



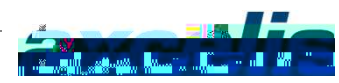
Supplier Quality Collaborative Efforts for Problem Solving

SUPPLIER IMPROVEMENT COMMITTEE: CO-MAKERSHIP INITIATIVE

July 23, 2020

QUALITY SYSTEMS

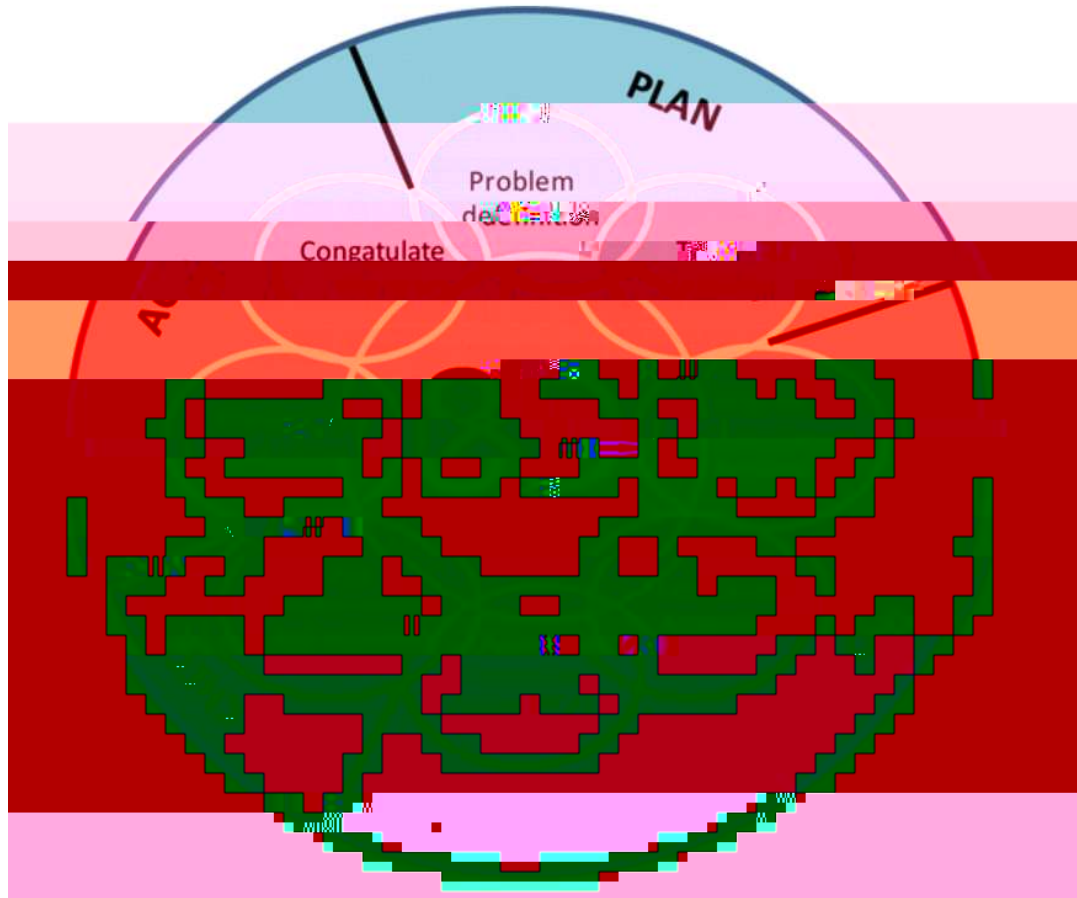




Purpose



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 – Congatulate the team**

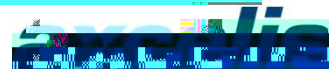
D1- Define the Team

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,

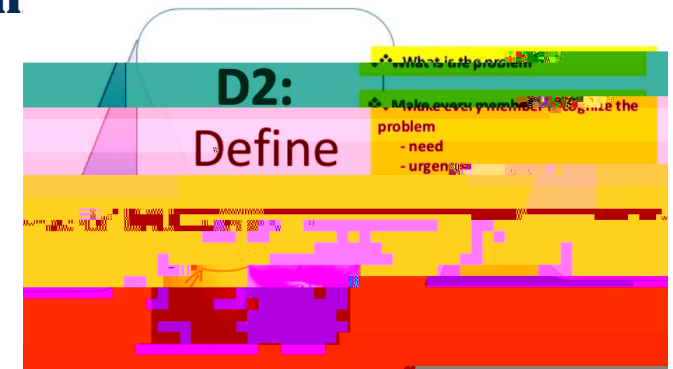
WHEN,

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

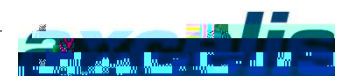
(See the next slide)



D2 Describe the Problem

Is / Is Not Analysis

	IS	IS NOT
1. The problem is that the system is slow.	The system is slow when the database is large.	The system is not slow when the database is small.
2. The problem is that the system is unreliable.	The system is unreliable when the network is congested.	The system is not unreliable when the network is clear.
3. The problem is that the system is difficult to use.	The system is difficult to use when the interface is cluttered.	The system is not difficult to use when the interface is clean.
4. The problem is that the system is expensive to maintain.	The system is expensive to maintain when the hardware is outdated.	The system is not expensive to maintain when the hardware is modern.
5. The problem is that the system is not secure.	The system is not secure when the software is outdated.	The system is secure when the software is up-to-date.
6. The problem is that the system is not scalable.	The system is not scalable when the load is high.	The system is scalable when the load is low.
7. The problem is that the system is not flexible.	The system is not flexible when the requirements change.	The system is flexible when the requirements are stable.
8. The problem is that the system is not user-friendly.	The system is not user-friendly when the training is inadequate.	The system is user-friendly when the training is comprehensive.
9. The problem is that the system is not reliable.	The system is not reliable when the power is out.	The system is reliable when the power is on.
10. The problem is that the system is not secure.	The system is not secure when the access is unrestricted.	The system is secure when the access is restricted.



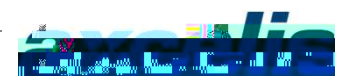
D4- Root Cause Analysis (Occurrence, Detection or Escape, System)



D4 Root Cause Analysis

Check points:

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

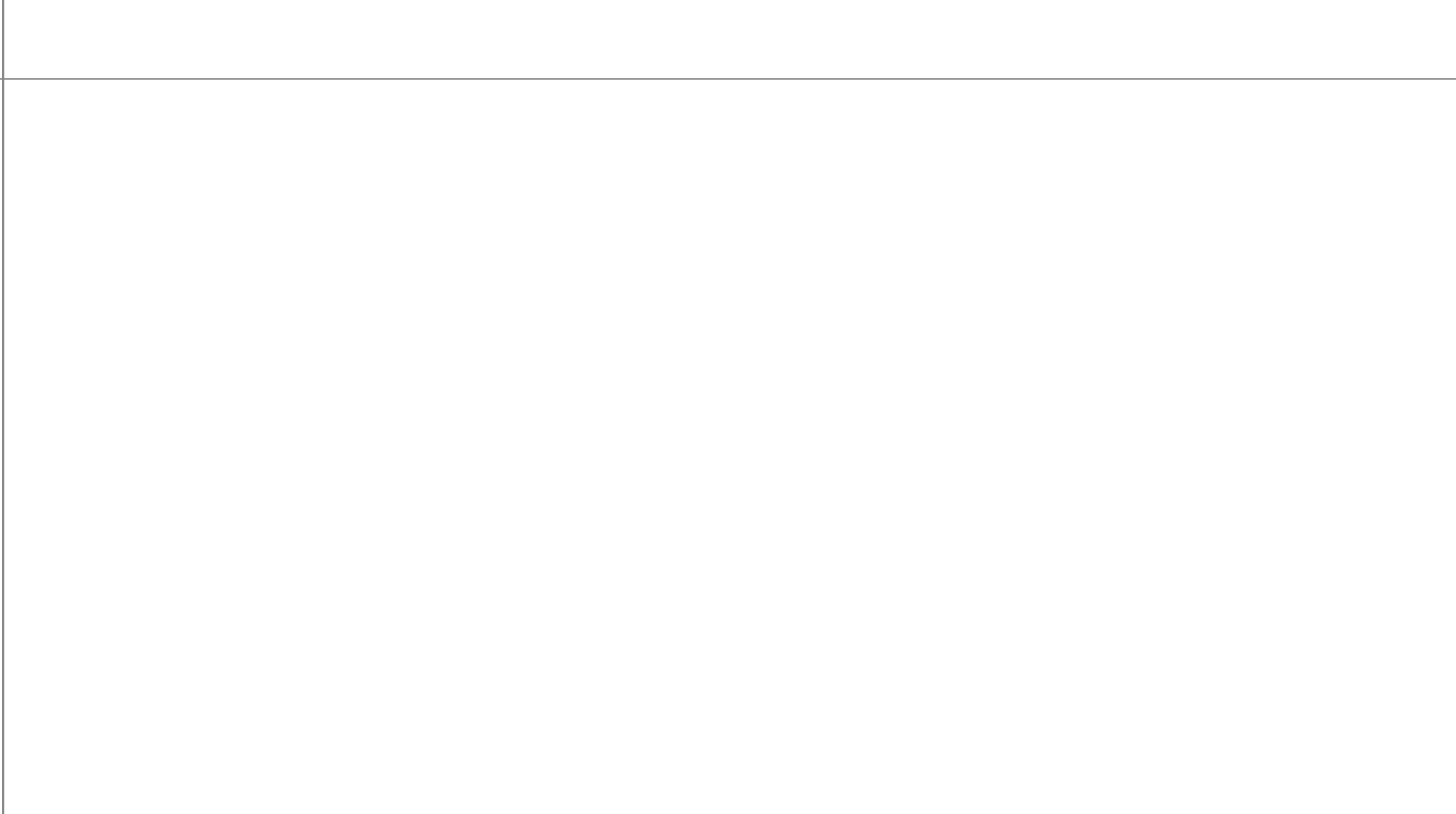


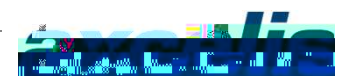
D4 Root Cause Analysis

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

Here is an example which shows how it works:







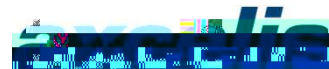
D6- Verification of Corrective Action(s)

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.



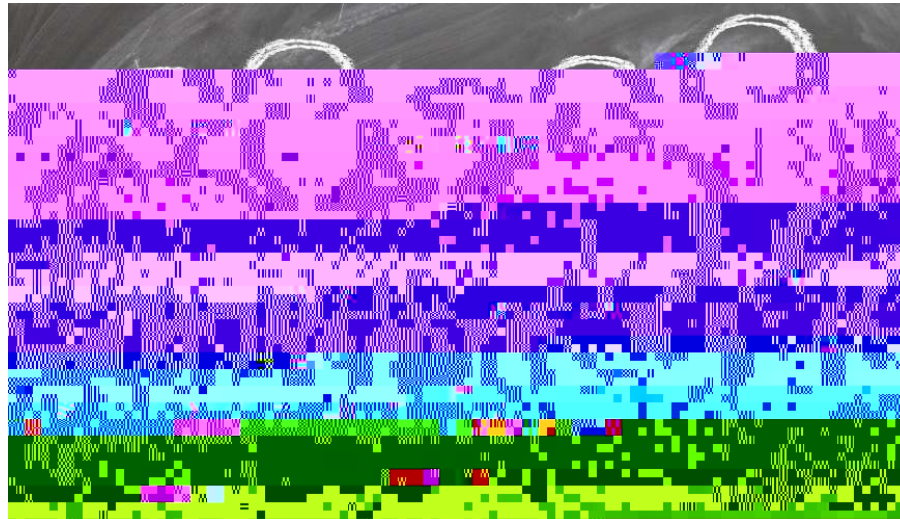
D7– Preventive Action(s)

- **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 Kanan Malhotra - Jul 23, 2020

