

9 Key ERP Features for the Electronics Manufacturing Industry

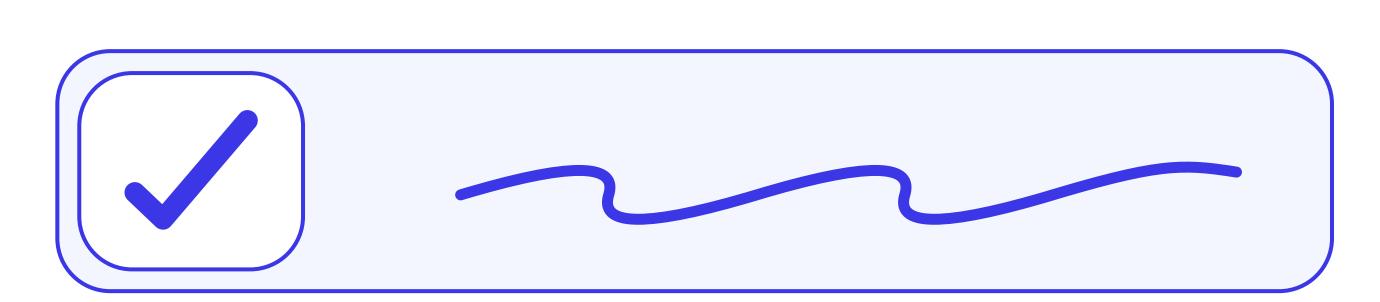


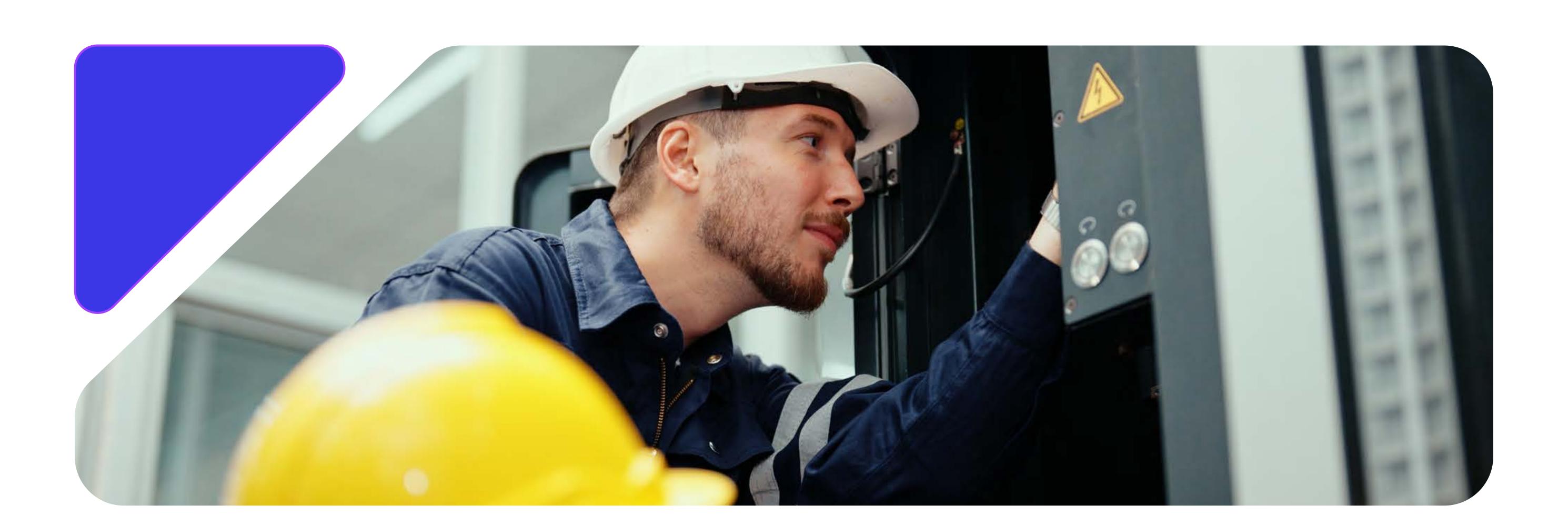
Tailoring ERP solutions for manufacturing excellence

Meeting the unique demands of the electronics industry

On the surface, electronics manufacturing appears to be similar to other manufacturing industries. It includes standard processes such as product development and engineering, manufacturing, supply chain management, and sales and marketing. Electronics manufacturers are expected to provide customer service, maintain accounts when selling products, and pay employees, which requires a human resources module.

However, it would be a mistake to assume that standard enterprise resource solutions (ERP) can meet the unique requirements of the electronics manufacturing industry.





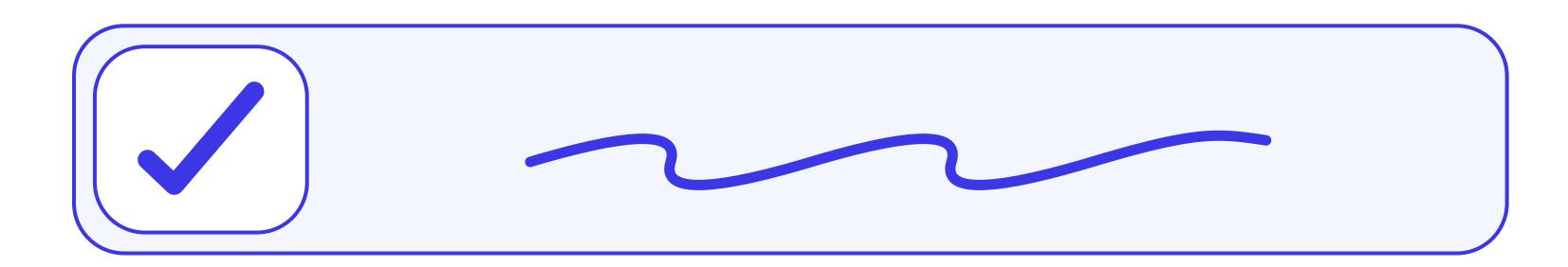
Electronics manufacturers work with precision and care, handling delicate and valuable items that become obsolete due to constant innovation and disruption. This specific manufacturing sector requires an ERP system tailored to meet the unique challenges of electronic goods manufacturers, such as tracking the expiry dates of electronic components, managing inventory efficiently, and reducing manufacturing costs.

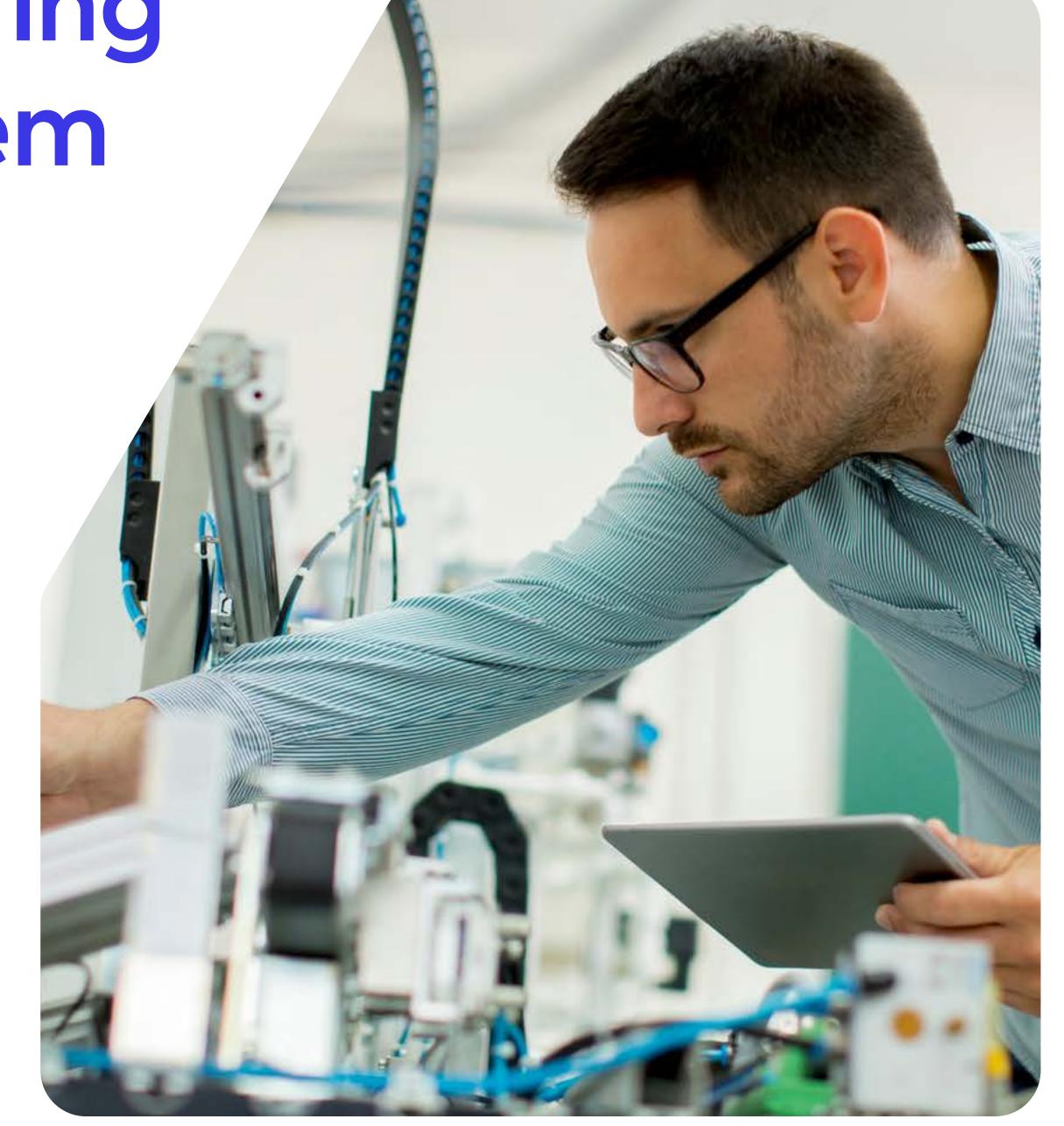


While a standard ERP system may suffice for some original equipment manufacturers (OEMs) and electronics manufacturing services (EMS) providers, those operating assembly lines require a specialized electronics ERP.

Assembly line operations are intricate and encompass various complex processes, and the supply chain is subject to compliance requirements, multiple regulations, and quality management constraints. Additionally, unpredictable customer demand and a generally shorter product lifespan affect business stability.

The electronics manufacturing sector requires an ERP system tailored to meet the unique industry challenges, like tracking expiry dates and thorough inventory management.





Bill of Materials (BOM) Management

A Bill of Materials (BOM) is a list of all the components, raw materials, parts, and other things needed to manufacture a single electronic item. It includes details such as the tier 1 and 2 manufacturers of these components and parts, their serial numbers, and the required quantity.

The document is prepared hierarchically in a manner that helps product managers easily see the details during each manufacturing stage. An ERP system designed for the electronics manufacturing sector can help efficiently manage the BOM. This enables manufacturing managers to initiate production orders and finalize purchase requests promptly.

"Today, all parts and bills of material are managed in Priority's cloud ERP, allowing us to easily track changes, effortlessly update stock levels, and manage purchasing processes and manufacturing operations."

Tony Adams, Engineering Director, Ionoptika

IONOPTIKA





Quality Control and Industry Compliance

Electronics items are some of the world's most commonly recalled products due to various external factors. Although these cannot be controlled completely, implementing an ERP system designed for the electronics industry can assist in maintaining quality and ensuring compliance with regulations to minimize the chance of production failures.

Manually overseeing quality in electronics production is practically impossible due to complex assemblies and supply chain processes. Therefore, quality tests are required throughout the production/assembly cycles on the received components and not only on the final product.



Outsourcing quality control often complicates things and reduces transparency in the electronics manufacturing process. An Electronics ERP system integrates all the processes involved in electronics manufacturing and helps maintain each component's quality until assembled into a finished product. The automated ERP quality assurance module facilitates quick recalls of faulty products, enabling prompt investigation before the issue escalates and helps handle warranty claims.

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Environmental Compliance and Sustainability Tracking

Electronics manufacturing ERP systems facilitate this process by integrating sustainability criteria into the sourcing and production workflows. They enable manufacturers to ensure that components and materials meet environmental and energy guidelines set by authorities.



With rising global environmental awareness and increasing regulations on electronics waste, manufacturers are required to comply with waste disposal regulations and source materials from sustainable vendors.

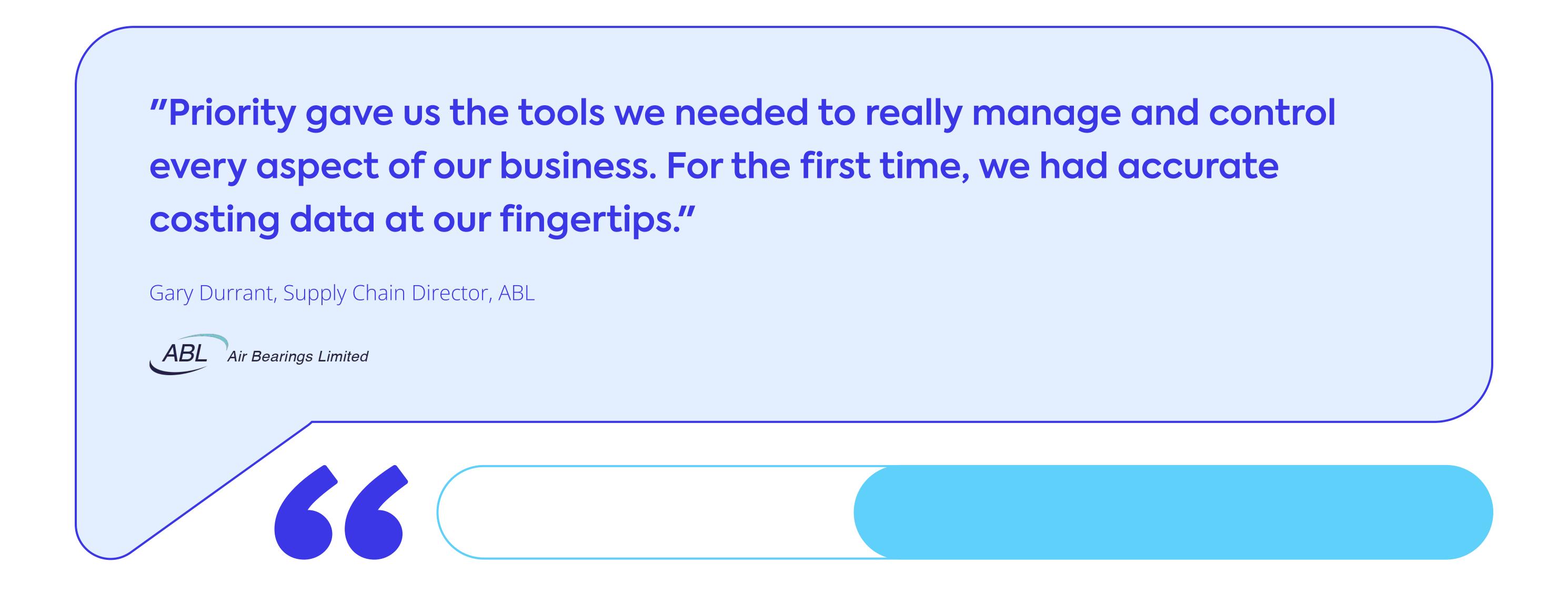
An electronics manufacturing ERP's tools also help optimize, organize, and track your approval process, prioritize production methods that reduce energy consumption, and align with policies focused on reusing, remodeling, and repairing. This results in producing greener and more sustainable electronic products while maintaining compliance with environmental regulations.

Product Lifecycle Management (PLM)

Electronics products often have a short lifespan due to rapid technological development and varying consumer preferences.

Therefore, electronic and contract manufacturers must be prepared for new product introductions and consider this when developing products.

Product managers must work closely with sales, marketing, manufacturing, and IT teams to ensure everything is forward-looking and ready for the future, regardless of the product stage. In this regard, ERP systems for electronic manufacturers play a crucial role.



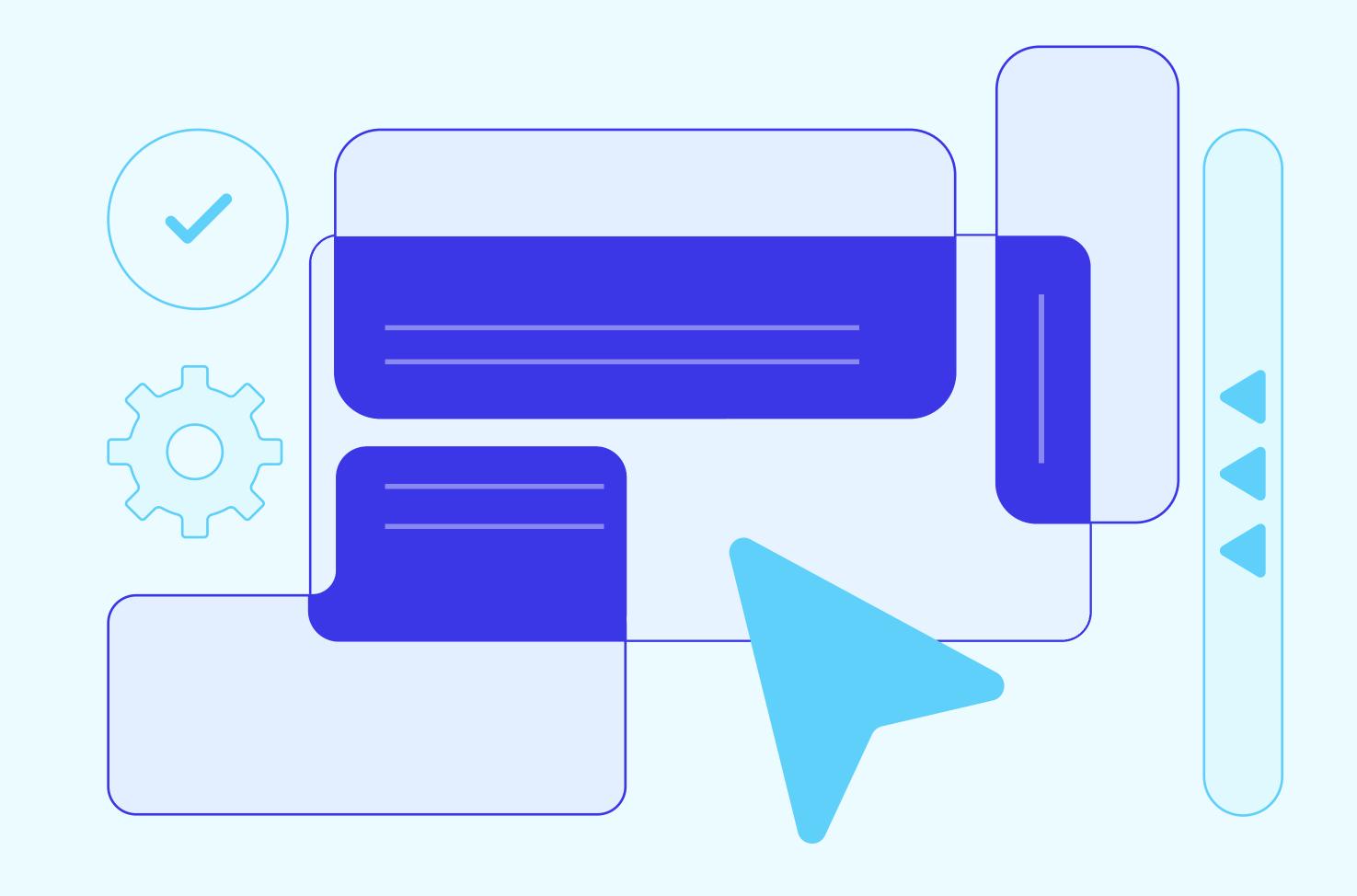
They consider the transient nature of electronics products and ensure that there is room for agile adoption of new raw materials, product workflows, processes, and vendors. This ensures timely repairs, support, and component replacements.



ECO (Engineering Change Order) Management

Innovation and the introduction of new technologies can cause disturbances in the smooth operation of production lines. The electronics industry, in particular, is no stranger to such disruptions.

Product managers and owners often implement engineering change orders (ECOs) that necessitate team involvement when these occur. ECO management is essential to maintain a living record of all product features, specifications, and alterations.





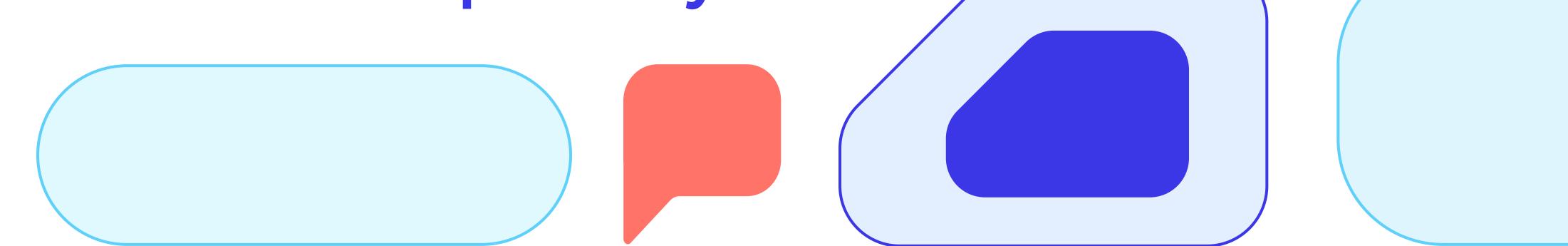
An electronics manufacturing ERP system ensures that version and revision control is maintained, creating a historical account of these changes and improving team collaboration. Automating ECO management can optimize production line performance to bring products to market quickly.

Supply Chain & Inventory Management

The electronics industry incorporates many small components, parts, and items required to assemble a final product. These components may originate from various vendors and must conform to diverse compliance and sustainability standards.

An ERP system that caters to the electronics industry is essential to facilitate ramified procurement procedures and ensure transparency. As components and parts are often expensive and challenging to store, procuring the appropriate quantity is crucial.

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Priority's Electronics ERP Inventory Management feature assists electronics manufacturers in managing their supply chain and inventory, helping to avert understocking or overstocking issues. This guarantees that an adequate quantity of components and parts is always available for an undisturbed production process.



Demand Forecasting and Planning

Effective and precise demand forecasting is crucial for manufacturers to plan their raw material procurement and production of goods, as even minor errors could result in significant financial losses and missed opportunities.

Modern ERP systems developed for electronics manufacturers integrate advanced AI capabilities to predict demand metrics accurately. This allows manufacturers to optimize their stock and inventory levels and produce just the right amount of components to maintain operational and undisturbed assembly lines.



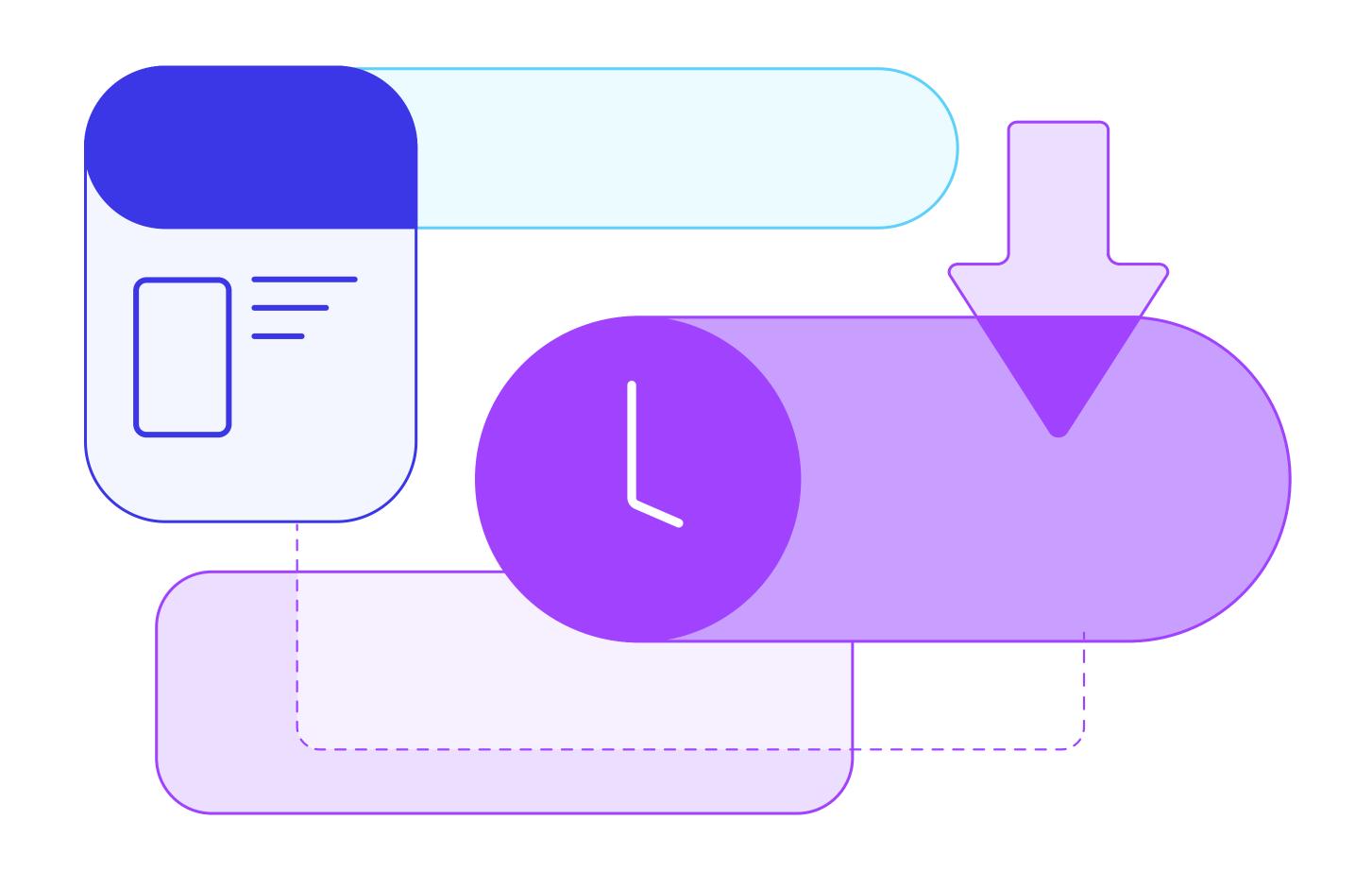


Real-time Data and Analytics

The electronics industry is a volatile field subject to various changing factors, so access to real-time insights is necessary. Manufacturers need to be familiar with market trends and stay up to date on inventory levels, available vendors, raw materials pricing, and other variables, including production line occurrences.

When it comes to electronics manufacturing, things get a lot more complex. An ERP specifically targeted at electronics manufacturers considers these factors and ensures that real-time data is collected and collated from various sources.





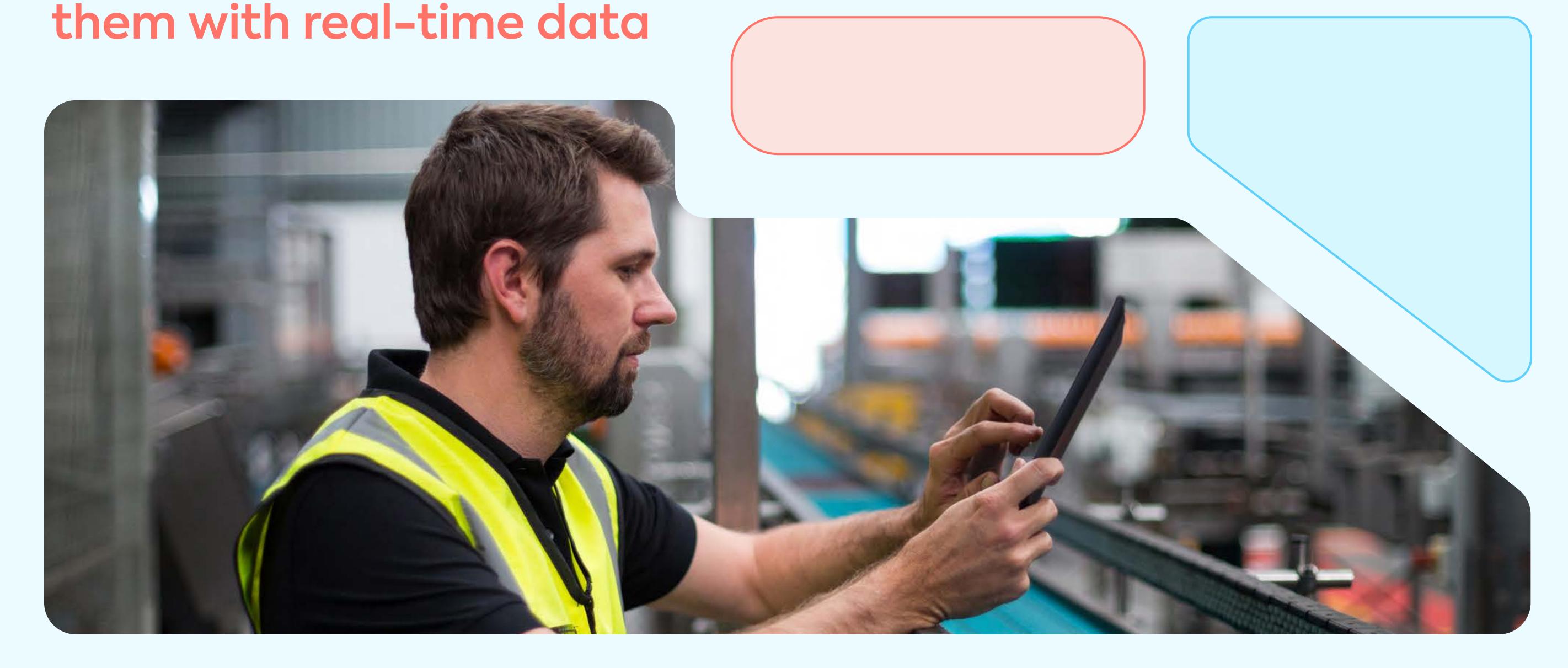
Many ERP solutions targeted at electronics manufacturers are equipped with IoT-enabled technology, which allows electronics manufacturers to provide remote assistance and software updates, which helps take preventive steps that eliminate the need for costly repairs in the future.

Integration of ERP with Manufacturing Execution Systems (MES)

A full-fledged ERP geared towards electronics manufacturers should have the ability to be integrated with a <u>manufacturing execution system</u> (MES). An MES helps electronics manufacturers track and monitor granular production-floor operations,

While an ERP handles other backend operations such as procurement, inventory management, HR, etc., both tools are essential for electronics manufacturers. Integrating an ERP with MES helps electronics manufacturers gain access to granular processes on the production floor and align them with real-time data emerging from the Electronics ERP.

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How Priority Software's ERP Can Help Streamline Electronic Manufacturing Operations

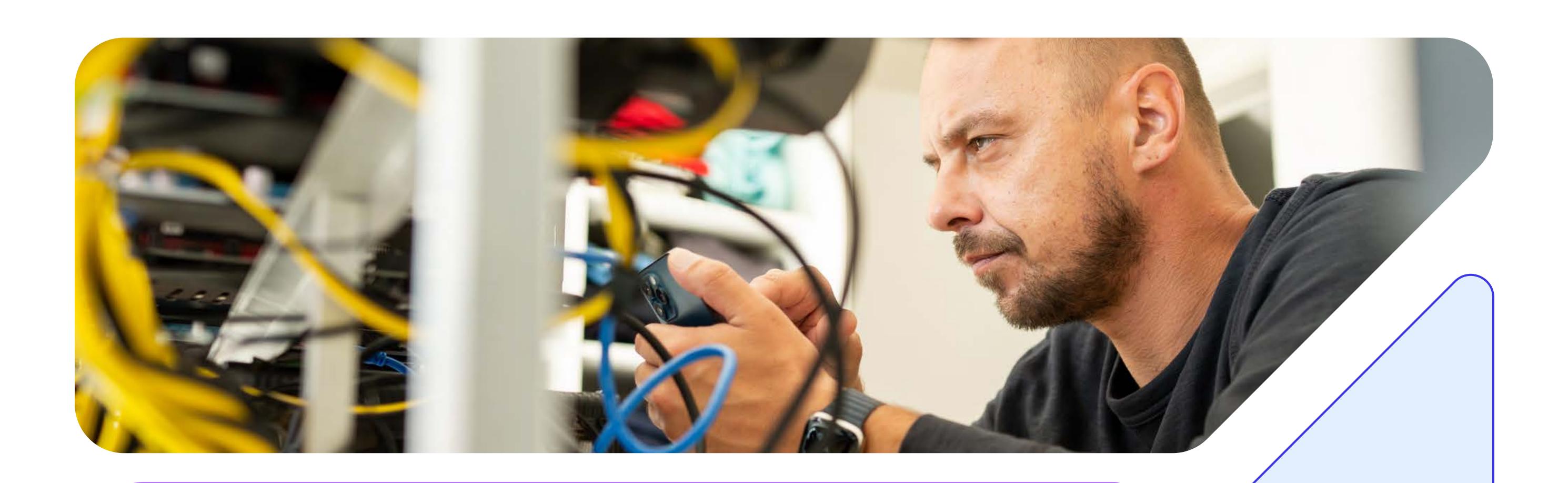
Priority's Electronics ERP is an end-to-end solution for electronics manufacturers to streamline their business and assembly-related operations. It helps them plan, develop, and manufacture electronic goods with cutting-edge technology and engineering.

In addition, it also helps manage the business side of manufacturing by allowing manufacturers to help them streamline in effective sales and marketing campaigns, ship compliant end-products to customers, and provide excellent after-sales support and repairs.

It enables floor-to-door management, eliminating the need for multiple software tools and programs. Consequently, electronics manufacturers can immediately witness the heightened collaboration between different departments, vendors, and customers.

Recognized By





9 Key Features of ERP For the Electronics Industry



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