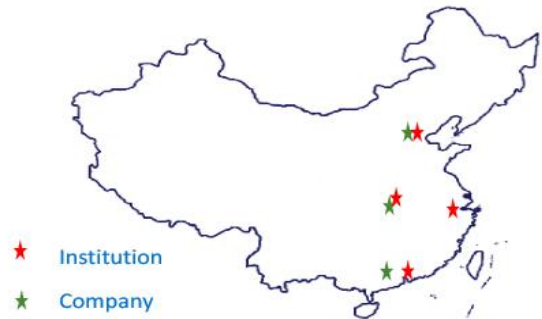
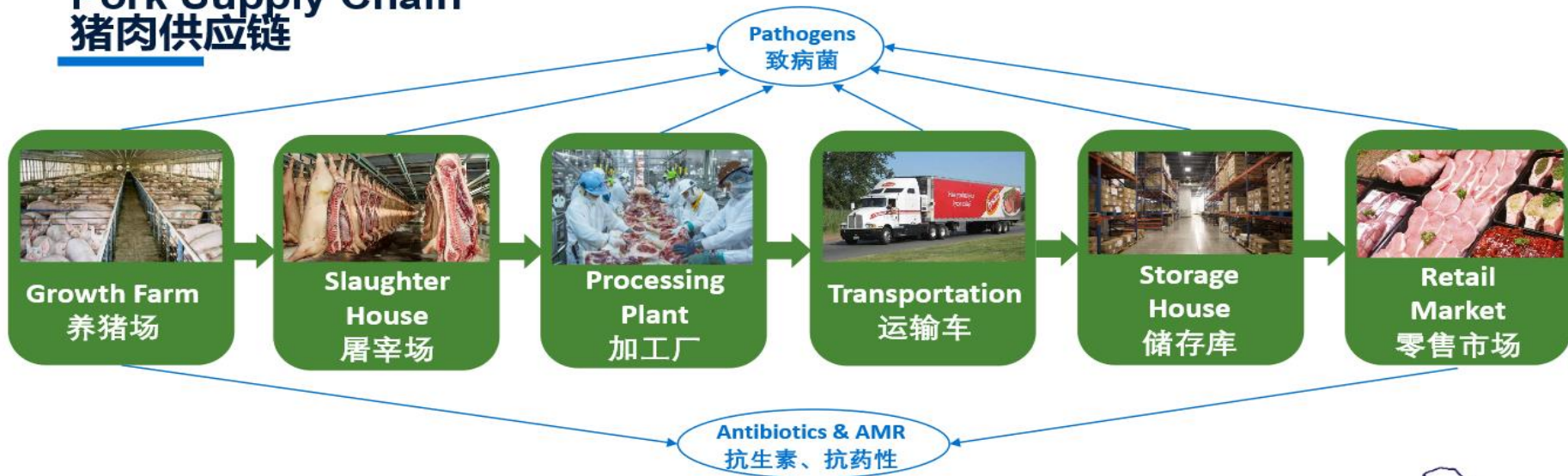


# Improving Food Safety of Pork Supply Chains: Building Integrated Monitoring System w/Blockchain

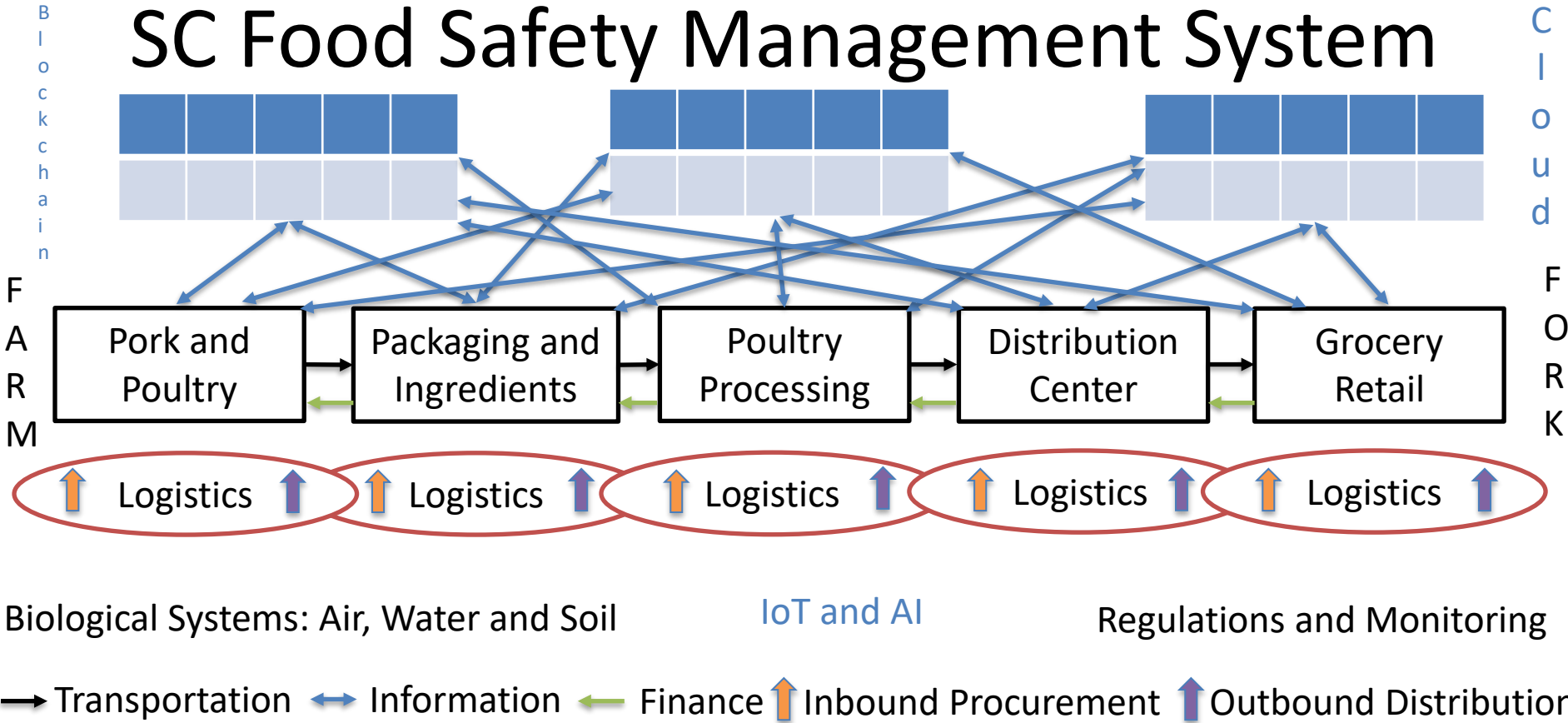


- Market Scope
  - Domestic China
  - International Research Team
- Philanthropic Objective
  - Improve Overall Food Safety
  - Integrated SC Food Safety System
    - With blockchain component
  - Walmart Foundation
  - Walmart Food Safety Collaboration Center

# Pork Supply Chain 猪肉供应链



# SC Food Safety Management System



# Food Safety Measures

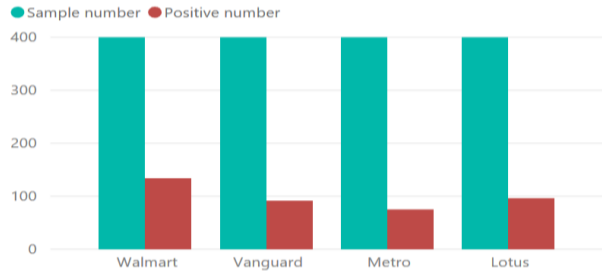
- Farm Data
  - Biological Systems (Air, Water, Soil)
  - Salmonella and Feed
- Production Data
  - Temperature, Humidity, Salmonella and Residue
- Transportation Data
  - Temperature, Pick-up and Delivery Times
- DC Data
  - Temperature, Humidity and Salmonella
- Retail Data
  - Temperature, Humidity, Social Media and Salmonella
- Model Output
- Regulatory Filings

# Dashboard

Source



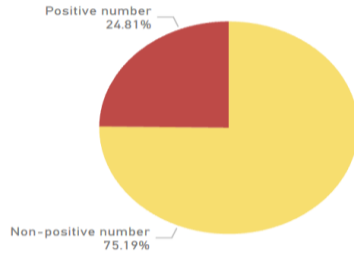
Sample number and Positive number by Source



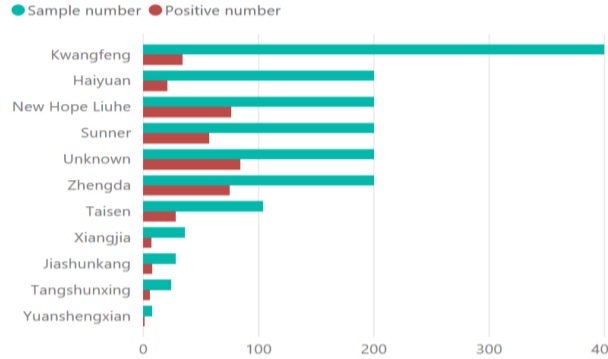
Non-positive number and Positive number

397  
Positive number

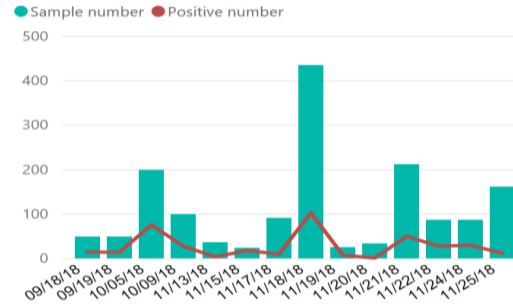
1600  
Sample number



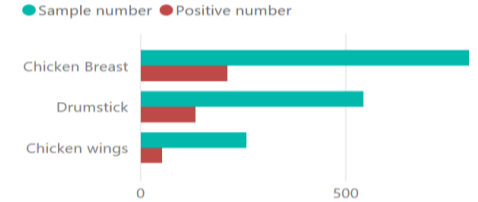
Sample number and Positive number by Product Brand



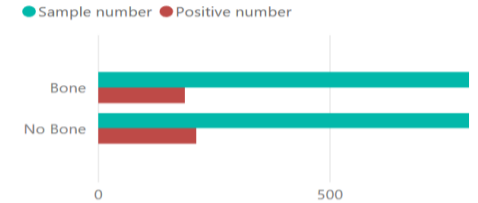
Sample number and Positive number by Date



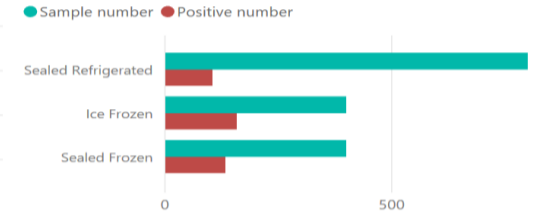
Sample number and Positive number by Chicken Type



Sample number and Positive number by Bone or Not



Sample number and Positive number by Storage Methods



# Insights

- Current practice is farm and production focused
  - No known blockchain implementation planned
  - Completed a manual follow-the-shipment test
    - focused on traceability with temperature, location and time/date
- Lack of supply chain orientation
  - Little or no visibility of downstream wholesale and retail
- Reluctant to share food safety data
  - Within the domestic China supply chain
  - With US partners
  - Focus on traceability
- Need to benchmark existing blockchain usage

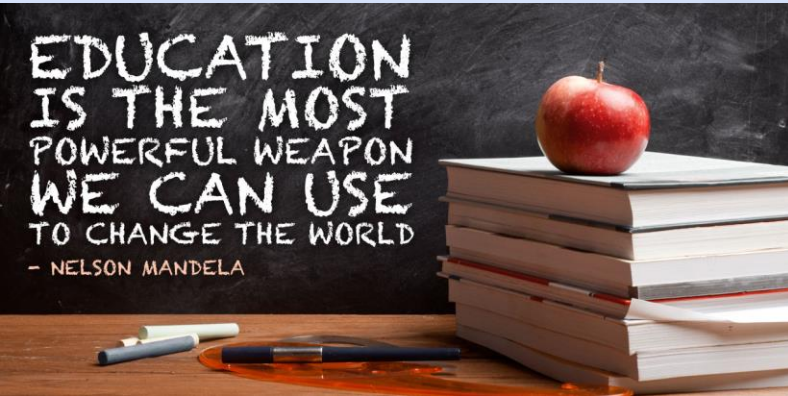
# Blockchain Benefits

- With the increase in consumer demand for safe and high-quality food, many blockchain-based platforms provide transparency in the supply chain from production to consumption based on the traceability system of the blockchain, giving consumers trust and authentic information
- 随着消费者对安全和优质食品需求的增加, 很多基于区块技术的平台根据区块链的可追溯系统, 提供从生产到消费的供应链的透明度, 给消费者信任和真实信息.
- Benefits include:
  - Improving food safety through traceability
  - Building customer trust through transparency
  - Preventing food waste during outbreak
  - Saving time and money by quickly tracking products



# Questions for Attendees

- As a vendor, is your organization a willing network participant? Do you agree to input the necessary data features on the blockchain? / 作为供应商，您的组织是否愿意参与网络？你是否同意在区块链上输入必要的特征？
- As a partner, will your organization function as a node (verification role) on the network? / 作为合作伙伴，您的组织是否会在网络上扮演节点(验证角色)的角色？
- Who will have full visibility of the Supply Chain? Who will have limited visibility of the Supply Chain? / 将拥有供应链的全面可见性？谁对供应链的可见性有限？
- Will visibility change for different vendors conditionally between Supply Chain operation stages (or depending on the data displayed)? / 不同供应商的可见性在供应链操作阶段之间是否会有条件地变化（或取决于显示的数据）？
- Will servers hosting the blockchain be located in China, the US, or both? / 托管区块链的服务器将位于中国，美国还是两者都位于？



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IS THE MOST  
POWERFUL WEAPON  
WE CAN USE  
TO CHANGE THE WORLD  
- NELSON MANDELA

