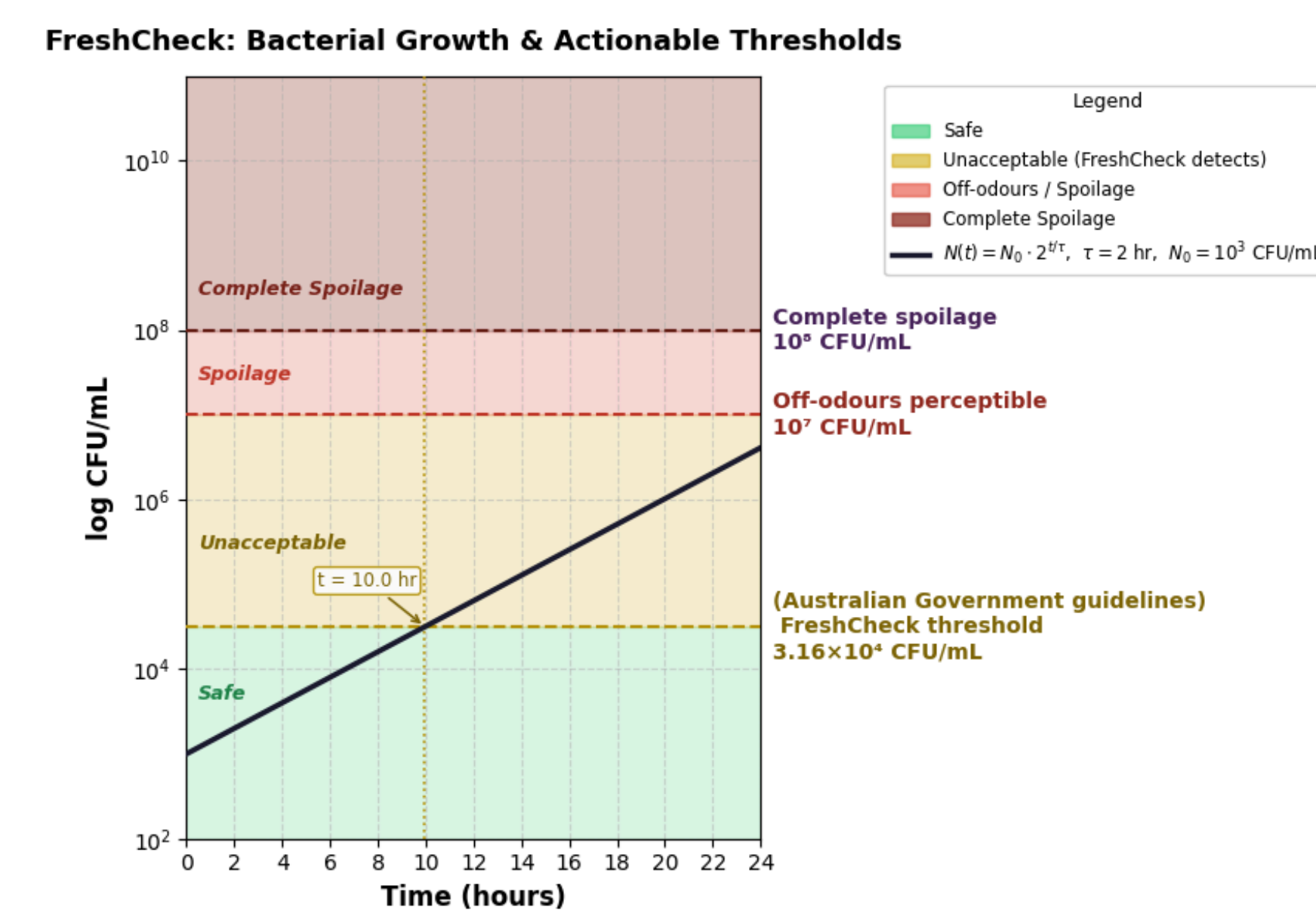
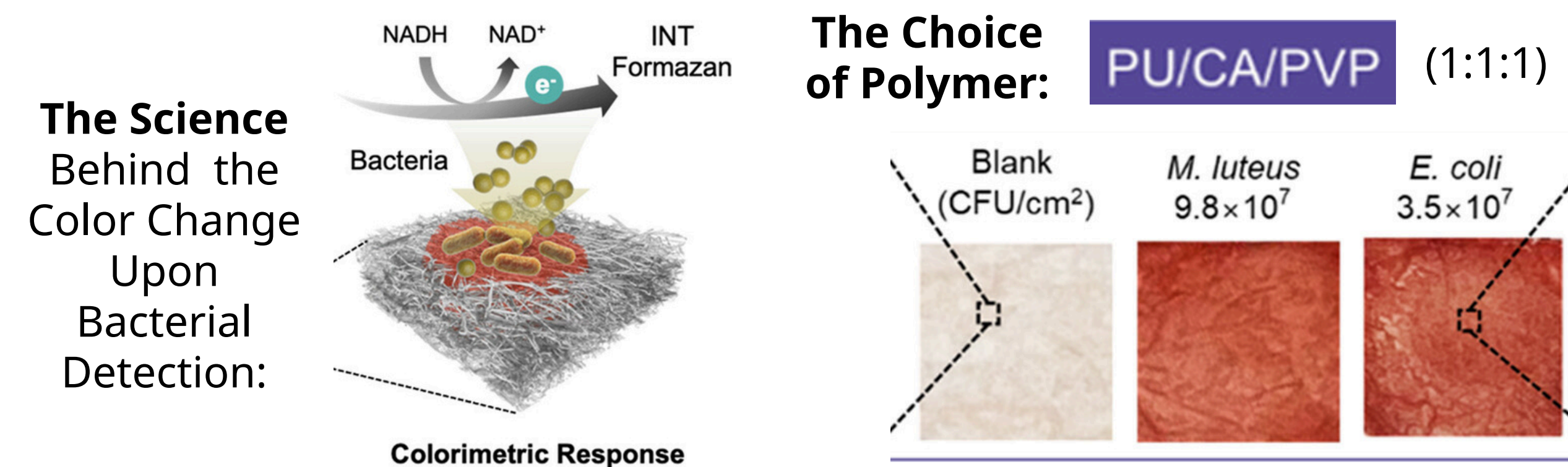


## Motivation



- In the United States,**
- **8 million** people get sick from a foodborne illness each year
  - **128,000** hospitalized and **3,000** death
  - Meat and poultry responsible for **~22 %**
  - Due to spoilage, Americans throw out about **26 %** of meat, poultry, and fish at retail and consumer levels

## Mechanism & Materials

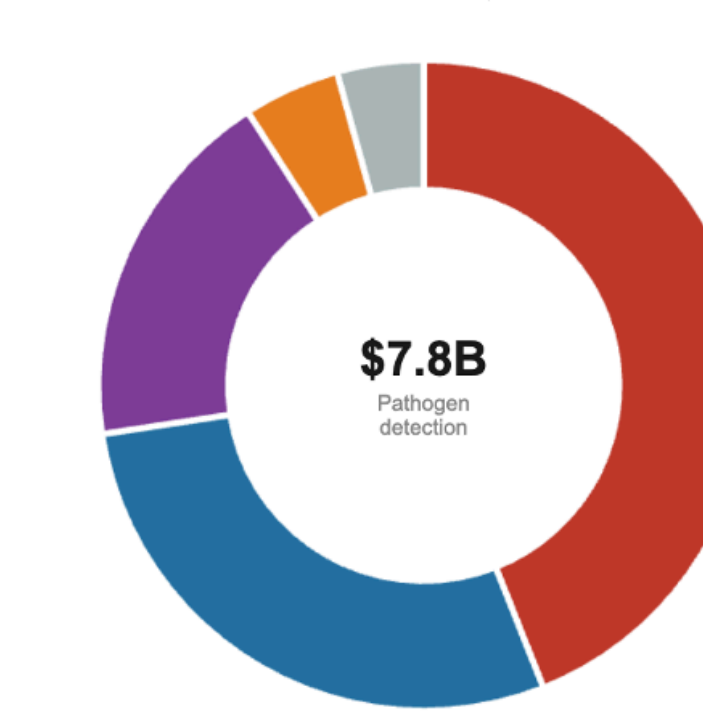


The strip **instantly** turns red when bacterial concentration exceeds the **safety threshold** → delivering **immediate, confident** confirmation for safer decision-making.

## Market Analysis

- **Pathogen detection segment: \$7.85B** in 2025, projected **\$17.63B** in 2034
- **Point-of-use testing growth: 11%** compound annual growth rate

Global Food Safety Testing Market — by Test Type

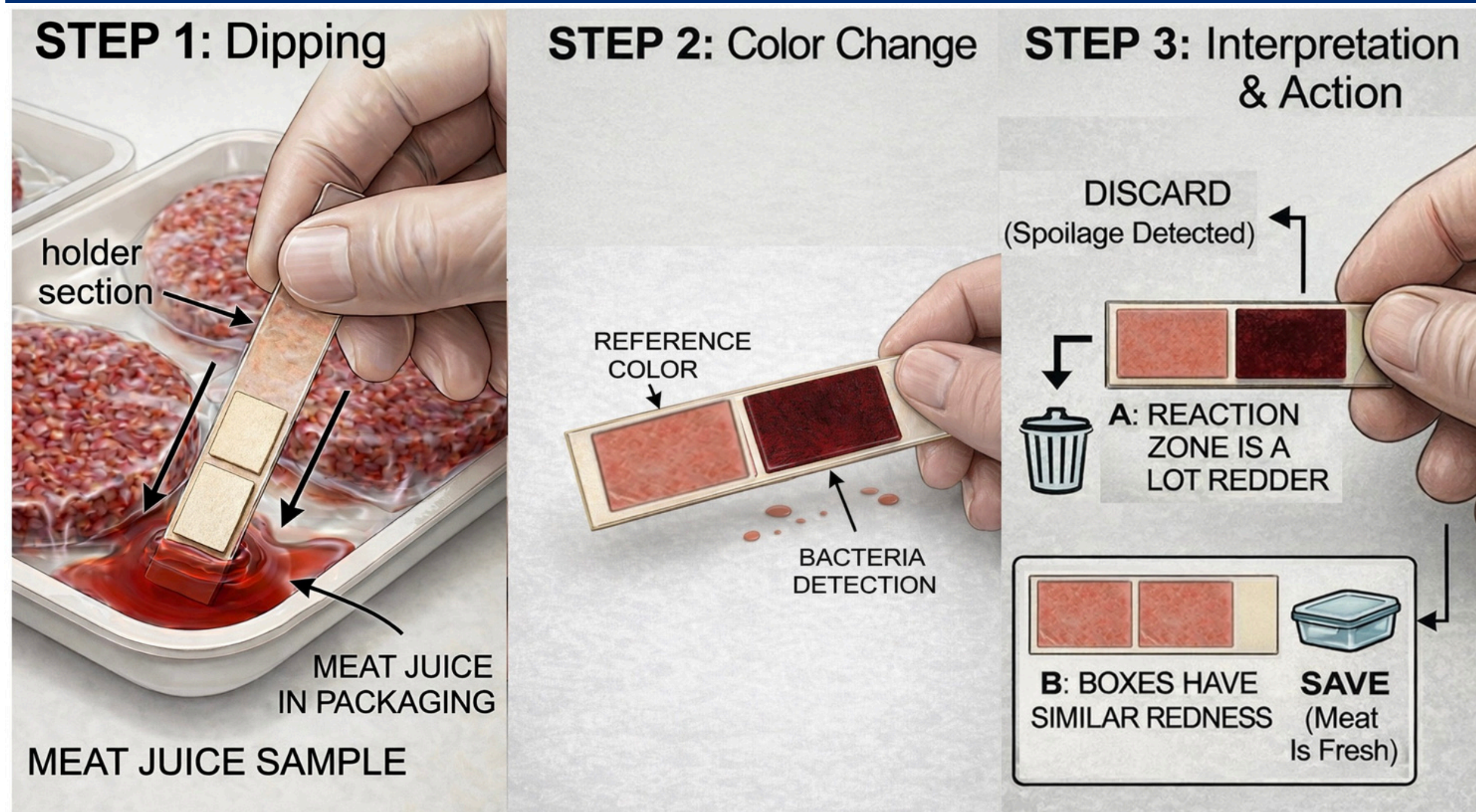


### Targeted Sector: Large Restaurant Chains

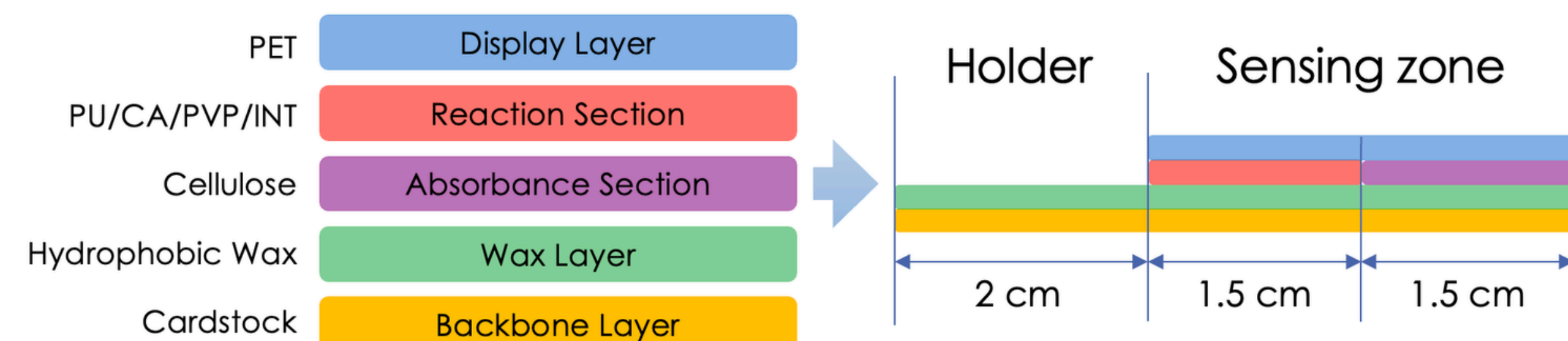
- Enough revenue to afford
  - ~ 0.02% of weekly revenue
- The stakes are high!



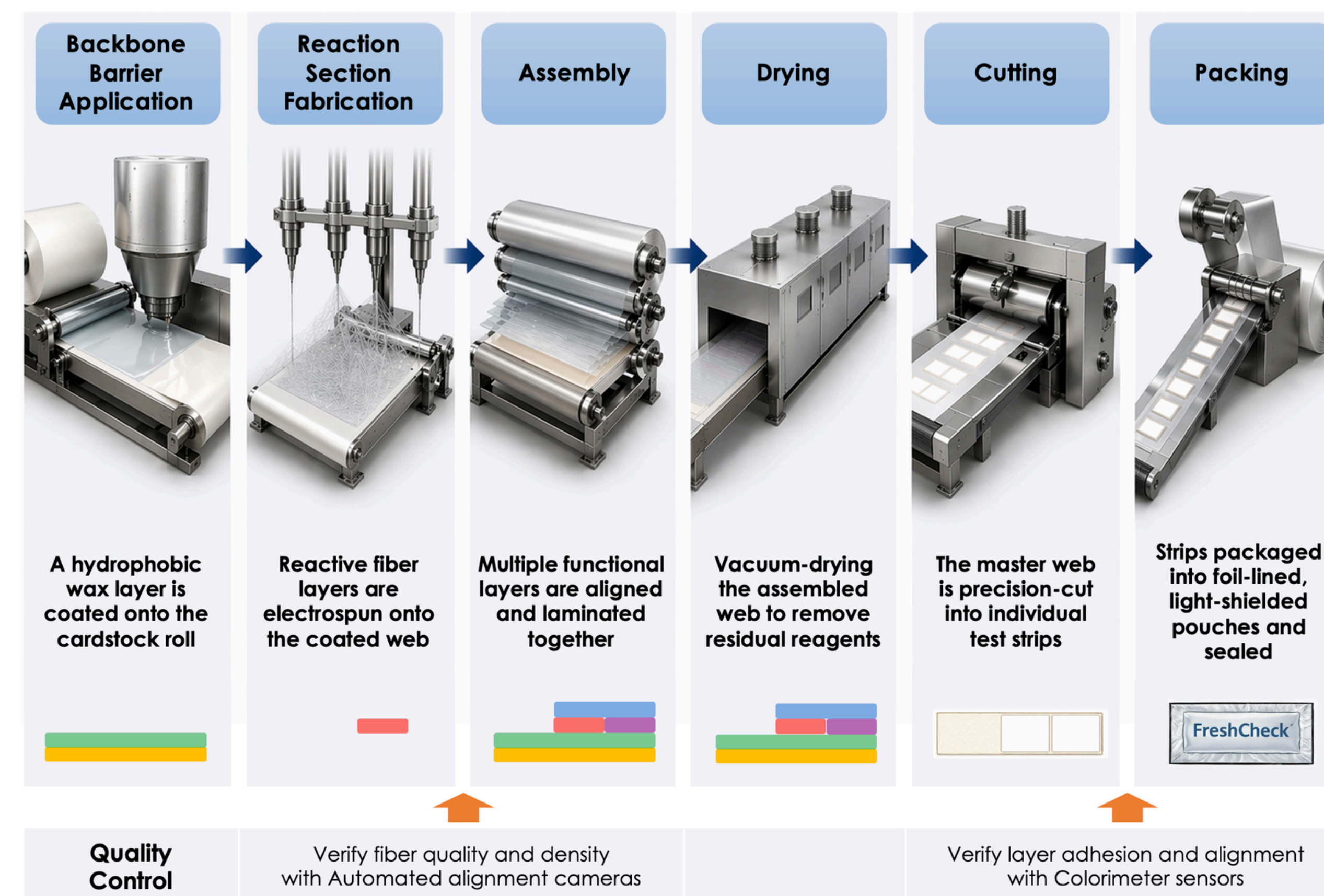
## Design & Materials



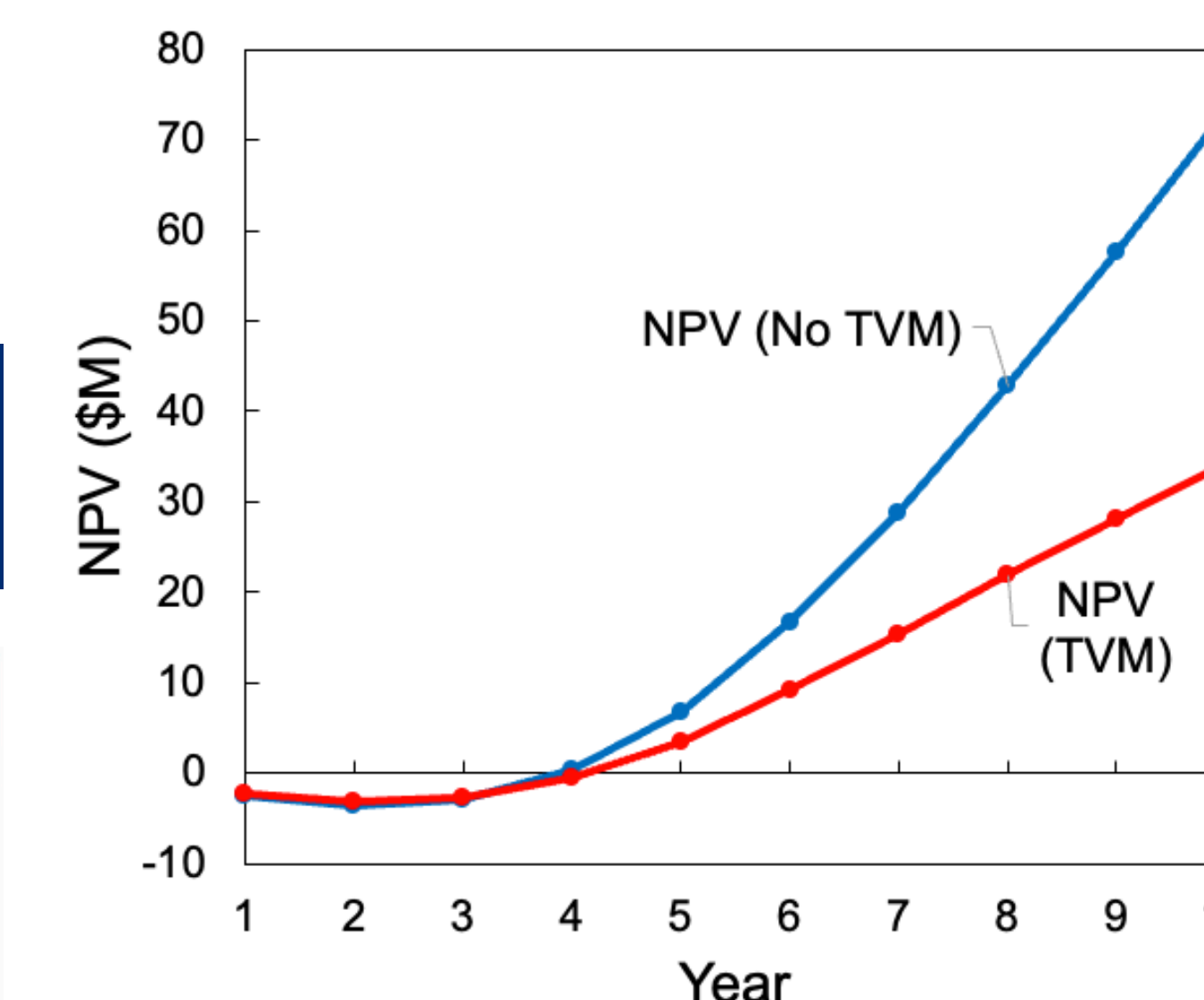
- **Portable:** Compact 1 cm x 5 cm design for on-the-spot testing in any environment
- **Fast Readout:** Visual results begin appearing almost immediately, with distinct color development within 10 seconds
- **Non-Invasive:** Samples meat juice (exudate) only; no direct contact with the food product is required
- **Universal Precision:** Directly detects metabolic respiration, making it effective for all meat types and most food borne illness-related bacteria



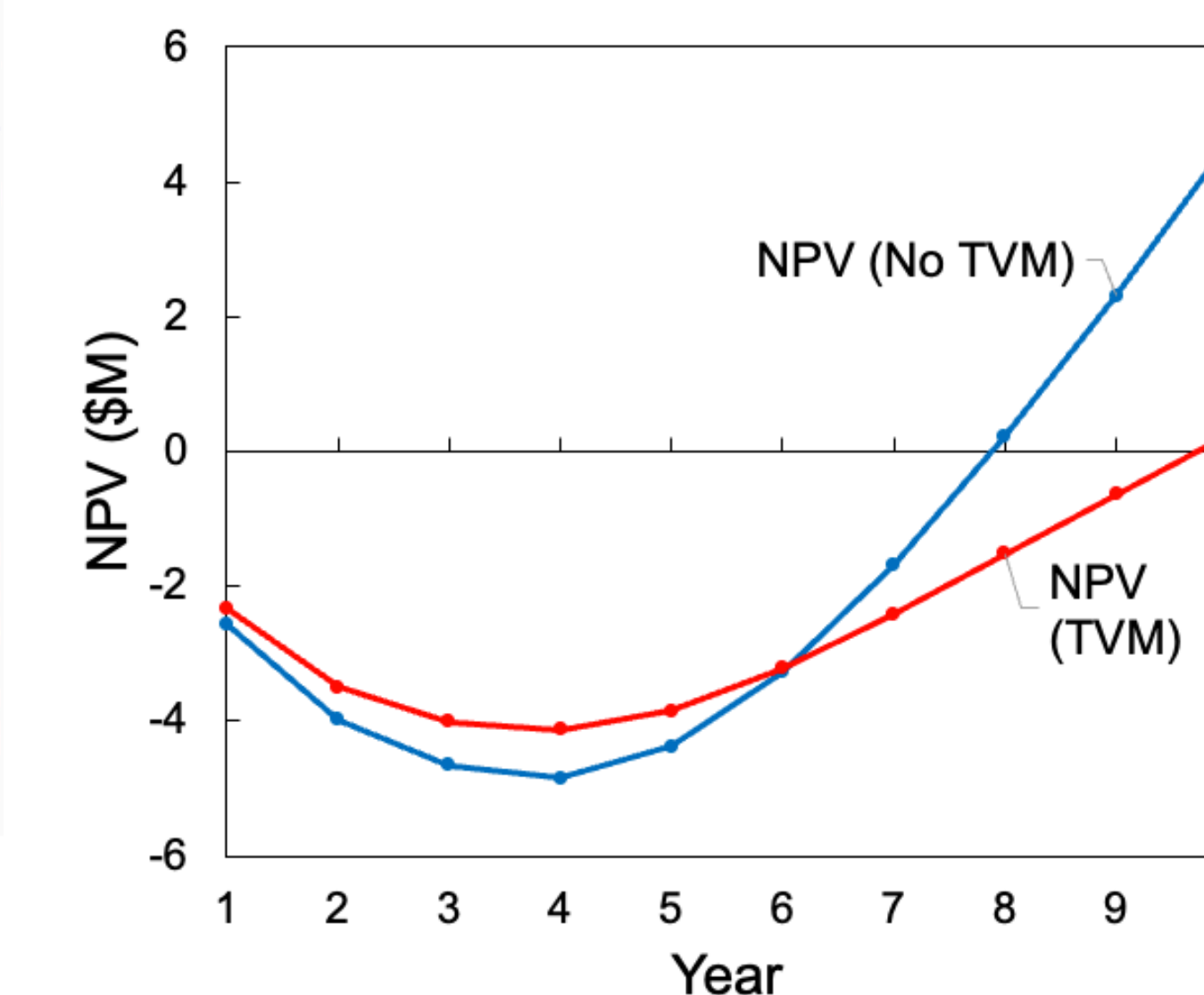
## Manufacturing Process



## Financial Analysis



- Market price: **\$1.00/strip**
- **1 year R&D; Production pilot ramp** beginning in Year 2
- Revenue & operating costs increase **proportionally with customer count**
- Payback period (PBP): **4-5 years**
- NPV by Year 10: **\$34-73M**



- Market price: **\$0.33/strip**
- **Identical customer base (20K by Year 10)**
- Payback period (PBP): **8-10 years**
- NPV by Year 10: **\$0.23-4.6M**

## Reference & Disclosure

If you're interested in learning more, check out our slides for details.

