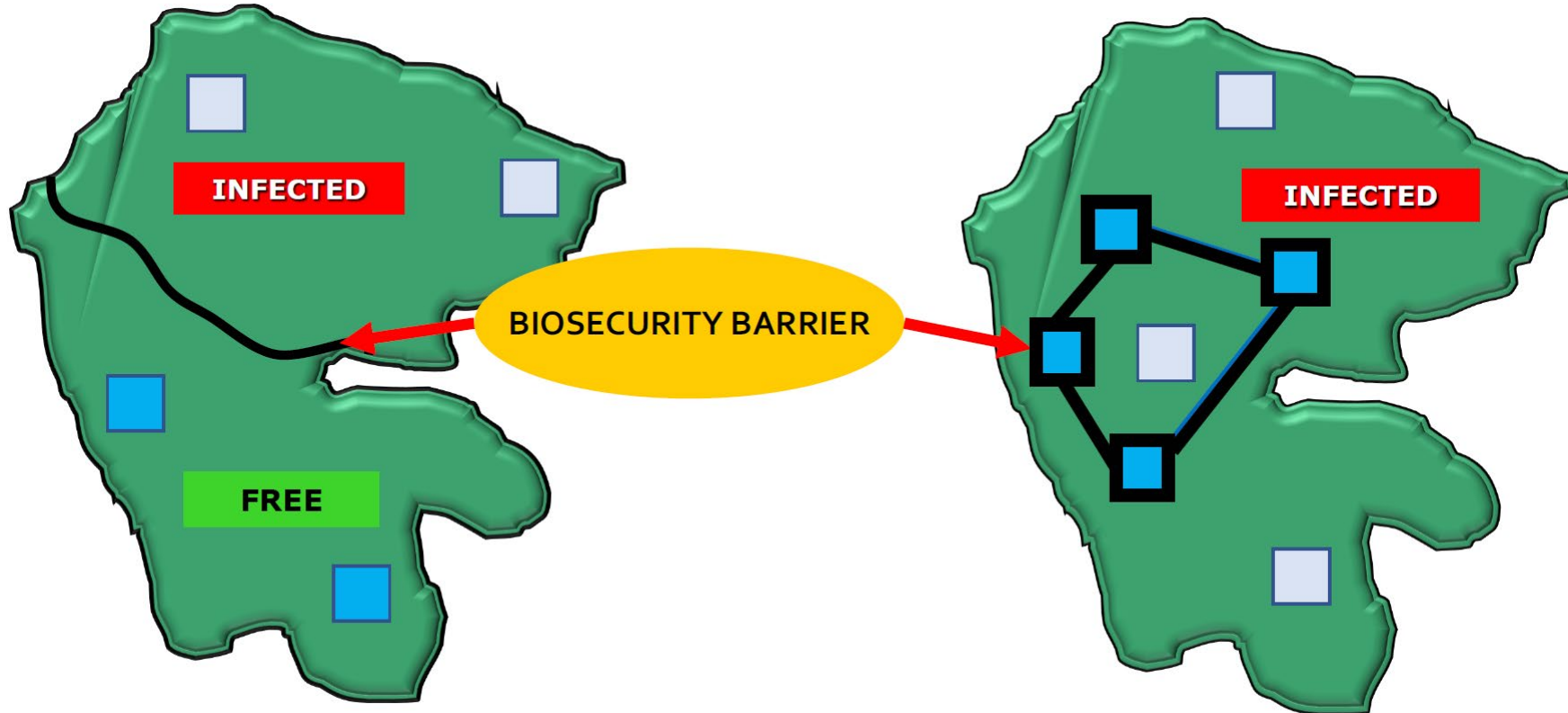
Compartmentalization

- Applies to an animal **subpopulation** defined primarily by **MANAGEMENT** and husbandry practices related to biosecurity.

Zoning & Compartmentalization



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National Compartment Program (NCP) - ASF



Compartmentalization is a Risk Management Strategy to

PROTECT BUSINESS CONTINUITY

Designed as if ASF was present

No changes required when disease occurs = zero down time

Established and Managed by the **PRIVATE SECTOR** under the supervision of the Veterinary Authority

Producer / Company's Choice

Rigorous requirements

NCP - Components

The National Compartment Program for ASF is made up of 3 components:

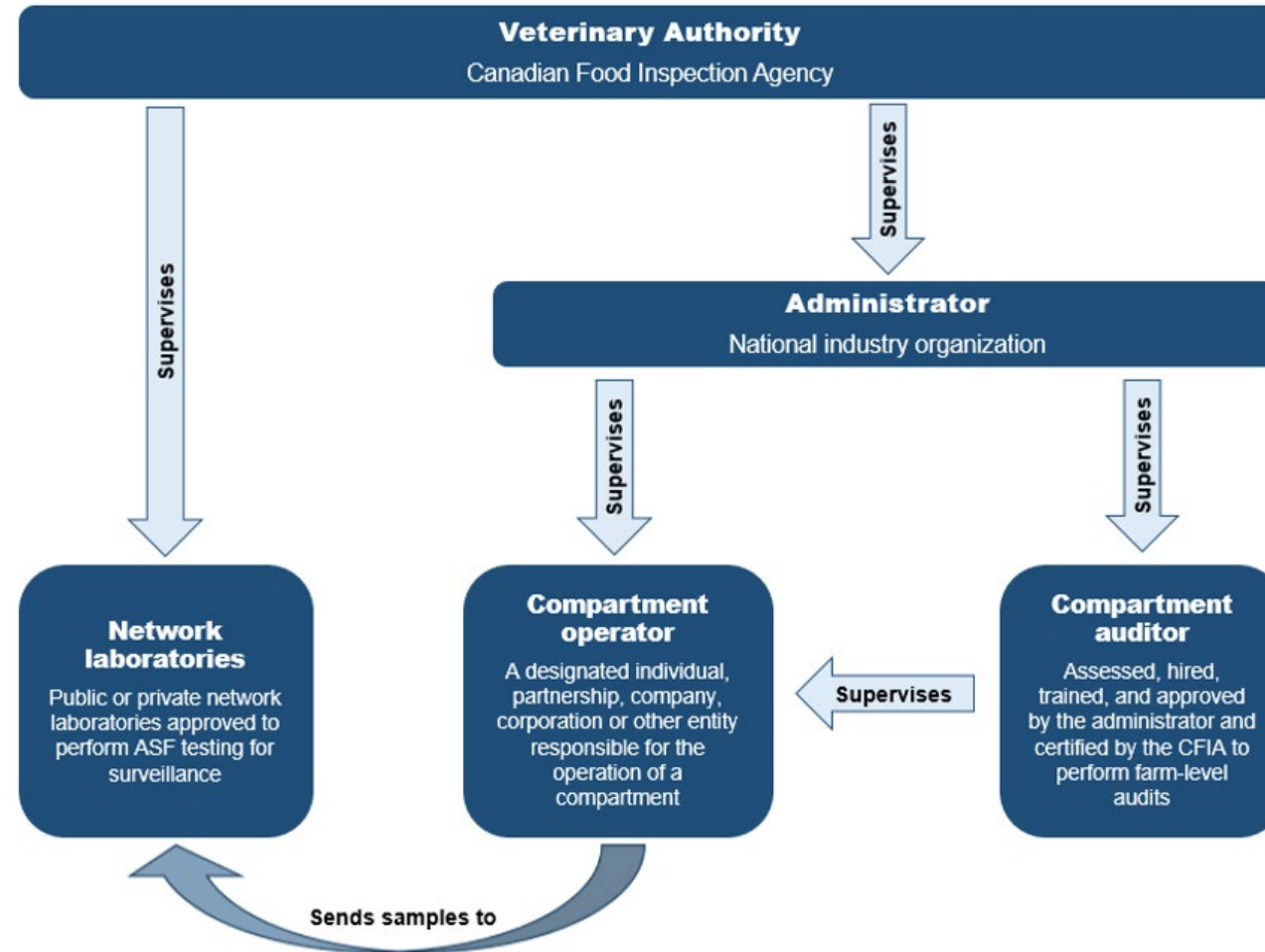
- The national standards (what)
 - Minimum national requirement
 - Pertain ONLY to ASF
 - The framework (who)
 - The compartment operator program (COP) (how)
 - Requirements designed by CPC
 - Can be broader and higher requirements than national standards
- Current consultation covers these 2**

NCP – Framework

NCP – Framework



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NCP Framework – roles and responsibilities



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CFIA

- Sets the national standards (annual review)
- Approves the administrator's operator level program as meeting the national standards
- Participates in the initial review of each compartment's surveillance plan and feed plan ***with CPC**
- Makes the final decision on approving a new compartment
- Makes final decision on any appeals of administrators decisions
- Assists in training and registers the 3rd party auditors for the operator level program ***with CPC**
- Makes decisions (with administrator) regarding critical non compliances
- Audits the administrator
- Regulates and enforces the national mandatory swine traceability system

NCP Framework – roles and responsibilities



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CFIA – cont'd

- Conducts a risk assessment of the NCP to present to trading partners
- Approves the laboratories that do surveillance testing
- Runs proficiency / QA program with approved labs
- Approves which tests (and sampling options) that can be used for surveillance testing
- Acts as reference lab to test any “non-negative” result from approved surveillance labs
- negotiating international recognition of the ASF compartment and endorsing export certification
- Publish list of qualified compartments (web)

NCP Framework – roles and responsibilities



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CPC

- Develops operator level program (farm, associated facilities, abattoir / processors)
- Receives and reviews entire compartment application and provides recommendation to CFIA re approval
- Trains, certifies third party auditors for all of the audits that are required within the program
***with CFIA**
- Makes decisions regarding responses to certain non compliances (eg. Critical)
- Reviews operators' annual report
- Enacts suspension or revocation of compartment
- Designs and implements an appeal process

NCP Framework – roles and responsibilities



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CPC

- Audits
 - Full document and physical audit of all premises and associated facilities upon application and prior to recommendation for CFIA to approve compartment
 - Full compartment audit annually
 - Annual audits of compartment associated facilities that are independent of any one compartment including:
 - Feed mills (have annual audits under ANAC program but may not be sufficient)
 - Truck wash facilities
 - Artificial insemination centers
 - Abattoirs / processors
 - PigTrace – system is subject to annual audits under agreement with CFIA

NPC – National Standards

NCP National Standards



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Biosecurity

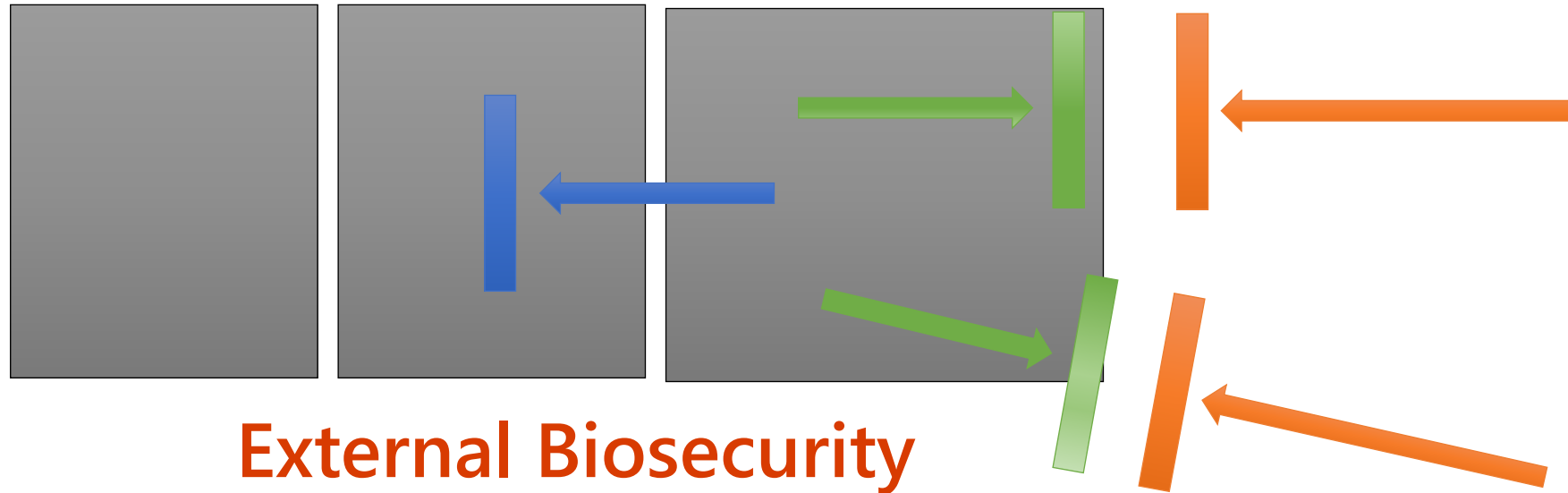
Surveillance

Traceability

Segregation

Biosecurity

National Standards – biosecurity



Biosecurity keeps Disease Out

Science Based focus on ASF Contamination Pathways and Mitigation Measures



National Standards – biosecurity

- Live pigs not from compartment
 - Isolation (quarantine) for ≥ 30 days; negative antigen detection tests 21 days or more after the start
 - Surveillance same as compartment (mortalities over threshold)
- Semen from outside compartment
 - AI center must be operated in a manner equivalent to the risk mitigation measures outlined in the silver protocol in the 2021 Canadian Swine Biosecurity Standard (CSBS) applicable to such an operation
 - boars must be collected, processed and stored in a CFIA approved AI center
 - All boars negative ASF antigen detection test on farm 30 days prior to pre-entry into isolation at an AI center approved by the CFIA
 - All boars negative ASF antigen detection test after 21 days in isolation at the center
 - All boars negative ASF antigen detection test each week.

National Standards – biosecurity

- Building
 - Standards currently only drafted for swine raised indoors
 - fully enclosed buildings with solid outer /perimeter walls on hard constructed slab or slatted floors and have a ceiling
 - Exterior doors solid, closed and when unattended locked
- Water
 - drilled wells – well head above ground
 - Hand dug wells or ground water source
 - water must be subject to a treatment that is approved by CFIA; appropriate monitoring
- Manure
 - No manure from outside the compartment maybe introduced

National Standards – biosecurity

- CAZ / RAZ
 - No fence requirement but CAZ limits must be signed
 - All persons entering the CAZ must don clean or dedicated footwear
 - All persons entering the RAZ must use a danish entry
 - All equipment entering the RAZ must be clean and disinfected with an agent validated to inactivate ASF at the appropriate concentration for the appropriate amount of time

National Standards – biosecurity

- Vehicles
 - Follow “silver” protocols in the 2021 updated Canadian Swine Biosecurity Standard (CSBS) or equivalent protocols
 - Pig transport vehicles that leave the compartment must be subject to cleaning, disinfection (with a disinfectant validated to inactivate ASF at the appropriate concentration for the appropriate amount of time) and dried prior to re-entry into the compartment
 - Drivers not permitted to enter the RAZ associated with the building structures of the compartment.
 - The compartment requires a well marked central repository outside of the CAZ for all service providers to deposit documentation in order to avoid them approaching the CAZ / RAZ.



National Standards – biosecurity

- People
 - Apply mitigation measures found in the “silver” protocols of the 2021 updated Canadian Swine Biosecurity Standard (CSBS) or equivalent protocols
 - Employees not residing on the premises are not permitted to raise or keep animals of the suis species (pigs) at their site of residence.
- Hoses from washer trailers
 - All equipment other than the trailer to be dedicated to the compartment
 - Disinfect the hoses / other equipment / people out of the RAZ
- Deadstock
 - Dedicated trailer; or
 - Minimum distance from the RAZ
 - Dedicated route into CAZ
 - Scheduling of pick up from compartments (1st in the day)
 - No non compartment pigs or pig parts in the vehicle that is picking up at a compartment
- Waste
 - Treated like other 3rd party vehicles

National Standards – biosecurity

- Feed
 - Enclosed storage
 - Only approved ingredients or registered feed
 - No ingredients of porcine origin as part of their formulation
 - Risk assessment of all pathways for introduction of ASF and mitigation steps for all of those pathway **(remember assumption!)**
 - Administrator and CFIA to approve assessment / plan

Surveillance

National Standards – surveillance



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Surveillance PROVES you have kept Disease Out

- Health Unit
- Mortality Threshold
- Future Considerations



National Standards – surveillance

- Each production stage of pigs (boars, lactation, gestation, nursery, grower, finisher) must be assigned to a separate health unit. A health unit can be defined as a pen, room, barn, site
- Outcome based plan submitted with initial application
 - analyzed by an epidemiologist or someone with knowledge of swine production and health using an epidemiological model and substantiate that the combination of all components of the individual farm level surveillance plan meets the prescribed outcome parameters
 - $\geq 95\%$ confidence of detecting the first unit of analysis within a specified time period (14 d)
 - $\geq 95\%$ confidence of detecting at least one infected animal within the health unit
 - Mandatory recording of daily mortality for each health unit is required. Lactating units must keep separate data for sows and piglets.
- Must develop and maintain a baseline mortality level for each health unit.



National Standards – surveillance

- During each and every individual 7 day observational time period the below must be sampled within 48 hrs and tested for ASF within 7 days:
 - 2 pigs beyond the mortality threshold (mortalities)
 - any pigs demonstrating clinical signs considered unusual or unexpected by the attending veterinarian (morbidity)
 - Any pigs being necropsied
 - with hemorrhagic lesions
 - died suddenly and for which the definitive cause of death is not determined on gross postmortem examination.

Traceability

National Standards – traceability



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- Premises Identification
- Movement Reporting
- Timeliness – 48 hrs



National Standards – traceability

Traceability

- samples and their associated ASF test results must be traceable back to the health unit of origin for which a mortality threshold was established and for which the threshold was surpassed
- Same as the national swine traceability regulations
 - Except reporting of info associated with receipt or sending pigs between different PIDs to PigTrace must occur within 48 hrs instead of 7 days

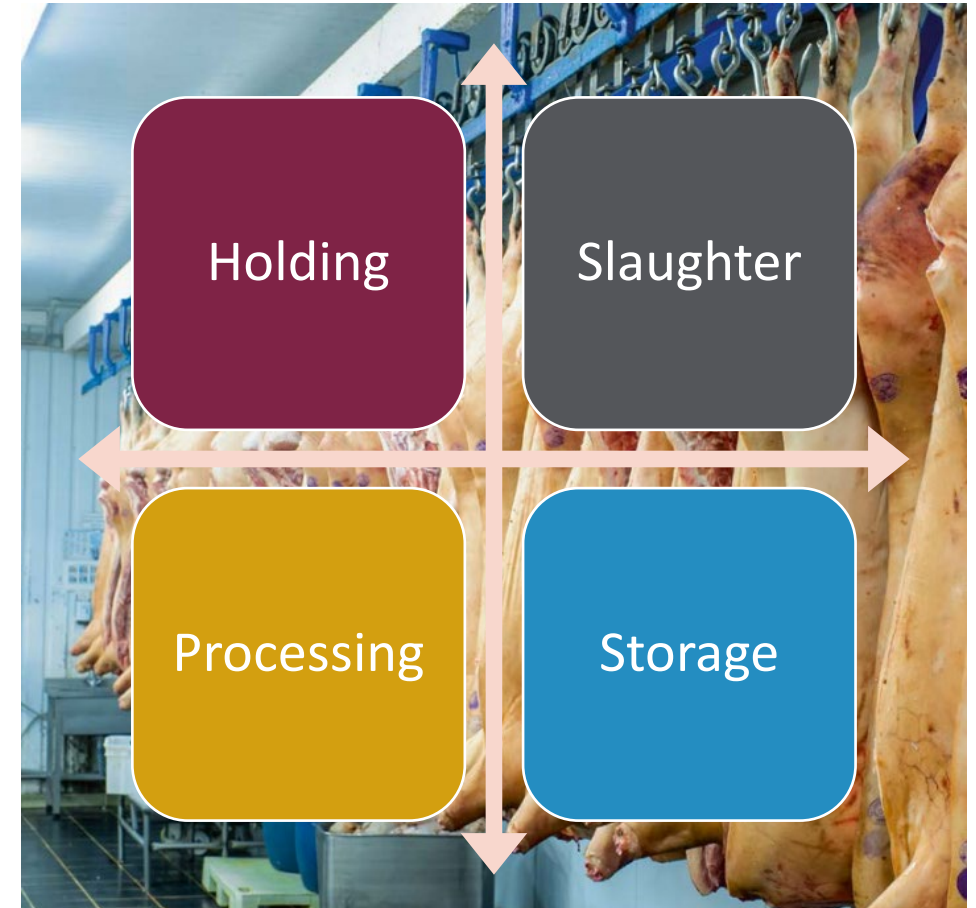
Segregation

National Standards – segregation



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- Clear Lines of Separation
- ID and Traceability
- Cross Contamination
- Dedicated versus non dedicated facilities





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National Standards – segregation

- Prevent unscheduled pig transports entering premises
- Verify (scheduling), verify (arrival), verify (slaughter) the source of the pigs is an approved compartment
- Must be slaughtered within 36 hrs of receipt
- If compartment pigs present on premises at the same time as non compartment pigs they must be separated by a solid physical barrier that prevents jumping and mixing
- Compartment pigs must be slaughtered in a block



National Standards – segregation





- Scalding tank and carcass surface singe - remove organic material from live pig area prior to running compartment pigs
- Hide off establishments must conduct cleaning and disinfection of live pig area prior to running compartment pigs
- Beginning and end of block of compartment pig carcasses must be identifiable on the rail and in the coolers; verified through cross checking with herd mark / identification system used

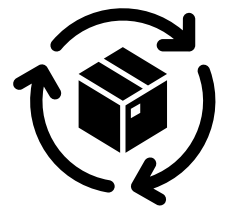
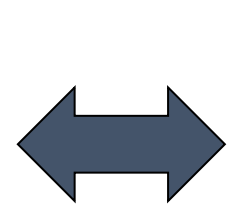
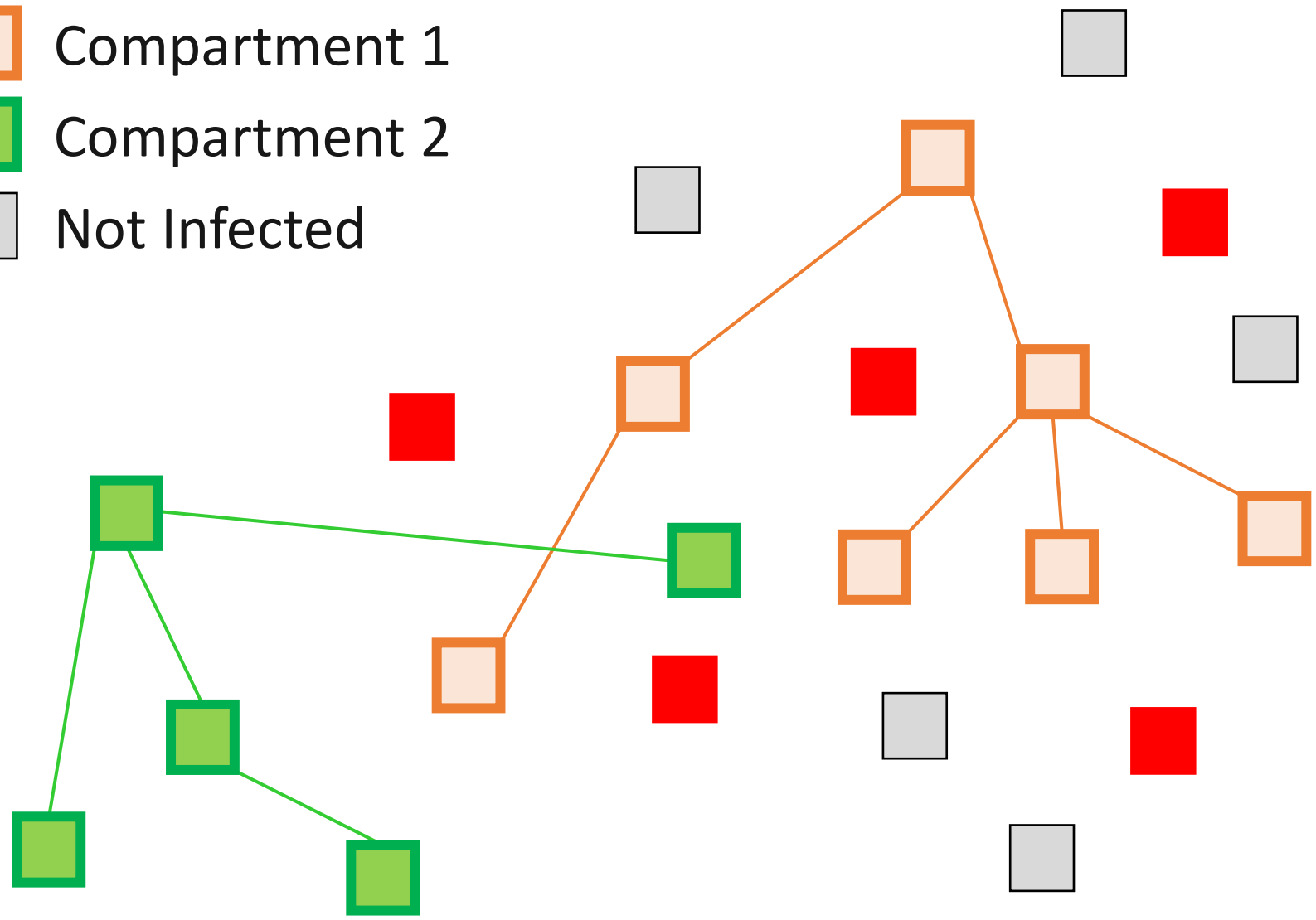


National Standards – segregation

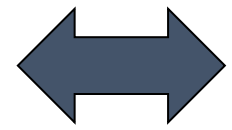
- The establishment must have an electronic inventory system to print bar code labels or equivalent traceability on every box of product.
- The establishment must program their inventory / labelling system such that compartment product has an assigned identifier / product code which differentiates it from all non-compartment product.
- Cutting room staff must switch to compartment labels at the beginning of the bloc and stop using compartment labels at the end of the block
- All packaged compartment products must be identifiable as such at all times.
- Storage pallets containing compartment product must not contain non-compartment product.

Wrap up

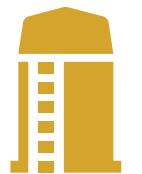
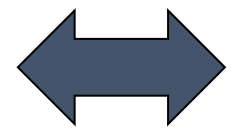
-  Infected
-  Compartment 1
-  Compartment 2
-  Not Infected







Slaughter

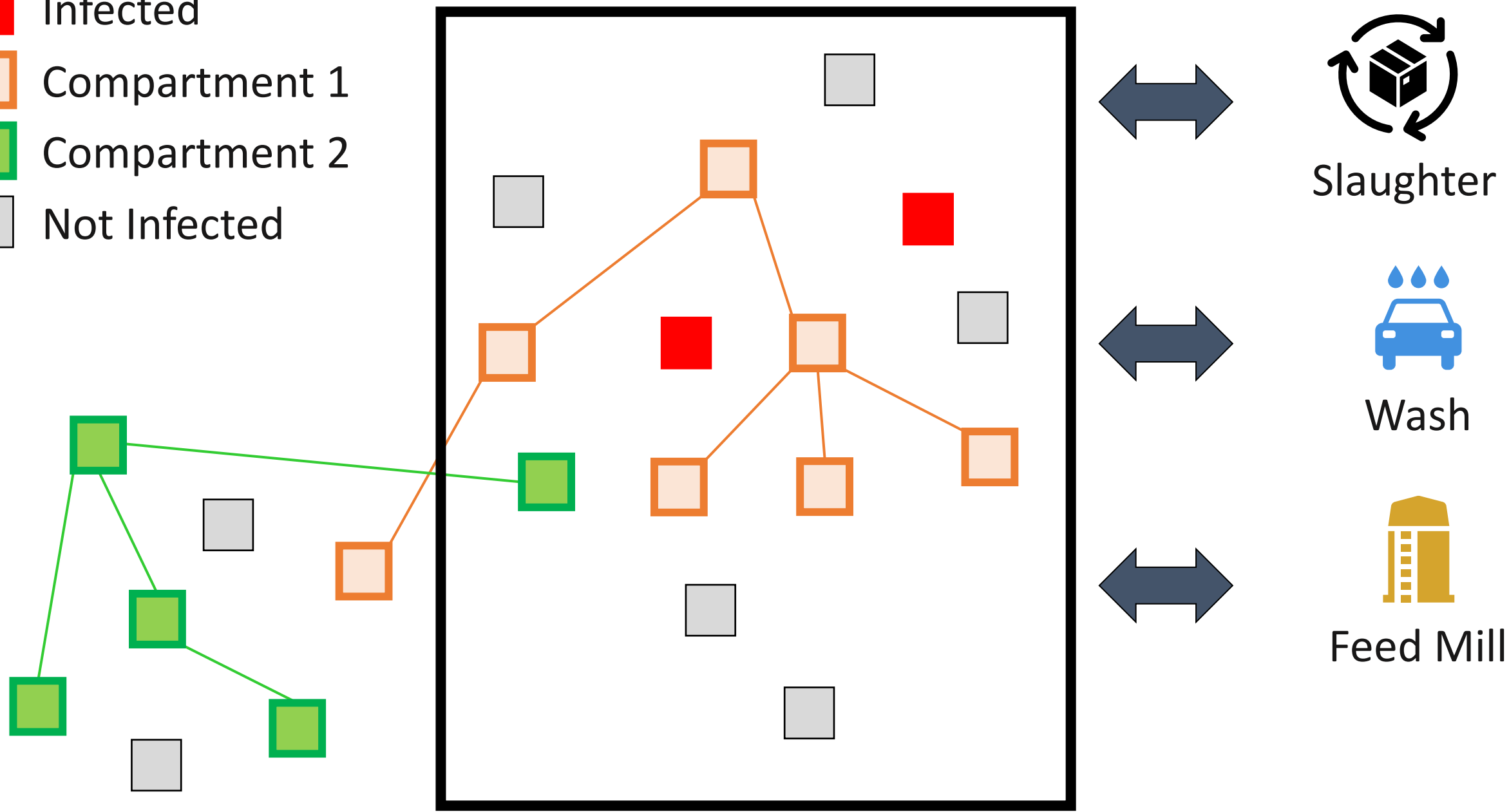


Wash



Feed Mill

-  Infected
-  Compartment 1
-  Compartment 2
-  Not Infected



ASF Free Compartment can exist within an Infected ZONE ³⁸

Take Home Messages

- Compartmentalization is a Risk Management Strategy to Protect Business Continuity
- Private Public Partnership Established and Managed by the Private Sector
- Requires extensive collaboration and a trust based relationship with the Federal Veterinary Authority

Take Home Messages

- Focus on commercial sub-populations with ASF Free Health Status
 - Separation from wild, backyard, show, pet and other sites/models with poor/no external biosecurity

Comments on the ASF compartment framework and national standards can be submitted to:

cfia.ASFCompartments-CompartimentsPPA.acia@inspection.gc.ca