

# Semiconductor World

Magnitude

Time-to-market

Professional  
Resources

Complexity

**2 World Cup**

football fields of cleanroom  
space



**240 Olympic**

sized pools of concrete



**5 Eiffel Towers**

in structural steel



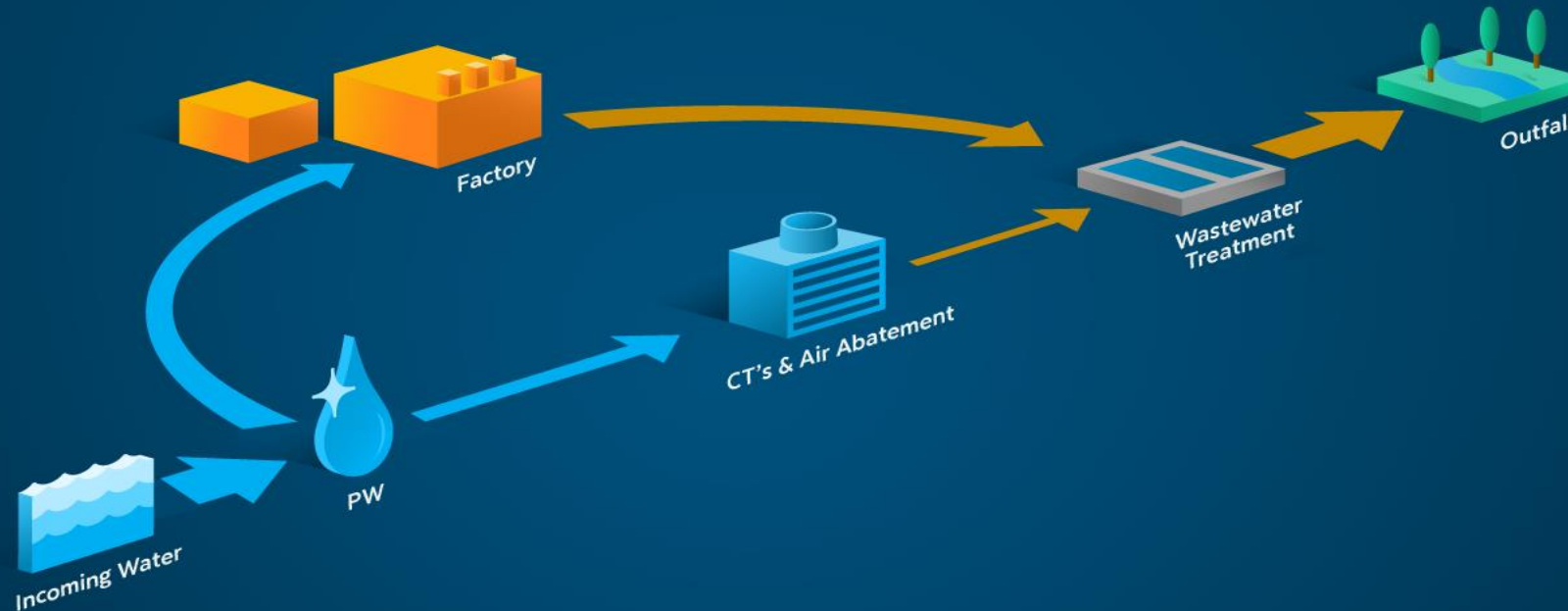
**214 Marathon**

distances in cabling



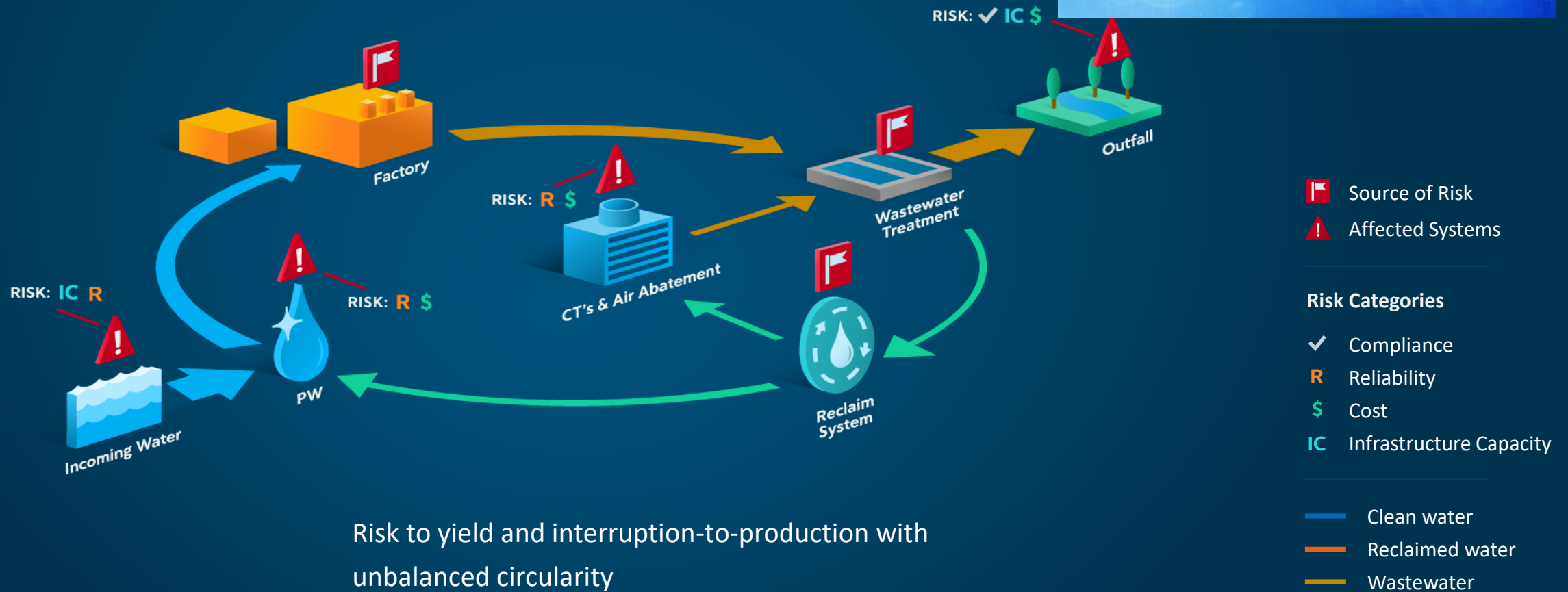
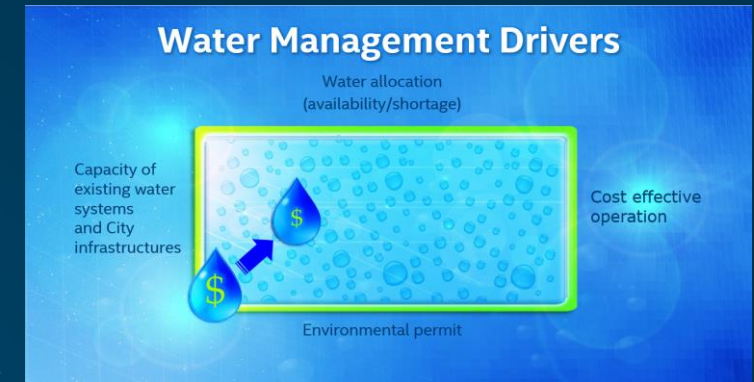
# The old way of managing water: simple and relatively risk free

- Once through the site...



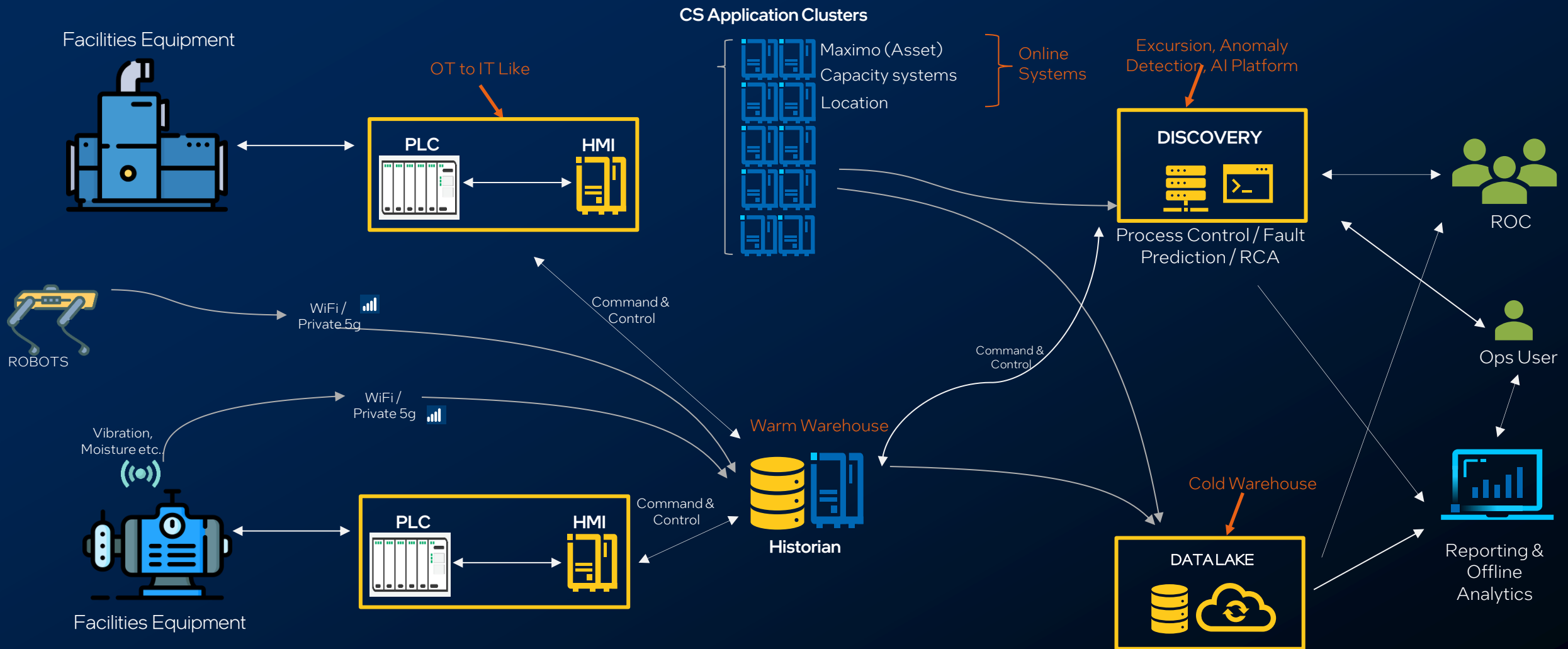
- Clean water
- Reclaimed water
- Wastewater

Water circularity creates a system of massive interdependencies that introduce a wide range of risk.





# Industrial Automation Architecture

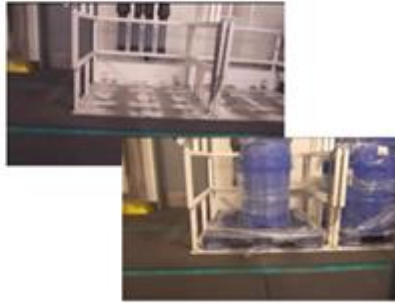


# Industrial Automation future with examples

## Image-to-text translation (2)



Analog Gauge - Capture Pressure Reading

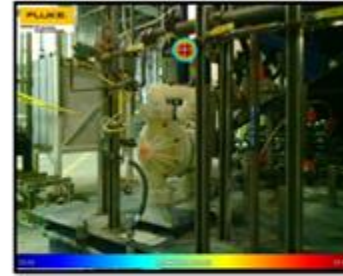


Chem Tote Bay - Change Detection (Tote Missing)



- 30x PTZ Camera for capturing images
- Images are translated to text and saved for analytics

## Acoustic Imaging (6)



- Acoustic Imager for capturing gas/air leaks
- Leaks are captured and saved for review



MMF, IXA, IXM's Diaphragm Leak Check



AODD Pump Leak Check



CDM Plumbing Leak Check



RO Skid Leak Check

## Thermal imaging (5)



Motor Bearings Temperature Check



- FLIR IR Camera for capturing thermal images
- Thermal images are translated to text and saved for analytics



AOP Filter Check



UV Filter Check



UVR Filter Check



VSD Filter Check



VFD Filter Check



ASD Filter Check