



THE ERA OF UNBOUNDED PRODUCT OPPORTUNITY

By Mark Hindsbo, Vice President of Marketing, ANSYS

While every company and industry has its own specific set of opportunities and challenges, there is a set of common trends that impacts us all. The rate of innovation is constantly accelerating and the number of product design options has never been larger. Forward-looking companies are tackling these shared challenges and opportunities in surprising new ways – and their stories can inspire the rest of us to work smarter, faster and more efficiently in our own business pursuits.

Every company is unique in terms of its business initiatives, its products, the value it delivers to customers and the way it goes to market. Yet in today's fast-paced, hyper-competitive world, most companies share some fundamental challenges.

We have collectively faced a global recession, and as a result there has been a multi-year focus on cost. However, the rate of innovation has continued, and is perhaps the only source of sustained competitive advantage. The top priority for businesses across the world is now shifting to top-line growth while maintaining cost control.

Over the last decades, computing power and the Internet have revolutionized the world of virtual services, and perhaps have been the largest source of economic growth. With composite materials, additive manufacturing, and the incorporation of physical devices into the Internet, we are now seeing the outline of a similar revolution for tangible products. There are several of these mega-trends coming together in almost a perfect storm: From the Internet of Things, the Industrial Internet, and Industry 4.0 over cloud and Big Data, the era of (almost) unbounded product opportunity is arising.

The development we are witnessing in these areas represents a huge opportunity for product innovation and economic growth. At the same time, the challenges of increasing competition, demand volatility and cost pressure remain. The cost of product failure has never been higher, yet time to market must be reduced while maintaining quality.

As we face these common challenges, our companies have much to learn from one another. While some businesses are achieving faster market launches by eliminating traditional development steps, others are fostering extreme innovation by rethinking historic products. Still others are adding “smart” functionality to their products in a way that completely differentiates their business from would-be competitors.

As the market leader in engineering simulation, ANSYS has the privilege of working with these industry frontrunners of today and tomorrow as they redefine product development. Call me biased,

but I do not believe you can develop next-generation products without the use of simulation to evaluate and optimize the increasing number of design options with a shrinking time to market.

Dimensions is a new magazine that brings together some of the best practices from these world-leading companies, to share ideas and hopefully inspire other executives and managers as you rethink your business. In this inaugural issue, you might be inspired by how Whirlpool is leveraging social media to increase internal collaboration, how Qualcomm Halo is driving both long- and short-term innovation via a multi-team approach, or how Firefly Space Systems is rewriting the rules of an entire industry. All are using engineering simulation to take advantage of the increasing breadth of product design options and using it to push further, faster, better.

The companies in this issue are global leaders in their industries and are overcoming those common business challenges with practical, executable solutions – and we know that because we support them in achieving this goal. Over the past four decades, ANSYS has provided a simulation platform and services to product development organizations at thousands of companies, including 96 of the top 100 *Fortune* industrial companies. In creating *Dimensions*, we've worked with some of these organizations to share their exciting, and sometimes surprising, best practices that go beyond engineering to address core business issues.

Whatever the specific challenges of your own organization, we believe that you are sure to learn something valuable from this exclusive look at the initiatives of other companies. We are confident that the diversity of industries, topics and viewpoints will interest, and hopefully inspire, a wide range of readers.

Creating lasting success in today's rapidly innovating, volatile and highly competitive environment is a challenging endeavor – but the good news is that there are many ways to achieve that objective. ANSYS continues to explore how mega-trends are reshaping multiple industries and to empower you with this knowledge. It is our hope that the success stories in these pages and our other communications will help you imagine new dimensions of business excellence that you can leverage at your organization. 