



# aP Profitability Insights

Unleash the Power of Digital Twins to Drive Product Profitability

Inflation, supply chain disruptions, geopolitical conflicts, and expanding regulations threaten to erode manufacturers' profits. To address today's market pressures, aPriori's Manufacturing Insights Platform enables companies to optimize product design and production for profitability, growth, sustainability, and risk by:

- Increasing profitability and EBITDA
- Accelerating growth by launching new products rapidly
- Reducing costs and increasing margins through product cost management
- Automating insights and processes to increase workforce efficiency

## Profitability Insights

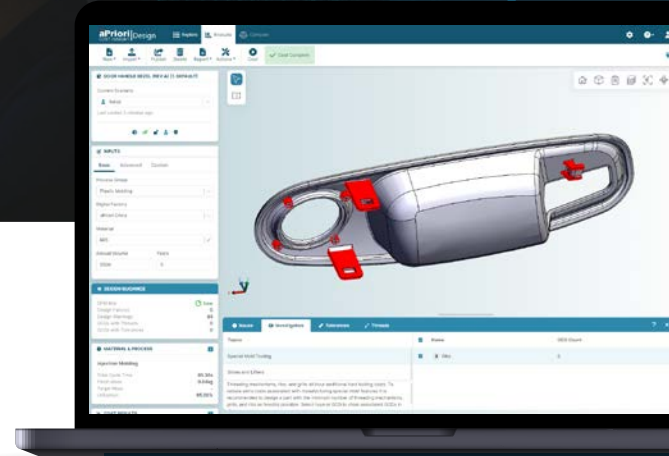
The aPriori Manufacturing Insights Platform offers profitability insights to evaluate product designs for cost-effectiveness and manufacturability. Manufacturers can seamlessly integrate aPriori with the existing workflows of their product developers, sourcing teams, and manufacturing engineers for low-cost adoption and fast time to market.

### Insights Throughout the Product Development Lifecycle

**Sourcing:** aPriori enables sourcing teams to gain detailed cost breakdowns, identify cost outliers, and use this information for fact-based negotiations with suppliers and product cost reduction. Automated bulk analysis of what-if scenarios such as regions, routings, materials, volumes/batch, and suppliers provides procurement teams with powerful insights.

**Engineering:** aPriori provides actionable cost feedback and extensive Design for Manufacturing (DFM) checks with in-context guidance to resolve issues. It also offers compatibility with existing workflows and tools, including CAD/PLM, and features bi-directional PLM integration with the ability to automate analysis and notification of high risks.

**Quoting:** With aPriori, quoting teams can institute an accurate, repeatable process that saves time and increases quoting accuracy. The platform frees up time for manufacturing experts, as quoting/sales teams can create analysis on their own. It also supports plant optimization by providing machine/material capacity requirements and a digital twin of factory capabilities and equipment.



Unlock the value in your digital twins with automated manufacturing insights that include:

### Product Cost Management

- Should cost
- Make vs. buy

### Sustainability

- CO<sub>2</sub>e footprint
- Design for Sustainability

### Design Guidance

- Design for Manufacturability (DFM)
- Design to Cost (DTC)

### Manufacturing Optimization

- Machine selection
- Process routing

## Unique Platform Features

**Digital Factories:** Create a digital twin of your in-house or supplier factories to simulate a variety of machines, materials, processes, overhead rates, and more.

**Manufacturing Process Simulation Engine:** Using the geometry extracted from 3D CAD models and aPriori digital factories, aPriori evaluates manufacturing feasibility, calculates cycle times, determines material usage, and tooling needs. The result is real-world manufacturing and product analysis with actionable manufacturability guidance in seconds.

**3D CAD Geometric Intelligence:** Fully automated geometric analysis from 3D CAD models rapidly for single parts and complex assemblies with aPriori plug-ins. aPriori now integrates ecoinvent's respected life cycle inventory database into its 3D CAD analysis engine.

**Automated Analysis and Guidance:** Get automated alerts to improve design. aPriori analyzes 3D CAD files when they are checked into your product lifecycle management (PLM) system and sends detailed recommendations for engineers to eliminate manufacturability and cost issues.

## 4 Steps to Gain Powerful Manufacturing Insights



STEP 1

### Select Digital Factory

Select the appropriate digital factory and create actionable analysis in **aP Pro** and **aP Design**.



STEP 2

### Analyze 3D CAD Geometry

Upload a 3D CAD model individually to create analysis or let **aP Generate** automatically run analysis on multiple 3D CAD models and alert you to potential issues.



STEP 3

### Review Insights

Review insights directly in **aP Pro** and **aP Design**. Or use **aP Analytics** for more advanced reporting and analysis.



STEP 4

### Take Action

Take action after **aP Pro** or **aP Design** insights are created or after review of **aP Analytics** reports.



**aP Workspace**

Use **aP Workspace** to collaborate with colleagues all along the way and manage important tasks.

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**aPriori**

## Who can Leverage Profitability Insights?



### Design Engineers

Create initial design and evaluate design iteration options for balancing product performance and profitability with visibility into the impact of design changes.



### Cost Value Engineers

Analyze and optimize costs throughout the product development and manufacturing process with detailed insights into cost drivers and manufacturing scenarios.



### Sustainability Specialist

Assess and manage suppliers effectively by understanding the impact of sourcing decisions on cost and profitability and negotiating better prices with data-driven insights.



### Sourcing Professionals

Oversee and improve the manufacturing process with insights into process efficiencies, enabling strategies to optimize cost-effectiveness and profitability.

## Gain Profitability Insights Quickly and Confidently

Alstom used aPriori to reduce the number of RFQs to zero, driving a 40% savings on recurring costs. The Zero RFQ initiative accelerated Alstom's sourcing process by automating supplier selection, resulting in near-instant quotes without sacrificing accuracy.

Signify implemented automated should cost analysis with aPriori as part of their digitalized procurement strategy. This enabled Signify to drive the greatest savings possible and expand aPriori to R&D.

Carrier used aPriori to automate their should cost modeling process and save millions annually. One of Carrier's first success stories with aPriori included the identification of a \$200k annual savings for a set of screw compressor rotors.



## WANT TO LEARN MORE?

[CLICK HERE](#) to learn more about aP Profitability Insights.

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aPriori is the leading provider of digital manufacturing simulation software that brings product design and sourcing teams closer to production. By leveraging the digital twin within our digital factories, we automatically generate design for manufacturability (DFM) and design for cost (DTC) insights, helping manufacturers collaborate across the product development process to make better design, sourcing and manufacturing decisions that yield higher value products in less time. aPriori solutions are now available either in the cloud or on-premise.

