Hemlock Semiconductor Manufactures Success with TIBCO Connected Intelligence
Optimizing processes, reducing costs, and increasing user adoption

CHALLENGE

Fueled by double-digit growth in the markets it serves, Hemlock Semiconductor is adapting to the increasing commoditization within the polysilicon industry and better positioning itself to compete. A key factor in this plan is to equip process-knowledgeable personnel with the skills and tools to accelerate delivery of process optimizations and associated cost elimination.

"The commoditization in the solar industry requires tight control of our cost structure while simultaneously driving ever-increasing quality," said Kevin Britton, program manager.

A significant obstacle was the company's information silos and legacy systems that were not keeping pace with modern analytics tools. The situation was causing slowed decision-making and a limited view into operations. Bottlenecks and variability of processes and production outcomes were hindering cost optimization. The company needed tools that would help employees optimize processes and deliver on customer needs.

Along with analytics, Hemlock was also looking for a hybrid integration solution that could handle multiple use cases such as manufacturing integration, B2B, or hosting APIs for its customers to consume data. The company had several point-to-point integrations between its ERP system and manufacturing plant that it wanted to replace.

ABOUT

Hemlock Semiconductor is a globally recognized producer of polycrystalline silicon, a critical raw material used in supply chains for producing semiconductors for the electronic and solar power industries.

RESULTS

- Over $1 million in projected opportunities
- Analytics accessed in seconds
- Records processing reduced 1,000X

"We're moving from archaic, static data to more intuitive, real-time data," said Keith Carey, IT director. "We needed to be able to look at our internal information to understand costs in more detail and bring in external information so we could take advantage of potential new business models, such as offering excess material on the spot market."

SOLUTION

Hemlock turned to a TIBCO® Connected Intelligence solution to address the challenges. By implementing TIBCO® Data Science, the company created self-service analytics with a centralized, unified, and governed analytics and reporting system, reducing reliance on IT and data teams. On the integration side, Hemlock chose TIBCO BusinessWorks™ for a single platform that could handle all its integration needs.

"TIBCO is advanced in the way that it allows us to provide detailed business and operational data to our end users without them having to wait," said Carey.

BENEFITS

REVENUE GAINS AND COST SAVINGS

With TIBCO Connected Intelligence, Hemlock attained revenue gains and improvements. The team is looking at supplier performance using TIBCO Spotfire® as a KPI visualization tool, and financial data is showing them where to drive improvement. As a result, they've seen over $1 million in projected opportunities.

TIBCO Data Science enabled insight into manufacturing processes, scientific inquiry, and exploration into energy consumption, with the intent of maximizing energy efficiency. With the new system, Hemlock can pull multiple years of data, where with its old spreadsheet-based data-wrangling methods, it couldn't even pull 90 days.

"With Spotfire, we've been able to pull years of testing data and see trends and demographics that allowed us to ask a lot of questions about that process," said Britton. "From those questions, we put together an impressive cost savings portfolio of opportunities to improve the business. We really couldn't do that before, because of the amount of data involved."

LIVE, DYNAMIC ANALYTICS BRINGS TEAMS TOGETHER

Spotfire has become an integral part of the company, a tool routinely used in meetings, discussions, and presentations. Because it is live and dynamic, it allows teams to come together to solve problems and perform root cause investigations—all enabled by real-time data. Most importantly, it has helped Hemlock foster a data-driven culture with analytics now being accessed in seconds.

"Now, we collaborate as one team and dig into the data in real time to be able to solve problems," said Carey. "Enabled by data and the Spotfire platform, the speed at which we learn and fail fast is significantly different from the past."

EASY INTEGRATION OF EVERYTHING

Using on-premises TIBCO BusinessWorks 6, Hemlock connected its network, hosting, workstation, help desk, and analytics environments. In addition, it is supporting its new ERP system. With this solution in place, the company has reduced record processing by 1000x.

"TIBCO has enabled us to come full circle in our integration capabilities," said Carey. "We are unraveling the 20-year integration hairball and replacing it with a modern, robust integration solution set to meet business and customer needs faster than ever before."

FUTURE

Hemlock Semiconductor is looking forward to real-time or near real-time tracking with alerts and notifications and to a more proactive approach to managing processes by expanding its data science portfolio.

TIBCO fuels digital business by enabling better decisions and faster, smarter actions through the TIBCO Connected Intelligence Cloud. From APIs and systems to devices and people, we interconnect everything, capture data in real time wherever it is, and augment the intelligence of your business through analytical insights. Thousands of customers around the globe rely on us to build compelling experiences, energize operations, and propel innovation. Learn how TIBCO makes digital smarter at www.tibco.com.