What’s the number one thing on the mind of nearly every hardware and software engineer in 2013? By far, the most pressing concern is pushing continuous innovation while improving time to market. It’s clear that growth can’t occur without sustained innovation. In the embedded world, that innovation often comes in the form of increased hardware and software complexity which equates to increased development time. But as market windows are shrinking, competition intensifying, and technology evolving, engineers need a new strategy on how to innovate and reduce time-to-market at the same time.

Fortunately, you can address both innovation and reduced time-to-market in a similar manner – through collaboration with customers, suppliers and partners.
Where to start:

1. Customers

Establishing a product definition is a complex process. It is possible to end up with a product full of features, 80% of which the customer does not use or even worse need. Designing unnecessary features lengthens the development cycle as those features must not only be designed, but tested.

Product development typically determines product definition based on internal assessments of technology trends, competitive analysis, and incremental improvement over the previous generation of product. The product definition is then shared with customers to make final tweaks to the design. But this late into the definition process, tweaks are all that can be made. From this point forward, customers are often not part of the product development process. There is a fear that sharing actual schedules and product performance information with the customer may cause them to turn to the competition.

Engage with key customers directly to define and develop the product. Customers are a source of innovation as you may be able to bring their ideas to life. Integrating development organizations to improve communication and decision-making means time-to-market can be accelerated.

A few technologically-leading customers are a great source for determining whether a product is truly differentiated as they have visibility to what your competition is offering. Co-development establishes a level of customer commitment to the product as they have been a part of the process and decision making. Joint problem solving ensures customer-centric tradeoffs are made between cost, features and time. Not only should the customer be engaged, the customer’s customer should be engaged at the onset in the product definition process.

Atmel has partnered with customers in the development of the SAM4L microcontrollers for devices such as smart watches and variable activity trackers. Likewise, Atmel has partnered with customers in the development of the SAMA5D3 microprocessors for devices such as home and building automation control panels that require a rich human machine interface.

2. Suppliers

Suppliers are often overlooked as a source of innovation. The best companies research not only your needs, but your customer’s needs. When defining your products, speak with suppliers about their perspective on your customer’s needs, technology directions, market trends, and ways to reduce time to market. Ask for access to their brightest minds to innovate in a collaborative manner. Search for ways to not only provide innovative products, but for ways in which your customers can more easily
and quickly implement your technology. Your customers will be willing to pay more for innovative products and services that enable them to invest fewer resources, realizing a greater margin to enable them to get to market more quickly, realizing greater revenue over the lifecycle of their product.

After collaborating during the definition process, continue that partnership during the development process. Opening lines of communication will enable both companies to respond more deftly to the inevitable changes in definition and schedule that occur during the development process, thus reducing time-to-market. You will be surprised by the flexibility and ingenuity your suppliers will bring to the table when you are faced with a problem to solve or time in the schedule to compress.

As a supplier, Atmel has a broad portfolio of ARM-based microcontrollers and microprocessors that deliver innovative technologies to a wide range of applications in the industrial, consumer and medical markets. With two decades of experience and leadership, Atmel delivers leading-edge functionality while consistently improving performance and power efficiency.

3. Partners

Partners are a great source of innovative ideas as they are going after the same customers, but with different products and services. They research the same market, but look at it from a slightly different angle. It is this different perspective that can reveal new insights or spark ideas that might not have resulted from your traditional way of examining the market.

Likewise, understand how your partners are trying to reduce time-to-market for their products. In going to market, there may be opportunities for your two companies and others to form a consortium that creates greater interoperability through standards. Or perhaps for your companies to present a more comprehensive solution to your customers.

Atmel has partnered with industry-leaders to deliver a comprehensive ecosystem of Atmel and 3rd party development tools, operating systems, middleware, and applications. A great example of this is the Atmel Studio 6 integrated development platform that simplifies the development Atmel ARM Cortex™-M based applications thereby reducing development time and cost. This platform includes Atmel Software Framework which features 1600 project examples with source code to accelerate development of new applications.

You can also download and securely purchase via Atmel Gallery, both Atmel and third party compilers, advanced debugging tools, real-time operating systems, communication systems and other extensions and plug-ins right from the Atmel Studio 6 development environment.
Bottom-line: Companies need not go it alone in meeting the demands for pushing innovative products to market quickly. A collaborative approach with customers, suppliers and/or partners may prove more effective. Additionally, it can prove more cost-effective as others are able to shoulder a portion of the expense in identifying and developing products and services that are innovative and/or reduce development time.