ăPriori

aP Sustainability Insights

Gain a competitive edge by reducing your product's carbon footprint

Product design determines up to 80% of a product's sustainability. To reduce CO₂e emissions during the critical product development and production phases, aPriori provides real-time insights for manufacturers to evaluate, reduce, and help to report on their products' carbon footprint. aPriori provides the only platform to precisely assess design and production changes across sustainability, cost, and manufacturability simultaneously – enabling teams to compare design, manufacturing and sourcing options and make data-driven decisions quickly and confidently.

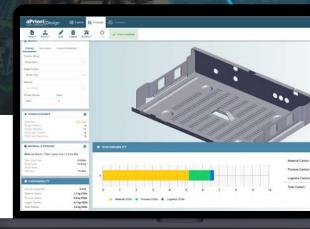
Sustainability Insights

aPriori Sustainability Insights evaluates/assesses greenhouse gas (GHG) emissions at the product level – from cradle to gate – including Scope 3. Accordingly, organizations gain fast, transparent CO₂e breakdowns to compare alternate product designs (geometries/shapes), raw materials, manufacturing processes, and suppliers/locations.

Product developers, sourcing teams, and manufacturing engineers already using aPriori for should cost and manufacturability analysis can gain aPriori's new sustainability insights seamlessly without additional user inputs or integrations. Now, the aPriori Manufacturing Insights Platform empowers companies to bring their innovative, low-carbon products to market rapidly and profitably.

aPriori empowers manufacturers to answer sustainability questions quickly and confidently, including:

- How can I meet my product profitability and sustainability targets?
- · Which materials are the most sustainable for my design?
- Which manufacturing methods/processes use the least amount of energy (and produce the least waste) for my components?
- Which suppliers in my supply chain (Scope 3) are designing and developing the most sustainable parts and components for my products?



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

Product Cost Management

· Should cost

· Make vs. buy

Sustainability

CO₂e
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 a Priori plug-ins. a Priori 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.

Three Steps to More Sustainable Products

Step 1



Your digital twin (3D CAD model) is analyzed and optimized through aPriori Digital Factories, and is configured to match your manufacturing facilities or that of your suppliers

Step 2



Refine to achieve cost and carbon product goals by evaluating tradeoffs among geometry/shape, material, manufacturing process, and location in real time

Step 3



Identify outliers and hotspots, track progress against targets, reduce time spent on Lifecycle Assessments and reduce product manufacturing CO2e emissions

Who can Leverage Sustainability Insights?



Design Engineers

Evaluate design options for balancing product performance and sustainability with visibility into cost and manufacturability



Cost Value Engineers

Balance cost and carbon by optimizing manufacturing processes, and reducing waste and energy consumption



Sustainability Specialist

Analyze, where CO₂e drivers are in the product and process to achieve the most significant impact



Sourcing Professionals

Research and compare alternative materials and suppliers



Gain Powerful Manufacturing Sustainability Insights

"How do you bring sustainability insights into your design process? The same way we bring the cost perspective into engineering. aPriori makes it fact-based. We're calculating on the same methodology. Now carbon footprint, alongside cost, becomes a new kind of currency."



TONNI RASMUSSEN, GLOBAL MANAGER COST & VALUE ENGINEERING, GRUNDFOS

"Carrier has been using aPriori to determine how carbon affects our die-cast and plastic parts and to help us to see the best ways to remove CO₂e in design. We plan to add this aPriori capability to our current aPriori-PLM integration so each part design will have carbon footprint data in our PLM system. There is a lot of excitement at Carrier about sustainability and using aPriori to meet our sustainability goals."



TRISTAN ABEND, MANAGER OF VALUE ENGINEERING, CARRIER CORPORATION.

WANT TO LEARN MORE?

CLICK HERE to learn more about aP Sustainability Insights.

Corporate Headquarters USA

Concord, MA | hello@apriori.com

APAC

Tokyo, Japan | apac@apriori.com

EMEA

Belfast, Northern Ireland | emea@apriori.com

DACH

Munich, Germany | dach@apriori.com







