



Global Food Traceability

2014 Dubai International Food Safety Conference

William Fisher

Vice President, Institute of Food Technologists

Executive Director, Global Food Traceability Center



Agenda

- Who is IFT?
- IFT and Traceability
- Defining Food Traceability
- Importance of Traceability
- Benefits
- Challenges
- Panel Presentations
- Q&A



The Institute of Food Technologists - IFT



Who We Are

- For more than 75 years, IFT has unlocked the potential of the food science community by creating a dynamic global forum where members from more than 100 countries can share, learn and grow.



Our Strategic Focus

■ Mission

- The Institute of Food Technologists (IFT) exists to advance the science of food. Our long-range vision is to ensure a safe and abundant food supply contributing to healthier people everywhere.

■ Our Commitment

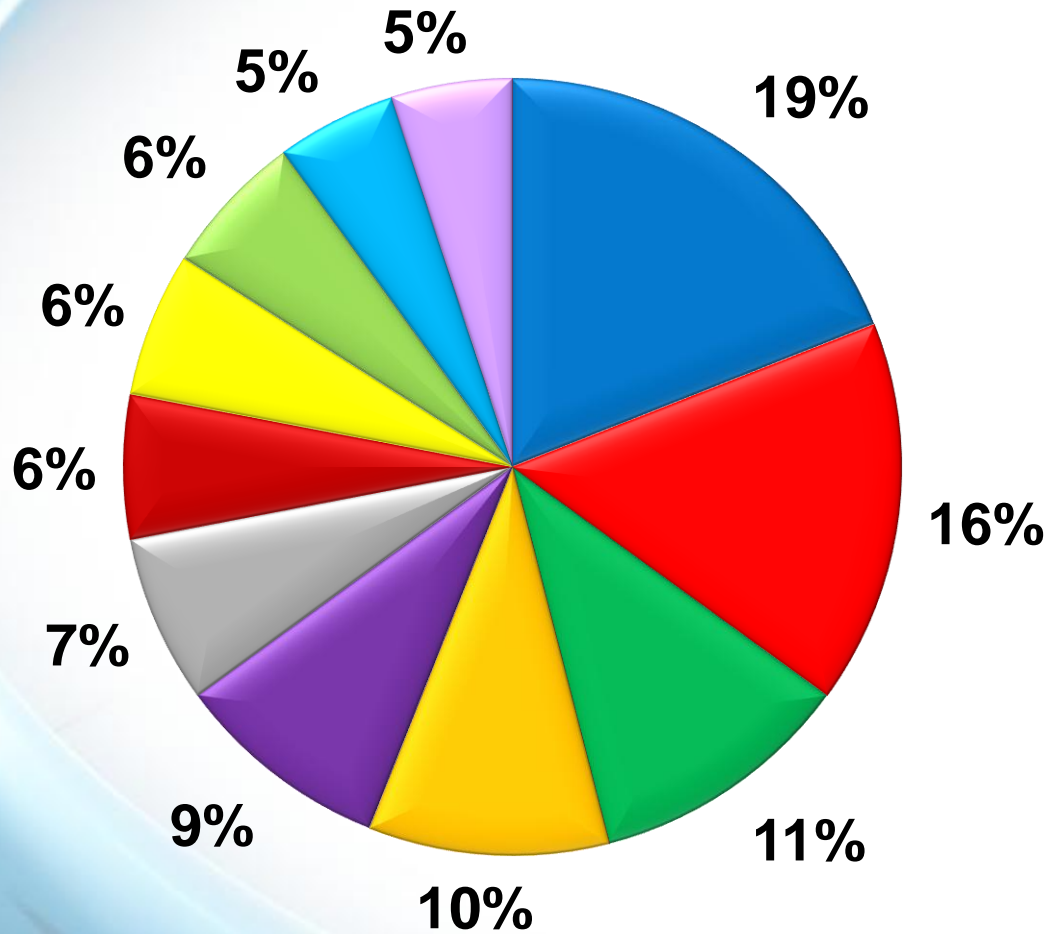
- We strive to provide an inclusive and welcoming community for all food science and technology professionals and the knowledge and tools they need to enhance their professional capacity and competency.

IFT Membership

- More than **18,000** members worldwide
- Members come from industry (**81%**), academia (**15%**), and government (**4%**)
- **18%** of IFT members are international in more than **100** countries



IFT Global Membership



- Japan
- Korea, Republic Of
- Australia
- Taiwan
- United Kingdom
- Spain
- Brazil
- Thailand
- Argentina
- Germany
- India

IFT Members Come from Many Roles

- Industry Research
- Academic Research
- Product Development
- Product Management
- Packaging Development
- Purchasing
- Lab Management
- Executive Management
- Sales and Marketing
- Food Engineering
- Regulatory
- QA/QC
- Food Safety
- Consumer Insights/Sensory Evaluation
- Public Relations






What We Do

- IFT Annual Meeting & Food Expo
- Publications
 - Journal of Food Science
 - Journal of Food Science Education
 - Comprehensive Review in Food Science and Food Safety
 - Food Technology
 - IFT Press Books
 - Newsletters
- Continuing Education and Professional Development
 - Webinars
 - Short courses





Plan now to join us to celebrate our 75th annual conference. **It's going to be an event not to miss!**


IFT15®

Where Science Feeds **Innovation**

McCormick Place South, Chicago, IL
July 11-14, 2015





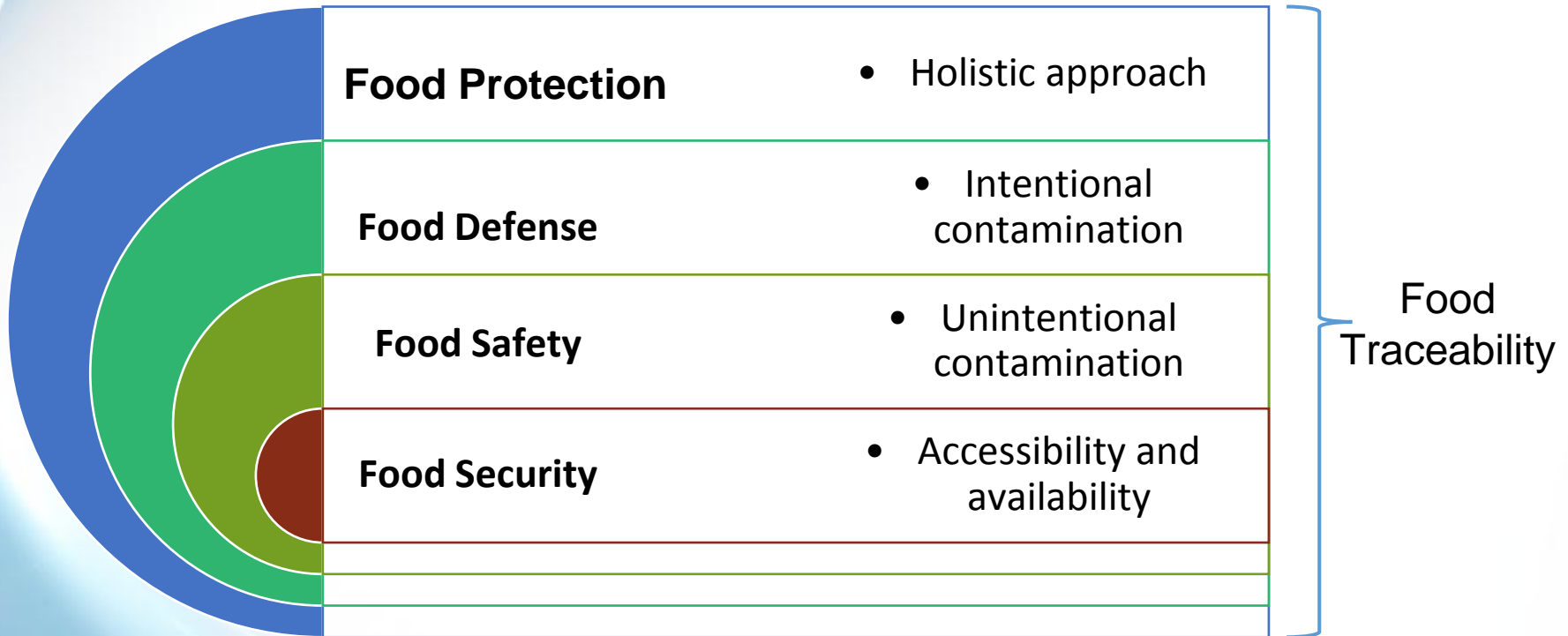
IFT and Traceability

Year	Traceability Efforts
2008	FDA Task Order - Report on “State of the Industry”
2009	FDA Task Order - Mock tomato traceback pilot using technology solutions
2010	National Center for Food Protection & Defense (NCFPD) Traceability Project
2011	IFT Traceability Improvement Initiative (TII) – Traceability Summits
2012	FDA FSMA Product Tracing Pilots
2013	Global Food Traceability Center



Defining Food Traceability

Food Traceability Drivers





What is Traceability?

- Traceability *is just not* about data, identifiers, bar codes, RFID, tags, and any information that needs to be linked together to make traceability possible.
- Traceability *is* about systematic ability to access any or all information relating to a food under consideration, throughout its entire life cycle, by means of recorded identifications.

Categories of Traceability

- “Internal traceability”
 - Ability to follow the movement WITHIN

- “External traceability”
 - Ability to follow the movement BETWEEN.



3 Basic Information Elements Required

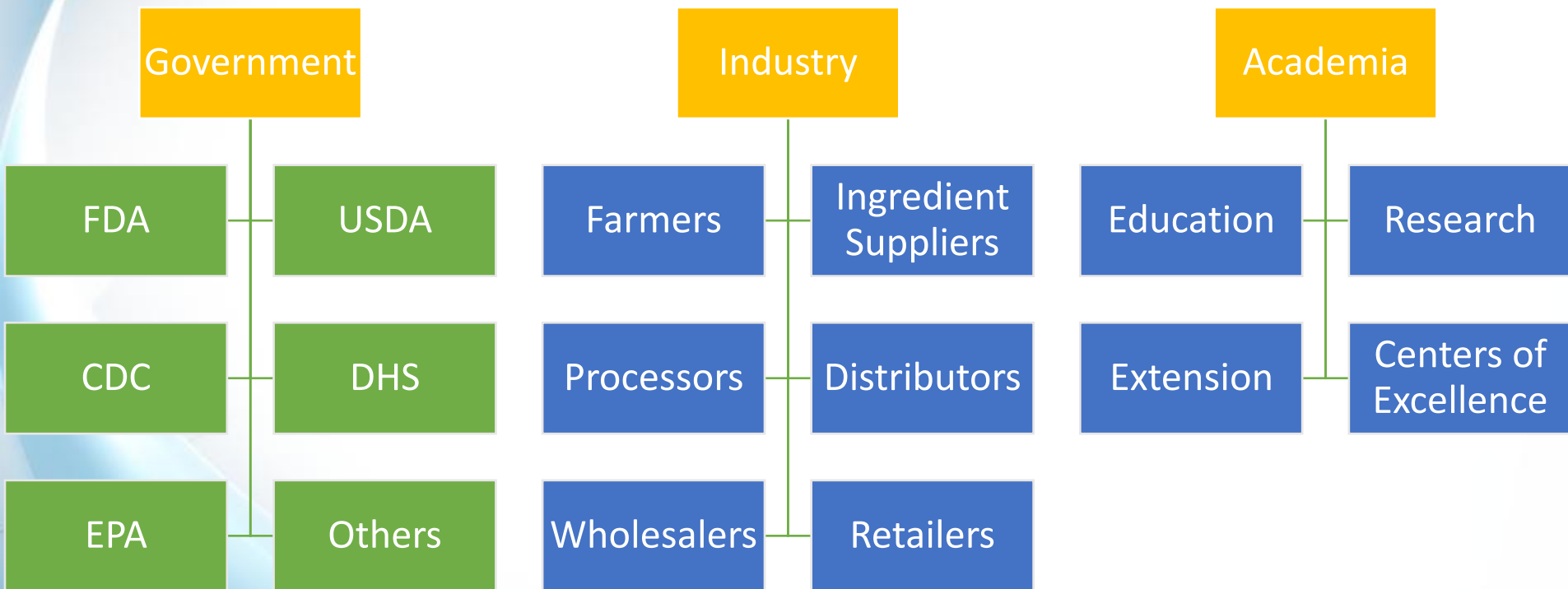
- What is the product?
- Where did the product originate or go to?
- When did it move?





The Importance of Traceability

Key Stakeholders



Global Food Supply Chain



- ✓ Animal Agriculture
- ✓ Good Ag Practices
- ✓ Food Processing
- ✓ Storage & Distribution
- ✓ Transportation

- ✓ Domestic Regulations
- ✓ International Regs.
- ✓ Multiple Standards
- ✓ Varied Enforcement
- ✓ Differing Scientific Views

- ✓ Consumer Trends
- ✓ Changing Habits
- ✓ Health Drivers
- ✓ New Threats
- ✓ Media

Global Supply Chain Complexity



bleached wheat flour
malted barley flour
thiamine
riboflavin
Niacin
folic acid
reduced iron
Water
corn syrup
sesame seeds
soybean oil
Yeast
Salt
calcium sulfate
calcium carbonate
calcium silicate

soy flour
baking soda
wheat gluten
calcium propionate
enzyme
mono- and diglycerides
diacetyl
tartaric acid esters
ethanol
sorbitol
polysorbate 20
potassium propionate
sodium stearoyl lactylate
corn starch
ammonium chloride
ammonium sulfate
calcium peroxide
ascorbic acid
azodicarbonamide



lettuce



dehydrated onions

Milk
milkfat
Water
cream
sodium citrate
salt
sodium phosphate
sorbic acid
artificial color



cheese culture
acetic acid
soy lecithin
Enzymes
starch



Cucumbers
water
Vinegar
Salt
calcium chloride
Alum
natural flavorings
polysorbate 80
turmeric



USDA inspected beef

Soybean oil
pickles
distilled vinegar
water
egg yolks
HF corn syrup
sugar

onion powder
corn syrup
spice
spice extractives
salt
xanthan gum

mustard flour
prop. glycol alginate
sodium benzoate
potassium sorbate

mustard bran
garlic powder
hydrolyzed proteins
caramel color
paprika

Turmeric
calcium disodium EDTA



Grill Seasoning
Salt
Pepper

cottonseed oil
soybean oil



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Globalizing the Cheeseburger



Vinegar

Argentina
Australia
Austria
Belgium
Brazil
Canada
China
Chile
Colombia
Denmark
Dom. Rep.
France
Germany
Greece
Hong Kong
Israel
Italy

Japan
S. Korea
Lebanon
Peru
Poland
Portugal
Serbia
Philippines
Russia
S. Africa
Singapore
Spain
Sweden
Turkey
Taiwan
U.K.

Garlic Powder

Brazil
Canada
China
Germany
India
Israel
Japan
S. Korea
Mexico



Tomatoes

Belgium
Canada
Colombia
Costa Rica
Dom. Rep.
Guatemala
Israel
Morocco
Mexico
Netherlands
New Zealand
Poland
Spain

Beef

Australia
Canada
Chile
Costa Rica
Honduras
Japan
Mexico
Nicaragua
New Zealand
Uruguay



Wheat Gluten

Australia
Belgium
Canada
China
Czech Rep.
France
Germany
Kazakhstan
Lithuania
Netherlands
Poland
Russia
Switzerland
Thailand
U.K.

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Rising concerns about safety and quality of food

- Increasing concern about health and safety risks in the global food supply chain due to:
 - Foodborne illness: high visibility cases of E.coli, Listeria, Salmonella, etc.
 - Higher number and visibility of recalls
 - Rise in fraudulent activities in the food chain and counterfeit products
 - More products coming from countries with lower health and safety standards
 - Higher risk of contamination or spoilage due to long, complex supply chains
 - Threat of terrorism

- Impact of above:
 - Economic loss from negative impact of recalls
 - Rising distrust of the food supply – Fragile consumer confidence
 - Demands for proof of food product claims
 - Increased demands for regulation and guidelines
 - Increased business costs to comply with regulations



Traceability Benefits



Reported Benefits

- Expanded markets
- Improved supply chain management
- Insurance cost reduction
- Decreased spoilage
- Process improvement
- Cost of recalls reduced

Risk Mitigation



- Significantly lower costs of business
 - Reduce the time to trace suspected products
 - Correctly identify affected products and companies
 - Reduce the scope of recall or withdrawal
 - Decrease risk & liability – lower insurance costs
 - Reduce potential fraud and counterfeit products





Other Reasons to Invest in Global Traceability

- Ease compliance with global regulations
- Improved recall process – Lower costs
- Greater inventory visibility – Faster order-to-cash
- More timely and accurate upstream and downstream data – Reduced working capital
- Improved returns process – Reduced risk



Traceability Challenges

Traceability Challenges

- **Consumers are more vocal**
 - Demand for rapid access to reliable and relevant information whenever they need it



Traceability Challenges

- Overlapping and conflicting demands from national regulators



Traceability Challenges

- **Lack of unifying requirements**
 - Changing regulatory demands around the world
 - Multiple proprietary requirements
 - Terminology



Traceability Challenges

- Traceability varies by industry and product
 - Agriculture/Farming/Fishery
 - Food Manufacturers/Processors
 - Retail and Food Service
 - Transportation & Distribution



Traceability Challenges

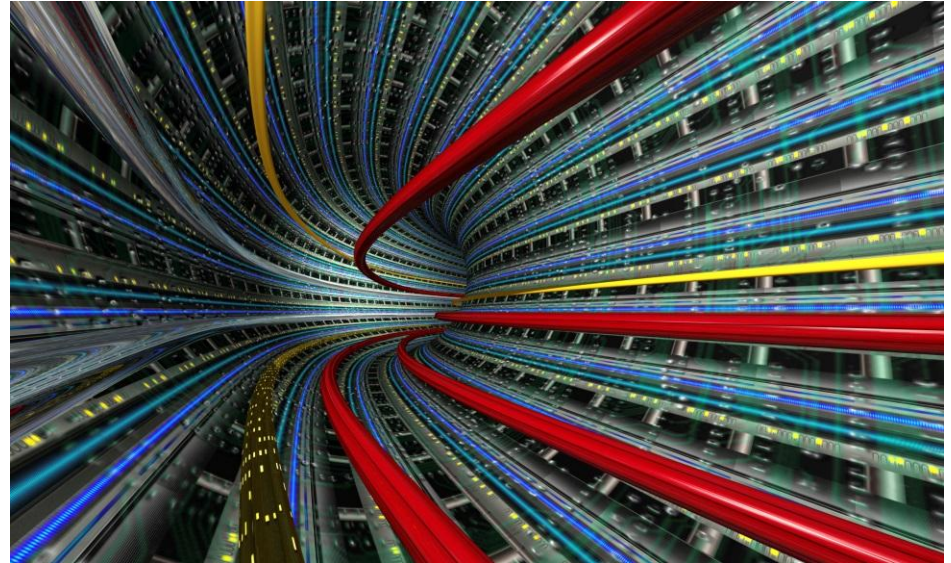
- **Lack of records**
 - Data is simply not available, or is difficult to collect

 - Is the data
 - Reliable?
 - Relevant?
 - Readily accessible?



Traceability Challenges

- **Lack of technology**
 - Technology is not the problem but it can be a solution





Today's Expert Panel



Session Panelists

- **Dr. Sylvain Charlebois**, Acting Dean – University of Guelph, College of Management & Economics
 - Global Traceability Regulations
- **Brian Sterling**, Managing Director – Global Food Traceability Center
 - Industry Best Practices
 - Overview of GFTC
- **Jacob Roland Pedersen** – Senior Manager & Lead Veterinarian, Danpro A/S Technology
 - Business Benefits