



EMERSON EXCHANGE 2025

# ACCELERATING INNOVATION



ACCELERATING  
INNOVATION

# Driving DeltaV Version Upgrade Efficiencies

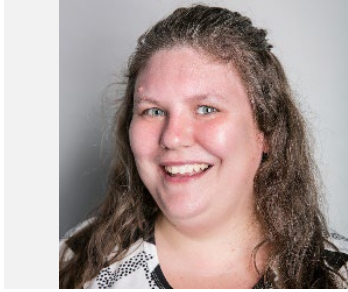
## **Disclaimer**

The information and/or opinions expressed in this presentation are those of the authors and do not necessarily represent official policy or permission of Emerson or Emerson Exchange.

## **Important Reminders**

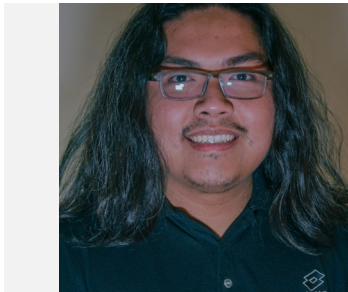
Photography and audio/video recording is not permitted in any session, or in the exhibition areas, without press credentials or written permission from Emerson or Emerson Exchange.

Inquiries should be directed to:  
**[EmersonExchange@Emerson.com](mailto:EmersonExchange@Emerson.com)**



**Jessi Brown**

Sr. Automation Engineer - Merck



**Patrick David**

Sr. Lifecycle Engineer - Proconex





Our purpose: We use the power of leading-edge science to save and improve lives around the world

For more than 130 years, we've brought hope to humanity through the development of important medicines and vaccines. We foster an inclusive global workforce and operate responsibly every day to enable a safe, sustainable and healthy future for all people and communities.

# Agenda

- Why Standardize Upgrades
- How To Standardize Upgrades
- Benefits of Standardizing

# Why Upgrades Needed To Be Standardized

- 55 DeltaV Systems globally
- Upgrades required ~3 weeks down time
- Upgrades cost ~\$500,000 in external labor cost
- Inconsistent Quality Requirements
- Rework creating SDLC
- Expertise not retained by Merck

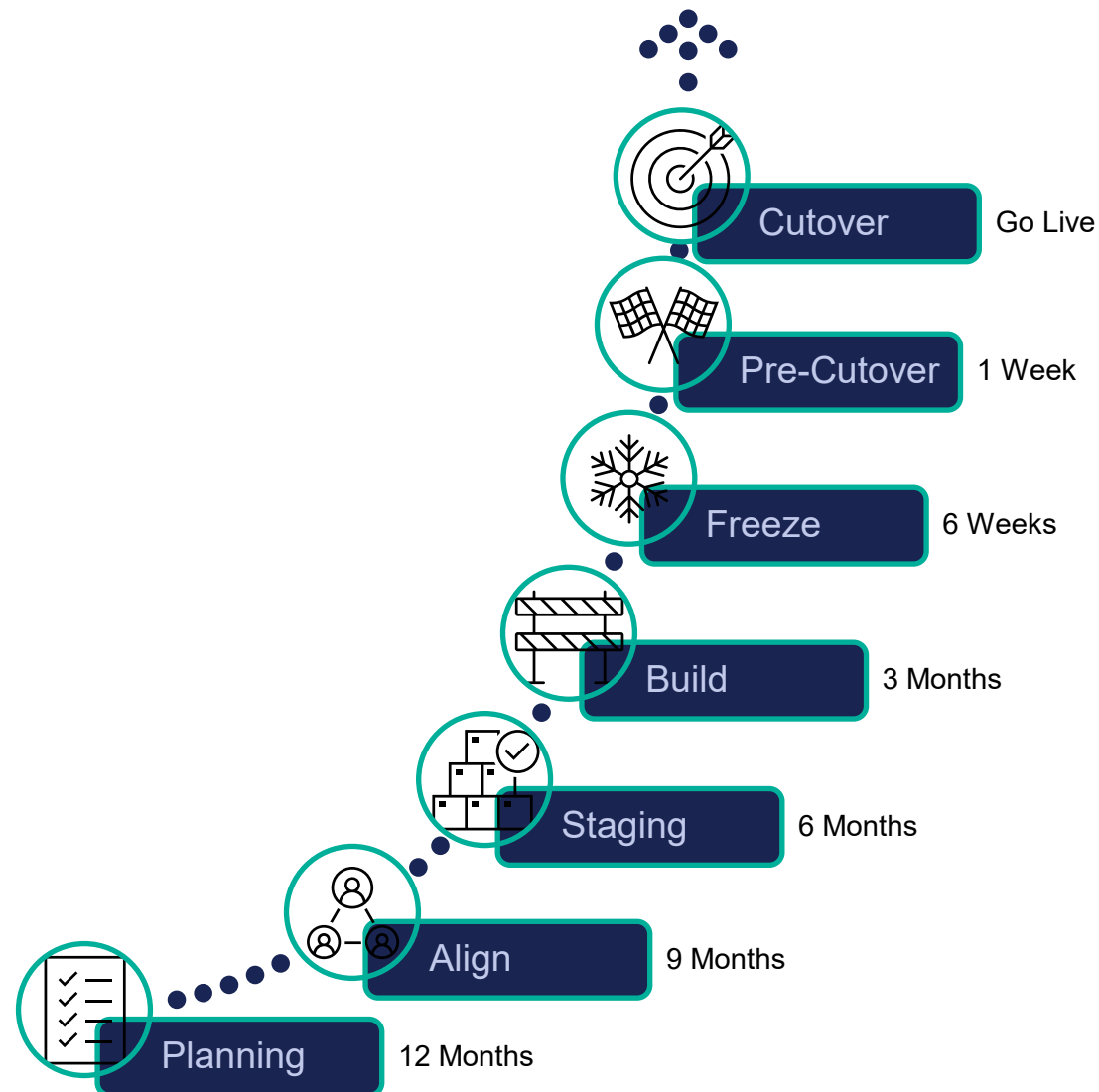
# Moving to a Product Model

- The Process Control Product Team is responsible for the end-to-end ownership of DeltaV (cradle to grave) including standardization, cost of ownership, & life cycle management
- Moving to the Product Model allowed us to partner with key stakeholders on behalf of all systems and standardize the Upgrade Process

# Selling Standardization: Upgrades as a Service

- Better Site Automation Experience
  - Process will be Collaborative
  - Product Team will be Transparent
  - Support for future Audits
- Stronger DeltaV System
  - Standards will be implemented
  - Monitoring will be added
  - System will be made robust
- Greater Business Value
  - Less than 2 days of downtime for offline upgrades
  - Zero downtime “Online” upgrade capable

# Standardizing the Process

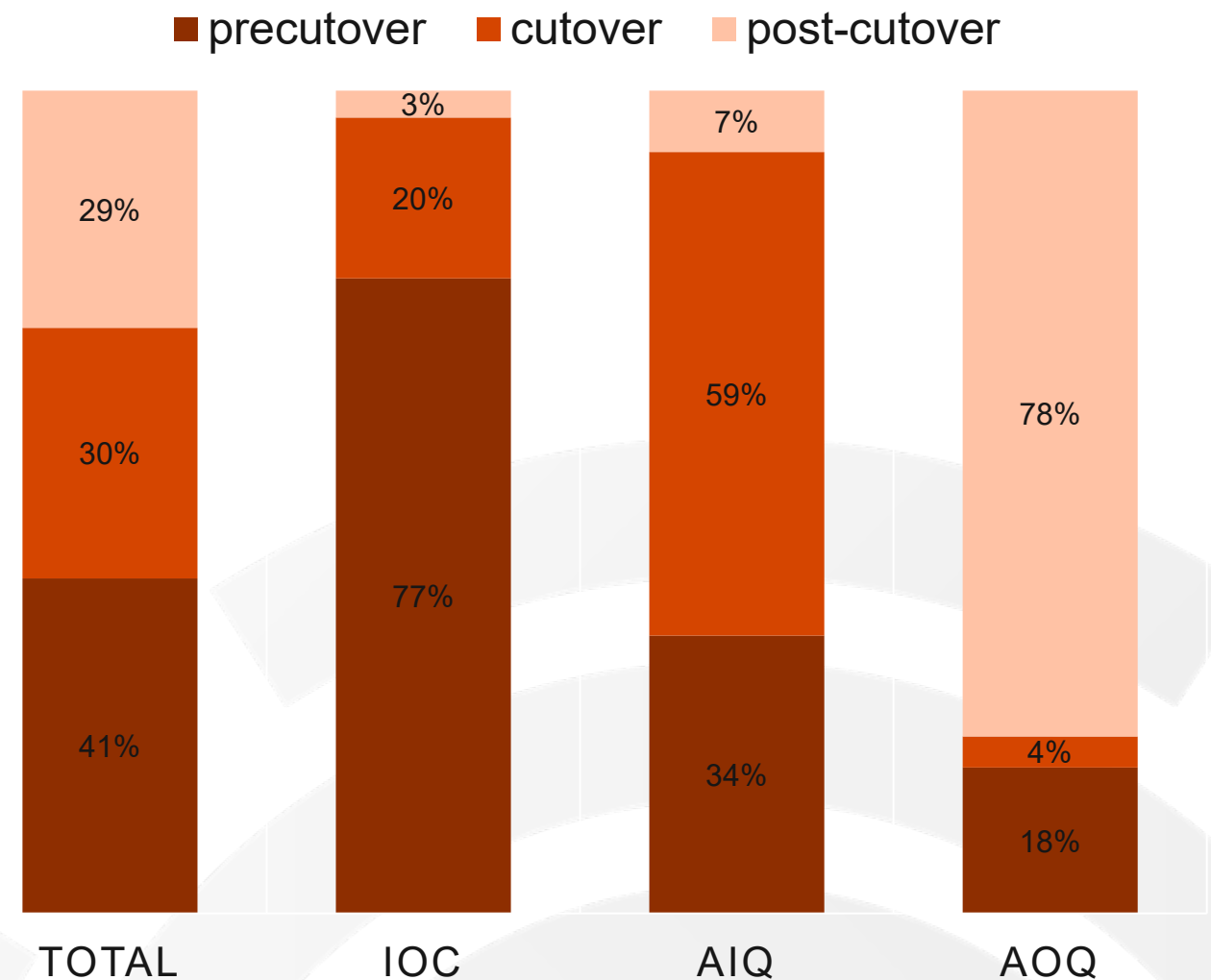


- Staggered work to allow for multiple projects simultaneously
- Ensured that work was happening at the appropriate time

# Pre-Cutover Testing

- Build VMs on isolated shop floor network ~6-8 weeks before cutover day
- VMs are built with same server name & IP address
- 45% of testing is done pre-cutover
  - In general, if it does not require a controller or being connected to the production network it can be done in advance
- Pre-Cutover testing is post-approved before cutover day

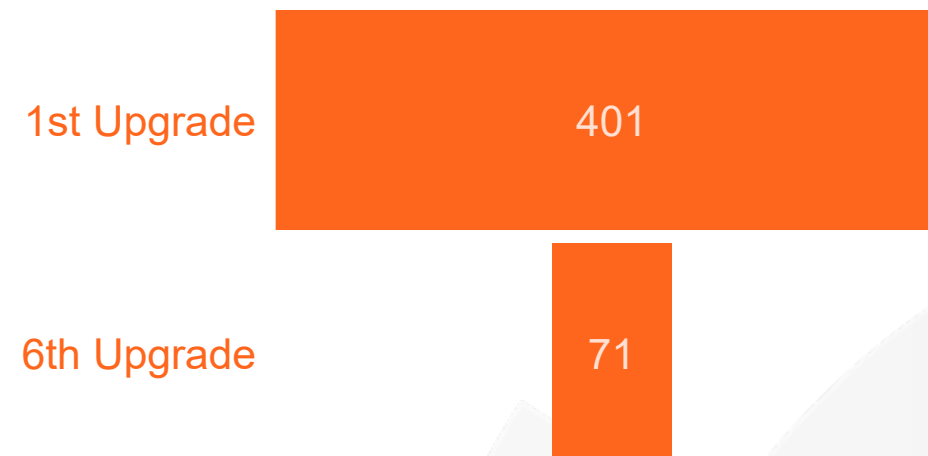
## TESTING TIMELINE BREAKDOWN



# Quality Buy-In

- Templated all quality documents that could not be made global
- Partnered with a global quality representative to approve all templates
- All testing is “scalable” and “evergreen”
- Following new CSA standards to test once in the best place (commissioning testing vs qualification testing)
- Assessed all screenshots to determine which were needed (resulting in an 82% reduction)

Required Screenshots During Upgrade



# Outcomes to Date

- 6 upgrades using this new “Upgrades as a Service” program
- Offline Upgrades consistently less than 36hrs
- 2 Online Upgrades Executed to date
- Cost reduced to ~\$100k labor cost
- 9 upgrades scheduled for 2025
- 15 upgrades scheduled for 2026

## **Find More Information**

### **Contacts**

Jessi Brown – [Jessica.Brown1@merck.com](mailto:Jessica.Brown1@merck.com)

Patrick David – [Patrick.David@proconexdirect.com](mailto:Patrick.David@proconexdirect.com)



EMERSON EXCHANGE 2025

ACCELERATING  
INNOVATION

# Thank You