

# How to Thrive Amidst Constant Disruptions

Panel discussion by: **Michael Keer**, Founder and Managing Partner, Product Realization Group, **George Lewis**, VP of Product Strategy, Arena, a PTC Business, **Cindy Lalowski**, Senior Quality Systems Manager, Aeye, Inc., and **Jeff Rosen**, Vice President of Planning, Tonal

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## KEY TAKEAWAYS

- The past two years have brought more disruptions than ever for global manufacturers.
- Manufacturers have overcome these disruptions by making significant changes both internally and externally.
- Due to the length of the pandemic and continuing supply chain disruptions, the perspective of manufacturers has changed.
- In looking to the future, the speakers expect even more disruptions and shortages.
- Among the most important advice for dealing with disruptions: invest in cloud solutions and enable flexible processes.
- In planning for the future, multiple cloud-based solutions are essential, along with integration of these solutions.

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# How to Thrive Amidst Constant Disruptions

## EXECUTIVE SUMMARY

### OVERVIEW

For manufacturers, the past two years have been marked by a series of major unexpected disruptions, especially disruptions related to the COVID-19 pandemic that brought unprecedented supply chain issues. And frequent, unexpected disruptions are likely to continue.

To survive and thrive amidst these disruptions, manufacturers have turned to the Cloud, adopting cloud project management and communication tools as well as cloud-based product lifecycle management (PLM) and enterprise resource planning (ERP) solutions. These systems provide greater visibility into essential information to run the business and foster a more collaborative enterprise. Manufacturers have also changed how and where they work, shifting from working solely on premises to working remotely and in a hybrid fashion. The hybrid model is expected to continue long after the pandemic concludes.

These changes set the stage for the future where keys to success in developing and designing new products will be pace, collaboration, adaptation, flexibility, and visibility. It will also be increasingly important to work closely with external suppliers and partners on supply chain options and alternatives, all to increase speed and reduce risks.

### CONTEXT

The panelists responded to a series of questions about major disruptions their organizations have faced, how they have overcome these disruptions, the role of cloud-based solutions, and their outlook for the future.

### KEY TAKEAWAYS

#### **The past two years have brought more disruptions than ever for global manufacturers.**

There have been economic disruptions and geopolitical disruptions as well as long-term resource and demographic disruptions related to not enough skilled workers. But the most significant disruptions of the

past two years have been disruptions related to the pandemic and supply chain upheaval.

The pandemic, which has been more severe and has lasted longer than anyone could have imagined, has affected where people work, how they work, and how companies design and develop products. Supply chain disruptions have resulted in component delays and shortages, which has caused manufacturers to reduce production and has caused some manufacturers to shut down.

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**The past two years we've had more disruptions than ever, not only with the pandemic but with natural disasters, political unrest, parts shortages, and more. And they're continuing to this day. This has changed the way we get work done and how product companies design and develop products. We've learned that disruptions are inevitable and can come at any time.**

*George Lewis, Arena, a PTC Business*

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#### **Manufacturers have overcome these disruptions by making significant changes both internally and externally.**

In describing how their organizations have coped with these disruptions, the panelists used words such as "adapted" and "flexibility." Each organization has made both internal and external changes.

- **Internally.** As companies were forced to work remotely, the most successful organizations quickly adopted online tools (if they didn't already have them), improved their internal collaboration, and accelerated their pace. To make internal improvements, the speakers stressed the importance of having common datasets and improved visibility.

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- **Externally.** Companies increased their contact with customers to keep them informed. In working with suppliers, companies focused on mitigating risks by identifying supply options and alternatives, while also forming more partnerships.

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**On the customer side, we have had much, much more contact to keep them in the loop on disruptions and status . . . With suppliers, the focus has been on options and risk mitigation.**

*Jeff Rosen, Tonal*

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## **Due to the length of the pandemic and continuing supply chain disruptions, the perspective of manufacturers has changed.**

Among the ways that manufacturers' perspectives have changed over time is recognizing that the hybrid work approach—using online tools, including Zoom and Microsoft Teams – is here to stay. Even after the pandemic ends, “we’re not going back” to the way things were, said Mr. Rosen. He continued, “Our product development cycles are going to need to be able to manage a proper mix of all sorts of work styles and locations.”

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**Our perspective has changed about the product development process. Before the pandemic, we believed it really needed to be an in-person activity. Now at this point, we believe it can be a combination of remote and in person with a heavy tilt toward remote support. This has been a surprise to me.**

*Michael Keer, Product Realization Group*

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Mr. Keer agreed, commenting that he has seen organizations' perspectives change to leverage cloud solutions to run product development and run the business. These include PLM systems, ERP systems, and online project management systems.

## **In looking to the future, the speakers expect even more disruptions and shortages.**

Ms. Lalowski commented that she expects to continue to see worldwide component shortages and long, if not even longer, lead times. She also expects a continued disruption in the workplace as companies settle into a blended work environment. “It seems like disruptions are going to continue,” added Mr. Keer, “and potentially even increase in frequency.”

In this uncertain, fragile environment, it is necessary for individuals and organizations to embrace change, be able to adapt, always be working to manage risk, and to be focused on flexibility and improved business processes.

## **Among the most important advice for dealing with disruptions: invest in cloud solutions and enable flexible processes.**

In dealing with current disruptions and in anticipation of future disruptions, the panelists advised organizations to invest in cloud solutions—particularly PLM and ERP systems—as well as processes.

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**My advice is to have these cloud-based tools in place to be able to access these tools and also to have robust processes in place and to have employees trained to use those tools.**

*Cindy Lalowski, Aeye, Inc.*

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## EXECUTIVE SUMMARY

Mr. Rosen suggested that organizations engage in scenario planning, which involves constantly looking at alternatives, looking at data, and building in flexibility.

### **In planning for the future, multiple cloud-based solutions are essential, along with integration of these solutions.**

When asked what cloud-based solutions companies should adopt to deal with today's supply chain disruptions, the panelists were in agreement about PLM and ERP. They also mentioned engineering design tools and the importance of master data control.

However, dealing effectively with disruptions goes beyond the individual tools. Mr. Keer said, "It's not only the core tools, but how those tools integrate together that is valuable for companies."

## BIOGRAPHIES

### **Michael Keer**

Founder and Managing Partner, Product Realization Group

Michael Keer has over 30 years of experience bringing high tech electronic products to market. As founder of the Product Realization Group (PRG), Mike helps guide the world's most innovative companies to accelerate delivery of their products, from concept to full market scale. Mike shares his expertise through mentoring and lectures at universities and industry events.

### **Cindy Lalowski**

Senior Quality Systems Manager, Aeye, Inc.

Cindy Lalowski has been involved in change management and quality for the past 30 years. Cindy has used Arena PLM for the past 19 years and has benefited from its evolution into a world-class tool that has allowed her to provide excellent support to her

employers. Cindy has expertise in product change control, quality management systems, and compliance requirements for regulatory bodies such as International Standards Organization (ISO) and the International Automotive Task Force (IATF).

### **George Lewis**

VP of Product Strategy, Arena, a PTC Business

George Lewis is a CAD/CAM/PLM industry veteran with over 20 years of experience at product development companies. As the VP of Corporate Strategy for Arena, George worked to provide business alignment with customers and technology partners. In his current role as VP of Product Strategy, George drives the strategies and processes to optimize the product and customer experience.

### **Jeff Rosen**

Vice President of Planning, Tonal

Jeff Rosen has extensive experience working with innovative companies in personal health and fitness and clean energy to help them deliver their solutions to market. Jeff brings broad and deep experience in driving operational scale and capability which has included creating partnerships that provide substantial competitive leverage, identification/implementation of innumerable business processes and tools, and hiring and upscaling resources in support of company core competencies. Additionally, Jeff mentors young professionals who face incredible complexity as they enter and seek to advance in a dynamic workplace.