

## With Invention Machine, Colgate-Palmolive Discovers New, More Cost-Effective Approach to Engineering Problem

Colgate-Palmolive is the leading seller of toothpaste, under its brand, Colgate, as well as other oral care,



personal care and household cleansing products. Headquartered in New York City, Colgate-Palmolive operates in more than 70 countries worldwide and sells products in more than 200.

A long-time Invention Machine customer, Colgate-Palmolive is committed to advancing technology to meet its customers' ever-changing needs.

Colgate-Palmolive's personal care line includes anti-perspirants, soaps, body washes, and toiletries for men - including its leading Colgate shaving cream. When Colgate-Palmolive engineers were having trouble identifying a more cost-effective way in which to create the Colgate shaving cream, the team leveraged Invention Machine's Goldfire™ solution.

The challenge with the shaving cream product was the need to mitigate, or diminish, the amount of foam forming in the liquid solution during processing and packaging. The existing solution, leveraging alcohol to de-gas the liquid, proved very expensive. The alcohol cost \$250 thousand per every one percent added to the solution - and a dilution of 15 to 19 percent was required.



Total cost: between \$3.75 and \$4.7 million dollars.

Leveraging Goldfire, the Colgate-Palmolive team was able to model their engineering challenge and identify possible alternative solutions - leveraging technologies and findings across multiple industries and scientific disciplines.

In addition, Goldfire enabled the team to further research each alternative solution to validate these concepts.

Through the Goldfire solution, Colgate - Palmolive identified the use of ultrasound technologies as a viable means of foam reduction and removal.

To-date, Colgate-Palmolive has piloted this new approach with remarkable results and with a minimal investment in new equipment to support the new process.

As a result, Colgate-Palmolive projects savings of tens of millions of dollars across the lifecycle of the product.

### About Invention Machine

Invention Machine is the leading provider of enterprise Innovation Process software and services to the Global 2000. Invention Machine solutions enable organizations to increase their product pipeline through proven automation and development methods and disciplines, while cutting costs through process efficiencies impacting the entire product lifecycle process.

Serving a broad range of R&D rich industries, Invention Machine has over 1000 clients worldwide including Shell, Northrop Grumman, Delphi, Saipem, NASA, Procter&Gamble, DaimlerChrysler, Honda, Samsung, Boeing, and Roche. Headquartered in Boston, Massachusetts, Invention Machine has development facilities in Minsk, Belarus, and offices in France, Italy, and the United Kingdom. [www.invention-machine.com](http://www.invention-machine.com)