Global Food Safety Product Management: A Holistic, Integrated, Strategic Approach *(Proposed)*

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Disclaimer

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Vision

- **Food Product Safety: A Global Sense of Urgency**
- **Food Product Safety Global Impacts**
- **Food Product Safety Management Framework: (*Proposed*)**
- **Summary**

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Peanut Butter Salmonella Outbreak in 2007

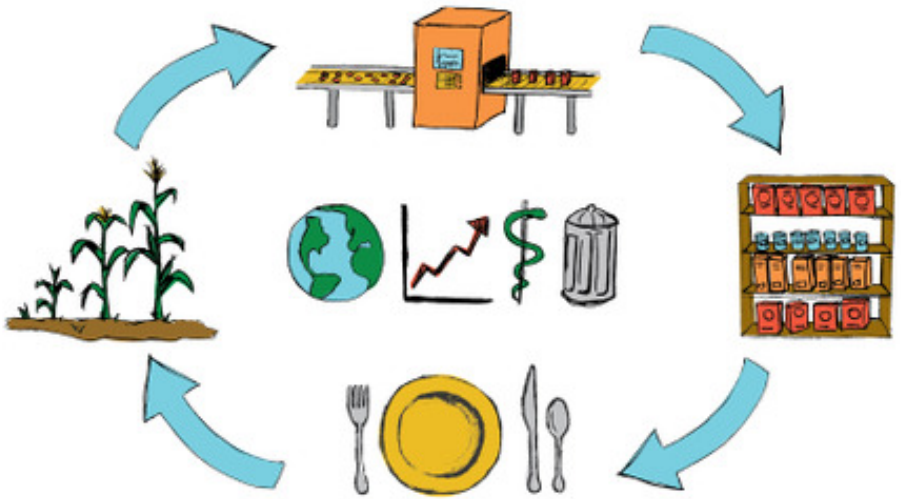
- Salmonella outbreak in 2007 traced to peanut butter manufacturer in Georgia, USA
- Hundreds of people became sick across 47 states in USA
- Manufacturer agreed to pay $11M fine in 2015 to settle U.S. Federal Government charge



(Image Source: Google.com, 2016)

Personal Impact Leads to 10-Year Research

- **Family personal impact**
- **Led to 10-year research journey regarding food product safety management**
- **Published related research in 2008 and 2014**



(Notional Food Product Lifecycle Source: Google.com, 2016)

Foodborne Pathogens Contaminate Unsafe Food

- **Pathogens in unsafe food cause more than 250 diseases including:**
  - **Campylobacter**
  - **Clostridium Botulinum (Botulism)**
  - **Escherichia coli (E. coli) 0157:H7**
  - **Listeria**
  - **Norovirus**
  - **Salmonella**
  - **Toxoplasma**



(Photo Source: Google.com, 2016)

(U.S. Centers for Disease Control and Prevention, 2016)

Food Product Safety in 2016: A Sense of Urgency!

- Foodborne disease impacts all nations, transcends national boundaries, and affects national economies
- 600 million people will become sick from foodborne diseases in 2016
- 420,000 people will die from foodborne diseases in 2016



(WHO, 2015)

Foodborne Diseases Impact At-Risk Groups

- Foodborne diseases particularly impact infants, young children, the elderly, and people that are sick
- Children under five years of age experience 40% of foodborne diseases
- 125,000 children under five years of age will die in 2016 from foodborne diseases



(Photo Source: Google.com, 2016)

(WHO, 2015)

Africa and South-East Asia Are at Significant Risk

- **Africa and South-East Asia populations have highest global burden of foodborne diseases including:**
  - **Highest incidence of illness from foodborne diseases**
  - **Highest death rates from foodborne diseases**
  - **Highest incidence of illnesses and death rates of children under five years of age from foodborne diseases**

(WHO, 2016)



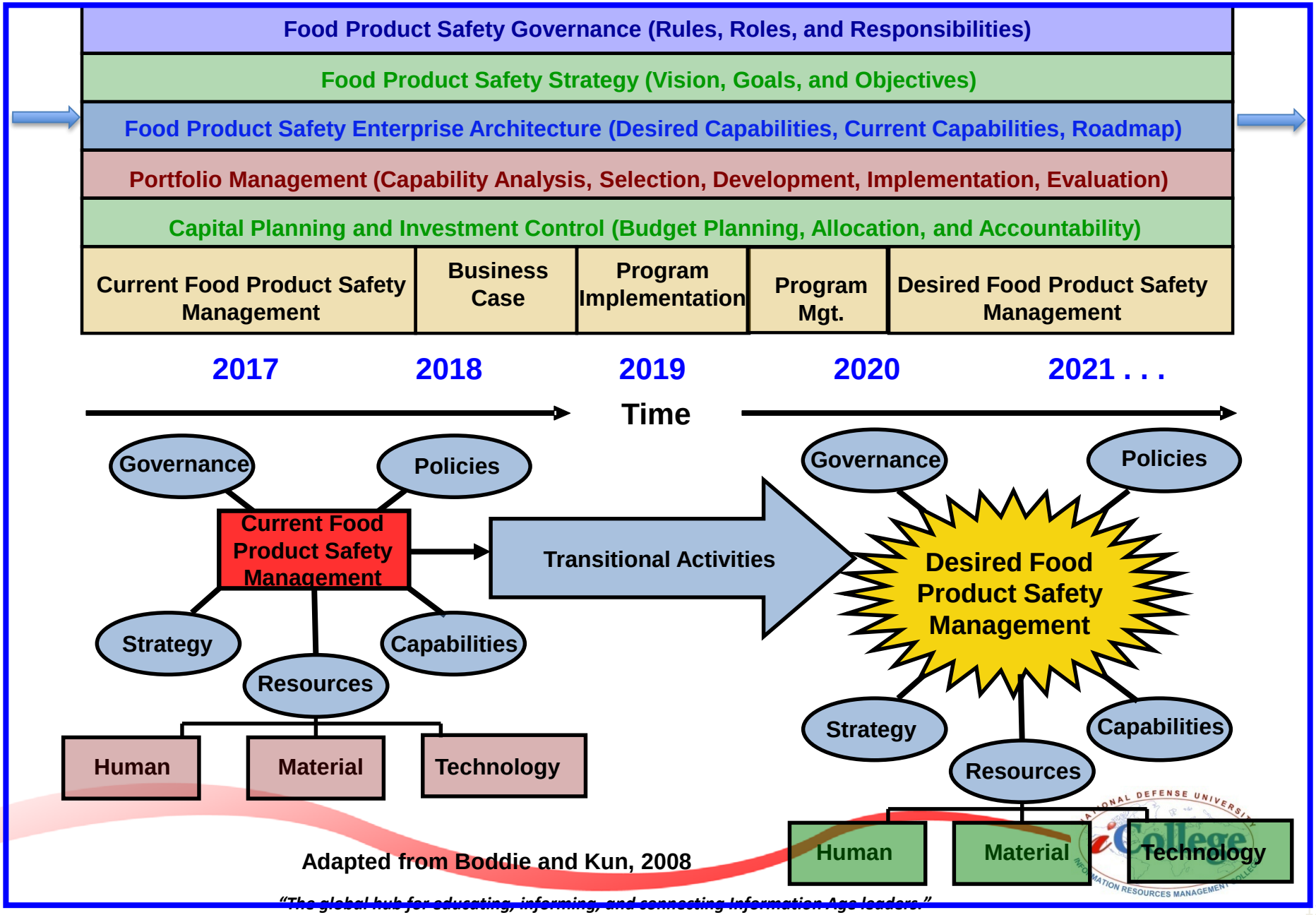
(Image Source: Google.com, 2016)

Disjointed Global Food Safety Management

In many countries, responsibility for food safety management is divided among several agencies with overlapping authorities. This has led to many countries experiencing disjointed strategies for the protection of human health from foodborne disease.

(WHO, 2015)

Food Product Safety Integrated Management Framework: *(Proposed)*



Adapted from Boddie and Kun, 2008

Food Product Safety Governance

Governance . . . the decision framework and process that enterprises use to make investment and strategic management decisions



(Gartner, 2015)

Food Product Safety Strategy

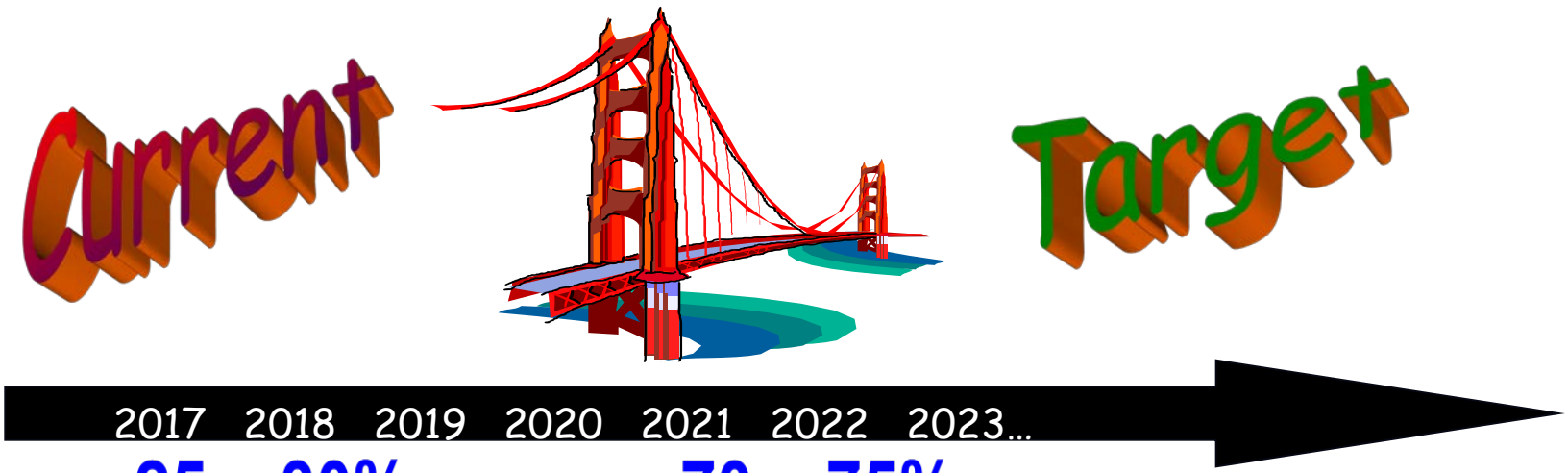
Strategy is a plan - some sort of consciously intended course of action, a guideline (or set of guidelines) to deal with a situation.



(Mintzberg, 1992)

Food Product Safety Enterprise Architecture

Enterprise architecture is a discipline for proactively and holistically leading enterprise responses to disruptive forces by identifying and analyzing the execution of change toward desired business vision and outcomes (Gartner, 2016)



Framework Implementation

1. **Establish Food Product Safety Management Governance**
   a. **Establish executive steering committee(s)**
   b. **Establish decision-making roles, rules, and responsibilities**

2. **Develop Food Product Safety Management Strategic Plan**
   a. **Define food product safety management vision**
   b. **Establish food product safety management goals and objectives**

Framework Implementation (Continued)

3. Describe Desired Food Product Safety Management

4. Understand Current Food Product Safety Management

5. Analyze Gap Between Desired and Current Food Product Safety Management

6. Develop Roadmap to Close Food Product Safety Management Gap

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Framework Implementation (Continued)

7. **Report Implementation Progress Continuously**

8. **Adjust Strategy and Roadmap as Needed**

Summary

- **Food Product Safety: A Global Sense of Urgency**
- **Food Product Safety Global Impact**
- **Food Product Safety Management Framework: (*Proposed*)**
- **Questions**

23 Children in India Die from Food Poisoning

- **Children ate food laced with pesticide in Bihar, India on July 16, 2013**
- **23 children died from food poisoning**
- **25 additional children became ill and required hospitalization**
- **Implication: Food safety management is critical throughout food life cycle process**



23 Children in India Die from Food Poisoning in 2013

- Over 400 people poisoned from raw curry leaves used in chutney at street festival in New Castle, U.K. in June, 2013
- Curry leaves were contaminated with various bacteria
- 29 confirmed cases of Salmonella
- Implication: Food safety management is critical throughout food life cycle process



Raw Curry Leaves