



## **Strida Bicycles (UK)**

On-Demand PLM Application Helps Strida  
Connect Global Supply Chain to Double  
Business in One Year

An Arena Solutions Case Study

## Introduction

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» The innovative British company, Strida Bicycles, doubled business in one year assisted by the fast application of Arena's on-demand PLM application.

United Kingdom-based Strida Bicycles designs and sells the latest generation of folding bicycles—their is ultralight and fits into a parcel the size of a small golf bag. The consumer market Strida sells to is hyper-competitive and unpredictable, and margins are razor-thin. Efficiency in design and manufacturing is critical to success.

In 1998 Strida entered the US market, bringing rapid sales growth and new product requirements. Strida's management, with backgrounds at similar consumer companies, knew that old-school practices could inhibit new technology adoption, highest efficiency, and the ability to adapt to competitive market pressures. "In our markets, you either need to be lean or huge, or you're out of business," observed Steedman Bass, president and CEO of Strida Bicycles. Strida's management intended to avoid the mistakes they experienced firsthand at other companies and maintain an innovative edge in design and manufacturing.



### AT A GLANCE

**Industry:** Consumer Products

**Goal:** Improve communications between a design team in Windsor, an executive team in London, a manufacturer in China and an assembly operation in Taiwan in order to capitalize on a huge growth opportunity.

**Results:** With Arena PLM, Strida connected its global supply chain in two days, eliminated miscommunication, achieved a design-to-production cycle of 12 weeks, and drove a 200% business increase.

## Opportunity Creates Challenge

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In 2001 Strida received an order with a new channel customer for several thousand bicycles—a volume increase of roughly 200% from the prior year. This was the break management had been working for to scale the business.

However, there was a significant problem. The UK manufacturing operation could not meet the projected demand or the requisite price. In addition, significant modifications to the product

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were required to reduce lifetime maintenance requirements and meet the customer's product specifications. Strida's management evaluated various options and decided the only way to meet price, delivery, quality, and product development criteria would be to outsource manufacturing entirely to China.

## Requirements

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"It is generally very difficult transitioning a product to volume manufacturing while maintaining an active development program," Steedman explained. "We were desperate for a solution that would get product engineers in Windsor, UK and Little Compton, Rhode Island on the same page as a UK management team and our contract manufacturer in Taichung, Taiwan."

"I had seen the chaos of using Excel and back-and-forth faxes and knew it wouldn't meet our needs," said Steedman. "I wanted a solution that worked in multiple time zones, in real time, without the need for confirmation and reconfirmation. There was absolutely no time or money to consider a traditional client-server solution or anything that required complex systems integrations. I needed something good and fast - my first customer shipment was in four months!"

Steedman had evaluated infrastructure options to support an outsourced manufacturing strategy and to improve Strida's ability to speed further product development when an enthusiastic Strida bike owner, who is a product lifecycle management (PLM) analyst, visited Strida's UK manufacturing plant. He recommended they consider Arena PLM. Strida found it met their needs, outlined below.

## Results

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Strida implemented Arena PLM in two days, and immediately involved its contract manufacturer in China. The results were impressive:

- **Instant, globally-networked communication.** All manufacturing tooling files, item, and bill of materials data were shared with the contract manufacturer through Arena PLM. The minute the design team in the US and UK signed off on a drawing, it was posted on Arena PLM and available for prototyping in Taiwan or China. "It's difficult to exactly calculate the benefits of multiple parties in multiple time zones having the absolute up-to-the-second release of a prototype or production drawing," remarked Steedman, "but that we were able to move all production to China and Taiwan within four months certainly proves the value of Arena PLM to me."

*“Instead of all parties feeling out of control due to multiple drawing releases and tight timetables, Arena PLM enabled us to get a brilliant new product to market in less time and with fewer mistakes and miscommunications than anyone thought possible.”*

Steedman Bass  
President and CEO

Strida Bicycles

- **Efficiency of implementing manufacturing revisions.** Fundamental redesigns to the wheels and frame, as well as a patent-pending quick-release folding handlebar were prototyped and released to production within 12 weeks. And every evening the US and UK design groups posted revisions for the contract manufacturer in Taiwan to pick up and mark up. "The ability for engineers in Asia to download multiple new releases with complete confidence and without having to wait nearly an entire business day to double-check was invaluable," noted Bass.
- **Accurate, efficient patent updates.** Strida used Arena PLM to share design information with their patent office. Steedman said, "We were able to communicate with complete confidence, knowing that new information could easily be tracked and verified by our patent attorney in California. Instead of sending fragmented information in email after email, product data could be consolidated and the version history on new drawings easily followed in one secure location."
- **Better product brought to market faster.** "Instead of all parties feeling out of control due to multiple drawing releases and tight timetables, Arena PLM enabled us to get a brilliant new product to market in less time and with fewer mistakes and miscommunications than anyone thought possible," noted Bass.

## Evaluating Three Years Using Arena PLM

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Steedman looks back on the decision to implement Arena PLM with confidence and some important lessons learned:

### 1. Outsourcing manufacturing requires a PLM solution.

"Any company that outsources its manufacturing and runs product development or redesign in parallel needs a PLM solution to obtain operational efficiencies such as keeping contract manufacturers updated in real-time on changes to the product and avoiding rework and write-offs due to miscommunication," Steedman says. If engineers produce good drawings, Arena PLM eliminates confusion in identifying the latest release, what is in design, what should go into production, the relevant drawings and/or SKUs for each part or assembly, and what the finished goods cost should be.

### 2. Arena PLM is the best choice for companies who outsource manufacturing.

"Just as the transition to a contract manufacturer in Asia was starting to spiral out of control, we implemented Arena PLM. It enabled a design firm in Windsor, UK, the management team in London, an assembly operation in Taiwan, and a manufacturer in China to get on the same page in real time. I wish we had known about Arena PLM months ago when we were in the development phase. The hand off to production would have been much smoother. But now we use the system to organize complete product specifications and documents, manage the quotation

process, and keep contract manufacturers in Taiwan and China ahead of-instead of behind-the change process. There is simply no other product on the market that combines the user-friendliness, functionality, stability and ease of implementation of Arena PLM and it has a very high value-to-price ratio, exactly what we needed. We'll never look back."

### **3. Arena PLM provides a platform to build a sustainable competitive advantage.**

Steedman sees many benefits of investing in an Arena PLM solution sooner rather than later. He is already looking at mass customization-a version of this can be seen on the Strida web site.

"When we issue new designs or even purchase orders, the unique Arena Solutions URL for that item guarantees that they simply cannot be misunderstood," comments Steedman. "Obviously Arena will not give you a good team or a good idea or the right marketing strategy. It will, however, ensure that nobody has to wonder if they have the right documents in front of them when money and time are limited."