

Suppliers of Information for Industry 4.0

THREE STEPS TO LEVERAGING THE POWER OF YOUR DATA

At the foundation of Industry 4.0 (I4.0) – or the Fourth Industrial Revolution – is data and connectivity. I4.0 is not a technology, but rather, a concept of how automation can be better utilized to help companies achieve operational goals that are aligned with business strategies.

In three simple steps, SICK, Inc. can supply you the information needed to bring your manufacturing processes into Industry 4.0.

Step 1: Review Business Strategies

The I4.0 discussion within an enterprise should begin with the business strategy. Where is the company headed? Is top-line growth the priority, and is increased capacity to meet demand the focus for operations? Is the business focused on reducing costs to remain competitive in a market with tightening margins? And what about manufacturing flexibility? How is the company addressing new market pressures, such as the ability to meet customization demands?

Understanding these strategic objectives is vital to ensure that subsequent discussions of “how” to achieve these goals are smart. Aligning your business goals with production activities and areas that need support is what helps bring your enterprise straight into I4.0 territory.

And, with increasing demands on traditional manufacturing like increased traceability, quality control, limitless configurations, and much more, it is vital to implement an I4.0 solution that helps you stay competitive. So if you are looking to implement I4.0 strategies into your business, this is where SICK, Inc. can help.

“Some companies have Industry 4.0 teams in place and have invested money in implementing these solutions. Once I meet with the key people, we work to bridge the gap between the strategy level and the implementation level,” said Ron Stuver, Director, Business Consulting and Industry 4.0. “This helps to make these solutions possible at a more practical level.”



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Step 2: Finding and Collecting Your Data

Once you've reviewed your business strategies, it's time to find the data to support these goals. How does your business need to use data? What kinds of data could you be collecting that would help your operations?

Collecting, connecting, and leveraging data helps you make intelligent and proactive decisions. Fortunately, SICK can help harness the value of all that data with superior sensing solutions that improve efficiency to reduce costs, and increase revenue for competitive advantages.

"We find projects to improve operations and support growth. With SICK sensors on machines, you can collect data and then integrate and move data to the appropriate place to meet operational excellence goals," Stuver said.

Many companies are starved for information needed to better improve their production lines. This was the case with one SICK manufacturing customer.

The plant operations management team was finding that there were islands of automation and stranded data that they could not access. The plant managers didn't know if machines were running, what temperatures the ovens were at, or even how many parts were made that day. So they came to SICK to find a solution to collect data from their plant floors.

After an introduction into SICK sensor capabilities for data collection, the customer determined what they needed was a partner who was hardware agnostic and could take data from all PLCs and sensors to move it where they needed it.

In some cases, SICK sensors were installed on equipment to begin data collection. In other instances, the SICK team worked to provide the data they needed from all sensors and PLCs installed in the plant, regardless of the company name on the hardware. After all, I4.0 is about connectivity of technology and the generation of good data to improve operations.

SICK sensors were also able to collect data without having to go through the PLC. Not all data needs to be processed through the PLC for it to be properly harvested. This creates more flexibility in the creation of an I4.0 production line.



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Step 3: Implementing I4.0 Solutions



There is little doubt about the benefits of digital transformation—efficiencies that reduce manufacturing costs, reduce downtime, and prepare companies to be more agile and respond quickly to customer demands. So the question remains: Why are so many companies still hesitant to initiate I4.0 projects?

Many large corporations have assembled internal enterprise-wide digital transformation teams, with a sub-committee focused on smart manufacturing. Value streams are identified and projects planned, but road bumps like identifying specific solutions or providing ROI justification cause delays. In some cases, the team lacks the specific expertise to complete the analysis for specific solutions. Likewise, mid-size and smaller companies often lack the resources to allocate staff to a dedicated I4.0 team.

And thus, for any of these examples large or small, there is interest in finding a partner to help guide the company toward appropriate solutions, prepare a roadmap, and support implementation. SICK has built out our own internal competencies to provide our customers with complete connectivity to generate data to analyze for operational improvements.

“The team at SICK is agile and agnostic to consult with customers on their challenges and potential needs. This helps determine the ideal infrastructure to develop the most suitable enterprise solutions that can adapt to the disruptive industry needs,” said Salim Dabbous, Director of Sensor and Safety Integration at SICK.

One example of an enterprise solution is the implementation of a data concentrator methodology into a preexisting controls platform to connect current machines and push non-process-related data seamlessly upstream to the cloud or an ERP system. The reliable data pushed upstream might include machine status, part count, or temperature & pressure values. This all feeds into dashboards and key performance indicators, providing transparency and, ultimately, predictive MT measures that optimize processes and increase throughputs.

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Conclusion

Pursuing partnered I4.0 solutions should begin with a clear understanding of your business strategy. Stakeholders should develop a common understanding of how the company plans to grow, and what will drive business initiatives to overcome market challenges. This approach will ensure consensus and provide a common foundation when creating a roadmap with the appropriate partner to implement successful automation projects.

Have additional questions about leveraging your data?

Ready to implement Industry 4.0 in your facility?

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