



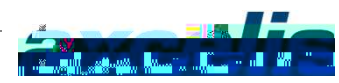
# Supplier Quality Collaborative Efforts for Problem Solving

SUPPLIER IMPROVEMENT COMMITTEE: CO-MAKERSHIP INITIATIVE

July 23, 2020

QUALITY SYSTEMS

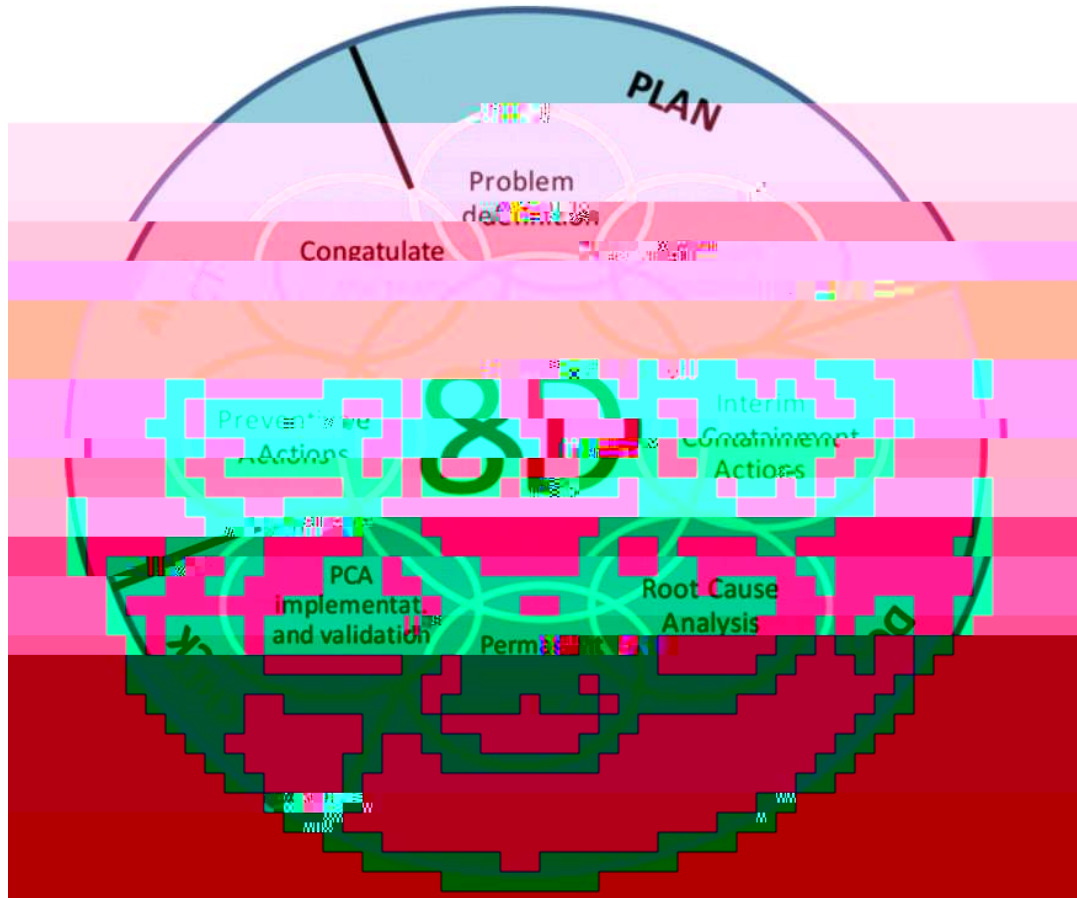




# Purpose



## 8 Disciplines of Problem Solving PDCA Model



- D1 – Define the Team**
- D2 – Describe the Problem**
- D3 – Interim Containment Actions**
- D4 – Root Cause Analysis**
- D5 – Corrective Action(s)**
- D6 – Verification & Implementation**
- D7 – Preventive Action(s)**
- D8 – Congratulate the team**

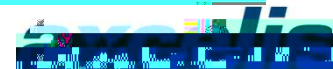
## D1- Define the Team

**It is imperative to have the right team to solve the problem Things that we must consider while defining the team to solve a problem are**

**The team is cross-functional**

**The right Team Leader will drive the team to solve the problem efficiently and effectively**

**The team should not be more than 36 people unless the problem has an enormous scope**



## D2 Describe the Problem

The key to success in problemsolving is to have the right problemstatement upfront. The excellent problemstatement covers all the details in terms of

**WHO,**

**WHAT,**

**WHERE,**

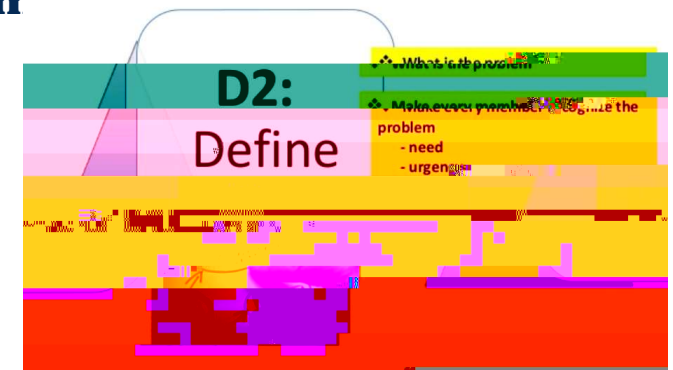
**WHEN,**

**WHY,**

**HOW&HOWMANY. Identify the gap that needs to be closed by solving the problem**

Tools can turn out to be useful while defining the scope of the problem

(See the next slide)



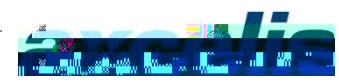
## D2 Describe the Problem

### Is / Is Not Analysis

	IS	IS NOT
1	1. The product is made of high-quality materials.	1. The product is not made of high-quality materials.
2	2. The product is easy to use.	2. The product is not easy to use.
3	3. The product is durable.	3. The product is not durable.
4	4. The product is reliable.	4. The product is not reliable.
5	5. The product is safe.	5. The product is not safe.
6	6. The product is aesthetically pleasing.	6. The product is not aesthetically pleasing.
7	7. The product is cost-effective.	7. The product is not cost-effective.
8	8. The product is environmentally friendly.	8. The product is not environmentally friendly.
9	9. The product is innovative.	9. The product is not innovative.
10	10. The product is user-friendly.	10. The product is not user-friendly.







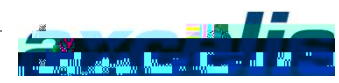
## D4- Root Cause Analysis (Occurrence, Detection or Escape, System)



## D4 Root Cause Analysis

Check points:

- Make sure the cause identified is not just a symptom but is the actual root

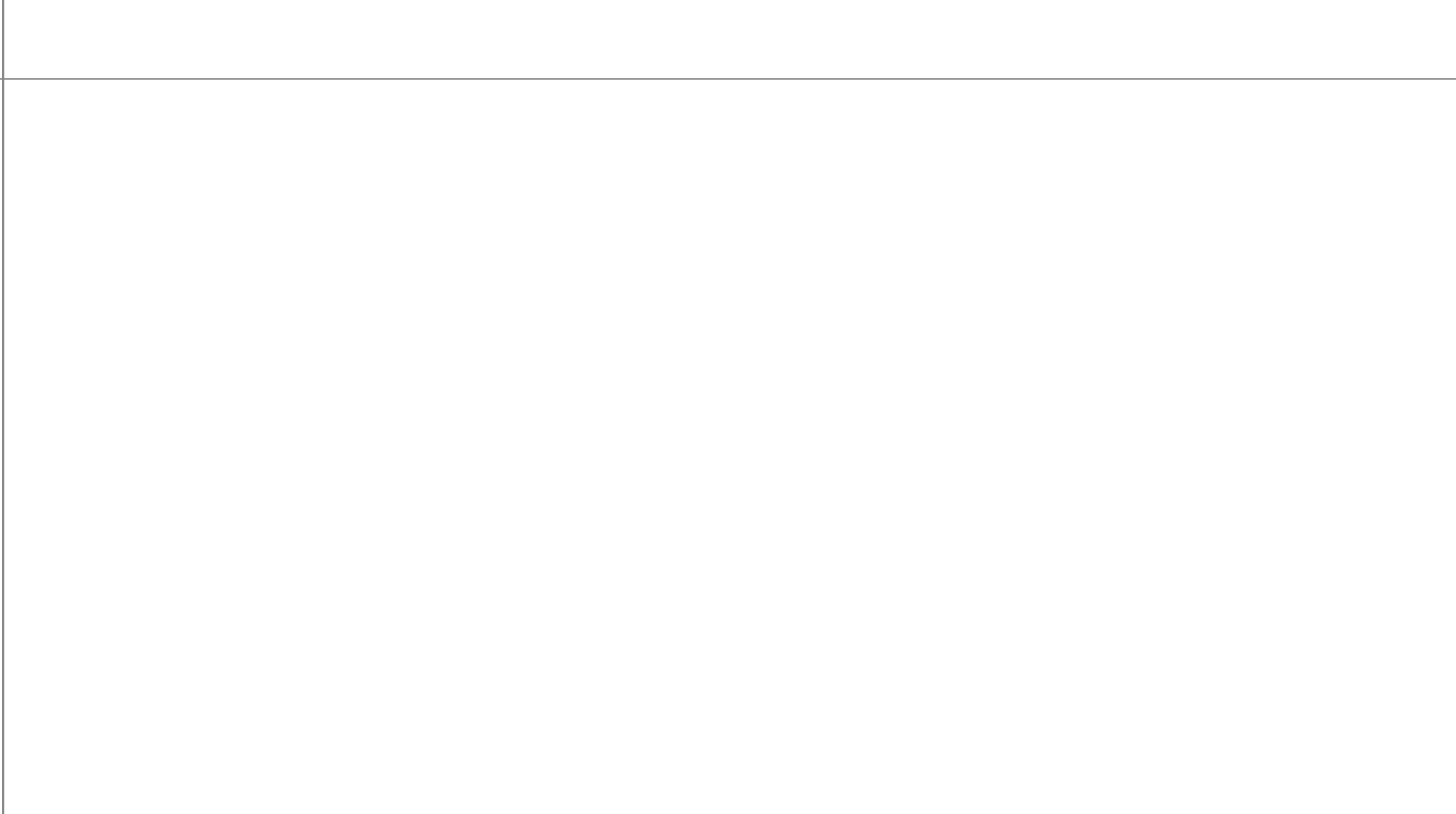


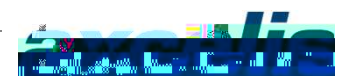
## D4 Root Cause Analysis

### D4- Root Cause Analysis (Occurrence, Detection or Escape, System)

Here is an example which shows how it works







## D6- Verification of Corrective Action(s)

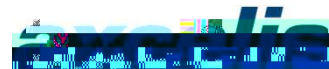
For a team to “declare victory” in resolving a problem, there needs to be a verification and validation of the corrective action(s). The team needs to ensure that the actions taken were adequate.





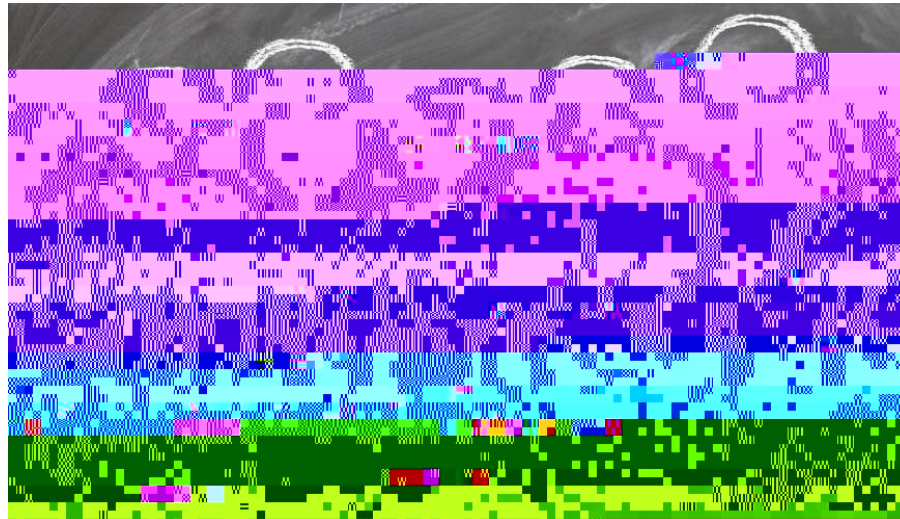
## **D7 – Preventive Action(s)**

- **Once a team has identified root cause(s) and corrective actions, it is highly desirable that activities occurred that a customer cannot encounter the same or similar problem from an Axcelis product or service**
- **Preventive action is a change to a product or management system that is not yet responsible for causing a problem for a customer**
- **The team should list preventive action investigation steps and any actions taken to mitigate potential issues**
- **Preventive actions could include:**
  - **Investigating (and mitigating if appropriate) if the problem observed could occur on other areas of the same product**
  - **Investigating (and mitigating if appropriate) if the problem observed could occur on a different product**
  - **Investigating (and mitigating if appropriate) if the process problem could occur in other processes**
  - **Actions were taken to mitigate issues discovered during the investigation process that may not affect the issue being investigated, but another issue that could have occurred**



## D8- Congratulate the Team

Depending on the scope of the problem resolved, this “D” can be accomplished as the Teamleader sending out a “thank you” e-mail to the team members or could be more formal, with more management recognition



Based in original presentation from Kaan Malhotra - Jul 23, 2020

