

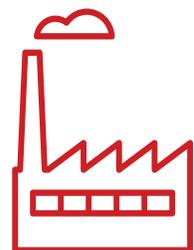
Lumada Video Insights Enables Safer and More Efficient Manufacturing

New Insights Help Manufacturers Utilize Smart Spaces

SOLUTION PROFILE

Manufacturing remains one of the most important and prolific industries globally. But manufacturers today are facing increasing cost pressures, competitive landscape, technological disruption and higher expectations than ever around waste reduction, supply chain sustainability, regulations, worker safety and training. Those manufacturers who stay ahead of the curve and see technology as an opportunity to improve operations, safety and resource efficiency will thrive in this new world.

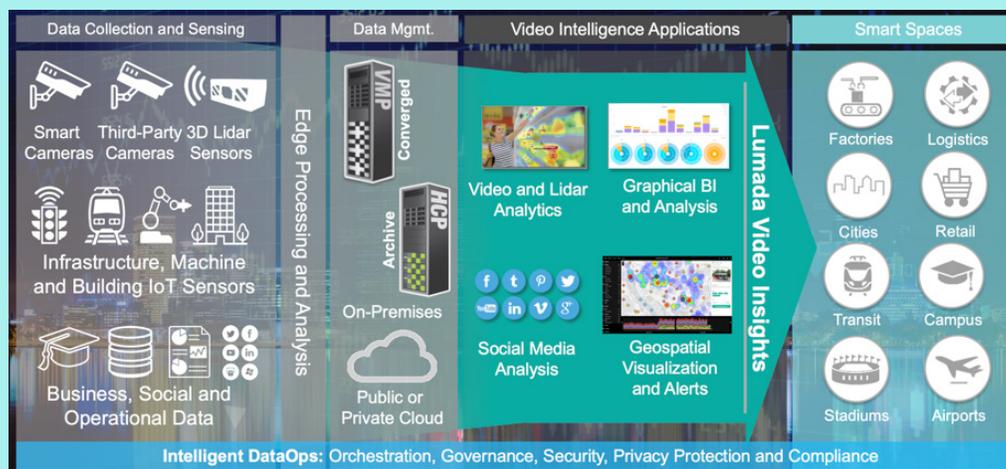
Hitachi is one of the largest manufacturers in the world, and we face the same challenges as our customers. Through innovation we create solutions to these challenges.



Process, Waste and Worker Safety Problems Still Plague Manufacturing

The manufacturing and associated warehousing industries have some of the highest rates of workplace injury across all leading sectors, with over 20,000 serious injuries from forklifts per year in the United States alone.¹ The human costs of this are immeasurable, and the business costs are high, with an average direct expense of \$35,000, and average indirect costs of \$150,000 per injury.

Process improvements and waste reduction are also ripe for optimization, with labor costs representing 50% of operating costs, and potential improvement estimates of 11-30% possible through technology, work measurement, and continuous improvement programs.²



Hitachi Smart Spaces solutions using Lumada Video Insights provide rich intelligence and timely alerts to help manufacturers improve safety, operations and workforce management.

Hitachi Smart Spaces Measure What Was Previously Unmeasurable

Smart Spaces use innovations in the internet of things (IoT), artificial intelligence (AI) and sophisticated analytics to deliver valuable insights that help manufacturers improve their operations and worker safety. Lumada Video Insights, a portfolio of video analytics, 3D lidar and applications that leverage computer vision and machine learning, is a key enabler of Smart Spaces. Smart Spaces transforms data into insights and timely alerts that empower organizations to do more with the resources they have.

Lumada Video Insights helps manufacturers gain insights on assembly and process improvements, safety alerts and analysis. These insights help prevent or minimize injuries, and automatically detect waste accumulation to reduce scrap or optimize resource efficiency, and improve facility safety and operations. Integrate this data with existing machine or enterprise resource planning (ERP) data for holistic insights.

 [Learn More About Smart Spaces](#)

¹ <https://www.cdc.gov/niosh/docs/2001-109/>

² <http://cerasis.com/2016/07/12/warehouse-cost-savings/>

Optimize Processes, While Improving Safety and Compliance

Improve Worker Safety

Detect intrusions into dangerous areas, alert for slip and falls, prevent forklift and robot collisions, identify processes points that are likely to be dangerous, and ensure facility security.

Improve worker health, safety and compliance, while reducing injury claim costs.

Enhance Training and Worker Knowledge Transfer

As experienced workers retire from the workforce, passing along their expertise can be challenging. With new tools, driven by AI and analytics, the learning curve of new workers can be shortened, and efficiency recommendations can help drive continuous improvement over time.

Continuous improvement from day one on the job.



- Advanced video analytics and 3D lidar deliver rich insights and timely alerts.
- Single pane of glass presents facility insights, live video and alerts, and statistical analysis.
- Custom-trained machine learning models deliver 4M insights.
- End-to-end solution for data capture, integration, management and analysis.

Enhance Human and Machine Operations

The motions in repetitive processes performed by people or machines can be learned by AI models that use 3D lidar or Hitachi Video Analytics data. They can identify opportunities for improvements in process or quality that ultimately improve business efficiency and productivity.

Improve quality and process efficiency through AI analysis.

Reduce Waste and Scrap

Scrap that isn't converted into material wastes money and energy, and is environmentally unsustainable. Correctly sizing, counting and measuring inventory and waste can help manufacturers more accurately utilize materials and parts, to improve production processes and resource efficiency.

Save material costs and improve productivity of resources.

Maximize Facility Security

Keeping your facilities secure keeps employees safe, reduces liabilities and prevents loss or shrinkage. Hitachi provides unified video and IoT security solutions that leverage your existing investment.

Protect people and assets with a holistic security solution.

Hitachi: We're a Manufacturer, Too

Hitachi operates nearly 200 manufacturing facilities, employing over 140,000 people around the world. We experience the same challenges as our manufacturing customers, and have deployed solutions to address these issues, which we are now sharing with the market to help our customers see the same benefits as our operations. We like to call this sharing process “drinking our own champagne.” We do this because it just makes good business sense and we see real benefits from it.

In fact, [Hitachi's Omika Works factory](#) in Japan was recognized as an “Advanced Fourth Industrial Revolution Lighthouse” by the World Economic Forum in 2020. We invite our peers and customers to employ these same solutions to similarly improve their operations, training and safety, much as we do in our own facilities.



Admittedly, we didn't know how to go about changing our business with digital tools. We're not experts in digital technologies. We had to start developing a culture and mindset for digital transformation. But since partnering with Hitachi Vantara, it's been a wonderful journey...

...Previously, we were very data rich, but were probably not even using 5% of that data. With Hitachi Vantara, we now know what's possible... It is exciting to have all our machines integrated in one place and be able to extract value from our data.

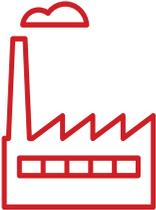


Vijay Kamineni

Business Transformation Leader at Logan Aluminum

Next Steps

Learn more about how you can transform your operations to improve efficiency, worker safety and compliance with Hitachi Smart Spaces and Lumada Video Insights, as well as digital solutions that can enhance maintenance and machine operations.



Gain visibility and insights across your manufacturing process and facilities with [Lumada Video Insights](#).

Create [Smart Spaces](#) that help to improve safety, operations and experience of workers.

Transform your operations with [Lumada Manufacturing Insights](#) from Hitachi Vantara.

Learn how data-driven operations can [support your digital transformation](#) by providing AI-enabled industrial analytics.

Learn more about how [Hitachi Smart Spaces and Lumada Video Insights](#) can measure what was previously unmeasurable and provide rich intelligence to improve your manufacturing operations and safety.



We Are Hitachi Vantara

We guide our customers from what's now to what's next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society.

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