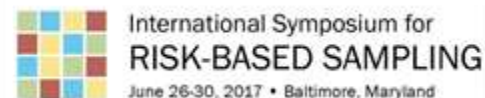


International Symposium for Risk-based Sampling

June 26-30, 2017
Baltimore, Maryland

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Coordinator for Agriculture Quarantine Inspection
US Department of Agriculture, Animal and Plant Health Inspection Service,
Plant Protection and Quarantine



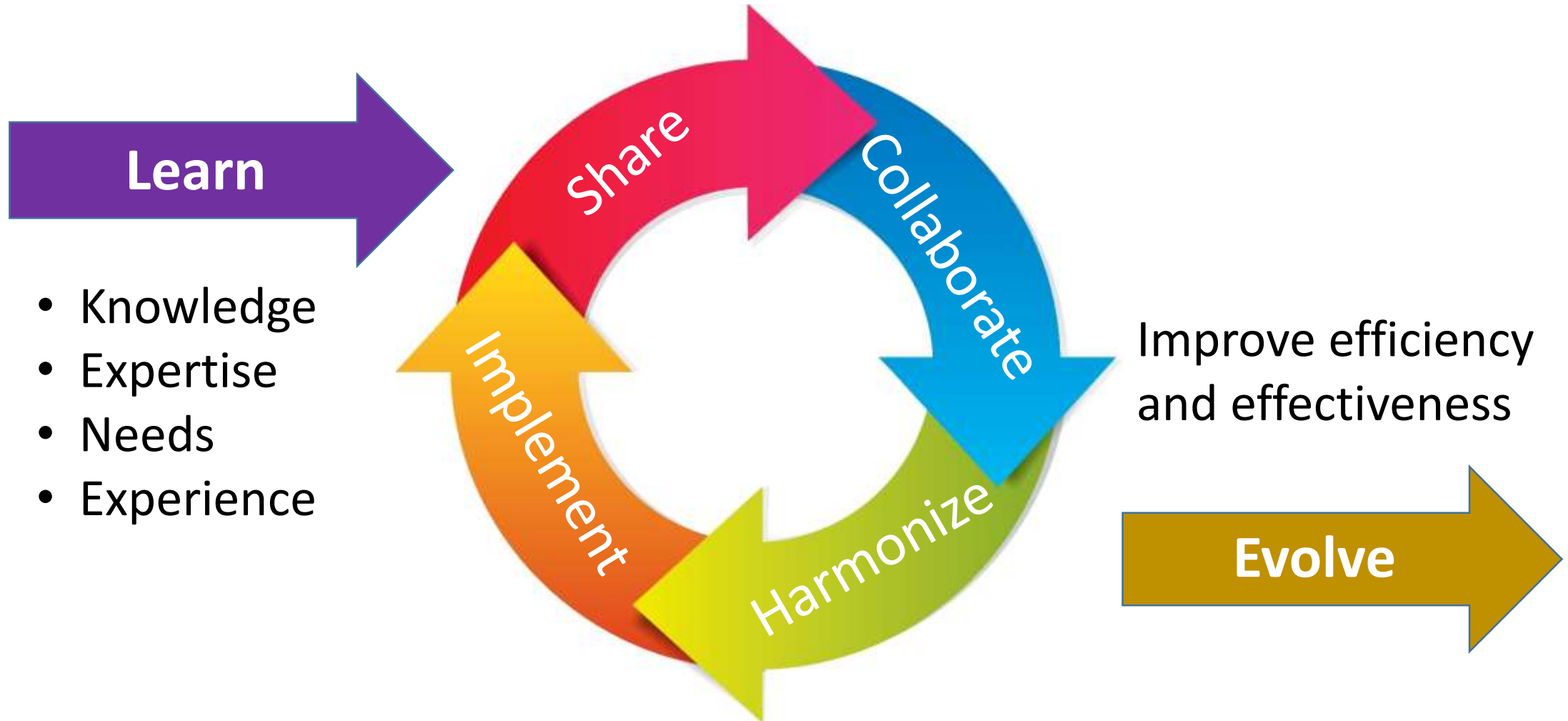
Perspectives on inspection

- Inspector...
- Importer and exporter...
- National Plant Protection Organization...
- Customs...
- International Plant Protection Convention...
- World Trade Organization...
- Stakeholders, fee providers, and the general public ...

Why is a Symposium important?

- **Inspection is the most commonly used phytosanitary measure.**
- Many inspection designs are inconsistent with the principles of safe trade.
- The conceptual background for inspection is not well-understood.
- The information provided by inspection is often not as useful for risk management as it could be.
- The role of inspection in targeting requires development.
- Inspection designs strongly impact resource management.
- **Two ISPMs require support to be properly implemented.**

What can we do?



100 years of inspection



Washington DC, 1910



Washington DC, 2010

Historical logic (1910 – ca. 1994)

- Find a pest (intuitive, haphazard or flat inspection design)
- Establish/confirm identification and determine regulatory status
- Take appropriate action
- Generate a pest-action record
- Inspector is motivated to find more pests
- Industry is motivated to avoid future actions (**deterrent effect**)

The SPS Agreement tells us (since 1994)

- Inspection is a phytosanitary measure and must be:
 - Consistently applied for similar situations and risk
 - Fair and technically justified
 - Done according to relevant international standards
- Actions resulting from inspection must be based on:
 - Emergency (urgent) situations, or
 - International standards (ISPMs), or
 - Pest Risk Analysis

Key concepts: consistent, justified, and risk-based

*ISPMs 23 & 31 tell us (since 2005/2008)

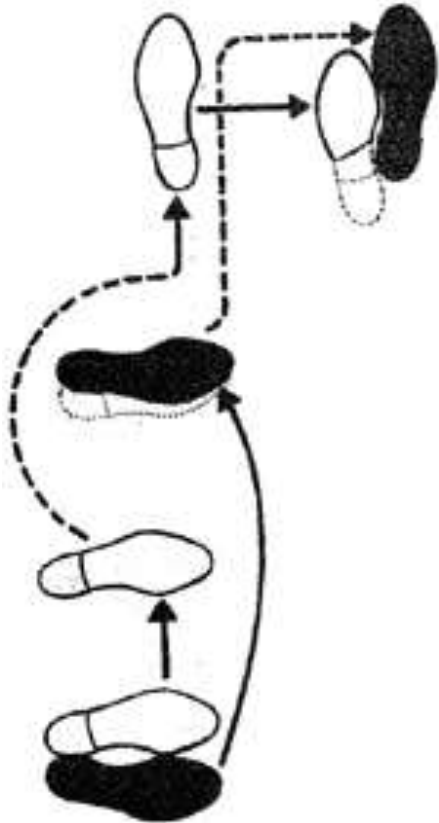
- Inspection is:
 - **Sampling** – take account of sampling concepts
 - **Statistical or non-statistical** – a deliberate design
 - **Operational** – practical limitations and variability
 - **Data** – an key source of information for risk analysis and resource management

* International Standards for Phytosanitary Measures

Logic reset (now – the future)

- Establish a detection target and design sampling accordingly
 - Apply inspection design consistently
 - Inspect the entire sample; take actions as appropriate
 - Collect and use inspection results and risk analysis to adjust the inspection design to meet resource, effectiveness, and risk/compliance/targeting objectives.
-
- **Key concepts: fair, defensible, support broader analysis**

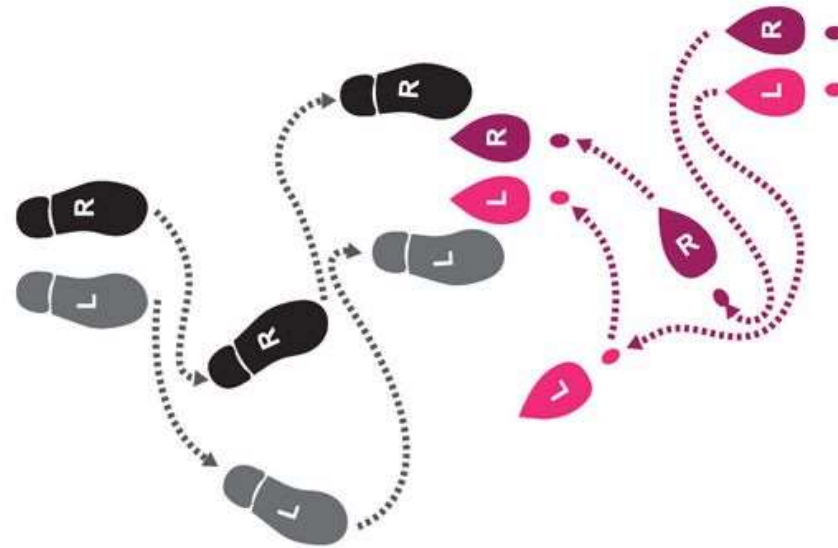
RBS in three easy steps ...



- 1. Gather statistically valid inspection data**
2. Rank according to designated criteria
3. Adjust inspections according to established thresholds

The Risk-based Two-step ...

1. Evaluate **pests** for the potential impact of introduction
2. Evaluate **pathways** for the potential probability of pest introduction



The Analysis Waltz.



- Correlate action rates to inspection variables
- Calculate infestation rates for shipments, approach rates for pests, and action rates for commodities/pathways
- Link slippage rates to pest risk
- Adjust inspection designs and thresholds for resources
- Integrate with targeting systems
- Measure effectiveness

