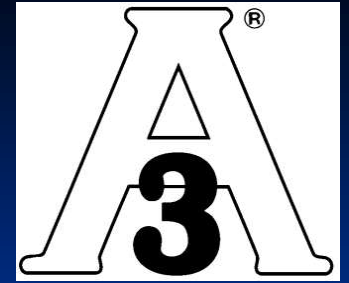


3-A Sanitary Standards, Inc.
2013 Annual Meeting
Milwaukee, WI



PLANT AUTOMATION and
the NEW CHALLENGES for
3-A DESIGN

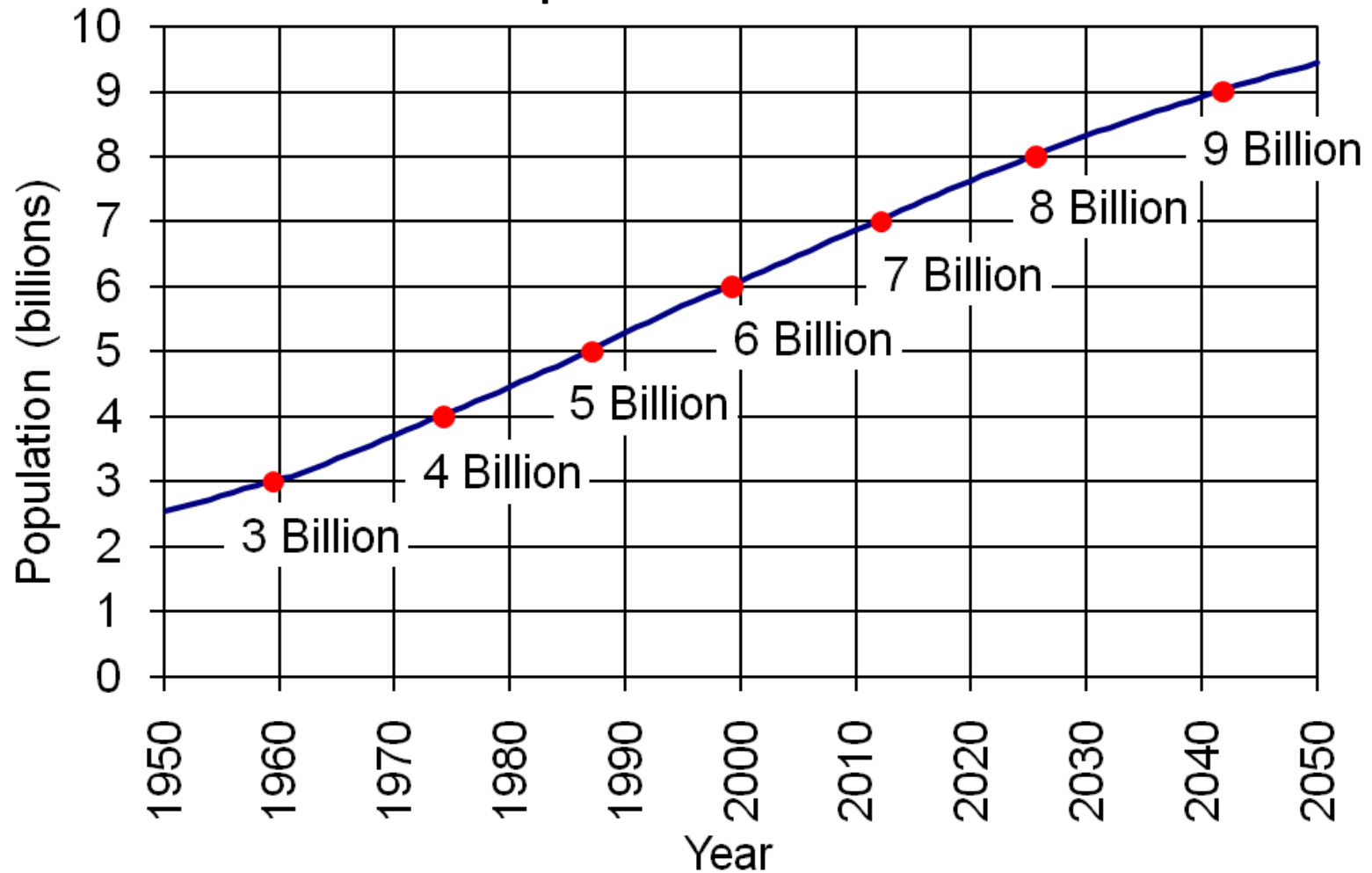
Presenter: Lyle W. Clem, 3-A CCE &
Chair 3-A Steering Committee

Our World is Changing and the Needs for 3-A Compliant Hygienic Design is Also Evolving

Please Look Around this Room and Consider.....
How Our Lives will be Impacted by a 25%
Growth in World Population !

This will happen before Our Youngest Attendees
Retire in 2050

World Population: 1950-2050



Source: U.S. Census Bureau, International Data Base, June 2011 Update.

3-A Compliant Hygienic Design is an Important Technology

Please Also Consider How Population
Growth will...

- Increase Demand for Food Production
- Create Potential Impacts to Food Safety
- Require Protection of Public Health.

Recent Foodborne Disease Data

2012 Data Indicates 19, 531 Infections, 4563 Hospitalizations, and 68 Deaths Associated with Foodborne Diseases.

Number of Infections in 2012 by Pathogen:

**Salmonella 7,800, Campylobacter 6,793,
Shigella 2,138, Cryptosporidium 1,234, Vibrio 193,
Yersinia 155, Listeria 121.**

Recent Foodborne Disease Data cont.

“ These findings highlight the need to continue to identify and address food safety gaps that can be targeted for action by the food industry and regulatory authorities.”



The applications for 3-A Sanitary Standards and Accepted Practices is expected to also experience exponential growth to support the food processing sectors worldwide.

Food product quality and safety programs will increase reliance on hygienic equipment design standards.

AUTOMATION...More than One May Think!

Automation is the use of machines, control systems and information technologies to optimize productivity in the production of goods and delivery of services.



Robotics...In the 3-A Realm

1. We Need to Protect our Products from the Machines.
2. We Need to Protect our Machines from the Process and Sanitization Procedures.
3. We Need to Define “Product Contact”.
4. We Need to Create and Maintain Hygienic Conditions.
5. We Must Consider Reducing Risks to Workers and Products.

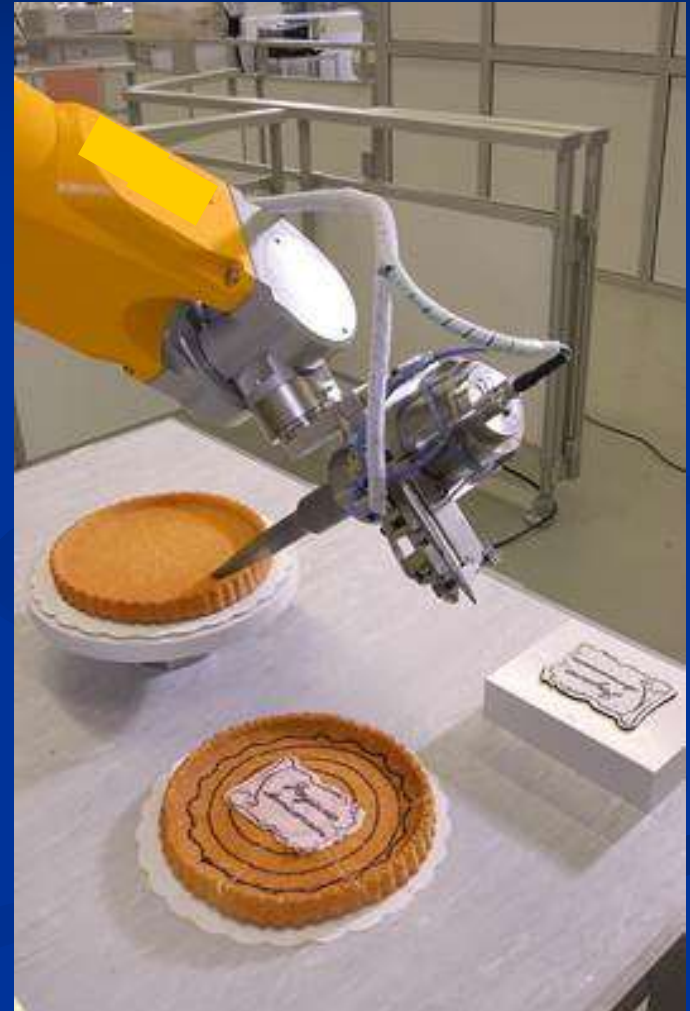
Robotics...



A Game Changer !

Automation Using Robotics

- Can Be Less Invasive to Products
- Reduce Worker Fatigue
- Support Productivity Gains From Run Time Improvements
- Quality Can Be Improved with Proper Integration



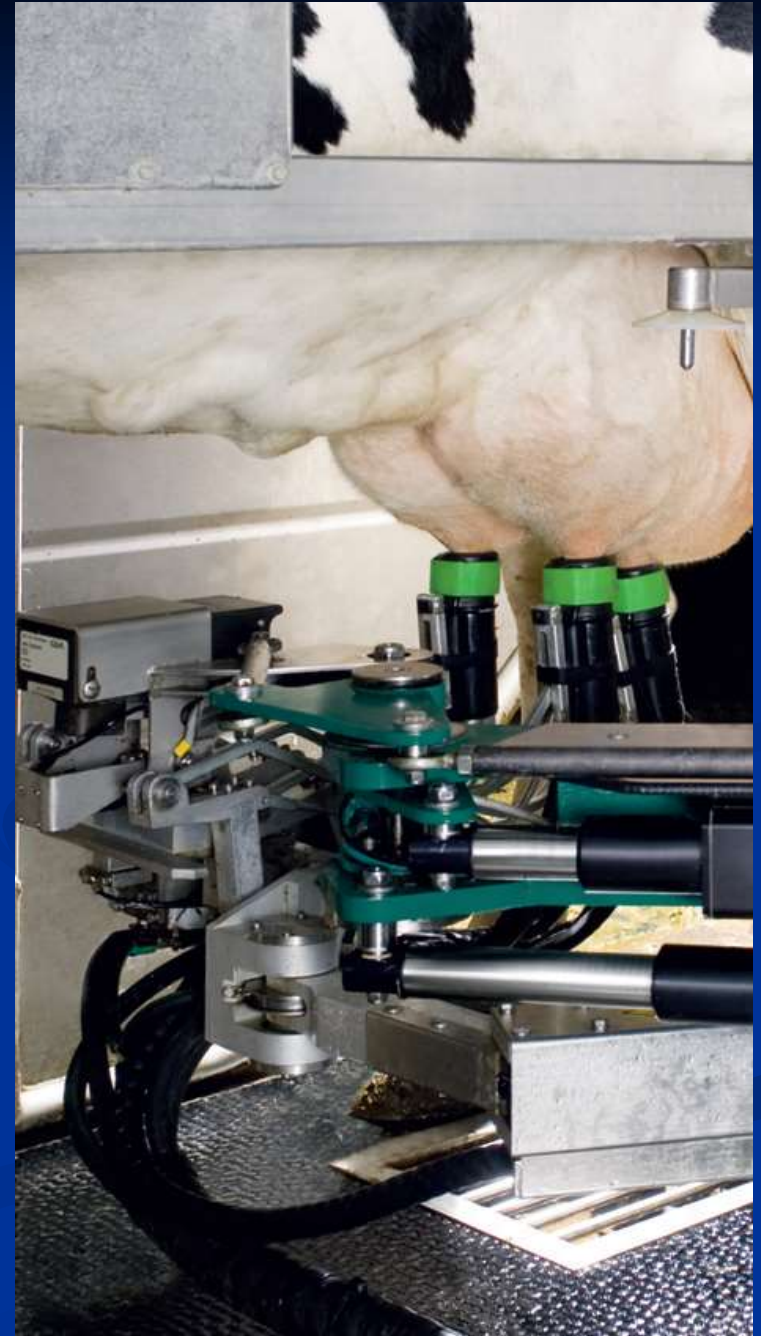
Automation Can Also Improve Our Quality of Life

Thousands of These Machines
are Used Around the Clock Worldwide ???

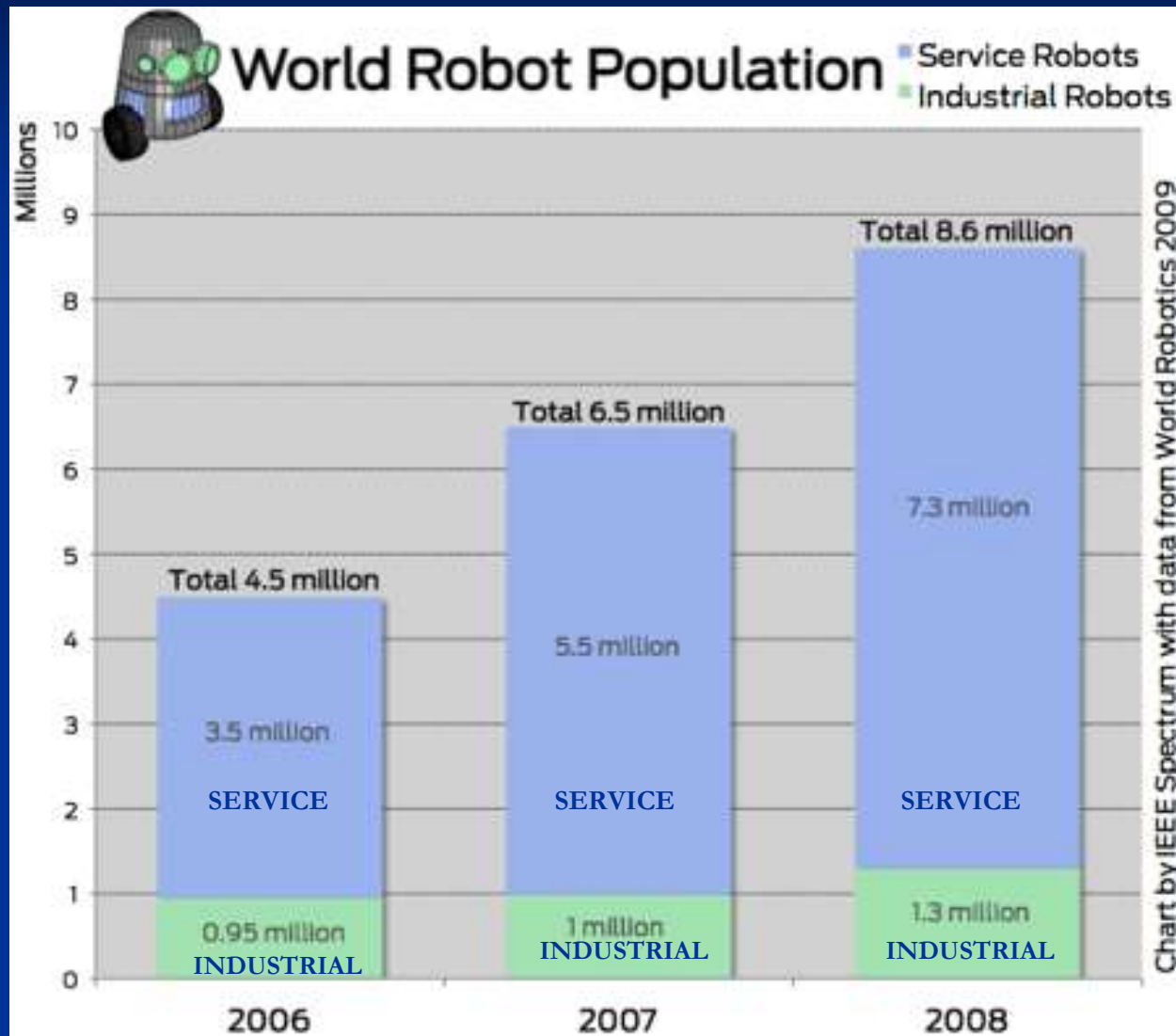




Automation and Robotics Are Changing Lives On The Farm !



The Worldwide Impact of Robotics

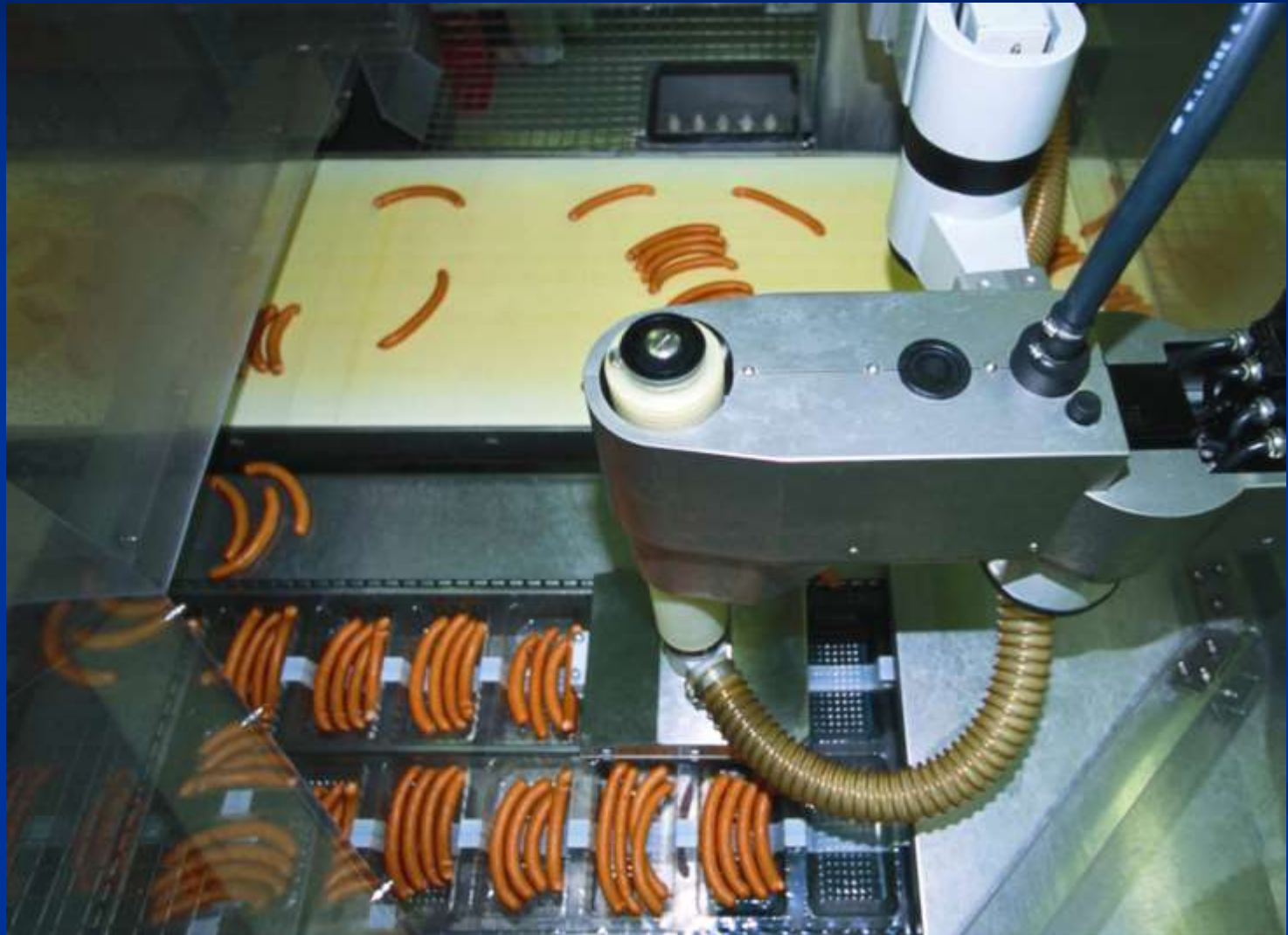


Automation & Robotics Data

- Robotic Industries Association (RIA) Data for 2012 indicate the North American market for Robots exceeded 22,500 units valued at USD\$ 1.5 Billion.
- The RIA estimates over 225,000 robots are in use in U.S. Manufacturing.
- Industry observers estimate that only 10% of companies that could benefit from robot uses are currently doing so.

- Of the 11 major Robotics manufacturers, 6 are now offering at least one “Food Grade” machine. These machines have come to market in the last 3 to 5 years.
- 50% of current robotic devices are used by automotive mfrs. or their Tier 1 suppliers.
- The Food Industry now accounts for approximately 5% of annual robotic equipment sales and represents a major growth opportunity for RIA members.
- Generally manufacturing sectors having high labor content and low margins can more easily justify for robotics implementation.

Pick & Place For Packaging



Handling High Water Activity Foods



Cheese Processing



The 3-A Symbol Benefits All Stakeholders

