Project: Technical assistance to improve implementation of food safety standards and disease crisis preparedness

Training course: Biosecurity

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Date: ……

Place: Nicosia, Cyprus

Project funded by the European Union Aid Programme for the Turkish Cypriot community, implemented by NSF Euro Consultants Consortium

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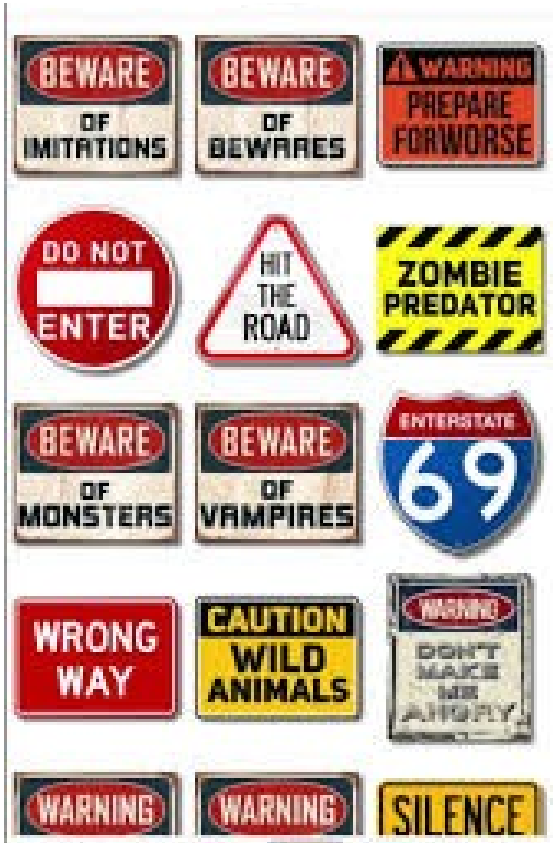
- Summary



Introduction

- Biosecurity is most important tool to prevent disease introduction, spread and transmission. Strict implementation of the biosecurity measure can greatly reduce the risk of disease.
- Biosecurity is not only improving infrastructure or installing footbath
- The biosecurity require change in the behavior of the staff implementing the biosecurity, good understanding of the risk factors for transmission of the disease
- **Biosecurity** means a set of **management and physical measures** designed to reduce the risk of introduction, establishment and spread of animal diseases, infections or infestations to, from and within an animal population (OIE, TAC – Glossary)
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EU definition

- AHL, Article 4, point 23
- ‘biosecurity’ means the sum of **management and physical measures designed** to reduce the risk of the introduction, development and spread of diseases to, from and within:
  - (a) an animal population, or
  - (b) an establishment, zone, compartment, means of transport or any other facilities, premises or location;
- Veterinary service is responsible to be a good example and provide of good risk communication for the purpose of the biosecurity processes

Biosecurity plan

Physical measures

- Infrastructure, building, fences, …
- Hardware component

Mindset and attitude

- Procedures, implementation, monitoring, verification
- Software componenet

Regulation (EU) 2016/429 – Article 10

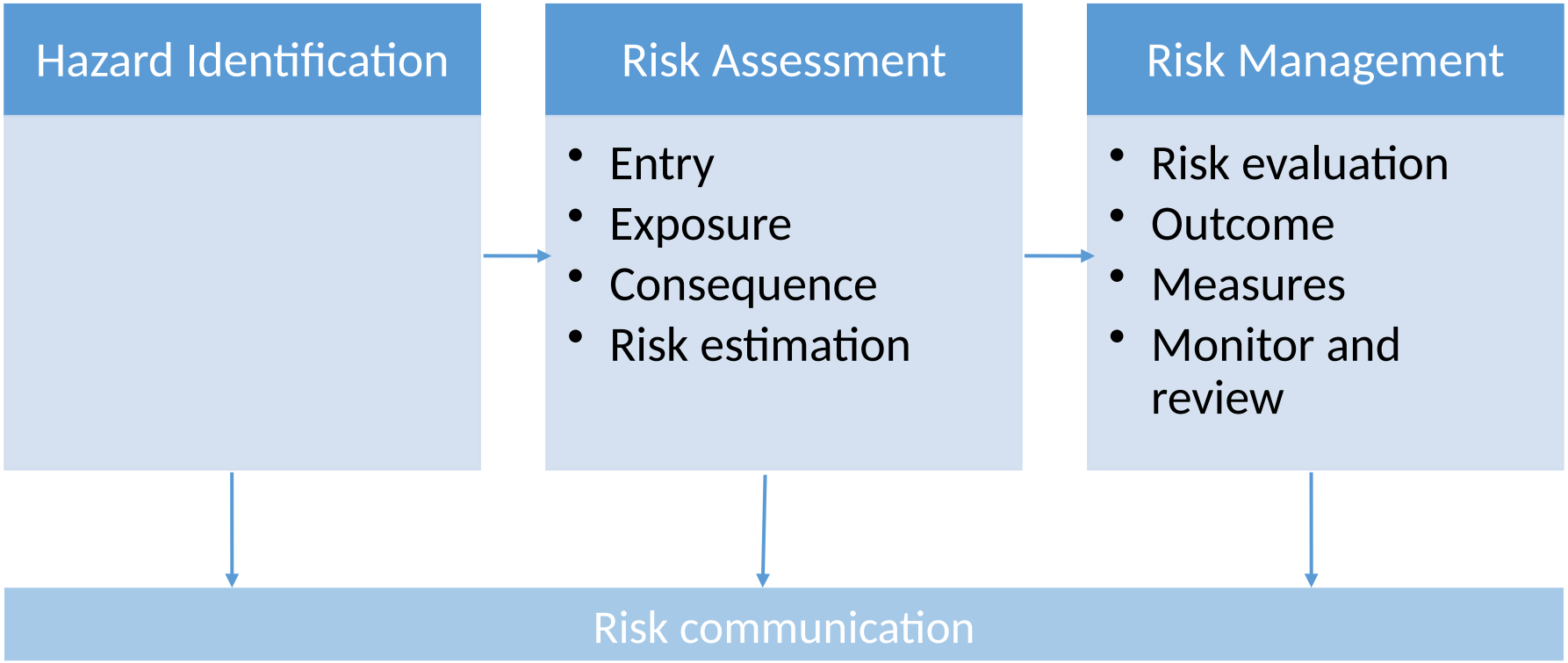
- The biosecurity measures shall be implemented, as appropriate, through:
  - physical protection measures, which may include:
    - enclosing, fencing, roofing, netting, as appropriate;
    - cleaning, disinfection and control of insects and rodents;
    - in the case of aquatic animals, where appropriate:
      - measures concerning the water supply and discharge;
      - natural or artificial barriers to surrounding water courses that prevent aquatic animals from entering or leaving the establishment concerned, including measures against flooding or infiltration of water from surrounding water courses;

Regulation (EU) 2016/429 – Article 10

- Management measures, which may include:
  - procedures for entering and exiting the establishment for animals, products, vehicles and persons;
  - procedures for using equipment;
  - conditions for movement based on the risks involved;
  - conditions for introducing animals or products into the establishment;
  - quarantine, isolation or separation of newly introduced or sick animals;
  - a system for safe disposal of dead animals and other animal by–products.

Substance

- Can biosecurity eliminate the disease?
- **Reduce** the risk of transmission
- In order to completely eliminate disease you have to **manage the risk**



Identify the risk

- Identify the risk factors
  - Direct transmission (introducing animals, contact with wild animals, fence)
  - Indirect transmission (feed, water, workers, veterinarians, visitors, equipment)

Basic principles

- Segregation
- Cleaning
- Disinfection

Brain storm

- Ask the visitors to park can outside the farm
- Ensure that dirt from the vehicles that enter the farm is removed with pressure washer
- Build a fence around the farm
- Ensure that veterinarian is using clean needled for collecting blood
- Use separate unit for new animals on the farm

Segregation

- Prevent contact
- Applying physical barrier
- In time
- Examples
  - Fence
  - Restricting access
  - Separate equipment
  - Not sharing equipment
  - Separate workers
  - Quarantine
  - Secure source

Cleaning

- Mechanically remove all the dirt
- Remove the movable object
- Use water and soap
- No visible dirt should remain
- Proper cleaning can remove very high percentage of the pathogen
- Organic matter can protect pathogen

Disinfection

- After the cleaning
- Approved disinfectant
- Applied in accordance with the instruction of the manufacturer
- Safety rules for personnel, environment and equipment
- Rinse after disinfection

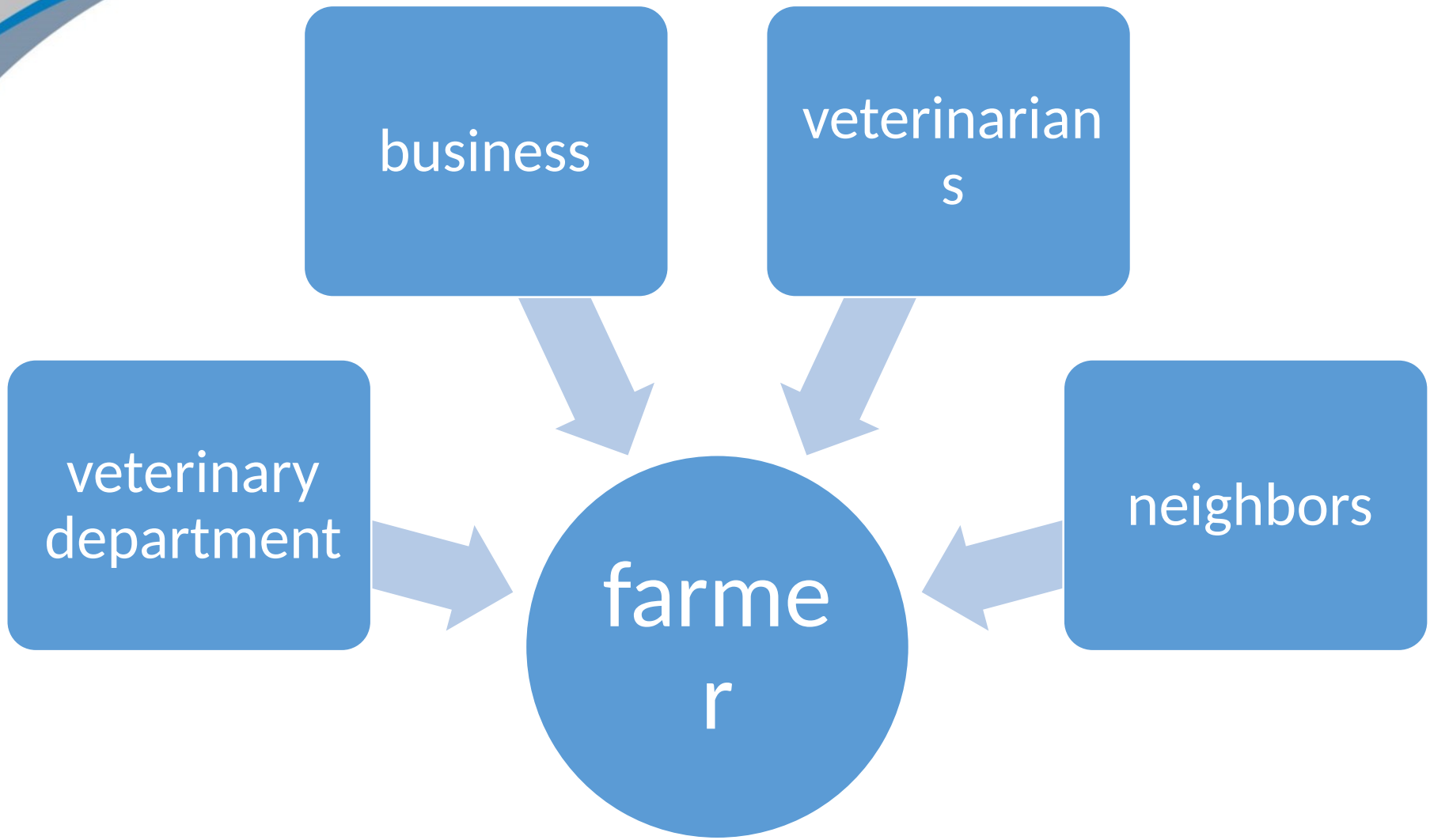
Concerns

- Perimeter
- Staff and visitors
- Buildings, equipment and vehicles
- Movement of animals on and of the farm
- Feed (pastures)
- Water
- Slurry and manure management
- Procedures
- Pest control
- Records
- Training /mind set change
- WHY?

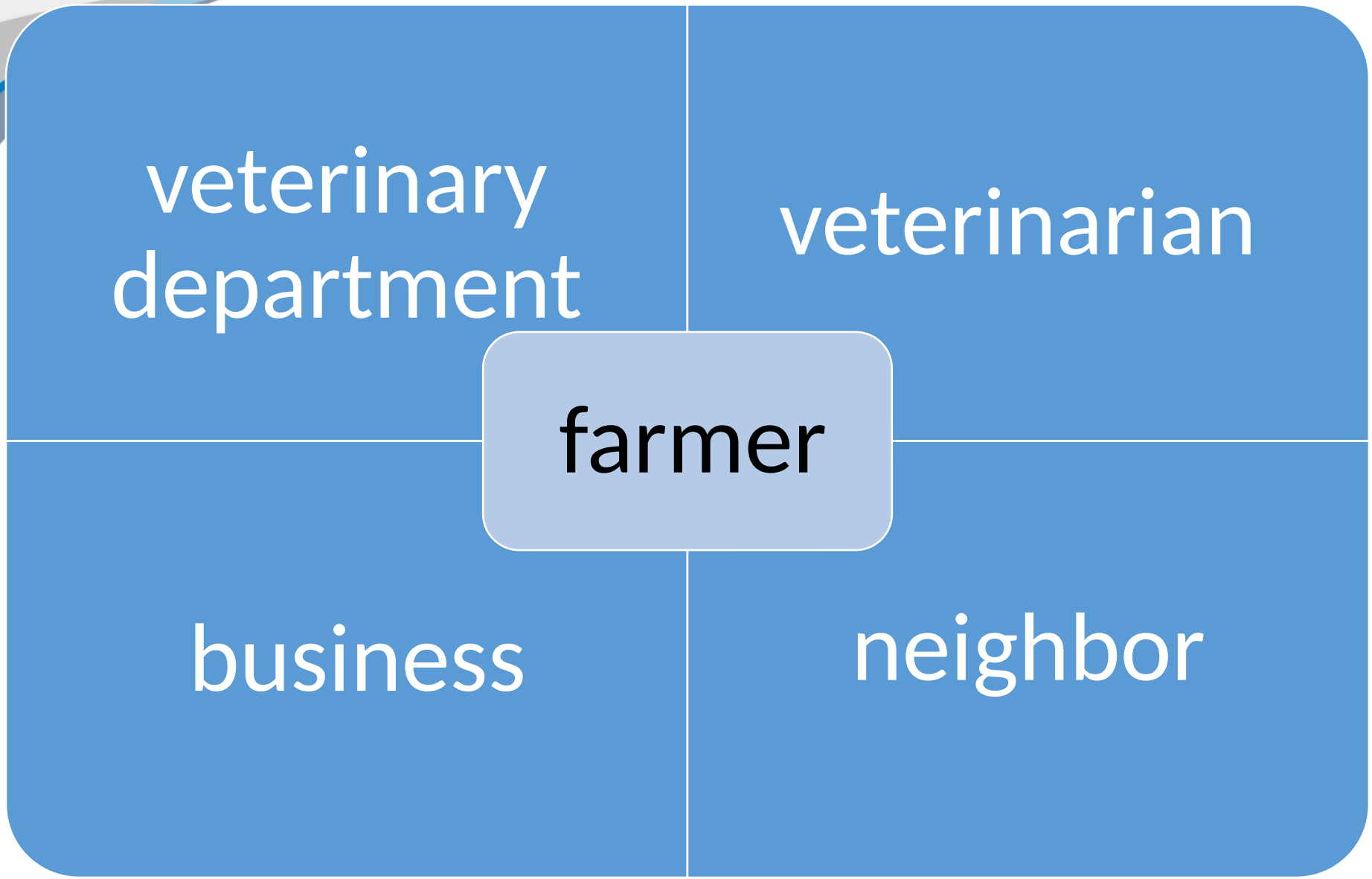
Biosecurity plan

- Consider all we discussed before
- Mindset is more important than the infrastructure
- Human factor reason for spreading disease
- dedicated more time to develop measures for identified higher risk
- Do not look your farm as isolate island

Approach - 1


business
veterinarians
veterinary department
farmer
neighbors

Approach - 2


veterinary department
veterinarian
farmer
business
neighbor

Approach

- Approach 1 – usually do not change the mindset
- The voice of the farmer and his experience are missing
- Second approach is more suitable and more likely to succeed
- The farmer is empowered to and it participate is developing most sustainable solution

Procedures principles

- Procedures should be risk and evidence based
- Identify the purpose
- Be pragmatic and realistic
- Be strict in implementing measures
- Adjust the frequency
- Monitor, verify and improve

Can we apply what we learned

- Example: one of the measures ordered by veterinary service is foot bath to clean and disinfect footwear (*image 1 – source EuFMD*)
- What is your opinion?
- Is there proper communication?
- Is the farmer involved properly?
- Are there any other solution?
- What would be the best one?

Image -1 –foot bath

Summary

- Biosecurity is setoff measures to reduce the risk
- There are three key principles (Segregation, Cleaning and Disinfection)
- Biosecurity require infrastructure and human behavior
- Participatory approach is better that top to bottom approach
- Veterinary personnel should always give good examples and communicate the purpose
- Share the good practoces
- The farm should not be seen as a separate unit
- Constant improvement

CONTACT

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THANK YOU FOR YOUR ATTENTION

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