



# **INTERNATIONAL STANDARDS**


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# Importance of standards :

- Standards reflect the shared values, aspirations, and responsibilities we as a society project upon each other and our world.
- When applied to particle colliders, adherence to international standards becomes particularly crucial due to the complex nature of these scientific instruments.
- accredit audits and demonstrate that the project is safe, sustainable, legal and efficient



**Standardization is important to scientists and regulators to ensure the quality and operation of research processes, as well as the safety and efficacy of the attendant research products.**

# IMPORTANT POINTS

**Ensuring Experimental  
Consistency**

**Safety Protocols and  
Procedures**

**Interoperability of  
Control Systems:**

**Human-Machine  
Interface (HMI)  
Design:**

**Quality Assurance & Compliance  
with Environmental Standards:**

**WHAT DOES**

**International  
Organization for  
Standardization**

**Develops and publishes  
international standards  
to ensure the quality,**

**ISO**

**Areas, including  
technology,  
manufacturing,  
healthcare, and more.**

**Voluntary**

**MEAN?**

**WHAT DOES**

**International Society of  
Automation**

**Individuals and  
organizations involved in  
industrial automation and  
control.**

**ISA**

**Develops standards, provides  
training and education, and  
facilitates networking and  
collaboration within the  
automation community.**

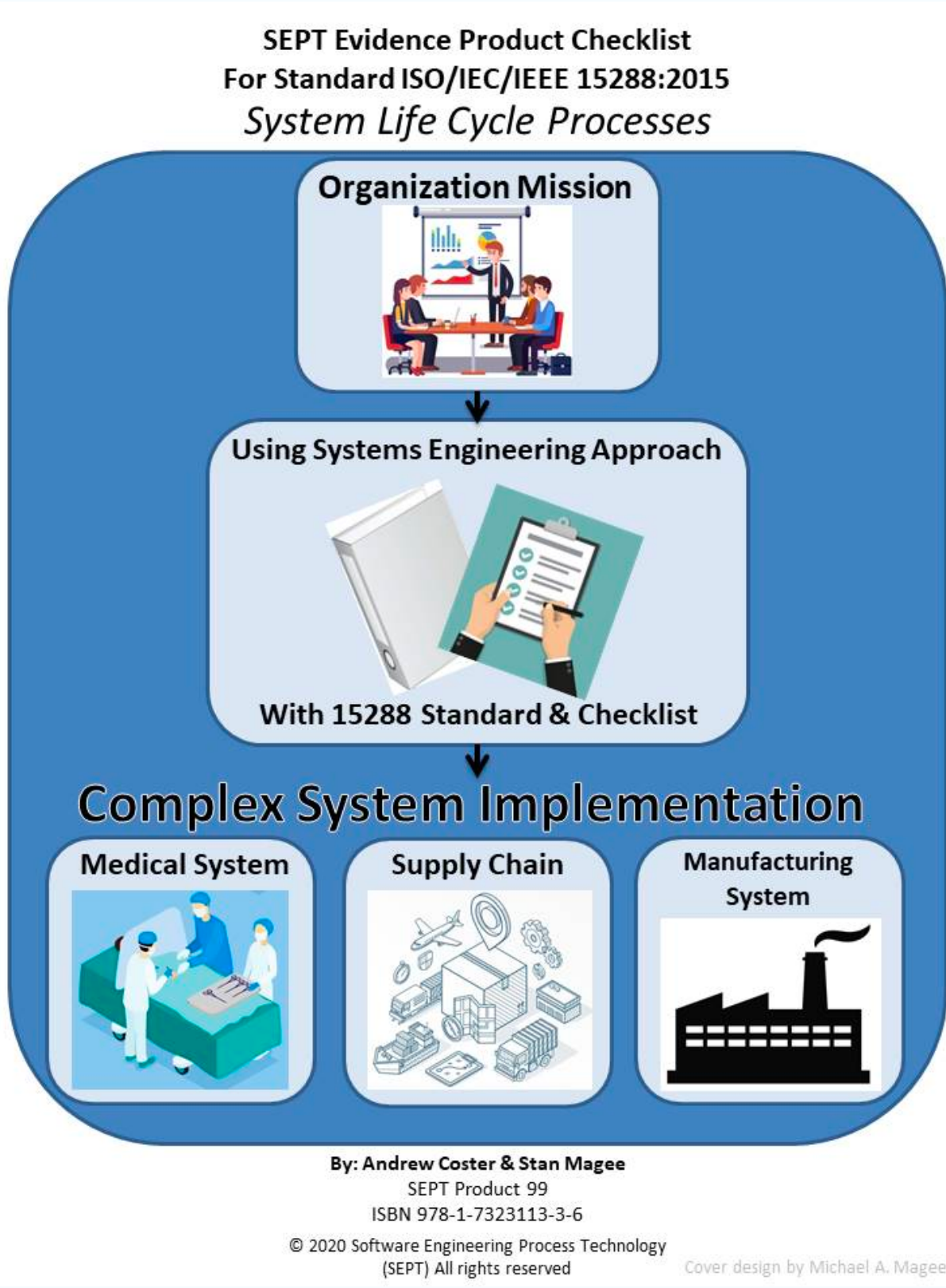
**ISA is ISA 101**

**MEAN?**

# ISO 15288:2015 - SYSTEMS ENGINEERING:

DESCRIPTION: THIS STANDARD ESTABLISHES A SYSTEMS ENGINEERING APPROACH TO THE DEVELOPMENT, IMPLEMENTATION AND OPERATION OF SYSTEMS.

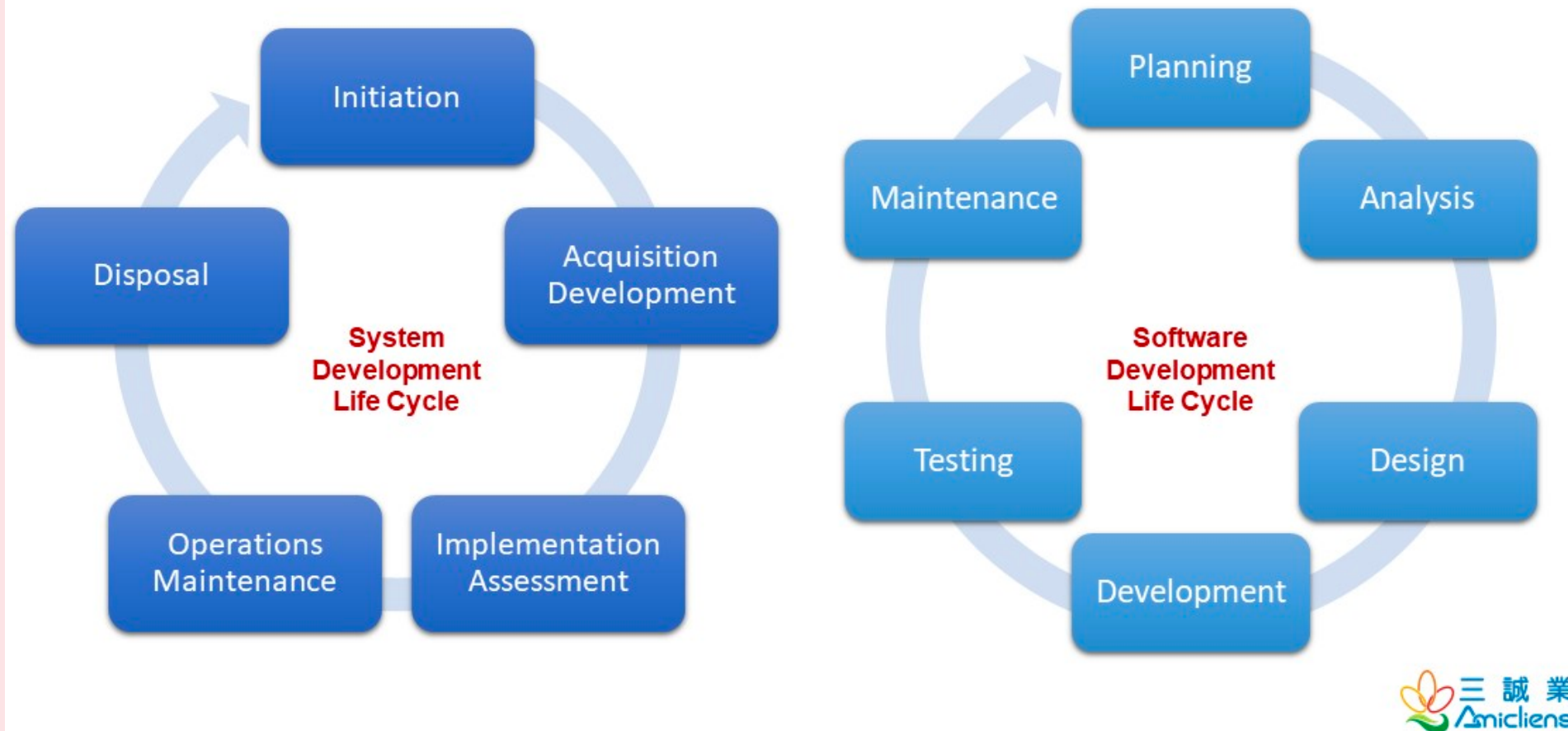
IT PROVIDES A FRAMEWORK FOR PROCESS MANAGEMENT THROUGHOUT THE SYSTEM LIFECYCLE.





# ISO 12207 – SOFTWARE LIFE CYCLE PROCESSES:

## SDLC, System or Software?



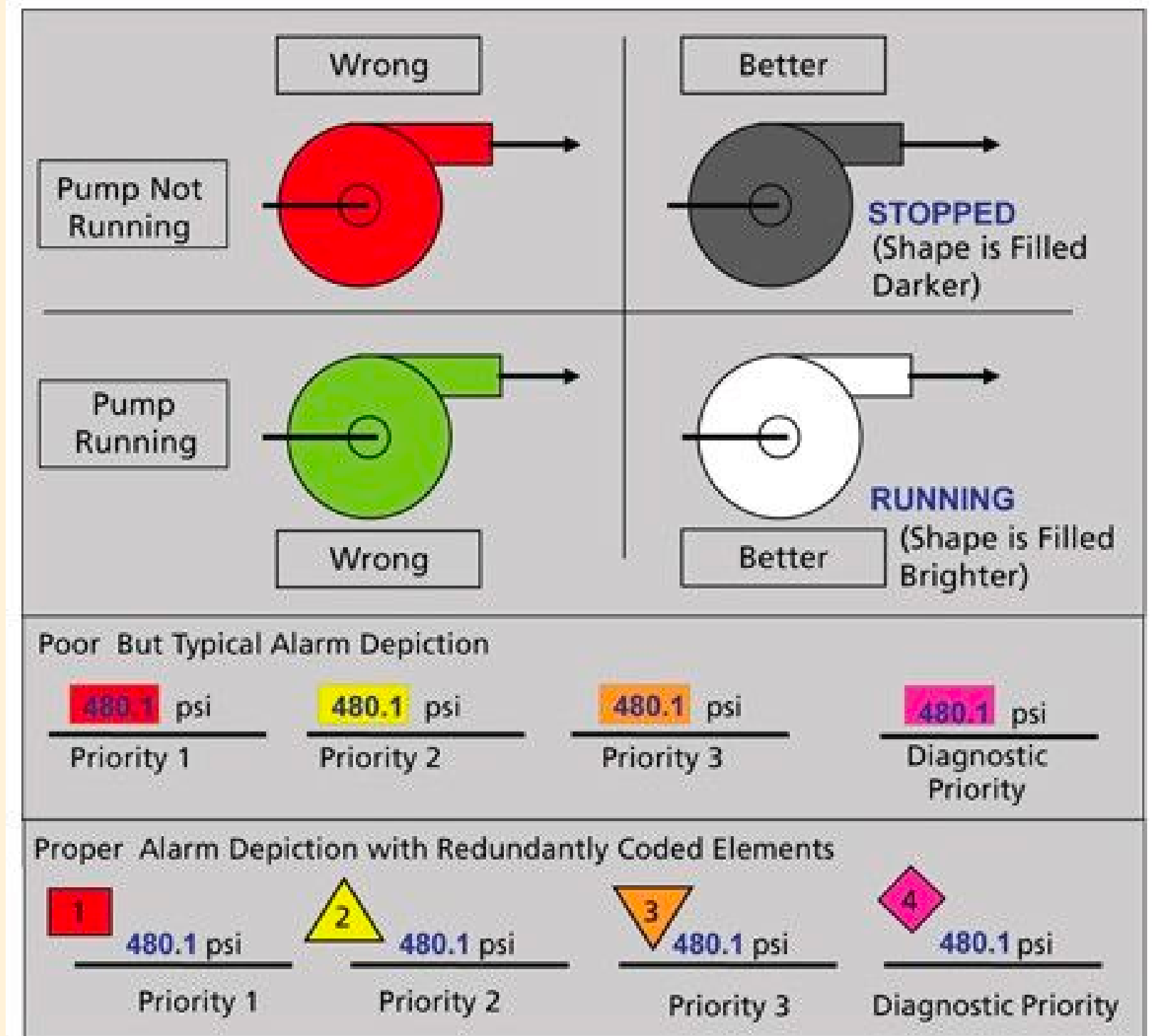
**DESCRIPTION: THIS STANDARD FOCUSES ON PROCESSES RELATED TO THE SOFTWARE LIFE CYCLE, FROM ITS INCEPTION TO ITS EXECUTION.**

**PROVIDES A FRAMEWORK FOR PLANNING, IMPLEMENTING AND EVALUATING SOFTWARE PROCESSES.**

# ISA 101 - Human-Machine Interfaces for Automation Systems:

DESCRIPTION: ISA 101 FOCUSES ON THE DESIGN AND IMPLEMENTATION OF GRAPHICAL USER INTERFACES (HMI) FOR INDUSTRIAL AUTOMATION SYSTEMS.

IT AIMS TO IMPROVE THE EFFECTIVENESS AND EFFICIENCY OF SYSTEM OPERATION THROUGH INTUITIVE GRAPHICAL INTERFACES.





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# Thanks for Listening!

SEE YOU NEXT TIME!

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