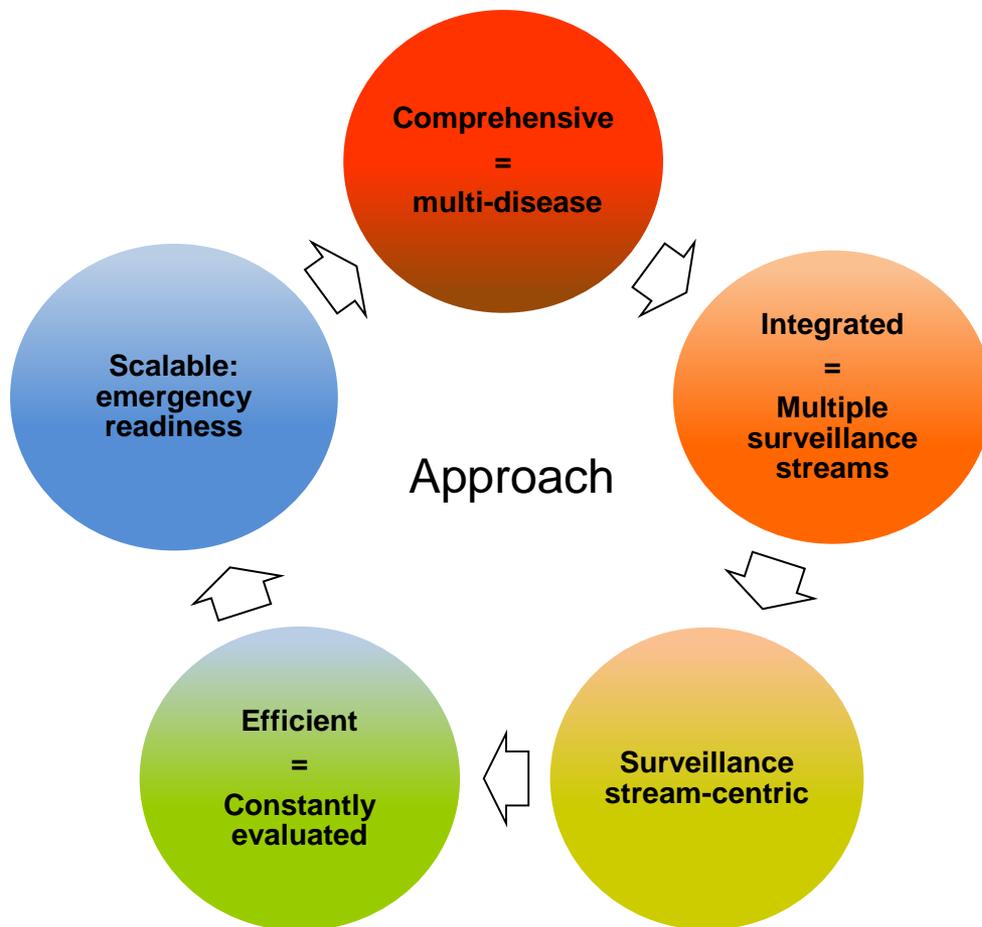




Enabling Comprehensive Integrated Animal Health Surveillance

Brian J. McCluskey, DVM, MS, PhD, Dip. ACVPM
Executive Director
Science, Technology and Analysis Services
Veterinary Services

CIS: The concept



The 5 Rs we need to target



Representative



Reliable: Accurate
information



Real-Time: Now

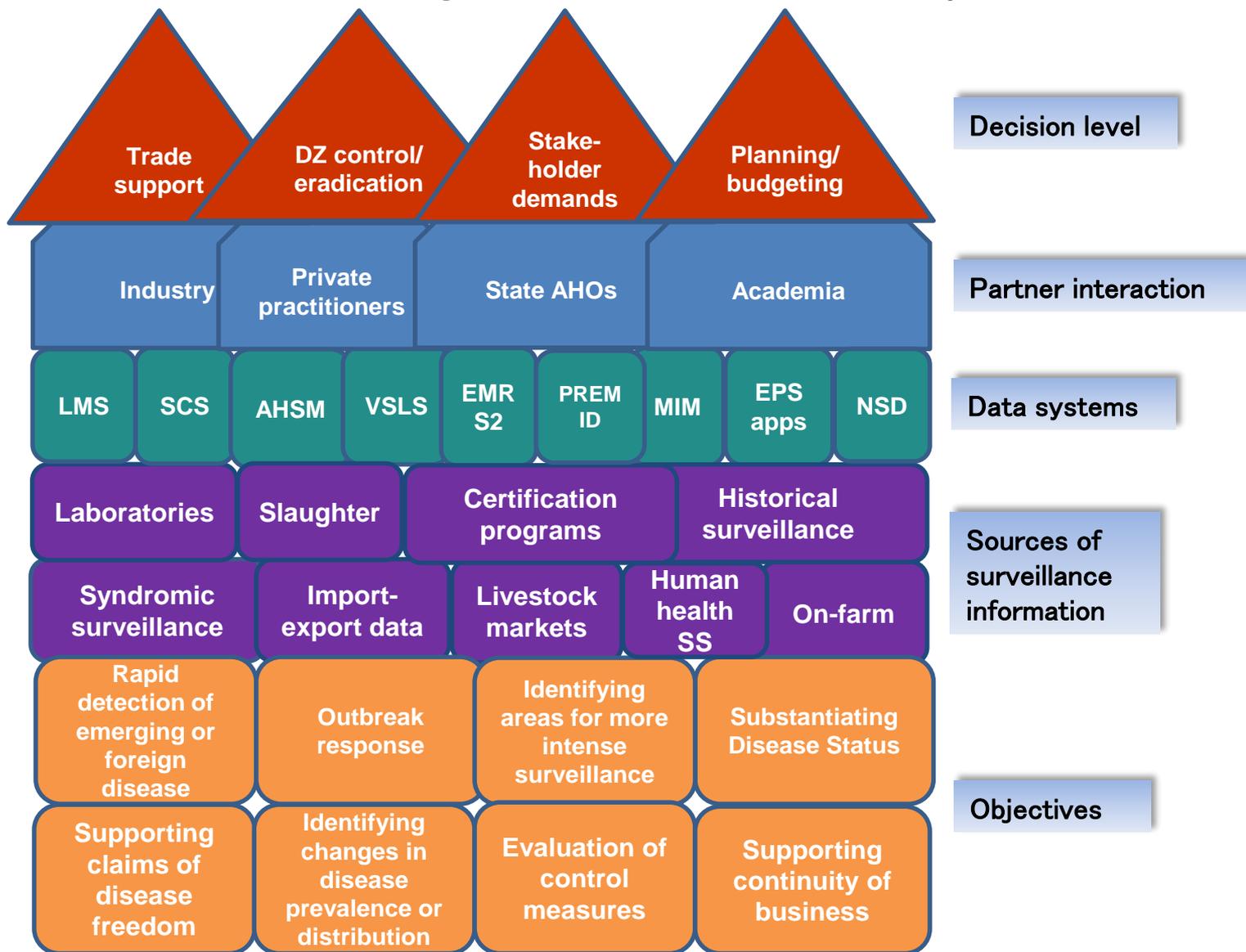


Resourceful: Efficient



Risk-Based

Comprehensive and Integrated Surveillance System structure



What do we have today?

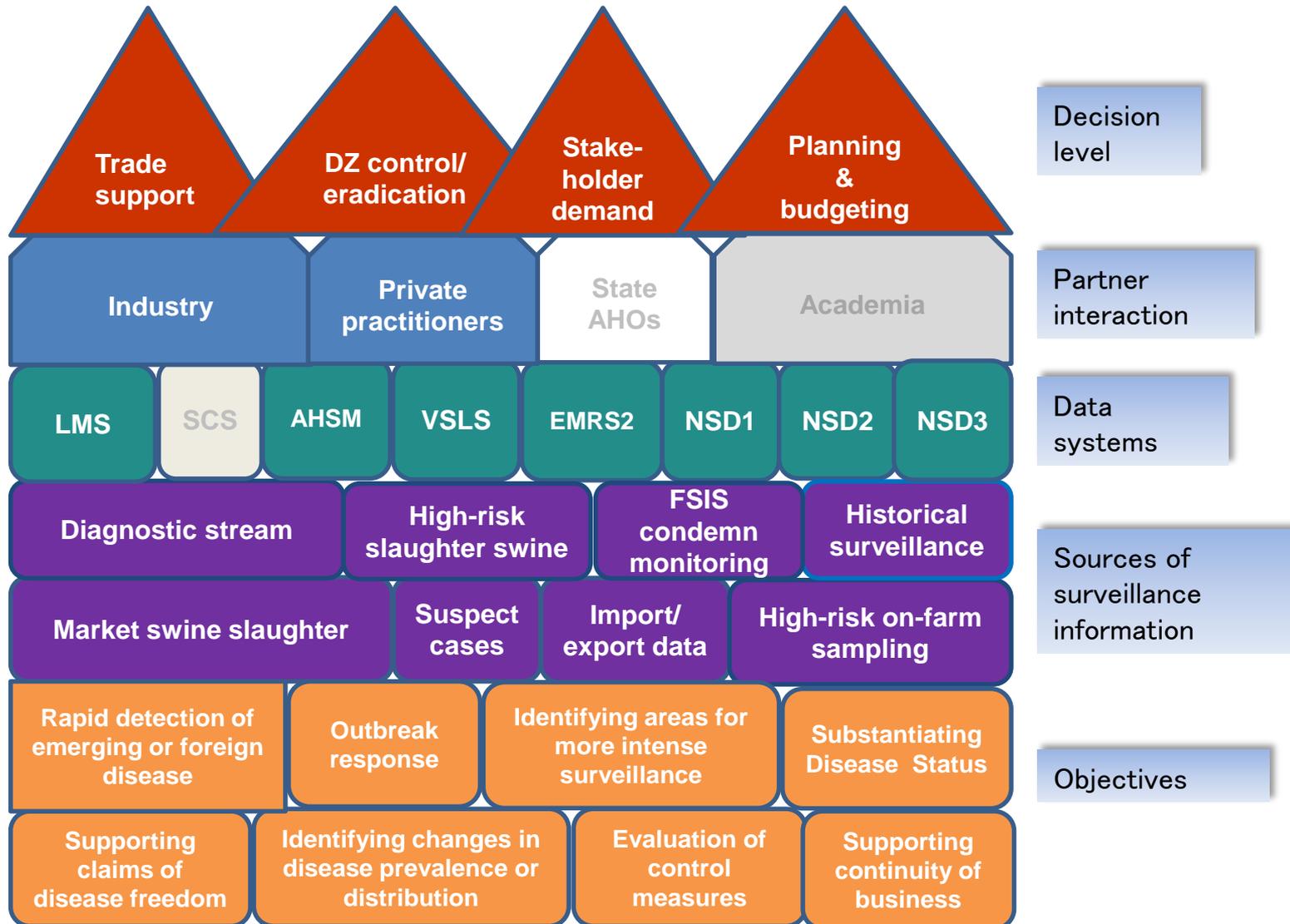
Different levels of development in each commodity



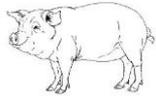
Swine Health CIS



Integrated view, non integrated data sources

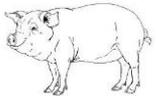


What we have



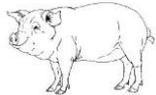
- Highly engaged stakeholders

Fast moving, high demands



- Laboratory network capable of testing for FADs and endemic diseases—scalable system

CSF, ASF, FMD, PRV, SB, SECD



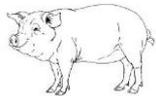
- Surveillance streams already identified and operable

D-labs, high risk slaughter (sow boars, market swine, roaster), feral swine, high risk farms (garbage feeders)



- Variety of data sources and levels of standardization

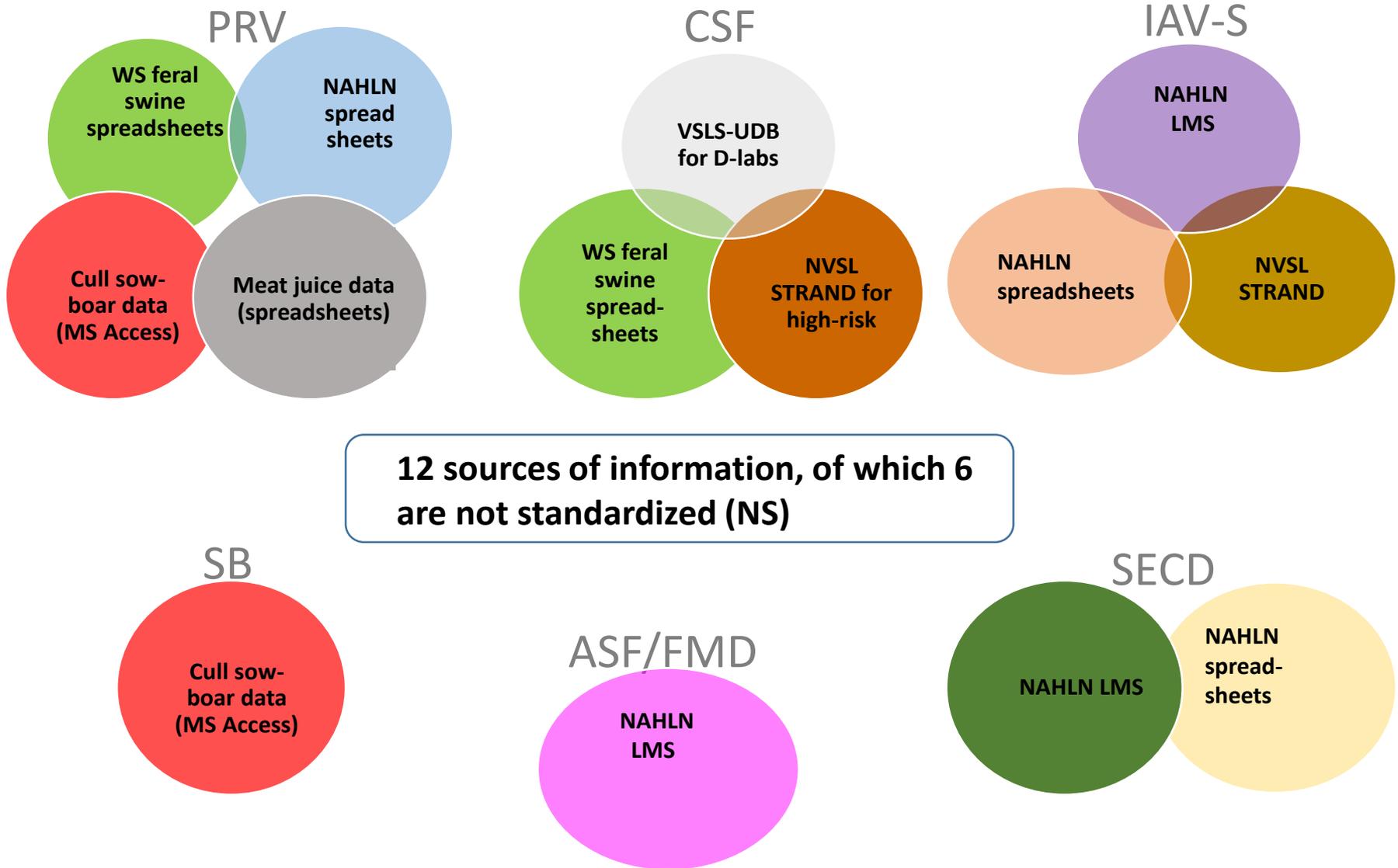
Over a dozen different sources



- Limited geographic and population strata representation and risk characterization

PIN /AID + methods to rapidly select samples. Undersampling or oversampling? Inefficiencies?

Swine surveillance data sources trivia



What is missing

- Data standardization
- Data connectivity
- Once PINs widespread used
- Better use of our CA's with states
- Validated diagnostics
- Capacity!

MESSAGING !

System with convergence
of epidemiology and
testing data

A system to rapidly select
samples to represent
strata

Use of state data ?

Rapidly validate new
testing protocols

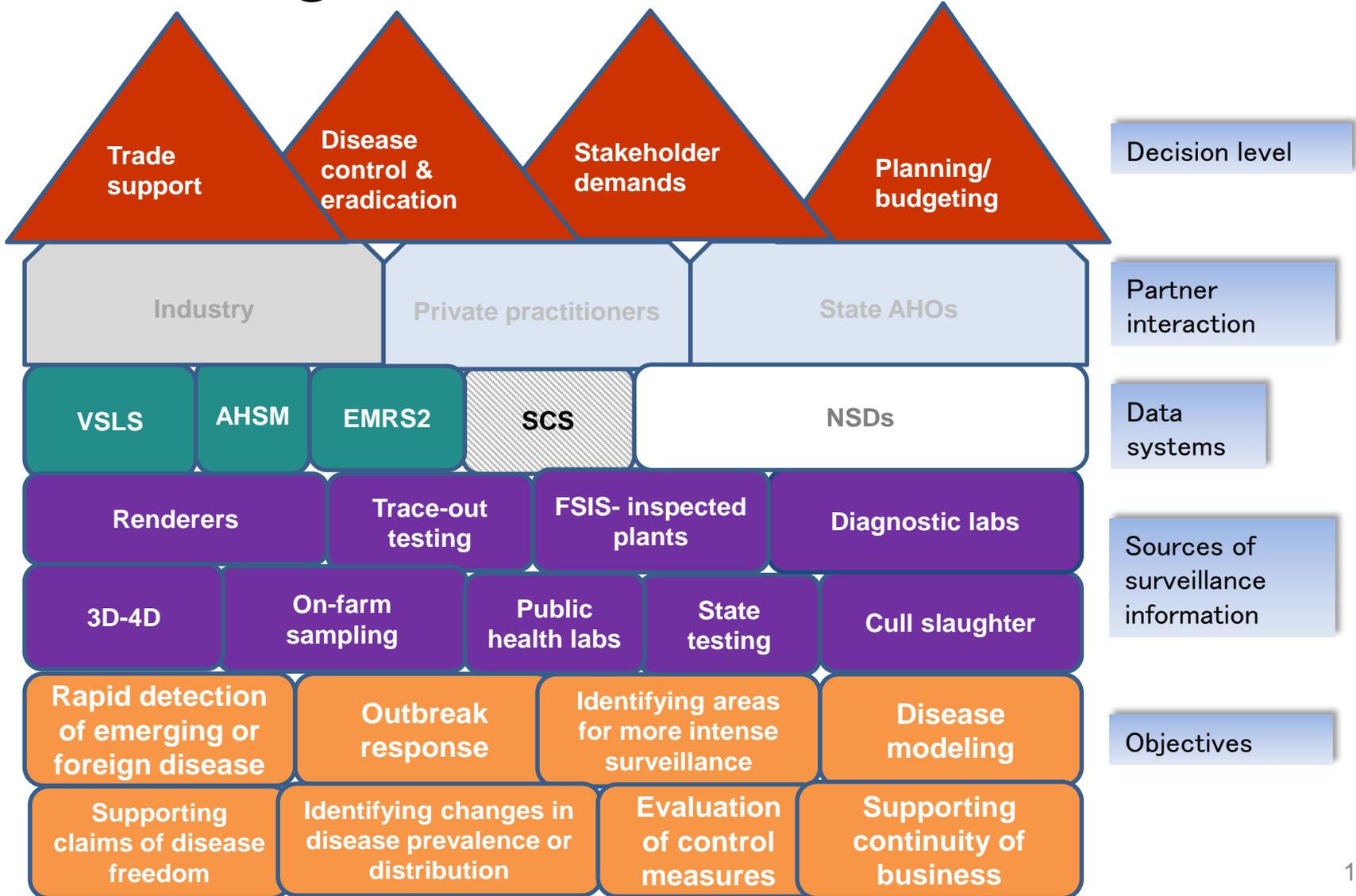
Demand for analytical
and laboratory services
exceeds VS capacity

Limitations to growth driven by data management deficiencies, diagnostic limitations and capacity

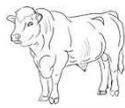
Cattle Health CIS



Non integrated solid surveillance streams

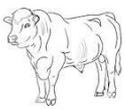


What we have



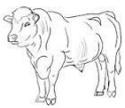
- Several strong, but separate, disease surveillance programs

BSE, TB, Brucellosis



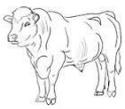
- Partnerships with States and resource agencies

Partner support, communication, valid diagnostics, test development

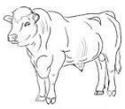


- Laboratory diagnostics

VSLs/AHSM for BSE



- One functioning data management system for one disease



- Decision support in a number of key areas

Trade, consumer confidence, disease control

We have some solid structures on which to build CIS for cattle...now we need to integrate

What's missing?

- Shift to comprehensive mind frame
- Resource limitations affect data entry into existing systems
- Gaps in access to data contained in existing systems
- Lack of population representativeness (geographic and strata specific)
- Under-utilization of contextual data to support testing data

Other diseases of interest?
Overlapping surv. streams?

Existing data unavailable or difficult to access

PIN and traceability

Limited epi information

Integration of different industry sectors, surveillance sources of information, and data.

DATA MANAGEMENT STRATEGIES:
HAVING YOUR CAKE AND EATING IT
TOO

Comprehensive Integrated Surveillance



NLRAD/EDF
Notifiable
Monitored
Emerging

EPS

Intern'tl
Monitoring/
Scanning



Business Process/Policy Data collection Data access Data analysis Reporting Resources	IT Architecture SCS LMS VSLs MIM AgConnect Resources EMRS2/CRM
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Integration



Warehouse

Emergency Response



FAD

Emerging
Disease

Domestic
Disease



Business Process/Policy Data collection Data access Data analysis Reporting Situational awareness Resources	IT Architecture LMS EMRS2/CRM MIM AgConnect Resources
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Integration



Warehouse

Data



Information



Presentation



Knowledge





Data collection

How are data requirements defined during the surveillance planning process, transformed into information technology solutions, collected and recorded in the field, and finally submitted to centralized databases for various types of reporting and analytical needs.



Data Integration

How do we effectively use unique identifiers for lab submission, premises identification, and animal identification that are integral for merging surveillance and laboratory result records.



Reporting

Animal health program reporting routinely occurs using disparate intergovernmental and external data sources requiring analysts to spend too much time acquiring and preparing data in favor of time spent on program or scientific analysis. Data preparation procedures currently used need to be closely examined to streamline data management processes using electronic data processing and to define data warehouse opportunities



Animal and Plant
Health Inspection
Service

Veterinary
Services

Swine Enteric Coronavirus Disease (SECD) Situation Report – Dec 10, 2015

Information current as of 12:00 pm MDT, 12/9/2015

This report provides information on confirmed SECD-infected premises and SECD laboratory testing results data reported to USDA since the Federal Order was initiated on June 5, 2014. USDA-APHIS-VS veterinary officials confirm SECD-infected premises according to the official case definition. These reports are available on the USDA Web site at www.aphis.usda.gov/animal-health/secd. The Web site provides additional SECD information including reports on SECD laboratory testing prior to the Federal Order.

SECD Positive Premises

Table 1. SECD Positive Premises This Week and
NEW THIS WEEK (NOV 29 – DEC 5, 2015)

New Confirmed Positive Premises This Week

New Presumptive Positive Premises This Week

CURRENT PREMISES WITH SECD POSITIVE STATUS

Total Premises with Confirmed Positive Status Through
CUMULATIVE SINCE JUNE 5, 2014*

Confirmed Positive Premises

Presumptive Positive Premises

Confirmed Positive Premises that have Attained
Final Release Date (i.e., premises that changed from positive to
negative)

*Dual infection indicates premises with both PEDV and
PCoV

*Cumulative data includes current premises with positive
status

*See Notes section of this report for details about pre-

Cumulative since June 5, 2014	PDCOV	DUAL I†
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WEEKLY SITUATION REPORT

Highly Pathogenic Avian Influenza



United States
Department of
Agriculture

DATE TRANSMITTED: April 2, 2015 (data reported through 10:00 AM ET)

PREPARED BY: Veterinary Services HPAI Incident Coordination Group

CONTACT INFORMATION: Send questions or comments to VS.SPRs.Feedback@aphis.usda.gov.

A. Status of HPAI-Infected Commercial and Backyard Flocks

Detections in new States/Countries are highlighted in gold.

States and Counties Currently Affected									
State/County	Backyard(BY)/ Species OR Commercial (C)/Species/#	NVSL Confirmed Date (Type)	Infected Premises Quarantine Date	Control Area Est. Date	Depopulation Completed Date	Disposal Method/ Status & Date	C&D Date	Control Area Release Date	Final Release Date (Restocking Date)
MN/Nobles	C/Turkey/20,716	4/2/15 H5N2	4/1/15	Pending	Pending	Pending	Pending	No	Pending
SD/Beadle	C/Turkey/53,000	4/1/15 H5N2	4/1/15	Pending	Pending	Pending	Pending	No	Pending



Animal and Plant
Health Inspection
Service

Veterinary
Services

2015 Vesicular Stomatitis Virus (VSV) Situation Report – December 18, 2015

Information current as of 2:00 pm MDT, 12/18/2015
Updated information in blue ink

Critical New Information

- On December 18, 2015, the National Veterinary Services Laboratories on Plum Island, New York, confirmed a finding of vesicular stomatitis virus (VSV) infection (New Jersey serotype) on a bovine premises in **Johnson County, Texas**. One cow on the premises has met the case definition of infection with compatible clinical signs and positive complement fixation antibody titer. This is a return to positive state status for Texas and a new affected county in the state.
- In addition to the new positive premises in Texas (New Jersey serotype) and/or suspect premises have been identified in a situation report (12/9/15).

5) new VSV-confirmed (New Jersey serotype) premises identified and quarantined in Colorado since the last situation report.

6) VSV-affected premises (New Jersey serotype) identified in Arizona, Colorado, Nebraska, New Mexico, and Oklahoma.

7) VSV-confirmed premises under VSV quarantine in 3 states.

8) VSV-confirmed premises released from quarantine in 3 states.