

“Invention Machine Goldfire gives us an unprecedented ability to uncover synergies across our many business segments to drive product enhancement and new product development. The software has become an integral part of our innovation strategy.”

– Leggett & Platt, a \$4.5 billion diversified manufacturer

## Invention Machine Goldfire

*Driving Sustainable Innovation for Consumer Product Goods*

Premium products. Speed to market. Constant innovation. Do it right, and you've got the formula for profitable growth and marketplace success. Do it wrong, and watch your products fall victim to commoditization, fast followers, and obsolescence. From cosmetics and beverages to home appliances and furniture—ideas, manufacturing, and speed mean everything—and you need every possible advantage.

That advantage comes with Invention Machine Goldfire, a unique software solution that can help you quickly transform ideas into commercial products, making innovation a repeatable and sustainable process.

Designed with engineers, scientists and researchers in mind, Goldfire automates more than a dozen critical innovation tasks spanning a product's lifecycle—from identifying a new market to developing a new product to improving existing products.

Fusing proven innovation tools and methods with precise access to corporate and external knowledge, Goldfire systematically guides users through every day innovation tasks to bring structure and uniformity to inventive problem-solving, concept discovery, and idea generation and validation.

Leading consumer product good manufacturers—including 3M, Charbroil, Hershey, Interface, Leggett & Platt, MAGNET, Nestlé, Timex, Unilever and Whirlpool—are using Goldfire to:

- Speed quality idea generation to shorten time-to-market
- Better respond to consumer trends and untapped market needs
- Improve design of existing products for optimal performance and cost
- Recognize opportunities for disruptive innovation
- Evaluate strength of competitive advantage and intellectual property
- Lower product development costs
- Find replacements for ingredients, materials, or components
- Reduce costly errors and late-in-process changes.





## INNOVATION TASKS with Invention Machine Goldfire

### >> ANALYZE A MARKET

Quickly Understand a Technology Space  
Technology Driven Evolution of Product  
Technology Landscaping  
What do I know about X?

### >> DEVELOP A NEW PRODUCT

Design a New System  
Design a Hybrid System

### >> IMPROVE A SYSTEM

Capture Design Intent of a System  
Diagnose a Product Failure  
Fix a Product Defect  
Improve Product to Achieve a Specific Goal  
Resolving a Contradiction or a Trade-Off

### >> RISK MANAGEMENT

Predictive Failure Analysis

### >> LEVERAGE IP

Finding a New Market for an  
Existing Technology  
Patent Busting

A manufacturer of luxury watches used Goldfire to analyze the functional behavior of their existing timepiece designs. In a matter of hours, they identified numerous new alternative configurations to a key watch component. The manufacturer has since filed a patent for the new component design, which the company already values at more than \$1.5million and which serves to further distinguish the manufacturer from its competitors.

## SNAPSHOT OF PAST CONSUMER PRODUCT GOODS PROJECTS with Invention Machine Goldfire

- Get pressure sensitive adhesive tape to stick on wet surface without sacrificing its capability to stick on dry surfaces of any type.
- Increase the water vapor transmission rate of wet diapers while reducing their swelling.
- Find innovative ways to detect the onset of water reaching the boiling point, to signal to the customer, and subsequently control the boiling process.
- Research science to support a next generation lightweight toothbrush that minimizes gum irritation, residual plaque on teeth and bacteria growth on bristles.
- Develop an efficient, compact and unique method to cool a diode laser that does not use a liquid fluoro hydrocarbon refrigerant system.
- Find an innovative method to ignite a household propane gas grill that doesn't use the classic piezoelectric activator.
- Understand the future of aerosol technologies.
- Analyze a cereal product and its vitamin optimization process to verify that the vitamin content of cereal particles, per serving, met the claims on the product packaging and complied with FDA guidelines.
- Identify a relatively new material technology for the manufacturing of lead-free copper alloys.
- Extend the life of a leading nail polish by redesigning the bottle and applicator.
- Develop alternative concepts to a patented competitive solution resulting in a competitively-differentiated food-safe disinfectant .

A leading provider of innovation software, Invention Machine drives sustainable innovation by empowering global organizations to translate ideas into market-leading products, consistently and rapidly.

Global 2000 manufacturers in more than 25 countries rely on Invention Machine Goldfire for product innovation, process improvement and market expansion. Its unique software fuels sustainable innovation across numerous industries, including aerospace and defense, automotive, consumer, technology, energy and environment and life sciences. For additional information, please visit [invention-machine.com](http://invention-machine.com).