



# How to lead and maintain reliability in a crisis

Dr. Klaus Blache





#### **Dr. Klaus Blache**



Director, Reliability & Maintainability Center Research Professor, College of Engineering University of Tennessee

- 34 years of global experience in automotive
- More than 30 years of Reliability & Maintenance benchmarking of all type of industries
- Two-year past Chairman of SMRP
- 11 years at University of Tennessee, Knoxville
- Guide companies to instill a continual improvement process that develops all employees as problem eliminators





#### **POLL QUESTION No. 1**



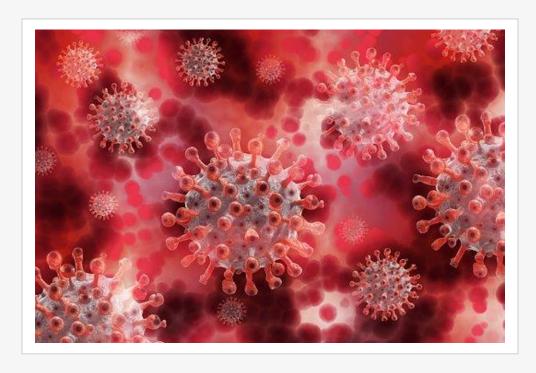
Based on how it was before COVID-19, how effective is your business today? (Click only one answer)

- At least 20% less productive
- Slightly less productive
- About the same
- Actually doing better



#### How to lead and maintain reliability in a crisis

Many things have changed and many have not in these challenging times of virus driven decision making. As reliability and maintenance activities continue, adherence to new pandemic-prompted standardized best practices are even more critical.



#### Discussions will be focused on four areas:

- Whenever there is a crisis, great things have been accomplished
- Challenges and opportunities of the before and after
- The new normal and becoming resilient
- Leading in crisis and what to focus on

https://pixabay.com/images/search/coronavirus/



#### **COVID-19** has been termed a Black Swan Event

A black swan is an unpredictable event that is beyond what is normally expected of a situation and has potentially severe consequences.

Black swan events are characterized by their extreme rarity, their severe impact, and the widespread insistence they were obvious in hindsight.

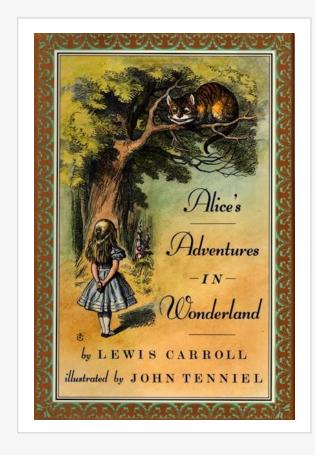


http://www.richard-seaman.com/Wallpaper/Nature/Birds/Swimmers/BlackSwan.jpg



#### **Dorothy – in The Wizard of Oz**

#### 'Toto, I've a feeling we're not in Kansas anymore.'





https://bookriot.com/2017/11/24/alice-in-wonderland-quotes /

https://i.pinimg.com/originals/2f/96/f7/2f96f7dec25a9f207e5817af01acc00b.jp g



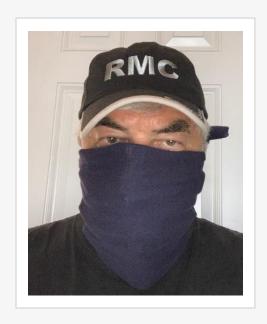
#### Whenever there is a crisis, great things have been accomplished

#### Whenever there is a crisis:

- Some will just be uncomfortable or frightened
- Some will want to simply return to a safe workplace or work from home
- Some will take what they learn during the crisis and come out better individually and as an organization



## **Boot Camp 2020**



## What have we learned from history?

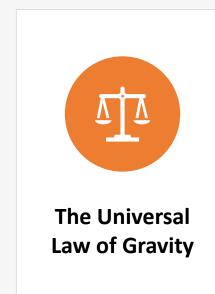
Source: <a href="https://machinerysafety101.com/wp-content/uploads/2017/02/videoconferencing.jpg">https://machinerysafety101.com/wp-content/uploads/2017/02/videoconferencing.jpg</a>





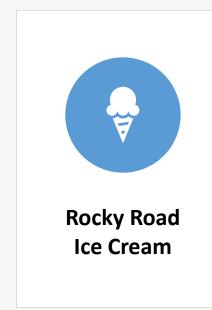


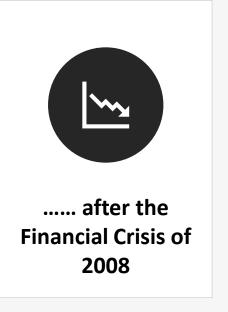
## Whenever there is a crisis, great things have been accomplished













## Challenges and opportunities of the before and after



In the United States, more than

70%

of jobs can't be done offsite







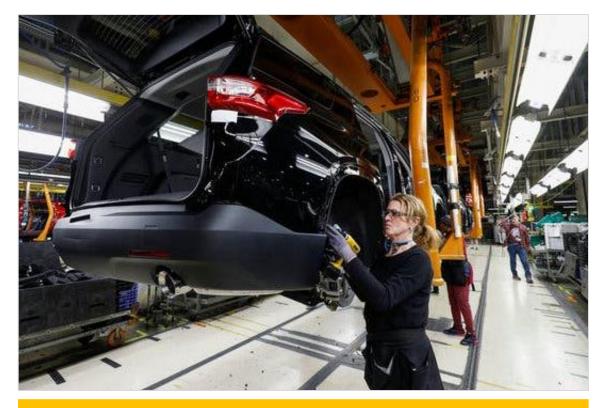


#### Some of the Ford Motor Co. safety protocols include:

- 24-hour COVID-19 test results
- Daily online employee and visitor health self-certifications completed before work every day. Employees
  or visitors who indicate they may have symptoms or may have been exposed to the virus will be told not to
  come to Ford facilities.
- No-touch temperature scans upon arrival anyone with a raised temperature will not be permitted to
  enter and will need to be cleared of symptoms before returning to work.
- Required face masks for everyone entering a Ford facility. Every Ford team member will be provided a care
  kit including face masks and other items to help keep them healthy and comfortable at work.
- Safety glasses with side shields or face shields will be required when jobs don't allow for social distancing.
- There will be more time between production shifts to limit interaction between employees and allow for additional cleaning.



#### **GM** and Ford



A return to production by General Motors, Ford Motor and Fiat Chrysler on Monday is expected to give a jolt to the economy.

Credit...Bill Pugliano/Getty Images

By Neal E. Boudette, May 17, 2020

- GM and Ford are employing thermal cameras at the entrances to their plants
- GM said on its website that <u>each employee will be</u> provided with a face mask
- Ford's worker-provided PPE includes a watch that beeps when workers get too close together
- Ford has placed portable sinks and hand-sanitizer dispensers throughout its plants and installed notouch faucets and soap dispensers in restrooms



#### Mercedes-Benz and Volkswagen

- Mercedes-Benz restarted an S.U.V. plant in Alabama on April 27, <u>but stopped production</u> on Friday after running short of parts.
- Volkswagen was scheduled to start making cars at a plant in Chattanooga, Tenn., on Sunday two weeks after it had originally hoped to bring workers back, because many of its suppliers needed more time to get up and running.



The parking lot in March at Fiat Chrysler's factory in Belvidere, Ill. Nearly 400,000 automotive production workers were idled during U.S. shutdowns.

Credit...Scott Olson/Getty Images



#### **Stagger start times**

#### An effective start-up will require detailed understanding, teaching, coaching, and patience from all of us.

On its assembly lines, the company has set up transparent curtains to prevent transmission between people who work next to each other.

Some are staggering start times.



AUBURN HILLS, MI—As Fiat Chrysler Automobiles (FCA)

https://www.assemblymag.com/articles/95706-employee-health-and-safety-a-priority-as-fca-prepares-to-restart-north-american-production?id=95706-employee-health-and-safety-a-priority-as-fca-prepares-to-restart-north-american-production&oly enc id=8787B9390867A6S



#### **Toyota**

#### "The challenge is we're having to break everyone's habits,"

Toyota Motor Manufacturing in Huntsville, Ala., will welcome about 1,400 employees back to work on May 11 in a setting dramatically different than what they left in March.

And what employees will find upon their return is that virtually nothing is the same: Entering the plant is different, working processes on the assembly line are different, meetings with team leaders are different, taking breaks is different, eating lunch is different.



Produces about 630,000 engines a year

https://www.al.com/news/2020/05/toyota-reconfigures-alabama-plant-for-coronavirus-were-having-to-break-everyones-habits.html



#### Toyota

...markers on the floor throughout the plant placed six feet apart, a <u>reconfigured dining room</u> now at a fraction of capacity, <u>plexiglass virtually everywhere and clear vinyl curtains</u> to separate employees working in close proximity on assembly lines.



"The first day and a half, we will actually be training, recalibrating our people," Finch said. "It's going to be a huge mind shift change for them. The first day, we don't focus on volume. In fact, the first month our ramp up is quite gradual, so it gives us time to work with our team members because that really is going to be a big change for them."

"Having worked with my team here and seen what the kaizen team have done in a short space of time, they're very clever people," Finch said. "They have that mind to make kaizens, to adapt things.

https://www.al.com/news/2020/05/toyota-reconfigures-alabama-plant-for-coronavirus-were-having-to-break-everyones-habits.html



## **AIRLINES**

#### **APPLE**

..... face coverings and temperature checks.



https://www.linkedin.com/feed/news/delta-caps-in-flight-seating-capacity-4137737/

https://www.linkedin.com/feed/news/apple-reveals-reopening-plans-4121633/



## MAY 2020 MANUFACTURING FACILITIES AND OPERATIONS New Operational Practices to Consider in the Time of COVID-19

The following is a collection of emerging strategies and new operational practices that many leading manufacturing organizations of all sizes are considering and/or implementing to guide their workplaces and employees safely through the pandemic.

These practices are being shared to assist manufacturers taking steps within their facilities to meet or exceed Centers for Disease Control and Prevention and Occupational Safety and Health Administration guidelines and recommendations, while also mitigating operational and business risks that are outside the scope of such guidance. This information is not meant as authoritative legal, medical or regulatory guidance or advice. It is not an exhaustive list of operational practices in the COVID-19 environment but rather represents **some of the most common "best practices" communicated to the National Association of Manufacturers.** 

https://3mauud1v537n3jeq0s4dqv5n-wpengine.netdna-ssl.com/wp-content/uploads/2020/05/Best-Practices.2020-V3.pdf



#### SITE ACCESS TO MITIGATE EXPOSURE

- **1.** Many sites have <u>eliminated all visitor access</u> or are only allowing third-party visitors if they are critical for ongoing operations (i.e., maintenance or service technicians).
- 2. Some companies are using <u>self-certification questionnaires</u> for staff and/or guests. These must be completed before the person is allowed on site, and they require the individual to certify that he or she is free of specific symptoms and has not knowingly been in contact with anyone testing positive for COVID-19 or showing specific symptoms in the past 14 days. They also ask to disclose recent travel or to certify that no recent travel has occurred to specific "hot spots."
- 3. Facilities that use temperature screening report doing the following:

Staff who perform the temperature screenings are outside the facility at a special checkpoint and are trained on how to use the equipment and outfitted with special medical personal protective equipment.

- Temperatures are taken with a non-touch laser device.
- The company decides what temperature level is permissible, with the common thresholds at 99°F or 100°F. The CDC defines a fever as a body temperature at or above 100.4°F.
- Any staff with a reading above the allowed threshold is asked to return home and does not enter the workplace.
- Neither temperature readings nor employee names are recorded to maintain privacy.
- Measures should be taken to protect the privacy of workers while receiving tests and if they test positive when leaving the facility.
- Companies should consider whether federal and state wage and hour laws require that the time workers spend waiting in line is compensable.



https://3mauud1v537n3jeq0s4dqv5n-wpengine.netdna-ssl.com/wp-content/uploads/2020/05/Best-Practices.2020-V3.pdf

#### **WORKSTATION MEASURES TO PROMOTE SOCIAL DISTANCING**

- 1. Companies are working to ensure that, if possible, all workers are stationed at least six feet or more from their nearest coworker.
- 2. Some companies have slowed production lines intentionally to make the appropriate social distancing feasible.
- 3. When six feet of distance between workstations is not feasible, some are using <u>plexiglass or vinyl barriers between workers</u> coupled with workplace-appropriate face coverings for employees in these types of workstations.
- 4. The <u>CDC recommends wearing facial coverings</u>, such as cloth masks, at all times in manufacturing facilities. This would not only help to limit possible human-to-human transmission but also help to reduce the chance of surface or airborne contamination.
- 5. Companies are using higher-grade PPE when the six-foot recommended radius is not possible.
- 6. Preexisting PPE that was required before the pandemic—such as hard hats, goggles, gloves, etc.—was likely never shared between staff. But companies are ensuring that policy should be strictly communicated and enforced now, and some require that all PPE should be disinfected daily by either the company or the employee.
- 7. Many companies have also banned sharing other types of wearable or high-touch equipment, such as headsets and remote controls.
- 8. Some are implementing additional protective coverings—such as keyboard covers—and allowing employees to bring their own to each shift and then take it home for cleaning each day.
- 9. Companies are usually requiring significant cleaning and disinfecting of all high-touch surfaces at a workstation at the beginning and end of a shift.
- 10. If more than one person uses a workstation during a shift, then the cleaning and disinfecting regimen is usually more frequent.
- 11. Any shared tools are usually disinfected before the next employee uses them, whether that is within a shift or between shifts.
- 12. A deeper cleaning of the entire work area is often standard each night or weekly, depending on many factors, including number of workers, types of surfaces, environmental conditions, etc.
- 13. Some companies are scheduling daily cleaning crews to come through facilities during the day, rather than at night, to show employees that safety measures are being taken.

FLUKE.

Reliability

 $\underline{https://3mauud1v537n3jeq0s4dqv5n-wpengine.netdna-ssl.com/wp-content/uploads/2020/05/Best-Practices.2020-V3.pdf}$ 

#### **FACILITIES AND TRAFFIC MANAGEMENT**

- 1. Companies are limiting and discouraging congregation of staff in any area where they must be closer together than six feet and/or with poor ventilation characteristics.
- 2. <u>Cafeterias and break rooms are frequently either closed, or they are rearranged</u> in reduced seating formations to prevent people from sharing tables. In some cases, staff are asked to take breaks or eat lunches in their cars to maintain separation while getting off their feet. Companies are using ample signage to communicate room occupancy limits.
- 3. Companies are seeking to install touchless appliances wherever possible—including all sinks and paper towel holders.
- 4. Major emphasis is placed on frequent hand washing or hand sanitizing, and, when possible, the appropriate sinks or supplies are located throughout the facility to accommodate the increased frequency.
- 5. Companies are focused on cleaning restrooms more frequently, and some toilets or sinks may be blocked off to help maintain social distancing.
- 6. Wherever possible, doors are propped open to eliminate a frequent touchpoint for many staff hands. Other companies are installing hardware that allows workers to open doors with their forearms or with a foot pedal.
- 7. Hallways and other walkways through buildings may be designated as one-way to reduce close-proximity passing of staff.
- 8. Some companies are increasing the use of radios, text messages and email to reduce staff movement and face-to-face communication.



- 9. Time clocks can cause crowds to form, and many companies have reported the following measures to help alleviate that issue:
  - Replacing the traditional technology with something that is touchless—linked perhaps to each employee's cell
    phone or a wrist band, etc.
  - Staggering start and end times within a shift so that the time clock usage is less intense at any one time
  - Installing <u>additional time clock stations</u> in the facility
  - Placing social distancing markers on the floor to guide the line formation and proper spacing of those waiting to clock in or out



http://astreea.com/northamerica

#### Hands-free sanitizer dispensing:

- Pedal operated Reduce cross-contamination.
- Universal Fill the reservoir with your preferred gel or liquid hand sanitizer product.
- Easy to Refill Just remove the anti-theft screws and lift the top plate
- Reservoir Window Quickly check hand sanitizer level.
- Entirely made of medical stainless steel
- Weather and age resistant. Rust-free.
- Fully Mechanical Designed for heavy-duty use.
- Quiet and Leak-free Sealed with rubber gaskets.
- Welded construction No installation required. (option to bolt to the floor in high track areas)
- Install it anywhere Perfect for retail, hotels and restaurants, banks, office buildings, healthcare facilities, airports, schools, transit stations, gyms, or any public area.



#### SHIFT AND TEAM DESIGN

- 1. Many companies realize that any worker may get infected or sick at any time, no matter where the exposure occurs. They, therefore, endeavor to **ensure that each worker is only interacting with a very limited number of coworkers** to minimize the number of people who might be exposed in the workplace and then quarantined or infected as a result.
- 2. <u>Increasing the time between shifts</u> allows for policies that ensure all workers from one shift are off premises before the next shift arrives, preventing incidental contact between workers on different shifts.
- 3. Some facilities have <u>divided workers within the same shift into specific smaller work teams</u>. These teams may be designated with a specific marked floor area in the facility or designated by color of uniforms or other visual cues. Workers may need to interact at closer distances with those on their designated team, but they explicitly do not do so with members of any other team.
- 4. Hand-offs are often a critical and normal part of factory operations; everything from clipboards to raw materials to forms or tablets may be regularly passed from one staff to another to facilitate work and all the tracking and reporting that goes with it. **Each hand-off should be evaluated** from a virus transmission risk perspective and, where possible, reworked to be as distant and touchless as possible.

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#### **ILLNESS OR DIAGNOSIS RESPONSE**

- 1. An important consideration is to design a plan for how an employee who reports feeling ill in the workplace will be isolated and cared for—and to make accommodations for privacy when requiring an employee to leave.
- 2. Consider and plan for how an employee's positive COVID-19 test or likely infection due to symptoms will be handled. What contact tracing among other staff will be carried out and by what means? How will the employee's privacy be protected?
- 3. Determine what facility-related steps will be taken if an employee recently on-site is assumed to be infected. Will the facility close in total or in part? What cleaning and disinfecting protocols will be followed? What communications will go out to employees?
- 4. As a representative of a community facility, consider developing a working relationship with county health officials so that reporting and mitigation can be addressed smoothly and proactively.

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#### **ESSENTIAL TRAVEL POLICIES**

- 1. Companies are adopting various policies for essential staff travel. Examples include <u>using only personal</u> <u>vehicles instead of rental cars</u>, providing protocols for cleaning/disinfecting hotel rooms upon check-in and establishing dining policies, such as takeout or delivery only. Additional considerations include the use of PPE and social distancing protocols while on a remote worksite.
- 2. When sending workers to customer locations, companies are focusing on **communicating clearly with** customers on safety protocols and inquiring about their own on-site practices.

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#### RETURNING NONESSENTIAL WORKERS

- 1. Companies are determining which workers should return to the workplace **based on their effectiveness working remotely versus on-site.** They are typically prioritizing those roles with greater on-site effectiveness.
- 2. Other considerations include the distance the employee would be traveling to work, his or her own <a href="health">health</a> status or health status of family members (such as being immunocompromised or having other underlying health conditions or risk factors) and whether the employee would need to take public transit to get to the workplace.
- 3. Companies are communicating clearly and regularly with employees about on-site safety protocols in advance of their return.
- 4. Companies are monitoring reintegration and reinforcing protocols and policies as necessary.
- 5. Explaining the return-to-work philosophy of the company can be helpful in addressing employees' concerns.

#### Legal Disclaimer:

The information contained in this document does not constitute legal or medical advice. The practices outlined here are meant as examples, and the NAM bears no responsibility with respect to third-party reliance on the recommendations set out herein. All employers should consult with local legal counsel and regulators specific to their jurisdictions and industries in developing strategies applicable to their unique workplaces.

FLUKE

Reliability

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#### 2020 RETURN TO WORK AND RECOVERY GUIDE

#### 2020 RETURN TO WORK AND RECOVERY GUIDE

In an effort to provide extended support to a variety of public and private sector organizations and agencies, the University of Tennessee Center for Industrial Services (UT CIS) has developed this reference guide to assist you as you maintain, resume or restart operations.

UT CIS's guide is based upon COVID-19 Best Practices, as recommended by the Centers for Disease Control & Prevention (CDC), the Occupational Safety & Health Administration (OSHA), The Tennessee Department of Health, and other Governmental Regulations & Guidelines as described in this document



http://www.cis.tennessee.edu/Coronavirus



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#### **POLL QUESTION No. 2**



What is your biggest challenge in next three months? (Click only one answer)

- Getting the business running effectively again
- Helping workforce feel safe at work
- Scaling up to more digital, technologies, telecommuting, etc.
- Big-picture issues: supply chain, opening up in all areas, etc.



## The new normal and becoming resilient



https://upload.wikimedia.org/wikipedia/en/a/a6/The New Normal title card.jpg



#### **OSHA** guidance

This **OSHA guidance** is largely a return to the recordkeeping criteria that have been in place since 2002, which was relaxed by the April 10, 2020, guidance.

Employers will again be expected to investigate COVID-19 cases just as they would any other illness case.

On May 19, 2020, OSHA issued revised guidance that went into effect on May 26. The new one initially reiterates the agency's recordkeeping criteria for COVID-19.

https://www.ehstoday.com/covid19/article/21132483/osha-changes-how-to-record-covid19-cases?utm\_source=QM+News&utm\_medium=email&utm\_campaign=CPS200522068&o\_eid=3812I6335267I4X&rdx.ident%5Bpull%5D=omeda%7C3812I6335267I4X&oly\_enc\_id=3812I6335267I4X



#### What will manufacturing's 'new normal' be after COVID-19?

## History teaches us that short-term measures taken in response to global crises lead to changes that last for decades.

Most of us hope that the COVID-19 pandemic will end within months, and things will go back to normal. In fact, many aspects of our society may never return to normal.

What most of us consider normal has already fundamentally shifted.

After 9/11 - Many travel security, cyber security and governmental surveillance measures instituted at that time continue to this day.

The COVID-19 pandemic has already accelerated a number of consumer trends like online learning, working from home, streaming services, video communication and consumer goods and service deliveries—in what some are calling the "shut-in economy." Once a critical mass of consumers get used to these behaviors, they will likely remain embedded in our daily lives for years to come.

https://www.industryweek.com/technology-and-iiot/article/21129334/what-will-manufacturings-new-normal-be-after-covid19?utm\_source=IY+IW+Weekly+Hotlist&utm\_medium=email&utm\_campaign=CPS200522072&o\_eid=3812I6335267I4X&rdx.ident%5Bpull%5D=omeda%7C3812I6335267I4X&oly\_enc\_id=3812I6335267I4X



16%
U.S. workforce



20-30%

**European workforce** 

......about 16 percent of the U.S. workforce, and 20 to 30 percent of the European workforce (where there are more dual-income households —will likely need childcare before being able to return fully to work).

As of mid-April, 191 countries had shut down all their primary and secondary schools, affecting almost 1.6 billion children.

https://www.mckinsey.com/featured-insights/coronavirus-leading-through-the-crisis/charting-the-path-to-the-next-normal?cid=Covid-19-eml-alt-mip-mck&hlkid=efec4d5ce93340658208022f05158d63&hctky=2973707&hdpid=615fa465-c5e0-4b37-b1f1-2c0e67bbad01



#### A COVID wakeup call:

#### **Bring Essential American Industries Home from China**

U.S. reliance on China for rare earth minerals is especially alarming.

Brig. Gen. John Adams (U.S. Army, retired)

- Similar concerns over shortages in key pharmaceuticals, medical PPE and related treatment equipment ..... Both where they were produced and how easily the supply chain was broken.
- For the first time in modern manufacturing history, demand, supply and workforce availability are affected globally at the same time.

https://www.industryweek.com/the-economy/trade/article/21131842/a-covid-wakeup-call-bring-essential-american-industries-home-from-china?utm\_source=IY+IW+Weekly+Hotlist&utm\_medium=email&utm\_campaign=CPS200522072&o\_eid=3812I6335267I4X&rdx.ident%5Bpull%5D=omeda%7C3812I6335267I4X&oly\_enc\_id=3812I6335267I4X

https://www.industryweek.com/technology-and-iiot/article/21129334/what-will-manufacturings-new-normal-be-after-covid19?utm\_source=IY+IW+Weekly+Hotlist&utm\_medium=email&utm\_campaign=CPS200522072&o\_eid=3812I6335267I4X&rdx.ident%5
Bpull%5D=omeda%7C3812I6335267I4X&oly\_enc\_id=3812I6335267I4X



# **Best practices from Ford's Return to Work Handbook**



https://www.industryweek.com/talent/media-gallery/21133295/best-practices-from-fords-handbook-on-plant-safety?utm\_source=IY+IW+Daily+Headlines+-+Morning&utm\_medium=email&utm\_campaign=CPS200608051&o\_eid=3812I6335267I4X&rdx.ident%5Bpull%5D=omeda%7C3812I6335267I4X&oly\_enc\_id=3812I6335267I4X



# Leading in crisis and what to focus on



https://www.tanveernaseer.com/wp-content/uploads/2016/06/How-leaders-successfully-resolve-crisis.jpg



# **Beyond coronavirus:**

#### The path to the next normal | McKinsey & Company

by Kevin Sneader and Shubham Singhal, McKinsey & Company







Resilience



Return



Reimagination



Reform

5 Words frequently used (in past two month) to describe / help understand what's needed

https://www.bing.com/search?q=Beyond-coronavirus-The-path-to-the-next-normal&form=EDGSPH&mkt=en-us&httpsmsn=1&msnews=1&rec search=1&plvar=0&refig=35c3b690a1e94d1ec8273de9aef40898&DAF0=1



#### **Resolve:**

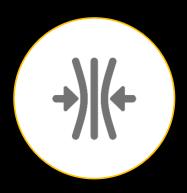


The need to determine the scale, pace, and depth of action required at the state and business levels. As one CEO told us: "I know what to do. I just need to decide whether those who need to act share my resolve to do so."

https://www.bing.com/search?q=Beyond-coronavirus-The-path-to-the-next-normal&form=EDGSPH&mkt=enus&httpsmsn=1&msnews=1&rec\_search=1&plvar=0&refig=35c3b690a1e94d1ec8273de9aef40898&DAF0=1



#### Resilience:



A health crisis is turning into a financial crisis as uncertainty about the size, duration, and shape of the decline in GDP and employment undermines what remains of business confidence.

.....the shock to our livelihoods from the economic impact of virus suppression efforts could be the biggest in nearly a century

https://www.bing.com/search?q=Beyond-coronavirus-The-path-to-the-next-normal&form=EDGSPH&mkt=enus&httpsmsn=1&msnews=1&rec search=1&plvar=0&refig=35c3b690a1e94d1ec8273de9aef40898&DAF0=1



#### **Return:**



The weakest point in the chain will determine the success or otherwise of a return to rehiring, training, and attaining previous levels of workforce productivity.

... and then what happens in the Fall?

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#### **Reimagination:**



A shock of this scale will create a discontinuous shift in the preferences and expectations of individuals as citizens, as employees, and as consumers.

These shifts and their impact on how we live, how we work, and how we use technology will emerge more clearly over the coming weeks and months

....supply chain safety and availability will outweigh globalization efficiencies

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#### **Reform:**



Policies on critical healthcare infrastructure, strategic reserves of key supplies, and contingency production facilities for critical medical equipment will all need to be addressed.

...the five stages described here offer leaders a clear path to begin navigating to the next normal—a normal that looks unlike any in the years preceding the coronavirus, the pandemic that changed everything.

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### Importance of continuous improvement

McKinsey research on the 2008 financial crisis found that a small group of companies in each sector outperformed their peers. They did get hurt, with revenues falling about the industry average, but they recovered much faster.

By 2009, the earnings of the resilient companies had risen 10 percent, while that of the non-resilient ones had gone down almost 15 percent. What characterized the resilient companies was preparation before the crisis—they typically had stronger balance sheets—and effective action during it specifically, their ability to cut operating costs.

.....it will not be enough for many companies to tweak their business model; instead, they will need to rethink it.

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#### **Bon Jovi**



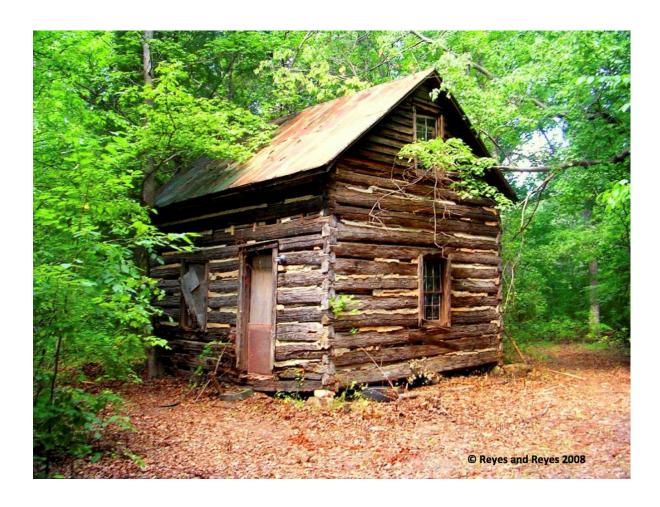
# "If you can't do what you do, do what you can"

- Bon Jovi

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#### **Cabin Fever**



#### **Cabin Fever**

Definition of Cabin Fever by Merriam-Webster

- extreme irritability and restlessness from living in isolation or a confined indoor area for a prolonged time

https://upload.wikimedia.org/wikipedia/commons/thumb/b/be/Sydnor Log Cabin.png/1200px-Sydnor Log Cabin.png



# QUESTIONS?



# Thank you!

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#### Next webinar: Remote asset management and other benefits of connectivity



**BEST PRACTICE WEBINAR** Wednesday, July 8, 11 a.m. ET

#### Remote asset management and other benefits of connectivity

The current crisis is making the benefits of the IIoT more obvious than ever. It is driving some "early majority" and perhaps even "late majority" adopters to investigate how the cloud and IIoT with software-connected equipment and advanced analytics tools can turn volumes of data into meaningful maintenance intelligence that is accessible onsite or offsite.

In this webinar, condition monitoring expert **Kevin Clark** discusses how organizations can assess their current infrastructure and plan pilot programs to leverage the IIoT.



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