

Why do we care about ASF?

James F. Lowe, DVM, MS, DABVP (Food Animal)

The Applied Epidemiology Laboratory

Integrated Food Animal Management Systems
Department of Veterinary Clinical Medicine
College of Veterinary Medicine, University of Illinois



Impact of ASF infection on farm economics

Direct Effects

Lost
Throughput

Increased
Operating
Costs

Indirect Effects

Demand
and Price
Elasticity

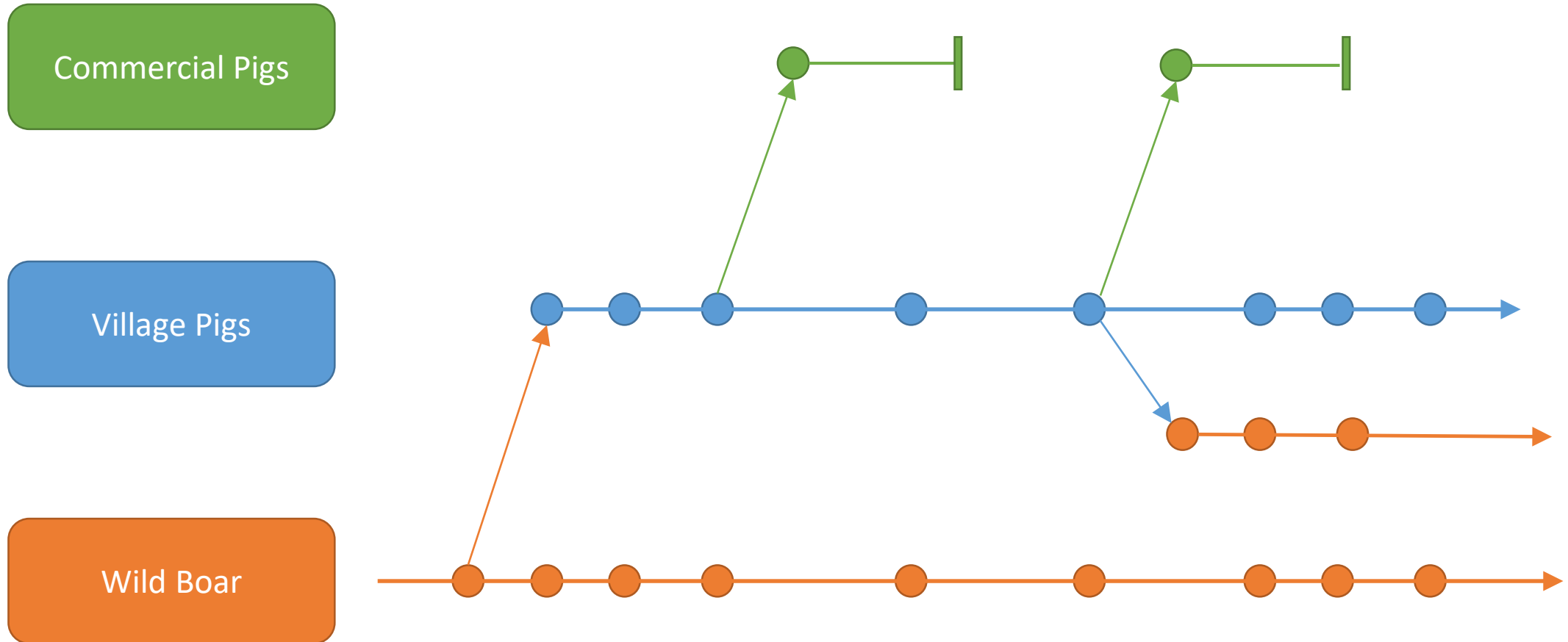
Stop
Movement
Orders

Processing
Changes

Key questions surrounding ASF in Europe

- How do the history and social conditions of the current ASF outbreak inform a better understanding of what the most effective mitigation strategies are for farms at risk of economic losses due to ASF?
- What makes this outbreak different from other prior OIE listed disease (CSF, FMD, PRV) outbreaks in Europe and China?
- What are the risks to business continuity posed by ASF in each of the operating countries?
- In each operating country, given what we know about the current outbreak, what are the key strategies and tactics to mitigate the known and unknown risks of ASF introduction and spread within production systems?

It is not one outbreak but THREE



Infectious
disease control
is about
minimizing
exposure of
susceptible
animals to
infected ones



Direct Contact



Fomites



Vectors

Think like the
bug...



To be successful when controlling ID you have to think about the problem from the microbes point of view.

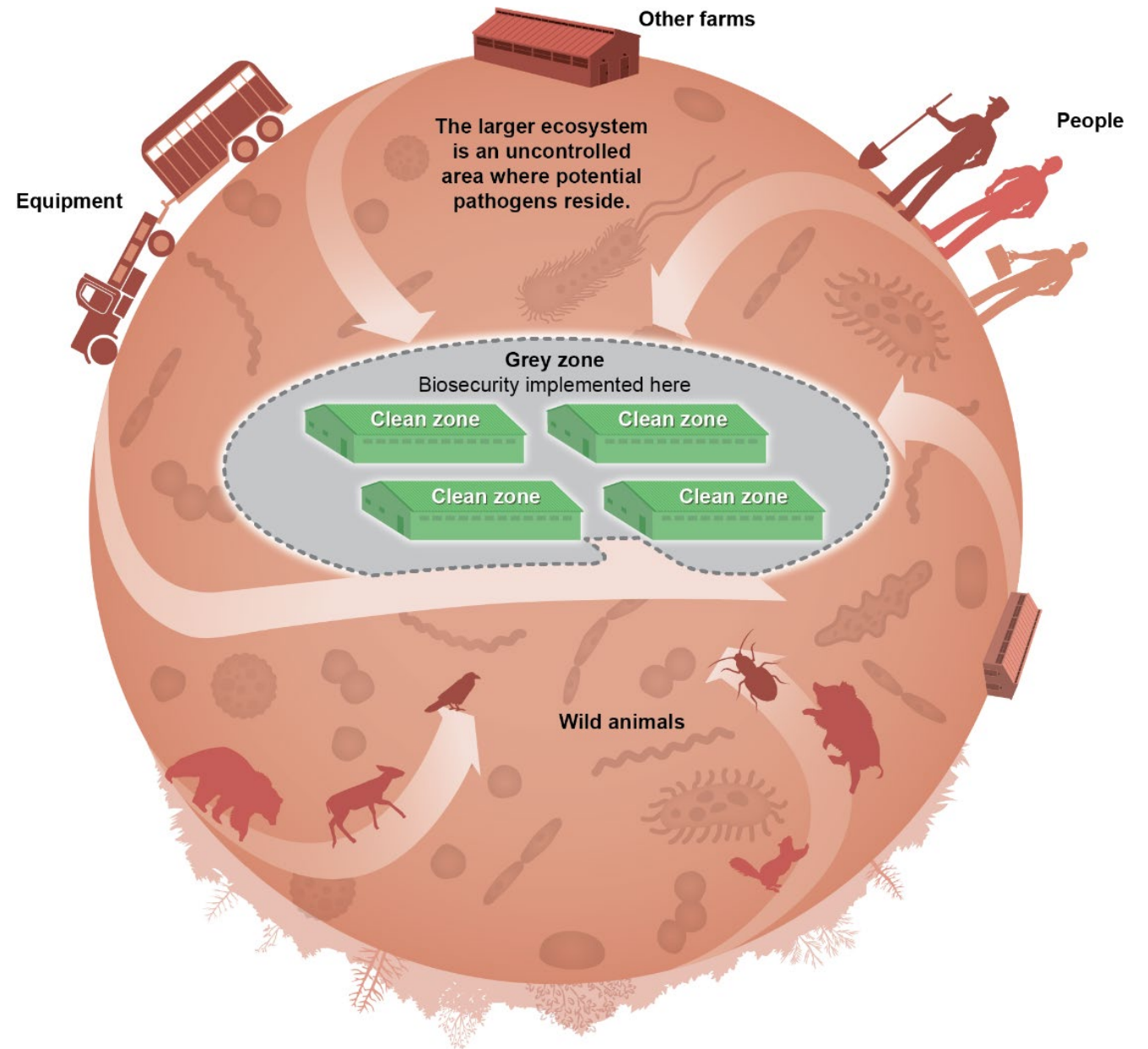


“What makes it easier for me to come in contact with a new host”

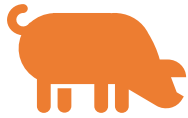


The “ecosystem” of the microbe is the thing we are concerned about.

Identifying
the source of
pathogens is
critical



Routs of Transmission for microbes



Pigs

Most efficient method of transmission

Replacement breeding stock



Vectors

Animals or insects that become *infected* with a microbe and often are a key part of the microbes life cycle

Mosquitoes for Malaria

People for SIV



Fomites

Physical carriers of disease

Flies for PRRS, Tools, Trailers

Chance that route is successful



Time out of host

Longer lowers chance of transmission



Temperature

High or Low temperatures lower chance of transmission



Humidity

Low humidity lowers chance of transmission



Ultraviolet light

Higher UV light lowers chance of transmission

Applied Epidemiology Laboratory
Department of Veterinary Clinical Medicine
University of Illinois
bblair2@Illinois.edu

Thank You