

- Build an effective and holistic health and safety strategy
- Maximize worker health and safety with digital solutions
- Reduce costs of incidents and case litigation
- Build on the solution to recognize new operational benefits

DATASHEET

Digital Health and Safety Solution for Manufacturing

Maximize Safety by Combining Expertise and Innovative Technology

Manufacturing has one of the highest incidence rates of injuries and illness of any industry. Each incident can cost up to \$35K for direct costs and \$150K in indirect costs. But preventing and minimizing these incidents can save your company the associated costs of healthcare, lost productivity and litigation.

We can help. Hitachi Vantara's Digital Health and Safety Solution for manufacturing offers you a holistic, end-to-end solution to maximize safety with your people, assets and shop floors. It includes strategic consulting to optimize safety strategies, procedures, and approaches, as well as new digital technologies such as 3D lidar, video, AI, RFID and data analytics services that give you new insights to better manage any health and safety program.

Our solutions help you implement, engage, align and sustain strategies that improve your processes and systems to achieve sustainable behavioral, operational and financial results. New insights and alerts from AI-enabled solutions along with case management tools enhance your incident response, prevention and management.

The solutions also let you better understand your health and safety performance and see how to more effectively reach



ENSURE ALL ASPECTS OF HEALTH AND SAFETY FOR YOUR SHOP FLOOR WORKERS

your objectives through data-driven innovations. You can also build upon your initial use cases to achieve additional organizational goals, like enhancing operational efficiencies, facility security, and worker or customer experiences.

In the "new normal," these solutions can be used to mitigate the risks of COVID-19 with thermal body temperature scanning, and 3D lidar for social distancing and handwashing verification while respecting personal privacy. Thermal cameras at entrances to a facility can scan large numbers of people more quickly and less invasively than manual scans and don't put the staff performing manual scans at risk. The intelligence behind the cameras measures temperature on several points of the face to get an accurate estimate of body temperature. Staff can then direct

an indicated person to secondary testing measures using medical thermometers and virus tests. Furthermore, you can institute wearable RFID bracelets, to track the contact of people throughout your facility to help with quarantine decisions.

These solutions can also detect slips and falls, intrusions into dangerous or restricted areas. They can also prevent collisions between humans and machines like forklifts and trucks and help to manage incidents by using digital evidence management.

New Technologies:

3D lidar, similar to radar but with low-intensity lasers that measure the time of flight (TOF) of light beams, to generate a three-dimensional "point cloud" in real time. This data is analyzed by machine

learning to give you insights on any number of activities and movements in the physical world, without collecting personal information. For health monitoring, it can alert you when social distancing guidelines are not followed, check for proper handwashing, detect slips and falls, and detect unsafe behaviors in manufacturing processes.

Video analytics can automatically detect the wearing of personal protective equipment such as helmets, masks and vests to improve compliance. These analytics can also analyze activity on the shop floor, sense intrusions into unsafe or restricted areas, and a variety of other insights and alerts, often using security cameras that you probably already have throughout your facilities.

You can view and analyze all this data on unified geospatial and graphical dashboards on a single monitor through Hitachi Visualization Suite (HVS). You also have tools for case management using an archive of digital evidence to help simplify your administration of incidents.

Now you can address health and safety concerns with:

- People – Noncompliant worker behavior that heightens workplace safety risks and is a critical need for continuous improvements.
- Assets – Lack of optimized maintenance protocols such as lock-out, tag-out (LOTO) and current state of procedural practices that are paper-driven and manual.
- Shop Floor – Lack of real-time shop floor information that can be resolved through monitoring systems.

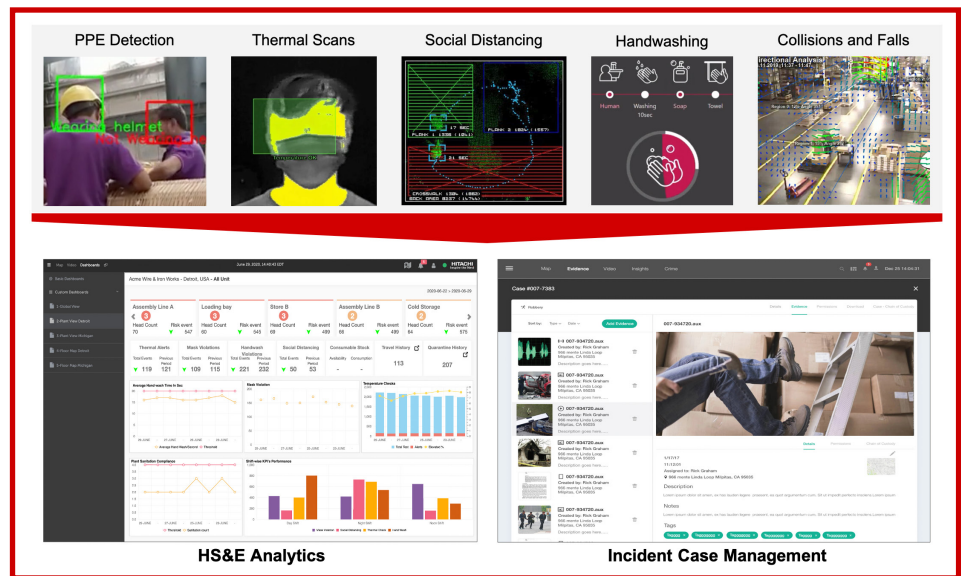


FIGURE 1. ADVANCED TECHNOLOGIES FOR HOLISTIC HEALTH AND SAFETY COMPLIANCE

See how Hitachi's solutions can solve the most pressing challenges in your workplace safety. Examples include:

- Streamline EH&S statutory and reporting requirements
- Track and trace PPE (personal protective equipment) / RPE (respiratory protective equipment) non-compliance – Visuals of people not wearing safety gear
- Alert emergency personnel if a person has difficulty breathing, such as from toxic gas in a confined space.
- Maintain worker skills matrices to ensure operators have received appropriate training.
- Mitigate the impacts of COVID-19 by applying video analytics for PPE compliance monitoring, thermal scanning, and social distancing compliance.

- Provide wearable devices to employees to track health parameters such as blood pressure, heart rate, body temperature, movement and fall detection.
- Use 3D lidar to monitor social distancing and handwashing.
- Institute a digital work permit system for asset maintenance, hazard identification and job safety analysis documentation.

All these and more are possible when you partner with Hitachi. We help guide you from what's now to what's next.

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