

# Virtual root cause analysis to optimize your process



Why not utilize this time working from home to virtually troubleshoot process problems in your facility?

Pharma and biotech companies increasingly need to manage change, improve performance and up their agility. So when problems inevitably occur, NNE offers a structured approach to troubleshooting, helping you identify the root cause of issues and find critical inputs to quickly deliver key action points.

Perhaps you...

- Struggle to control your process
- Have high scrap and unpredictable outcome
- Lack data to support production state
- Have fluctuating yield

## WE ARE HERE TO HELP – VIRTUALLY

Through two 2-hour virtual workshops, we troubleshoot your problem and form a basis for long-term improvements.

In these structured sessions, we assess the importance, probability, detectability and ease of access or change to data in these issues.

## WHAT DO YOU GAIN?

- An improved process understanding
- A basis for data-driven decisions
- A quick, prioritised action list
- A more optimized process
- Experienced facilitation of troubleshooting and analytical procedures
- Efficient virtual communication
- Identified and agreed parameters to use for a future control strategy



## THE APPROACH

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| <p><b>1 Virtual hello and welcome</b></p> <p>Introduction and background. The goal is to identify and agree on parameters for the root cause analysis and future activities.</p> | <p><b>2 Preliminary data analysis</b></p> <p>Short statistical evaluation of current state presented based on available data for yield variations / scrap rate / deviations etc.</p> | <p><b>3 Workshop 1</b></p> <p>Process map brainstorm co-created in Mural (virtual whiteboard). NNE summarizes the brainstorm results.</p> <p><i>2 hours</i></p> | <p><b>4 Workshop 2</b></p> <p>We score and rank parameters (in an Excel sheet), and identify the critical process indicators.</p> <p><i>2 hours</i></p> | <p><b>5 Summary + short evaluation</b></p> <p>NNE summarizes the outcome and makes suggestions for future actions.</p> |
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## RESULTS FROM A RECENT CUSTOMER ROOT CAUSE ANALYSIS

The customer faced deviations in **5% of all batches**.

The source of variation was not clear. Different opinions existed in different parts of the organization.

Workshop identified relevant activities related to

- Tolerance settings
- Measurement system
- Reducing process variations

Actions identified in the workshop reduced deviation rate **from 5% to below 0.4%**