




# Sanitation Steps: When Digital Transformation Streamlines Monitoring of CIP and Open Cleaning Procedures

September 22, 2021

**Moderator:** Vidya Ananth, Novolyze, United States

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## **Sanitation Steps : When Digital Transformation Streamlines Monitoring of CIP and Open Cleaning Procedures**

**IAFP, 22nd Sep 2021**

# Introduction of Panelists



**Vidya Ananth**  
**Ruth Petran**

-- **Moderator (Novolyze)**  
-- **Consultant – The Acheson Group and  
Ruth Petran Consulting LLC**

**John Donaghy**  
**Anika Bansal**

-- **Nestlé Switzerland**  
-- **Bonduelle Fresh Americas**

# Today's Participants



**Vidya Ananth, VP of Food Safety & Quality, Application Support and Customer Success**  
*Novolyze, United States*

She received her MS in Food Microbiology from Iowa State University and has been in the food industry for over 25 years and has made significant contributions in the areas of food safety, quality and regulatory affairs with a main goal to bend the curve of food borne illness globally. Vidya has held various Food Safety and Quality positions through her journey in the food industry and a few companies to name would be General Mills, The National Food Lab, Safeway, Clorox, Before Brands, Kohana Coffee and now Novolyze. Vidya has helped small and large companies build effective food safety and quality systems using risk-based prevention strategies and has helped build the food safety culture within these organizations. She has collaborated with trade organizations (IAFP, FIMRT, CSPA, PCPC, GMA, ADS) and FDA and USDA, universities and has hosted conferences and chaired many sessions, published patents, papers and a compendium chapter.

An interesting note is that Vidya can converse in 6 languages and engages in humanitarian work during her spare time.



**Ruth Petran, Senior Advisor, Food Safety**  
*The Acheson Group and Ruth Petran Consulting, United States*

Dr. Ruth Petran is Senior Advisor, Food Safety, for The Acheson Group. As a passionate yet practical food safety scientist, Ruth is also the Principal and Founder of Ruth Petran Consulting, LLC in suburban Minneapolis, Minnesota. Prior to starting her own business, Ruth held technical food safety and public health leadership roles at Ecolab, Pillsbury, and General Mills. Dr. Petran is President of the International Association for Food Protection (IAFP) and served two terms on the US National Advisory Committee for Microbiological Criteria for Foods. She is a Certified Food Scientist and member of the Institute of Food Technologists and chaired the Minnesota Food Safety and Defense Task Force. Her Bachelor's degree is in Consumer Food Science from Cornell University and she holds an MS in Food Science and a PhD in Public Health both from the University of Minnesota.



# Today's Participants



**John Donaghy**  
*Nestle SA, Switzerland*

Dr. John Donaghy is currently Head of Food Safety at Corporate Quality, Nestlé Switzerland. He previously spent 3 years as Senior Food Safety Microbiologist in Nestlé R&D. Prior to joining Nestlé (2011), worked (15 yrs) as Project Leader in food safety microbiology at Agri-Food & Biosciences Institute (AFBI), N. Ireland, and was formerly Head of Government pathogen analytical laboratory. He is a member of International Commission on Microbiological Specifications for Foods (ICMSF), holds BSc (Biochemistry), PhD (industrial microbiology) and MBA.

Current responsibilities include global operational aspects of food safety microbiology, hygiene, allergens and other prerequisite programs across >400 factories and multiple food categories. Leads a team of global experts in HACCP, hygiene and thermal processing, overseeing horizontal implementation of key Nestlé food safety and quality programs at Market and factory level.



**Anika Bansal, VP Manufacturing Quality and Microbiology**  
*Bonduelle Fresh Americas, United States*

Anika received her Masters of Science in Food Science with an emphasis in Food Microbiology from the University of California, Davis. She is currently working at Bonduelle Fresh Americas as a VP of Manufacturing Quality and Microbiology and responsible for leading all aspects of quality and food safety programs for the manufacturing facilities. She is also a member of Bonduelle Global Food Safety Network group. Prior to joining Bonduelle, she held various Quality and Food Safety positions with Del Monte Foods, Inc. and Earthbound Farm.

## Common Sense Sanitation

- Sanitation is a crucial part of ensuring food safety
  - A process to manage risks from microbial cross-contamination and allergen cross-contact
  - Lapses have and will result in illnesses and deaths
  - Required by regulation
- Sanitation has prescribed steps that must be done
  - Preclean + Clean + Sanitize
- Automation, digitization and using data analytics increasingly being used



## Key Elements to Include, Even in the Digital World

- Monitoring = Conducting a planned sequence of observations or measurements to assess whether control measures are operating as intended.
- Verification = Are the controls actually being properly implemented in a way to control the hazard? Examples:
  - Measuring chemical concentrations
  - ATP swabs, contact plates, microbial count swabs
  - Environmental monitoring for environmental pathogens
  - Record review
- Validation = Are the controls actually being properly implemented in a way to control the hazard?





**Nestlé** Good food, Good life



**John Donaghy**  
**Head of Food Safety, Nestlé**

**Digital Solutions for Sustainable  
CIP**

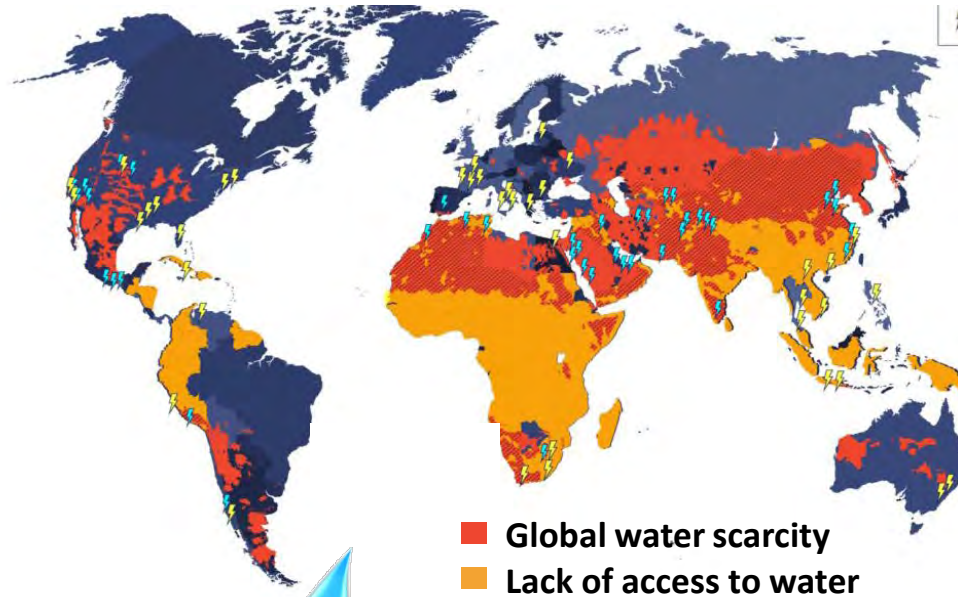
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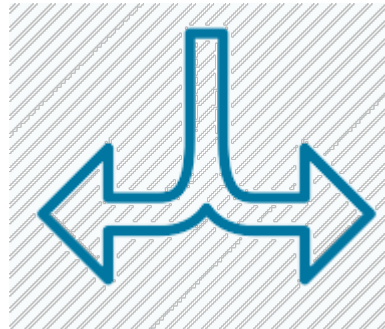


# The challenge: Use of Digital Solutions for Water Sustainability agenda



- The 3 R's
- Minimize Chemical Use
- Environmental Protection

## CIP Management



- Data Capture
- Data Visualisation
- Real-Time Decision Making



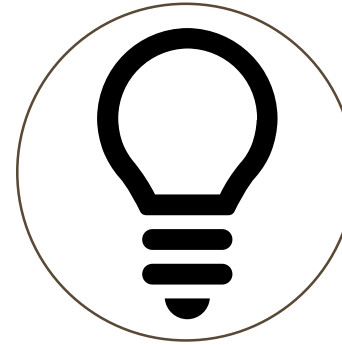
# WHY 'Connected' CIP Process Mastership?

In order to:

- Reduce cleaning and validation time
- Reduce chemicals and water consumption during the CIP
- Avoid CIP food safety incidents
- Reduce cost and emissions
- CIP process more effective, faster, less expensive and less aggressive to the environment



**Digital Capture**  
= Data analyses



**Sensors in CIP**  
= Product removal  
measurement



**CIP Recovery**  
= Chemicals and water  
recovery and re-use



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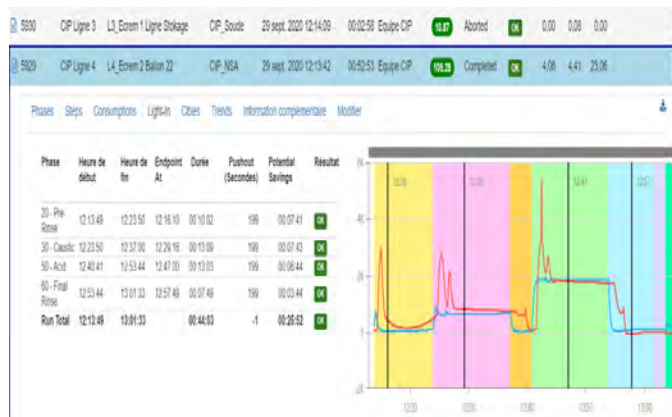
# Integrating Digital capture Tools and Visualisation



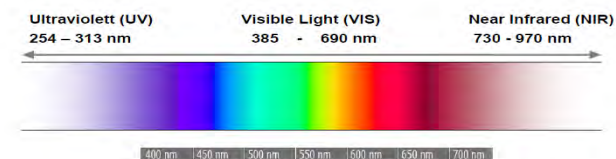
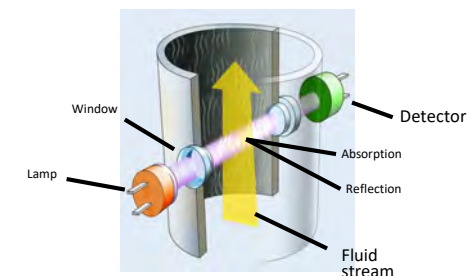
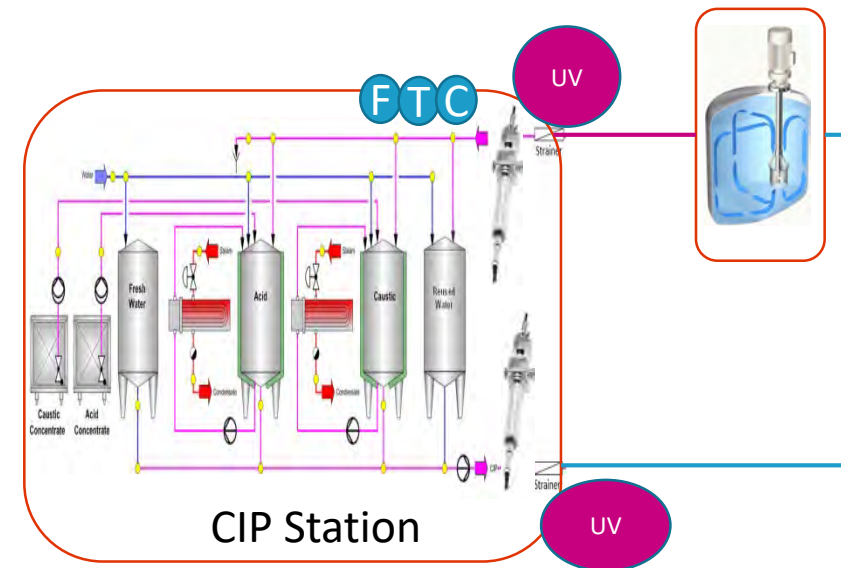
Digital Capture  
= Data analyses

## FEATURES

- CIP dashboarding
- CIP Consumption
- CIP recipe visualization
- CIP Trending
- Benchmark on CIP circuits
- Embedded Light IN CIP

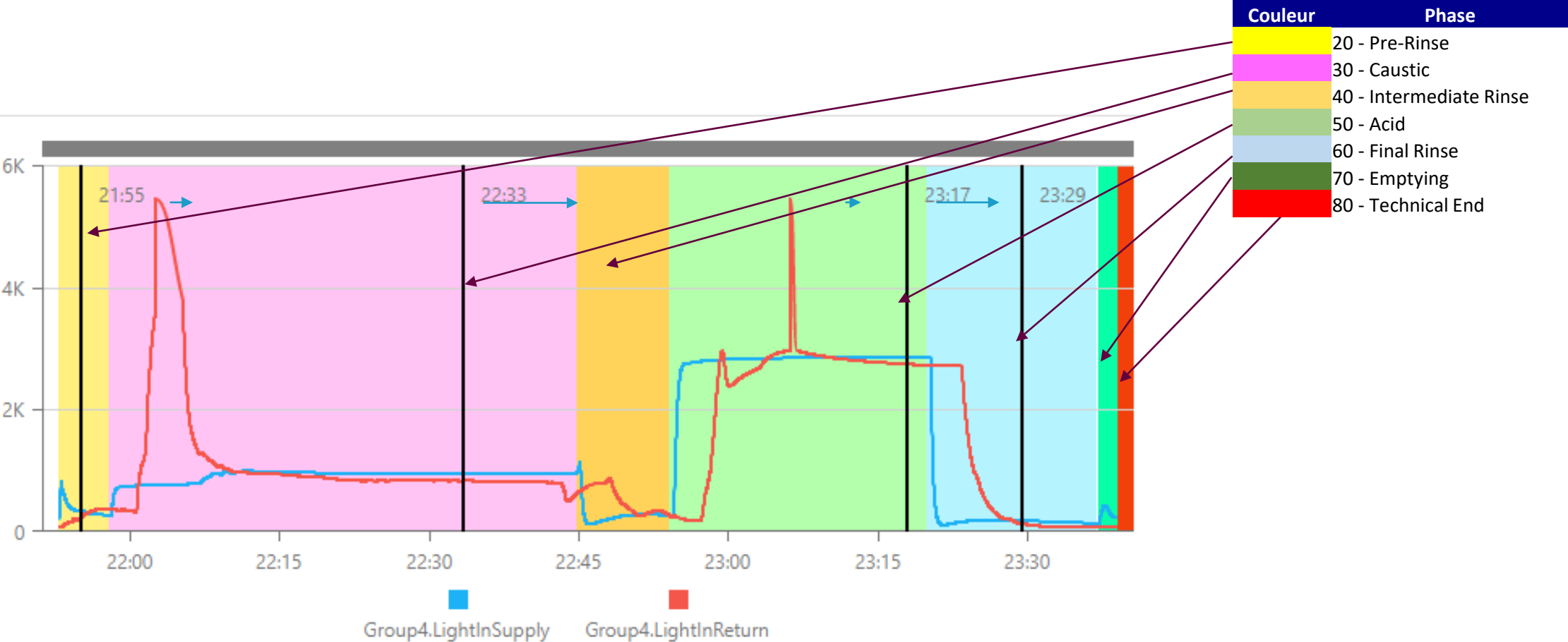


Sensors in CIP  
= Product removal  
measurement



Good food, Good life

# Making a Difference: Time Savings, Water Saving, Chemical saving



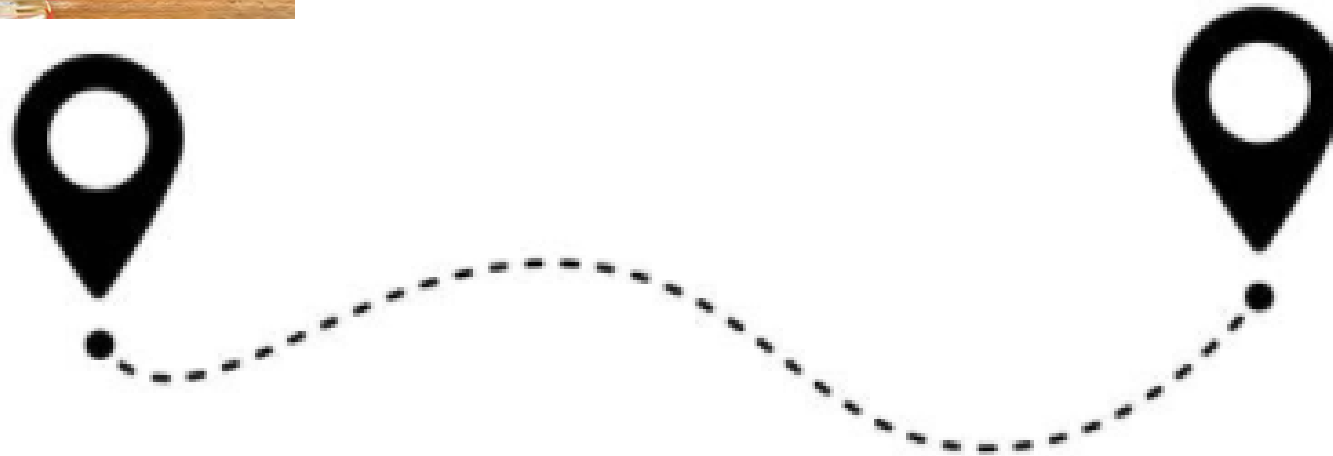
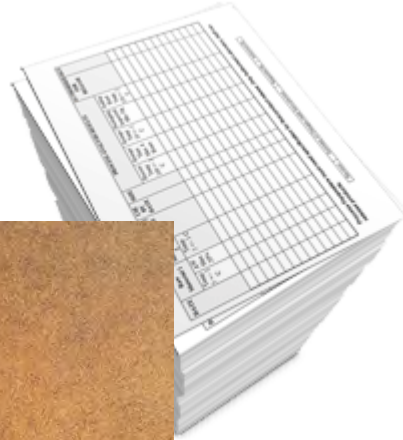


A woman is seen from behind, holding a young child in her arms. They are standing in a field of tall green crops, possibly corn. The sun is low on the horizon, creating a warm, golden glow and long shadows. The child is wearing a light-colored knit hat and a pink jacket, and is pointing their right hand towards the horizon. The woman is wearing a light-colored jacket. The sky is filled with soft, wispy clouds.

# Digital Transformation in Sanitation

Anika Bansal  
VP Manufacturing Quality and Microbiology

# A journey from paper to digital world...



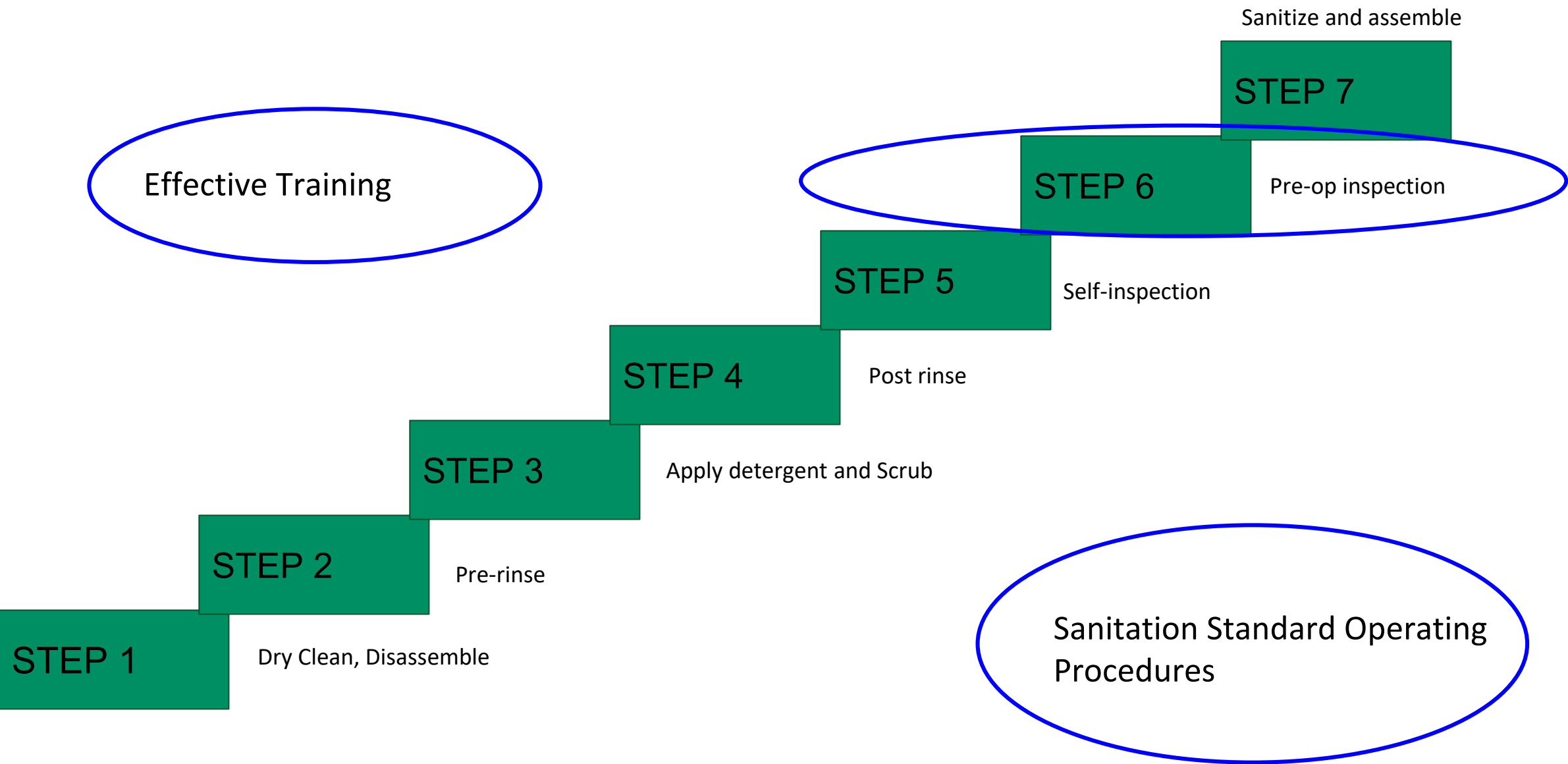


# How Sanitation fits in to Digitalized Food Safety System?





# ELEMENTS OF EFFECTIVE OPEN SANITATION



# EFFECTIVE TRAINING AND SSOPs

- Various training methods can be used to train a sanitor.  
What matters- are those methods effective?
  - Classroom teaching
  - On the job training
  - e-learning etc.
- Training Tools: SSOPs in simple format with less words and more pictures, Recorded Videos
- SSOPs accessibility
  - Closer to point of use



# SANITATION EFFECTIVENESS (PRE-OP)

- Pre-op visual inspection is one of the important tools to verify sanitation effectiveness.
- Let pre-op data talk to you but for that capturing information digitally is a key.
- Key success factors:
  - Simple digital form with minimal data entry
  - Paint the data in easy to understand format

Site Number	Site Description	Sanitary Condition	Photos	Corrective Actions	Post Re-clean Sanitary Condition	Comments
Change Room						
1.01	Walls / Doors / Floors / Drains / Covers	Satisfactory	-	-	-	-
1.02	Hooks / Lockers / Sinks / Storage Units	Satisfactory	-	-	-	-
1.03	Overhead Lights / Covers / Ceiling	Satisfactory	-	-	-	-
1.04	Shoe Sanitizer / Brushing Machine	Satisfactory	-	-	-	-
4.05	Hopper / Belt / Frame	Unsatisfactory		Re-cleaned immediately	Satisfactory	-
4.06	Incline Conveyor / Belt / Frame	Unsatisfactory		Re-cleaned immediately	Satisfactory	-





**THANK YOU *MERCI***  
**ASANTE DANKE SCHÖNE**  
**GRACIAS *ANKOSI***  
**SHUKRIYA OBRIGADO**  
***DANK U* NANDRI DANKIE**  
***MAHALO***



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# Questions?

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