Data modernization in manufacturing
Use Cases

Are you ready for industry 4.0? Smart factories are improving productivity. More and more data is available now for analytics as connected equipment and factories produce vast pools of unstructured data. Manufacturers are discovering their wealth of data, albeit slowly. Their biggest challenge is that all their data continues to sit in disparate systems, creating more silos than ever before.

The future is promising for manufacturers who adapt to change and adopt strategies to make the most of data and digital transformation. Data modernization is at the core of these strategies. Without it, manufacturers will not be able to derive insights from their vast pools of data and impact their business processes in insight-driven ways.

Typical data modernization use cases in the manufacturing sector

Sustainable manufacturing through zero waste

Manufacturers play a key role in the green economy. Consumers demand sustainable products; millennial employees want green jobs; regulations demand reduced carbon footprint. Naturally, sustainability is a key driver for modern manufacturers and around the world, manufacturers are under pressure to adopt sustainable business practices as much as possible. However, what comes in the way is zero visibility into data regarding resource wastage in factories. With digital, connected factories that enable modern data structures, this can change significantly.

Data modernization can enable them with fast time to insight about waste production and reduction. With these insights at hand, manufacturers can find ways to reduce wastage and carbon footprint with far more confidence. These insights help manufacturers become far more sustainable, and at the same time reduce production costs.
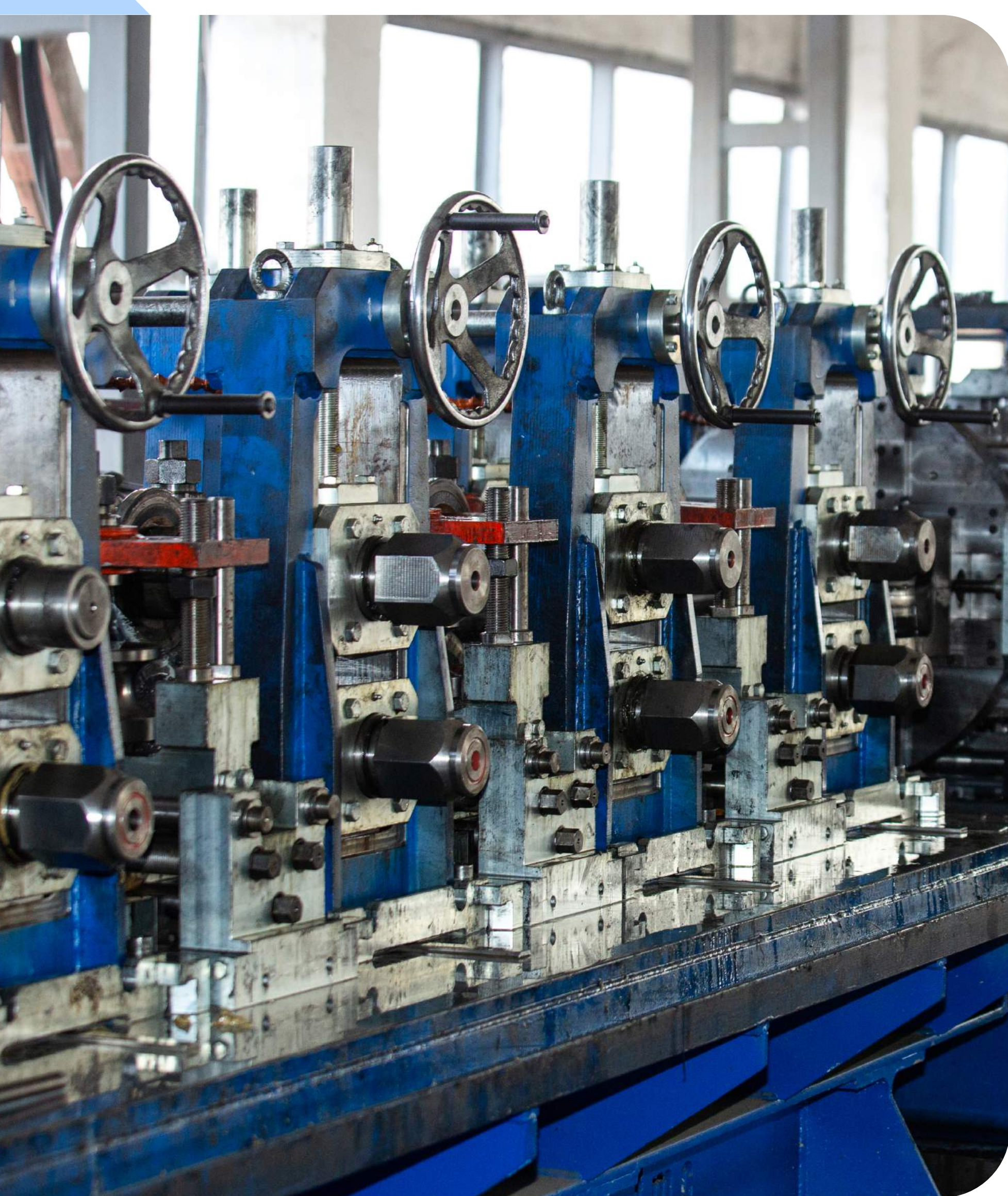
Equipment efficiency and maintenance

Equipment up time is a critical aspect of manufacturing, especially in the era of connected equipment. Until recently, manufacturers relied on prescriptive maintenance of their factories. However, modern data structures enable predictive maintenance and help manufacturers not only keep their equipment running but also understand the "why" of potential equipment failures. This is extremely critical for continuous up time at factories and enhanced productivity.

Data modernization enables stronger analytics on equipment data, thus delivering a stronger ability to predict, detect, and analyze equipment failures, production bottlenecks, and supply chain deficiencies. It informs manufacturers not just when their equipment is down but also the reasons for downtime – both existing and potential. This knowledge is power, as it helps manufacturers maintain their equipment better and reduce downtime at their factories.

Operational efficiency and enhanced production outcomes

Ultimately, investments in digitizing smart factories and connected equipment would bear results only when they help enhance production outcomes. Good quality data is at the core of this outcome. Data gives manufacturers deeper visibility into operational efficiency and production quality, as well as an opportunity to enhance both over time. But for this to happen, manufacturers need modern data structures with business teams having access to production data at all times.

With sharp production insights at hand, manufacturers can analyze and predict production outcomes, ensuring high quality outputs at all times. Data modernization in the manufacturing sector can help manufacturers reduce processing defects and get higher quality production outcomes, save time and costs, and make better decisions faster.
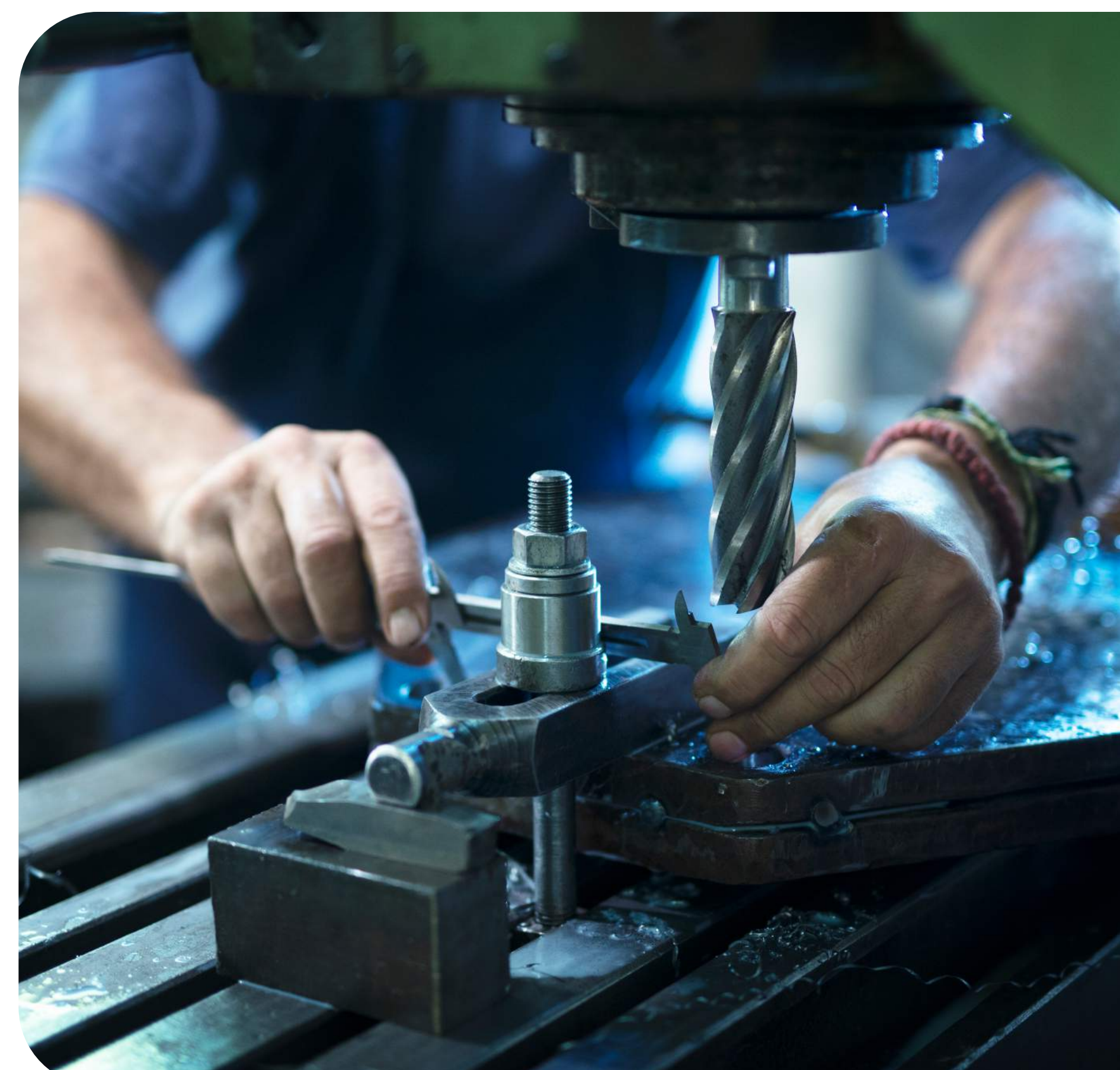
Data modernization in action: Enhanced production- and cost-efficiency for large CPG

Data modernization with Acuvate ensured stronger outcomes across all parameters. Acuvate implemented end to end data solution with reports built in PowerBI with self-service data model. Data related to OEE loss, OEE loss classification, HR labor, Output reliability was captured in an app. IOT sensors were being implemented to automate the end-to-end data capturing process with no human intervention.

ROI

Increase in **20%** OEE for some of the manufacturing units.

Improved process robustness leading to dollar saving in **OPEX**.

Output reliability increased by **8%**

Direct and in-direct labor **productivity improved**.

1500-person hours per month saving with automated reporting

In conclusion

In today's and up and coming smart factories of tomorrow, data modernization will grease the wheels of transformation. It will drive efficiency across the board, improving shop floor productivity, decreasing downtime, enhancing the supply chain network, and ensuring sustainability and better inventory management. A strong data foundation helps manufacturers create a robust platform to leverage future-forward technologies like AI, ML, robotics, IIoT, and more. This is essential for manufacturers who want to thrive in industry 4.0. Are you ready to begin your journey of data modernization?

Talk to Acuvate, we're ready to help you get there.